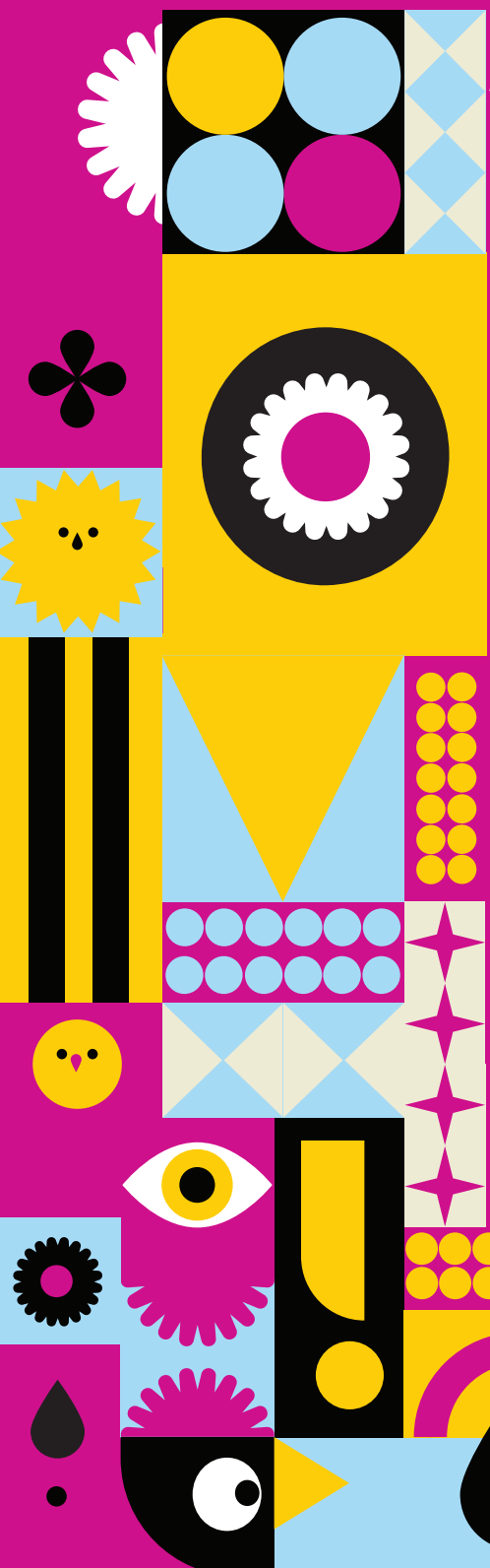
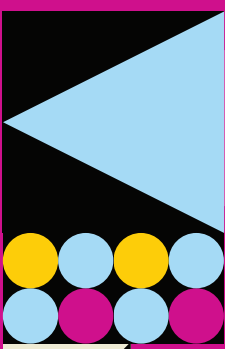
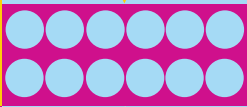
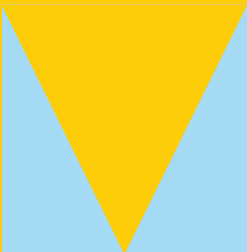
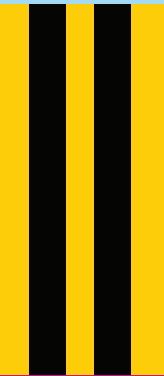
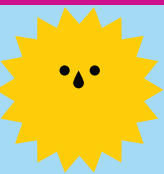


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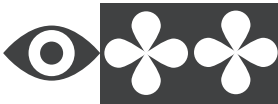
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CONFIA's eleventh edition. A return to Barcelos.

This year CONFIA returns to the city of the Polytechnic University of Cávado and Ave (IPCA) and the School of Design. We'll be holding the conference at the Gil Vicente Theatre, a venue that previously hosted us in 2016 and of which we have excellent memories.

Expectations are enormous. Of the more than one hundred paper proposals submitted, the CONFIA Scientific Committee selected fifty papers to be presented and published in the proceedings book. A demanding job that legitimises and dignifies scientific work in the fields of illustration and animation. This validation is extremely important for artistic areas, particularly because most of the papers are analyses and results of research by practice.

This year we are delighted to have two keynote speakers who are major figures in their fields. Regina Pessoa, an animated film director, and Joel Lardner, an illustrator and university professor. This combination of artistic practice and academia is fundamental for us.

Regina Pessoa is, from our point of view, not only the most recognised Portuguese animation director, but also one of the most outstanding worldwide. Her contribution to the affirmation of women in the field of cinema is absolutely fundamental. The plasticity and poetic quality of her work has been recognised and acclaimed in different dimensions. Her films have been shown all over the world, including important art museums such as the solo exhibition of 'História Trágica com Final Feliz' (Tragic Story with a Happy Ending) at the Drawing Biennial 'To the very last drawing' at the Museum of Modern and Contemporary Art.

Rijeka - 2009; at the Museu l'Orangerie as part of the exhibition 'Les contes cruels de Paula Rego' - 2018/2019 and at the Museo de Bellas Artes de Asturias, with 'Quatro Janelas Discretas', a video installation of his work - 2023. In 2016 she became a Senior Lecturer at FILMAKADEMIE-Germany and in 2018 she became a member of the Academy of Motion Picture Arts and Sciences (Hollywood), and this year she was honoured by the most important animation film festival in Europe - the Annecy Animated Film Festival, having created all the graphics for the event.

Regina is currently developing her next film, 'As Caras da Mãe', at the Ciclope Filmes Studio, located at CASA MUSEU DE VILAR - Museum of the Moving Image.

Our illustration keynote, Joel Lardner, is Senior Lecturer in Illustration at Arts University Bournemouth. Joel has presented international academic work on topics such as the visual history of skateboarding, the relationship between accidents and creativity, and the possibilities that technology can offer the curious illustrator, often presented in collaboration with his Bournemouth colleague Paul Roberts. Joel is also a part-time PhD student at the London College of Communication and researching how skateboard graphics convey the exciting act of skateboarding in imagistic terms. This work employs a process-orientated methodology - in combination with the metaphor of phantasmagoria - to assert the significance of skateboard deck graphics as a visual site of consequence; embracing the notion of creative accident to evoke the random and exhilarating sensations that the act of skateboarding provokes.

CONFIA has been held in different cities in Portugal between the north and the center, the last edition was in Caldas da Rainha, with the support of the Polytechnic University of Leiria (IPL), IPCA's partner in the Regional University Network (RUN-EU), a European university in which several members carry out research work in artistic areas. This year's event in Barcelos brings us back to our origins and allows us to celebrate the relationship between popular art and scholarly art and the work produced by academia, since Barcelos, a creative city recognised by UNESCO in Arts and Crafts, has a craft production that is fruitful for influences and contaminations, establishing bridges between different artistic communities.

This will certainly be another exciting edition of CONFIA, where you can debate and share the latest developments in the fields of illustration and animation!

Paula Tavares

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Awoniyi Stephen

Joel Lardner



Reconceptualising the skateboard graphic as ‘artform’, using 1980s skate culture as a case study. A practice-based approach.

The research I intend to present CONFIA2024 embarks from an outlandish claim for the scope of skateboard graphics: that skateboard graphics are exceptional cultural artifacts, a unique artform.

Principally developed in California to market skateboard products, the imagery that embellish skateboard objects is distinguished by the thematic concerns of the young adult demographic. The subject matter coopts tropes associated with gothic horror, science fiction, comic book and historical youth-based music cultures to render the act of skateboarding in imagistic terms.

As a current practice-based research student at London College of Communication, I have been trying to unravel and make sense of the peculiarly mischievous emblems that adorn skateboards. This PhD was brought about by asking the question where else – in what sport or pastime – does this happen, where the function of an image seems so integral to the practice itself? In reply, my project identifies the convergence of skateboard technological development and imagery with the unique performative mode in which these graphics are received, i.e., in motion.

Drawing upon my position as an illustrator, design educator, and skateboard enthusiast, I intend to generate creative artifacts rooted in an expanded and expansive notion of illustration as a subject discipline. By employing visual media rather than written commentary, the work will attract its audience more viscerally and align more closely with the material in question. Embracing the notion of the creative accident and visual interruption, this PhD will present an artistic leap to describe an intangible thing: the haphazard nature and exhilarating affordances that riding a skateboard elicits. This iconographic and discursive methodological approach—‘demonstrating illustration to be performing as a creative interpretative process rather than a final outcome’ (Fauchon 2024)—will thereby access new kinds of knowledge and reveal skateboard practice as an artistic pronouncement.

Short Bio

Joel Lardner is a Senior Lecturer in Illustration at the Arts University Bournemouth. Joel has presented academic international papers on subjects such as skateboard visual history, the relationship between accidents and creativity, and the possibilities technology can offer the curious Illustrator, frequently presented in collaboration with his Bournemouth colleague, Paul Roberts.

Joel is also a part-time PhD student at London College of Communication investigating how skateboard deck graphics render the exciting act of skateboarding in imagistic terms. This work is employing a process-driven methodology – in combination with the metaphor of phantasmagoria – to assert the significance of the skateboard deck graphic as a visual site of consequence; embracing the notion of the creative accident to evoke the haphazard, exhilarating sensations riding a skateboard elicits.

Regina Pessoa



With a distinct and creative personal artistic vision expressed not only in her films but also through illustration, painting and drawing, she is currently developing her next film, "MOTHER FACES" at Ciclope Filmes Studio owned by her and her partner Abi Feijó, situated on the grounds of their Museum of Moving Image - CASA MUSEU DE VILAR.

Master Class Content «My creative process»:

I grew up in a small village, in a rural environment, without television or cinema, without any Moving Image education.

However, the mysteries of life made me become a filmmaker.

My masterclass describes my creative process throughout my films, supported by videos, images and making offs, developed 4 chapters:

PROLOGUE: Brief introduction about Who I am, from where I come from and how I started working with animation.

Chapter I - "**THE NIGHT**"

Peering through Shadows and Fears, my first film.

Chapter II - "**TRAGIC STORY WITH HAPPY ENDING**"

Light and Difference, pursuing my artistic and personal identity.

Chapter III - "**KALI, THE LITTLE VAMPIRE**"

Shadows and Light, leaving childhood behind and self-acceptance, the trilogy.

Chapter IV - "**UNCLE THOMAS - ACCOUNTING FOR THE DAYS**"

A tribute to a close person, childhood in perspective from adulthood point of view and a reflection about my Creative process.

My films based on my own memories are all very personal. But they tell everyone has an immense creative potential within

Short Bio

ENG:

Regina Pessoa was born in Coimbra, Portugal, in 1969.

She studied Painting at the School of Fine Arts of the University of Porto.

Working with a variety of animated engraving techniques, she created and directed auteur films such as "The Night" in 1999, "Tragic Story with a Happy End" in 2005, "Kali the Little Vampire" in 2012 and "Uncle-Thomas accounting for the days" in 2019, which have been distinguished with countless awards and distinctions in the main International Film Festivals and events such as Annecy'06 Grand Prix; SXSW'07 Grand Prix; Annecy'19 Jury Award; ANNIE'20 Award for Best Short Subject, etc.

Her films are shown all over the world, including important art museums such as the solo exhibition "Tragic Story with a Happy Ending" at the Drawing Biennale "To the very last drawing" at the Museum of Modern and Contemporary Art in Rijeka - 2009; at Museu l' Orangerie as part of the exhibition "Les contes cruels de Paula Rego" - 2018/2019; and

at Museo de Bellas Artes das Asturias, with "Four Discreet Windows", a video-installation about her work - 2023.

In 2016 she became Senior Lecturer at FILMAKADEMIE-Germany.

In 2018 she became a member of the Academy of Motion Picture Arts and Sciences (Hollywood).

PT:

Regina Pessoa nasceu em Coimbra em 1969.

Licenciou-se em Pintura na Escola de Belas Artes da Universidade do Porto.

Trabalhando em várias técnicas de gravura animada criou e dirigiu filmes de autor como "A Noite" (1999), "História Trágica com Final Feliz" (2005), "'Kali o Pequeno Vampiro" (2012)" e "Tio Tomás a Contabilidade dos Dias"" (2019) que têm sido distinguidos com inúmeros prémios e distinções nos principais Festivais Internacionais de Cinema e eventos como o Grande Prémio de Annecy'06; Grande Prémio SXSW'07; Prémio do Júri de Annecy'19; Prémio ANNIE'20 de Melhor Curta Metragem.

Os seus filmes são exibidos em todo o mundo, incluindo importantes Museus de Arte como a exposição individual de "História Trágica com Final Feliz" na Bienal de Desenho "To the very last drawing" do Museum of Modern and Contemporary Art de Rijeka - 2009; no Museu l'Orangerie no âmbito da exposição "Les contes cruels de Paula Rego" - 2018/2019 e no Museo de Bellas Artes das Astúrias, com "Quatro Janelas Discretas", uma video-instalação sobre a sua Obra - 2023.

Em 2016 tornou-se Senior Lecturer na FILMAKADEMIE-Alemanha.

Em 2018 tornou-se membro da Academia de Artes e Ciências Cinematográficas (Hollywood)

AI in visually based creative industries: when the dust settles



**Tomas Mitkus¹, Vaida Nedzinskaite-Mitke², Rokas Semenas³ and
Roberta Jablonskytė⁴**

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Abstract

Generative artificial intelligence (AI), just in a few short years, managed to disrupt existing creation, production, and consumption processes in visually-based creative industries. This article is a continuous study that investigates how generative AI affects and reshapes individual creative processes, approach to production execution, legal and ethical understanding, and general attitude towards the technology by analysing ongoing evaluations, criticism and reactions from various creative industries' segments and government institutions.

1. Introduction

The accelerated development of generative artificial intelligence (AI) technologies has created, at least for a short time, a peculiar situation where researchers and scholars did not discuss and project the best possible ways how to approach the technology but chased the phenomenon, trying to understand what just happened and to measure the extent of the disruptions that have occurred. In other words, one of the key functions of researchers – to grasp the problems before they already have the first side effects on society [1] – could not be implemented because the situation has been ongoingly changing before our eyes for more than a year. But now that the dust has settled, it's necessary to look at how AI-driven changes have fundamentally transformed how visually-based industries produce and distribute their content.

This study was motivated by the rapid development of AI tools and the need for a systematic investigation of evidence of how visually-based industries are transforming to deal with technology. This investigation aims to review the current situation (with a focus on how AI has already affected visual creatives and their practices) and identify the key future trajectories of change. Special attention is paid to determining how generative AI technologies will complement the creative process in industry.

It is important to note that because the current development of AI is groundbreaking and, in a broad sense, parasitic, the technology

Keywords

artificial intelligence, AI,
visual media, creative
industries.

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arouses mixed feelings among people of various nationalities and specialities [2], [3], [4], [5]. The very nature of these deep-learning-based tools, such as Dall-E 2 and Midjourney, force reformulating and redefining how we understand copyright, authorship, and transparency [6], [7], [8], [9], [4], [5]. Thus, the investigation of AI phenomena and its effect on visually-based industries cannot be executed without looking at it from different angles. In other words, a data triangulation method is needed to get a comprehensive picture.

In this review article, the authors will first provide a general overview of generative artificial intelligence technology in the context of digital visual industries. Secondly, the article will give a general overview of how AI technologies prompt the need to redefine and broaden current legal practice and how court decisions will impact the further development of creative industries. Thirdly, the authors of this article will explore how ethics affect the perception and usage of technology. Finally, the authors will conclude this article with a short discussion and provide concluding remarks.

2. The applications of AI in visually based industries

As with most new technologies, AI tools aim to produce the required results faster and more cheaply, making them more accessible and accurate. In some cases, AI can even deliver results that would be impossible with alternative tools [10]. After all, the ability to create an incredible visual spectacle within one minute without investing years of labour, which would be necessary if the image were produced by traditional means, is tempting. Especially as the technology (at a very fast rate) becomes increasingly more user-friendly – even new users can grasp how to use technology to achieve their desired goals within minutes. However, what is interesting in the context of AI is that if at the start of 2023, the most popular AI generation tools were perceived as a novelty to produce high-quality visual content, at the start of 2024, AI is already an integral part of the creative process. To put it in numbers, the 2024 report “Future Unscripted: The Impact of Generative Artificial Intelligence on Entertainment Industry Jobs” states that 72% of firms that participated in the survey have already adopted generative AI tools, and 90% of business leaders foresee that generative AI will play a larger role in the entertainment industries in the near future [11]. In other words, AI technology moved from a position of “how it will affect the industries in the near future” to “changes are already happening”. However, the visual content generation process still has drawbacks.

One year ago, the authors published an article presenting predictions of how generative AI will affect some specialities in visually-based industries [12]. It is pleasant to see that all of the predictions are holding. At least so far. However, with new research and case studies, the authors have the possibility to provide more detailed assessments. The authors previously claimed that “Storyboarding and comic book artists will not be affected by AI in any meaningful way, as these professions require vast amounts of illustrations of consistent quality, style, and recognisable elements (characters, backgrounds, props) throughout. However, AI

technologies will provide somewhat effective tools for smaller-budget film production to test some ideas in storyboarding format.” [12]. The first part of this claim has been (at least in part) confirmed in Cartoon Brew article by Amid Amidi [13], where he reviews AI-based storyboarding tools and states “these AI storyboard tools appear to have greater applicability to live-action filmmakers than animation because production storyboards in animation have to convey much more information than just shot composition and framing.”. In other words, a storyboarding process in animation media is too detail-intensive to allow it to leave to prompt-based tools. This notion is also supported by “Future Unscripted” rapport, where analysis of the “Film, Television, and Animation industry” indicates that the storyboarding tasks (as part of the concept art/visual development process) are among the least likely to be automated [11]. Thus, the most skilled specialist will continue to find work (at least) in the animation industry.

However, it is obvious that in the film industry, especially advertising, the human-produced storyboarding days could be over, at least for small-budget projects that do not employ special digital effects. And it is interesting to explore why this is so - how can a creative process that is indispensable in one industry be automated in another? The answer can be suggested by Chaisatitkul et al. [14] empirical study in which a case that uses AI-generated storyboards to pitch an idea to end-users is presented. In this case, storyboards for dishwashing liquid video adverts made by humans and AI are compared. As both storyboards for the advert are presented in the paper, it is easy to notice that the shots are not used as tools to obtain the best possible aesthetic experiences or to find more interesting ways to tell a cinematic story but are used as a communicative tool to illustrate a particularly simple story. In fact, one could argue about the necessity to use storyboards to illustrate such a simple story, but, of course, if there is a demand, it makes sense for a business entity (in this case - an advertising agency) to provide such a service. Especially, as Chaisatitkul et al. [14] study claims, respondents from marketing and end-user groups uniformly preferred AI-generating images over human-drawn ones, thus suggesting that cheaper, faster, yet more aesthetically⁵ pleasing representations of advertising ideas are more attractive for salespeople and clients in general.

Plus, there is one more considerable advantage for AI-produced storyboards in the advertising industry over artist-made - as storyboards are not directly used in the final product (in this case - advertising), there are no concerns regarding copyright, as opposed to situations where an AI-generated script, illustration, or animation would be used in the final work. Interestingly, this uncertainty regarding the legal protection of AI-produced content (that may last years or even decades) is very advantageous for artists. However, the generative AI's ability to produce content

⁵ It is important to clarify that there are very different aesthetic goals for storyboards that are used to produce an animated film project and storyboards that are pitch advertising ideas. In the first case, panels (along with other development tools such as conceptual art, colour script, character and background designs) are used to find the best aesthetic experience for the final artwork. In the second case, the aim is to obtain an aesthetic experience in the storyboards themselves. Furthermore, esthetical solutions in AI-generated storyboards have a minimal (or no) effect on the final result.

fast and cheaply cannot be ignored. Thus, a new concept of co-creativity has emerged to describe the blended human-AI creative process [15].

At this point, it is necessary to separate two types of inputs that AI can produce in visually-based industries. The first one is the automatization of non-creative work. This is a group of AI tools that do not affect creative specialities in any negative way. In other words, AI technology makes the lives of creatives easier because some of the least creative steps are automated. The second group is generative AI tools that threaten artists' livelihoods. It is for the latter group that co-creativity is one of the means to survive in the new era.

First, as the authors of this article have mentioned before, the uncertainty regarding copyright makes co-creativity an attractive solution for customers, investors, and producers. However, for this blended creativity to work, the artist must produce clear evidence of how the inclusion of AI (or vice versa) allows him or her to deliver cheaper, faster and/or better results. It is paramount to understand that the generative AI model (in most cases) in the industry argues their value not to the creatives but to the management – they are presented as tools that save money, not increase creativity. For example, the Storyboard Hero landing page states: “Drastically reduce the time and cost to create storyboards”, [16] while Runway [17] claims that: “Runway’s AI research is ushering in new tools for global brands, enterprises and creatives to tell their stories”. Thus, the creatives must present evidence to their management that the best possible outcome for the studio is not replacing them with AI technology but allowing creatives and AI to work in tandem.

It is worth taking note of another insight presented in “Future Unscripted” rapport – the most threatened job position is 3D modelling (in the animation industry, 44% of respondents agree with this assessment and 55% in the video games industry) [11]. Thus, if one looks at the data presented in the report from an isolated point of view, one could conclude that the 3D modeller’s profession will be all but extinct soon. However, in the creative industries, IP ownership is as valuable as the income for creative projects. Thus, if content creators would use AI-generated 3D characters, it would mean that they can’t be copyrighted. Therefore, the data from the report is more likely to suggest that the jobs of creating 3D content needed to populate the animated or video game world will be transferred to generative AI. While 3D assets, such as the main characters and unique props, will remain a creative task for people.

Interestingly, one of the most obvious pieces of evidence that a professional creative is needed, even if the decision to use AI-generated imagery for business purposes is made, is that AI can make extremely odd mistakes. In this regard, the authors would like to present one case that happened in Lithuania when one of the largest book publishers decided to use an image produced by AI for promotional purposes (Fig. 1). However, for some inexplicable reason, no one at the publishing company noticed that the boy in the photo had three feet. This image was very quickly noticed and discussed by the community of Lithuanian professional illustrators, concept artists and graphic designers [17]. While



this comical situation invoked laughter and mockery from the community, it also voiced the assessment that the situation where AI creates such disfigures will not last long, as the improvement of the technology is evident.

As McCormack et al. [5] point out, an obvious limitation of any system that attempts to interpret text into an image is that one must be able to express the desired output linguistically. In other words, to describe words in order to create a desired image. If we look at traditional art, it is not hard to see that some of the artwork can be labelled as inexpressible in words

[19]. Furthermore, generative AI cannot produce imagery that requires abstract thinking. A quick exercise (based on McCormack et al. [5] experiment) with two descriptions: “wet fire” and “Swimming in the desert sand” (Fig. 2), proves that AI is unable to process abstract or conceptual interpretations. Thus, this words-to-image system has serious limitations.

In addition, this overall situation creates a peculiar outcome: in order

Fig. 1. Promotional material from Lithuanian book publisher.



a



b

Fig. 2. Two images generated using Mid-journey:
a) text prompt: “Swimming in the desert sand”
b) Text prompt: “Wet fire”.

to get the most out of the generative AI technology, the AI prompter must have a comprehensive understanding of art styles, genres, artistic movements, most prominent artists and (technical aspects of various) media. Interestingly, this situation can create unexpected demand for various humanities studies (such as fine art and various media history and aesthetics), as better theoretical understanding can provide a competitive edge for AI prompters. Thus, it is possible that in the near future, humanities studies will be heavily intertwined with AI skills development.

However, it is still necessary to point out that the position of AI prompter will be wanted in business entities that aim to minimise cost drastically regarding any creative content production. Thus, it is very

unlikely that this profession would be perceived as requiring a competitive salary. Furthermore, prompts can be directly shared, copied, or stolen, and, thus, all acquired expertise (that creates competitive advantage) can be instantly lost as prompt-engineering skills do not produce tacit, embodied, or in any way individualistic knowledge [5]. Therefore, the authors of this article, just as in their previous article [12], would like to argue that the impact of generative AI on the professional creative market will have a similar effect as the emergence of photo cameras in mobile phones had on photographers - only the income from the least creative tasks were lost as the market understands and values professionally executed photography.

Thus, the true value of generative AI in visually-based industries is that technology can produce unexpected results (a feature that is often cited as an advantage of this technology [16], [20], [21], [22]) and in turn, granting additional time for creative exploration [23]. The viewers' discussion on the YouTube page under the video titled "How AI Solved My BIGGEST Art Problem!" [24] provides quite interesting insights into how AI is already used in the industry. For example, quite a few users admitted that they first explored the idea with generative AI and then, inspired by the generated imagery, artists proceeded with their creative process. One other user adds that by using AI, the artist can save a lot of hours of searching for references. Furthermore, users pointed out that AI tools are very useful when looking for visual references in specific scenarios. Thus, in this aspect, AI enhances the artistic and creative process by prompting out-of-the-box thinking and completely new ideas [15].

To sum up, while generative AI can and will replace artists in positions requiring fast, cheap, and limited creativity content, it cannot replace those requiring "imagination and artistic ability" [25]. In other words, while the fear of the potential displacement of human workers by AI in visually-based industries is well-placed [26], [27], [14], the need for skilful and knowledgeable artists will not diminish. Thus, no matter how automated the creative process could be, it must still be overseen by a person who fully understands it.

3. AI and (ongoing) transformation of legal practice

Generative AI technology is parasitic in its nature - the technology can derive and sustain itself by consuming human art and, ultimately, at the expense of current human art [5]. For this particular reason, AI storyboarding tools face considerable challenges in training their models - due to practice in the industry, production storyboards are rarely released to the public [28]. In other words, because AI models cannot be trained on massive amounts of professionally produced storyboards, the AI storyboards are being expressed rather simplistically.

It is important to note that for technology to have a parasitic relationship with human art is not a crime. However, if the generative AI models are trained by infringing artists' copyright rights (or, at the very least - without the image creator's direct permission or even knowledge) - then the relationship between generative AI models and human art is quite different. And if that is the case, then the scale of this crime could affect tens

of thousands of artists⁶. However, copyright and authorship lawsuits are complex even when AI is not involved. And in the case of generative AI, the dispute is not only about answering the question regarding copyright infringement. It is about the future of the technology.

What makes this legal dispute extremely complex is that AI training models acquired huge amounts of (copyright) data through a process that has been dubbed “data laundering”⁷. Thus, at least “on paper”, no wrongdoing was made. Also, in this legal dispute, the legal practice, which allows the violation of the rights of one group if the observance of those rights can significantly obstruct technological progress, plays an equally important role [30]. In other words, if for-profit organisations cannot use copyrighted data, it can sufficiently cripple the advancement of the technology and also influence how further technological innovations will be conducted. Thus, AI-generated content is challenging the understanding of authorship, ownership, and copyright infringement, and therefore, every court case in this regard is as important as it is complicated. For that very reason, it may be years or even a full decade before all the legal issues regarding AI and its stand with copyright and authorship are resolved.

As of the start of 2024, there are several important legal decisions which, in the short term, will have a strong impact on how the image generated by AI models will be used in the industry. The first case involves the U.S. Copyright Office, which already turned away an AI-generated piece of visual work and firmly stated that any artwork a human does not produce cannot be copyrighted [32]. Thus, at least for now, artists have a substantial advantage in cases where the customer wants to maintain exclusive rights to the artwork. Therefore, if an enterprise wants to monetise from produced artwork in the USA, AI technology must be used as an additional tool in the artist toolset, not as a gadget that replaces the human voice [12].

However, as Hayes [33] argues, this strict approach to generative content has similarities with first photographs and discussions about whether they should be copyrightable. And, as Hayes points out, although, at the start of the discussion, it was believed that taking a picture could not compare to the artistic process that involves producing a painting, as years passed, it became accepted that photography can be an art and the process for a great picture is not as straight forward as “aiming and pressing a button”. Thus, there is no guarantee that prompt writing will not be considered an artistic labour in the future.

The second involves a copyright infringement lawsuit filed by three artists - Sarah Andersen, Kelly McKernan, and Karla Ortiz - against Stability AI, Midjourney, and DeviantArt, claiming that these companies have infringed the rights of millions of artists by training generative AI models [34], [35], [36]. The final outcome of this lawsuit will determine the future of AI and artists. However, as of October 2023, a federal judge sided with

⁶ At the very start of 2024, the list of the names of more than 16,000 non-consenting artists allegedly used to train Midjourney's AI model was leaked [29].

⁷ Data laundering is a term that describes a method when large amounts of data are acquired by claiming that it is used for “academic use” and, in turn, avoid legal barriers preventing their use [5], [31].

the companies behind the AI image generators, dismissing almost all the claims artists had made against them [37], [38]. Although the judge allowed the plaintiff to resubmit the lawsuit, it is very unlikely that the outcome will be different. Thus, it seems that the AI models (and their approach to gathering data needed for continued training) are here to stay.

Of course, there are numerous other AI-related lawsuits around the world that are happening right now [39], but they are all intertwined, and the first court decisions will greatly influence the others. Thus, all the courts are extremely careful with their rulings. Furthermore, because the stakes are extremely high for all internet content producers, generative AI companies and their investors, it is safe to say that all court battles will be fought to the end using all possible legal means, which suggests a very long fight.

But the battles are not only taking place in the courts. The various governments of the world must also respond to the new situation. The European Parliament's study on the use of artificial intelligence in the cultural and creative sectors [40] notes that new decisions must be made on how firmly an artist's work should be protected. Thus, as Buning argues [42], future copyright law amendments need to consider taking balanced legislative action, leaving room for the fair balancing of public and private considerations.

While the outcome of the AI copyright infringement lawsuit in the USA and around the world will have a significant impact on how fast and effectively AI technologies will revolutionise creative industries, it is evident that generative AI has taken hold in visually-based creative industries. However, it is already clear that future changes regarding copyright and authorship will directly affect many creative specialists and studios working in visually-based industries. Thus, the ability to understand how the legal paradigms will shift in the near future will be very important for the artist in order to (a) make a case for his or her value in industries that will heavily rely upon generative AI input, (b) to understand his or her individual rights and, in turn, to be able and to protect artwork, and (c) to understand what is most beneficial approach to the co-creativity.

4. AI and its relationship with ethics

New ethical challenges were identified as soon as the AI models produced tangible results. Although some of the ethical challenges are interwind with copyright law and its interpretation, there are a lot more elements that, now and in the future, will determine how generative AI will be used in the creative process and artwork consumption. The future ethical framework will influence such aspects as the usage of artworks for training AI modules, generative AI content usage in the pipelines of creative projects, or even determining a person's input in the outcome where generative AI is involved. Furthermore, as Franzoni [1] argues, it is paramount that researchers discuss, explain, and publish their contributions in order to achieve the best possible ethical management of AI. Thus, the discussion about the ethics regarding generative AI in visually-based creative industries cannot be left to the afterthought.

It is necessary to start this section with the already observed phenomenon, during which people rate AI-generated content much worse

than human-generated content [42], [43], [44], believing that only human creative output can carry any aesthetic value. The perception that generative AI models can be considered parasitic and, thus, in the near future, will negatively affect many artists [5] does not help either. Thus, how society will value AI-generated content will have a huge impact on how AI models will be used in industry.

The fact that people's negative attitude towards AI-generated content is having a huge impact on the AI industry already can be witnessed. In January 2024, a new initiative emerged to create an AI Certification system that certifies AI products as copyright-compliant [45]. In other words, a system is proposed that would allow end-users to quickly and easily identify generative AI models that approach the training process ethically. Thus, it seems that if the government (through legislation) cannot force business entities behind the AI models to act ethically, end-users can take on this task. And, arguably more importantly, the business fully understands the importance of winning the consumers' favourability, especially when the AI models market competition is growing at an incredible pace.

Another important ethical challenge that generative AI models face today is that existing datasets used for training may contain inherent prejudices, such as gender, racial, or cultural biases [23]. This situation is also time-sensitive as new AI-generated content can reinforce or magnify harmful stereotypes and discriminatory portrayals. There are no easy fixes for this particular problem as it requires large amounts of additional data that, most likely, is extremely hard to obtain. However, the fact that there are additional challenges to acquiring training data for various groups does not mean that we, as a society, should accept this outcome. Quite the opposite, it is all of our responsibility to ensure that no group would be hurt or discriminated against.

There are additional ethical considerations regarding generative AI content, such as lack of transparency in AI decision-making, the phenomena of deep fakes, the production of pornographic content, and distortion of reality, but because these challenges are not directly connected with visually based creative industries and labour market, the authors of this article decided not to investigate within the scope of this study. Especially because each of the named topics should be analysed separately and in-depth.

It is paramount that the ethical aspects of AI be introduced to the educational process as soon as possible and at all levels of it. Such discussions of authorship and ownership, co-creation, AI bias, ethical approach to AI models' training and data acquisition, and the artist's place and function in the formation of modern cultural identity – are all very important and need to start now. Only in a society with strong ethics and morals, generative AI can be employed to improve human society in general and visually-based creative industries in particular. Otherwise, generative AI models can become an instrument that will help to realise most, if not all, of existing fears regarding this technology.

5. Discussion and concluding remarks

There is little doubt that AI technology has the potential to revolutionise creative industries, as the evidence of this process is already palpable. However, the task of the researchers and scholars remains the same—to understand this phenomenon as best as possible and discuss the best way to manage it so that it brings the greatest benefit to society. Or, at the very least, propose the best way to minimise the possible negative effects.

All data suggests that while some jobs will be lost in the visually-based creative industries, they will be of the lowest tier. Just as it was with the invention of photography, the painting medium did not die but transformed into an art form that moves away from realistic presentation and documentation, so will artists working in visually-based creative industries will adapt to provide creative services that generative AI will not be able to automate or duplicate.

However, it is highly recommended that all digital artists familiarise themselves with the most popular AI models and identify how to use this technology to supplement their work. Failure to do so can result in a perception that the artist is (unjustifiably) too expensive or too inefficient. Thus, the adaption period at the dawn of the generative AI technology era for the digital artist is simply unavoidable.

It is important to note that this new era will be shaped not only by the technology itself (i.e. how good it will become at completing particular creative tasks) but also by future legislation and a newly formed system of ethical values. So, the future is definitely not yet written in stone. Therefore, in order to achieve the best possible future, extensive and frequent discussions are necessary.

On a final note, the authors of this article would like to return to the key weaknesses of generative AI technology – (i) the inability to fully control what the result will be and (ii) ineptitude to experiment and come up with visual solutions that violate the aesthetic canons it has learned. Thus, it does not matter how fast, cheap, and visually stunning generative AI content can be if the goal is to produce meaningful and original experiences. Therefore, generative AI technology should not be perceived as a technological advancement that will produce straightforward job losses but rather as a force that will bring shifts in the job market. In the end, creative industries thrive for a singular reason – they produce meaningful and original experiences for consumers. And when they fail to do that, well, they fail in general. No matter what technology was employed.

6. References

1. Franzoni, V.: From Black Box to Glass Box: Advancing Transparency in Artificial Intelligence Systems for Ethical and Trustworthy AI. Computational Science and Its Applications – ICCSA 2023 Workshops. 118–131. (2023)
2. Bergdahl, J., Latikka, R., Celuch, M., Savolainen, I., Soares Mantere, E., Savela, N., & Oksanen, A.: Self-determination and attitudes toward artificial intelligence: Cross-national and longitudinal perspectives. *Telematics and Informatics*, 82, 1–15 (2023).
3. Neudert, L.-M., Knuutila, A., & Howard, P.: Global attitudes toward AI, machine learning &

automated decision making. Oxford Internet Institute (2020).

4. Oksanen, A., Cvetkovic, A., Akin, A., Latikka, R., Bergdahl, J., Chen, Y., Savela, N.: Artificial intelligence in fine arts: A systematic review of empirical research. *Computers in Human Behavior: Artificial Humans*. 1, 1–11 (2023)
5. She, J., & Cetinic, E.: Understanding and Creating Art with AI: Review and Outlook. *ACM Transactions on Multimedia Computing, Communications, and Applications*. 18, 1–22 (2022)
6. Ghosh, A., & Fossas, G.: Can there be art without an artist? In 36th conference on neural information processing systems. 1–8 (2022)
7. Peres, R., Schreier, M., Schweidel, D., & Sorescu, A.: On ChatGPT and beyond: How generative artificial intelligence may affect research, teaching, and practice. *International Journal of Research in Marketing*. 269–275 (2023)
8. Roose, K., <https://www.nytimes.com/2022/09/02/technology/ai-artificial-intelligence-artists.html>
9. Wasielewski, A.: “Midjourney can’t count”: Questions of representation and meaning for text-to-image generators. *The Interdisciplinary Journal of Image Sciences*, 37, 1, 71–82. (2023)
10. Anantrasirchai, N. & Bull, D.: Artificial intelligence in the creative industries: a review. *Artificial Intelligence Review*. 55, 589–656. (2022)
11. CVL Economics, <https://animationguild.org/wp-content/uploads/2024/01/Future-Unscripted-The-Impact-Of-Generative-Artificial-Intelligence-on-Entertainment-Industry-Jobs-pages-1.pdf>
12. Mitkus, T., Semėnas, R., Jablonskytė, R. & Nedzinskaitė-Mitkė, V.: AI in visually based creative industries: impact, challenges, and predictions. *CONFIA 10th International Conference on Illustration & Animation*. 672–680 (2023)
13. Amidi, A., <https://www.cartoonbrew.com/tech/tech-bros-want-to-replace-storyboard-artists-with-artificial-intelligence-232124.html>
14. Chaisatitkul, A., Luanggamkhum, K., Noulpum, K., & Kerdvibulvech, C.: The power of AI in marketing: enhancing efficiency and improving customer perception through AI-generated storyboards. *International Journal of Information Technology*. 16, 137–144 (2024)
15. Wingström, R., Hautala, J., & Lundman, R.: Redefining Creativity in the Era of AI? Perspectives of Computer Scientists and New Media Artists, *Creativity Research Journal*. 1–17 (2022)
16. Storyboard Hero, <https://storyboardhero.ai/>
17. Runway, <https://runwayml.com/>
18. Level up, <https://www.facebook.com/groups/541344839222733>
19. Franklin, S.: Autonomous agents as embodied AI. *Cybernetics & Systems*. 28, 499–520 (1997)
20. Sam Does Arts, <https://www.youtube.com/watch?v=5Viy3Cu3DLk>
21. The Architect’s Newspaper, <https://www.archpaper.com/2022/09/three-experts-discuss-midjourneys-promise-pitfalls/>
22. Salkowitz, R., <https://www.forbes.com/sites/robsalkowitz/2022/09/16/midjourney-founder-david-holz-on-the-impact-of-ai-on-art-imagination-and-the-creative-economy/?sh=1416f742d2b>
23. Pradeep, A., Satmurotov, A., Yeshbayev, I., Khasan, O., Iqboljon, M., & Daniyov, A.: The Significance of Artificial Intelligence in Contemporary Cinema. *Second International Conference on Trends in Electrical, Electronics, and Computer Engineering (TEECCON)*. IEEE. 111–116 (2023)
24. Lioba Brückner, <https://www.youtube.com/watch?v=GwagpfLBEU>
25. Sharma, H., & Juyal, A.: Future Of Animation With Artificial Intelligence. *Journal of Visual and Performing Arts*. 180–187 (2023)
26. Frank, M. R., Autor, D., Bessen, J. E., Brynjolfsson, E., Cebrian, M., Deming, D. J., Feldman, M., Groh, M., Lobo, J., Moro, E., Wang, D., Youn, H., & Rahwan, I.: Toward understanding the impact of artificial intelligence on labor. *Proceedings of the National Academy of Sciences*, 116,

6531--6539 (2019)

27. Suseno, Y., Chang, C., Hudik, M., & Fang, E. S.: Beliefs, anxiety and change readiness for artificial intelligence adoption among human resource managers: The moderating role of high-performance work systems. *International Journal of Human Resource Management*, 33, 1209--1236 (2022)
28. Lee, S.: Enhancing Video Storyboarding with Artificial Intelligence: An Integrated Approach Using ChatGPT and Midjourney within AiSAC. *International Journal of Advanced Culture Technology*. 11, 253--259 (2023)
29. Belci, T., <https://www.theartnewspaper.com/2024/01/04/leaked-names-of-16000-artists-used-to-train-midjourney-ai>
30. Anantrasirichai, N. & Bull, D.: Artificial intelligence in the creative industries: a review. *Artificial Intelligence Review*. 55, 589--656 (2022)
31. Alexander, C.: Notes on the synthesis of form. Harvard University Press, Cambridge, Mass (1964)
32. Jiang, S., <https://kotaku.com/ai-comic-art-copyright-midjourney-revoked-1850150702>
33. Hayes, C. M.: Generative Artificial Intelligence and Copyright: Both Sides of the Black Box. Available at SSRN 4517799 (2023)
34. Joseph Saveri Law Firm LLP, <https://www.prnewswire.com/news-releases/class-action-filed-against-stability-ai-midjourney-and-deviantart-for-dmca-violations-right-of-publicity-violations-unlawful-competition-breach-of-tos-301721869.htm>
35. Corridor Crew, <https://www.youtube.com/watch?v=gv9cdTh8cUo>
36. Vincent, J., <https://www.theverge.com/2023/1/16/23557098/generative-ai-art-copyright-legal-lawsuit-stable-diffusion-midjourney-deviantart>
37. Schrader, A., <https://news.artnet.com/art-world/federal-judge-sides-with-ai-companies-in-artists-copyright-dispute-2387654>
38. Quach, K., https://www.theregister.com/2023/07/21/judge_ai_art/
39. Panettieri, J., <https://sustainabletechpartner.com/topics/ai/generative-ai-lawsuit-timeline/>
40. Anantrasirichai, N. & Bull, D.: Artificial intelligence in the creative industries: a review. *Artificial Intelligence Review*. 55, 58--656 (2022)
41. Buning, M. d. C.: Artificial intelligence and the creative industry: new challenges for the EU paradigm for art and technology by autonomous creation. In: *Research Handbook on the Law of Artificial Intelligence*. Edward Elgar Publishing (2018)
42. Fortuna, P., & Modlinski, A.: A(I)rtist or Counterfeiter? Artificial Intelligence as (D)Evaluating Factor on the Art Market. *The Journal of Arts Management Law and Society*. 51, 1--14 (2021)
43. Hitsuwari, J., Ueda, Y., Yun, W., & Nomura, M.: Does human-AI collaboration lead to more creative art? Aesthetic evaluation of human-made and AI-generated haiku poetry. *Computers in Human Behavior*. 139, 1--10 (2023)
44. Hong, J. W., & Curran, N. M.: Artificial intelligence, artists, and art: Attitudes toward artwork produced by humans vs. artificial intelligence. *ACM Transactions on Multimedia Computing, Communications, and Applications*, 15, 1--16 (2019)
45. Fairly trained, <https://www.fairlytrained.org/>

Explicit Nudity in Western Adult Animation Segment: Case Study



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Abstract

In this article, the authors investigate how often Western mainstream animation content creators employ explicit nudity (in sexual and non-sexual nature) in their storytelling. The authors identified 65 animated TV series that were produced in the Western cultural sphere and labelled as “adult animation”. Findings revealed that only one-third of all titles employ explicit nudity for storytelling purposes, while nine-tenths of the analysed TV series portray graphic violence and use obscene language. The results also suggest that there is an animated nudity hierarchy - the most common spectacle involving nudity is female bare breasts, while the least common nudity is male genitalia. The results of the study strongly suggest that in Western animation industries, there is a strong self-censorship phenomenon that treats explicit nudity as immoral and indecent imagery.

1. Introduction

This article is part of ongoing investigations of the adult animation segment and its ability to employ explicit nudity to tell mature stories. The authors of this article, in the previous studies on this topic, quite a few times address indirect evidence that there is a strong quasi-taboo in Western animation industries that repels mainstream animated content creators from approaching explicit nudity in their projects targeted at adult audiences [1], [2], [3]. In other words, mainstream adult animation content creators have no reservations regarding using explicit (and often extremely graphic) violence and obscene language. Yet, explicit nudity (from content creators', distributors', and broadcasters' point of view) is something that is too uncomfortable for Western audiences.

It is also important to address that this quasi-taboo regarding the topic of nudity is not limited to just the animation industry – the topic is extremely under-research. In other words, among all the topics within adult animation phenomena, the subject of explicit nudity (in erotic and non-sexual forms) is systematically ignored. The subject is particularly stigmatised.

This inability to express explicit nudity in Western mainstream animated content for adults is quite puzzling, especially if we compare the situation with

Keywords

Adult animation, explicit nudity, TV, erotica, self-censorship, aesthetics

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the live-action medium. To provide some context - 66.8% of all primetime TV shows in the USA contained some form of sexual behaviour [4]. Furthermore, studies on prime-time programming in the UK and Ireland show that the appearance of intercourse scenes on TV screens is considerably higher than in the USA [5], [6]. Finally, theatrical films are a couple of times more abundant with sexual content than the prime-time TV lineup [7], [8], [9].

Thus, in order to offer a perspective on explicit nudity in adult mainstream TV, this article evaluates the occurrence of explicit nudity and its various types as they appear on screen. The primary goal of this article is to provide an account of the range and intensity of explicit nudity in Western mainstream animated TV content for adult audiences.

2. Literature review

At its core, adult animation is animated content that is created for adult audiences and can be expressed in any format, genre, and platform. Adult animation is an entertainment form that uses animation medium and tackles narrative themes (a conceptual or intellectual premise [10]) such as death, divorce, sexuality, identity, politics, war, loneliness, existential ennui, or addiction. Although the animation medium is over a century old [11], the rise of animation content (in mainstream media) created explicitly for adult audiences is still relatively new and niche. The situation is not helped by the fact that cinemas (even today) often identify animated films as a genre, creating a condition for movie-goers to believe that animation is primarily a light-hearted form of entertainment [12].

One of the most critical factors behind the misconception that animation is a genre and not a medium was censorship for cinema and TV that regulated what animation could portray and what it could not. In other words, around the globe, institutions were established whose job was to protect the public from cinematic content that (in the institution's opinion) violated moral, religious, and political values and, in such ways, could cause harm to the community. For the greater part of the existence of this medium, the world's animators working in the mainstream media have devoted much effort to hiding or avoiding adult themes in their creations. As Cohen [13] noticed, during formal censorship in the USA (1934 to 1968), most writers were careful not to create anything that could cause problems. This self-censorship, in turn, was adapted into a way of life. Many animation creators confess that "they were never affected by the censors as they never worked on anything that needed to be changed" [13].

Today, most democratic countries have abandoned formal censorship systems in favour of ones that rate cinematic production based on suitability for different age groups ⁴[1]. This age rating system is primarily a tool to protect certain groups in society from potentially harmful cinematic content by rating classifications that either warn parents about violent, sexual, or immoral material or restrict theatre access to children. It must be noted that

⁴ It is important to note that age-based censorship is implemented in very different ways worldwide. In some countries, the age-based census only acts as guidance for parents and guardians. In other countries, the age-based census is enforced by law. And there are countries, where a variation of both practices is still applied.

the importance and necessity of this tool are not in doubt.

After examining the regulatory documents that govern the process of rating films in Australia, Ireland, Lithuania, Sweden, the UK, and the USA, it was revealed that, at least conceptually, most of the analysed countries perceive what content should be accessible to adults exclusively are quite similar. The following cinematographic (thematic, visual, and aural) elements have been identified (in one form or another) in all analysed countries as suitable only for mature audiences:

- mature themes (perceived through narrative);
- violence (any form of danger to the characters);
- language (obscene, vulgar, offensive, or profane);
- depictions of nudity and/or sexual activity;
- adult activities (i.e. activities that adults, but not minors, may engage in legally);
- illegal activities.

In addition, it is vital to note that not only the display of the listed elements but also the intention to perform actions which are perceived as an experience that should not be a part of a child's world will lead to stricter age censuses by the censorship apparatus. The purpose of the stricter age census is not only to protect the younger audience from witnessing imagery that could negatively affect the child's development but also to protect them from ideas and thoughts that could lead young viewers to unsettling questions.

From a censorship apparatus point of view, movies, as a whole, are not judged to be child-appropriate. Instead, the separate scenes will determine what age ratings the movie will receive. Abandoning one or more scenes can result in an age rating that opens the movie to be watched by younger viewers. This can be a powerful economic motivator for filmmakers [14]. Thus, investors' pressure on animation content creators to abandon scenes that lead to stricter censorship assessments can be quite intense, even if those scenes are central to the whole work.

Decades of formal censorship combined with investors' reluctance to have a higher age censure after the change in the censorship system produced a strong work culture of self-censorship in the Western animation community [13], [15], [16]. Specifically, when it comes to explicit nudity. In other words, even when the story (that is targeted at adult audiences) requires nudity, animators from the Western cultural sphere often will seek creative solutions that would suggest nudity rather than explicitly expressing it to the viewer.

This situation directly influenced another negative outcome regarding explicit animated nudity—the considerable lack of skills and knowledge among the animation professionals necessary to produce high-quality animated content that exhibits explicit nudity. In other words, even when Western mainstream animated content creators have the courage to tell stories with explicit nudity, that does not mean that employed animators will be able to create the best possible aesthetic experiences that an animation medium can provide.

Finally, the authors of this article would like to touch upon the topics of erotica and non-sexual nudity. The first one is a genre where sexual overtones are intended companions with the imagery of explicit bareness or sexual intercourse. In this genre, nudity is presented in

such a way that it invokes sexual stimulation or arousal. Furthermore, in erotic stories, sexual sensations are pursued as beauty in aesthetics – as something pure and ethereal [17].

However, it is important to note that erotica is not synonymous with pornography. As Scarlett [18] states about erotica as a (literature) genre, “Erotica is not just a book with lots of explicit sex in it’. Yes, sexual themes (or even explicit sex) should be found in a book (or any other medium for that matter) that is labelled as erotica, but these scenes need to be integral to the story because, without them, the character’s journey would not make sense.”. And, as [19] Suraiya sums up, “Erotica represents the complex cartography of desire, full of hazard and mystery, inviting endless exploration’, while pornography ‘is a dumbed-down diagram leading to a cul-de-sac whose only destination is libidinal claustrophobia”. Thus, erotica is not about showing explicit nudity; it is about (a) a story that tackles sexual themes and (b) a particular aesthetics that invokes the viewer’s feelings of sexual admiration and desire.

Non-sexual nudity is imagery that, although it has all traits of what otherwise would be considered (at the very least) erotic and (in some cases) pornographic, invokes no ‘lust lure’ from the viewer. There is imagery in visual and audiovisual media that, although it presents explicit nudity or sexual intercourse, does not initiate sexual arousal. For example, medical pictures of naked subjects (imagery that is consumed for informational purposes), paintings of naked slaves in a slave market, pictures of nude infants, naked people with severe illness, dead people, naked prisoners in Nazi gas chambers, visual documentation of rape or other types of sexual abuse and torture. In some cases, even a healthy nude person (who is not in a dire situation) would not invoke sexual arousal due to the cultural values of the community. In other words, there are quite a few situations when the explicit imagery would not result in sexual arousal.

As is the case with erotica, non-sexual nudity is an important storytelling tool to telegraph to the audience information about the character’s physical or mental condition, values, intimacy, or cultural background. Non-sexual nudity can also be used as a powerful tool to invoke empathy or even to shock the audience. However, it is important to note if an artist wants to tell a story involving rape, torture, or (sexual) abuse, it is necessary to solve the emerging ethical dilemma – to present the uncensored reality, or to display a sterilised and non-offensive version. Thus, a wide variety of stories can use non-sexual imagery for a better cinematographic experience.

And lastly, it is necessary to address the topic of explicit nudity of children in animation. Even though this type of nudity has a long historical precedent, imagery of naked children and minors today is extremely controversial. Especially in the Western cultural sphere. Thus, even though it would be hard to present an argument that naked infants or toddlers call to “action”, the moral panic surrounding child sexual abuse and child pornography is evident [20]. Therefore, the very nature of non-sexuality in children’s nudes does not guarantee that the viewer’s fears or moral convictions would not group the nudes with the pornography genre and, what is even worse, label the artist as a child pornographer.

3. Methodology

The study sample included Western animated adult TV series released in 2020-2023. The timeframe of the series was chosen for two reasons. First, Evershed, in his White paper published in 2020 [15], was the first industry insider to claim that the adult animation segment will soon experience significant expansion – a phenomenon that he personally titled “The Great Adult Animation Boom”. Secondly, the four-year timeframe was chosen in order to provide a broad, more comprehensive segment situation analysis.

For this study, 65 titles of mainstream animated TV series that targeted adult audiences were identified (titles are listed in Appendix A). To compile the list, Evershed report [21] on the adult animation segment was a starting point – in his document, Evershed presents over 100 titles that were supposed to be produced and aired in 2021-2023. However, a great number of the titles from the list were cancelled (during development or production stages) or reshaped to be more children-friendly. Thus, to compile the list, additional sources were examined (such as news posts, industry reports, official SVOD content list, etc.). It is important to note that for a title to be considered Western, at least half of the top-tier creative team must be from the Western cultural sphere.

Every title’s age census was checked in order to identify if the content was truly targeted at adults. For this, two types of information were gathered – one from the content owners (i.e. what age census the content creators give to the animation) and one from Common Sense Media. The latter census-providing platform was chosen because it is based on viewers’ opinions (rather than internal or external censorship apparatus). However, not in all cases both of the information was available. This information was useful to identify and remove content that was suitable for children (and thus not created specifically for adults).

It is important to address that for this study, only the first season of any given title was examined. This decision was made because the authors of this article were primarily interested in identifying how willing content creators are to use explicit nudity to tell their stories from the very start. The rationale for this decision was that with the established popularity of the shows, the animated content creators might acquire additional soft power (towards investors and broadcasters) and be much more willing to risk employing creative decisions that previously could be regarded as too dangerous (career-wise). Thus, by including just the first seasons in the study, the authors can acquire a better understanding of whether animators are really ready to include explicit nudity in their content for adult audiences.

The final list contained 65 titles. However, the authors could not acquire access to two TV series. Thus, the final size of the study sample is 63 titles (in total, over 1140 hours of content (including credits)). As animated explicit nudity is not treated equally (for example, male explicit nudity is much rarer than female), the explicit nudity that shows female breasts, female genitalia, male genitalia, and children’s genitalia are marked separately. In addition, the authors took note of whether the explicit nudity was sexual or non-sexual in nature.

It is important to note that in situations when only naked buttocks were visible to the audience (but not genitalia or female breasts), it was not regarded as a case of explicit nudity. This approach was made based on various countries' censorship patterns that do not perceive visible buttocks as unacceptable animated material for children. The same approach was taken with any explicit content that was presented outside of the animated characters' bodies. In other words, paintings, illustrations, or just plain "dick drawings" on the wall or paper in this study were not perceived as cases of explicit nudity.

Finally, the authors of this article decided to compare how these titles approach others explicitly for adult audiences with suitable elements such as (i) obscene language, (ii) violence, and (iii) (legal and illegal) activities that most of the censors agree that children should not be exposed to (i.e. drinking, intoxication, prostitution, gambling, crime, etc.). Other data that was gathered in the study were the genre, date of airing, the buyer (first window), platform (SVOD, VOD, cable, or network), number of episodes in the season and average minutes per episode, and finally, the exact moment when the explicit nudity appeared in the episode.

4. Findings

Thirty per cent of titles had explicit nudity in the sample. However, this group also includes titles that showed just one nude shot that lasted for one second (or less) in an entire season. In other words, quite a few titles were marked as content that showed exclusive nudity only on technicality. For example, in "Chicago Party Aunt" (2021-2022) episode 3, around the end of the 4th minute, there is a shot where a naked man jumps from the toilet. And although throughout the scenes, the man's penis is blurred for a brief moment (during the jump), the audience can see the genitalia as the blur fails to move in sync with the man. But, in the opinion of the authors of this article, such type of display of explicit nudity much more supports the notion of the existence of self-censorship rather than the courage to use explicit imagery for storytelling purposes.

In regard to explicit female breast nudity, the data shows that 27 per cent of the titles show topless women in order to tell mature stories. In other words, only two titles in the sample pool choose to show naked men but not women's breasts. Naked women's breasts are shown almost equally in erotic (19%) and nonsexual (23%) contexts. However, it is important to note that while the categories of "non-sexual" and "erotic" were chosen as opposite in nature when addressing in what manner nudity is shown, it was early in the study identified that the term "erotic" was not always a perfect term to label scenes where characters are presented a sexual activity. The reason for this lies in the aesthetic implementation - far from all scenes representing sexual activities can evoke sexual arousal (as it should happen with erotic imagery). Thus, in this study, "erotic" means only the factual nature of the imagery and not its ability to produce a specific response from the viewer.

Nineteen per cent of the titles show naked female genitalia. However, there are quite a few cases when the female genitalia are shown just for a brief moment or are stylistically presented in a way that the vulva cannot be clearly

identified. In other words, although, in the shot, it is indicated that the female character is naked, there are no visual cues that would help the audience identify the existence of the female reproductive organ. Thus, in many cases, the female genitalia are suggested rather than shown. Seventeen per cent of titles show female genitalia in a non-sexual manner, and 13 per cent of titles present explicit female nudity in situations that can be perceived as sexual by nature.

Only 17 per cent of the titles show explicit male genitalia. However, as it was mentioned previously, in many cases, the imagery is shown only once throughout the season and only for a second. In other words, this type of imagery is a blink-and-you-will-miss-it content. In addition, it is necessary to note that not one case presented a male penis in erect position. Even when the animated male characters were shown in scenes that have sexual overtones. Fourteen per cent of titles presented explicit male nudity in a non-sexual manner, and only 3 per cent of titles showed nude men in situations that can be perceived as sexual by nature.

Two titles (4%) have shown explicit children's nudity. In both cases, it was a male baby.

The study also revealed that 86 per cent of the titles use obscene language (however, in a few cases, they do bleep the word fuck, although it could be argued to what success the aural censorship protects the viewer from the ability to identify what word is being used), 74 per cent of the titles present activities that are suitable only for mature audiences, and 94 per cent of the titles examined in the study use imagery of violence. And it should be added that, in many cases, the violence is extremely graphic.

Finally, the gathered data revealed that only four titles (6%) were given the 18+ age census. In all cases, the strict census was given by the content providers and not matched by Common Sense Media ratings, which gave three 17+ ratings and one 16+. Thirty-eight titles (60%) were rated (by content providers) 16+ or 17+. Fourteen titles (22%) were given 14+ (or lower) age census. The rest of the titles did not provide a clear rating. For example, one title just presented a warning that the animated content is for "mature audiences". Interestingly, out of 47 cases when the age census was provided by the Common Sense Media users, 19 (or 40%) were assessed with a milder age rating than the one indicated by the content providers.

5. Discussion

Literature reviews suggest that, although most of the world has moved from formal to age-based censorship, there are still additional challenges regarding adult animated content. Not only are decision-makers in broadcasting, distribution, and cinema sectors reluctant to take a chance on adult content, but there are indicators that, in general, animators themselves actively practise a self-censorship work culture and produce work in a manner so as not to irritate the censorship apparatus and potentially lose any access to film markets.

However, the fact that only 1/3 of all titles employ explicit nudity to tell mature stories, as opposed to 94% of titles that use violence, 86% that use profanity, and 74% of titles that portray activities not suitable for minors, strongly suggest, that self-censorship in Western mainstream

animation affects only the ability to produce explicit nudity imagery. Furthermore, as it was indicated in the findings, the fact that most of the titles use explicit nudity only once per season in a blink-and-you-will-miss-it manner suggests that the content creators use this visual storytelling tool in the most minimal possible capacity in order to minimise any potential risk that comes with portraying this kind of spectacle.

The study also clearly indicates that there is a hierarchy of explicit nudity. The most common choice is to portray female breasts (27%), then female genitalia (19%), and finally, male genitalia (17%). The latter, of course, must only come in flaccid form. This suggests that the penis is still perceived as something axiomatically vulgar, obscene, and, thus, offensive. At least from the content creators' point of view. Thus, it cannot be shown for longer than a few seconds at a time. And never in erected form.

It is vital to add that, although only one-third of all titles showed explicit nudity, it does not mean that other titles did not approach sexual topics. Although the authors of this article did not specifically count how many TV series provided censored (i.e. blurred or strategically covered) imagery of a sexual nature, the number would be great. Furthermore, there are quite a few cases when the scene puts the viewer in the middle of an orgy. Or extensively verbally provide information of sexual activities that correctly happening (or just happened). In one case, a young male character's face is covered in semen, which was the result of masturbatory activity shown just a second ago. But, of course, no explicit nudity was shown (during the masturbatory action) to the audience.

Interestingly, this situation suggests that content creators want to approach and explore various sexual themes, topics, and situations. However, the chosen approach is to push the acceptable limits in all directions but one – presenting explicit nudity. This is indirectly related to another phenomenon observed by the authors, which, unfortunately, was not separately recorded in quantitative terms. The authors of this article noticed a recurring aesthetic result, where scenes depicting explicit nudity are significantly more non-sexual in the provided cinematographic experience than scenes from the TV series that chose to (self) censor the erotic content. In other words, there is an aesthetical pattern where explicitly naked animated characters would be presented in an un-erotic manner. This raises an interesting question – is it a result created by choice or due to a lack of necessary skills? Unfortunately, the answer to this question cannot be obtained by quantitative means.

The children's animated explicit nudity was extremely rare (only two titles). However, it is understandable, as it was indicated in the literature review, that naked children (even in animated form) are a very controversial topic. Thus, the choice to show characters not older than toddlers (i.e. up to 3 years of age) provides the best chance to communicate the imagery as non-sexual. And, in turn, minimise any potential cause for controversy.

In addition, it is worth discussing the very concept of adult animation. The study indicated that only 6% of the examined titles were labelled as 18+ content. At the same time, one-fifth of the titles were labelled as suitable for 14+ viewers. It is important to note that all of the

TV series in the study were referenced as part of the adult animation segment by one source or another. In other words, every title in the study was selected because the buyer, industry insiders or journalist working closely with the animation industry claimed that the content is suitable only for (or at least targeting) adults. Yet, the investigation clearly indicates that most of the content in this segment is suitable (in content providers' and viewers' opinions) for teenagers. Content that (nine out of ten times) has extremely graphic depictions of violence and presentation of obscene language. This situation suggests that the label "adult animation" at the moment functions not as an indication of mature content but rather as a brand that seeks to provide awareness to the target audience (which, in many cases, are teenagers). In other words, the label "adult animation" is used not to inform about the existence of mature content but rather to inform the absence of childish content.

Animation is an incredible medium that can use explicit nudity to provide a very sensational cinematic experience. It is extremely easy to imagine how these two phenomena can work together in synergy to create something sensual and captivating. Thus, by deliberately avoiding using explicit nudity, Western animators lost the opportunity to tell full stories. Stories that are important to our collective culture, stories that matter to us, and narratives that reflect (or challenge) our values, beliefs, and perceptions.

To sum up, the authors will employ a simple metaphor – animation without explicit nudity (be it in erotic or nonsexual form) is like a teen with excellent prospects yet is forbidden to mature. Sure, like every teen, the medium can try to be cool – use profanity and worship the aesthetics of violence, but the topic of (non)sexuality ... it can be discussed, admired, even implied, but not experienced because all that is related to sexuality is for grown-ups. Therefore, animation in the Western cultural sphere is in perpetual adolescence – rebellious and loud yet without actual agency. A member of the cinematic community that doesn't (yet) have the right to sit at the adults' table.

6. Conclusion

In this article, the authors present a study's results about how many animated adult TV series from 2020-2023 dared to employ explicit nudity in their stories. The results suggest that Western mainstream adult animation has quite a few (mental) boundaries to break before animation medium reaches the creative potential that live-action medium has with explicit (non-)sexual imagery. In other words, until self-censorship is not effectively removed from the minds of animated adult content creators, there is a creative limitation to the stories this art form can produce. Furthermore, without breaking this artificially created limitation, the animation will not be able to grow up.

7. References

1. Mitkus, T.: Aspects Of Creativity in Adult Animation: An Overview of Censorship And Self-Censorship In Western Countries. *Creativity studies*. 16: 39--49 (2023)
2. Mitkus, T.: Anime: An Approach to Erotica and Violence in Animation for Adults. CONFIA . International Conference on Ilustration & Animation. 416--425 (2021)
3. Mitkus, T.: Practice diary for animation: a reflective tool for the practitioner, researcher, and educator. CONFIA . International Conference on Illustration & Animation. 140--149 (2023)
4. Fisher, D. A., Hill, D. L., Grube, J. W., & Gruber, E. L. Sex on American television: An analysis across program genres and network types. *Journal of Broadcasting & Electronic Media*. 48, 4: 552--553 (2004)
5. Millwood-Hargrave, A.: TV vice. *American Enterprise*, 8, 54--56 (1992)
6. MacKeogh, C.: Teenagers and the media: A media analysis of sexual content on television. *Crisis Pregnancy Agency* (2005)
7. Hetsroni, A.: Three decades of sexual content on prime-time network programming: A longitudinal meta-analytic review. *Journal of Communication*. 57, 318--348 (2007)
8. Abramson, P. R., & Mechanic, M. B.: Sex and the media: Three decades of bestselling books and major motion pictures. *Archives of Sexual Behavior*. 12, 185--206 (1983)
9. Greenberg, B. S., Stanley, C., Siemicki, M., Heeter, C., Soderman, A., & Linsangan, R.: Sex content on soaps and prime-time television series most viewed by adolescents. In: B. Greenberg, J. Brown, & N. L. Buerkel-Rothfuss (Eds.), *Media, sex, and the adolescent* (pp. 29-44). Hampton Press (1993)
10. Wells, P.: *Animation: genre and authorship*. Wallflower (2002)
11. Bendazzi, G.: *Animation: A world history. Volume III: Contemporary times*. CRC Press (2016)
12. Mitkus, T., & Nedzinskaitė-Mitkė, V.: Causes and conditions for animation-as-genre misconception: Lithuanian case. CONFIA 2018: 6th International Conference on Illustration and Animation. 13-15 July. 102--111 (2018)
13. Cohen, K. F.: *Forbidden animation: Censored cartoons and blacklisted animators in America*. McFarland (2004)
14. Timsit, A., <https://qz.com/1335380/eighth-grade-shows-the-difference-between-how-the-us-and-europe-think-about-teens-and-sex/>
15. Evershed, J., www.readkong.com/page/adult-animation-finally-breaking-free-of-its-comedy-shackles-1164597
16. Leigh, M. & Mjolsness, L.: *She animates: Gendered Soviet and Russian animation*. Academic Studies Press (2020)
17. Seltzer, L. F., <https://www.psychologytoday.com/sg/blog/evolution-of-the-self/201104/what-distinguishes-erotica-from-pornography>
18. Scarlett, S., <https://sayde-scarlett.medium.com/erotica-as-a-literary-genre-d59b-9c4adafi>
19. Suraiya, J., [https:// timesofindia.indiatimes.com/articleshow/815524.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst](https://timesofindia.indiatimes.com/articleshow/815524.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)
20. Powell, L.: *Framing innocence: A mother's photographs, a prosecutor's zeal, and a small town's response*. The New Press (2010)
21. Evershed, J., www.toonboom.com/adult-animation-white-paper

Appendix A

1. TV series titles included in the study sample (alphabetical order):
2. Kong: Skull Island, 10 Year Old Tom, Adventure Beast, Agent Elvis, Arcane, Birdgirl, Blade Runner: Black Lotus, Blood of Zeus, Blue Eye Samurai, Captain Fall, Captain Laserhawk: A Blood Dragon Remix, Carol & the end of the world, Chicago Party Aunt, Clone High, Close Enough, Crossing Swords, Cyberpunk: Edgerunners, Devil May Care, Doomsday Brothers, Duncanville, Fairfax, Farzar, Fired on Mars, Godzilla: Singular Point, Helluva boss, Hit-Monkey, Hoops, Human Resources, Inside Job, Invincible, JJ Villard's Fairy Tales, Koala Man, Krapopolis, Little Demon, M.O.D.O.K., Magical Girl Friendship Squad: Origins, Mulligan, Onyx Equinox, Poor Devil, Praise Petey, Q-Force, Resident Evil: Infinite Darkness, Royal Crackers, Santa Inc., Scavengers Reign, Smiling Friends, Solar Opposites Star Trek: Lower Decks, Tear Along the Dotted Line, Teenage Euthanasia, The Boys Presents: Diabolical, The Freak Brothers, The Harper House, The Legend of Vox Machina, The Midnight Gospel, The Pole, The Prince, Ultra City Smiths, Velma, Wild Life, Woman in The Book, YOLO.



The Development of Visual Representation of Sound in American Comics

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Keywords

Comics, Spider-Man,
speech balloon,
onomatopoeia,
phonomime

Abstract

This article presents a case study that was conducted in order to gather insights into how sound presentation evolved in American sequential art. The authors of this article examined 801 issues of “The Amazing Spider-Man” (1963-2018) comic books and documented every new stylistic and communicative solution regarding captions, speech balloons, and sound effects that evolved in comics media. Findings indicated what important part experimentation played in the first few decades of the medium. In addition, findings suggest that two main factors played a vital role in developing a visual representation of sounds in American comics. First, advancement in printing technology, and second – a mindset transformation. The latter is characterised by the fact that sound in comics gradually ceased to be perceived as a means of conveying information and has become a tool to tell a story.

1. Introduction

The comic medium is exclusively a visually-based art form. Thus, unlike other popular culture products, comics cannot use audio-enhanced dialogue, voiceover, sound effects, or music tracks to enrich the user experience. Therefore, this non-auditory art form was forced to find visually-based communicative solutions to allow the reader to experience sound elements in the graphic (i.e. silent) form necessary for understanding the story presented in the comics. In other words, the medium’s inability to produce sound did not diminish its need for and importance of telling compelling stories. Thus, this article aims to explore how comic book creators have tackled the challenges of portraying the various qualities of sound.

The relationship between text and images in comics is essential for a comic book reader to understand the narrative [1], [2], [3], [4], [5], [6], [7]. Therefore, sound, the way it is expressed in comics, is always an essential part of any analysis, review, or educational process. Thus, it cannot be claimed that the visual expression of sound in comics is an under-researched topic. Quite the opposite, the phenomenon of sound in visual form attracts even researchers from other fields, particularly literature, semiotics, and aesthetics. However, how does this art form (where visual

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elements play a huge role in communicating various aspects of sound) evolve? How long did refining some solutions as effective and others as inept take? The authors of this article address these questions by examining over 800 issues of “The Amazing Spider-Man” (1963-2018) comic books.

The performed analysis of the case study demonstrated how innovative graphic solutions were gradually applied in the US comics industry, which allowed the communication of additional meanings to the ones presented in the text. The case study revealed how experimental the first steps were and how much guessing was involved. Thus, there is an enormous qualitative difference in presenting various sound qualities in visual expression between the first and last issues.

In this article, the authors will first provide a general overview of the concept of sound in comic books. Then, the case study methodology used to gather data from “The Amazing Spider-Man” series to gain insights about communicative decisions used in the art form and the gradual evolution of these decisions will be presented. This will be followed by the presentation of findings and discussion about the significance of aesthetic execution in comics to produce semantic attributes to text. The article will conclude with a brief study summary and critical insights.

2. Literature Review

Will Eisner, in his book “Comics & Sequential Art” [2], famously stated that “The balloon is a desperation device”. And his sentiment is entirely accurate – even the best, the most innovative visual rendering of the sound in comics requires considerable involvement from readers to produce meaning. However, at the very dawn of the media, comic book artists realised that words can be a handy communicative tool. After all, it was evident that “some specific concepts and names can only be clearly expressed through words [7]. In other words, by using words, comic book artists can compress the story and produce more meaning and a more explicit nature than just wordless pictures.

While there are wordless comics, most comic books contain written information in the form of word balloons, captions, or sound effects [8]. Thus, the reader is provided with three types of auditory experiences that can be audible and inaudible [9]. However, it is essential to note that it took time and a great deal of experimentation before the best communicative and aesthetical approach to present sound in all of these three types of auditory experiences was found.

The earliest applied visual solutions that allowed the text additional sound features were the text size and font – these solutions can be found in the first comic strips that used text balloons. Another popular visual tool to emphasise spoken or thought text – boldface – was employed in the first “Famous Funnies” issue [10]. Finally, comic strips and books employ various text balloon shapes to indicate that the dialogue is a whisper or a shout. Thus, in the 30s, at least in the USA, sound in comics is no longer monotone (so to speak).

However, most of the early comic books suffered greatly from text-image disharmony. Specifically, most comics use very large amounts of

text, often making the text very small and, thus, hard to read. In addition, the text often repeats what is seen in the illustration, overshadowing the illustrations. McCloud argues that the (perfect) balance between words and pictures should emphasise each one's strengths [7]. Furthermore, the success of the verbal-visual blend is the most critical aesthetic criterion for judging a comic book [4]. However, Eisner [2], in his book published in the 80s, still addresses the necessity (or perhaps more precisely, the right for artists) to omit dialogue of narrative that can clearly be demonstrated visually. This notion is followed by McCloud [7], who is happy that modern comic writers (most of the time) manage to avoid textual redundancy. Thus, suggesting that the ability to achieve this word/image balance is not so simple. Or, if one looked from a different perspective, it would seem that the desire to rely on the text to communicate what is happening in comics can be really hard to resist.

McCloud [3], [7] identifies 7 distinct categories of word/image combinations:

- Word-specific: words provide all you need to know, while pictures illustrate the scene's aspects.
- Picture-Specific: Pictures provide all you need to know, while the words accentuate the scene's aspects.
- Duo-Specific. Words and pictures both send roughly the same message.
- Intersecting. Words and pictures work together in some respects while also contributing information independently.
- Interdependent. Words and pictures combine to convey an idea that neither would convey alone.
- Parallel. Words and pictures follow seemingly different paths without intersecting.
- Montage. Words and pictures combined pictorially.

These different combinations of words and pictures can have both communicational and aesthetic applications – they can help storytellers ensure that the readers can follow the narrative easily and provide a visual experience that rarely can be found outside the comic book medium.

At this point, it is worth focusing on exploring how the dialogue and thought balloons can convey various sound experiences. First, it must be addressed that words in the balloons and captions cannot be placed within the picture space or outside of it [5]. In other words, captions and word balloons do not exist in the same plane of reality as pictures presented in comics [7] – they are “visible” only to the reader. Furthermore, text in comics does not have a fixed position in space, but their position and relationship to each other contribute to the measurement of time [2]. And, unlike depicted architecture or furniture, balloons and captions usually don't obstruct characters [5]. Thus, in comics, balloons and captions perform a much more complex role than just text-based presentation of information.

The shape of the balloons can also play a role in representing some auditory elements. The most common designs are spiky outlines that indicate sound emanating from a radio, telephone, television, or any other machine, dotted outlines that mean the character speaks quietly, and non-uniform outlines that indicate a shaky voice. With time, more innovative

designs were employed. For example, icicles at the bottom of the balloon indicate that the character's speech is "cold". In other cases, the tail on the balloon can physically envelop the character as to suggest that the speaking character's voice enslaves the listener. Of course, in some cases, as McCloud [7] notices, the shape of the balloons is just a stylistic expression that does not aim to contribute any additional meaning regarding sound.

The colour can also be used to suggest various qualities of a sound. In this regard, colour can be employed in two ways – as a means to give (other than standard black) colour for text and a means to give (other than standard white) colour for the text balloon background. It is important to note that experimentation with colour regarding the text in general and balloons, in particular, started later due to considerable limitations with the printing technology [11], [12]. Thus, experimentations with colour to influence the experience of sound started relatively late – only when the innovations in printing technology allowed to ensure that (a) the text part of the comics could be read clearly and (b) that it was not expensive.

The most often used colour application for the text in the comics balloons is red to signal the importance of the dialogue (or part of it). In addition, text in red is usually larger in size, thus putting even greater emphasis on that spoken part. As for text, the balloon's background colour can be used in several different ways. First, the colour can be used as a communicative tool to help indicate who is talking (when the character details are insufficient to recognise them or when the view of them is obstructed by other objects). The second case is to imply drama or higher than usual importance of their spoken dialogue. Thus, in this case, the colouring of the text balloon would be a temporary design solution. The third case is to give some unusual auditory attributes to the character's voice. The two most popular designs for text balloon backgrounds are black to imply an unearthly, often demon-like voice and red to suggest a commanding yet very dangerous tone for the character. Of course, different colours for text balloon backgrounds in modern comics are used, but in most cases, the meaning of the colour can be decoded only through narrative. In other words, the colour blue in the text balloon could mean not that the character is calm or sad, but that he or she originated from a blue alien planet or the deep of the ocean.

Fonts, as was already mentioned a few times in this article, play a significant role in implying what vocal inflection is produced on a word-to-word basis [3]. Fonts' ability to provide unique auditory characteristics to the comic book character's speech is mentioned in every comprehensive book on comic book production [2], [3], [4], [5], [6], [7]. Eisner [2] noticed that lettering could reflect the nature and emotion of the speech, while Kaindl [13] noticed that movement, directionality, and speed could be indicated through the lettering. Abel and Madden [6] argue that lettering (i.e. drawn words by cartoonists and not produced by computer) is not only an essential part of the overall aesthetics but also provides a much better reading experience. Furthermore, Eisner [2] argues that the style of the letters strongly affects the "message". Thus, several graphic solutions can be employed to provide additional auditory meanings to words.

But speech balloons don't necessarily have to present words to illustrate sounds - dialogue balloons can employ symbols to express auditory elements (most often using “!” or “?” [5]). Three dots in the speech balloon suggest that the character is (at that moment) still comprising himself or herself to say something. Usagi Yojimbo comic book series (1984-present) is quite innovative in showing that characters are taking their last breath by placing a skull symbol in the balloon. And, of course, there are random letters and symbols, like “%\$*!@#”, that usually suggest that the character is swearing. Thus, graphic symbols are a standard tool in comic book media for visually expressing various sounds.

However, although speech balloons use graphic symbols, thought balloons are where one can find a much greater variety of expressions that, in many cases, would be hard to express in words. In the book “Comics & Sequential Art” [2], Eisner provides excellent examples of thought balloons where one character is shown to think about money (a dollar sign is presented in his balloon) while in the other presented case, two characters are shown wondering in the desert where the first's thought balloon shows the drawing of a camel while the second's balloon presents an image of a facet with running water. These examples are truly great to illustrate how comics can employ visual solutions to express ideas or moods that would require significantly more words and, what is arguably more important, less involvement from the reader to produce meaning.

And then there are sound effects. Catricala [14] identifies these three categories for sounds expressed in words:

- a) Phonomime or onomatopoeia: The words that mimic actual sounds (like an explosion)
- b) Phenomime: the words that depict non-auditory senses (like smell and taste).
- c) Psychomime: the words that depict psychological or bodily feelings (like a state of despair or confusion).

Phonomime or onomatopoeia are the most common ones in sound effects, mostly likely because it is considerably easier to communicate to the reader what sound the word represents. The other two types require agreement between the artist and the reader that the depicted words are linked with actions that (directly) do not produce sound. For example, the action of smelling is presented with the phenomime “Sniff” or the emotion of surprise with psychomim “Eeek” or “Zzoing” [15].

However, it is essential to note that while sound effects are usually onomatopoeic in Western comics, in the East (predominantly Japan), sound effects are mainly descriptive [16]. In other words, in Western comics, the sound effect of the punch would be Pow; in Japanese comics, it would be presented as Punch. Thus, different culturally-based approaches to presenting sound effects in the comic medium exist. However, in this article, the authors will focus only on the onomatopoeic approach to sound effects in comics as it is common in American omics.

McCloud [3] notices that creating great sound effects doesn't require the sort of methodical consistency that good balloon lettering needs. Quite the opposite - sound effects are one-shot inventions one can impro-

wise “like crazy”. And, from the aesthetical point of view, sound effects provide great opportunities to combine the onomatopoeia with visually based association (i.e. the text of water-based sound effects can be presented in water-mimicking shapes) and incorporate them in visually stimulating ways. Thus, sound effects are one of the auditory elements that can provide quite a unique and stimulating experience in a medium that does not produce sound.

Finally, there are captions. While captions were initially used as a means to give voice to a narrator (to provide exposition or another type of information necessary to follow the story), they are also used today for character thoughts or even dialogue. Visually, the most significant difference from speech or thought balloons was that text in captions was presented in a quadrilateral-shaped box. However, there were aesthetical variations – the lines of the caption box could be presented as wavy or mimicking a flag-like shape. Interestingly, modern comics even abandon the box shape and simply present the text. However, this visual approach is usually reserved only for information indicating a time or place shift in the latter case. “Meanwhile” being the most used word in comics when captions are employed to connect panels with the passage of time and changes in locate [2].

In summary, it should be noted that comics, being an art form exclusively based on visuals, for over a century, found innovative solutions that provide a sound experience through the text and create genuinely unique visual solutions that are only possible in this medium. Furthermore, it is very important to mention that sound in comics is expressed not only with text - symbols are also used. Thus, as Dey and Bokil [9] notice, text plays a vital role in the comics medium as a narrative element. However, only when text combines the best communicative and aesthetic qualities is a genuinely unique comics experience created.

3. Methodology

In order to answer the raised research questions, the authors of this article decided to use a qualitative approach and employ a case study methodology. A case study is one of the most extensively used strategies of qualitative social research [17]. Yin [18] defines a case study as an empirical inquiry investigating a phenomenon in its real-life context. Thus, a case study is not a method to acquire data per se but rather a research strategy or design that aims to explore phenomena in depth [17], [18], [19]. In other words, case study research allows researchers to use any (ethical) data collection method that suits their purpose [17].

The authors of this article seek to explore how the depiction of sound evolved in American comics over time, focusing on communicative execution. For this purpose, the authors examined 801 issues of “The Amazing Spider-Man” (1963-2018) comic books. The rationale for choosing “The Amazing Spider-Man” series is based on two reasons. First, “The Amazing Spider-Man” is one of the longest-running comic books in the USA [20], [21]. This creates favourable conditions for observing how stylistic and communicative solutions evolve in comics media.

Secondly, “The Amazing Spider-Man” is Marvel studio’s flagship title [22], [23]. Furthermore, “The Amazing Spider-Man” continuously broke new ground in comics and had a significant impact on the American comic book industry [22], [24]. Thus, while it does not necessarily mean that all communicative or aesthetic innovations would originate within “The Amazing Spider-Man” comic books, it is reasonable to think that most of the best new solutions (originating in other comics) would quickly appear in Marvel’s most popular series. Conversely, any effective solutions depicted in this comic would quickly be used in other comics. Thus, “The Amazing Spider-Man” series (while not representing absolutely all communicative and aesthetical solutions implemented in American comics) provides an excellent opportunity to explore how the comic art form has evolved over 55 years.

The analysis itself was carried out as follows: every time a new communicative solution was encountered in the comics, it was noted in the catalogue. Along with each identified case, the following information was marked: (i) year of publication, (ii) comic book issue number, (iii) page number, (iv) comic book authors (penciler and letterer), (v) category (speech balloon, thought balloon, or caption), (vi) short description, and (vii) print-screen of the speech balloon, thought balloon, or caption.

It is essential to address a few limitations and challenges of this study. First, some of the changes in execution found in comics were extremely minor. Thus, there were quite a few instances when the decision to include or exclude a particular design execution came to the last-minute discussions. Secondly, although the aesthetic execution is critical to the overall comic book experience, this study perceives it as a secondary (although integral) part of the communicative process. In other words, aesthetics-based decisions are examined only through one criterion - what they communicate to the reader regarding auditory experience.

4. Findings

After reviewing 801 issues of “The Amazing Spider-Man” (1963-2018), 268 unique communicative solutions were identified. After additional review and discussion, 83 entries were removed as being only minor updates to the already used communicative solutions rather than new approaches to present written information in the comics medium. The final catalogue consists of 51 entries of captions, 75 speech (and thought) balloons, and 59 sound effects.

It is necessary to note that technological advancements in the printing process played a great deal in the innovative presentation of sound in visual medium. Especially the digitalisation process that provided artists with vast new creative approaches that were unimaginable just decades before. Thus, when analysing the evolution of text presentation in comics, one must consider the role of technological advancement.

It is interesting to note that in the first decade of “The Amazing Spider-Man”, there was great experimentation. And, as an expected outcome of the experimentation process, many solutions were ineffective communication-wise. For example, there are a significant number

of experiments with colour in the early issues of the Spider-Man comics. However, the colours are used without any evident communicative purpose – the chosen colours used to fill the background of the captions and speech (and thought) balloons are there only to be used as a spectacle for the reader (see Fig. 1). It is evident, that in the sixties the understanding how the colour can be employed to produce additional meaning to the textual representation of sound is not yet gathered.

Captions are another element that was significantly experimented with in the early issues of the Marvel superhero comics. The various shapes, colours and fonts are employed to find the best way to produce



Fig. 1. Early experimentation with colour in speech and thought balloons in “The Amazing Spider-Man” (1963-2018) comic books. © Marvel Worldwide, Inc.

satisfying experiences (while providing the necessary information needed to understand the story) for the reader (see Fig. 2). It is interesting to note that while some of the experiments later evolved and became an integral part of the Spider-Man comic book series, the others were just single-shot ventures. However, it is evident that in creative artists’ hands, this communication tool can take any shape or form in order to transmit the most diverse type of information.

Special mention should be made about how captions were used to end the comic book story in every issue. There is an extreme variety of shapes, colours, fonts, and even phrases (i.e. “The end”, “End”, “Finis”, “To be continued”, “More next issue!”, „Next: (...)“, “Nuff said!“, „And you’ll regret it if you miss next ish!“, etc.) used to finish the story in each comic book. This suggests that there were internal motivations to experiment with this particular caption continuously rather than to find the best version to communicate the end of the narrative in the comic book.



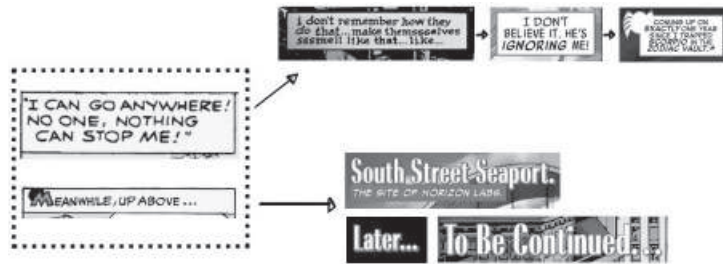
Fig. 2. Early experimentation with captions in “The Amazing Spider-Man” (1963-2018) comic books. © Marvel Worldwide, Inc.

In later years, the captions went through a really colossal transformation. First, captions slowly but irreversibly became the dominant form to present the character’s thoughts. However, it is essential to note that this process was very long, as the artist had to

work out many communicative challenges that arose from this transition. Secondly, captions – as a means to provide exposition and various data about location or time – dropped the box (surrounding frame) and became just text floating on the page. However, and it must be emphasised, the latter change happened precisely because captions became a platform for presenting the characters' inner thoughts (see Fig. 3).

It is very interesting to note that while the idea to present characters' thoughts through captions was first used in the very first issues, it took more than twenty years for an issue (#229) to come out where though

Fig. 3. The evolution of captions in “The Amazing Spider-Man” (1963-2018) comic books. © Marvel Worldwide, Inc.



balloons would be wholly absent, and all thoughts would be presented through captions. However, it will take another ten years to reach a point where captions will become the dominant form for characters' thoughts. And even from that point, the thought balloons will sparsely return to “The Amazing Spider-Man”. This suggests that even though captions provide a much better (from a communication and aesthetical point of view) vehicle to present thought on comic book pages, it's really hard to break the habit of using thought bubbles, especially when they've done their job perfectly (at least according to the artist) for years.

It is necessary to mention separately that comic book artists really struggled at first with how best to use captions when there was a need to present more than one character's thoughts. After all, the thought balloons had one great advantage – the balloon's tale could clearly indicate who was thinking what. Of course, in the latter issues, this challenge was overcome by giving captions a colour indication and, later on, a recognisable icon at the start of the thought sequences. However, it is necessary to emphasise that it took time to tame the captions-as-thoughts delivery system. On the other hand, once the caption system was perfected, it became an extremely clear and aesthetically pleasing way to deliver various types of textual information.

However, another critical element that the authors of this article noticed while conducting this case study was that there were substantial shifts in mindsets during the 800 issues of “The Amazing Spider-Man” run. During the first 300 issues, comic book artists heavily relied on thought balloons to explain what and why characters were doing (McCloud [7] referred to this type of information presentation in comics as duo-specific). This suggests that in the early days of American comic books, comics were treated more as illustrated text rather than a new

medium that aimed to use illustration and text in harmony to produce something more than the sum of their parts). Plus, it is very likely that because comics were considered a juvenile entertainment form at that time, the authors of the comic books felt the need to be very clear about what was happening story-wise. However, this trend eventually did die off.

Experimentation with speech balloons had a slow start. As mentioned before, shapes and (mainly) colour were often employed only as a spectacle element that did not add anything to the story. Quite the opposite – it often resulted in creating visual noise on a page that was already suffering from oversaturation. Still, once the comic book artist understood how balloon shapes, colours and fonts could be applied to suggest various vocal inflection, the results became very intriguing (see Fig. 4). In this case, it is necessary to note that technical advancement played a very important part in the innovative ways the way speech can be presented in the comics medium. With better printing possibilities, the artist could put more details and nuances into the speech balloons. But with the digitalisation process, artists can now employ various shapes, colours, and fonts that previously were too time-consuming or even impossible. Thus, in many cases, the innovative ways of presenting speech in comics were directly linked with technical possibilities.

However, speech balloons in comic book art forms do not always try to provide phonomime expressions of the sounds. In quite a few cases, the “The Amazing Spider-Man” comics created unique visual representations



Fig. 4. The evolution of speech balloons in “The Amazing Spider-Man” (1963-2018) comic books. © Marvel Worldwide, Inc.

of sounds that required readers' imagination to fulfil the experience, for example, adding pink hearts to the balloon, and in such a way indicating that the person that is talking is in love with the other character. Or blurring the text and, in such a way, suggesting that the character is passing out and having trouble understanding the speech of another character. Adding tiny bubbles to the speech balloon indicates that the character speaks while drunk. There are plenty of other examples that create unique reader experiences. Thus, illustrating how this form can uniquely approach the experience of sound.

Another comic artform experience often found in comics (and thus needs to be addressed) is speech censorship. In “The Amazing Spider-Man” series, this censorship is executed in two ways – (i) by replacing curse words with random symbols (i.e. grawlix) or (ii) by covering the words by blacking them out with heavy, imperfect lines (i.e.

redaction). While speech censorship is not unique to comics (it is done in audio-visual media as well), the need to censor profanity in comics where violence is presented in such extreme presents a very peculiar value system in American comics.

Finally, the sound effects. In the comic book medium, this phone-mic experience quickly became almost a separate art form. There are numerous ways for comic book artists to express sound and, in turn, enhance the reader's experience. However, the authors of this article have noticed two aspects of sound effects that signified a qualitative change in how they were expressed in "The Amazing Spider-Man" series. The first change happened with the digitalisation process in the comic book industry – suddenly, comic book artists had opportunities to fine-tune every sound effect. The results were truly incredible from a communicative and aesthetic point of view.

The second qualitative change did not happen as suddenly as with the digitalisation process, but it was evident when going through all the 801 issues – the change in comic creators' mindset. As with the overuse of speech and thought balloons in the early issues, there was an exaggerated use of sound effects. In other words, every single action required a sound effect. However, with time, sound effects in "The Amazing Spider-Man" series become much rarer and are used only to emphasise particular actions and not to illustrate them with sound attributes. Furthermore, once sound effects ceased to be perceived as auxiliary tools, comics creators began to use them in a truly innovative way and sometimes, realising their importance to storytelling, employed them as the most critical elements in the panel.

5. Discussion

"The Amazing Spider-Man" comic book series came two decades after the birth of the American comic book industry. In other words, before the very first issue of the Spider-Man comic book hit the shelf, comics, as an independent medium, already had two decades to experiment with how best to present a compelling story in comic book form. Thus, it was interesting to observe that at that point, comic book artists were still heavily experimenting in order to find the best way to present sound in an utterly soundless medium. Furthermore, this case study showcases how much experimentation was necessary to find communicative solutions that may look elementary today.

It is essential to address that not every text in comics represents sound. An argument could be made that captions, unless they present the character's thoughts or narrator's voice, are not truly a "speech". In other words, even in the movies, when information about location or time is presented, it is not voiced out loud. Furthermore, Eisner [2] argues that "thought balloon (...) is... unspoken speech!". In other words, we read other people's minds, not hear it. Thus, should text in comics automatically be perceived as sound? Well, in the opinion of the authors of this article – yeah, sort of.

Comics are a soundless medium. There is no way around it³. But when the reader experiences comics, he or she provides meaning to every text and image. Thus, every text is attributed with context, as the sound would be. And this means that the creators of the comic do not seek to create a sound-resembling experience but simply to communicate additional meanings, as sound would do. For example, when a person suddenly starts speaking loudly or whispering, it is not the change of volume that we are interested in but what this change communicates to us about the person, his emotional state, and his reaction to the events that happened. Thus, all text in comics should be perceived as sound, as all (non-diegetic) text can provide additional meaning and, in turn, an immersive experience.

The case study revealed how long it took until comic creators could fully master communicating the desired meanings through text effectively. And how crucial technological innovation was for this process. Of course, the authors do not want to suggest that the search for new (and better) ways to communicate the auditory experience in comics medium is over. Quite the opposite - this case study demonstrates how important it is for the comic medium's development that creators would not be afraid to experiment and look for new communicative solutions. Furthermore, it should be commonly accepted that experimentation can often lead to failure before satisfactory results are achieved.

However, the truly fascinating insights that this case study provided were about the changes in the mindset. This study provided a better understanding of why Eisner [2] had such a distaste for the overuse of textual information and why McCloud [7] remarked that comic book artists of the past used words to explain what was happening in the comics to the point of redundancy – early American comic books were frustratingly disharmonious with its usage of textual information (see Fig. 5). And it negatively affects the overall comic book experience. Because as Carrier [5] and Eisner [2] argue, written words should not be employed to tell a story when it could be communicated by visual means alone.

And, as mentioned before, once the mindset changed, the artist could start to approach captions, speech balloons and sound effects not as a

means to ensure that the story is understood but as an integral part of visual storytelling. It would be an understatement to say that towards the end of the series “The Amazing Spider-Man,” some of the most aesthetically pleasing and emotionally resonating panels were provided that thoroughly used



Fig. 5. The panel on the left is from early Spider-Man comics (#25), where it was common for textual information to take up to half of the space. The panel on the right is from the late 2000s (#558), where an even more significant amount of text would be broken down so as not to dominate the illustration. © Marvel Worldwide, Inc.

³ It is necessary to note that while there are scholarly debates that challenge the premise that comics are an exclusively visual medium [25], the authors of this article hold the position that comic formats that include additional sensory elements (e.g. sound, motion, or depth) should be studied as separate (or different) experience and, thus, perceived as a “hybrid media” [26], [27].

text-based information to tell the story better. In other words, it took time, but once the understanding of how best to tell the story in comics medium was achieved, a truly masterful artwork could be produced.

Finally, the case study provided a valuable understanding of how speech balloons, captions, and sound effects evolved over time. Especially fascinating is the process of thought balloon transformation into captions. It was evident that the comic book artists understood early how thoughts presented in captions provided better communicative and aesthetic tools to present a story in a format that shows only one moment at a time. But the struggle of how to clearly connect characters with thoughts was also very visible. Thus, even the most apparent solutions need time and courage to come into existence.

6. Conclusion

This study provided insights into the development of visual representations of sound in American mainstream comics. First, it is necessary to address the limitations of this study. “The Amazing Spider-Man” series is a great case to study how the American mainstream superhero genre developed over the period of fifty years. However, it would be a mistake to assume that these series represent absolutely all successful communicative solutions implemented in the US comics industry.

It is vital to acknowledge that developing an effective and engaging representation of sound in comics took considerable time and experimentation. Furthermore, some of the visual solutions (for example, captions to communicate characters’ thoughts) took decades to develop.

Another critical insight that this study identifies is a comic artist’s mindset transformation. This transformation was vital for a medium’s growth as an art form. Only when that sound in comics has ceased to be perceived as a means of conveying (explanatory) information and has become an integral tool to tell a story has comics become an entertainment form that can truly captivate its audience.

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8. References

1. Igareda, P.: Approach to the translation of sound in comic books. *Babel*. 63, 343–363 (2017)
2. Eisner, W.: *Comics & Sequential Art*. Poorhouse press. (1985)
3. McCloud, S.: *Understanding Comics: The Invisible Art*. Harper Perennial. (1994)
4. Duncan, R. & Smith, M. J.: *The Power of Comics: History, Form & Culture*. Continuum. (2009)
5. Carrier, D.: *The Aesthetics of Comics*. The Pennsylvania State University Press. (2000)
6. Abel, J. & Madden, M.: *Drawing Words & Writing Pictures*. First Second. (2008)
7. McCloud, S.: *Making Comics: Storytelling Secrets of Comics, Manga and Graphic Novels*. Harper (2006).
8. Pratt, H. J.: Narrative in Comics. *The Journal of Aesthetics & Art Criticism*. 107–117 (2009).

9. Dey, S. & Bokil, P.: Look at that Sound!—Visual Representation of Sound in Indian Comics. *Research into Design for Communities*. 2, 821--832 (2017)
10. Famous Funnies #1, <https://comicbookplus.com/?dlid=40237>
11. Fleishman, G., <https://www.youtube.com/watch?v=-TBrV4-LpnA>
12. Comic Tropes, <https://www.youtube.com/watch?v=uNYDiJibRM4>
13. Kaindl, C.: Thump, Whizz, Poom: A Framework for the Study of Comics under Translation. *Target* 11, 263--288 (1999)
14. Catricala, M., Guidi, A.: Onomatopoeias: a new perspective around space, image schemas and phoneme clusters. *Cogn. Process.* 16, 175--178 (2015)
15. Giyatmi, G., Arumi, S. & Wijayava, R.: Onomatopoeia Found in Tintin Comic. *LET: Linguistics, Literature and Language Teaching Journal*. 13, 105--127 (2023)
16. Pratha, N. & Avunjian, N.: Pow, Punch, Pika, and Chu: The Structure of Sound Effects in Genres of American Comics and Japanese Manga. *Multimodal Communication*. 5, 93--109 (2016)
17. Priya, A.: Case Study Methodology of Qualitative Research: Key Attributes and Navigating the Conundrums in Its Application. *Sociological Bulletin*. 70, 94--110 (2021)
18. Yin, R.: Case study research: Design and methods. SAGE Publications. (2009)
19. Creswell, J. W.: Research design: Qualitative, quantitative, and mixed method approaches (4th ed.). SAGE Publications. (2014)
20. Harth, D., <https://www.cbr.com/longest-comic-series-without-major-refresh-reboot/#the-amazing-spider-man-swung-for-441-issues>
21. Harth, D., <https://www.cbr.com/longest-running-marvel-comics/#the-amazing-spider-man-is-currently-marvel-39-s-best-selling-book>
22. Glennon, C., <https://www.cbr.com/times-stan-lee-steve-ditkos-amazing-spider-man-broke-new-ground/>
23. McMillan, G., <https://www.thepopverse.com/spider-man-amazing-spiderman-marvel-reliable-sales-comic-book>
24. Harth, D., <https://www.cbr.com/amazing-spiderman-changed-comic-books/#its-sales-have-been-considered-a-barometer-for-the-comic-industry>
25. Hague, I.: Comics and the Senses: A Multisensory Approach to Comics and Graphic Novels. Routledge. (2014)
26. Smith, C.: Motion comics: Modes of adaptation and the issue of authenticity. *Animation Practice, Process & Production*. 2, 357--378 (2012)
27. Morton, D.: The unfortunates: towards a history and definition of the motion comic, *Journal of Graphic Novels and Comics*. 6, 347--366 (2015)



Mural Painting and the Digital Space: New Dimensions of Creation and Dissemination

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Keywords

Mural Painting, Digital integration, Art and Technology, Social Network, Public Engagement

Abstract

This paper addresses the intersection between mural painting and the digital space, exploring how this art form is evolving and expanding its boundaries in the digital age. The research focuses on Blu and INSA's innovative works, consisting of stop-motion mural painting animations and GIF-iti. By integrating digital methods in mural painting, these artists are redefining interactivity, public engagement, and the interrelationship between art and social networks. The document is structured into three key segments. It begins with a theoretical context, highlighting the integration of digital technologies in mural and contemporary art, emphasizing the shift towards interactive, globally accessible art forms, and the pivotal role of social media in democratizing art visibility. It then continues with comparisons between the cases of Blu and INSA, illustrating how their artistic practices transcend and remodel traditional mural painting paradigms. Finally, it includes a comparative analysis that synthesizes the findings and highlights the implications and challenges of transitioning from the physical to the digital. The study presents relevant insights for the artistic and academic community, contributing to further research at the intersection art-technology-digital culture.

1. Introduction

In the current Fine Arts landscape, we witness a significant transformation driven by the confluence between traditional techniques and technological advancements. This research is dedicated to exploring this dynamic intersection, focusing on the interaction of contemporary mural painting with digital culture.

In the current scenario, artists have been using social media to share their creative processes, thereby expanding the relevance and reach of their works in a society increasingly permeated by technology. In this context, artists Blu and INSA⁴ stand out for taking this practice to a new level: their works are intentionally designed with digital dissemination in mind. To this end, they adapt artistic techniques and concepts to the demands and possibilities of the digital age.

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⁴ Blu and INSA are pseudonyms adopted by two street artists who choose to preserve the anonymity of their real identities.

This investigation focuses on the practices of these artists and how they use digital technologies to redefine mural painting. It seeks to examine the repercussions of these innovations on how mural painting is perceived and experienced – both in physical and digital environments – also contemplating the broader implications of these transformations in the landscape of contemporary digital culture.

2. Theoretical Context

Recent advances in digital technologies have redefined mural painting, allowing artists to incorporate interactive and dynamic elements into their works. This evolution expands the possibilities for visual narratives in murals. In this context, Shanken (2016)[1] discusses the importance of a hybrid discourse that transcends the traditional dichotomy between conventional contemporary art and new media art. According to this author, integrating digital technology into the visual arts enriches traditional forms of artistic expression and further opens new horizons for innovation and creative experimentation.

In addition, globalization and digitalization have been crucial catalysts in increasing the visibility of mural painting. These forces have transformed mural painting into a globally recognized and accessible artistic platform. Artists like Blu and INSA, who use digital technology as a creative tool, exemplify this shift. Blu, through stop-motion videos and INSA with his GIF-iti⁵ technique, create experiences that dynamically unite the physical and the virtual. They bet on interactivity, public participation, and the relationship between art and social networks – in alignment with the hybrid approach suggested by Shanken.

The study by Kang, Chen, and Kang (2019)[2] highlights the fundamental role of social networks, particularly Instagram, in increasing the visibility of contemporary art. The study shows that art has effectively migrated to a more web-based environment, with social networks democratizing the artistic experience and enabling more people to experience art through mobile devices. The use of Instagram is also emphasized by MacDowall and de Souza (2018)[3], who note that street art and graffiti are progressively being conceived as digital objects intended for digital audiences, and such evolution implies a reorientation of the very essence of street art. Due to their ephemerality or location, the authors point out that many works acquire a prolonged existence and reach a wider audience in the digital realm. Thus, the life of a piece of street art is intentionally designed to attract digital audiences, reconfiguring the relationship between the creator, the work, and the observer in a context increasingly dominated by digitalization.

Finally, it is also crucial to consider the observations of Chayka (2016)[4] and Manovich (2017)[5] on the impact of social networks on contemporary art. Chayka warns that social media offer new spaces for disseminating works, but they are immersed in a commercial system. With that, the consistency and continuity of online existence cannot be guaranteed. Indeed, preservation can be compromised when commer-

⁵ GIF-iti is a technique developed by INSA that involves creating GIF animations from graffiti works.

cial entities control the infrastructure. Manovich, in his study on ‘Instagramism’⁶, describes how Instagram and similar networks reshape artistic creation, promoting an ‘aesthetic society’ where art merges with the consumption experience. In this dynamic, users become ‘aesthetic workers’, who master digital tools and tactics to attract followers and generate influence. This mastery transcends mere production of visual content, encompassing the ability to create cultural capital and, potentially, economic capital, thus redefining the traditional notion of cultural production and artistic value.

This digital scenario presents, therefore, both unique opportunities and challenges. From this perspective, this new reality demands a delicate balance between reaching global audiences and maintaining the authenticity and integrity of mural art in the digital environment.

3. Case Study 1: Blu

Italian artist Blu, based in Bologna, Italy, has been active in the urban art scene since 1999. He is renowned for transforming urban spaces into visual supports for his expansive narratives. In his works, he has explored social injustice and the ephemerality of art, integrating them into the local urban landscapes and cultural dynamics.

With a striking visual style reminiscent of a giant monochromatic doodle, his murals are rich in detail and symbolism, imbued with dark humor. The artist combines surreal and fantastical elements: he often uses human and animal figures in grotesque metamorphoses and complex, unexpected interactions that provoke perplexity and challenge perception.

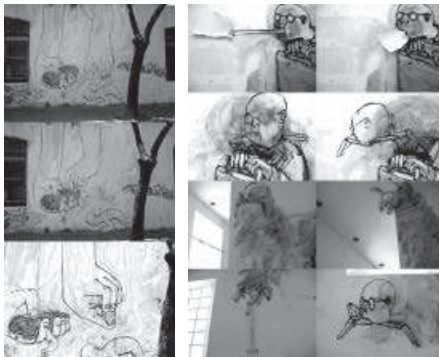
One of Blu’s most significant innovations is incorporating of animation into his murals. Using stop-motion animation, he captures a series of images of the murals in progress⁷ (Fig. 1 to Fig. 3) or sections of a building⁸ (Fig. 4), which, when combined, create the illusion of movement and transformation. Beyond adding a temporal dimension to his works, this method allows the narratives to unfold dynamically and engagingly.

Two notable examples of this approach are Blu’s animated films, “Muto” (2008)[6] and “Big Bang Big Boom” (2010)[7]. Though static, the figures painted by Blu on city walls come to life, moving across and transitioning through walls and urban spaces while constantly transmuting. Sometimes, these figures go further, and by interacting with parts and elements of the real space (Fig. 3), they seem to break through the two-dimensional plane, coming to life in a transition evocative of the dimension-passing seen in “Who Framed Roger Rabbit” (1988)[9]. This fusion of art and reality creates a fluid and captivating visual narrative, accompanied by immersive sounds that orchestrate the temporal dimension

⁶ “I use the term ‘Instagramism’ as an analogy to modern art movements such as futurism, cubism, surrealism etc. Like these earlier -isms, Instagramism offers its own vision of the world and its visual language. But unlike modernist art movements, Instagramism is shaped by millions of authors connected by, and participating in, Instagram and other social networks.” (p. 115)[5].

⁷ A technique that Blu employed in the videos “Muto” and “Big Bang Big Boom”.

⁸ In his recent works, Blu has started allowing various drawings to coexist on the same building, distributed in different dimensions and positions on the wall [12]. This approach differs from his earlier animations because each drawing remains visible and is photographed individually, composing the final animation without the need to erase or redo previous drawings.



and amplify the visual experience.

Regarding Blu, Yarhouse (2013)[10] highlights that his work defamiliarizes locations, alternating between symbolisms and transforming the everyday into something extraordinary in an engaging combination of cartoons, humor, and Dadaist nonsense. Chang

(2013)[11] provides a complementary perspective, comparing Blu's work to animated parkour, visually remapping the city and transforming urban space into a playground of challenges and adventures. Throughout this approach, the boundaries between geographic urban space and projected virtual space are continuously crossed and redefined.

In "Muto" and "Big Bang Big Boom", Blu employs a dynamic technique of creation and correction, where drawings – which become frames of the animation – are continuously developed and partially erased using a constant method of whitewashing (Fig. 1 to Fig. 3). In this regard, Chang (2013)[11] describes the visual trail left by Blu's animated creatures as they traverse urban space as a memory of the drawing act that brought them to life. Blu's digital presence has been a crucial aspect in spreading his work. Videos like 'Muto' and 'Big Bang Big Boom', which showcase his animation technique on murals, have gone viral, receiving millions of views on YouTube⁹.

This online exposure has expanded the reach of the artist's name and works and introduced his art to audiences who may have never interacted with it directly, making Blu a well-known name in artistic communities and others.

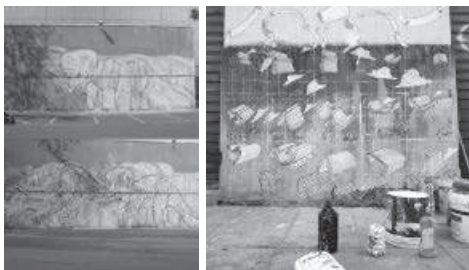


Fig. 1. (Left) Sequence of screenshots from 'MUTO'. A giant figure's hand splits a person in half and extracts a diamond from inside. Source: Notblu [6].

Fig. 2. (Right) Sequence of screenshots from 'MUTO'. A character swallows real paper sheets hanging on the wall. Subsequently, the character's head transforms into a mechanical arachnid with articulated legs, moving agilely across the walls and ceiling. Source: Notblu [6].

Fig. 3. (Left) Sequence of screenshots from 'BIG BANG BIG BOOM'. A Triceratops dinosaur, ready for battle, encounters a reptilian animal with a pencil sharpener head. Instead of a confrontation, the reptilian sharpens one of the Triceratops' horns. Source: Notblu [7].

Fig. 4. (Right) Mural Painting by Blu, executed in Palermo, Italy. Each element depicted in the mural is captured to correspond to a frame of the animation 'Ballarò'. Source: Blu [8].

4. Case Study 2: INSA

INSA is a British artist and designer based in the UK. He has transformed the traditional perception of mural painting by introducing the concept of GIF-iti, a technique that combines traditional graffiti with digital technology. As INSA explained (personal communication, December 14, 2023), he began developing this technique in

⁹ As of this date, the videos "Muto" and "Big Bang Big Boom" on YouTube have, respectively, over 12 and 4 million views (consulted on February 18, 2024).

2010, coinciding with the rise of social media, particularly the emergence of Instagram. His motivation was to create art that stood out in the digital space. This approach was partially inspired by artists such as Blu, but INSA, recognizing that life seems more vibrant online, sought to create a unique identity.

INSA further explains that creating his GIFs is labour-intensive and requires a purist approach. He paints over the previous layers of the mural to create each frame of animation, rejecting post-painting digital edits to maintain the artistic process's integrity and authenticity. INSA considers each GIF as a capture of a time loop, a representation of the period he worked on the wall, where only the last frame of the GIF remains. He also details this approach in an interview with van den Berghe (2013)[13], where he highlights the meticulous mental planning and premeditation involved in each step of the work necessary to achieve a continuous loop GIF¹⁰.

INSA (personal communication, December 14, 2023) acknowledges the ephemeral nature of mural painting, even considering it as disposable, justifying this with the fact that, in the digital space, it can achieve a form of immortality. This perspective aligns with theories by Dekker (2016)[14] who explores documentation in digital art as an integral part of the work, capable of ensuring its 'survival' in the digital environment. Accepting and including this variability can be essential for art in a constantly changing digital world. INSA adds that his approach to GIF-iti allows for more significant online interaction than in public space. However, he also expresses concerns about the digitalization of art and the potential loss of the human element, emphasizing the importance of physical painting and human presence in art, even in an increasingly digital context.

One of his most notable works occurred in 2014: INSA created what was considered the world's largest animated GIF in Rio de Janeiro (Fig. 5 and Fig. 6). This ambitious project involved painting a gigantic mural in four stages, captured by satellites¹¹. Besides showcasing INSA's ability to transcend artistic boundaries, this complex work illustrates the inherent possibilities of the digital realm, demonstrating how integrating art with advanced technologies can open new horizons for creative expression.

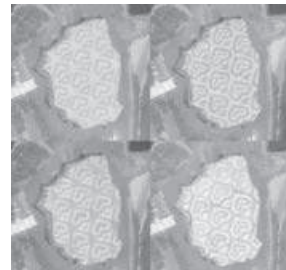


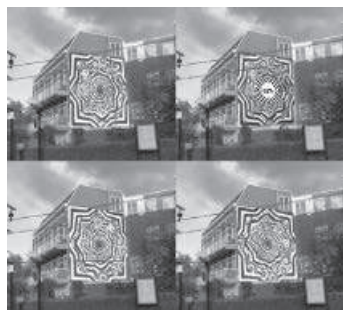
Fig. 5. (Up) Sequence of screenshots from 'Ballantine's Presents INSA's Space GIF-ITI'. As part of Ballantine's "Stay True" project, the execution of GIF-iti was the result of collaborative work, led under the artistic direction of INSA. Source: Ballantine's [16]

Fig. 6. (Down) Screenshots from INSA's 'Space GIF-ITI'. The four photographs, corresponding animation frames, were captured by satellite every 24 hours. Source: INSA [v17].

¹⁰ "The process is more about the physical act of painting numerous frames, and involves a lot of mental planning, every stage of painting has to preempt the next step, and the final frame needs to lead into the first in order to create a good looping GIF. The thing I enjoy about this process of painting a GIF is that it begins where most artwork ends." INSA, in an interview with van den Berghe (2013)[13].

¹¹ The creative process, emblematic of its scale and technique, was part of Ballantine's "Stay True" project. It resulted from collaborative work led by INSA's artistic direction (Fig. 5). Spread over four days, the project involved composing and painting four distinct images, each covering an area of 14,379m. [16]. As of this date, Ballantine's video has nearly 3 million views (accessed on February 18, 2024).

INSA's work, characterized by a fusion of popular cultural elements, vibrant colours, and iconic imagery such as hearts and skeleton heads, evocative



of Pop Art, has also evolved from physical murals to include augmented reality elements and a more substantial digital presence. He developed the "INSA GIF-ITI Viewer", an app that allows viewers to see his animated works through augmented reality (Fig. 7), innovatively interacting with his murals.

These projects by INSA exemplify, in a remarkable manner, the potential for adaptability and innovation

in mural painting, reflecting an awareness of the growing relevance of digital space in contemporary life. By encouraging the public to interact with both the physical mural and an animated alternate reality, INSA proposes an immersive and multifaceted artistic experience.

Beyond contemplating the art, INSA also explores how it is perceived, consumed, and shared in different spaces. In person, INSA's murals are perceived as static creations, rich in details and patterns. However, the online dimension, manifested through animated GIFs capturing temporal loops, offers a dynamic experience that cannot be replicated in reality. This duality highlights the multifaceted nature of INSA's work, which manifests differently depending on the medium through which it is accessed.

Through his innovative approach, INSA represents a bridge between the tangible and the intangible, between urban space and digital space, highlighting the potential of mural painting to adapt and thrive in a world increasingly dominated by technology.

5. From Physical to Digital: Comparative Analysis between Blu and INSA

Mural painting is experiencing a significant transformation. Indeed, it is being propelled by the innovative works of artists such as Blu and INSA, who are at the forefront of a paradigm shift by challenging the conventional boundaries of mural painting by integrating digital elements. Paul (2016)[15] emphasizes that, stimulated by the proliferation of mobile devices and the advent of Web 2.0, art has evolved into networked art characterized by a transversal presence across multiple platforms. This new facet of art, considered a contemporary form of public art, transcends the specificity of location, blurring the barriers between private and public and manifesting in a distributed and non-local space.

Both Blu¹² and INSA (personal communication, December 14, 2023)

Fig. 7. Screenshots from the video with the mural painting 'Enjoy the Journey' (2021) by INSA, executed in Rotterdam, Netherlands, as well as the GIF-ITI app in action, which allows for an alternative and animated viewing of the mural. Source: INSA [17].

¹² "Most of the paintings that I have made thus far don't exist anymore. Many were illegal and therefore have been destroyed—the old factories have been pulled down or renovated, the occupied places have been lasts a day or a year. Once I stop painting, the work belongs to the city and the people that inhabit it, and the painting's fate is their decision. It doesn't matter if someone paints over me, I do not want to lay claim to the wall. I trust in the good sense of other painters and I hope that they can judge when a piece is old enough to be covered with something better." Blu, in an interview with Neelon (2007)[18].

recognize and embrace street art's ephemeral nature and inherently public character. Their creative process reflects this reality, manifesting in a constant erasure to create and recreate. This approach is a kind of 'parasitism' of the work itself, where each new intervention is built at the expense of the previous one. While Blu expands his narratives laterally and allows his characters to evolve and move through space, INSA opts, at each stage, for a readaptation of the entire canvas, maintaining the location of the work. The physical ephemerality of these two artists' creations – through Blu's stop-motion and INSA's GIF-iti – then gains a dimension of permanence in the digital space, extending the existence of the works beyond urban confines. Dekker (2016)[14] highlights that, in digital art, value does not reside in the object's materiality but in the intrinsic qualities of the work that provide an experience to the viewer. This perspective resonates with the transformative and consciously ephemeral approach of Blu and INSA, which challenges conventional conservation and artistic appreciation practices.

This methodology imbues the works of INSA and Blu with a performative quality, highlighting street art as an ongoing dialogue with the environment and the public. The documentation of each phase of the creative process allows viewers, on a global scale, to appreciate the complexity and dedication involved in the realization of the murals, even after their physical disappearance, thus becoming fundamental elements of these creators' artistic legacy.

Upon analyzing the practices of Blu and INSA, it becomes evident that, although both are innovating within the realm of mural painting, they do so through distinct approaches. Blu, known for his expressive, spontaneous, and often monochromatic style, applies the technique of stop-motion to document the process of creating his murals, converting them into a captivating visual narrative. On the other hand, INSA stands out for his vivid, colourful, and graphic style, visibly based on digital projects. Furthermore, with his technique of GIF-iti and digital interactivity, INSA transforms static murals into dynamic and interactive experiences. While Blu uses digital technology to expand and enrich the experience of traditional mural art, INSA positions himself at the forefront of the fusion between mural art and digital technology.

The innovations of INSA and Blu are not only redefining the role of the contemporary mural painter; they are also shaping the future of the interaction between mural art and digital technology. The practices of these artists also have significant social and political implications. By migrating mural art to the digital space, they democratize access to art, expanding its reach to a broader and more diverse audience.

However, the transition to digital mural painting is challenging. Paul (2016)[15] highlights the risk of information overload in digital environments. This balance between enhancing lived reality and preventing its annulment by digital expansion constitutes a crucial challenge for contemporary mural art, signalling the need to create experiences that enrich, rather than replace, physical reality.

6. Final Considerations

This study focused on the ongoing transformation of mural painting, an artistic medium that is intrinsically rooted in physical spaces and local contexts and is reconfigured by digital technology. The innovations promoted by artists such as INSA and Blu play a central role in this analysis, marking a paradigmatic shift in the conception, creation, and appreciation of mural painting.

In the digital age, mural painting transcends traditional spatial and temporal limitations, giving rise to a new dimension of interactivity and dynamism and enabling the reach of global audiences. This evolution expands the reach and relevance of mural painting and places it within a broader cultural and social context, where art intertwines and converses with contemporary technological ubiquity.

The future of mural painting in the context of digital technology appears vast and promising. Exploring the potential of new technologies like virtual and augmented reality for more immersive and interactive experiences, alongside the sustainability and authenticity of digital works, presents a rich area for future research. Concurrently, the ongoing interaction between mural art and social and political issues in the digital space opens a panorama of opportunities for artists to engage the public in increasingly innovative and impactful ways.

This study reflects the current state of mural painting in the digital age, revealing the emerging opportunities. As artists continue to explore and experiment at the intersection between mural art and digital technology, new paths for the future of mural painting are outlined and for the significant role it can play in our increasingly digitized society.

7. References

1. Shanken, E. A.: *Contemporary Art and New Media: Digital Divide or Hybrid Discourse?* In: Paul C. (ed.) *A Companion to Digital Art*, pp. 463--481. John Wiley & Sons, New Jersey (2016)
2. Kang, X., Chen, W., Kang, J.: *Art in the age of social media: Interaction behavior analysis of Instagram art accounts*. *Informatics*, vol. 6, no. 4, p. 52. MDPI, Basel <https://doi.org/10.3390/informatics6040052> (2019)
3. MacDowall, L. J., de Souza, P.: 'I'd double tap that!!': street art, graffiti, and Instagram research. *Media, culture & society*, vol. 40, no. 1, pp. 3--22. <https://doi.org/10.1177/0163443717703793> (2018)
4. Chayka, K.: *Art in the Corporatized Sphere: The Impact of Commercial Social Media on Online Artistic Practice*. In: Paul C. (ed.) *A Companion to Digital Art*, pp. 413--425. John Wiley & Sons, New Jersey (2016)
5. Manovich, L.: *Themes, Feeds, Sequences, Branding, Faces, Bodies*. In *Instagram and Contemporary Image*, pp. 115--144. (2017)
6. Notblu.: *MUTO a wall-painted animation by BLU*. YouTube. <https://www.youtube.com/watch?v=uuGaQLT-gO4> (2008, May 9)
7. Notblu.: *BIG BANG BIG BOOM - the new wall-painted animation by BLU*. YouTube. <https://www.youtube.com/watch?v=sMoKcsN8wM8> (2010, July 5)
8. Blu.: *bluwalls*, Instagram profile. Accessed February 18, 2024, from <https://www.instagram.com/bluwalls/> (n.d.)

9. Zemeckis, R. (Director): *Who Framed Roger Rabbit*. Touchstone Pictures; Amblin Entertainment (1988)
10. Yarhouse, B.: *Animation in the Street: The Seductive Silence of Blu*. *Animations Studies*, 8. Accessed February 14, 2024, from <https://journal.animationstudies.org/brad-yarhouse-animation-in-the-street-the-seductive-silence-of-blu/> (2013)
11. Chang, V.: *Animating the City: Street art, Blu and the Poetics of Visual Encounter*. *Animation*, vol. 8, no. 3, pp. 215--233. <https://doi.org/10.1177/1746847713503280> (2013)
12. Notblu.: *Ballarò animated-mural (loop)*. YouTube. <https://www.youtube.com/watch?v=StQah1nHs6k> (2023, May 31)
13. Van den Berghe, L.: *INSA Brings Street Art to the Web with GIF-iti*. The Adobe Blog. Accessed in February 12, 2024, from <https://blog.adobe.com/en/publish/2013/02/06/insa-brings-street-art-to-the-web-with-gif-iti> (2013, June 2)
14. Dekker, A.: *Enabling the Future, or How to Survive FOREVER*. In: Paul C. (ed.) *A Companion to Digital Art*, pp. 553--574. John Wiley & Sons, New Jersey (2016)
15. Paul, C.: *Augmented Realities: Digital Art in the Public Sphere*. In C. Knight & H. Senie (eds.), *A Companion to Public Art*, pp. 205--225. John Wiley & Sons, New Jersey (2016)
16. Ballantine's.: *Ballantine's Presents INSA's Space GIF-ITI*. YouTube. <https://www.youtube.com/watch?v=yXtSnq-Nvro> (2015, January 21)
17. INSA.: *Insa_gram*, Instagram profile. Accessed February 18, 2024, from https://www.instagram.com/insa_gram/ (n.d.)
18. Neelon, C.: *Bucket of Blu*. Swindle. PDF. (2007)

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Sound design for animation: Analysis of assumptions for the creation of sound components for animated films



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Abstract

The article presented here analyses the relationship between sound and visual animation. In a simple and general way, the aim is to address some of the presuppositions for creating sound components for animated films. To this end, the evolution of sound design over time is contextualised, reflecting on technological advances and a set of film references is presented that demonstrate the application of sound in animated films. A classification of sound components for cinematographic animation is presented, which is not intended to form a theory that allows us to understand the essence and meaning of sound in works of fiction, but rather to create a language of analysis and reference that allows authors and creators in this area specific support for sound work in film animation.

Keywords

Sound design, sound components, diegesis, sound effects, music

1. Introduction

Sound in animated film is intended to support the story of a narrative film, but it also serves to understand how animated film has been intrinsically linked to the development of the moving image [1] and the emergence of cinema itself. Sound can tell the story directly, or it can be used indirectly to enhance the effects of the film's story. Although there are separate preceptive mechanisms for sound and image. Thus, sound for an animated film is usually intended to integrate elements and not to draw attention specifically to itself. The relative roles of image and sound can change from scene to scene and from moment to moment when it comes to storytelling. Sound design for animated films is mainly built in post-production, using vast pieces of sound mixed together to create a complete whole. This process is now known as sound design. It's hard to imagine a film or animation without sound. Although visual and auditory perception are two distinct processes, they are nevertheless interconnected. Our approach is to study sound from the author's perspective, taking into account the impact of assumptions on the creation of sound components vis-à-vis viewers. It should be emphasised that both the visual and the auditory are equally important and should not be compared in terms of the dominance of one over the other, but rather should be seen as adding value to each other. However, we decided to analyse how they are interconnected.

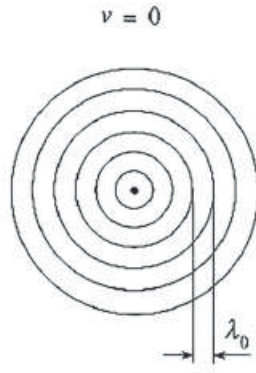
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2. Sound and sound design in film animation

As we know, it wasn't sound cinema that invented film music. It already played an important role in silent cinema [2]. As far as we know, the first sound creators were performers of instruments in real time, i.e. in a "live" format, like pianists, organists or orchestras. They always had to play the musical instruments "live", which, as we can imagine, imposed a number of limitations in terms of quantity and quality. It seems that sound cinema was born, not to hear the actors' voices (this idea only emerged later), but to broadcast film music in its recorded form, synchronised with the images, so that all audiences could benefit from the best orchestral accompaniment [2]. In any case, the atmosphere that the musicians created would be important for entertainment and storytelling. At the time, there was no possibility of recording "diegetic sounds" such as dialogues, so live music was of decisive importance for conveying certain emotions. According to (Frank Thomas and Ollies Johnston, 1981, p. 298), music "should make the audience feel related to the situation as deeply as possible" [3].

It therefore seems relevant to clarify some fundamental questions, namely, what is sound? And we can see that sound is produced when a "source" object vibrates, which causes the movement of the medium in which it propagates, and usually the medium in which we hear is air [4].

Fig. 1. Vibrating source in the centre and expanding sound field represented by the secondary spheres with a given wavelength. The source is in an immobile state ($v = 0$).



As the sound source vibrates, it causes pressure fluctuations in relation to atmospheric pressure [5], causing the surrounding air to alternately compress and expand, resulting in a series of compressions and rarefactions that oscillate longitudinally from the centre of the sound source outwards (similar to the three-dimensional image of a stone falling into water). This phenomenon is called longitudinal waves, because the air particles move in the same direction as the wave. This situation is only

momentary, because the air particles will tend to return to equilibrium [4]. In film animation, we can define sound as everything that can be heard in a scene. The main elements that make up sound in an animated film are location sound, the soundtrack [6], dialogue, sound effects, voice-over and silence. Sound also has the particularity of adding seriousness or humour to animations, which makes it capable of adding additional information, helping to clarify animated images or, on the contrary, making them unbearable and confusing. In this sense, sound design can help realise ideas. Sound effects also help to convey certain physical characteristics of the objects in your scenes or add an extra level of physicality and make almost every movement seem believable. According to Beauchamp (2013) [7], sounds have the potential to reveal or clarify the underlying meaning or subtext of a scene. However, we shouldn't always

listen to everything that happens in the scene, but rather think about how a particular sound might affect a scene and, above all, what it adds to it. That's why silence is so important in sound design, as it can provide tension, mystery, discomfort, etc., depending on the context. Sound design is characterised by being a creative technical field, capable of covering all the non-compositional elements of an animated film. It is known that in India and China there were theatre productions, around 3000 BC, accompanied by music and sound [8], and that the Renaissance style of *Commedia dell'arte* also used music and sound effects, such as the play "*Arlecchino Servant of Two Masters*", written by Carlo Goldoni in the 18th century. Music and sound effects were often used in this play to emphasise the comedy scenes and create atmosphere. For example, during chase scenes or fights, sounds of crashing, stumbling and falling could be used to add to the physical humour of the situation. These sound elements were essential to the successful execution of *Commedia dell'arte*, contributing to the playful and lively atmosphere that characterised this style of theatre. Possibly the first use of recorded sound in modern theatre was a phonograph reproducing a baby's cry in a London theatre in 1890. The play in question was called "*The Bells*", written by Leopold Davis Lewis. This play became famous for a particular scene in which a phonograph reproduced a baby's cry, which had a strong impact on the audience. It took place at the Lyceum Theatre, located on Wellington Street in Westminster. However, it wasn't until the 1950s, when Hollywood directors started directing Broadway productions, that sound design began to grow. Even then, there was no sound designer for these plays. It seems correct to say that sound design is directly linked to the development of sound in cinema and, although this history is not as long as the history of sound design in theatre, it was cinema that inaugurated the profession of sound designer and opened up a new creative field for sound professionals. The designation of sound designer was first given by Francis Ford Coppola to Walter Murch for his work on the film "*Apocalypse Now*" (1974) [8]. The sound designer is the individual responsible for all the sound aspects of a film, from recording the dialogue and sound effects to re-recording the final track [8].

3. Evolutionary stages of sound design

Sound design has undergone a significant evolution over time, from the first silent films to today's highly immersive sound environments, reflecting technological advances, changes in the entertainment industry and the ongoing search for increasingly immersive listening experiences. It can be seen that technology and recording formats have contributed to establishing the way sound is produced and displayed since its inception and, in turn, have influenced the way we experience sound [9]. On the other hand, the history of animated cinema is intrinsically linked to the development of sound design.

Over time, we can see the following: In addition to what we mentioned earlier that in the late 19th and early 20th centuries, the first silent films were accompanied by pianists, organs or small "live" musical en-

sembles to provide atmosphere and accompany the visual narrative, some cinemas also used somewhat rudimentary sound effects, such as bells, whistles and drums, to add impact to the scenes. Between 1910 and 1920, at the beginning of animated cinema, films were generally silent, just like the live-action films of the time. The first animators, such as Winsor McCay and Emile Cohl, accompanied their animations with “live” music, simple sound effects or “live” narration to complement the action on screen. With the introduction of sound in cinema, animated films also began to incorporate synchronised soundtracks and sound effects. Throughout the 1920s, the development of film-synchronised sound offered some changes in the film industry, as films began to include pre-recorded soundtracks and synchronised sound effects [10]. Techniques were developed to synchronise audio with animation, including the creation of original soundtracks and the use of sound effects to enhance comedy and drama in animations. Throughout the 1930s and 1950s, Hollywood studios in Los Angeles invested in the development of sound technology [11] and the creation of original soundtracks for animated films. Composers such as Max Steiner and Erich Wolfgang Korngold were pioneers in the creation of soundtracks. Later, between 1950 and 1970, the development of stereophonic sound and, later, surround sound, allowed for a more immersive listening experience in the cinema. The introduction of techniques such as foley (recording sound effects in the studio) [12] and the use of electronic synthesisers broadened the creative possibilities for sound designers. Since the 1980s, the transition to digital audio has moulded sound design, allowing for more precise and sophisticated manipulation of sound elements. The use of different types of audio editing software, such as Pro Tools, became standard in the animation film industry. On the other hand, advances in sound reproduction technology, such as Dolby Digital systems [13], have provided even higher audio quality. From 1990 onwards, the growing demand for high-quality audio content further fuelled the evolution of sound design. As in live-action cinema, sound design in animation has expanded to other media, such as games, TV series and online content.

4. Sound components in animated films: diegesis, dialogue, sound effects and music

In works of fiction, 80% of the final sound is created in post-production, including dialogue, music, soundscapes and special effects, which means that almost the entire sound component of a work of fiction is nothing more than a virtual representation of psycho-acoustic phenomena aimed at creating the illusion of a real and believable environment for the audience. The underlying objectives of sound design are usually to try to create a mood for the scenes and to help/influence the interpretation of the action, preferably without the audience members realising how they are being conducted, which is why, paradoxically, the best sound effects/soundtracks are those that go unnoticed [14]. In a first analysis, looking at the process of producing the sound component of a work of fiction in film animation, we can distinguish: Dialogue, sound effects and music.

However, from the point of view of analysing sound discourse as a form of expression, we propose the classification suggested by Claudia Gorbman in 1976, published in the book “Teaching the Sound Track - Quarterly Review of Film Studies” for sound elements in cinema from a narrative perspective, according to which sound can be diegetic, non-diegetic or meta diegetic. As far as we know, the word *diegesis* comes from the ancient Greek and means the universe of action in history.

5. Diegesis

Diegetic sound is characterised above all by objective sounds that belong to the action [15]. The entire sound universe that is perceived by the characters in the scene, such as the soundscape (the sound of cars in a city, the noise of a crowd, birds in the countryside, music in a bar, etc.), or the dialogue between characters. Diegetic sounds can take place within the visual framework of the scene or not (on screen / off screen).

They are sounds that the characters themselves can hear or that are part of their environment. Examples include dialogue spoken by the characters, sounds of objects within the scene (such as footsteps, doors opening or birds chirping) and music that the characters are aware of (for example, a radio playing in the background). This sound element helps to create a sense of realism and immersion in the animated world.

In Pixar Animation Studios’ “Toy Story” series (2007), [16] for example, the sounds of the toys moving, talking and interacting with each other are examples of diegetic sound. These sounds create a sense of realism in the world of the film and help establish the personalities and characteristics of the various toys. In Studio Ghibli’s “Spirited Away” (2001), [17] the sounds of spirits, creatures and objects from the spirit world are also diegetic. For example, the sounds of mysterious creatures in the bath house or the creaking of old buildings help to immerse the audience in the fantastic world of the film. The same happens in “Ghost in the Shell” (1995), by Mamoru Oshii and Masamune Shirow, [18] or “Garrano” (2022), by David Doutel & Vasco Sá [19].

Non-diegetic sound offers subjective sonorities, in other words, all the sound imposed on the scene that is not perceived by the characters, but which plays an important role in the interpretation of the scene, albeit in an almost subliminal way for the audience. They are characterised by sounds emanating from an imaginary source not present in the action [15]. Non-diegetic sounds are typically narration voices, background music or special sound effects [9]. On the other hand, they refer to sounds that do not originate in the fictional world of the animation. They are therefore sounds added in the post-production phase in order to create dramatic or narrative effects, but which are not heard by the characters. Examples include music, voice-over narration and sound effects that are added to increase the emotional impact or atmosphere of a scene. They also serve to guide the viewer’s emotions and provide context or commentary on the action taking place on screen. The soundtrack to Disney’s “The Lion King” (2019) [20] is a prominent example of non-diegetic sound. Iconic songs like “Circle of Life” or the instrumental background music help convey the

emotions of the characters and emphasise the dramatic moments of the story, even though the characters themselves don't hear this music.

In DreamWorks "Shrek" (2018), [21] the use of pop music as a soundtrack throughout the film is also non-diegetic. These songs help set the tone, provide humour and add relevance to the story.

Meta-diegetic sound attributes subjective sonorities, as such, these sonorities translate the imagery of a character who is usually in an altered state of mind or hallucinating, also known as a oneiric narrative [22], a particular case of meta-diegetic discourse with greater expression in animated films, is called oneiric, and corresponds to the visual and audio representation of an experience in which a character abandons their normal sensory state of reality, entering a plane of emotional perception very similar to a dream, where they remain for some time, abruptly returning to reality (usually as a result of a diegetic event). This representation is also common in the use of historical devices involving narratives or flashback moments [23].

Meta-diegetic sound exists in a realm between diegetic and non-diegetic sound. It refers to sound that exists in the fictional world of animation, but has a self-conscious or self-referential quality. It often blurs the line between reality and fiction, acknowledging the artificial nature of the medium or commenting on the narrative or the filmmaking process itself. Examples include characters who recognise the presence of background music or sound effects in the story, address the audience directly or incorporate exaggerated sound effects mainly for comic effect.

6. Dialogues

Sound and dialogue can reveal details about places or characters [24]. In any animation work, it's best to record the sound first before constructing the drawings, whether it's separate sentences or recording all the dialogue in a sequence [25], and it's even possible to make the entire sound recording of the film first, checking the length of all the sentences. Exceptions to this are interior monologues (meta-diegetic or subjective interior speech) and narration (non-diegetic speech), which do not need to be synchronised with the image to the same degree as visually explicit dialogues (explicit examples of interior monologue and narration can be found in the films: "Nimona", (2023) by Nick Bruno and Troy Quane [26]. Generally speaking, it is possible to modify the essential parameters of the sound format of dialogues or any other sound in today's audio post-production systems. These parameters can be manipulated and/or transformed in post-production, e.g.: Sound amplitude, which is characterised by the volume with which we perceive a given sound, which can be manipulated very easily for each individual sound by transforming its envelope curve (the envelope represents the variation in volume over time).

The pitch, on the other hand, corresponds to the fundamental frequency of the sound that we normally identify as the musical note of a given sound. By transforming the pitch, we make the sound deeper or sharper. Another parameter that can be manipulated is timbre [9]. To do this, some sounds can be generated digitally or mixed from other instru-

ments in order to create the desired timbre quality. The timbre helps to describe the sound as being soft, hard, synthetic or analogue, for example. It has the characteristic of making it possible to distinguish two sounds with the same tonality, but originating from sources with different physical characteristics (the sound of a saxophone playing the note - A 440Hz is clearly different from the sound of a piano playing the same note).

Spatialisation is the simulation of the positioning of the sound source in physical space. In computer graphics, three-dimensional animation programmes incorporate sophisticated algorithms for particle dispersion [27] and in so-called stereo sound systems, it is possible to manipulate panning, i.e. to cause a sound to deviate to the left or right of the audience, as well as depth, which can be simulated by varying the volume of the sound (more distant sound has a lower volume, closer sound has a higher volume). In surround sound systems, spatial manipulation is much more flexible, and it is usually possible to use two front sound monitors [28] (left and right), two side monitors, two rear monitors and a centre subwoofer (to amplify bass sounds typically below 100Hz) [28]. For reasons of audience perception conditioning, it is not common to manipulate the spatialisation of dialogues, but rather all kinds of sound effects (which can naturally include voice). In addition to the natural benefit in sound effects and narration, software applications such as “Vocalign” are predominantly used in the post-production process of dialogues made in over dub.

One of the aspects that human hearing offers is the fact that we are able to filter sounds. We know that human daily life is immersed in what we can call subliminal sounds, that is, sounds that are part of the human communication process but that we unconsciously do not realize and thus attribute the category of noise to these sounds. If we go to a very noisy place, our brain will try to focus on specific sounds and filter out other sounds, which can cause certain sounds to escape us. This effect is called the cocktail effect and is used in sound design whenever it is necessary to focus the audience’s attention on specific things or, normally, when the camera moves from a general shot to a close-up of something. This is one of the reasons why sometimes a few sounds can make the visuals stand out better, rather than placing all sounds as being diegetic. Another aspect concerns the domain of acoustics, which does not truly correspond to a sound phenomenon, but rather to a characteristic of human perception, called selective hearing. This human ability allows us to focus our attention on a certain sound and perceive it with greater clarity than all other ambient sound (for example, at a party we focus on someone’s conversation and can hear it highlighted from the others, despite it actually having, the same volume).

7. Sound effects

Sound effects are typically subdivided into two predominant categories; the soundscape and special effects. The soundscape of a movie refers to the overall auditory experience and plays a crucial role in enhancing the atmosphere, setting the mood, and immersing the audience into the world depicted on screen. On the other hand, sound effects, in addition to the

role of simulating psycho-acoustic reality as we know it, are often used to introduce new realities and sound concepts, “Ice Merchants” (2023) by João Gonzalez [29], as in “Nayola” (2023). Another example is the video clip “Could This Be” (2024), by Noisia [31], in which the plane crashes.

Sound effects can occur inside or outside the frame. And the absent sound which corresponds to a situation in which in the frame we have a visual correspondence to a sound, but we do not hear it, (for example two people talking behind a window inside a cafe and our point of view is outside, not allowing you to hear the dialogue due to the window barrier and street noise, although it is possible to see the characters talking). The imposition of the environment applies a sound effect which is often enough to establish the atmosphere of a scene, for example the sound of a seagull may be enough to create in the audience the feeling that the action takes place by the sea, or a rooster crowing in a dark scene gives the idea of dawn. Overlay is used whenever in the transition between two scenes the sound remains in continuity. Often used in an ironic way or also to impose a temporal passage. On the contrary, anticipation is applied whenever in a cut, a sound corresponding to the next scene begins to be heard before the transition, allowing the viewer to anticipate the action that will begin. The second of anticipation which means one second (1s) of silence before a high-impact event, such as an explosion or a gunshot, which makes the effect of the event much more effective. In turn, the exaggeration of sound effects is the application of auditory phenomena, especially diegetic ones, which can have a dramatic or comical effect, depending on the context. Some sound effects will make the visuals seem more powerful. “Direct your gaze; utilizing volume, panning, delay and reverb.” [11]. Effects such as delay, reverb, or echo can describe the space and contrast reality. Reverb comes from the listener’s entire surroundings and is sometimes created by artificial means [11]. “A dream sequence, for example, is often enhanced with additional reverb to distance the sound from reality.” [32].

8. Music

We consider it important to safeguard that music can be any phenomenon that an individual, a group or a culture accepts to consider as such. If so, it is in these terms that the problem of the boundary between sound and noise arises [33]. Be that as it may, music seems to be an element, created with the aim of emotionally driving the audience.

However, from the point of view of analyzing sound speech, as well as the form of expression, a different perspective is required that is not guided by creation processes or techniques, but rather by the message transmitted. Original music used in animated cinematic works of fiction should not be approached from the same perspective as playful music, as in this particular case, the composer has the clear purpose of helping to influence the way in which the audience interprets the image.

To better understand this approach, we will have to question the following: what is the emotional impact of music in animated films?

We can say that music is used to increase the emotion and drama of a scene. Through this use, the audience has the experience of decoding its

style in order to interpret the mood or genre in a given animated sequence, such as the use of “horror” music when a villain appears. In this sense, music can determine the mood or genre of a film; create or release tension; alter a character’s emotional or physical state; “smooth” transitions in an edit to allow a film to flow and/or connect scenes together and also highlight or encode a theme or message [15]. When observing the sound characteristics to take into account when analyzing a song, we realize that the sound suggests narrative or atmosphere; which may sound realistic or fanciful; what sound dynamics are involved (panning, delay, echo, reverberation, etc.); what kind of style, design or color would suit this sound [32]. It should be noted that the basic principles of composing music for a fictional narrative normally involve the assumption that we want to create a certain predisposition to the audience, and this predisposition is attributed by the generic music. The opening song of a narrative, which normally runs with the generic, sets the tone for the entire film [14], being, therefore, the first contact at this level with the audience, which is why it demonstrates enormous relevance and as such, should not be neglected by the author.

In the specific case of parable narratives, it is noted that at the end of the narrative, the spectator is placed again at the beginning, so here too the music must have a important role, although it is not necessary to repeat the same orchestration at the end, but the theme could be the same in order to emotionally reinforce the parable. Generally, throughout the narrative, the music is never interrupted abruptly (unless a specific effect such as surprise is intended), but it continues continuously modifying its content according to the points at which the visual narrative is emotionally accentuated, with The music also undergoes accentuations without interrupting the continuous flow, which are called hit points. Hit points exist depending on the image and are used to accentuate stronger moments, or to transition smoothly between different musical moments (for example in a scene change). Another classic musical element is the leitmotif, which corresponds to a piece of music that is associated with a certain character. Once the leitmotif has been established (the music appears simultaneously with the character), it is enough for it to be introduced sonically into the narrative for the audience to assume the presence of the character even if he or she is not present in the frame. Examples of leitmotifs in animated films: “The Little Mermaid”, (2023) by Disney [34]. In this film, composer Alan Menken uses leitmotifs to represent different characters and themes. For example, the theme “Part of your world” is associated with Ariel’s desire to live on land. While the theme “Here at sea” [35], represents the vibrant and lively underwater world of mermen.

In the Pixar series “Toy Story” (2019), composer Randy Newman uses leitmotifs to highlight the characters’ emotional journey throughout the series. For example, the theme “You’ve Got a Friend in Me”, [36] is associated with the bond between Woody and Buzz, and is repeated in various forms in the films to highlight moments of friendship and camaraderie. In the DreamWork series “How to Train Your Dragon” (2010), [37] composer John Powell uses leitmotifs to represent different dragons,

characters and emotional themes throughout the series. Each species of dragon has its own musical motif, and these motifs are integrated into the soundtrack to enhance the sense of adventure and wonder in the films.

9. Conclusions

The theme covered in this article explores aspects of sound components in animated films, presenting examples or film samples where they can be perceived. In effect, an attempt was made to show the place of sound in animation fiction, based on aesthetic, technical and formal concepts, which play a transformative role and reveal its importance within a set. Given the breadth of the field covered here, it was not our intention to carry out an exhaustive or encyclopedic treatment, which would require years of research and the participation of several authors, however, we consider it useful to address this topic as broadly as possible. For a concrete guideline, we briefly outline a historical perspective, especially with regard to more recent periods. It seems important to us to propose a historical periodization that takes aesthetic data into account and is not a simple enumeration of technical changes and evolutions. A theoretical contextualization of sound as an element and medium was also addressed, in its application as a theme, metaphor and model, trying to propose a representative sample, however incomplete and sometimes subjective, but impressionistic about the richness of the field. We try to demonstrate that in a film animation production process, sound design is a relatively young creative discipline, compared to the application of sound design in theater. We regret that for reasons of time, space and competence, certain types of sound application in animation in non-Western films were not addressed, such as animation in African, Indian, Chinese or Egyptian cinema, among others.

10. References

1. Nelmes, J.: *An Introduction to Film Studies*. Routledge, NY, (1999), p. 238.
2. Chion, M.: *Músicas, Media e Tecnologias*. Instituto Piaget, Biblioteca Básica de Ciência e Cultura, Lisboa, (1994), pp. 60-61.
3. Thomas, F., Johnston, O.: *The Illusion of Life: A History of Disney Animation Techniques and the Development of Character Animation*. Disney Animation Editions, (1995), pp. 285-298.
4. Henrique, Luís L.: *Acústica Musical*. Fundação Calouste Gulbenkian, Lisboa, (2002), pp. 203-235.
5. Rose, J.: *Producing Great Sound for Film and Video*. Focal Press, UK, (2008), p. 4.
6. Ward, P.: *Picture Composition for Film and Television*. Focal Press, UK, (2003), p. 159.
7. Beauchamp, R.: *Designing Sound for Animation*. Focal Press, UK, (2013).
8. Kenny, T.: *Sound for Picture: The Art of Sound Design in Film and Television*. Hal Leonard Publ. Corp., (1999).
9. Whittington, W.: *Sound design and Science Fiction*. University of Texas Press, Texas, (2007), pp. 9-259.
10. Gray, G.: *Cinema: A Visual Anthropology*. Berg, Oxford, New York, (2010), p. 15.
11. Streicher, R., Everest, F. A.: *The new stereo sound book*. Audio Engineering Associates, Pasadena, (1998). pp. 17-5.9.

12. Shaw, S.: *Stop Motion: Craft skills for model animation*. Focal Press, UK, (2008), p. 198.
13. Beck, J.: *Designing Sound: Audiovisual Aesthetics in 1970s American Cinema*. Rutgers university press, New Brunswick, New Jersey, and London, (2016), pp. 203-225.
14. Audissino, E.: *Film/Music Analysis: A Film Studies Approach*. Palgrave Studies in Audio-Visual Culture, University of Southampton, UK, (2017), pp. 2-143.
15. Chion, M.: *La musique au cinéma*. Éditions Librairie Arthème Fayard, Paris, 1997. Spanish translation of Manuel Frau - *La musica en el cine*. Paidós Comunicación Cine, Barcelona (1997), pp. 193-195.
16. “Toy Story”, (2007), da Pixar Animation Studios, veja-se (0’32”), consulted in March 2024 at <https://youtu.be/m8jrFbNFRrM?si=1cl9VSrPHzJgw3Jo>
17. “Spirited Away”, (2001), do Studio Ghibli, veja-se (0’4”), consulted in March 2024 at <https://youtu.be/lt6xG4E9a4E?si=tQOc4WkAZT3oGCxO>
18. “Ghost in the Shell”, (1995), de Mamoru Oshii e Masamune Shirow, veja-se (0’3”), consulted in March 2024 at <https://youtu.be/8Rfo9G8Ymqg?si=PRdogofSyobkZf6N>
19. “Garrano” (2022), de David Doutel & Vasco Sá, veja-se (0’16”), consulted in March 2024 at <https://youtu.be/YogzqCNXVbs?si=ZuSvzTJoAH9spcST>
20. “The Lion King”, (2019), da Disney, veja-se (1’32”), consulted in March 2024 at <https://youtu.be/GibiNy4d4gc?si=XtSSZAgCd9L84cM1>
21. “Shrek”, (2018), da DreamWorks, veja-se (0’38”), consulted in March 2024 at <https://youtu.be/HLQ1cK9Edhc?si=YViV-KfHBPgQsZB->
22. Lavrador, F., G.: *Estudos de Semiótica Fílmica: Fascinação e Distanciamento*. Edição Afrontamento, Lisboa, (1985), pp. 102-103.
23. Fossard, E., Riber, J.: *writing & producing for Television & Film*. Sage Publications, London, (2005), p. 129.
24. Collins, K.: *Game Sound: An Introduction to the History, Theory, and Practice of Video Game Music and Sound Design*. Cambridge, Massachusetts: The MIT Press, (2008).
25. Perisic, Z.: *Guia Prático do Cinema de Animação*. Editorial Presença, Lisboa, (1985), p. 151.
26. “Nimona”, (2023) de Nick Bruno and Troy Quane, veja-se (0’12”), consulted in March 2024 at <https://youtu.be/lKa4J1UiN8o?si=zoViOzFbdOeMFIFm>
27. Roads, C.: *Microsound*. The MIT Press, Cambridge, London, (2004), p. 350.
28. Rumsey, F., McCormick, T.: *Sound and recording: An introduction*. Focal Press, Boston, (2002), pp. 90-330.
29. “Ice Merchants” (2023) de João Gonzalez, veja-se (0’36”), consulted in March 2024 at <https://youtu.be/KT5O4tSuTro?si=O9o4mkDxeGRsjdw>
30. “Nayola” (2023), veja-se (1’32”), consulted in March 2024 at <https://youtu.be/s4uAd-ZWj4Dg?si=FyPEVlNA12bjq-8P>
31. “Could This Be” (2024), de Noisia, veja-se (1’:40”), consulted in March 2024 at <https://youtu.be/aeF1ZvA2IEQ?si=VvSQ13uVHjDd6fB7>
32. Lebedev, M.: *Animation and Sound*. AKV. St. Joost, (2014), p. 17-19.
33. *Enciclopédia Einaudi - Volume 3 - Artes-Tonal/Atonal*. INCM - Imprensa Nacional Casa da Moeda, Lisboa, (2004), p. 215.



Identity of Place

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Keywords

Territory, Landscape,
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Abstract

The territory composed by its geographic space, the landscape and the passage of time, is closely linked to the construction of the identity of individuals who inhabit it. The transience of territories influences and conditions individuals, just as they actively contribute to this occurring. It is therefore a process of mutual and perennial contamination. Taking into account the central places that make up my biography, I will seek to understand the impact that the space-time binomial has on the perception of the world around us and how it contaminates the socio-cultural action of individuals in the places they inhabit. Based on my own experiences, I describe territorial particularities of the places linked to the construction of my identity and which serve as a backdrop for a broader analysis of the relationship between individuals and the territories in which they live. In this context, the growing relevance that the use of cartographic language acquires in Contemporary Art is demonstrated, achieved through the evidenced ability to embody the contents treated by leading contemporary artists. Thus, the development of an artistic project that incorporates cartographic language resources can contribute to understanding how the construction of individuals' identities occurs and relates to the territories, in continuous transformation, in which they are located.

1. Introduction

The artistic project "Lugar Habitado" arises from the relationship I have with three territories that structure personal and family geographies and that are part of my life path and identity - Macieira de Rates (Barcelos), Lisbon and Canada. Taking these territories as a starting point and considering the marks left on their landscape by the preservation of socio-cultural traits over time, I will seek to develop an artistic narrative that addresses the impact that the transformations of the territory may have on the construction of individual and collective identity.

This is a plastic and conceptual investigation that will be based on three interconnected central concepts: Territory (place, borders and transformation), Memory (Passage of time, memory of the place) and Identity (individual and collective). The territory is understood as a space of action and continuous transformation through natural and human fac-

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tors, which influence the way we perceive and recognize the spaces that surround us. The landscape bears witness to the way in which individuals inhabit the territory over time. It is through this that the memory of previous experiences manifests itself in geographic space. In turn, these marks present in the landscape have repercussions on the socio-cultural structure, influencing and conditioning the experiences of individuals. It will be from this network of mutual and continuous contamination that the construction of our identity is built. Thus, the transience of the territory allows the creation of a feeling of belonging, that is, of (inhabited) places.

2. Visible and Invisible Marks of the Territory

2.1. Inhabited Places

I was born and raised in a village in the north of Portugal, Macieira de Rates in the municipality of Barcelos, in which previous generations settled and prospered, where the world and the way it is organized was introduced to me. This village is a territory made up of a landscape bordered by the East River, dirt paths and paths among the trees of the forest and agricultural fields. However, it will be through the sharing of memories through time, issues of power (religion and politics) and property that the territory of this village is socially and physically shaped. It is a territory added to my biography with its own socio-cultural characteristics, intimate and volatile to the seasons, which contributed to the foundation of my identity.

The biography of each individual implies a symbiosis between personal memories and experience in concrete places, whether innate or acquired. The affirmation of individuality and belonging to a community or to the different groups that each person integrates throughout their lives has a territorial and social dimension. The marks of the territory are the testimony of a connection to a past, lived by successive generations, which shaped and transformed the landscape, and which contributed to the construction of ourselves. The territory is above all a place, a social and cultural product, a way of seeing and thinking about the inhabited space, of adapting and altering nature to the needs of those who inhabit it. In this sense, it is understood that the territory is multiple, dynamic and is transformed by the permanent dialogue between society and the space in which it is located, as a result of planned interventions that occur there, unexpected changes imposed by the climate, as well as individual initiatives. and collectives of a spontaneous nature.

Permeable to constant transformations resulting from human actions and defined through its landscape, the territory contains, as we have already mentioned, a visible configuration of past and present legacies, which make the passage of time and the experiences of predecessor generations latent. The landscape brings together multiple natural and human treatments that interact with each other, mobilizing an experience of the place that involves the subject's perception and affection. Among the places already inhabited and yet to be inhabited, we bring with us memories, desires, we carry the uncertainties of the future, we are a reflection of the successive bifurcations of space and time.

Memory plays a fundamental role in the construction of a territory, as it is through it that the process of recognition, fixation and consequent evocation of previous experiences takes place. It is a faculty that human beings have in compiling facts, events, past and lived memories that are continually subject to new interpretations and meanings. In this sense, memory needs a structure, it “requires and imposes an order, an organization. That is why memory, both individual and collective, needs subjects and arguments, stages and outcomes.”³ (Durán, 2008, p.44) [7]. I too, when I remember or visit my village, frame the moments experienced in a space-time line, which includes the presence or absence of others in sharing family spaces and, therefore, inhabited places.

Integrated into a family that immigrated to a distant country, Canada, I found myself forced to share the initial geography of my life with a distant territory, present to this day, responsible for the intermittent absence of family members. Last summer I briefly visited Toronto, my family's last port of refuge, however the ephemeral nature of this contact did not allow us to consolidate the foundations of this much more extensive and complex connection. This distant territory represents the continuous presence of an unknown geography, imagined and extrapolated, latent and striking in the construction of my family and personal identity.

The narrative created by the memories that we carry or that we share in our social group, in this case the family, is structured and hierarchized through a specific and duly justified order in time and space, which takes them as true and authentic, thus providing some security and stability. Through the resource of memory, individuals project places already lived or imagined into the present and are “spectators of themselves, tourists of the intimate”⁴ (Augé, 2005, p.49) [1], contributing to a historical construction of them and our relationship with them. Through the preservation of memory we understand what we no longer are, just as we consolidate the permanence and perpetuity of what we are.

According to Matos Pereira (2015), it no longer makes sense to think about a fixed and immutable identity, as individuals are increasingly on the move, both geographically and culturally. In this sense, not only was my identity marked by the construction of an idealized distant place, but also exposed to an external culture presented by my social group that was in movement, and therefore accepted and internalized. Both the territory of my village and the idealized territory of Canada are part of my past experience and coexisted during my childhood throughout the months and years, guided by the seasons and family festivities.

Even though I have known and experienced living in other cities, I currently reside in the city of Lisbon, a place that I have decided to live permanently. A geography that triggers emotions, ways of seeing and feeling the surrounding space that are different from experiences you had previously had. New smells, people, environments, buildings, streets and gardens that flooded and inevitably altered the perception of the world that had been

3 Our translation from: “requiere e impone un orden, una organización. Por eso la memoria, tanto la individual como la colectiva, necesita sujetos y argumentos, etapas y desenlaces.” (Durán, 2008, p. 44) [7].

4 Our translation from: “espectadores de si próprios, turistas do íntimo” (Augé, 2005, p.49) [1].

established until then. This territory is defined by constant transformations in the landscape and social relations. The points of view that led and conditioned my decision to remain and contribute to its organization are no longer the same and I am inevitably no longer the same either.

Also in the place we live, through the marks of the territory and its landscape, we can recognize previous reference elements, which give it stability and result from a process of accumulation of different individual and social identity strata that have been preserved and that have resisted the passage of time. For Teresa Matos Pereira “identity constructions understood as mediation processes between the personal domain and the public domain, are projected as relational entities and establish a correspondence of reciprocity”⁵ (2015, p.100)[10]. In the active participation of the organicity of a place, even if it is not innate as is the case of Lisbon in relation to me, there is no clear separation between the individual and the surroundings, the recognition of space as a place is surrounded by questions of nature historical, cultural, sociological or psychosocial, which interconnect space, time and shared subjectivities.

In human lifespan it is possible to witness and perceive changes in territories, people’s relationship with their territory and landscape is questioned by the magnitude and intensity of these changes, interacting with feelings of identity and belonging. Since “memory powerfully shapes identity, in a process that we carry out between one another, from which we do not escape”⁶ (Durán, 2008, p.44)[7], the perception and understanding of the changes that have occurred over time and carried out by previous generations benefit from an inclusive process of integrating the memories of those who lived them.

2.2. Social and territorial dimension of Identity

When we think about territory we can do so from different perspectives. In the context of this research, we are interested in thinking about territory as a geographic space inhabited by individuals over time. This relationship between space and individuals results in the landscape, a reflection of natural phenomena and the organization of time and space by individuals in society. The concept of landscape is not only linked to what is visible and functional in human action and nature on the surface of the earth, but also incorporates multiple layers of meaning, which are not capable of being identified, classified, mapped and analyzed in a direct way. and objective (Crosgrave, 1998).

In this sense and according to Simon Schama “Landscapes are culture before they are nature” (2004, p.61)[11], a product of man, their qualities are conferred by the transformative activity of individuals organized in society, according to the needs inherent to their daily lives and medium and long-term planning. The territory as an inhabited geographic space is always subject to sudden and unpredictable social, political and climatic

⁵ Our translation from: “as construções identitárias entendidas como processos de mediação entre o domínio pessoal e o domínio público, projetam-se como entidades relacionais e estabelecem uma correspondência de reciprocidade” (Matos Pereira, T., 2015, p.100)[10].

⁶ Our translation from: “La memoria configura poderosamente la identidad, en un proceso que hacemos entre cada uno y los otros, al que no escapamos.” (Durán 2008, p.44)[7].

changes. The landscape reflects a balance between the way human beings would like to live and what the environment and space in which they are located allows them, that is, the context of their action (Cosgrove, 1998).

The territory is constantly undergoing transformation not only because of climatic, forestry and geological aspects, but also because of all human interventions, reflecting the intrinsic characteristics of the population that inhabits it, its socio-cultural structure and the marks left by experiences of your ancestors. The marks of the activity of previous generations that are found in the landscape, function as support, limitation and resource for the present generation, while current human activity, be it economic, political or cultural, is also transferred to the landscape and creates a new space-time layer. It will therefore be through the landscape, as a result of human action in geographic space and as a historical construction, loaded with meanings and memory, that multiple past impressions will be revealed. The landscape embodies the way in which the different constituent parts of the territory relate to each other and are arranged as a whole.

The concept of territory is understood here as a living system, which involves a constant interaction between human and natural factors, whose mutability is also accentuated by the intimate relationship with the sensorial, subjective and affective perception of individuals. Territory is a space delimited by man and the socio-cultural group in which he is inserted, through a process of identification and recognition. In this sense, Denis Cosgrove states that “In other words landscape denotes the external world mediated through subjective human experience (...). Landscape is not merely the world we see, it is a construction, a composition of that world. Landscape is a way of seeing the world” (1998, p.13)[6].

The landscape cannot exist without the bodies that perform an action and occupy the space, it is influenced by the culture and memory it carries over time. Through the set of multiple perceptions we experience landscapes. Our senses allow participation and involvement in the experienced atmosphere, which simultaneously transports and emanates the marks of the past, as well as the qualities of the present moment. In this way, places are permanent constructions or negotiations between different perceptions that allow us to understand the socio-cultural structure.

From this perspective, we can define the concept of territory as a social product made up of a set of affective and subjective elements that enable the feeling of belonging and active involvement with a given space. The relationship between individuals and space allows the creation of places. Marc Augé (2005) characterizes places as identity, relational and historical, for the author places only exist to the extent that the geographic space is appropriated and experienced by individuals, it results from a symbolic construction of space that allows the individual to recognize themselves and identify yourself, transforming the space into a place. According to Isabel Simões-Ferreira, space “transfigures into place(s), – not just tangible places, but intangible ones –, spaces occupied by those who inhabit them, live them, visit them, remember them, or simply imagine

them”⁷ (2019, p.33)[12], it is through them that individuals relate to each other, forming communities or groups, and actively participate in the construction of identity for themselves and others.

Memory is composed of the space-time binomial, inherent to the events that occurred and the space once inhabited. The division between past, present and future is essentially based on the observation of actions, experiences and places, according to Kevin Lynch “Time is a mental artifice to order events, to identify them as coexisting or successive”⁸ (1975, p.142)[9]. Thus, the events that occurred exist to the extent that they fit chronologically one after the other. In this sense, the past refers to the set of memories of the places where man has lived, which inform the present action and establish a timeline of events that instill a narrative meaning to past experiences. In turn, the future refers to the projection of desires, aspirations and places yet to inhabit; the present refers to the place where man lives that gives him his identity. With each passing moment, the individual recreates the past, the present and the future.

Human beings orient themselves and structure themselves according to the creation of spatial references associated with the temporal division between past, present and future. Both the past and the future are places of absence, that is, of memory, they are recreations of selected events that are constantly changing and intangible. Only the present appears to be innate, a time inherent to our existence in the here and now. Unlike the past and the future, in the present, places belong to the action and immediate self-awareness of the subject, and are therefore experienced as tangible places.

According to Kevin Lynch, the perception of time is compared to spatial perception, visible before our eyes, that is “(...) it is an instantaneous ordering of perceived events that resembles the immediate spatial ordering (...) of visual stimuli”⁹ (1975, p.144)[9]. There is a clear relationship between the experiential and visible space, the space of our experience and the space where we move, individuals actively participate in the space and in doing so build the place.

2.3. Place Drawing

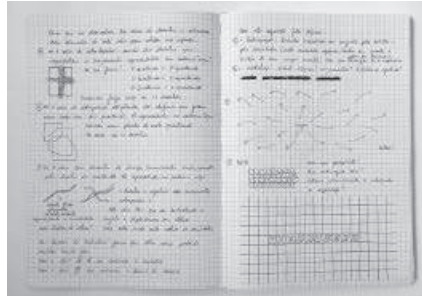
Surrounded by disparate territories, characterized by their own historical and social cultures, individuals build their identity based on their personal geographies and the memories they keep of them. The Lugar habitado project is an artistic and poetic narrative that seeks to embody the concepts and issues presented, translating the different layers, visible and invisible, of the individual’s relationship with the territories they inhabit. Each of the three territories already listed - Lisbon, Macieira de Rates (Barcelos) and Canada, has its own characteristics, reflected in the landscape, routes, people and architecture, based on a history and collec-

7 Our translation from: “transfigura-se em lugar(es), - não apenas lugares tangíveis, mas intangíveis -, espaços ocupados por quem os habita, os vive, os visita, os recorda, ou, simplesmente os imagina” (Simões-Ferreira, I., 2019, p.33)[12].

8 Our translation from: “O tempo é um artifício mental para ordenar os acontecimentos, para os identificar como coexistentes ou sucessivos” (Lynch, K., 1975, p.142)[9].

9 Our translation from: “(...) é uma ordenação instantânea dos acontecimentos percebidos que se assemelham à ordenação espacial imediata (...) dos estímulos visuais” (1975, p.144)[9].

Fig. 1. Project notebook (photography by us)



tive identity that promote a relationship and an indelible mark in each of the individuals who pass through or stay there, to which I am no stranger. This is an artistic project that is being implemented through a reflective

practice, which uses exploratory and intuitive experiences to face problems or questions that require research and deepening. According to James Elkins (2009), the practical-theoretical research project development process should be recorded, to better analyze and understand the intermediate and final

results. In this sense, we understood photographing and filming meaningful moments in the studio, as well as writing, in narrative, thoughts and descriptions of the work process.

The work plan for this research is organized and outlined within a four-year framework and takes into account the appropriate methodological strategies for developing the practical and theoretical aspects for the construction of a coherent and consistent visual narrative. During the first year of implementation of the project, starting in October 2023, a set of works is being prepared that reflect artistic and poetic research developed based on the territorial characteristics of the city of Lisbon and consider in analysis the focus on public space.

As a starting point for the development of artistic practice, a phased urban pedestrian route was planned and executed, involving various aspects

of the city's public space, including a selection of green spaces. As a method of artistic action, walking is a powerful form of exploration and expression within contemporary art. Through walking, the artist can trigger divergent forms of thinking, sparked by a series of interactions with the space, objects, people, and systems encountered along their route. One of the central aspects of

Fig. 2 Study for urban pedestrian route (photography by us)



artistic walking is its power to reveal the hidden layers of the experienced environment, becoming an instrument of knowledge, artistic expression, and territorial intervention (Albrecht, 2019).

In a second moment, precautions are taken for trips to Barcelos and Canada in order to implement a creative stay in each location. The main



Fig. 3 Drawings of traffic crossings (photography by us)

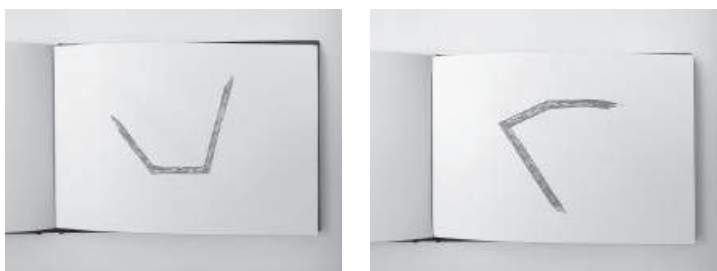


Fig. 4 Drawings of the orientation of traffic routes (photography by us)

objective of these activities will be to establish direct contact and, through exploratory research (Hanington & Martin, 2012), present reflections and a critical exposition evocative of the experience and memories of the place through the development of new visual narratives.

The practical development of artistic works translates the use of cartographic language, with the graphic representation of spaces, perceptions and memories of places, taking drawing as the operative and creative field of a poetic approach. In the context of contemporary drawing, there is an expansion in the use of cartographic language by several artists in the development of their artistic and conceptual practice, when it is related to the concept of territory and identity, as is the case of Joyce Kozloff, William Kentridge or Guilherme Kuitca, among others. The body of work put into practice by these artists demonstrates that the creation of an artistic narrative based on a cartographic and poetic language can contribute to the foundation of individual and collective identity foundations, making evident ideologies and human actions, explorations and imperfections, relationships with nature, with history, with each other, and with our world.

The practical work already developed and to be developed are the result of reflection and a critical exhibition evocative of the experience and memories of the place. Graeme Sullivan (2005) states that when theoretical research is inserted in a specific context, as is the case with artistic practice, it allows us to understand concepts in a more complex and differentiated way.

3. Conclusion

Cartographers have, over time, played a crucial role in recording inhabited and uninhabited geographies. Through drawing techniques, they developed records of territories known directly through proximity or through expeditions, as well as indirectly through oral or written descriptions. However, in an increasingly globalized world and with access to new technologies, individuals move more, both geographically and culturally, and our perception and relationship with territories has been changing. The territory is transformed by the permanent dialogue between society and the space in which it is located, as a social and cultural product it incorporates multiple and dynamic perspectives of seeing and thinking. Thus, the territory composed of its geographic space, the landscape and the passage of time is closely linked to the construction of the identity of the individuals who live or frequent it. Italo Calvino describes that “arriving in any city, the traveler rediscovers his past that he no longer knew he had: the strangeness of what we no longer are or no longer possess awaits us on the way in strange and unowned places”¹⁰ (2015, p.36) [3], which leads us to understand that the transformation of territories influences and conditions individuals, at the same time that they actively contribute to such transmutation occurring, therefore being a process of mutual and perennial contamination.

We learn that the territory is transformed through natural phenomena and human activity, and that its landscape incorporates visible and invisible marks that remain in time and space. Territories become the material testimony of memory and confirm the identity of the place and the individuals who inhabit them. Time and temporal constructions, like spatial constructions, are susceptible to undergoing modifications caused by the individual's internal states or external suggestions. Thus, it will be through the space-time binomial that individuals perceive the territory, create memories and structure the sense of belonging and identity.

The process of work and reflection, as an artist and researcher, can be understood as symbiotic, however the practical-theoretical results will not always be immediately graspable and their analysis can only be identified and understood later. Placing the results obtained in dialogue with the work and artistic process of other artists or researchers will be a positive contribution to a better definition of the elements that constitute them (Boeck, A. & Tepe, P., 2021).

4. References

1. Albrecht, G. (2019). *Earth emotions: New words for a new world*. Cornell University Press.
2. Augé, M. (2005). *Não-lugares: introdução a uma antropologia da sobremodernidade*, 90 Graus Editora.
3. Bachelard, G. (1989). *A poética do espaço*. São Paulo: Martins Fontes.
4. Boeck, A. & Tepe, P. (2021): What is Artistic Research? w/k-Between Science & Art Journal. <https://doi.org/10.55597/e6798>

¹⁰ Our translation from: “Chegando a qualquer cidade o viajante reencontra o seu passado que já não sabia que tinha: a estranheza do que já não somos ou já não possuímos espera-nos ao caminho nos lugares estranhos e não possuídos.” (Calvino, 2015, p.36) [3]

5. Bollnow, O. (1969) *Hombre y espacio*. Editorial Labor
6. Calvino, I. (2015). *As cidades invisíveis*. Dom Quixote.
7. Cosgrove, D. (1998). *Social Formation and Symbolic Landscape*. The University of Wisconsin Press.
8. Durán, M. (2008). *La Ciudad Compartida, Conocimiento, afeto y uso*. Ediciones SUR.
- Kubler, G. (2004). *A forma do tempo*. Vega.
9. Elkins, J. (2009). *Artists with PhDs: On the new doctoral degree in studio art*. New Academia Publishing.
10. Lynch, K. (1975) *De que tiempo es este lugar? Para una nuova definición del ambiente*. Gustavo Gili Editorial.
11. Martin, B. & Hanington, B. (2012). *Universal Methods of Design*. Rockport Publishers
12. Matos Pereira, T. (2015) Maimuna Adam: viagem, deslocamento e memória como metáforas da identidade. *Estúdio: Artistas sobre outras Obras*, 6 (12) 99-111.
13. Shama, S. (2004). *Landscape and Memory*. Harper Perennial.
14. Simões-Ferreira, I. (2019). O Encontro das Ciências Sociais e Humanas com a Valoração do espaço. *Museu da paisagem, narrativas e experiência do lugar*, 29-36.
15. Sullivan, G. (2005). *Art practice as research: inquiry in the visual arts*. Sage Publications.



Moving masks: An Archaeology of Depth Visual Experience in Digital Comics

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Keywords

Digital Comics, Depth Visual Experience, Frame, Mask, Media Archaeology

Abstract

Constrained by physical media, traditional print comics typically align panels on a horizontal plane, struggling to convey depth. Digital comics have liberated these depth constraints, yet past research on digital comics has not focused on the changes in depth at the visual level, merely analyzing digital comics based on interactivity or infinity provided by digital media. This study explores the unique visual aspects of digital comics and their historical origins by detailing the horizontal and depth movements of layers in two digital works. It concludes that digital comics enhance depth perception compared to print comics, a feature not originating from digital media but traceable to 19th-century visual devices.

1. Introduction

1.1. The Overlooked Depth Visual Experience

In the backdrop of paper comics going digital, webtoons (Vertical comic), have emerged as a popular format in East Asian countries, tailored for smartphones and apps. These vertical comics engage readers through scrolling on their devices, focusing the interaction on the medium itself rather than the narrative content. This approach parallels the experience of watching a novel through a television, effectively transferring the presentation style of print media onto digital platforms. Thus, webtoons represent a continuation of traditional print comics in the digital age. However, recent developments have introduced experimental digital comics that offer new forms of interaction with the text, categorized into two main types based on the content and form of the narrative.

The first type of interaction discussed involves direct engagement with the narrative content, where audiences make choices (like yes or no) that supposedly influence the direction to the end of the story. This interaction method, can be seen as somewhat illusory. The choices are limited to pre-designed narrative branches, making the interaction feel predetermined and not genuinely random. The second type of interaction involves the manipulation of visual elements present in traditional print on a digital platform, without deformation. Through clicks or swipes, elements like drawings, texts, panels, and speech bubbles can move, appear, disappear, or change direction, offering a new layer of engagement while preserving

their original shapes. The second type relates to the interaction with the form of the text, allowing visual elements on the digital canvas—such as drawings, texts, panels, and speech bubbles—to move, appear, disappear, or change direction through user commands like mouse clicks or finger swipes. This form of interaction, unlike the narrative one, is highlighted for its technical feasibility and innovation in current digital contexts.

In the second form of visual representation, comic panels are placed in a flat space, creating a horizontal motion visual experience as the reader's focus moves between panels. In contrast, digital media's virtual space allows panels to exist in both horizontal and depth dimensions, introducing a depth motion visual experience alongside the horizontal one. This means that during interaction between the people and the form of the text, visual elements such as drawings, text, panels, and speech bubbles can move within the depth dimension. In *Phallaina* [1], when the screen is swiped horizontally, the parallel layers shift at different speeds. Layers closer to the viewer move faster, while those farther away move slower, creating a parallax effect that enhances the depth perception. Similarly, *Zoomquilt* [2] features a recursive structure where zooming into the center reveals new scenes within old ones, creating a continuous zoom-in effect that simulates moving through layers. These examples demonstrate how digital comics utilize the depth dimension as a distinctive feature, differentiating them from traditional webtoons by offering a unique visual experience of depth and movement.

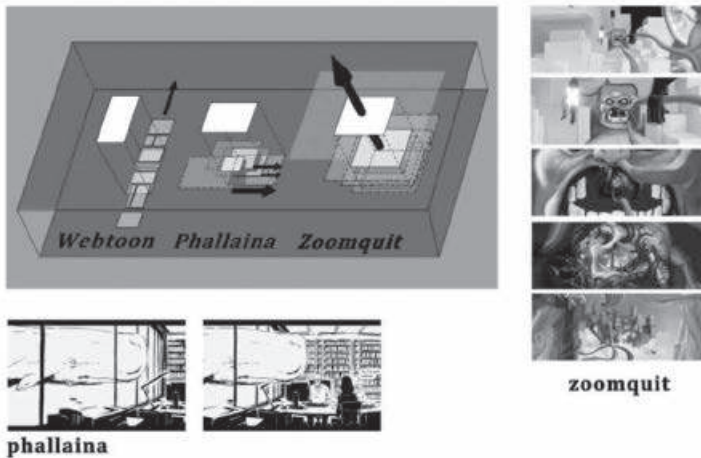


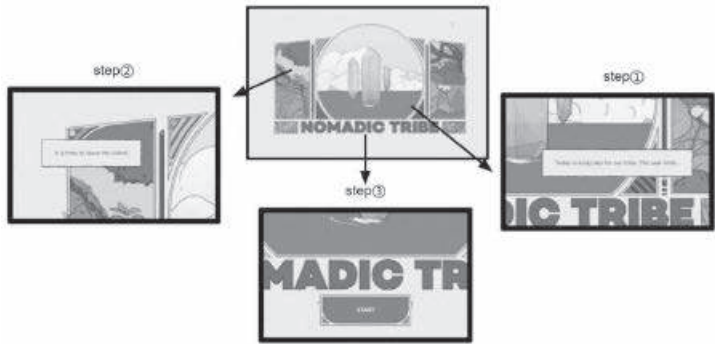
Fig. 1. The three forms of layer structure in webtoons, *Phallaina*, and *Zoomquilt*, and the specific presentation of the two works *Phallaina* and *Zoomquilt*. In comparison, webtoons still use the flat structure of printed comics, and each layer is static. On the contrary, *Phallaina* and *Zoomquilt* can be seen as three-dimensional structures, and the layers move in the horizontal and vertical directions respectively.

1.2. Influences on Depth Perception in Various Forms

Textual interaction is not limited to visual representation; digital technology has ushered in an era where “reading” is no longer dominated solely by vision. Comic readers, while viewing the panels, can listen to background music and interact with animations by tapping on the screen. This indicates that the experience of depth perception in traditional print comics is also beginning to be influenced by other senses. Throughout

the long history of comic symbolism, readers have perceived sounds through onomatopoeic words used as visual symbols. However, in the digital works mentioned above, these onomatopoeic words are replaced by directly audible sound effects. Since sound effects can convey a deeper sense of space, under the influence of “multimodal perception,” both visual and auditory senses become systems for perceiving external information, where hearing can actually influence visual perception. For instance, in *The Boat* [3], despite no visual depth changes, the stereo sound design creates a sense of depth. This example shows that although depth perception is not composed of a single dimension, comics as a primarily visual art form have not yet ceded their place to other senses. Indeed, Scott McCloud has already discussed the potential hazards in comic reading due to multimodal integration, such as information overload or distraction, where subjective reading time conflicts with the objective playback time of digital media (animation/sound) [4]. For example, in *Nomadic Tribev*[5], if the dialogue has not finished playing or the interactive animation has not ended, the page will not turn to the next, inevitably interrupting the reader’s experience.

Fig. 2. This conflation
, for instance, when
steps ①②③ in the No-
madic Tribev must be
completed in sequence
and cannot be done in
any other order.



On the other hand, the concept of depth perception is not exclusive to digital comics; works like *3 Secondes*[6], are successful examples of creating visual depth and narrative diversity in print form. For instance, the printed comic *3 Secondes* utilizes a series of “reflective devices” such as the human eye, camera lenses, and the reflection off trophies to craft a space of infinite recursion. The reader’s gaze continuously zooms in within this recursive space, creating the illusion of traversing through depth, compressing the entire story into just three seconds. Of course, this type of depth perception still relies on the spatial arrangement of images on the page. This means that the experience of depth perception in print media requires readers to read each frame, whereas digital media allows viewers to directly perceive and experience depth. On a fundamental level, humans, as the recipients of external information, shape their visual experiences through multiple senses.

On the media level, even if the content is the same, the experience of “reading” a book versus “watching” on a screen creates completely

different experiential subjects, with different media shaping different experiences of depth perception. That is to say, in the depth perception experience shaped by various senses, the functions of vision, hearing, smell, and other senses vary with the transition of media. However, this discussion has not yet considered the impact of physical media on visual experiences. Are the creative ideas for depth perception in the brains of digital comic creators generated out of thin air? In other words, on the level of objects, have various physical entities in the real world ever influenced our depth perception?

2. Objective: Media Archaeology of Depth Visual Experience

Most research on the uniqueness of digital comics, such as studies on interactivity (Thierry Groensteen, 2013) and infinity (Scott McCloud, 2000), has been conducted based on the characteristics of digital media. However, on a visual level, the depth interaction effects seen in Phallaina and Zoomquilt are not solely based on the technological conditions of digital media but also on the personal experiences of the creators. Specifically, the depth dimension that is not exclusive to digital comics as creators can encounter visual scenes constructed with multiple layers in their personal experiences. For example, traditional analog animation creates depth through layers by stacking celluloid films; computer interfaces feature windows that overlap and can move in both horizontal and depth directions. This suggests that the presentational forms of contemporary digital comics might have existed before the advent of digital media, with older visual devices experimentally creating the visual experience of digital comics.

Intellectual history typically follows a specific timeline, seeking to construct a narrative with cause and effect based on changes in thought. Michel Foucault's *Archaeology of Knowledge* offers an alternative perspective: historical texts are merely fragments of human knowledge and thought, with the underlying knowledge and power fragmented like the Earth's mantle. Historians, according to Foucault, should unearth the unrecorded, hidden, and boundless historical facts within these fractured mantles [7]. Friedrich Kittler views historical texts as samples of reality, encompassing not only written documents, as Foucault suggests, but also images, films, and sounds as carriers of historical text [8]. Notably, the virtual worlds created by digital media deceive human senses, with software presenting a logical expression once it operates on hardware [9].

This archaeological understanding has been adopted as a methodological approach in media studies, termed media archaeology, particularly its focus on materiality has been applied in other fields. Jonathan Crary, through the archaeology of visual devices like the camera obscura, magic lanterns, and stereoscopes, uncovered the visual mechanisms, discursive power, and socio-economic demands crystallized in modern optical instruments, ultimately shaping a modern observer [10]. Tom Gunning explored the aesthetics of early cinema to introduce the concept of "cinema of attractions," [11] suggesting that cinema includes not only immersive narrative forms but also spectacles meant to attract and astonish viewers.

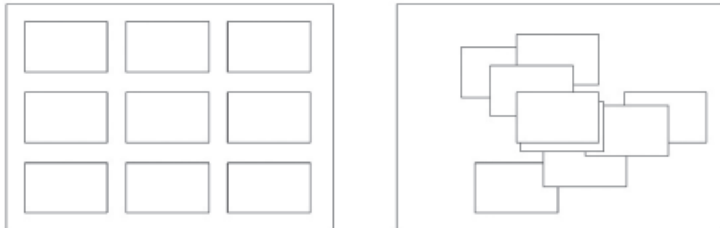
Thus, it raises the question: to which technological historical origins

can the interactive depth dimension of digital comics be traced back before their inception? To investigate this issue further, it is essential to embark on an archaeological exploration of depth visual experience, examining the structural and historical origins of the depth dimension in digital comics.

3. Literature Review: The Depth Structure in Japanese Shōjo Manga

Japanese Shōnen manga (boys' comics) often depict the adventurous experiences of boys, with a greater focus on the protagonist's external activities (such as striving and growing in society). In contrast, Shōjo manga (girls' comics) typically portray the inner emotional experiences of adolescent girls. Compared to traditional comics (Shōnen manga), Japanese shōjo manga tends to employ a distinct presentation style. The gutters between panels are notably wider, and panels often overlap. As readers engage with the deep emotional experiences of young girls, their gaze frequently does not follow a prescribed reading order but jumps back and forth between panels, pausing in the spaces between them. Through these layered visual elements (drawings, panels, speech bubbles, text) and the gutters devoid of any visual content, Shōjo manga conveys information with a narrative rhythm that diverges from that of traditional comics.

Fig. 3. Differences in panel layout between Shōnen manga (left) and Shōjo manga (right). Shōnen manga is often presented in a flat structure, while Shōjo manga is often presented in a three-dimensional structure.



This characteristic has also been noted by Japanese manga scholars. Natsume Fusanosuke observed that the presentation of manga on paper resembles the overlapping celluloid films in animation, with multiple layers stacked together [12]. This layering technique in Shōjo manga has garnered attention from the European academic community. Thierry Groensteen, before delving into the interactivity of digital comics, first addressed the “under tension” state of “Multiframe and Multilayer” in Shōjo manga. “Multiframe” implies that panels do not overlap or obscure each other, all residing within the same two-dimensional plane. “Multilayer,” however, suggests that panels do overlap, creating a sense of depth. The presentation of Shōjo manga straddles between Multiframe and Multilayer, embodying both the readability of a two-dimensional plane and the structural complexity of layers [13]. Visual studies on Shōjo manga have uncovered the depth dimension on paper; however, since these studies revolve around the print medium, they have not explored how this depth dimension is constrained by print media. Compared to the infinite virtual space created by digital media, the amount of information a page can hold is quite limited, positioning Shōjo manga as the limit of print media’s capacity to convey depth space.

American comics scholar Scott McCloud observed this media characteristic and introduced the concept of the “infinite canvas” in his work *Reinventing Comics*. On digital platforms, the comic canvas is no longer bound by physical limitations, allowing creators to use canvases of any shape or size to arrange sequential images for storytelling [14]. Thus, within the layer structure of digital comics, there theoretically exists an infinite depth dimension—a dimension that, constrained by print media, finds liberation in digital media.

From the studies mentioned above, it can be inferred that digital media liberates the infinite depth dimension from the constraints of print comics, marking it as a unique feature of digital comics. However, the Multiframe and Multilayer research is focused on the comics themselves. To trace the historical origins of the depth structure in digital comics back only to Shōjo manga highlights a limitation, as these studies do not take into account the decisive factors of the physical medium. Indeed, the text a creator wishes to express is inevitably limited by the physical medium. Analyzing the depth visual experience solely based on the text of existing comic works does not accurately determine whether earlier works with depth visual experience existed, nor does it assess the potential for changes in the depth visual experience in the future.

4. Two visual experiences in the Representation tradition

Three-dimensional representations align more closely with human visual experience and are easily situated within real space, determining the degree of integration between the artwork and reality. As *texts* created by humans, Lev Manovich suggests that Virtual Reality can trace its roots to two traditions: Simulation and Representation [15]. Simulation refers to a virtual world crafted to mimic the real world’s dimensions and three-dimensional standards, attempting to seamlessly connect the virtual with the actual, as seen in life-sized sculptures. And frescoes or mosaics that integrate with architecture, remaining flat yet extending the real world. Representation, on the other hand, means re-presenting three-dimensional reality on a two-dimensional plane, requiring a frame to limit the plane’s scope, offering observers a dual identity as they navigate between reality and representation, as with perspective-driven paintings from the Renaissance, films, computer screens, even an image in the dream.

These two traditions have crafted distinct patterns of movement: The Simulation tradition has created three-dimensional models that mirror reality, allowing observers the freedom to move their bodies and viewpoints. In contrast, the Representation tradition acts as a two-dimensional interface to the virtual world, where the frame’s outer boundary demands that the observer remains relatively stationary in relation to the frame. According to Lev Manovich, Virtual Reality continues the Simulation tradition, observing murals or sculptures, individuals can move freely [16]. However, the Representation tradition, while keeping the observer stationary, also enables the images within the frame to move. This means that when observing the framed two-dimensional worlds of movie screens, smartphone screens, or comic pages, observers typically

do not move their bodies; instead, they wish for the content within these material frames to become dynamic. This progression from Renaissance paintings to films and comics, and then to smartphone screens, continues the legacy of the Representation tradition.

Representation has shaped a static observer juxtaposed with moving images, thereby creating two distinct visual experiences. Under the condition that the image directly faces the observer's eyes, two-dimensional layers in three-dimensional space follow two paths of movement: one is horizontal, and the other is in depth. With layers being opaque, horizontal movement leads to layers covering each other, while movement in depth alters their size, inevitably revealing the depth dimension. This demonstrates that within the tradition of representation, the visual experiences produced by these two types of movement both exhibit the depth dimension.

The movement of layers in both horizontal and depth directions can produce two types of visual experiences, traceable to two viewpoints within a moving train. Thomas Lamarre, in *The Anime Machine*, posits that the lateral movement of layers in two-dimensional animation offers a visual experience distinct from live-action films [17]. The horizontal movement in animation resembles a train passenger viewing the landscape through the side windows, while the depth movement in live-action films is akin to the driver's view from the train's front, looking outwards. These perspectives suggest two distinct visual experiences: the passenger's experience aligns with the Representation tradition, whereas the driver's experience aligns with the Simulation tradition.

The display form of *Phallaina* is just like what train passengers see: passengers can only view the scenery on one side of the train, and through the relatively stationary windows, the outside scenery can be divided into layers that are parallel to each other and move at different speeds, creating a parallax effect that generates a sense of depth. The display form of *Zoomquilt* is akin to what train drivers see, with the vista before the driver rushing towards them, akin to a zoom-in effect. Of course, in reality, train drivers at the front of the train can see the scenery to the left, right, and front, meaning the driver has a broader view. Compared to the horizontal movement of two-dimensional layers seen through the single-plane window, the driver's visual experience is, in contrast, three-dimensional. Conversely, in *Zoomquilt*, when two-dimensional layers approach the

observer, what the observer sees does not resemble the visual experience of a train driver. The fundamental reason is that the creation of depth by multiple two-dimensional layers attempts to break away from the Representation tradition, but this depth is not continuous; the gaps between parallel layers expose that this form does not belong to the Simulation tradi-

Fig. 4. The classic case of vase-face in positive/negative vision shows that representation are often created by masking, and that different choices of masking can lead to two completely opposite masking devices: windows (left) and screens (right).



tion. Therefore, the movement of layers in virtual reality in depth merely pretends to mimic the Representation tradition of the Simulation tradition.

In summary, comics have adopted the Representation tradition on a two-dimensional plane, creating a stationary viewing subject and allowing visual elements within the comics to move. The horizontal and vertical movements of layers generate two types of visual experiences, both revealing the depth dimension of the comic's layer structure. However, as demonstrated by the two visual experiences on a train, this method of creating a discontinuous depth dimension with two-dimensional layers still cannot construct a true three-dimensional world like sculptures or architecture can. This means that while two-dimensional layers serve as a form of Representation, if the layer structure is considered a physical device, it becomes necessary to explore which material medium created the layers as a form of Representation.

5. Masks as Material Devices for Producing Representation

When examining the boundaries of frames or layers in comics, their outer edges are conventionally viewed as pure *lines*, similar to the lines in geometry that have length but no area. However, in the tangible world, such lines as seen in comic magazines, when magnified, reveal themselves as “zones or bands” [18] with area, and even thickness once the ink permeates the paper, turning these lines into three-dimensional shape. This suggests that frames and layers, as perceived by the human brain, are mere representations and do not exist in reality. In the context of Shōjo manga, whether Multiframe or Multilayer, these are included as part of the visual experience merely as representations. Yet, the representations observed by the human eye originate from a physical source: masks. The arrangement and stacking of multiple masks form the foundation of the visual experience in comics, with Multiframe and Multilayer being underpinned by a concept of multiple masks (multimask).

For a mask to effectively fulfill its concealing function as a material device, it must remain opaque. Under this premise, the mask is set between the observed object and the viewer's eye, delineating the foreground and background in a horizontal plane, thus serving as a tool to transform two-dimensional planes into three-dimensional spaces. Within this two-dimensional plane, the mask conceals part of the background while revealing another, essentially dividing the visual field into exposed and obscured segments. This action positions the mask as a cutting device, bifurcating the scene into distinct sections.

In the binary opposition created by masks, different choices of coverage produce two functionally opposite types of frames: the positive form and the negative shape. Media archaeologist Erkki Huhtamo likens positive form and negative form to windows and screens [19], respectively. Windows shield the space outside the frame while emphasizing the space within the frame, allowing viewers to see the central part of the background directly through a hollowed-out middle section. Conversely, screens cover the space within the frame to highlight the space outside, forcing viewers to look around the mask to see the background behind.

This distinction divides the viewer's attention into two types: the inward-focused attention drawn by the unobtrusive window and the outward-focused attention diverted by the prominently displayed screen that inevitably loses the viewer's focus.

Thus, in Shōjo manga, visual elements such as panels, speech bubbles, and text, akin to screens, overlap each other to create a sense of depth. On the other hand, these textual elements cannot extend beyond the material borders of the paper and screen, which act like windows to display the layered structure to the reader. Screens are responsible for compiling content, while windows serve to showcase it, forming a multimask structure in comics. In Phallaina and Zoomquilt, this dynamic is observed as the window remains stationary relative to the viewer, while the window and screen move in relation to each other.

6. Nineteenth-Century Visual Devices

As windows and screens move as masks across the horizontal and vertical planes, they generate two types of visual experiences. While these experiences are somewhat akin to the perspectives seen from a train, their more specific origins trace back to two types of visual devices from the 19th century, designed for entertainment.

At the 1900 Paris Exposition, the Trans-Siberian Railway Panorama was displayed, showcasing the landscapes from Moscow to Beijing, captivating Paris citizens with oriental exotic scenery. This experience, akin to viewing landscapes from a train compartment, utilized varying speeds for foreground, middle ground, and background elements to create depth perception through parallax effects. As depicted, the audience sits facing the stage where a conveyor belt displays moving objects like sand and stones, with multi-layered canvases behind representing foreground, middle ground, and background. The conveyor moves at 1000 feet per minute, the foreground at 400 feet per minute, the middle ground at 130 feet per minute, and the background at 16 feet per minute [20]. This setup illustrates the unique feature of Moving Panoramas, with different layers moving at distinct speeds to create depth through parallax. Phallaina adopts this moving-mask technique, reviving the visual experience of Late 19th and early 20th-century Moving Panoramas for modern comic readers by generating depth through parallax with similar principles.

The device created in 1846, known as the King Lewis' Canal-Peepshow Box, offered a perspective view of King Lewis' Canal. It was constructed with five layers of different content masks between the top and bottom wooden boards, connected by foldable and stretchable paper. A small hole was made in the top board for viewers to peek through and see the canal's surroundings. As depicted, viewers can manipulate the distance between the various masks by stretching or folding the paper that connects them. Observing through the peephole allows one to perceive the depth and perspective created as each layer moves forwards or backwards [21]. In summary, moving-mask technique in the depth direction, characteristic of the King Lewis' Canal-Peepshow Box. Zoomquilt utilizes a similar arrangement of layers in depth. This means the 19th-century

Peepshow Box experience is revived for digital media art viewers through the Zoomquilt project, bringing historical visual techniques into contemporary digital exploration.

Initially, trains were designed as a mode of transport, with the visual experience of depth perception merely a byproduct. In contrast, the 19th-century Moving Panorama and Peepshow Box, like trains, served as devices for creating visual experiences but specifically marketed the novelty of depth perception as their main attraction.

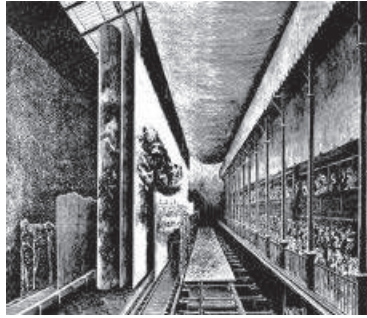


Fig. 5. Horizontal and vertical masking devices about Moving Panorama (left) and Peepshow Box (right). Moving Panorama: *Trans-Siberian Railway Panorama*, Scientific American Supplement, Vol.50, No.1285, 1900, p.13. Peepshow Box: *Trans-Siberian Railway Panorama*, Hyde, Ralph. Paper Peepshows: The Jacqueline and Jonathan Gestetner Collection. Acc Art Books, 2015,p.133.

This novelty is also evident in digital comics; unlike traditional print comics or webtoons, Phallaina and Zoomquilt deliberately highlight the depth dimension, allowing viewers to explore visual layers often overlooked in comics. This commonality demonstrates that the depth visual experience in digital comics can be traced back to 19th-century visual devices.

Before the advent of animation technology, movement in traditional static art could not involve “deformation” and was represented only by the “movement” of each frame/mask. However, the multimask structure itself suggests a connection between comics and 19th-century visual devices, such as the stage design of 19th-century theaters. In 1876, Richard Wagner, believing that the traditional theater layout distracted the audience’s attention, transformed the opera house, Bayreuth Festspielhaus in Germany [22]. Wagner made the following adjustments to the “layers” the audience viewed.

First, the multi-layered stage background: he installed a backdrop array made up of multiple curtains on the stage, functioning as masks to cover and direct attention, similar to the multimask structure in comics. Next, the viewing layer’s position: he removed the side seating of the theater, concentrating the audience directly in front of the stage, aligning the observer’s relationship to the observed akin to how modern individuals view flat images (on paper/screens). Lastly, the interfering visual layers: he placed the orchestra in an unseen “orchestra pit” located directly below the stage and audience, which, in addition to mixing music with vocal sounds, prevented the audience from seeing the musicians and conductor, shifting their focus away from the stage. In this auditory to visual transformation, the audience’s roaming attention points were forcibly centered to the front, similar to how reading a print comic becomes viewing a digital comic.

One characteristic of modern visual culture is that novelty becomes a tool for commercial profit, with advertisers attempting to use any part of an image to attract observers to consume. Comic creators, through the relationships of obstruction between various objects, not only illustrate the spatial relationships but also create suspense, provoke the desire to read, and control the attention of comic readers. Whether creators realize it or not, the multimask structure's function to attract observers indicates that comic creators are already embedded in modern visual culture.

7. Conclusion: The Historical Origins of Visual Features in Digital Comics

In reality, sculptures and architecture (Simulation tradition) possess a continuous depth dimension, contrasting with *Phallaina* and *Zoomquilt*, where gaps exist between layers (Representation tradition), resulting in a discontinuous depth dimension within their layer structures. Although the layered structure found in comics does not physically exist, real-world mask devices can serve as material mediums to replace these layers.

Phallaina and *Zoomquilt* reveal that visual elements such as drawings, text, panels, and speech bubbles, acting as parallel masks, inevitably expose the depth dimension within a Multilayer structure when moving horizontally and vertically. This depth dimension is a distinct visual feature of digital comics compared to printed comics. The origin of this visual feature shows that while webtoons simply adapted the printed comic format, *Phallaina* and *Zoomquilt* explore greater possibilities in comic expression in the digital era, supported by digital technology and inspired by historical precedents with similar visual characteristics.

The visual experience of depth in *Phallaina* and *Zoomquilt* was not solely a product of the digitalization of printed comics. Through media archaeology, this study identifies similar visual experiences in older visual production devices. Although traceable to different perspectives within trains, a more direct historical source is 19th-century visual devices. Apart from the moving function of masks, the multimask structure itself can also be traced back to the Bayreuth Festspielhaus, where the relationships of obstruction among various masks are used to control the viewer's attention. This virtualization of masks has transformed them into movable layers. In *Phallaina* and *Zoomquilt*, the virtualized masks of these devices become movable layers, distinguishing digital comics from printed comics or webtoons by creating novel visual experiences through depth, akin to 19th-century visual devices.

8. References

1. Ren, M., France Télévisions: *Phallaina*. (2016).
2. Baumgarten, N.: *zoomquilt*. (2014). <https://zoomquilt.org/>
3. Le, N., Huynh, M.: *The Boat*. (2015). <http://www.sbs.com.au/theboat/>
4. McCloud, S.: *The Visual Magic of Comics*. (n.d.). https://www.ted.com/talks/scott_mccloud_the_visual_magic_of_comics, approx. 13 min (Last accessed: 20230811).
5. Make Me Pulse: Nomadic Tribe. (2019). <https://2019.makemepulse.com/>
6. Mathieu, M.-A.: *3 Secondes*, French Edition, Drawings, Contributor. DELCOURT, (2011).

7. Foucault, M.: *Archaeology of Knowledge*. Translated by Sheridan Smith, A.M., 1st English ed. Tavistock Publications, Reprint, Routledge Classics, Routledge, 1972 (2002), pp. 153--155.
8. Kittler, F.: *Gramophone, Film, Typewriter*. Translated by Winthrop-Young, G., Wutz, M., 1st English ed. Stanford University Press, (1999), Introduction--5.
9. Kittler, F.: *Computer graphics: a semi-technical introduction*. Grey Room, 30--45 (2001).
10. Crary, J.: *Techniques of the Observer*. The MIT Press, (1990).
11. Gunning, T.: *The Cinema of Attraction Early Film, Its Spectator and the Avant-Garde. The Cinema of Attractions Reloaded*, 381--388 (2006).
12. Natsume, F.: "Manga Bunpō ni Okeru Koma no Hōsoku" [The Rules of Frames in Manga Grammar]. In: Inoue, M. (ed.) *Manga no Yomikata* [How to Read Manga], Takarajimasha, 1995, p. 181. (夏目房之介「マンガ文法におけるコマの法則」『マンガの読み方』宝島社、1995、p. 181.)
13. Groensteen, T.: *Comics and Narration*. Translated by Miller, A., University Press of Mississippi, 62--63 (2013).
14. McCloud, S.: *Reinventing Comics: How Imagination and Technology are Revolutionizing an Art Form*. Paradox Press, p. 222 (2000).
15. Manovich, L.: *The Language of New Media*. MIT Press, Cambridge, MA, 111--114 (2001).
16. Manovich, L.: *The Language of New Media*. MIT Press, Cambridge, MA, p. 113 (2001).
17. Lamarre, T.: *The Anime Machine: A Media Theory of Animation*. University of Minnesota Press, 10--11 (2009).
18. Deleuze, G.: *Cinema 1: The Movement-Image*. University of Minnesota Press, p. 14 (2001).
19. Huhtamo, E.: *Elements of Screenology: Toward an Archaeology of the Screen*. *Navigationen - Zeitschrift für Medien- und Kulturwissenschaften*, 42--46 (2006).
20. Oettermann, S.: *The Panorama: History of a Mass Medium*. Zone Books, New York (1997).
21. Pechmann, H., Freiherr von: *King Lewis' Canal*, ca. 1846. Etching, hand colored, 16 x 22 x 1 cm. Part of the Optical Devices and Prints Collections, Getty Research Institute. https://rosettaapp.getty.edu/delivery/DeliveryManagerServlet?dps_pid=IE643574
22. Crary, J.: *Suspensions of Perception: Attention, Spectacle, and Modern Culture*. The MIT Press, (2000), pp. 252--254.



Exploring Connections between Cultural Metaphors behind Visual Performances of Characters and Expressions of Chinese National Cultural Identity in Animated Feature Films

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Keywords

Visual metaphor, animation, characters' performance, visual representations, national identity, Chinese culture

Abstract

The sophistication of the media landscape enables animation to be used beyond just simple entertainment for children and can be expanded into realms that significantly impact the economy, society, and technology. The focus of this paper is on investigating to what extent the Chinese cultural metaphor in the character's performances behind a segment of the storyline including the environment surrounding can express national identity in animation. As Wells (1998) identifies, in the realm of animation, animated character design, their movement abilities, and primary motivations require animators to develop characters from a script, taking into account narrative implications[1]. This implies that characters and environments are intentionally designed to serve a specific purpose within the narrative to enable specific performances that resonate with the intended audience. Methodologically, this qualitative study involves analysis tools of the visual semiotics of Roland Barthes and the iconography of Panofsky, and comparative studies have been applied through analysing narratives and visual aesthetics in two animated feature film case studies: *Wish Dragon* (2021) and *Turning Red* (2022), focusing on conceptual function, interpersonal metafunction of the image, and textual metafunction. The purpose is to finally explore the feasibility of constructing national identity through intangible Chinese cultural heritage, existing in fragments of storylines in animations.

1. Introduction

1.1. Defining 'metaphor' in animations

The metaphor is one of the techniques employed in animation to visually bolster and reinforce cultural expressions or political agendas[2]. The use of this technique strengthens the expressions of the values, beliefs and traditions of a specific culture to be more impactful and resonate with audiences. Originally, metaphors, classified as nouns in rhetoric, establish symbolic connections by aligning patterns through similar psychological analogies[3]. Gradually, this concept has extended into the media field for conducting broader visual language analysis. While numerous studies

on visual metaphors have emerged in the fields of commercial advertising, comics, and animations, the analysis has focused on how metaphors are rooted in human imagination and influence the narrative and plot structure of contemporary animated films, rather than considering the concrete elements that symbols represent.

However, despite extensive analysis of image metaphor in semiotics and advertising, its exploration within the context of animation or film remains relatively rare, as noted by Chiu and Chu, (2019)[3]. Wells (1998) emphasised that animations breathe life into inanimate objects or drawings, crafting a dynamic and captivating visual experience for audiences[2]. This characteristic not only defines animation but also broadens its scope as a medium. Particularly, metaphorical expressions in animations can serve as bridges between traditional arts, customs, and values in Chinese culture, intertwining with character performances through visual and symbolic elements.

In animation, beyond sound and storytelling, the character's performance stands out as being crucial to a developing storyline or mode of storytelling, because the animator can imbue the narrative outcomes of character creation and growth with their personal experiences and emotions by adding depth, nuance and personality to characters[1]. It serves as a conduit for conveying various visual elements such as facial expressions, body language, gestures, and interactions with the environment or other characters. These elements hold immense potential for symbolically connecting to the customs and values of Chinese traditional culture, thereby potentially being suitable to express national identity. In addition, through the visual clues in symbolising connections such as metaphor, the character's performance can evoke empathy, understanding, or engagement from viewers to express unique emotions following the director's explicit intentions.

Therefore, this study takes characters' performances in animations as the starting point to explore their visual representations of image metaphors. It aims to investigate how these visual representations, conveyed through various elements such as facial expressions, body language, gestures and interactions, can symbolically resonate with the customs and values embedded in Chinese traditional culture that would be understood and recognized by a contemporary Chinese audience.

By delving into the intricate connections between character performance and cultural symbolism, this research seeks to uncover how animations serve as a medium for expressing national identity. Ultimately, the study endeavours to illuminate how these visual representations symbolise abstract concepts or ideas in Chinese culture through metaphorical associations, contributing to a deeper understanding of both animation aesthetics and cultural expression that better explains those attributes to audiences beyond mainland China.

2. Literature Review

Metaphors have a wide range of applications, with many concentrated in the field of graphic design. They take various forms, ranging from concrete dimensions seen in accessible advertisements implying product

quality and pleasant experiences in daily life[4], to more symbolic representations such as paper-cutting, which carries auspicious meanings in traditional culture[5]. Additionally, there are abstract dimensions found in the artistic works of Mondrian, expressing a desire to achieve harmonious balance amidst the rapid changes and developments of modern life[6].

Functionally, in addition to conveying profound information, metaphors can serve various purposes when applied in different fields. In comics, firstly, visualised metaphors enable the portrayal of socially or politically intricate topics, and create humour, as studies by Hallett and Hallett (2012), and Tsakona (2009) suggest[7], [8]. Secondly, regarding the realm of wordless animation, Forceville and Paling (2018) point out that visual metaphors can enhance people's understanding of depression and broaden their opportunities to understand it by illustrating depression as a monster to depict and convey the experience of depression[9]. Thirdly, concerning the application of metaphor in the aspect of character design within animations, metaphors in the creation of character attributes can achieve the goal of more accurate characterisation. Artz (2003) delves into the portrayals of characters in the animation *Pocahontas*, emphasising their reinforcement of stereotypes and perpetuation of hierarchical social relations[10].

Building on this examination, Artz (2004) further explores how specific aspects of character design in animation, including appearance, movement, and mannerisms, function as metaphors for power dynamics among characters[11]. This comparative analysis across various Disney animations underscores the nuanced ways in which character attributes shape their social status, moral alignment, and overall depiction.

From this, in the realm of functional research on animated characters, current studies note that stressing visual accuracy to ensure whether the concrete appearance and behaviour of animated characters from a particular nation effectively conveys the moral values and specific cultural identity of that nation potentially enhances stereotypes by oversimplifying cultures. Although the limitation in capturing the complexity of cultural identities has been pointed out, the broader context and implications of visual representation in understanding and representing national cultural identities have not yet been considered.

This arises from the prevailing focus on interpreting cultural symbols solely at a surface level, overlooking the deeper metaphoric implications embedded within them. These contain the cultural origins, motivations, and underlying purposes subtly conveyed through character performances, shaped by the collective growth experiences of a nation. There is currently a lack of exploration into these intangible cultural metaphors. By expanding research to include these aspects, audiences can gain a deeper understanding of specific national cultures, particularly those without direct exposure or life experiences within them.

The examination of cultural representation in animated character design primarily relies on Roland Barthes' semiotic theory. Firstly, in the realm of focusing on the direct interpretation of visual elements, this theory was applied in two studies: one examining Pakistani animation series (Shah et al., 2020), and the other focusing on Balinese animation (Hasbullah et

al., 2021). These studies decoded national aesthetics and cultural nuances through semiotic analysis[12], [13]. Secondly, in the level of exploring the abstract interpretation of cultural elements in character and environmental design, research conducted by Tawakkal et al. (2021), and a study carried out by Zulkarnain et al. (2022), reveal moral insights by analysing the interplay of dialogues and character interactions in *Raya and The Last Dragon*, and the relationship between settings and character interactions in *Alif and Aha* Episode 1-4, employing the same semiotic theory[14], [15]. Therefore, it is evident that Roland Barthes' semiotic theory serves as a practical tool for semiotic analysis, uncovering the multifaceted layers of meaning within animated narratives. However, when the connotations of visual representation need to be elucidated from a broader perspective to explain the traditional beliefs of an entire nation or era, this study has explored whether additional analytical methods should be employed.

In summary, the examination of metaphors in animated narratives reveals their intricate role in cultural representation. While Roland Barthes' semiotic theory aids in uncovering nuanced meanings, additional analytical methods are necessary to explore broader connotations within cultural contexts. Further investigation into these aspects can strengthen the intelligibility of cross-cultural animated narratives and their cultural significance for audiences from diverse backgrounds. This, in turn, can deepen and extend their understanding of a specific national culture.

3. Methodology

As the artistic expression or portrayal of animated feature films relies on the characters and their relevant environments to make audiences feel the link between concrete phenomena of characters' performance and their own practical experience, selected Barthes writings concerning the visual semiotics, comparative studies, and iconography have been applied as basic analytical tools to interrogate and reveal the intangible cultural meanings in visual metaphors of character performances and relevant environments.

The concept of the visual semiotics of Barthes provides a foundation for understanding how images communicate meaning through signs and symbols. Allen (2003) asserts that Barthes's semiotic theory is rooted in Saussure's concept of the signifier and the signified, forming a "first-order system" of signs, referred to by Barthes[16]. Barthes expands upon this framework by introducing the concept of myth, which establishes a "second-order system" of signs, indicating his development of a unique understanding of sign function within culture, emphasising the construction of myth and the manipulation of connotation[16].

There are two layers of this method: In the first layer, we encounter denotative meaning. It is here constituted by recognising who or what kind of person is depicted there, what he is doing, and so on. Put differently, denotation establishes the foundation upon which further layers of meaning, such as connotation and myth, can be built[17]. Meanwhile, in the second layer, we are introduced to the notion of connotation. This represents the broader concepts encompassing ideas and values, which can emerge through either the cultural associations attached to the depicted

entities or through specific elements of representation, such as particular photographic techniques. In other words, connotation adds depth and nuance to the interpretation of signs, providing insight into the cultural, emotional, or ideological significance associated with them[17]. On the other hand, Barthes proposed that when denotation and connotation are repeated and recontextualised across multiple levels of meaning, cultural ideologies and beliefs can be constructed and perpetuated, a phenomenon referred to as “myth,” influencing how individuals interpret and make sense of the world around them[17].

4. Semiotic Analysis of Cultural Metaphors Behind the Visual Performances of Characters in Chinese Animated Feature Films: Wish Dragon and Turning Red

4.1. A Brief Introduction to Wish Dragon (2021)

The *Wish Dragon*, a fantasy comedy animated film from 2021, was crafted by Chris Appelhans and brought to life through the collaborative efforts of Sony Pictures Animation and Tencent Pictures. The heartwarming animated film, *Wish Dragon*, revolves around the story of a young man named Din living in contemporary Shanghai. Din encounters a magical wish-granting dragon named Long who can grant him three wishes. Din knows that it is very challenging for him as an ordinary person to interact with people in the upper class, so he wants to reconnect with his childhood friend Li Na who has become a wealthy socialite, by making a wish to the dragon. However, he soon realises that true happiness lies in friendship and the bonds of family. The film explores themes of friendship, self-discovery, and the importance of staying true to oneself amidst the temptations of wealth and power. In addition, the film promotes the enduring value of friendship, and that kindness is priceless.

In their studies, scholars Aurelya and Laurencia (2023) delved into exploring the Chinese moral values depicted in the movie *The Wish Dragon*[18]. Similarly, scholars Shafira and Rui (2023) analysed how the animated feature film *Wish Dragon* portrays Chinese culture, using a semiotic analysis framework influenced by Roland Barthes[19]. Both sets of scholars are dedicated to exploring Chinese culture. The former conducted analyses from an abstract level to depict socio-ethical views within the Chinese cultural context. The latter explained the specific Chinese elements that serve as symbols in the interaction with characters in the current animation plot, focusing on how they represent Chinese culture.

However, it must be acknowledged that while visual scrutiny studies offer tangible interpretations of cultural symbols accessible to both Western and Eastern audiences, they often overlook intangible explanations regarding cultural symbols and their underlying metaphors, such as the use of logic. Consequently, viewers, particularly Western audiences, may struggle to fully grasp the original meaning of Chinese culture rooted in traditional history. Given that the expression with metaphorical implications in animated plots relies heavily on the performances of animated characters, particularly in human-centred narratives, the following analysis delves into the cultural metaphors behind the character performances in the animated film *Wish Dragon*.

4.2. A Brief Introduction to Turning Red (2022)

For the animated feature film *Turning Red*, this movie tells the story of a Chinese girl named Mei Lee, living in Toronto, Canada. Since childhood, her life goal has always been to be an all-round and excellent daughter in the eyes of her mother. Undoubtedly, trying to fulfil the expectations of her mother conflicts with the inner desire of Meilin to be her true self. One day, after enduring excessive pressure from her mother, the power symbolising her family within her body, embodied by the red panda, awakens. With the support of friends who accept her unconditionally, including her red panda form, Meilin ultimately confronts, embraces, and respects her true self, finding reconciliation with both her and her mother. In essence, this is a film about growth, self-discovery, and ultimately accepting and respecting one's true self.

Concerning the studies of *Turning Red*, Al'ula and Sihombing (2023) investigated how the Chinese identity can be represented through concrete symbols including food, architecture, animals, and the dining etiquette that must be followed at the dining table in Chinese tradition[20]. Differing from the analysis of concrete visual elements from a visual perception perspective mentioned above, the research from Tawali and Suhaili (2023) delves into the abstract level to discern the value related to the development of character, especially in shaping student role identities[21]. Similar issues were already raised in the review of *Wish Dragon*. I contend that visual scrutiny alone cannot suffice; it is necessary to delve beyond tangible, visible symbols, and elements. Only by uncovering and explaining the intangible cultural metaphors expressed through character performances rooted in traditional culture can the cultural barriers to understanding Eastern culture by both Western and Eastern audiences be breached. This extends to a deeper understanding of Chinese culture. Based on the viewing of the films from the author, scenes featuring similar metaphors in the two animated movies are extracted below and combined for comparative analysis. This is necessary because both films are products of a fusion of Eastern and Western cultures. Firstly, *Wish Dragon* follows a Sino-American co-production model: with an American director,

named Chris Appelhans and a crew including some Chinese creators who grew up in China. According to the director, Chris Appelhans, and other creators, the story this film tells is an authentic Chinese solid story[22]. To achieve the goal of telling a genuine story, the entire creative team relocated directly to Shanghai, immersing themselves in all aspects of life to gather inspiration and incorporate their experiences into the production[23]. Moreover, on the international stage, this animation won the Best Character Animation - Feature award at the 49th Annie Awards in 2022[24]. From a domestic



Fig.1. *Wish Dragon* (2021), IMDB
Available at: https://www.imdb.com/title/tt5562070/?ref_=tt_mv_close

Fig.2. *Turning Red*
(2022), IMDB

Available at: https://www.imdb.com/title/tt8097030/?ref_=tt_mv_close



standpoint, it was nominated for Best Art Direction at the 34th Golden Rooster Awards for Chinese Films in 2021[25].

Secondly, released in 2022, *Turning Red* is produced by Disney's Pixar, but it was brought to life by Domee Shi, a female director from Canada. Shi's background as an Asian woman who grew up in a Western environment informed the film, adding depth and authenticity to its portrayal. The reason for choosing these two animated movies is the presence of Chinese cultural context among their creators. Their productions, to vary-

ing degrees, adopt an Eastern perspective in observing, designing, and producing stories that authentically incorporate Chinese characteristics. Secondly, they have gained popularity among both Western and Eastern audiences, particularly serving as a vehicle for Eastern culture, which has been recognised by Chinese viewers. This success lies in their ability to authentically portray Chinese stories, a factor evident in its current ratings of 8.2 on Douban, a Chinese social networking platform, 7.0 on IMDb, and 94% on Rotten Tomatoes, establishing itself as a celebrated achievement on prominent review platforms worldwide[26]. Therefore, the visual representation of Chinese culture is relatively accurate.

4.3. An Application of Barthes' Visual Semiotics Analysis: Wish Dragon and Turning Red

In this section, the author seeks to apply Barthes visual semiotic analysis to the films in question, by considering key visual attributes of characters, their actions and their environments to the two films highlighted, to further interrogate and understand the principles of denotation and connotation. In doing so, the intention of the author is to reveal that metaphorical devices are present as supporting devices in telling deeper stories beyond the central narrative that will be appealing to Chinese audiences.

Metaphor A: Distant Relatives Are Not as Good as Close Neighbours (In Chinese: 远亲不如近邻 Yuan Qin Bu Ru Jin Lin).

Fig.3.(left) A screenshot from *Wish Dragon* (2021)

Available at: <https://www.857yhd.com/play/6676-1-1.html>

Fig.4.(right) A screenshot from *Turning Red* (2022)

Available at: <https://www.iyftv/play/7EFfdyGp3M>



Denotative signifier	Denotative signified
Wearing a white T-shirt, the protagonist stares at the chessboard and attempts to grab it with their hand.	The protagonist is earnestly playing chess with the elderly male.
Wearing yellow clothes, the white-haired grandfather sitting opposite the protagonist is looking at him.	The elderly male is earnestly playing chess with the protagonist.
A table with a green tablecloth	The table for dining at home.
There are three neighbours, who are sitting close to the protagonist and have their hands resting on each other's shoulders. Their clothes are in shades of grey, as well as green.	People who have a close and understanding relationship, are familiar with each other and interact frequently.
Two people are standing and talking, not far from the protagonist. They are respectively wearing light pink and blue striped T-shirts, red vests, and glasses.	There are no extra chairs for them to sit on, so they stand casually chatting, without worrying that their conversation might bother the protagonist.

The denotative meanings outlined in Table 1 have already been established, which are visual representations. Subsequently, the second layer of meanings has been superimposed in the following Table 2. This Table elucidates the specific aspects of how these meanings are represented, known as ‘Connotators’, and the cultural significance they convey. This process is referred to as ‘Connotation’.

Connotator	Connotation
The protagonist engages in the life of the old man, embodying the attribute of companionship.	Companionship
The elderly individual is actively involved in the protagonist's life, demonstrating qualities of companionship.	Companionship

Table.1. Denotative Signifier and Signified in Figure in *Wish Dragon*

Table.2. Connotator and Connotation in Fig.3 from *Wish Dragon*

Table.2. Connotator
and Connotation in
Fig.3 from *Wish Dragon*

Connotator	Connotation
Daily routines are accompanied by leisure activities.	They live as a family despite no blood relation.

Table.3. Denotative
Signifier and Signified
in Fig.4 from *Turning Red*

Denotative signifier	Denotative signified
The heroine is neatly dressed, who carries a schoolbag and a musical instrument case, and wears a red top, blue skirt, glasses, and green hairpins, and was trying to pick up the chess pieces in the yard in front of two people who were playing chess. Half of the heroine’s eyebrows are frivolous, showing an expression of determination to win.	The heroine is a music-related student with a lively personality and is in adolescence. The heroine is very familiar with these two old people and understands their characters. This is not the first time the heroine has participated in their game.
The two white-haired old men watched and waited for the heroine to make her move. Among them, the old man wearing a vest showed a comfortable expression, and the old woman in a wheelchair wearing a light green T-shirt and blue pants was calm and composed.	The two white-haired old men were very familiar with the heroine. They had been playing chess here for a long time, and they were not surprised by the sudden addition of the heroine.
There is a small table in the courtyard, as high as the character’s knees, with Western-style chess sets and teacups lined up on it.	The function of the table is for playing chess.
A couple on the left is looking at something seriously, wearing white and pink T-shirts and green and blue pants. They had no communication at all with the other three.	They are visitors who come to the temple for a specific purpose.

Based on the denotative meanings analysed in the Table3, the folded second layer of meanings has been unpacked in the Table4. This Table specifies how these meanings become connotators and what kind of cultural meanings they indirectly refer to.

Connotator	Connotation
The heroine intervenes in their lives and accompanies them.	Companionship
The regular intervention of the heroine is part of the daily entertainment of the two elderly people. They enjoy sharing time, mood, and space with the heroine.	Companionship
This is a long-lasting entertainment activity. The courtyard of the heroine's family temple has long provided a fixed place for the two elderly people to play chess. The treatment is similar to that of blood-related family members.	A familial presence
This couple is not the neighbour of the heroine and the two old people.	Strangers

Table.3. Denotative Signifier and Signified in Fig.4 from *Turning Red*

In terms of *Wish Dragon*, a detailed analysis of specific character performances and their connotations sheds light on the lifestyles of the protagonist and his neighbours, along with their interaction patterns and underlying logic, as depicted in the Table 2. This analysis, rooted in the visual performances of animated characters, delves into aspects such as body language and household attire habits.

Similarly, *Turning Red* explores the connotations indicated through the characters' performances, particularly evident in the animated scene depicting the persistence of playing chess in the courtyard of the hostess's home. This activity symbolises more than just leisure; it represents deep connections across space, time, and history. Despite not being blood-related, the private time and space that the two elderly individuals receive from the protagonist's family is a form of invisible care for them, forming an invisible bond that transcends biological relationships. From a social perspective, they become integral members of the heroine's family, visually representing a lasting bond with society. The preceding analyses elucidate the connotations, drawing parallels between the interactions among the main characters in these two animated feature films and the notion of neighbourly interaction, as exemplified by the protagonist's family dynamics and their relationships with neighbours. While playing chess serves as a visual medium for representation, its true significance lies in the interpersonal connections it fosters.

This thematic development employs a metaphor to convey the im-

portance of close neighbourly relationships, a cherished concept in Chinese culture. This harmonious way of life with neighbours finds its roots in traditional Chinese literature, notably exemplified in the fourth act of a Yuan Dynasty miscellaneous drama, titled ‘East Chamber’s Elders’ (in Chinese, 东堂老): ‘岂不闻远亲呵不似我近邻 · 我怎敢做的个有口偏无信’ [27]. Translated from Classical Chinese, this verse suggests that although distant relatives may share familial ties, they cannot compare to neighbours in terms of mutual concern, assistance, and intimacy, highlighting the significance of interpersonal relationships within Chinese society.

Metaphor B: The dilemma of filial piety between children and parents. (In Chinese: 孝顺父母 Xiao Shun Fu Mu).

Fig.5.(left) A screenshot from *Wish Dragon* (2021)
Available at: <https://www.857yhdm.com/play/6676-1-1.html>

Fig.6.(right) A screenshot from *Turning Red* (2022)
Available at: <https://www.iyftv/play/7EFffdyGp3M>



Table.4. Denotative Signifier and Signified in Fig.4 from *Turning Red*

Denotative signifier	Denotative signified
A round-bodied woman is holding a bowl of food up to the male protagonist's chin. She is wearing a pink T-shirt and a red apron, looking at the male protagonist sternly.	The heroine is a music-related student with a lively personality and is in adolescence. The heroine is very familiar with these two old people and understands their characters. This is not the first time the heroine has participated in their game.
The two white-haired old men watched and waited for the heroine to make her move. Among them, the old man wearing a vest showed a comfortable expression, and the old woman in a wheelchair wearing a light green T-shirt and blue pants was calm and composed.	As the male protagonist's mother, she worried that the male protagonist was hungry and strongly urged him to eat the food.
A slender young man leaned back, with a look of shock and resistance on his face.	The male protagonist is not hungry at that time, but it is difficult for him to refuse or accept the sudden concern from his mother.

Denotative signifier	Denotative signified
A Chinese bowl with food piled high above the rim.	The food in the bowl exceeds the normal amount of food and is prepared for a starving situation.

Table.5. Denotative Signifier and Signified in Fig.5 from *Wish Dragon*

The Table 6 below elucidates the unpacked meanings. It outlines how these meanings serve as connotative symbols and indirectly allude to cultural significances.

Connotator	Connotation
The mother’s oppressive concern; the mother’s domineering attitude.	Unequal status between parents and children.
The mother’s concern is misaligned with what the male protagonist needs.	Excessive concern; Ineffective concern.
The amount of food prepared is greater than what is normally consumed.	Love is based on fantasy rather than fact.

Table.6. Denotative Signifier and Signified in Fig.5 from *Wish Dragon*

Denotative signifier	Denotative signified
The back of a large woman wearing green clothes, long hair, and green earrings, and is holding a plate with two buns.	The mother, concerned for her daughter’s hunger, prepared three buns and already promptly stuffed one into her mouth.
A girl was wearing red clothes, glasses, a green hairpin, and short black hair. The bun in her mouth was so big that she could not close her mouth. With constricted pupils, large areas of sclera, and slouched eyebrows, her face showed fear and confusion.	The heroine, who had a bun stuffed into her mouth, looked confused, puzzled, and resistant.

Table.5. Denotative Signifier and Signified in Fig.5 from *Wish Dragon*

Table.7. Denotative
Signifier and Signified
in Fig.6 from *Turning
Red*

Denotative signifier	Denotative signified
There are two larger buns lying on a Chinese plate	The mother wants her daughter to eat all three buns. The size of the buns is such that children cannot eat them in one bite.

The Table 8 below delves into the unpacked meanings, illustrating how they transform into connotative symbols and subtly reference cultural significances.

Table.8. Denotative
Signifier and Signified
in Fig.6 from *Turning
Red*

Connotator	Connotation
Mother’s compulsive concern and attitude that brooks no resistance.	Children must obey their parents; Parental authority.
Giving stressful love to children; no freedom.	Parental authority: Parents have absolute control.
The amount and number of foods represents the amount of concern for the children.	Love is based on fantasy rather than fact.

In analysing *Wish Dragon*, the pressure arising from the mother-son relationship is illuminated through the scrutiny of facial expressions, attire, body language, and character interactions. This tension is compounded by the weight of excessive maternal love, notably depicted through the quantity of food. The mother’s act of force-feeding her son, irrespective of whether he is hungry or not, underscores her elevated status within the household. While reinforcing the expectation of filial piety, it also epitomises the mother’s unconditional love. Despite the son’s lack of hunger, he accepts the food as a symbol of maternal care, embodying kindness and understanding amidst familial complexities.

Turning to *Turning Red*, similar connotations arise from character performances, particularly regarding the ideological expression of parents’ pressured love. Specifically, the mother’s forceful feeding of her daughter, labelled as maternal care, reflects a pervasive form of moral coercion within familial dynamics, imposing needs upon children’s growth.

Interestingly, both films visually depict maternal love through force-feeding, driven by parental concerns about their children’s hunger. However, this action stems from the mother’s subjective imagination of the child’s needs, leading to ineffective and exhausting efforts. For children, receiving such behaviours under the guise of love poses a dilemma, as they may not align with their actual needs. Moreover, refusing these ges-

tures challenges the principle of filial piety, complicating the parent-child dynamic. Originally, in Asian culture, there is a historical influence from Confucian principles that prioritise social harmony, often emphasising the idea of prioritising the group's needs over individual ones[28].

More specifically, there is a particular emphasis on honouring and showing respect to elders, encapsulated in the concept of filial piety[28]. Even though social development in China has come to the 21st century, this is still an effective binding force among family members. Moreover, filial piety entails children meeting their parents' practical, financial, and emotional needs, while also stressing obedience and respect towards seniors, irrespective of one's own age[29]. For example, Mulan's story serves as the most typical and familiar story about filial piety. In this original folklore, Mulan's motivation for joining the army in her father's place reflects that she prioritises her father's well-being over her own safety[30]. In other words, she would rather die on behalf of her father, instead of letting her father die. This act embodies the essence of filial duty, illustrating the enduring significance of familial obligations in traditional Chinese culture. Therefore, in both animated feature films of *Wish Dragon* and *Turning Red*, the varied characters' performances metaphorically illustrate this dilemma of 'filial piety' in Chinese households in the 21st century, highlighting the evolving challenges faced by children within the family unit.

4.4. Visual Semiotic Analysis of Iconography of Panofsky: *Wish Dragon* and *Turning Red*

In essence, iconography has the same basic questions as the visual semiotics of Roland Barthes[17]:

- 1) The query of depiction: what are the representations within images and how are they conveyed?
- 2) The inquiry into the concealed connotations of images: what concepts and principles do the individuals, locations, and objects depicted in images symbolise?

Beyond the two basic questions, differing from the semiotics of Roland Barthes, iconography also considers the circumstances under which the image is created and disseminated, as well as the historical factors influencing the emergence of cultural meanings and their visual representations[17].

Iconography distinguishes three layers of pictorial meaning [17],

“First layer: Representational meaning

Second layer: Iconographical symbolism

Third layer: Iconological symbolism.”

In other words, the process of conducting this method is: firstly, the description of the object is based on our real-life knowledge, while also acknowledging the stylistic norms and technical alterations applied in the portrayal. Secondly, beyond the explanation of specific individuals, objects, or locations, it needs to encompass the ideas or concepts associated with them. Finally, from a broader perspective, to uncover the underlying stance of a nation, era, social class, faith tradition, or viewpoint of philosophy[31].

Iconography, hence, can serve as a tool for dissecting symbols and distinctive features within the settings where character performances oc-

cur, and interactions unfold among different characters. Subsequently, a thorough understanding of these elements allows for a deeper exploration of the metaphors embedded in the animated scenes, which involves character performances. Simultaneously, it effectively elucidates the motivations behind these character portrayals. Following that, an examination of the iconography within animated scenes featuring character performances from two animated films will be undertaken. This analysis aims to elucidate how these visual elements symbolise the cultural concept of ‘reunion’.

Metaphor C: Reunion: Identity Construction of Chinese Families (In Chinese: 团圆 Tuan Yuan).

Fig.7. A screenshot from *Wish Dragon* (2021)
Available at: <https://www.857yhdm.com/play/6676-1-1.html>



Fig.8. A screenshot from *Turning Red* (2022)
Available at: <https://www.iyf.tv/play/7EFffdyGp3M>



Table.9. Representational Meaning, Iconographical Symbolism, and Iconological Symbolism in Fig.7 from *Wish Dragon*

Representational meaning	Iconographical symbolism	Iconological symbolism
People of different ages were talking and laughing around the table, some were eating dumplings, and some were waiting for them.	The male protagonist’s neighbours welcomed the female protagonist back to their group, celebrating the joy.	Reunion, Celebration
There is a bowl of dumplings, dipping sauces and condiments lined up on the table.	The habit of eating dumplings	A sense of ceremony

Representational meaning	Iconographical symbolism	Iconological symbolism
A group of adults and a child sat around a table of delicious food.	The Meilin family welcomes visits from their relatives.	Reunion
The dishes on the table include meat and vegetables, as well as soup. Among them, c-1, c-2, c-3, c-4, and c-5 represent different types of meat.	Emphasising the abundance of food.	A sense of ceremony
The entire family has gathered.	The family has a strong cohesion and influence.	Unity

Table.10. Representational Meaning, Iconographical Symbolism, and Iconological Symbolism in Fig.8 from *Turning Red*

In the scene of *Wish Dragon* (see Table 9), a group of individuals gathers together under the leadership of a central figure, fostering an atmosphere of harmony and joy. Their interaction during the shared activity of eating dumplings, with carefully prepared dipping sauces, symbolises a ceremonial aspect of dining, evoking a sense of belonging deeply ingrained in Chinese culture. Traditionally, the act of eating dumplings has held profound significance, symbolising reunion since ancient times[32]. This cultural metaphor portrayed in *Wish Dragon* underscores the importance of collective gatherings in fostering familial bonds.

Similarly, in *Turning Red* (see Table 10), the depiction of a family gathering around a round table echoes the theme of completeness and reunion. Each occupied seat reflects the strong cohesion and unity within the family, while the diverse array of dishes, particularly the abundance of meats, signifies prosperity and abundance. This scene parallels the traditional Chinese custom of celebrating the New Year with a reunion dinner, further emphasising the cultural significance of family gatherings in Chinese society. Moreover, the practice of saving a seat and tableware for absent family members during Lunar New Year's Eve dinner highlights the enduring value of inclusivity and reunion in Chinese culture[33].

Therefore, from the above analysis, it becomes evident that collective activities within families or communities, such as eating dumplings or sharing meals, serve as powerful expressions of rebuilding family identity and fostering cohesion, metaphorising reunion. These gatherings not only provide care, warmth, and comfort but also help construct the concept of 'home' in people's hearts. Furthermore, reunions are not confined to festive occasions; rather, they hold significance in everyday life, serving as visual representations of the joy of reuniting with loved ones, even amidst ordinary circumstances.

5. Conclusion

In conclusion, this study delves into the visual representation aspect of character performance. By analysing the visual semiotics of character performance and relevant plot scenes, it unpacks the cultural metaphors embedded in Chinese traditional culture that animated film directors seek to convey. Additionally, the analysis aims to connect specific cultural origins of the metaphors to accurately reconstruct the appearance of the hidden visual culture. The primary objective of this study is to broaden and deepen understanding of Chinese culture, particularly for international audiences lacking a Chinese cultural context but seeking to grasp authentic Chinese culture. Furthermore, this study aims to offer guidance for animation professionals interested in depicting Chinese stories, enabling them to accurately represent the cultural and ethnic diversity of Chinese animated characters in their work.

6. References

1. P. Wells, *Understanding animation*. 2013.
2. D. Bin Abdul Ghani, "Upin & Ipin: Promoting Malaysian culture values through animation," *Hist. y Comun. Soc.*, vol. 20, no. 1, pp. 244, 246, 247, 2015, doi: 10.5209/rev-HICS.2015.v20.n1.49558.
3. H.-Y. Chiu and W.-L. Chu, "Analysis of the Narrative Types of 'Metaphor' in Animated Short Films," *Art Des. Rev.*, vol. 07, no. 04, pp. 206-209, 212, 222, 2019, doi: 10.4236/adr.2019.74017.
4. M. Barnard, *Graphic Design as Communication*. 2005.
5. Y. Wang and Z. Han, "The enlightenment of the cultural elements of paper-cut to the creation of modern animation," *Proc. - 2020 Int. Conf. Comput. Inf. Process. Adv. Educ. CIPAE 2020*, pp. 256-258, 2020, doi: 10.1109/CIPAE51077.2020.00072.
6. S. Heller and M. Finamore, *Design culture: An anthology of writing from the AIGA Journal of Graphic Design*. Allworth Press, 1997.
7. J. Hallett and R. Hallett, "Metaphors and topoi of H1N1 (swine flu) political cartoons: A cross-cultural analysis," *Linguist. Study Comics*, 2012, doi: 10.1057/9781137004109_4.
8. V. Tsakona, "Language and image interaction in cartoons: Towards a multimodal theory of humor," *J. Pragmat.*, 2009, doi: 10.1016/j.pragma.2008.12.003.
9. C. Forceville and S. Paling, "The metaphorical representation of Depression in short, wordless animation films," *Vis. Commun.*, vol. 20, no. 1, pp. 100-120, 2018, doi: 10.1177/1470357218797994.
10. L. Artz, "Animating Hierarchy: Disney and the Globalization of Capitalism," *Glob. Media*, vol. 1, no. January 2003, 2003, [Online]. Available: <http://www.globalmedia-journal.com/open-access/animating-hierarchy-disney-and-the-globalization-of-capitalism.pdf>.
11. L. Artz, "The righteousness of self-centred royals: The world according to disney animation," *Crit. Arts*, vol. 18, no. 1, pp. 116-146, 2004, doi: 10.1080/02560240485310071.
12. S. K. Shah, A. Riaz, and A. Aqeel, "The Politics of Innocence: A Semiotic Analysis of the Pakistani Animated Cartoon Series *Burka Avenger*," *Int. J. Appl. Linguist. English Lit.*, vol. 9, no. 5, p. 40, 2020, doi: 10.7575/aiac.ijalel.v9n5p.40.
13. H. Hasbullah, I. W. Mudra, and I. W. Swandi, "The Meaning of Bali Aesthetic Code

- in *The Animated Film Si Uma*,” Dewa Ruci J. Pengkaj. dan Pencipta. Seni, vol. 16, no. 2, pp. 117–123, 2021, doi: 10.33153/dewaruci.v15i2.3164.
14. A. I. F. Tawakkal, A. T. Monix, and E. Watani, “Semiotic Analysis of Moral Messages in Animated Film *Raya and The Last Dragon*,” *NOTION J. Linguist. Lit. Cult.*, vol. 3, no. 2, pp. 105–111, 2021, doi: 10.12928/notion.v3i2.4798.
15. A. I. Zulkarnain, S. Surawan, and S. N. Wahidah, “Moral Message in Alif and Alya’s Animated Film ‘Episode 1-4’ As Children’s Education (Ronald Barthes Semiotics Analysis),” *Profetika J. Stud. Islam*, vol. 23, no. 2, pp. 204–210, 2022, doi: 10.23917/profetika.v23i2.19647.
16. G. Allen, Roland Barthes. Routledge, 2003.
17. T. van Leeuwen and C. Jewitt, *The handbook of visual analysis*. SAGE Publications Ltd, 2001.
18. S. Aurelya and N. Laurencia, “Analisis Karakter Tokoh Utama Film *Wish Dragon*: Nilai Moral Konfusianisme,” *J. Onoma Pendidikan, Bahasa, dan Sastra*, vol. 9, no. 2, 2023, doi: 10.30605/onoma.v9i2.2611.
19. V. Shafira and C. Rui, “Semiotics Analysis of Representation Chinese Culture in Sony Pictures Animation Film *Wish Dragon Movie*,” *MANDARINABLE J. Chinese Stud.*, vol. 2, no. 2, 2023, doi: 10.20961/mandarinable.v2i2.799.
20. R. N. Al’ula and L. H. Sihombing, “Symbolism in Film *Turning Red*: Representation of Chinese Culture Through Animated Movies,” *J. Pendidik. Bhs.*, vol. 10, no. 1, p. 2023, 2023, doi: <https://doi.org/10.36232/jurnalpendidikanbahasa.v10i1.3937>.
21. T. Tawali and M. Suhaili, “Analysis Of Character Building Values In *Turning Red*,” vol. 8, no. 4, 2023.
22. “Analysis Behind the Wishing Dragon (in Chinese: 许愿神龙幕后解析),” 2022. https://www.bilibili.com/video/BV1934y1Y7N1/?share_source=copy_web&vd_source=4e26ee1c4b3811db55541b4f8364d87f (accessed Apr. 10, 2024).
23. “The Sino-American co-production animation isn’t doing well anymore! ‘The Wishing Dragon’ faithfully recreates the Shanghai scenery, but the box office is disappointing! (in Chinese: 中美合拍动画不香了!《许愿神龙》真实还原上海风貌·票房扑街!),” 2021. https://www.bilibili.com/video/BV1sr4y1K7ZM/?share_source=copy_web&vd_source=4e26ee1c4b3811db55541b4f8364d87f (accessed Apr. 10, 2024).
24. “Annie Awards,” 2021. <https://annieawards.org/legacy/49th-annie-awards> (accessed Apr. 10, 2024).
25. “Review of Nominees for Best Artistic Film at the 34th China Golden Rooster Awards: Which Art Style Attracts You? (in Chinese: 第34届中国电影金鸡奖最佳美术片提名盘点 你被哪种画风吸引?),” 2021. https://www.bilibili.com/video/BV1jL4y1H7AE/?share_source=copy_web&vd_source=4e26ee1c4b3811db55541b4f8364d87f (accessed Apr. 10, 2024).
26. R. Chen and Y. Liu, “A Study on Chinese Audience’s Receptive Behavior towards Chinese and Western Cultural Hybridity Films Based on Grounded Theory—Taking Disney’s Animated Film *Turning Red* as an Example,” *Behav. Sci. (Basel)*, vol. 13, no. 2, 2023, doi: 10.3390/bs13020135.
27. G. Zhao, “Common Knowledge and Grand Principles | How does China adhere to the diplomatic concept of ‘A close neighbor is better than a distant relative’? (in Chinese: 澎湃--小常识与大道理 | 中国如何坚持 ‘远亲不如近邻’ 的周边外交理念?),” 2022. https://www.thepaper.cn/newsDetail_forward_18354880 (accessed Apr. 10, 2024).
28. H. Bayar, “Turning Red: Tradition, Repression, Mommy Issues, and a Millennial

Way of Growing Up,” *Mark. Glob. Dev. Rev.*, vol. 7, no. 1, p. 2, 2022, doi: 10.23860/mgdr-2022-07-01-02.

29. M. Tu, “Chinese one-child families in the age of migration: middle-class transnational mobility, ageing parents, and the changing role of filial piety,” *J. Chinese Sociol.*, vol. 3, no. 1, 2016, doi: 10.1186/s40711-016-0036-z.

30. C. Christina and S. Suprajitno, “The Americanization of Confucian Filial Piety in Disney’s *Mulan* (1998),” vol. 2, no. 1, p. 31, 2014, doi: <https://doi.org/10.9744/katakita.2.1.%25p>.

31. E. Panofsky, *Meaning in the Visual Arts*. Penguin, 1970.

32. H. Mallee and F. N. Pieke, *Internal and international migration: Chinese perspectives*, 1st ed. Curzon Press, 1999.

33. H. Xue, X. Zhao, P. Nikolay, and J. Qin, “Family identity construction: an interpretation of the Lunar New Year’s Eve dinner consumption ritual,” *J. Contemp. Mark. Sci.*, vol. 5, no. 1, p. 30, Jan. 2022, doi: 10.1108/JCMARS-10-2021-0037.

Lobo Bullying: Um livro entre a Ecologia Natural e a Ecologia Social



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Resumo

A coexistência de lobos e humanos é ancestral e envolve o real e a representação. A relação humana com o lobo é ambivalente e contraditória. Admiração e desrespeito convivem num conflito que teima em prolongar-se, com base num longo histórico de ódio e perseguição. Fatores pragmáticos e simbólicos contribuem ainda para uma imagem negativa do lobo. A acumulação de narrativas condicionadas pela crença e pela desinformação prolonga os estigmas, apesar dos sinais de reciclagem que se têm feito sentir no domínio científico, artístico ou técnico. O imaginário coletivo está ainda refém de uma memória sedimentada e o exercício criativo em torno do lobo urge ser reciclado. O desafio é ainda maior quando verificamos que o que a espécie humana inflige ao lobo, impõe igualmente à sua própria espécie, através da censura, do racismo, da perseguição, da tortura, do extermínio, do desrespeito pela liberdade e pela vida. Este estado de situação é motivo e mote do livro *Lobo Bullying*, que apresentamos neste texto. Expondo a sua dimensão ecológica nas vertentes natural e social, anotamos a sua produção no contexto geral do trabalho dos autores. Recorrendo a elementos visuais e textuais, a publicação é revista nos seus propósitos e critérios, nos seus aspetos conceituais e técnicos, abordando o projeto, o tema, a ilustração, a escrita, o livro, a sua potencial receção e mediação.

Abstract

The coexistence of wolves and humans is ancient, involving the reality and the representation. The human relationship with the wolf is ambivalent and contradictory. Admiration and disrespect coexist in a conflict that stubbornly persists, based on a long history of hatred and persecution. Pragmatic and symbolic factors also contribute to a negative image of the wolf. The accumulation of narratives conditioned by belief and misinformation perpetuates stigmas, despite signs of recycling in the scientific, artistic, or technical domains. The collective imagination is still hostage to a sedimented memory, and creative exercise around the wolf urgently needs to be recycled. The challenge is even greater when we realize that what the human species inflicts on the wolf is also imposed on its species, through censorship, racism, persecution, torture, extermination, disrespect for

Palavras-Chave

Lobo-Bullying, Ilustração-Design, Literatura para a infância, Receção-Mediação

Keywords

Wolf-Bullying, Illustration-Design, Children's Literature, Reception-Mediation

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freedom, and life. This state of affairs is the reason and theme of the book "Lobo Bullying," which we present in this text. By exposing its ecological dimension in both natural and social aspects, we annotate its production in the general context of the authors' work. Using visual and textual elements, the publication is reviewed in its purposes and criteria, in its conceptual and technical aspects, addressing the project, the theme, the illustration, the writing, the book, its potential reception, and mediation.

1. O tema

Lobo Bullying [1] é um livro em torno do lobo, da sua relação com o ambiente natural e com a cultura humana. A temática do lobo tem envovido a dupla Gémeo Luís (ilustrador) e Eugénio Roda (escritor) num conjunto de ações complementares – livros, exposições e oficinas – com diferentes focagens, contextos e destinatários; a abordagem do lobo resultou do desafio do ilustrador ao escritor para desenvolverem, juntos, algum trabalho neste domínio. [2]

A relação pragmática e simbólica da espécie humana com as restantes espécies é densa e ancestral. Neste histórico, e em termos globais, o lobo ocupa um lugar particularmente relevante e ambivalente – entre nós, e face a outros carnívoros, o lobo tem uma presença incomparável na literatura portuguesa [3]. Se, por um lado, inspira respeito e motiva proteção, por outro, é alvo de repúdio e vítima de conflito. Se o conhecimento científico enaltece o super-predador e lhe atribui a capacidade de otimizar o ecossistema com benefício humano, a crença, por seu turno, replica um sentimento de repulsa e incita à perseguição. Assim se foi constituindo um património no qual a literatura oral e escrita – e, por extensão, as outras artes – tiveram e têm um papel ativo, replicando ad eternum causas e efeitos.

O fenómeno do lobo – perseguição, extinção, recuperação e reparação – é transversal e a história repete-se internacionalmente. Portugal não foi, naturalmente, exceção. Segue-se uma nota sumária do estado de situação nacional com base em estudos recentes, nomeadamente no Plano de Ação para a Conservação do Lobo-Ibérico em Portugal [4] que envolvem a observação diacrónica e síncrona do fenómeno do lobo, o acompanhamento e monitorização da população lupina existente, a sensibilização e informação da comunidade humana, bem como ações concretas em favor da ecologia, a natural e a social.

Na Península Ibérica, a coexistência entre humanos e lobos remonta à Pré-história. Desde o século XI, há registos de uma grande abundância de lobos em Portugal.

Na Idade Média, as populações eram obrigadas por lei a matar lobos: quem os matasse era recompensado, quem não o fizesse era multado. Nos séculos XIV, XV e XVI, os prémios variavam consoante a moeda e conforme o lobo: se era macho ou fêmea, velho, jovem ou cria. No século XVII, quem fosse condenado por um crime podia obter o perdão se matasse uma certa quantidade de lobos. Nas serras do noroeste do país existem dezenas de fojos do lobo, armadilhas feitas em pedra: capturar um lobo era um momento festivo. As primeiras referências ibéricas ao uso da estricnina datam do século XIX, como método aconselhado para controlar a população de lobos; o lobo abundava no país no Norte e no Sul; no Alen-

tejo, por exemplo, realizavam-se montarias com milhares de pessoas, que resultavam na morte frequente de dezenas de lobos. Na segunda metade do século XX, começou a extinção, de sul para norte e do litoral para o interior, principalmente devido à perseguição humana. No Sul, a extinção teve início na década de sessenta: nos anos noventa, a população de lobos já só ocupava um quinto da área original.

Hoje, em território português, só há lobos a norte de Viseu; predominam nas serras do Parque Nacional do Gerês, no Parque Natural de Montesinho e no Parque Natural do Alvão. Estão identificadas cerca de sessenta e três alcateias – quarenta e cinco a cinquenta e quatro a norte do rio Douro, seis a nove, a sul – e um total de duzentos e vinte a quatrocentos e trinta lobos. A proteção do lobo está legislada [5]. A legislação inclui medidas preventivas e compensatórias relacionadas com os ataques do lobo a presas domésticas e à proteção de rebanhos. No entanto, a par da sua defesa e estudo em benefício das comunidades, o lobo continua a ser caçado, através de armadilhas, veneno e armas de fogo.

Seja em relação ao lobo, seja em relação a si mesma, a espécie humana tem um histórico saturado no que respeita à ameaça, à perseguição, à tortura, ao extermínio; felizmente também abundante na (tentativa de) reparação e recuperação. Desnecessário será dar exemplos, tão fértil é a realidade num e noutro caso. E porque o histórico de que falamos dá fortes sinais, na agenda do dia, de replicar e agravar os sintomas – guerra, migrações, problemas climáticos, entre muitos outros, em rede – Lobo Bullying encontra pertinência no contributo, na participação das ações sensibilizadoras, reparadoras:

“Neste livro, revisita-se o lobo e a memória-viva da sua perseguição. E também da sua proteção, do seu direito à vida, da sua importância no ecossistema. Parte-se de lendas e fábulas, de histórias de vida e de morte, de velhas notícias e novos estudos, de crenças e factos, de problemas e soluções, para reescrever e ilustrar uma das mais antigas formas de bullying arquivada na memória coletiva. É um livro contra os estereótipos, um livro contra os mal-entendidos” [6]

A adoção do tema do lobo não é apenas um meio para chegar ao problema humano: ambas as relações, humano-lobo e humano-humano carecem de reflexão, decisão e resolução, no quadro geral e problemático da ecologia natural e social.



Se o imaginário coletivo foi sendo recalçado com efeitos negativos na imagem do lobo, Lobo Bullying (fig. 1) procura contribuir para reciclar esta imagem, oferecendo conteúdos e exercícios – de texto e ilustração – que visam ultrapassar a inércia da qual humanos e lobos são

Fig. 1. Lobo Bullying. Eugénio Roda, Gémeo Luís. Editora Eterogémeas, 2019.

reféns: alargar o horizonte criativo, diversificar pontos de vista – junto do leitor infantil e, mais ainda, jovem e adulto – mostrar novas relações entre ideias e conteúdos, promover o contraditório, fomentar a diversidade, confrontar crenças, ajudar ao debate, oferecer matéria para refletir e agir, prescindindo do douramento ou da prescrição. Por outras palavras, trata-se de um exercício de opinião que pretende juntar-se interativamente a outros, promovidos por outras vozes.

2. A ilustração

Refletindo sobre a ilustração, o seu ensino e a sua prática em comparação com a atividade artística, o ilustrador Steve Brodner defende que “o que torna o nosso trabalho diferente e mais difícil do que o de outras atividades artísticas é que devemos fazer pelo menos duas coisas ao mesmo tempo: resolver problemas de todos os tipos, formais, espaciais, cromáticos, e contar uma história.” [7]. Neste contexto, o ilustrador de Lobo Bullying explica o seu caso:

“A minha formação de designer condiciona a minha maneira de ilustrar... começo por exercícios de síntese, recorro muitas vezes a pequenas frases, organizo pequenos textos que me ajudam a controlar a globalidade do objecto... tento criar relações... estrutura uma narrativa que procura eficácia da mensagem que não subestime mas que enco-rra a espontaneidade, tenho sempre presente o objecto final.” [8]

E no que respeita à interpretação do texto,

“As referências à arte e ao design, embora tenha de as conhecer, não me interessam mais do que as influências de outras áreas. Sinto com maior nitidez o entusiasmo pela arquitetura, pela música, pelas ciências como a biologia ou a zoologia. Convivo com mais gente ligada a outras áreas do que à arte ou ao design. Folheio ou escuto coisas que procuro ou às quais sou permeável. Coisas que me entusiasmam e às quais eu não teria acesso se formatasse ou limitasse a minha atenção às referências específicas.” [9]

Anotando o destaque do ilustrador “por críticos e entidades” que lhe reconhecem “um lugar especial na ilustração contemporânea”, Bernardo Pinto de Almeida testemunha que ele “orquestra o livro, consciente e defensor de que a ilustração é apenas parte de um todo: assume que todos os aspetos, conceituais e materiais (conceito, tema, programa, dimensões, suporte, etc) respeitantes ao álbum têm uma importância equitativa.” [10]

Lembrando que na história, tal como na contemporaneidade, ressaltam à vista “centenas de estilos”, Alan Male aponta a dicotomia na qual se opõem dois modos de formar imagens: “as ilustrações literais tendem a representar verdades pictóricas. [...] A segunda forma de ilustração pode ser descrita como conceptual. Aqui, podemos ter aplicações metafóricas ao tema ou representações visuais de ideias ou teorias.” [11]. Referindo-se a Gémeo Luís, a historiadora de arte Mallica Landrus diz que “as suas ilustrações trabalham na convergência entre figuração e abstração para criar figuras semelhantes a desenhos animados num mundo contemporâ-

neo marcado por perspectivas flutuantes.” [12]. O carácter eminentemente simbólico das ilustrações em causa favorece o livro aqui apresentado, na medida em que o poder da síntese acompanha o potencial das mensagens.

Consciente de que “a ilustração está fundamentalmente envolvida no mundo social porque é produzida para atuar dentro dele” [13] e de que “sem contexto, uma imagem não pode ser classificada como ilustração” [14], Gémeo Luís enfatiza esta função, estabelecendo com o texto um diálogo de extensão visual, convocando e reforçando através de outras imagens (dialogantes com o imaginário do texto) ligações sociais e intergeracionais. A este propósito, a investigadora Ana Margarida Ramos anota: “como é habitual neste ilustrador, mais do que uma relação de servilidade em relação ao texto, a ilustração prolonga-o, permitindo a sua recriação e até o seu redimensionamento, ao mesmo tempo que promove o diálogo e a construção de outros sentidos para além dos mais óbvios.” [15]

Assim, em Lobo Bullying, as soluções ilustrativas oscilam entre a sugestão

de cenas compósitas – com ilusões espaciais que surgem por sobreposição e justaposição de elementos – e a pele bidimensional que encontramos, por exemplo, na produção cartazista.

Neste domínio, a ilustração faz algumas aproximações ao panfletário, sintetizando e amplificando «vozes» no reforço das mensagens que o livro requer. Nos exercícios formais de positivo-negativo (fig.2) inerentes à técnica do recorte, cabe o diálogo entre signos articulados num diálogo profícuo; elementos paisagísticos marcam a presença do natural e do urbano; o protagonista do

Fig. 2. Lobo Bullying, páginas 50-51.



Fig. 3. Lobo Bullying, páginas 12-13.

livro é desdobrado em múltiplas personagens: quer na relação justaposta da figura do lobo e do humano, mostrando relações analógicas, quer na representação antropomórfica do lobo; com recurso a estratégias diversificadas, a metáforas visuais, a analogias, a metonímias ou a citações (fig. 3) – no cruzamento de referências à História da Arte ou à Arte Urbana – atravessam a publicação.

3. O texto

No contexto da literatura para a infância, o investigador e escritor José António Gomes anota que Eugénio Roda é “conhecido por cultivar géneros menos comuns na fronteira com a escrita «para adultos»” [16]; referindo-se ao autor como “mestre do ludismo linguístico” [17], explica:

“Os textos de Eugénio Roda [...] distinguem-se pela qualidade e criatividade da elaboração linguística, investindo em processos como o jogo verbal, a escrita aforística e outros recursos expressivos que os aproximam da poesia, mesmo quando estamos em presença de uma estrutura narrativa. A reflexão sobre a própria linguagem, patente em vários textos, é outro dos aspectos a salientar.” [18]

Num jogo exploratório de palavras e de frases no qual a linguagem é usada como *um meio* mas também como *um fim* – “vamos crescendo a ler e a escrever (...) esquecemo-nos que há coisas simples como a música, o som das palavras” [19] –, os jogos de linguagem e os desafios de sentido (efeitos, deslizos, desvios) alargados ao *nonsense* procuram fertilizar o significado, mas também o significante. Nesta ambivalência, será certo que “não podemos nem prescindir das palavras nem ter nelas total confiança. Mas é sempre possível especificar bem as frases, o sentido das palavras, obrigar os termos a não conterem muito mais coisas – nem muito menos – do que aquelas que queríamos dizer.” [20]. Atravessado pela metáfora, o livro assume, por vezes, um tom prosaico:

“Imagina que andas com a tua família à procura de restaurante para almoçar e que:

- a) O teu pai leva um tiro sem saber de onde vem o disparo;
- b) O teu irmão mete o pé numa armadilha ao sair do automóvel;
- c) A tua mãe é envenenada ao provar o primeiro prato;
- d) Tu sobrevives até à próxima perseguição.” (p. 42).



Fig. 4. Lobo Bullying, páginas 30-31.

Considerando os livros editados em parceria, Lobo Bullying é dos que mais conta com a diversidade de recursos linguísticos e literários; recorre à ficção e à não-ficção, visita diferentes tipos de texto e géneros literários: literatura de tradição oral, texto narrativo, descritivo, instrucional, epistolar, confessional; inclui tópicos como a carta, o diário, a lista, o poema, a cantiga, a receita, a bula, o anúncio, entre outros; o virar de página pode revelar etimologia, toponímia, genealogia, neologia; choques de sentido entre o real e o ficcional; recursos retóricos como a citação, a aliteração, a paródia, a ironia, a metonímia, o eufemismo, o disfemismo; há também aforismos [«lobaforismos»] como “a amizade é uma arte: amigos, amigos, habitats à parte” (p. 30) (Fig. 4), neologismos [«desesconderijosamente»] (p. 36) e lengalengas [«lengalobolenga»] (p. 52)]. Embora sejam coligidas informações em torno do tema adotado, este não é o propósito de Lobo Bullying. Como já referido, o livro procurou ganhar pertinência como exercício de opinião. Daí que, tal como a ilustração, também a escrita passou pela apropriação dos dados iniciais, propondo combinatórias, enunciados particulares, novas mensagens.

4. O livro

Em Lobo Bullying não se conta uma história, contam-se várias – narrativas orais, histórias de vida, histórias dentro de histórias –, entre outras formas textuais e visuais. Nele não se procura criar uma história de amizade entre humanos e lobos, pois cada um tem o seu habitat. O livro contrasta com outros que desenvolvem narrativas em sequência [21] ou que incluem sugestões explícitas e informações concretas em prol da proteção do lobo [22]: porque não se vincula propriamente à causa do lobo, mas quer expandir esta causa à causa humana (cremos que esta finalidade é transversal a toda e qualquer edição neste âmbito temático, apenas diferindo no modo de a realizar); e, principalmente, porque não adota uma hierarquia, pelo contrário, desenvolve-se através de fragmentos complementares e equivalentes – spread a spread, o corte temático (sub-temático) disponibiliza a entrada-saída no miolo em qualquer página, sem perda daquilo que ele tem para oferecer.

Quer o texto quer a ilustração são desenvolvidos em interdependência: ambos são atratores de ideias, conceitos, enunciados, tópicos que dão origem, por apropriação, transformação e recombinação, a novos conteúdos e novas propostas de leitura e de observação. O livro em causa leva mais longe alguns dos aspetos distintivos da produção desta dupla de autores – cuja parceria tem mais de vinte e cinco anos (o primeiro livro foi editado em Macau [23], ainda não usavam pseudónimos) –, aqui em primeira voz:

“Para nós, fazer um livro é como... fazer um livro para nós! Gostamos de livros capazes de nos convidar, entusiasmar, desafiar, agradar em termos estéticos. Seja pelo conteúdo, seja pelos jogos entre o texto e a imagem, seja pela forma, seja pela qualidade dos materiais e da impressão. Nenhuma destas dimensões resolve as demais, nenhuma destas qualidades é dispensável ou adiável. (...) Numa metáfora, cada um dos nossos livros surge como uma espécie de álbum de viagem, realizada por duas pessoas (escritor e ilustrador, que escolheram o destino, o modo de viajar, etc) e que, através de vias diferentes, descrevem, comentam, complementam, desafiam-se mutuamente, dialogando. (...) Partimos ora do texto para a ilustração, ora da ilustração para o texto. Se uma mancha *se quer estender*, propõe a uma frase *que se encolha* ou vice-versa. Por vezes aglomera-se o texto ou suspende-se a imagem, por vezes a ilustração estende-se numa sequência exclusivamente visual. Reduz-se um, amplia-se o outro, fazendo das palavras e dos papéis recortados matérias equivalentes.” [24]

Admitindo que “o cerne do bom funcionamento de um álbum reside na interação entre texto e imagem”, Sophie Van der Linden defende que o interesse dessa interação assenta no dever de convergência “para uma produção em comum, que não necessariamente precisa ser narrativa ou semântica, podendo também ser estética.” [25]; e aponta o «desajuste» e o «desfasamento» [26] como necessários ao rendimento desta produção. Também Martin Salisbury lembra, a este propósito, que “na maior parte das vezes, as palavras e a imagem estão a «falar» simultaneamente, por

isso precisamos de mudar e rearranjar constantemente o equilíbrio entre eles. Esta síntese está no cerne do carácter do livro ilustrado.” [27]. A articulação entre palavra e imagem é sensível e determinante na(s) leitura(s) que propõe. É que, como explica Perry Nodelman,

“As informações provêm de duas fontes decididamente diferentes. Como resultado, experimentamos constantemente mudanças súbitas de foco sobre as mesmas informações, de visual para verbal, de causal para espacial, e assim por diante, e, ao fazê-lo, obtemos muito mais conhecimento a partir de muito menos informação do que poderíamos obter apenas com palavras ou apenas com imagens.” [28]

No trabalho da *dupla*, o ilustrador acumula também o papel de designer e editor. Editar um livro obriga, na sua prática e no seu entender, ao envolvimento de quem escreve, de quem ilustra e de quem edita, “porque o livro, como qualquer objeto, resulta de decisões que devem ser tomadas pela entrega de todos” [29]. Na rubrica «RTP Ensina», Lobo Bullying foi um dos livros que serviu de mote para mostrar como se faz «Um Livro a Quatro Mãos» [30]. Este livro beneficia, assim, das estratégias assinaladas

levando-as mais longe, pelo seu carácter fragmentário; quer ao nível do conteúdo, da relação imagem-texto, quer ao nível do design. É um *livro-[quase]-de-bolso*, por isso de fácil transporte e uso – comparando com os álbuns da parceria. A capa mole, bem como o formato aproximado do livro-de-bolso, podem favorecer a sua receção por parte de jovens e adultos, uma vez ultrapassado o apreço pelo grande formato e pela capa dura conotados com a infância. Texto e ilustração são impressos a uma só cor, o castanho. No miolo, letras e desenhos surgem em positivo sobre o fundo branco; na capa, o jogo é invertido, a área impressa passa a funcionar como fundo, recortando as figuras e o texto no branco do papel.

Esta economia cromática mantém

o livro num nível básico, concentrado no essencial, avesso à distração. E, se a instância cromática for eventualmente encarada com monotonia, esta poderá ser compensada pela polifonia dos elementos, gráficos, tipográficos e a diversidade de critérios de composição a partir de uma estrutura coesa: páginas à esquerda ou à direita que acolhem texto e imagem em conjunto e em separado; texto que ora antecede, ora sucede a ilustração; página dupla só com texto (Fig. 5) ou só com ilustração (Fig. 6), procurando orquestrar a unidade na diversidade.

Fig. 5. Lobo Bullying,
páginas 16-17.



Fig. 6. Lobo Bullying,
páginas 38-39.



5. A receção

A *dupla* que assina Lobo Bullying declarava há quinze anos: “fazemos livros para a infância de quem os lê. Adultos ou crianças. Interessam-nos livros que não estanquem numa determinada faixa etária. Agrada-nos até pensar que o primeiro e último destinatário dos livros possa ser um adulto: e que pelo meio se encontrem as crianças.” [31]. Ana Margarida Ramos assinala que “o caso de Eugénio Roda e Gémeo Luís, responsáveis pela criação de um considerável número de álbuns de qualidade onde experimentam, em diálogo constante, diferentes e inusitadas formas de combinar texto e imagem”. Nestas combinatórias, “os desenhos provocam olhares atentos que só por si contam histórias. Viveriam sós? Talvez, muito embora comuniquem em concordância com os belos textos que com eles coexistem” [32]; numa outra voz, as ilustrações “sugerem, e até dissimulam, o que sugerem. Ao desvincularem-se da história-pretexto para dar livre curso à sua própria criação, as ilustrações são desenhos sem título.” [33]; e um outro olhar deteta “uma abordagem muito criativa e inesperada que não representa interferência, mas sim acréscimo, uma vez que ao universo expressivo da palavra se adicionam imagens que têm vida própria e, mais do que interpretar, enriquecem a leitura global do livro, enquanto totalidade” [34]

Lobo Bullying é um livro com largo espectro de destinatários. Quer o conteúdo quer as suas articulações formais trazem ecos do «crossover» [35] ou do «commonplace book» [36]. Os autores assumem-no como um *almanaque*, como uma coleção articulada de tópicos e fragmentos de teor diversificado, como já vimos. Em termos pragmáticos, a multidisciplinaridade que estimulou quem produziu o livro – da Biologia à Arte, da Literatura ao Direito, da Geografia à Culinária, da Música à Política, da Psicologia à Dança, do Cinema ao Desporto, da Arquitetura à Linguística, da Agricultura ao *Storytelling* – oferece-se, de igual modo, a quem o lê ou promove a leitura através dele. Por outras palavras, tal como a sua produção, a sua receção está potenciada para o diálogo com as diferentes áreas de conhecimento, científico, artístico e técnico.

Mais do que sugerir a adoção de um livro para resolver questões curriculares no imediato, trata-se de disponibilizar um concentrado de tópicos e de jogos visuais e linguísticos para o desenvolvimento proativo de camadas sucessivas de leitura e mediação. Desde logo porque o livro quer declaradamente ir ao encontro dos leitores, respeitando a sua inteligência e sensibilidade. Ademais, como nos lembra Lawrence Sipe, “Maravilhar-se é o princípio do conhecimento e quando deixamos de nos maravilhar podemos estar em perigo de deixar de saber” [37]. Mas há mais: como lembra Eunja Yun, “o leitor não é um mero intérprete mas um designer, enquanto construtor de sentido” [38] e Lobo Bullying é particularmente sensível a esta condição: se “uma primeira necessidade da leitura-enquanto-design é a de dar ao leitor mais liberdade, mais autonomia, mais autoria” [39], este livro encontra o leitor ideal em quem se apropria dele, seja em estado de soletude seja em leitura partilhada, para evocar memórias, para refletir sobre problemas antigos e atuais, para exprimir as suas opiniões, para criar as extensões e as ações que entenda pertinentes

no convívio social e profissional, qualquer que seja o contexto (familiar, escolar, científico, artístico, técnico). A diversidade e versatilidade de Lobo Bullying favorece um alargado campo de exercícios em circunstâncias também elas diversificadas: da sala de aula ao trabalho em campo, do laboratório de química ao encontro de contadores, da discussão entre especialistas ao piquenique em família e assim por diante.

Tomamos de empréstimo de Jorge Wagensberg (com quem o ilustrador trabalhou no projeto da Galeria da Biodiversidade e a quem este livro rende homenagem, numa dedicatória, pela sua defesa da biodiversidade e das minorias), a sua conceção de museu como “realidade concentrada”, como “um bom lugar para pensar”, como sítio de encontro e confronto de objetos com objetos, de objetos com ideias, de ideias com ideias [40]. É também nestes termos que entendemos Lobo Bullying, em diálogo interno e externo com outros livros, ideias, pessoas; prestando-se a uma relação dialógica e proativa: livro-livro, livro-leitor, leitor-leitor. Isto, no sentido de humanizar a relação com o livro e não de o idolatrar. Em «El Lobito Bueno» [41], Wagensberg desconstrói «O Capuchinho Vermelho»; denunciando a ligação ao ódio pelo lobo; o escritor/cientista postula que “a ficção não é uma licença para a incoerência”, e que “todo o indivíduo tem direito a rever qualquer interpretação da realidade, por antigo, prestigiado, inteligente, sábio, reconhecido e célebre que seja o intérprete vigente” [42]. Neste contexto de autonomia e cidadania, cabem algumas das palavras que a jornalista Rita Pimenta dedicou a Lobo Bullying:

“Pode pensar-se que é um livro cruel, mas não mais do que qualquer situação de bullying vivida por animais ou pessoas. E é para isso que os autores querem alertar. Conseguem-no. Com uma linguagem original e uma imagem singular, Lobo Bullying é uma excelente reflexão para a data que hoje se assinala. O Dia da Liberdade” [43]

Liberdade também na relação com o livro – Lobo Bullying propõe um ler-entre-ver sem qualquer imposição hierárquica na leitura. Nem linear nem arborescente, o livro é, quer ser, *rizomático*, *múltiplo*: pelas «duas cabeças e quatro mãos» que o realizaram; pela multiplicidade de formas, temas e subtemas, tópicos, fragmentos, ligações, correspondências; pelos diálogos intertextuais e pragmáticos no seu interior e com o exterior, enfim, pelo mundo de extensões e contributos a que se abre. O que Gilles Deleuze e Félix Guattari defendem para o livro, é que ele “não é imagem do mundo [...] faz rizoma com o mundo” [44]. Anotando a aproximação de Lobo Bullying ao universo deleuze-guattariano, tomamos ainda de empréstimo as ideias de *devir*, *devir-humano*, *devir-animal*, *devir-lobo*, ideias sugestivas do *encontro* entre o humano e o lobo, encontro sensível à convergência, à *vizinhança*, à *aliança*: “linhas de fuga ou de desterritorialização, devir-lobo, devir-inumano, intensidades desterritorializadas — é isto a multiplicidade.”, afirmam os autores [45].

Importa ultrapassar desencontros, fomentar reencontros entre espécies, requalificar o encontro da espécie humana consigo própria. E é neste regime de conexões e ligações ecológicas com outros *agentes* que o livro aqui apresentado é prosaicamente divulgado pela editora [46]: *Lobo*

Bullying é um livro-amigo e, como acontece com os bons amigos: Dá-se bem com outros livros, filmes, documentários, peças de teatro, etc. Dá-se bem em todos os lugares, em casa, na escola, na biblioteca ou no campo. Dá-se bem com toda a gente, crianças, alunos, pais, avós, professores, mediadores, contadores, investigadores. Dá-se bem em qualquer ambiente, nas aulas, no laboratório, no atelier, no palco. Dá-se bem com qualquer desafio, estando sempre disponível, antes, durante e depois de qualquer acontecimento onde o seu contributo é bem-vindo. Dá-se bem com a ecologia, cidadania, arte, política, economia, biologia, matemática, português, história, física, química, filosofia, música, literatura, engenharia. Dá-se bem com temas difíceis, para introduzir conversas e acompanhar desabafos, para dar exemplos, ilustrar situações, pôr a pensar, dar espaço a emoções, gerar novos pontos de vista. Dá-se bem com a vontade de trocar impressões, respeitar sentimentos, afinar percepções, alimentar o debate, questionar certezas, reforçar opiniões, dar a conhecer a realidade, agitar a curiosidade. Dá-se bem com um sem número de coisas como musicar letras, jogar com ideias, palavras, formas, sons: começando com um uivo coletivo e terminando com um sussurro individual ou vice-versa.

6. Referências

1. Lobo Bullying. Gémeo Luís (ilustração), Eugénio Roda (texto). Porto, editora Eterogémeas (2018).
2. Neste âmbito foram editados os livros Paredes a Meias, edição relacionada com Paredes de Coura/Terra de Lobos e Duas Mil e Dezanove Dicas em Forma de Uivo, ilustrado por estudantes da Faculdade de Belas Artes da Universidade do Porto; a exposição «LoBOBOm» e as oficinas «Totólobo» e «Lobotolo», respetivamente de ilustração e de escrita criativa nos “Caminhos de Leitura”/XVI Encontro de Literatura Infantojuvenil em Pombal, 2018.
3. Lopes-Fernandes, M., Soares, F., Frazão-Moreira, A., Queiroz, A.: Living with the Beast: Wolves and Humans through Portuguese Literature, *Anthrozoös*, 29:1, 5-20 (2016).
4. Álvares, F., Barroso, I., Espírito-Santo, C., Ferrão da Costa, G., Fonseca, C., Godinho, R., Nakamura, M., Petrucci-Fonseca, F., Pimenta, V., Ribeiro, S., Rio-Maior, H., Santos, N., Torres, R.: Situação de referência para o Plano de Ação para a Conservação do Lobo-ibérico em Portugal. ICNF/CIBIO- INBIO/CE3C/UA, Lisboa (2015).
5. Decreto-Lei n.º 54/2016 de 25 de agosto. Decreto-lei que “visa desenvolver os princípios de proteção e conservação do Lobo-ibérico [...] consagrados na Lei nº 90/88, de 13 de agosto” in *Diário da República*, 1.ª série — N.º 163 — 25 de agosto de 2016.
6. Disponível em <https://eterogemeas.com/livros/lobo-bullying/>. Consultado em 23.03.20.
7. Brodner, S.: The author/illustrator in Heller, S., Arisman, M. (eds): *The Education of an Illustrator*. Allworth Press: New York, 2000, p.51.
8. Luís, G.: Um Processo. In *Educação e Leitura – atas do seminário*. Pp. 45-48. Esposende (2005), p. 46.
9. Luís Mendonça em entrevista à revista *Novum*, julho de 2013.
10. Almeida, B. P.: Nota sobre as Esculturas de Luís Mendonça. In *Brrrr, Exposição na Biblioteca Camilo Castelo Branco* (2008).
11. Male, A.: *Illustration – A Theoretical and Contextual Perspective*. Ava Publishing: Lausanne, 2007, p. 50.
12. Mallica Landrus (Wolfson College, Universidade de Oxford): Luís Mendonça’s *Illustration*. In *Brrrr, Exposição na Biblioteca Camilo Castelo Branco* (2008).
13. Gannon, R., Fauchon, M.: *Illustration Research Methods*. Bloomsbury Publishing Plc (2021), p.19.
14. Male, A.: *The Power and Influence of Illustration*. Nova Iorque, Bloomsbury (2019), p. 9.
15. Ramos, M.: *Literatura para a infância e ilustração – Leituras em Diálogo*. Porto, Tropelias & Companhia (2010), p. 24.

16. Gomes, J. A.: “Celebrar o livro para a infância e a juventude, elemento de humanização, vida e prazer” in *Jornal as Artes entre as Letras*. Singular Plural, Porto, 31 de Março de 2021, p.4.
17. Idem, *Ibidem*.
18. Disponível em <http://livro.dglab.gov.pt/sites/DGLB/Portugues/autores/Paginas/PesquisaAutores.aspx>. Consultado em 8.8.22.
19. Eugénio Roda em entrevista ao Cata Livros. Fundação Calouste Gulbenkian/Casa da Leitura. Disponível em <https://www.yumpu.com/pt/document/read/12865966/eugenio-roda-as-palavras-se-vao-metendo-em-nos-cata-livros>. Consultado em 18.04.2.
20. Sauvagnargues, A.: *Malditas palavras*. Editorial Inquérito, Lisboa (1997), p. 111.
21. Gosh, K.: *Who’s Afraid of the Big Bad Wolf?* In Evans, J.: *Challenging and Controversial Picturebooks*. New York, Routledge (2015).
22. Mitts-Smith, D.: *Picturing the Wolf*. Londres, Routledge (2008).
23. *O Moinho de Tempo/The Time Mill*. Macau, Livros do Oriente (1997).
24. Mendonça, L., Remelhe, E.: *Fazer livros como quem os lê*. Congresso Internacional de Promoção da Leitura: Formar leitores para ler o mundo/depoimentos, pp. 11-12. Fundação Calouste Gulbenkian/Casa da Leitura. 22-23 de janeiro de 2009. Disponível em <http://www.casadaleitura.org/congresso/>. Consultado em 18.04.2021.
25. Van der Linden, S.: *Album[es]*. Ediciones Ekaré: Altamira Sur. Caracas (2015), p. 50.
26. Idem, *ibidem*.
27. Salisbury, M.: *Illustrating Children’s Books*. Nova Iorque, Barron’s Educational Series (2004), p. 82.
28. Nodelmam, P.: *Words About Pictures – The Narrative Art of Children’s Picture Books*. University of Georgia Press, Georgia (1988), p. 284.
29. Luís, G.: *Um Processo*. In *Educação e Leitura – atas do seminário*. Pp. 45-48. Esposende (2005), p. 46.
30. RTP Ensina/Estudo em Casa/ “Como nasce um livro”/Com Luís Mendonça. Disponível em *O livro a quatro mãos* | #EstudoemCasa@ (mec.pt). Consultado em 13.03.23.31.
31. Mendonça, L., Remelhe, E.: *Fazer livros como quem os lê*. Congresso Internacional de Promoção da Leitura: Formar leitores para ler o mundo/depoimentos, pp. 11-12. Fundação Calouste Gulbenkian/Casa da Leitura. 22-23 de janeiro de 2009. Disponível em <http://www.casadaleitura.org/congresso/>. Consultado em 18.04.2021.
32. Elvira Leite, depoimento in Mendonça, L.: *A Importância do Ilustrador no Processo do livro – Gémeo Luís*. Tese de Doutoramento. Faculdade de Belas Artes da Universidade do Porto (2013).
33. António Torrado, *idem*.
34. José Jorge Letria, *idem*.
35. Beckett, S.: *Crossover Fiction*. Nova Iorque, Routledge (2009).
36. Watson, V.: *Illuminating Shadows: Jane Johnson’s Commonplace Book*. In Arizpe, E, Styles, M.: *Acts of Reading – Teachers, texts and childhood*. Londres, Trentham Books (2009).
37. Sipe, L.: *Picturebooks as aesthetic objects in Literacy Teaching and Learning*, nº 6, pp 23-42 (2001), p. 39.
38. Yun, Eunja - *Postmodern interrogation of children’s literature and possibilities in literacy education by means of postmodern picture books*. Pennsylvania: The Pennsylvania State University (2007), p. 16. Disponível em <http://disexpress.umi.com/dxweb>. Acesso em 16.03.12.
39. Idem, p. 198.
40. Wagensberg, J.: *La Rebelión de las Formas*. Tusquets, Barcelona (2013), p. 15.
41. Wagensberg, J.: *El Pensador Intruso*. Tusquets, Barcelona (2015), p. 131.
42. Idem, p. 133.
43. *Jornal Público*, 2.04.2020, p.50. Artigo também disponível em <https://blogues.publico.pt/le-trapequena/2020/04/27/o-lobo-nao-e-mau-como-se-diz/>. Consultado em 23.04.2021.
44. Deleuze, G., Guattari, F.: *Rizoma*. Assiro & Alvim, Lisboa (2006), p. 25.
45. Deleuze, G., Guattari, F.: *Mil Platôs – capitalismo e esquizofrenia*. Vol. 1. Editora 34, São Paulo (2000), p. 44.
46. Disponível em <https://eterogemeas.com/diz-se/um-livro-contra-os-mal-entendidos/>. Consultado em 28.02.24.

Ironopolis: Rewilding the Past



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Abstract

How does the expanded use of illustration contribute to engaging with loss, absence, and destruction, within the North East landscape? How can we discuss, and frame voices, when examining the past and present? This paper considers the use of multimodal and multisensory experiences, to enhance and engage personal and collective memory. The discourse makes connections between identity, landscape, and heritage, and considers the role of making as action and process/production for representational forms. The illustrative series –as an extended assemblage, acts as a memorial/vehicle to ‘rewild’.

1. Background

The North East, England, UK is a complex and interchangeable region. Displaying a unique aesthetic, the region holds interrelationships between historiographical, socio-economic, political, and cultural. Based in the North East, the research/practice critiques the landscape through a reflective lens and addresses key themes: loss, grief, destruction and traces. This absence and presence serve as a manifestation for interpretation and as a catalyst for creative responses. Using visual communication, to close the gap towards understanding the past, the research explores ways to preserve/reimagine the present and create a rewilding legacy.

The changing fabric of the landscape that informs the research/practice holds an ephemeral backdrop but has also seen destruction of cultural heritage. For example, *Dorman Long Tower* [1] originally a coking plant for steel production, was simply razed to the ground. Egregious politicizing (Ben Houchen and Nadine Dorries) trumps repurposing this significant post-industrial brutalist structure [2]. Sadly, this is a long-continued theme, as other corrupt practices saw the brutal removal of town centres in the name of ‘progress’ in the 1960s and 70s [3].

The research sought to counter loss, in a wider context, by challenging ownership and legacy. Through the expanded use of illustration (image as assemblage), the research explored how illustration can be used as a valuable bridging instrument for recording, preservation, memorial, and futurising. The synthesis of the research into image-making, challenges how varied forms of works can collectively serve as one systematic series.

Ironopolis [4] is a multi-modal, experiential, and immersive series.

Keywords

Archive, DIY, Experiential, Heritage, Iconography, Intermedia, Lexicon, Multimodal, Regenerative, Rewilding, Symbol, Type as Image

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These illustrative works intertwine, overlap, and explore spaces that serve to rewild the past. Ironopolis was installed directly alongside the *Chemical City* exhibition [5], which celebrated the legacy of chemical production in the Tees Valley, held at *Middlesbrough Museum of Modern Art (MIMA)* in 2022. Displaying a series of components on-site, one part invited the public to engage with the themes, using a toolkit. Public consent, and assistance, was developed with Kate Moses (Public Programmes & Events Assistant Curator) and *MIMA* staff, during the installation.

2. Lit Review

The research/practice questions representation a series of alternative image forms and explores longer narrative integration. There is consideration of interrelation of states and spaces of personal and collective memory, using an autoethnographic approach. As Rachel Emily Taylor notes in *Illustration and Heritage*: ‘In an illustration practitioner’s response to heritage – they often place themselves within the narrative, rather than merely spectating as it unfolds’ [6].

The works consider Astrid Erll’s interconnections between media and memory, asking how media affects our memory and a remembrance of a past cultural memory: ‘Cultural memory entails remembering and forgetting. It has an individual and a collective side, which are, however, closely interrelated’ [7]. She further states: ‘Neither media nor memory reflect reality, however, media destroys that memory and rebuilds it; this is premediation and remediation, the preformation and the re-shaping of the memory’ [8].

Due to the transitional nature of memory (layered, fractured, broken) and ever-changing landscape, the strategy followed a cyclical application of disruption and repair. Using an overarching longer narrative form, to hold together a series of outputs, this framework is proposed by Tzvetan Todorov, the 5 stages: equilibrium, disruption, realisation, restored order, and equilibrium again [9].

This ambiguous structural approach is also informed by collaborative cultural crossovers. Hari Kunzru’s *Memory Palace*, (2013), a mixed media exhibition at *The V&A*, London, presented various illustrators, who interpreted his writings [10]. And *The Blank Tape Spillage Fête* held at *The English Folk Dance and Song Society, Cecil Sharp House*, London, (2005) featured 21 contributors, that were requested to create beautiful lo-fi aesthetic image/sound material [11].

The narrative assemblages consider translation of image duality in context, and makes use of ambiguity, and contextualism theory. The works explore iconography through two-dimensional and three-dimensional forms. The former uses drawing (as symbols) considering simplified image iconography, in the context of Gerd Arntz’s collaborative work with Otto and Marie Neurath, who pioneered the isotype [12]. Can a pictogram be embedded/updated using mnemotechnics? [13]. The latter as illustrated objects, these figurative totems/sculptures also use text. This references Dan Fern’s use of type as image, which demonstrates equal billing within final works [14].

The use of images and form draws upon Roland Barthes' discussion of myth as 'particular signification' discussing symbolic coding as structural devices [15] and empowerment through icons, as described by the Tate [16]. Further, Gilles Deleuze and Félix Guattari's use of the terms 'content' and 'expression' that followed that of the linguist Louis Hjelmslev. Hjelmslev proposes to replace the Saussurian 'signifier' and 'signified' with the terms 'expression' and 'content', and to separate these concepts from those of form and substance [17].

Ironopolis can also be described as 'intermedia' [18]. Latterly termed by Dick Higgins to describe the Fluxus movement: 'what, during the 60s, was a really innovative approach in which arts started moving across materials, practices, technologies, and genres, defining entirely new ones or even incredibly significant hybrids' [19]. The works also reference Fluxus boxes: 'Fluxus boxes were a peculiar form of expression in which the artist gathered a series of objects, cards, materials, and components and assembled them in boxes, suitcases, or other containers. The assemblage was created with multiple purposes in mind: creating suggestions and tangible poetics by juxtaposing things was something that the cinematographic montage had learned since the beginning of the century, and it was also explored by musicians such as Cage, where the sounds of known objects acted on levels that are simultaneously physical, symbolic, and referring to memory and cultures' [20].

The works also use Nicolas Bourriaud's theoretical 'relational aesthetics', making use of social engagement and relations [21], with consideration of collaborative making and on-site engagement.

3. Method

To create a model of delivery that considers interpretation of the complex subject matter (loss), as a regeneration of image (rewilding) the research used a range of methodologies, making use of interdisciplinary and hybrid approaches. The interplay between the visual recording on-site and the interpretation of archival material in the studio lent itself to the production of a series of linked forms.

Ironopolis uses a series of process-driven practices: illustration, fine art, design, typography, and interaction. The outputs are theoretically underpinned, and consider the application of postdigital (technologies), concretism (creative writing), deconstruction (typography), and participatory as action/narrative principles (toolkit). An autoethnographic approach (through walking on-site) acted as a way of self-selecting and framing memory sites. The external field trips covertly recorded key spaces in the landscape (South Gare, Coatham, Redcar, Scarborough, and Wilton). These included the researcher's own childhood play spaces, and areas that close family worked in, seemingly a mixture of closing industry, disappearing architecture, forgotten transport hubs, and wasteland.

On-site primary research used sketchbooks for directly observed drawing, and recalled memory visual notetaking, alongside short digital films that recorded documentary footage. Viewing image-making as an experience/encounter draws on an autoethnographic practice, deepening

engagement with the subject matter. This use of the ‘encounter’ enabled a contribution to a deeper layer of meaning. Leon Anderson: ‘Unlike evocative autoethnography, which seeks narrative fidelity only to the researcher’s subjective experience, analytic autoethnography is grounded in self-experience but reaches beyond it as well’ [22]. Other quantifiable methods used found material collected from sites (including found wood, and plastic). Archives accessed on-site include *Redcar Library archives* [23], *The Palace Hub*, *Redcar archives* [24], *Redcar Lifeboat Museum* [25] and *Scarborough Art Gallery* [26]. Online research was conducted through *Ancestry* (use of *The National Archives*) [27] and *Teesside Archives* [28].

The research material was synthesised in the studio, using an assemblage approach. By responding intuitively to the observed and the archives, new ‘image/material/matter’ forms were constructed. Physical and digital research sketches and models were built up and layered alongside scans of found material, source references, and drawings. This application of process as research, fused analogue, mechanical and digital tools/technologies. This reconstructive exploration of absence/loss through materials through assembling collage becomes restorative. The significance of collage is noted by Rachel Emily Taylor referring to Serena Katt’s process (for her graphic novel *Sunday’s Child*) as: ‘through drawing, collaging, and making, it becomes one image, as if it’s an act of repair’ [29].

The multimodal series of works is split into three outputs:

1. Illustrated Lexicon — moving beyond a rationalised Westernised alphabet, this is a series of graphics, symbols, characters, and glyphs (See Fig. 1). The illustrated system is part representational and part display typeface. Cultural codes and conventions have been developed by abstracting on-site environmental research. The use of human interruptions (built to exploit sea, iron, salt, coal, and plastic), disused structures, coolant towers, pipework, and pylons, have informed the system vernacular. Embedded narrative can be seen through mutated graphics (transportation of iron ore from the Cleveland Hills on trains, and manufacturers’ settings and chemical signs). Further denotation, the typography/text parentheses, and braces were visually observed train buffers. The final graphic forms were collated together using digital software (*Adobe Illustrator*). Versions were cut out of steel, using a plasma cutter, and also made into an AR experience (using *Adobe Aero*). Significantly both the physical and digital works were installed back on-site at the Redcar Steelworks, as a rewilding of the cultural past (See Fig. 2).

2. An Interactive Public-engagement Toolkit — a series of interactive Perspex graphic stencils for use by the public, invited content-led conversations (See Fig. 3). A series of illustrated graphics (negative spaces/shapes), allow new variants of the lexicon, through interaction, to evolve the visual vernacular. Collaborative engagement, and performative application, move the works into generative image-making. The stencils were laser cut out of Perspex, linking to the region’s plastics manufacture; *Brunner/Mond/ICI* the producer of nylon, developed synthetic fabrics, and dyes [30]. Further regional similes, connect the works, using quotes, (speech and literature). The first from William Gladstone describes Mid-

dlesbrough as ‘This remarkable place, the youngest child of England’s enterprise, is an infant, but if an infant, an infant Hercules’ (1862) [31]. The second, ‘An ordered universe in a world of unplanned incoherence’ is taken from *Brave New World*, as termed by Aldous Huxley, inspired by his visit to the chemical works of *Brunner/Mond* at Billingham [32].

3. Edition — a reimaged ark,² this object is two multifaceted assemblages, and acts as a memorial to my grandfather Eric Corrie (1916-1979), who was a resident of Coatham, and a local fisherman/boat maker and woodworker. Re-examining Corrie’s handmade builds and techniques, his outputs included furniture, models, and a fishing coble [33] (See Fig. 4). During the post-war era there was a concentrated effort to encourage home craft and building. ‘The 20th century’s hardships and wars provided fertile ground for DIY. The economic disasters of the 1920s and 30s encouraged many to take up DIY, keeping up appearances while their incomes dwindled. The Second World War placed self-reliance centre stage. *Dig For Victory, Make Do and Mend, Grow Your Own Food* and other wartime slogans trumpeted the importance of practical work at home’ [34].

The ark contains a series of three-dimensional, hand-crafted objects (like a Matryoshka doll) [35] with illustrations and text drawing directly from Corrie’s possessions (photos, poetry, a War diary, a fishing license, and technical boat drawings). This miniature, recontextualised *Cabinet of Curiosities* [36] can be seen as a series of illustrated totems, and sailors’ good luck charms, the latter seen as evidence of ‘the different belief systems which have evolved over the centuries’ and ‘as protection against drowning and injury at sea’ [37].

A synthesized lyrical ‘wordscape’, was collaged together taken from on-site observations and archives. The rhythmic ambiguous prose used keywords, its syntax drawing upon disruption to shift structures. This builds on Brion Gysin’s ‘cut-up’ technique [38]. By splicing, and rearranging letters, words, and phrases from existing texts, this creates new, unexpected meanings. The use of improvisation and word association techniques (cutting, clipping, and remixing) to create a ‘new’ language was also used on *The Goon Show* (a favourite of Corrie’s) [39]. The assembled wordscape (using the illustrated lexicon) was laser cut and laser etched into the wooden ark and totems. The production process aligned new future/mechanical technologies and traditional to engage the past, with the present, using recycled leftover wood from Corrie’s storage.



Fig. 1. An illustrated lexicon (a series of graphics, symbols and icons for display, laser cut Perspex toolkit, inspired by the North East landscape).

² The use of the word ‘ark’ here, alludes to both container and boat.

Fig. 2. Process, construction and use of rewinding (*laser plasma cut steel, AR iconography reinstalled on-site, graphic narrative-led visual vernacular*).

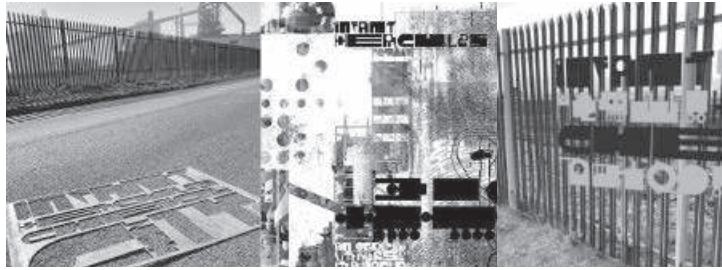


Fig. 3. An interactive public-engagement toolkit (*the public generate their own graphic language, using the Perspex stencils on-site at MIMA*).



Fig. 4. Edition (*a reimagined ark, this assemblage of wood models, with laser cut and etched text and Eric Corrie's furniture and model 'coble' boats*).



4. Results

Through the expanded use of illustration, the construction of a series of representational modes has enabled several discursive routes. Through immersion of personal interpretation and community-based actions, the investigation has explored how collaboration and co-production can enable conversations of subject matter (heritage/loss/memory).

The investigation has examined how a blended illustrative approach to process and image-making can make archives and heritage-based issues, translated and visible. There is the use of a series of hybrid forms as outputs, across several objects and publishing spaces. The project as an experiential, multi-response piece can be seen through iconography, a generative toolkit, three-dimensional totems, and AR. By consideration of placing work back on site, they have opened up questions and discussion around future legacy.

The works have gained recognition through dissemination through a significant exhibition and into international publications. Ironopolis was installed in response to the *Chemical City* exhibition and featured as part of the *MIMA Art + Social No. 3* (2022), this event created opportunities to engage the Tees Valley's creative community. Visitor numbers are estimated to be around 50 on the opening night [40]. *MIMA* has seen more than half a million visitors from across the world since 2014 [41].

The *Ironopolis* typographic lexicon was published in *Slanted Magazine* #40—*Experimental Type* (2022) and features on their online archive as part of their experimental typeface [42] and in *Fedrigoni 366* (2023). The latter was invited to contribute a design that interprets a date of the year (provided at random), the edition (collaboration with print technology HP Mosaic tool) applies algorithms to randomly shuffle colours within each design, making numerous unique combinations. Described here on the *Counterprint* website: ‘Fedrigoni 366 has been produced in collaboration with printer F.E. Burman using the latest HP Indigo® digital print technology. This has allowed 731 creatives to harness the power of generative design, meaning every single design submitted to the project looks different in each and every book’ [43].

An accompanying *Ironopolis* research process video can be viewed here: <https://vimeo.com/693052432?share=copy>

The digital on-site documentary footage for *Ironopolis* has been reworked into an experimental film; *South Gare* [44] can be viewed here: <https://vimeo.com/535923049?share=copy>

5. Conclusion

Reviewing the practice/research several observations are noted. The North East landscape continues to be a facilitator for visual communication, with the use of internal/external mapping of source material. Through use of an autoethnographic application, illustration practice can be seen as a way of engaging with the landscape through identity. Closely examining the impact of loss through personal and local history, within a larger context (landscape/memory) has helped ground and guide the research, leading to establishing closer critical relationships. There are opportunities for illustrators to reimagine (rewild) and support other physical, social, and cultural spaces, by exploring other ‘gaps’. Currently, other UK cultural spaces are under threat, the civic library, for example [45].

The creative use of illustration to engage with technologies can encourage collective conversations to engage with complex subject matter (memory, narrative). The rationale to use stages of narratology enabled critique of functions and context for loss. By inviting the public to engage with *Ironopolis*, (as a toolkit), this questioned the transmission of loss/memory as image. This temporality allows questions of formalities of the built environment and overlapping spaces that exist between the gallery, archive, landscape, and identity.

The works have interrelationships. This is seen through a blended use of a range of tools/technologies, analogue, mechanical and digital, to enable future-facing discussions. The hybrid approach to methodologies has demonstrated flexibility, embracing interdisciplinary actions to challenge illustration practice. This can support the translation of research to stimulate practice, inform critical/creative decision-making, and empower personal/public use.

This process-driven production has enabled sequential narrative retelling and considers combined platforms, through illustrative use of symbols/icons, two/three-dimensional assemblages, and experimental

creative writing. The production modes and materials to support matter for outputs are seen through sketchbooks, laser plasma/cutter, wood, steel, plastics, and AR. The use of *Ancestry* for research cites its DNA function, for example, as a stimulating way of engaging researchers, through consideration of smart technologies/identity [46].

The creation of new social and cultural artefacts, as an articulated language can be seen as recycled graphic activism, responding to the cultural and political, by encouraging collaboration. Joseph Beuys described this as an 'iconography of substances' having built 'monuments to materials' [47].

Concluding the research the use of illustrated characters, glyphs, and symbols to denote heritage through a narrative is challenging and needs further refinement (to prevent clichéd type as image). There should be more opportunities to gather primary data relating to the stencil toolkit (currently limited to the graphics). The inclusion of participation could provide more insight and these results (discussion of topic/spoken words), when using the toolkit could be developed by capturing individual and collective voices, to be represented. There is also potential to develop the use of AR. The next logical step would be to make use of other digital applications, such as Blender and the QR code system.

The application of a longer form research period has enabled a deeper narrative investigation. With direct response to a current exhibition, and through co-collaborative works, this offers value for future projects. Currently in production, is a new research project, that is working with a historian, a creative writer, and a local women's support group. Participants are responding to social, feminist literature, (through a toolkit) and making use of a Victorian printing press (at *Preston Park Museum*, Stockton-on-Tees) to develop a new visual language.

6. References

1. Dorman Long & Co, DLT Engineering Historical Information, <https://www.dorman-longtechnology.com/en/Dorman%20Long%20historical%20information.htm>
2. The Pipeline.: Ben Houchen, Dynamite Dorries & The Dorman Long Tower - A Cautionary Tale (2022), <https://thepipeline.info/blog/2022/10/07/ben-houchen-dynamite-dorries-the-dorman-long-tower-a-cautionary-tale/>
3. Cashman, H.: Heroes and villains in Urban Development, <https://www.theguardian.com/uk-news/2021/feb/12/heroes-and-villains-in-urban-development>
4. Ironopolis, https://en.wikipedia.org/wiki/Middlesbrough_Ironopolis_F.C.
5. Chemical City Exhibition, Middlesbrough Museum of Modern Art (MIMA) (26 November-29 May 2022), <https://www.mima.art/exhibition/chemical-city/>
6. Taylor, Rachel Emily.: p. 11, Illustration and Heritage, Bloomsbury Visual Arts (2024)
7. Erl, A.: Traumatic pasts, literary afterlives, and transcultural memory: new directions of literary and media memory studies (2011) <https://www.tandfonline.com/doi/full/10.3402/jac.v3io.7186>
8. Erl, A.: Traumatic pasts, literary afterlives, and transcultural memory: new directions of literary and media memory studies (2011) <https://www.tandfonline.com/doi/full/10.3402/jac.v3io.7186>
9. Tzvetan Todorov's narrative theory of equilibrium, https://en.wikipedia.org/wiki/Todorov%27s_narrative_theory_of_equilibrium

- 10.10. Hari Kunzru, Memory Palace, <https://www.theguardian.com/artanddesign/architecture-design-blog/2013/jun/18/hari-kunzru-memory-palace-v-and-a>
11. The Blank Tape Spillage Fête, <https://www.creativereview.co.uk/the-blank-tape-s-pillage-fete/>
12. Bool, V.F.: Democratic Graphics – The political and graphic work of Gerd Arntz 1920–1940 (2020), <https://designabilities.wordpress.com/2020/12/11/democratic-graphics-the-political-and-graphic-work-of-gerd-arntz-1920-1940/>
13. Mumme, B.: Mnemotechnics: The Art of Memory, Principles, techniques, and strategies to help you consciously improve your memory (2023), <https://medium.com/change-becomes-you/mnemotechnics-the-art-of-memory-92c307cb67e8>
14. Dan Fern, <https://designobserver.com/feature/dan-fern-sees-the-horizon/40075>
15. Barthes, R.: Mythologies, p. 132. Vintage Books (2009)
16. Iconography, the Tate, <https://www.tate.org.uk/art/art-terms/i/iconography>
17. Bogue, R.: Deleuze and Guattari, p. 126, Routledge (1989)
18. Friedman, Ken.: p. 18, Twelve Fluxus Ideas (http://unidcom.iade.pt/radicaldesignist/wp-content/uploads/2015/07/001_07.pdf)
19. Harren, N.: The Crux of Fluxus, Intermedia, Rear-guard (2015) <https://walkerart.org/collections/publications/art-expanded/crux-of-fluxus/>
20. Harren, N.: The Crux of Fluxus, Intermedia, Rear-guard (2015) <https://walkerart.org/collections/publications/art-expanded/crux-of-fluxus/>
21. Nicolas Bourriaud, <https://www.tate.org.uk/art/art-terms/r/relational-aesthetics>
22. L, Anderson.: p. 386, Analyzing Analytic Autoethnography, Journal of Contemporary Ethnography (2006)
23. Redcar Library, <https://libraries.redcar-cleveland.gov.uk/web/arena/online-services>
24. Redcar Palace Arts, <https://www.redcarpalace.org.uk/tag/redcar-palace/>
25. Redcar Lifeboat Museum, <https://www.zetlandlifeboat.co.uk/>
26. Scarborough Art Gallery, <https://scarboroughmuseumsandgalleries.org.uk/visit/scarborough-art-gallery/>
27. Ancestry, <https://www.ancestry.co.uk/>
28. Teesside Archives, <https://teessidearchives.wordpress.com/category/collections/catalogues/>
29. Taylor, Rachel Emily.: p. 57, Illustration and Heritage, Bloomsbury Visual Arts (2024)
30. Brunner/Mond, ICI production, <https://collection.sciencemuseumgroup.org.uk/people/ap13079/imperial-chemical-industries-plc>
31. William Gladstone, <http://www.unofficialbritain.com/the-fate-of-englands-infant-hercules/>
32. Aldous Huxley, <https://teesbusiness.co.uk/2022/08/04/the-man-who-found-a-brave-new-world-in-billingham/>
33. The Coble, <https://www.scarboroughsmaritimeheritage.org.uk/article.php?article=10>
34. Home making, A brief history of diy, from the shed to the maker movement, <https://www.sciencemuseum.org.uk/objects-and-stories/everyday-wonders/brief-history-diy>
35. Matryoshka dolls, https://en.wikipedia.org/wiki/Matryoshka_doll
36. The Cabinet of Curiosities, <https://artsandculture.google.com/theme/the-cabinet-of-curiousities/4QKSkqTAGnJ2LQ?hl=en>
37. Cresswell, Y.: Fishing Folklore: how to stay safe & how to be lucky at sea (2020), <https://www.imuseum.im/fishing-folklore-how-to-stay-safe-how-to-be-lucky-at-sea/>
38. Brion Gysin, Cut ups, <https://www.briongysin.com/cut-ups/>
39. The Goon Show, https://www.thegoonshow.co.uk/wiki/index.php?title=The_Goon_Show

40. Installation Ironopolis, <https://mima.art/event/art-social-no-3/>
41. #40—Experimental Type, <https://www.slanted.de/product/slanted-magazine-40-experimental-type/>
42. MIMA visitors, <https://gtr.ukri.org/projects?ref=AH%2FVo1238X%2F1>
43. Fedrigoni 366 – 2024, https://www.counter-print.co.uk/products/fedrigoni-366-2024?_pos=3&_sid=80982a477&_ss=r
44. Marcus Diamond, *South Gare*. Voted Best Experimental Film, <https://mannheimartsandfilmfestival.com/winners-2022/>
45. Redcar's previous library, <https://www.somethingconcreteandmodern.co.uk/tag/redcar-library/>
46. Leighton, M; AncestryDNA Test (2018), <https://www.businessinsider.com/guides/ancestry-dna-genetic-test-review-2018-9?r=US&IR=T#you-can-view-your-dna-story-by-timeframe-which-will-plot-the-movements-of-your-ancestors-4>
47. Joseph Beuys, <https://www.tate.org.uk/art/art-terms/i/iconography>

A Dualidade no Ensino Artístico e na Indústria dos Videojogos: A Procura por Estratégias Teórico-Práticas para o Design de Personagens



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Abstract

This article addresses the state of the art of an ongoing research project, which aims to explore specific concepts related to character design and how these contribute to the gameplay experience. In this context, themes related to environments and demands experienced in the video game industry by professionals in artistic roles and the consequent integration of them in these positions are also explored, linking the industry and pedagogical training regarding the preparation of university students as future professionals, with the purpose of better integration and preparation of students in the job market. In the continuity of this research, in practical terms, visual concepts of characters developed for a small multidisciplinary project between the School of Design and the School of Technology of the Polytechnic Institute of Cávado and Ave (IPCA) are also being developed, with the aim of putting into practice the knowledge acquired throughout the research.

Keywords

Videojogos, Design de Personagens, Ensino, Indústria

1. Introdução

A presente investigação surge na sequência do trabalho de projeto do curso de Mestrado em Ilustração e Animação do Instituto politécnico do Cávado e do Ave (IPCA), onde se propôs a análise do funcionamento da indústria dos videojogos, com ênfase em cargos artísticos, face à formação académica dos artistas. Assim, em virtude da importância da componente visual nesta indústria, entre outras componentes igualmente importantes, considerou-se pertinente compreender as implicações da imagética das personagens e o seu processo de desenvolvimento, cujos atributos visuais são particularmente interessantes para a comunidade académica artística.

Os videojogos são um meio de interação, e a sua componente visual é fundamental para atingir uma experiência de jogabilidade inesquecível, pois é a componente mais exposta e perceptível ao jogador [1]. Diferentes aspectos além dos visuais, que integram os videojogos, têm o poder de fornecer uma experiência de jogabilidade enriquecedora, e tal só poderá ser obtido com o trabalho colaborativo entre as várias áreas que contribuem para o respetivo desenvolvimento.

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Assiste-se, assim, à grande necessidade da colaboração multidisciplinar na indústria dos videojogos, nas suas múltiplas fases de pré-produção, produção e pós-produção, onde cada colaborador faz parte de um departamento e equipa. Este sistema de parceria e colaboração entre áreas distintas deve também reflectir-se na formação dos estudantes, os futuros profissionais do setor, pois essa será a realidade que irão enfrentar quando inseridos nesta indústria.

2. Componente Visual dos Videojogos

A etimologia da palavra “videojogo” contém o prefixo “vídeo”, que em latim significa “eu vejo”, assume-se assim que um videojogo inclui sempre uma componente visual. Esta, por sua vez, sustenta-se na computação gráfica bidimensional ou tridimensional (2D ou 3D), de elementos como personagens, ambientes, animações, efeitos especiais, *user interface*⁷, entre outros, que contribuem para a aparência final do videojogo e constituem aquilo que denominamos de Desenvolvimento Visual [2].

A presença e a disposição de como estes elementos são apresentados ao jogador, constitui-se como uma estratégia de controlo indireto, i.e., um conjunto de técnicas e aspectos como o contraste, tamanho, proximidade ou enquadramento dos elementos, que auxiliam a guiar o olhar do jogador em sintonia com o que foi estabelecido intencionalmente pelo designer, artista, ilustrador, animador, arquiteto, cineasta etc., uma vez que são princípios comuns aos diversos meios de entretenimento [1], de entre estes diversos tipos de elementos salientam-se as personagens de um videojogo, através dos quais ocorre a interação com o jogador.

2.1. O que é uma Personagem?

Tendo em consideração os vários elementos visuais que contribuem para o enriquecimento de um videojogo nas fases de pré-produção, produção e pós-produção, as personagens podem ser consideradas um destes elementos principais que influenciam indiretamente o jogador através do seu carácter visual. Por meio da conjugação deste carácter com a envolvimento da narrativa, pretende-se estabelecer uma relação de proximidade entre o personagem e o jogador para que este desenvolva a afinidade com a primeira, ao ponto de necessitar de a proteger de forma inconsciente. Ou seja, uma personagem constitui-se como uma ferramenta que permite controlar as ações do jogador e em que ordem as irá exercer [1].

Segundo Robert McKee [3], uma personagem não é um ser humano mas sim uma metáfora da natureza humana, caracterizada pela entidade ficcional e características particulares idealizadas por um autor, podendo assim assumir diversas formas. O desenvolvimento de personagens começa com dois aspetos principais, a caracterização e o verdadeiro carácter. Entende-se por caracterização a soma de todas as características visíveis e identificáveis, que tornam a personagem única, tais como, a idade, altura, nome, sexualidade, profissão, estilo, etc. O verdadeiro carácter

⁷ Tradução do Autor (T.A.), Interface do Utilizador. Refere-se aos elementos visuais que permitem a interação do jogador com o jogo de forma fácil e intuitiva.

é constituído pelas intenções reais da personagem, que se revelam apenas pelas decisões tomadas sob pressão no mundo do videojogo. Por norma, as personagens mais memoráveis são as que revelam o verdadeiro carácter em oposição às expectativas criadas pela caracterização.

É comum às personagens possuírem uma história de vida (*back-story*), onde o conjunto de vivências servem de base para a criação da sua aparência, personalidade e ação [1].

Os arquétipos⁸ representam um elemento imprescindível à caracterização de uma personagem, trata-se da representação de padrões de comportamentais associados a uma personagem ou papel social. Os arquétipos resultam de uma herança psicológica obtida através constantes repetições de vivências e experiências humanas de diferentes gerações. Ao dotar uma personagem de um arquétipo específico e individual, esta torna-se automaticamente única e identificável para o jogador pois, o mesmo reconhece o respetivo padrão comportamental da personagem [4]. Embora os arquétipos possam ser rapidamente associados ao cinema, também operam em outras áreas de entretenimento como a dos videojogos, p.ex., personagens como *Link* de *The Legend Of Zelda* (Nintendo, Shigeru Miyamoto e Takashi Tezuka, 1986) que representa o arquétipo de herói ou *Yennefer* de *The Witcher 3: Wild Hunt* (CD Projekt Red, CD Projekt, 2015) o arquétipo de mago/xamã [5]. Tendo em mente alguns dos aspectos que auxiliam a caracterizar uma personagem, de seguida debruçamo-nos sobre o respetivo desenvolvimento prático.

2.2. Personagens para Videojogos: Processo, Materiais e Técnicas

Na produção de videojogos o desenho é utilizado como um meio de comunicação, através do qual os artistas conseguem articular e esclarecer as suas ideias de forma rápida e económica perante a equipa de produção [6].

Para esta investigação optou-se por seguir o *workflow*⁹ de desenvolvimento de personagens apresentada por Sam R. Kennedy [6] associada à *concept art*¹⁰ em contexto de indústria, que usa uma multiplicidade de técnicas para consolidar o aspecto visual (seja em 2D ou em 3D) de uma personagem, garantindo que este seja dotado de uma aparência icónica, funcional e apelativa ao jogador. Este *workflow* inicia-se com exercícios como sessões de *brainstorming*¹¹ que pretendem estipular os objetivos para o projeto do videojogo. Em termos visuais, um dos primeiros exercícios é a produção de silhuetas, também denominado de *thumbnail silhouettes*, que surge como uma estratégia que isola a forma geral de uma figura e garante que a mesma é suficientemente clara e icónica. Deste modo, quando apurado o design

8 Conceito desenvolvido por Carl G. Jung, psiquiatra e psicanalista suíço [4], onde consideram-se alguns arquétipos principais, nomeadamente, *king/father, queen/mother, wise old man/mentor, warrior, magician/shaman, trickster, artist/clown, lover and rebel*, que traduzimos por rei/pai, rainha/mãe, velho sábio/mentor, guerreiro, mago/xamã, trapaceiro, artista/palhaço, amante e rebelde [4].

9 T.A., Fluxo de trabalho. Conjunto de atividades necessárias para concluir uma tarefa.

10 Constitui uma etapa de pré-produção no desenvolvimento de videojogos, incorporada na fase “*Blue-sky*” e destina-se à rápida e vasta exploração de conceitos para os vários elementos visuais constituintes de um videojogo (personagens, ambientes, armas, *props*) [7].

11 Atividade desenvolvida geralmente em grupo com o objetivo de originar ideias espontâneas sobre um determinado assunto.

final, garantimos que a mesma será reconhecível para os jogadores, à semelhança do que acontece quando reconhecemos a silhueta de alguém.

Como estas silhuetas não possuem qualquer detalhe interno, a próxima fase consiste em escolher, em equipa, aquelas que têm potencial e prosseguir com a atribuição de detalhes, de modo a explicar de forma funcional as formas representadas. Tanto nesta como noutras fases a pesquisa e utilização de referências é fundamental, sendo comum utilizar técnicas como *mind-maps*¹² ou *moodboards*¹³ [8].

Uma vez debatidos os conceitos iniciais, os *concept artists* criam uma versão finalizada do conceito que criaram, neste caso de uma personagem, consolidando o design final numa *model sheet*¹⁴ que virá a ser utilizada por toda a equipa nas restantes fases de produção do videojogo [8]. A integração de modelos 3D, caso seja o propósito estipulado, adiciona uma etapa na criação de personagens uma vez que, a colaboração entre *concept artist* e *character artists*¹⁵ é fundamental na melhoria em termos visuais e técnicos de modo a evitar futuros problemas na fase de animação [6].

A nível de recursos técnicos, para além do desenho tradicional com lápis e papel, a utilização de meios digitais, com recurso a mesas digitalizadoras, é cada vez mais frequente, uma vez que permitem a rápida alteração e manipulação das formas, recorrendo a *softwares* como o *Adobe Photoshop*. Todavia, assiste-se ao crescimento de outra técnica exploratória nomeadamente a concepção em 3D, usando *softwares* como o *Autodesk 3ds Max*, *Autodesk Maya* e *Zbrush*, cujos modelos resultantes são depois texturizados e finalizados usando o *Adobe Photoshop* ou *Adobe Substance 3D Painter* [6].

2.3. Enquadramento Prático

Em sequência da investigação sobre o enquadramento teórico-prático para o desenvolvimento de personagens na indústria dos videojogos, e ainda, as práticas pedagógicas associadas à formação dos estudantes neste setor, decidiu-se materializar os conceitos e conhecimentos adquiridos até ao momento, de modo a obter um entendimento empírico sobre os mesmos. Deste modo, em conjunto com um estudante da licenciatura em Engenharia e Desenvolvimento de Jogos Digitais do IPCA, propôs-se o desenvolvimento de um protótipo de um videojogo, baseado numa primeira versão de um jogo colaborativo desenvolvido em 2018 [9]. Esta colaboração permite estabelecer uma relação multidisciplinar entre áreas de estudo, estudantes e contexto colaborativo similar ao que poderá ser encontrado na indústria dos videojogos, ainda que num ambiente controlado, ou seja, propusemo-nos desenvolver enquanto componente prática da investigação um pequeno piloto de desenvolvimento de videojogo.

¹² Diagrama que representa palavras, tarefas, conceitos ou imagens conectados em torno de um conceito central.

¹³ Compilação de referências visuais e textuais que permitem visualizar, de um modo abrangente, uma ideia ou pensamento.

¹⁴ Folha única que reúne os conceitos finalizados de uma personagem desde a sua pose-chave, *turnaround* (representação de todas as vistas, permitindo aos animadores e modeladores compreender o volume da personagem), expressões faciais e materiais da vestimenta e acessórios.

¹⁵ Profissionais que se dedicam à modelação de modelos 3D das personagens e criaturas de um videojogo.

Numa das primeiras reuniões deste piloto optou-se por manter o carácter colaborativo e antagonista, do videojogo original, pois, acredita-se ser uma abordagem menos convencional. Através de exercícios de *brainstorming*, chegou-se a um consenso de seguir uma estética grotesca uma vez que, permite uma certa dualidade entre a beleza e o horror, onde o principal desafio é conseguir, apesar desta linguagem disforme, uma estética apelativa ao jogador [10]. Como mote de partida, decidiu-se enveredar por um ambiente inóspito, propício à exploração e optou-se por escolher um mundo submarino que, por ser constituído por uma variedade de espécies, zonas inexploradas e dimensão vasta, permite acentuar o carácter exploratório em conjunto com o sentimento de medo do desconhecido. Este tipo de conceitos tornam-se especialmente ricos para o artista que os aborda, pois, obriga-o a articular ideias perturbadoras e conceitos caricatos, ficando ainda ao seu encargo a escolha de um design negativo¹⁶ de baixa, média ou alta intensidade que permita (ou não) abrir neste uma brecha positiva [10].

A nível do desenvolvimento da programação do videojogo, em particular das mecânicas que guiam a jogabilidade, optou-se pelo género *real-time strategy*¹⁷ (RTS), com um movimento entre células hexagonais, visto a partir de uma perspetiva isométrica.

Em termos do desenvolvimento prático das personagens, procurou-se recorrer às técnicas aplicadas no *workflow* associado à *concept art* e utilizadas nas indústrias dos videojogos, como as *thumbnail silhouettes*, já abordados anteriormente, onde os estudos exploratórios apresentados na figura 2 tentam refletir algumas possibilidades de narrativas relacionadas com antropomorfização de criaturas marinhas ou simbiose entre corpos de diferentes espécies.

Todavia, surgiu a necessidade de recuar nos conceitos desenvolvidos de modo a combater algumas incoerências narrativas. Neste contexto, optou-se por desenvolver apenas uma personagem, que à partida será a principal, e recomençar o processo de desenvolvimento da mesma (fig.2).



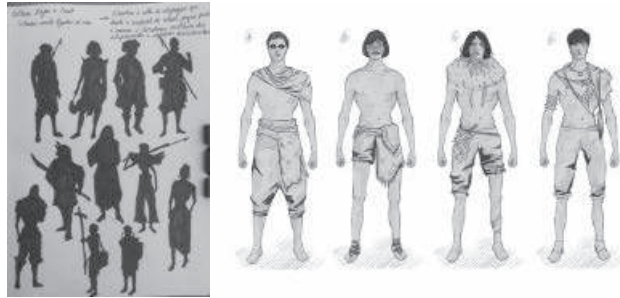
Fig. 1. Estudos exploratórios de personagens com recurso a silhuetas.

Como já mencionado, a procura por uma silhueta identificável e única é fulcral para a obtenção de um bom design da personagem pelo que, a utilização de um corpo desnutrido, caracterizado pelo seu aspecto disfor-

¹⁶ Entende-se por design negativo a exploração de conceitos de cariz violento, monstruoso e repugnante que pretendem estimular a catarse no espectador [10].

¹⁷ Subgénero dos videojogos de estratégia, onde todos os jogadores jogam em simultâneo, em tempo real.

Fig. 2. Desenvolvimento do personagem principal.

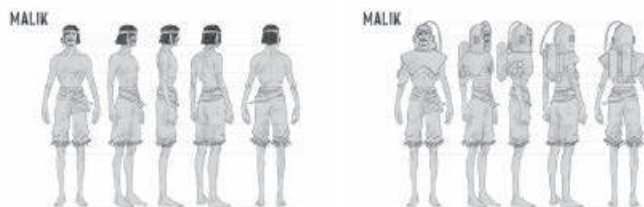


me e irregular contribui não só para a obtenção de uma silhueta singular que corresponde inclusive à estética pretendida, como também à tentativa de evitar os padrões de idealização e beleza do corpo humano [11].

Na fase seguinte foram aprimorados os detalhes, com base nos estudos desenvolvidos, culminando no design final da personagem. Devido ao contexto de exploração subaquática, foram ainda introduzidos acessórios que remetem para este cenários e que contribuem igualmente para a acentuação das formas geométricas de modo a capturar elementos icônicos da personagem (fig.3) [12].

Perante o desenvolvimento artístico possível no enquadramento controlado onde este protótipo se insere, podemos agora tecer algumas considerações sobre como um estudante poderá estabelecer ligação entre a área pedagógica e o mundo profissional da produção de videojogos

Fig. 3. Design final do personagem.



3. Ser Artista na Indústria dos Videojogos

São vários os cargos artísticos em diferentes níveis (*junior, mid, senior*¹⁸), associados ao desenvolvimento de um videojogo, tais como *art director, concept artist, environment artist, character artist, character animator, user interface (UI) artist*, entre outros [6]. Contudo, pretende-se investigar os cargos associados à produção de personagens na indústria dos videojogos e que desafios são apresentados aos mesmos numa indústria que é caracterizada por elevados níveis de stress, competitividade, precariedade e instabilidade na contratação

¹⁸ T.A., Júnior, Intermédio e Sênior. O nível júnior é atribuído a recém-licenciados ou seja, com pouca experiência profissional. O nível intermédio corresponde a profissionais que desempenham tarefas mais complexas e autónomas, já tendo alguma experiência. O nível sénior corresponde a cargos especializados e normalmente desempenham funções de liderança e tomada de decisões.

e ainda a predominância de trabalhadores do género masculino [7].

Tornou-se perceptível ao longo da nossa investigação, a proximidade que os cargos de *concept artist* e *character artist* detêm para com as personagens [12], tornando-se pertinente investigar mais detalhadamente o papel dos mesmos dentro da indústria dos videojogos. Segundo Eliott Lilly [7], um *concept artist* necessita de estar ciente de certas restrições e constrangimentos tais como, a direção artística estabelecida pelo *art director*¹⁹, as limitações do mecanismo de jogo, ponto de vista do jogador, prazos, entre outros, de modo a ajudar de forma eficaz a equipa. Por conseguinte, a interação de um *concept artist* com os restantes elementos da equipa segue uma hierarquia, onde o *concept lead/senior concept artist*, que já trabalha na indústria há vários anos, orienta e fornece as indicações para os *junior concept artists*, conceitos esses que são debatidos com o *art director*. Os modeladores 3D, que incluem também o *character artist*, e os animadores, estão igualmente próximos pois, é necessário assegurar que os conceitos desenvolvidos funcionam como expectável, já outros departamentos como o de *user interface/user experience*²⁰ (UI/UX) e programadores, são os que oferecem menor interatividade, ainda que seja igualmente estabelecida comunicação entre as várias áreas de atuação, com o objetivo de receber pareceres sobre o trabalho desenvolvido.

Questões económicas demonstram ter também um grande peso quando falamos na criação de novas personagens e consequentemente novos videojogos dado que, os líderes da indústria dos videojogos dão preferência à quantidade de jogos à disposição do seu público-alvo pois, exploram muitas mais áreas mas, que eventualmente poderão refletir-se num trabalho de qualidade medíocre [13], resultado conforme já foi dito, das condições capazes de minar a criatividade dos profissionais [7].

Todavia, o ambiente vivido na indústria dos videojogos também pode ser extremamente favorável se os estúdios proporcionarem boas condições remuneratórias e de liberdade criativa conforme as suas políticas de atuação. Algo que pode ser visível na decoração dos espaços de trabalho, p.ex., com posters e figuras alusivas que promovem um ambiente descontraído, conferindo inclusive contacto com diferentes culturas, eventos sociais, benefícios salariais, entre outros. [7], assim de seguida, iremos debruçar-nos sobre possíveis vias de entrada nesta indústria.

3.1. A Entrada dos Artistas na Indústria dos Videojogos

A forma mais comum de entrar na indústria dos videojogos enquanto artista é, para além da experiência profissional, a apresentação de um portfólio físico ou digital que contenha exemplos de trabalhos que ilustrem as capacidades e aptidões do artista e que possam ir ao encontro dos interesses da empresa [7]. Para vagas como *concept artist*, por exemplo, portfólios que contenham desenhos gestuais, ou seja, estudos de desenhos rápidos de modelos vivos ou ficcionais, são valorizados na medida em que demonstram a capacidade para

19 T.A., Diretor de Arte. Veteranos na indústria dos videojogos, são responsáveis por orientar o aspecto visual do videojogo e correspondentes equipas artísticas.

20 T.A., Experiência do Utilizador. Refere-se à forma como o utilizador interage com um determinado produto, sistema ou serviço.

desenvolver esboços exploratórios de forma rápida e eficiente [8].

Por vezes, são as próprias empresas que entram em contacto com os artistas através de eventos, portfólios online ou redes sociais, uma vez que a busca por talento é uma constante neste setor e é comum que os recrutadores procurem artistas que produzam um tipo de trabalho em particular [14].

Outro meio de integrar a indústria dos videojogos, especialmente para estudantes, são os estágios, que geralmente funcionam como uma troca entre o estudante e a empresa. O estudante trabalha com um salário baixo ou gratuitamente e em troca tem a oportunidade de se integrar temporariamente numa empresa, na eventualidade de o contratar em definitivo, a par da oportunidade de desenvolver portfólio em contexto profissional [7].

Considerando a possível entrada nesta indústria, a adequação da formação pedagógica disponível para capacitação dos futuros profissionais na área poderá ser a base.

4. Formação Pedagógica

As instituições de ensino superior²¹ estão estruturadas para ensinar sobre o cumprimento de prazos, gestão de tempo, colaboração e disciplina, que são capacidades imprescindíveis para o sucesso do aluno enquanto profissional [7]. Contudo, as tradicionais metodologias de ensino, também caracterizadas pelos processos de memorização, mecanização e competição que, segundo Howard Gardner [15], parecem limitar a visão que se tem das verdadeiras potencialidades de cada aluno, p.ex., os testes de quociente de inteligência (QI), podem ser particularmente problemáticos pois focam-se apenas em alguns tipos de inteligências: a linguística, lógico-matemática e espacial²².

Os desafios da atualidade revelam práticas profissionais mais complexas, onde o panorama empresarial é agora caracterizado pela sua diversidade, interação e inovação. As competências que agora são mais pertinentes, relacionam-se com atividades sociais e cívicas, onde aptidões como a criatividade, comunicação, pensamento crítico, iniciativa e capacidade de resolver problemas, são algumas das competências que devem ser incluídas nas estruturas curriculares do ensino superior, de modo a responder à exigência do mercado de trabalho [16].

A abordagem a uma metodologia projectual parece abranger de forma vasta às necessidades da atualidade e da indústria dos videojogos pois, a mesma promove um ensino acompanhado, com foco na micro-aprendizagem, correlação entre áreas e unidades curriculares e colaboração entre estudantes, docentes e profissionais, que dotam o estudante de variadas competências. Deste modo, o *Project-Based Learning* (PBL)²³ visa realçar o processo criativo e técnico que existe durante a resolução de um problema que, neste caso, surge em forma de projeto [17]. A aprendizagem é

²¹ Optou-se pela análise das instituições de ensino superior por oferecerem uma oferta formativa especializada ligada ao desenvolvimento de videojogos.

²² Associada à teoria das inteligências múltiplas de Howard Gardner que se define em sete tipos: lógico-matemática, linguística, interpessoal, intrapessoal, corporal-cinestésica, espacial e musical. Posteriormente foi adicionado a inteligência existencial e naturalista.

²³ T.A. Aprendizagem baseada em Projeto. Metodologia de ensino-aprendizagem interdisciplinar e baseada em projeto, no qual os alunos desenvolvem o seu conhecimento e habilidades através da investigação, de modo a responder a um problema/desafio imposto.

guiada pelo projeto e pelos desafios que o mesmo apresenta e não pelo cumprimento do programa da unidade curricular e consequente avaliação através de exame escrito, por exemplo.

Em complemento, aprender com docentes com experiência profissional na indústria dos videojogos, ou em contextos de parcerias com estúdios de desenvolvimento de videojogos, parecem ser mais valias dado que, permite aos estudantes um contacto mais próximo com os padrões de trabalho praticados a nível profissional e assim obter um parecer sincero sobre as práticas exigidas pela indústria dos videojogos [7].

Elliott Lilly refere que, independentemente da qualidade do ensino, é o estudante que terá de encarar de modo sério o seu percurso académico. Deste modo, poderá ocorrer a frequência em unidades curriculares que não sejam do seu interesse, originando a sugestão de existir a opção de substituição ou escolha prévia de unidades curriculares que vão ao encontro da vontade do estudante, com base nas suas escolhas e ambições. É ainda importante lembrar que colegas de turma poderão visar esta mesma indústria, portanto, os vínculos formados durante o percurso académico são a primeira oportunidade para estabelecer uma rede de contactos [7].

5. Conclusões e Estudos Futuros

Em suma, o desenvolvimento de personagens é uma atividade ao encargo dos *concept artists* e *character artists* na fase de pré-produção de um videojogo. Neste processo estão agregados diversos conceitos e técnicas que pretendem potencializar o carácter relacional que o jogador terá com uma personagem, enquanto estratégias de controlo indireto do jogador por parte do artista [1].

Por sua vez, o desenvolvimento de um design claro e singular carece de técnicas, processos e métodos de trabalho que culminam num *workflow* característico da indústria dos videojogos, que conta com equipas para cargos específicos e que seguem etapas bem estabelecidas, de modo a produzir de forma rápida, eficaz e económica. Note-se contudo, que o ambiente vivido na indústria dos videojogos apresenta elevados desafios que podem resultar num desgaste físico, psicológico e criativo.

Ainda assim, se o objetivo é seguir uma carreira de *Concept Artist* ou *Character Artist*, a preparação de um portfólio adequado, a pegada digital e as oportunidades de estágio podem auxiliar o contacto entre o estudante e a indústria dos videojogos. Neste sentido, o percurso académico de cada indivíduo terá, à partida, um impacto direto no trabalho apresentado uma vez que, metodologias de ensino que fomentem a reprodução de contextos reais de trabalho ou projetos, como é o caso da metodologia de *Project-Based Learning* [17]. Esta metodologia, alavancada por docentes com experiência na indústria de videojogos e a possibilidade de cada estudante escolher o seu percurso conforme os seus interesses, podem ser algumas das circunstâncias para viabilizar a boa preparação dos estudantes enquanto futuros profissionais neste sector.

Por fim, o projeto prático é no fundo um estudo piloto que pode não ser o mais exemplificativo dos atritos reais entre áreas distintas na indústria dos videojogos, devido ao ambiente controlado onde está a ser desen-

volvido. Mesmo assim, o projecto prático pode auxiliar a clarificar o que procurar, na continuidade desta investigação, sobre as circunstâncias de integração reais da indústria e identificar em concreto quais são as divergências entre perspetivas de cada área de desenvolvimento de um videojogo.

6. Referências

1. Schell, J.: *The Art of Game Design: A book of Lenses*. Morgan Kaufmann Publishers, United States of America (2008)
2. What is A Visual Development Artist? Here's The Explanation!, <https://superpixel.sg/blog/visual-development-artist/>
3. McKee, R.: *Story: Substance, Structure, Style, and the Principles of Screenwriting*. ReganBooks, United States of America (1997)
4. Truby, J.: *The anatomy of story: 22 Steps to Becoming a Master Storyteller*. Faber and Faber, United States of America (2007)
5. *Writing for Video Games: The Must Know List of Character Archetypes* <https://game-maker.io/pt-BR/blog/write-video-game-character-archetypes>
6. Kennedy, S.: *How to Become a Video Game Artist: The Insider's Guide to Landing a Job in the Gaming World*. Watson Guptill Publications, United States of America (2013)
7. Lilly, E.: *The Big Bad World of Concept Art for Video Games: An Insider's Guide for Students*. Design Studio Press, China (2015)
8. Solarski, C.: *Drawing Basics and Video Game Art: Classic to Cutting-Edge Art Techniques for Winning Video Game Design*. Watson-Guptill Publications, United States of America (2012)
9. Raimundo, J., Cardoso, P., Carvalhais, M., Coelho, A., Jacob, J.: Building creative literacy skills through cooperative and competitive gameplay: the case of See, Hear, Touch no Evil. In: 10th Conference on Videogame Sciences and Arts, pp.183-200. i2ADS - Research Institute in Art, Design and Society University of Porto, Faculty of Fine Arts, Porto (2018)
10. Holmes, M. T.: *Designing Creatures and Characters: How to Build an Artist's Portfolio for Video Games, Film, Animation and More*. IMPACT Books, China (2016)
11. Bhagwandas, A.: *Ugly: Why the World Became Beauty-Obsessed and How to Break Free*. Blink Publishing, London (2023)
12. So You Wanna Make Games?? Episode 3: Character Art, <https://www.youtube.com/watch?v=PfpE5dNTWeI>
13. Anthropy, A.: *Rise of the videogame zinesters: how freaks, normals, amateurs, artists, dreamers, dropouts, queers, housewives, and people like you are taking back an art form*. Seven Stories Press, New York (2012)
14. How to get a job as a video game artist. <https://www.creativebloq.com/features/how-to-get-a-job-as-a-video-games-artist>
15. Gardner, H.: *Inteligências Múltiplas: A Teoria na Prática*. Artmed Editora, Porto Alegre (2005)
16. Luz, F.: Ensino de Videojogos em Portugal: Promover o talento, a investigação e a indústria. In: Atas do 1.º SEVj - Seminário Sobre Ensino de Videojogos, pp.51-58. Sociedade Portuguesa de Ciências dos Videojogos, Coimbra (2020)
17. Fernandes, S., Flores, M.: O Project-Led Education (PLE) como Estratégia de Aprendizagem Cooperativa: Potencialidades e Constrangimentos. In: Actas do Congresso Ibérico Pedagogia para a Autonomia 5th/5º Encontro do GT-PA, pp. 305-313. Universidade do Minho, Braga (2011)

Illustration and Development of a Pop-up Book



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Abstract

This paper aims to present the methodology and practical development of the editorial project, which involved a pop-up adaptation of Roald Dahl's "The Witches," and all its development stages, including conceptualization and creative explorations, planning, production, and construction. The final product serves as a contribution capable of delivering a more immersive and compelling reading experience, while also enriching not just the adapted material, but the pop-up medium.

1. Introduction

This study delves into the captivating realm of pop-up books, renowned for their capacity to transcend traditional pages and elevate the typically flat editorial medium into a dynamic three-dimensional encounter. Additionally, pop-up books are multifaceted objects, as they encompass the fields of Illustration, Paper Engineering, and Editorial Design as a whole, thus requiring a multidimensional approach from the designer executing them.

The project involved an extensive stage of research and theoretical groundwork, crucial in the context of the master's project. However, this paper aims to focus on the practical development of the project. This component briefly involved studying and acquiring knowledge and practice of pop-up techniques; determining the art direction to which the final object adhered; envisaging the format, pop-ups, and their illustrations; the editorial design phase; the prototyping phase, and finally, the production phase.

2. Background

To better understand the purpose of the final object and the stipulations it followed, it is relevant to summarize some of the theoretical groundwork that preceded the practical development, as it dictated the characteristics that would determine the final book.

After a historical and contemporary contextualization of pop-up books, a survey of the pop-up books available in the Portuguese market was conducted, to identify the available typologies and possible shortcomings to which this project could respond to. Simultaneously, further research was made to determine the benefits of interacting with these

Keywords

Pop-up Book; Movable Book; Illustration; Paper Engineering; Editorial Design

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books, identifying reading encouragement as a value-added aspect³. This finding inspired research into reading habits in Portugal, which in turn identified the age group of 8-11 as lacking in reading levels, coinciding with the lack of books targeted at this audience, as observed in the self-conducted survey of pop-up books in the Portuguese market. In addition to highlighting the target audience for the book, the research on reading habits in Portugal⁴ also identified a set of characteristics to consider when choosing a work to adapt, namely: the increase in compulsory reading and consequently the decrease in recreational reading; the discrepancy in reading levels between genders; the increase in instrumental reading; the decrease in reading within a family context and the negative association with reading, which grows with age. Ultimately, after considering others, Roald Dahl's "The Witches" was chosen, considering it addresses all the mentioned gaps, in that: it is a work outside the National Reading Plan (PNL), potentially avoiding any notion of imposition in its reading; it is a fictional work and thus of a recreational, not instrumental, nature; it is a work without a target gender and has a broad target audience, potentially addressing the unequal reading practices between genders and the disinterest in reading that comes with age; it has a sometimes macabre tone, managing to capture the interest of older readers, thereby addressing the weak family relationships with reading and additionally, it has a high number of pages, which requires the promotion of reading.

With a target audience and a work to adapt in mind, the practical development of the project began by identifying the challenges of devising a solution suitable for the substantial amount of text in "The Witches"; finding a binding solution appropriate to the nature of the object; developing a cohesive artistic direction among the illustration, pop-up, and editorial elements; and overall, ensuring that all these characteristics were suitable for the target audience.

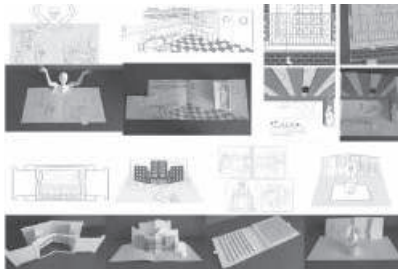
3. Pop-Up Techniques and Experimental Studies

After the study and comprehension of "The Witches", it would be expected to proceed with the choice of key moments to illustrate and the subsequent construction of pop-up mechanisms based on these moments. However, the method of first learning and studying pop-up techniques and mechanisms, allowed for an easier brainstorming of ideas and concrete concepts in the ideation of scenes to adapt. Additionally, the practice and skill acquired in this stage, facilitated the streamlining of the process of assembling mock-ups and final versions of the object.

With a lot of instructional material available on pop-ups, ultimately, all the techniques and mechanisms used in the final book were developed based on Duncan Birmingham's "Pop-up!: A Manual of Paper Mechanisms" [3]. Having gained some experience in building mechanisms, an initial version was conceived (Fig.1), which was subsequently abandoned as it

³ Examples of this investigation include an article in "The Atlantic" entitled "When Pop-Up Books Taught Popular Science" [1] and an interview with child psychologist Dr. Frank J. Sileo entitled "How Pop-Up Books Can Boost Reading Skills" for the online publication "Parents" [2].

⁴ The study mentioned, "Reading Practices of Elementary and Secondary School Students," is a partnership between the National Reading Plan and the Centre for Research and Studies in Sociology [4].



raised serious issues regarding the illustrative style, functionality, and text treatment of the object. However, these missteps were essential in arriving at the final solution. Firstly, the illustrative style evident in this version, conveyed notions incompatible with the theme of “The

Fig. 1. Discarded initial version.

Witches”. Additionally, it was found that the large amount of illustration, as well as its fidelity to the book, was not a suitable solution for the juvenile target audience, detached from what children’s books typically entail—fewer narrative text and plenty of illustration. Secondly, in its current state and due to the high number of pages, this version would not allow for a fully functional binding, also calling into question the issue of the text treatment in conjunction with the pop-ups. It became apparent, therefore, that there was a need to find an ambivalent solution that would not only enhance the pop-ups, but also the text.

4. Final Version, Format, and Binding

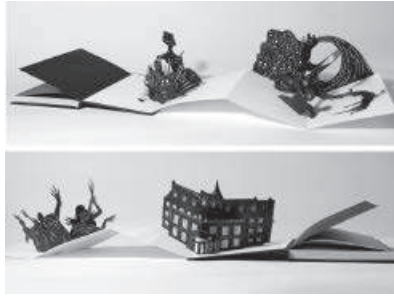
With the practical implications in mind, the size and format of the book were extensively considered. Although larger dimensions make pop-ups more impressive and easier to handle, they also make reading less practical. Therefore, aiming to highlight both the narrative text and the pop-ups, it was important to choose a format that offered a compromise between a comfortable size for handling the book as well as capable of showcasing the pop-up mechanisms.

After considering various options, a rectangular format, smaller than A4 but larger than standard book formats, was chosen. These dimensions approximate the size of common narrative books, allowing comfortable reading, and better visualization of the mechanisms. Therefore, the dimensions chosen - 16.5 x 25.5 cm - similar to those observed in some popular comic books, targeted at the intended age group.

Another concern was the binding. Having explored other options in the abandoned initial version, it was necessary to find a solution that would not entirely isolate the text from the pop-ups, but would separate them if desired by the reader.

Stemming from the idea that pop-ups are three-dimensional and extend beyond the two-dimensional space of the book, the perspective of treating the pop-ups as something outside the book, yet part of it, was intriguing. Thus, taking advantage of the spaces between the cover, text block, and back cover, the possibility of unfolding planes was also approached, allowing the pop-ups to exist beyond the book’s boundaries. Several unfolding options were sketched, preferring a solution of unfolding in an accordion style of four spreads, two after the cover and before the text block, and two after the text block and before the back cover (Fig. 2). This arrangement allowed the reader to enjoy the pop-ups in different

Fig. 2. Example of unfolding pop-ups outside the book's boundaries in the final object.



ways, flipping through them like normal pages or fully unfolding them outside the book, also allowing the choice of viewing the pop-ups before, during, or after reading the text.

5. Art Direction

After the initial ideation, it became necessary to specify the artistic direction that the final object would adhere to. It was decided that the artistic direction should embrace an aesthetic approach that resonated with the dark and macabre nature of “The Witches”.

Seeking to allude to the themes of witchcraft, mysticism, and terror present in the story, it seemed fitting to draw inspiration from real-world witchcraft or the occult, focusing on the graphic decorative aspects of occultist books. Thus, visual research in occult literature was conducted, observing in most books (such as “Container Magic: Spellcraft Using Sachets, Bottles, Poppets & Jars” by Charity L Bedell [5], “The Book of Spells: A Magical Treasury of Spells, Rituals and Blessings” by Marie Bruce [6] and “The Book of Practical Witchcraft: A Compendium of Spells, Rituals and Occult Knowledge” by Pamela Ball [7]) the following graphic aspects: purely decorative elements such as highly detailed borders and frames; serif typefaces, preferably gothic; illustrative elements such as stars, constellations, moons, and celestial bodies in various forms, as well as still-life elements such as leaves and vegetables; prevalence of dark colours like black, burgundy and navy blue.

6. Editorial Design

6.1. Cover, Spine, and Back Cover

Since the book cover (Fig. 2) serves as the reader's first impression, it was important for the artistic direction to be clear here, keeping in mind the inspiration from occultist literature.

Managing the design of all the editorial, illustrative, and three-dimensional elements that make up the book, involved working simultaneously on these various aspects. As such, a fundamental need for the cohesion of the elements that would constitute the book, began to emerge. Here, this need extended to the illustrative style to be adopted, as it was not limited only to the illustration of the pop-ups but also to the editorial graphic elements. While working simultaneously on the illustration of the pop-ups, it was determined that the overall illustration should convey a rudimentary and elemental essence, capable of meeting the illustration and art that the juvenile target audience produce and consume.

Regarding the title and author, after selecting various fonts and conducting experiments, ultimately, a gothic font was chosen as it directly

aligned with the occultist aesthetic. In its search, it was important to consider the target audience, prioritizing font legibility as well as the desired imperfect and irregular appearance, reflecting both the juvenile target audience and the visual aesthetic of Roald Dahl's universe, one that can be best exemplified, by the jagged and crooked letters that make up the titles in the covers of the official Roald Dahl's collection book set. Ultimately, the "Germanica" font encompassed all these characteristics, making it a suitable choice.

In the design of illustrative elements, it was intended that the illustration would not only be decorative, but also allude to the themes of "The Witches". Therefore, the design included stars of various shapes and sparks, alluding to the themes of witchcraft and magic in the story, without being too literal, maintaining some mystery and intrigue on the cover.

Continuing with this intention of intrigue, logos of publishers, barcodes, or even summaries of the work were not included on the back cover, elements usually necessary if the book were intended for commercialization. This was done to maintain a somewhat cryptic presentation, alluding to the theme of the story and the not-so-distant stereotypical spell book found by some protagonist in youth media of horror and magic

genres. For the same reason, the design of the spine and back cover (Fig. 3) includes only the illustrative element of the stars, anticipating that on a shelf full of other books, it will stand out due to the lack of text or other descriptive elements, being a mystery that can only be discovered by opening and leafing through the book.



Fig. 3. Cover, spine, and back cover of the final book.

6.2. Text Body And Chapter Openings

At this stage, regarding text design, the body of text design was first defined. A variation of the established Van de Graaf canon grid⁵ was used, aiming for an approach to classic aesthetics, as it was intended for the book to adopt an ancient appearance, inherent in occultist aesthetics (Fig. 4).

Searching for the ideal font, legible fonts (considering the target audience) suitable for large amounts of text and fitting the theme of the work and artistic direction were preferred. Tests were conducted with a selection of fonts, concluding that certain fonts had a too classic appearance, while others resembled old books too much, approaching a pastiche⁶ style that was to be avoided. Ultimately, the most suitable option was the font "Lora" (Fig. 4), as it is a highly legible font, capable of avoiding read-

⁵ Canon of page construction, popularized by Jan Tschichold [8].

⁶ "(...) 3.figuratively, derogatory affected imitation of the style of another(s)" [9].

ing fatigue in large amounts of text, and because it is a contemporary font with roots in calligraphy, avoiding excessive mimicry of old books.

Subsequently, it was necessary to determine how the chapters would be highlighted. Since the amount of text here is extensive, the need for a significant break between chapters was considered, to provide a “rest” between the large text blocks. It was then decided to occupy a full page or two as needed for the chapter opening (Fig. 4), in order to provide the desired break. Again, prioritizing consistency among the elements that constitute the book, the “Germanica” font was used for the titles, as well as a portion of the star frame used on the cover. In the body of text, and maintaining the desire for an ancient appearance, it was decided to begin chapters with a drop cap (Fig. 4), using, once more, the “Germanica” font. Additionally, the illustrative element of the star was used as a decorative element (Fig. 5), functioning as a cutout both in chapter openings and in a subsequent bookmark, aiming to bring the plasticity of the pop-ups to the interior of the book.

Fig. 4. Example of text block, font used, chapter opening and drop cap, respectively, in the final object.



7. Pop-ups

7.1. Ideation, Sketches, and Prototyping of the Pop-Ups

Fig. 5. Examples of the cutouts in the book and on the bookmark, respectively, in the final object.



Moving on to the ideation of the pop-ups, previous research regarding the benefits of illustration⁷ and pop-ups, validated the choice of producing pop-ups containing illustration and thus functioning symbiotically. Therefore, it was necessary, first and foremost, to determine the content to be

illustrated. Since the space designated to contain the pop-ups was limited, with only four spreads, it was crucial to condense the extensive content of “The Witches”, into just four key moments. For this purpose, four moments were chosen, occurring at various points in the story.

Considering the previously raised issue in the discarded initial version, regarding the unnecessary fidelity to the content of the story, more conceptual and imaginative representations were opted for, aiming to convey what the author intends to communicate, not so literally. Evoking a notion of what happens in the story without revealing too much, may even compel the reader to interpret the pop-ups, potentially further encouraging the reading of the story.

⁷ This research included, for example, a study intitled “What is the Use of a Book Without Pictures? An Exploration of the Impact of Illustrations on Reading Experience in A Monster Calls” [10].

Additionally, attention was paid to the consistency of the perspective used in the pop-ups. Since the spreads can be viewed as a whole, they should be presented in the same perspective, allowing for an essential visual coherence. Thus, a perspective parallel to the reader when opening the book was chosen, with mechanisms allowing the pop-ups to rise to meet the reader's gaze. In technical terms, the vast majority of the mechanisms used are variations and additions to the base mechanism known as the V-fold.

As mentioned, there was a need to work on multiple elements simultaneously, requiring the development of the illustrative component simultaneously with that of the pop-ups, as the dimensions and characteristics of one depended on the other. Therefore, a system was developed (Fig. 6) for all pop-ups, involving a phase of determining dimensions, followed by a sketch phase with the mechanisms already determined, and finally a prototype with the illustrative style already defined.



Fig. 6. Example of the system of ideation of one spread.

7.2. Illustration of the Pop-ups

Regarding the illustration, the high contrast between black and white, used on the cover and inside the book, was employed again. This contrast, that of light and shadow, intended to reference the visual arts technique of chiaroscuro, (particularly tenebrism⁸) which adds tension and drama in suspense and horror films like “Psycho,” “Nosferatu,” and “Citizen Kane.” As these themes are relevant to the work, inspiration was drawn from cinematic chiaroscuro, with dark, abstract silhouettes revealed by a small light source, in this case the white line. The aim, was to reveal and conceal certain illustrative elements, thus further embracing the sinister theme of the work.

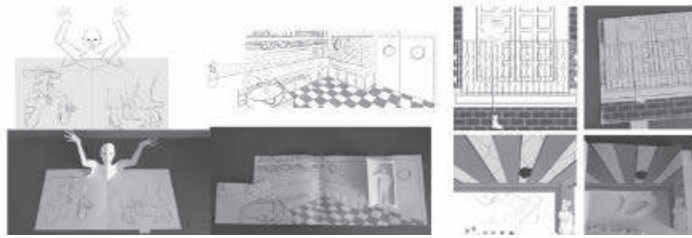
Opting for black silhouettes and white lines, required determining stylistic specificities. As mentioned, the illustration was meant to convey a rudimentary essence, so digital brushes resembling graphite, with an imperfect appearance, were chosen. It is worth mentioning that digital drawing was preferred over manual, because although the latter is more authentic, digital drawing allows for some consistency (within the intended irregularity) across all illustrated elements both in the pop-ups and the editorial content.

8. Prototyping and Production

With the conceptual phase of the book concluded, the focus shifted to addressing graphic production aspects such as binding, finishes and paper types and weights.

⁸ Tenebrism is a painting technique introduced by Caravaggio, characterized by the use of light and shadow in a contrasting manner, aiming to achieve a dramatic effect [11].

Fig. 7. Montage of photographs of the final result.



In terms of binding, a hardcover was deemed the most suitable, given the book's manipulable nature, but also aligning with the occult and ancient aesthetic. For the same reason, a more modern binding was avoided, opting instead for binding through sewing of signatures.

Following discussions and recommendations from the printer, a trial print run was conducted to finalize choices of paper and finishes. After confirming the satisfaction of the first prototype with minor adjustments, the final production phase commenced. Documents for final printing were prepared, the book's interior in booklet format based on the chosen number of signatures, and the cover file. After printing, all signatures were folded, the cutouts were cut, and the pop-ups were cut and folded. These elements were then sent off for binding. After binding, it was only necessary to glue the properly assembled pop-ups to the book.

9. Conclusion

In conclusion, as mentioned, the development of a pop-up book involves various areas of graphic design, requiring diligence in illustration, paper engineering, and editorial design. It is considered that the necessity to work simultaneously in all these areas allowed for the refinement and development of new skills. The combination of the research and the practical development phases in this project, contributed to a final product filled with work and technical specificities, but also with theoretical grounding, resulting in a cohesive book in terms of aesthetics and suitability to its purpose. It is also considered that the final object represents a contribution capable of providing a more engaging and captivating reading experience, and of enhancing not only the adapted work but also the pop-up medium itself.

10. References

1. Crowther, K.: When Pop-Up Books Taught Popular Science. The Atlantic. <https://www.theatlantic.com/technology/archive/2018/10/when-pop-bookstaught-science/572650/> (2018)
2. Minsker, M.: How Pop-Up Books Can Boost Reading Skills. Parents. <https://www.scholastic.com/parents/family-life/parent-child/how-pop-booksimprove-reading-skills.html> (2021)
3. Mata, J.T., Neves, J.S., Lopes, M. A., Ávila, P.: Práticas de Leitura dos Estudantes Portugueses – 1.º e 2.º Ciclos. Iscte. https://pnl2027.gov.pt/np4/file/3200/PLEP_Apresenta_o_1CEB_2CEB_Iscte_7_12_2.pdf (2021)
4. Birmingham, D.: Pop-up!: A Manual of Paper Mechanisms. Tarquin (1997)

5. Bedell, C.L.: *Container Magic: Spellcraft Using Sachets, Bottles, Poppets & Jars*. Llewellyn Publications (2003)
6. Bruce, M.: *The Book of Spells: A Magical Treasury of Spells, Rituals and Blessings*. Sirius (2022)
7. Ball, P.: *The Book of Practical Witchcraft: A Compendium of Spells, Rituals and Occult Knowledge*. Sirius (2022)
8. Tschichold, J.: *The Form of the Book: Essays on the Morality of Good Design*. Hartley & Marks. ISBN 978-0-88179-116-7 (1991)
9. Infopédia. Pastiche. Infopedia.pt-Porto Editora. <https://www.infopedia.pt/dicionarios/linguaportuguesa/pastiche> (2023)
10. Aggleton, J.: “What is the Use of a Book Without Pictures?” *An Exploration of the Impact of Illustrations on Reading Experience in A Monster Calls*. *Children’s Literature in Education*, 48(3), 230–244. <https://doi.org/10.1007/s10583-016-9279-1> (2017)
11. Britannica. Tenebrism. *Encyclopaedia Britannica*. <https://www.britannica.com/art/tenebrism> (2023)



Oficina de Desenho e Gravura: Relato de uma Experiência de Residência Artística

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Keywords

National Arts Plan;
Resident Artist; Drawing
and engraving practices;
Creativity

Abstract

This article addresses the possibilities that a Resident Artist project can achieve in the context of animations and activities to promote the development of skills in the area of drawing and engraving, in a school context, combined with various multiliteracies. Some elements related to the National Arts Plan and the role of the Resident Artist are discussed, in conjunction with the school library. In the empirical part, the activities carried out are described and analyzed, as well as the results of the evaluation carried out by the students involved in the activities. In particular, the engraving workshop allowed students to use this form of expression as a tool to create visual languages and thus draw a bridge between visual language, written language and also verbal language. The concept of creativity in this project indicated paths to important elements regarding visual literacy, information literacy, the construction of knowledge and therefore emancipation, fundamental functions that the school library intends to offer and also meets the statement in the Student Profile Upon Exit of Compulsory Schooling. The results obtained, combined with AR's self-reflection, reveal the relevance of actions such as the one carried out in this project.

1. Introdução

No âmbito do Plano Nacional das Artes (PNA), concretamente no documento que apresenta a estratégia para o período 2019-2024 [1], na área dedicada à Educação e Acesso, destaca-se o objetivo de “propor a presença das artes nas escolas de forma diversificada, incluindo a sua utilização como recurso pedagógico, criativo e transversal na abordagem aos conteúdos das diferentes disciplinas” (p. 31). É neste contexto que surge o projeto Artista Residente (AR), situação vivenciada por uma das autoras deste artigo durante o ano letivo de 2022-23, por um período de 4 meses.

O trabalho realizado foi incorporado num trabalho de natureza académica (trabalho de projeto para a obtenção do grau de mestre no curso de Gestão da Informação e Bibliotecas Escolares, na Universidade Aberta), sendo que neste texto apresentamos alguns dos elementos essenciais que caracterizaram a intervenção artística desenvolvida nas escolas do Agrupamento Ibn Mucana (Cascais). A Artista Residente, que tem vindo a desenvolver a sua prática artística como ilustradora e como artista visual

(www.andreaebert.com e www.andreaebert.me), tem sido responsável por diversos *workshops* ao longo dos últimos anos (de desenho, ilustração, entre outros), e essa experiência foi considerada importante para a sua integração no projeto do agrupamento.

Na concretização do plano de trabalho, concebeu-se um dispositivo que permitisse analisar e avaliar as ações realizadas. Considerou-se que este contexto era particularmente propício para uma prática refletida, algo que nem sempre é possível no caso das atividades artísticas. Neste sentido, consideramos que a apresentação desta experiência tem um significado e interesse mais amplos, já que alia a dimensão artística com a pedagógica, com uma forte intervenção a nível da educação artística de crianças e jovens de diferentes níveis de escolaridade.

2. Enquadramento

2.1. O Plano Nacional das Artes e a Residência Artística

O Plano Nacional das Artes (PNA) foi desenvolvido pelas áreas governativas da Cultura e da Educação, em 2019. Na página da Direção-Geral da Educação (<https://www.dge.mec.pt/plano-nacional-das-artes>) assinala-se que o PNA tem como objetivos “tornar as artes mais acessíveis aos cidadãos, em particular às crianças e aos jovens, através da comunidade educativa, promovendo a participação, fruição e criação cultural, numa lógica de inclusão e aprendizagem ao longo da vida”.

É de notar as referências ao Projeto Cultural de Escola, com a criação de um cargo de coordenador em cada agrupamento escolar ou estabelecimento de ensino, responsável por desenhar um programa cultural adaptado ao contexto, em parceria com as autarquias, as estruturas artísticas e a comunidade educativa. O programa deve ser estruturado, tendo em conta a diversidade sociocultural, patrimonial e artística do território de cada agrupamento. O Projeto Artista Residente integra-se neste domínio [1], sobre o qual se esclarece que o AR “não é um docente. É um artista que coadjuva as equipas docentes na elaboração e execução do PCE. Um consultor, proponente e protagonista da mudança que se molda à escola e pode assumir diferentes graus de participação” (p. 32, nota de rodapé). Menciona-se então que os agrupamentos interessados podem receber um artista nas suas instalações. Durante o ano letivo, além de ter um ateliê na escola, o artista tem a responsabilidade de apoiar a comunidade educativa, introduzindo mais processos e práticas artísticas.

Há várias experiências e estudos realizados sobre o contexto de artistas residentes, e como o artista também pode atuar na área de aprendizagem, com destaque para o contexto anglófono. As áreas artísticas envolvidas são variadas, passando pela música, o desenho e a pintura, a dança, o teatro, entre outras. Salientamos, como exemplos, o projeto “Teacher Artist Partnership Programme” [2], que foi um programa desenvolvido para professores e artistas que trabalham com escolas e atuou como piloto entre 2004 e 2007 em Londres. O governo irlandês tem desenvolvido um projeto similar [3]. A Fundação “Creativity, Culture & Education” oferece o programa “Creative

Partnerships” que apoia professores e alunos a desenvolver os seus “creative skills, making a positive impact on their capacity to learn and grow” [4]. Também na Austrália encontramos projetos deste tipo, que têm sido objeto de avaliação [5], [6]. Mais perto de nós, em Espanha, encontramos igualmente um conjunto de experiências com algum relevo, e que têm merecido relatos e análises publicadas em periódicos. Refiram-se projetos de artista residente na área da música [7], ou das artes visuais [8], sendo que estes artigos permitem perceber de forma mais concreta e prática algumas dinâmicas de concretização destas parcerias, bem como é que são percecionadas pelos vários intervenientes (artistas, alunos e professores).

Em relação ao contexto português, pretendeu-se também identificar estudos similares, sobretudo relacionados com o PNA, tendo em atenção que já está no terreno há alguns anos. Assim, efetuou-se uma pesquisa (em fevereiro de 2024) no portal dos Repositórios Científicos de Acesso Aberto de Portugal (RCAAP) com o assunto “Plano Nacional das Artes”, e encontrámos listados apenas três, tratando-se todos de dissertações ou trabalhos de projeto, no âmbito de cursos de mestrado. Esta escassez de trabalhos sobre esta temática é demonstrativa da relevância que consideramos que o projeto que realizámos poderá ter neste contexto.

Um desses trabalhos é de natureza teórica, e os outros dois têm uma componente prática, sendo apenas um deles relacionado também com a figura do Artista Residente. Nesse estudo [9], apontou-se a relação do PNA com um artista para a criação de conteúdos estimulantes para as crianças, com trabalhos a nível da expressividade, dentro do contexto da comunidade, inserindo-se, portanto, dentro da área “c) Contribuciones a la cohesión social y al vínculo con la comunidad”, segundo a sistematização proposta para analisar os contributos das parcerias entre artistas e escolas [8]. Na dissertação em causa refere-se que “o «Projeto Artista Residente» pretendeu difundir e reinventar saberes tradicionais como a tamancaria, a olaria do barro preto, a tecelagem, a cestaria e a latoaria” (p. 46). A autora do trabalho conclui, a partir da análise realizada com base em diferentes dados, que se verificou a entrega das crianças ao projeto e aos desafios propostos [9].

Relativamente à questão dos resultados obtidos por este tipo de intervenções e programas, as opiniões divergem e Macaya & Valero sistematizam algumas das posições que têm sido apresentadas por diversos autores e em vários estudos [8]. A partir da análise que realizaram identificam três áreas nas quais os contributos das colaborações artistas-escolas se podem situar: a) Contributos para o desenvolvimento individual dos alunos; b) Contributos para as dinâmicas sociais das escolas; c) Contributos para a coesão social e vínculo com a comunidade envolvente. Sublinham igualmente que a leitura analítica sobre as mais-valias dessas parcerias deve ser sobretudo orientada por perspectivas etnográficas ou humanistas, que “nos permitam compreender qué sucede realmente en la práctica: interacciones entre colectivos, experiencia vivida, significado de los proyectos para los participantes” [8, p. 312].

2.2. A Criatividade

Face à prática que se pretendia desenvolver como AR, em contacto com grupos diversos, analisando o seu envolvimento e as suas reações às propostas que foram apresentadas, considerámos fundamental focar a nossa reflexão sobre o tema da criatividade. Este elemento é fulcral para percebermos a importância da arte no ensino básico e secundário e para desmistificar alguns mitos sobre a palavra criatividade e o artista em si. Para isso, baseámo-nos nas perspetivas da autora e artista Fayga Ostrower [10], [11], em especial no livro *Criatividade e processos de criação*, para traçar um paralelo com as atividades que foram realizadas durante a residência no Agrupamento Ibn Mucana.

Ostrower foca-se na dimensão do ser humano criativo e reavalia a arte sob esse prisma: “Consideramos a criatividade um potencial inerente ao homem, e a realização desse potencial uma de suas necessidades. As potencialidades e os processos criativos não se restringem, porém, à arte” [11] (p. 5). A criatividade somente surge quando a atividade do indivíduo apresenta um sentido e se integra no meio social e ou cultural. Neste caso, a autora coloca a problemática do papel do indivíduo quando não encontra sentido nas suas atividades, sendo que, nessa situação, “de um modo geral não se dá a estimulação da sensibilidade e o fazer do indivíduo dificilmente chegará a ser criativo. Além disso, para se realizarem as potencialidades individuais dentro do quadro de possíveis propostas culturais, será sempre também uma questão de níveis de integração que existam em uma sociedade e se proponham aos indivíduos” [11, p. 17].

Face a estes aspetos, a AR acredita que todos podem criar, independentemente da idade ou formação. Todavia, a AR sentiu durante a sua residência, por parte de algumas pessoas, uma visualização do artista como uma entidade criativa especial e, em algumas situações, os professores mencionaram que era muito bom ter uma artista, porque a matéria que o professor ensinava não era criativa, visão que a AR procurou desconstruir. Noutros casos, apontavam alguns alunos como sendo bons desenhistas e que seria a estes que a AR deveria prestar atenção, dividindo assim os alunos entre os que tinham “talento” e os que não tinham. A AR defende e apontou sempre que a criatividade pode surgir e se expressar em todas as áreas (designadamente na atividade docente) e o seu papel enquanto artista é também um papel comum. No texto de Ostrower podemos verificar o lugar da criatividade, e partilhamos desta perspetiva: “O vício de considerar que a criatividade só existe nas artes, deforma toda a realidade humana. Constitui uma maneira de encobrir a precariedade de condições criativas em outras áreas de atuação humana, por exemplo na da comunicação, que hoje se transformou em meros meios sem fins, sem finalidades outras do que comerciais” (p. 39).

Este pensamento sobre o ser humano criativo também é elaborado pelo artista Joseph Beuys quando institui, em 1974, em parceria com o escritor alemão Heinrich Böll, a Universidade Livre Internacional – FIU, com o manifesto em que enfatiza o ser humano artista: “Creativity is not limited to people practising one of the traditional forms of art, and even in the case of artists creativity is not confined to the exercise of their art. Each one of us has a creative potential which is hidden by competitiveness and success-aggression pursuit of success” [12].

Importa igualmente sublinhar que a associação entre o conceito de criatividade e as parcerias entre artistas profissionais e as escolas cruza todos os documentos que se debruçam sobre esta problemática, quer os que apresentam projetos e programas [4] quer os que analisam as atividades e os resultados [7]. A aliança entre criatividade e aprendizagens está no centro destes projetos, destacando-se que a presença das artes incentiva a criatividade na educação [13]. Por outro lado, é relevante considerar que este tipo de atividades desenrola-se em grupo, desenvolvendo-se dinâmicas entre o indivíduo e os outros membros do grupo e a criação de sinergias que têm um papel a considerar. A criatividade desenvolvida dentro do grupo interage de forma dinâmica no desenvolvimento do conhecimento e das aprendizagens em contexto educativo: “Group creativity can viewed as the driver of knowledge creation; however, individual knowledge is the potential resource to develop group creativity” [14, p. 397].

Retomamos alguns dos elementos aqui abordados no ponto em que apresentamos a nossa reflexão final sobre as ações desenvolvidas.

3. Descrição das atividades em geral

Nos pontos seguintes apresentamos algumas das atividades que foram desenvolvidas com os diferentes grupos de alunos.

3.1. Técnica de gravura

Desde 2014, a AR desenvolve esta técnica com o intuito de usar materiais recicláveis e de baixo custo. Nesta técnica não é necessário ter prensa de gravura e o custo do material para impressão não é elevado. Em Portugal, a AR já ministrou várias oficinas com esta técnica e efetuou também numa residência artística na Coreia do Sul.

Para se realizar uma gravura é necessário ter uma matriz, resistente à água, que é uma superfície que irá receber uma tinta ou não. Esta matriz pode ser trabalhada em termos de forma, desenho e relevo. A matriz será entintada, isto é, será aplicada uma camada fina de tinta sobre a superfície da matriz, podendo ou não esta superfície ainda receber outros tratamentos, e logo depois será colocada sobre a matriz uma outra superfície, por exemplo o papel, para a transferência desta tinta da matriz. Para realizar esta transferência é necessário o efeito de pressão. Esta pressão pode ser realizada com uma colher de madeira, um rolo de massa, um rolo de borracha ou também seguir o processo mais convencional, isto é, passar por uma prensa de gravura.

Na maioria das oficinas realizadas no Agrupamento, foi usada a prensa de gravura que já existia na escola-sede. A gravura já foi considerada como arte pobre devido à produção em série. Por ser uma arte manual, também perdeu o seu destaque no mundo contemporâneo virtual e tecnológico.

Em termos conceptuais, a gravura nesta residência valorizou a “experiência” e o “fazer”. A gravura é um meio de transpor o ser humano para um estado mais físico e tátil. A sua ação concretiza-se primeiro ao produzir uma matriz e, por sua vez, esta vai transferir a sua forma para uma outra superfície. Este movimento faz com que o gravador seja um criador de um meio que pode ser reproduzido inúmeras vezes. Cada reprodução nesta técnica terá uma nova textura e esta transformação leva o gravador

a adquirir competências sobre a sensibilidade visual e criativa.

Para esta residência, a AR propôs um desafio aos participantes de criarem uma matriz a partir de formas abstratas criadas com caixas de leite, sem usar tesoura no início. Esta formação de imagem a partir de formas aleatórias faz com que o participante parta da fase de criação que não é a partir do que ele imagina, mas sim a partir do que há à sua frente, no caso os pedaços de formas, e assim construa uma imagem de que não estava à espera. Esta prática de criação pode levar a um pensamento sustentável e também perceber como a criatividade pode ser trabalhada.

A gravura foi, assim, uma ferramenta para desenvolver a literacia visual com o acompanhamento de três questões: O que vêes?; O que pensas disso?; O que fazes com isso? Estas questões foram baseadas no livro de J. Rancière, *O mestre ignorante: cinco lições sobre a emancipação intelectual* [15] em que indica que a emancipação significa perceber que a igualdade de inteligência existe em todas as pessoas. Isto permite que qualquer pessoa possa tomar a iniciativa de construir uma compreensão das produções artísticas ou intelectuais, e assim tomar as rédeas da sua curiosidade e conhecimento. A curiosidade e a construção do próprio conhecimento são, pois, estruturas para a aquisição de conhecimentos aprofundados e o desenvolvimento de literacias (visuais e outras), que por sua vez se podem configurar como atos de emancipação.

A atividade foi desenvolvida em duas fases. Primeiro, uma reflexão sobre como o nosso cérebro envia mensagens para a nossa mão desenhar algo e às vezes não é realizado como pensamos. Com este pensamento, conseguimos comparar com os exercícios da atividade “Descreva e eu desenho”, que já tinha ocorrido, em que a descrição do colega poderia ser o cérebro e o outro colega a mão. Esta analogia tinha o intuito de deixar o participante mais à vontade para criar sem ter de se preocupar com formas perfeitas.

Na segunda fase, partiu-se para a construção da forma: montagem de uma matriz que deveria ter no máximo o tamanho A4 e esta imagem podia ser um objeto, um animal ou uma imagem abstrata. Para isso, foi necessário que os alunos recordassem os desenhos com linhas que fizeram na atividade anterior e diferenciar estes desenhos com uma imagem de silhueta. A AR utilizou uma lanterna e projetou sobre um aluno para perceberem que na sombra não há detalhes internos e é este tipo de imagem que será construída na matriz. Em pares, os alunos recebiam pedaços das caixas de leite para formar uma imagem. Antes de começar, houve uma demonstração simplificada da AR de como poderia ser feita uma matriz. Após a montagem, foi usada fita adesiva para unir os pedaços. Por ser em pares, a montagem foi mais rápida e quando um aluno não conseguia acrescentar uma peça o outro ajudava; desta forma houve um trabalho conjunto coeso e muito participativo. Também não ficaram preocupados com um resultado perfeito e divertiram-se com o processo e o resultado.

3.2. Exercício “Descreva e eu Desenho”

A atividade é realizada a pares: os alunos escolhem um livro na biblioteca, depois um participante seleciona uma imagem sem o parceiro visualizar e o participante que escolheu a imagem descreve-a para o parceiro a dese-

nhar com um tempo reduzido de 5 minutos. O desenho deve ser realizado numa folha branca A4 e com uma caneta de feltro. Após o término, o aluno que descreveu revela ao parceiro a imagem e então troca-se as funções.

No final do exercício, há uma reflexão do que foi difícil, o que foi mais fácil e o que foi divertido. Esta reflexão leva o participante a perceber alguns pontos pertinentes:

Fig. 1. Atividade “Descreva e eu Desenho”



- A importância da descrição narrativa.
- A importância da síntese descritiva.
- A percepção do desenho no espaço.
- Aceitar o erro e divertir-se com este ato.
- Perceber as tensões psicológicas desta atividade.
- Uma forma diferente de olhar um livro.
- O uso dos recursos da biblioteca de forma descontraída.

3.3. Trabalho de recorte e Stop Motion

Entre as oficinas realizadas, propôs-se também uma articulação entre os trabalhos de recorte, gravura e a produção de *Stop Motions*. Esta atividade foi realizada a partir da escolha de um livro, por cada grupo, na biblioteca da escola e, em seguida, escolher também um excerto do livro para fazer a animação. Após esta escolha foi pedido para a turma descrever o que seria importante estar na cena da animação e fazer um desenho rápido dessa cena.

Para facilitar a articulação proposta, a AR decidiu usar recortes geométricos com cartolinas coloridas para os alunos não se deterem em detalhes e sim na formação e movimentação da cena. Para que os alunos pudessem ter uma referência de como formar uma imagem com formas geométricas, foi exibido uma animação para exemplificar a atividade. Após esta demonstração, os alunos conseguiram realizar a imagem da cena. O uso de formas geométricas para construir uma cena foi muito positivo para os alunos que não estavam familiarizados com o desenho, e assim todos os elementos do grupo participaram na construção e na captação das imagens.

Foi a primeira vez em que a AR realizou uma oficina de *Stop Motion* mais completa e percebeu que a sua experiência como ilustradora ajudou a coordenar as ações dentro da cena. Ao juntar todas as animações, a AR editou e colocou os títulos dos livros, os créditos e uma música para acompanhar a animação (vide o link <https://youtu.be/y5cBBmjPYMs>). Com outro grupo, o *Stop Motion* foi realizado com as gravuras realizadas, a partir das quais os alunos conceberam pequenas histórias (vide o link: <https://youtu.be/dJ1cvy8CkI4>).

4. Reflexão sobre o processo e os resultados

A atividade de gravura com 3 turmas de 4.º ano de escolaridade apresentava algum risco, porque nenhum participante tinha ainda feito algo

parecido e também não sabiam, até então, qual seria a sua utilidade. Por isso, houve uma introdução simplificada de como poderia ser criada uma forma com os pedaços de embalagens. E a partir deste passo, o que ficou muito claro para a AR e para os participantes foi o sentimento de intuição. Neste caso, a intuição fez parte do processo de criação, tal como Ostrower defende: “Os processos de criação ocorrem no âmbito da intuição. (...), toda experiência possível ao indivíduo, também a racional, trata-se de processos essencialmente intuitivos. As diversas opções e decisões que surgem no trabalho e que determinam a configuração em vias de ser criada, não se reduzem a operações dirigidas pelo conhecimento consciente. Intuitivos, esses processos se tornam conscientes na medida em que são expressos, isto é, na medida em que lhes damos uma forma” [10, p. 10].

Já na atividade de criar uma história a partir da gravura realizada ou criar um *Stop Motion* com a matriz produzida, a AR, os alunos e professores tiveram de usar a imaginação através de associações à imagem realizada. Ostrower coloca o termo “associações” como um gerador de imaginação. Tomemos a atividade com uma turma do 5.º ano na biblioteca, em que era necessário escolher um excerto de um livro para realizar uma animação. Nesse caso, foi necessário transformar a linguagem escrita para uma linguagem visual. Face ao exercício de simbolizar uma palavra e este símbolo ser construído através de formas, Ostrower lembra que a criação em si é um exercício de ordenação de formas.

Sobre a metodologia que a AR escolheu para as sessões da oficina “O que pode ser uma gravura”, houve várias etapas: enquanto uma atividade aparentemente se fechava, outra se abria em seguida. Uma criação que cria outra e outra, num processo de transformação contínua e crescente. Em relação a esta estrutura neste processo, colhemos inspiração em Ostrower, que conclui: “Quando se configura algo e se define, surgem novas alternativas. Essa visão nos permite entender que o processo de criar incorpora um princípio dialético. É um processo contínuo que se regenera por si mesmo e onde o ampliar e o delimitar representam aspectos concomitantes, aspectos que se encontram em oposição e tensa unificação. A cada etapa, o delimitar participa do ampliar” (p. 26).

Já, na atividade “Descreva e eu desenho”, a AR atentou sobre o sentimento de frustração do lado de quem descreve. E um sentimento de incerteza do lado de quem desenha. Com isso, a AR abriu um espaço para questionar os alunos sobre o que foi mais desafiante e o que foi fácil, no final da atividade. Ter a experiência destes sentimentos poderia deixar os alunos ainda mais frustrados. E ao expressar o que foi sentido ao lado dos colegas, essa situação trouxe ao participante compreensão de que este sentimento é legítimo e que apesar de tudo foi divertido. Assim, poderão, em outras situações, como explica Ostrower, manter a tensão psíquica: “A criatividade, como a entendemos, implica uma força crescente; ela se reabastece nos próprios processos através dos quais se realiza. A título de análise formulamos aqui, sob o termo “tensão psíquica”, uma noção de renovação constante do potencial criador” (p. 27).

Esta combinação de tensão e diversão traz a experiência da vitalidade. Aqui, a AR reconhece que existe um problema comum em atividades ligadas às artes visuais, que com frequência as reduz a atividades de

entretenimento e de relaxamento. A vitalidade a que Ostrower se refere tem um sentido de desenvolvimento pessoal: “Criar não representa um relaxamento ou um esvaziamento pessoal, nem uma substituição imaginativa da realidade; criar representa uma intensificação do viver, um vivenciar-se no fazer; e, em vez de substituir a realidade, é a realidade; é uma realidade nova que adquire dimensões novas pelo fato de nos articularmos, em nós e perante nós mesmos, em níveis de consciência mais elevados e mais complexos. Somos, nós, a realidade nova. Daí o sentimento do essencial e necessário no criar, o sentimento de um crescimento interior, em que nós ampliamos em nossa abertura para a vida” (p. 68). Esta dimensão relaciona-se diretamente com a área “Contributos para o desenvolvimento individual dos alunos”, que constitui um dos resultados mais significativos nas parcerias artista-escola [8].

Finalmente, uma palavra para a avaliação que foi feita pelos participantes sobre as várias atividades realizadas. O balanço final foi bastante positivo, na medida em que todos os alunos participantes manifestaram interesse em ter mais atividades com a AR. A atividade de que a maioria gostou mais e que foi considerada mais desafiante, foi a gravura, seguida de “Descreva e eu desenho”.

5. Reflexões Finais

Dentro dos propósitos do PNA para o projeto Artista Residente, existe a responsabilidade do(a) artista apoiar a comunidade educativa, introduzindo mais processos e práticas artísticas. Dentro dos objetivos do Agrupamento em acolher uma artista residente, como a utilização da oficina de gravura e a integração com o Projeto Cultural da escola, a AR utilizou de várias formas o espaço e os temas propostos pelos projetos culturais.

Houve algumas dificuldades em termos logísticos, como adaptação dos horários das turmas com o horário da AR, bem como a necessidade de divisão das turmas para haver melhor controle sobre os participantes. Este facto prejudicou o programa de algumas sessões, mas foi compreendido pelos professores e foi resolvido com tranquilidade.

Durante 4 meses a AR percebeu que faltou tempo para conhecer de forma detalhada o contexto de um grupo e também para dar espaço para este grupo absorver e expressar os conteúdos abordados. As atividades conseguem ser mais coesas e transmitem mais sentido para os participantes quando há uma duração mais longa. Isto seria importante para criar um espaço para reflexão. Este tempo também seria útil para criar uma melhor rotina entre os alunos, a AR e a biblioteca, que era um dos espaços centrais nas atividades realizadas. Este assunto também foi comentado por alguns professores e alunos e, portanto, consideramos que este programa, em geral, poderia ter uma duração mínima de 6 meses. A questão da curta duração, em projetos similares, constitui um dos pontos fracos que geralmente é apontado [8].

Este Projeto teve uma dimensão inovadora por ter a biblioteca escolar como promotora de competências ainda pouco exploradas em atividades artísticas e lúdicas, e a integração de colaboradores profissionais,

neste caso a artista residente a desenvolver a competência da literacia visual. Estas atividades corresponderam igualmente ao que é proposto pela Rede de Bibliotecas Escolares [16] e pelo referencial para os alunos no final da escolaridade obrigatória [17].

Retemos, finalmente, que a importância da reciprocidade entre o pesquisador e aqueles que estão sendo pesquisados na investigação qualitativa [18]. Esse padrão requer que exista compartilhamento intenso, confiança e mutualidade. No caso deste projeto, concretizou-se essa partilha e foram também sugeridas pistas de trabalho para projetos futuros, em que se ambiciona que os participantes beneficiem com o estudo e coloquem em prática futuras atividades.

6. Referências

1. Plano Nacional das Artes. Uma Estratégia. Um Manifesto. Lisboa, República Portuguesa (2019). https://www.dge.mec.pt/sites/default/files/Projetos/PNA/Documentos/estrategia_do_plano_nacional_das_artes_2019-2024.pdf
2. Jeffery, G.: Teacher Artist Partnership Programme 01: The TAPP Model and what we learned through developing it. School of Media, Culture and Society (2009).
3. Teacher-Artist Partnership (TAP): <https://artsineducation.ie/en/home/>
4. CCE: Creative Partnerships Programme. <https://www.creativitycultureeducation.org/programme/creative-partnerships/>
5. Donelan, K., Irvine, C., Imms, W., Jeanneret, N., O'Toole, J.: Partnerships between schools and the professional arts sector. Department of Education and Early Childhood Development (2009). <https://www.education.vic.gov.au/Documents/school/teachers/teachingresources/discipline/arts/artspartner.pdf>
6. Imms, W., Jeanneret, N., Stevens-Ballenger, J.: Partnerships between schools and the professional arts sector: Evaluation of impact on student outcomes. Arts Victoria (2011). <https://www.artsedsearch.org/study/partnerships-between-schools-and-the-professional-arts-sector-evaluation-of-impact-on-student-outcomes/>
7. Murillo, A., Mateu-Luján, B., Tejada, J., González-Zamora, A.: Activistas del sonido: niños y artistas como co-creadores en experiencias multidisciplinares con música electroacústica en un centro de alta complejidad. Arte, Individuo y Sociedad, 36(1), 169-181 (2024). <https://dx.doi.org/10.5209/aris.90246>
8. Macaya, A. & Valero, E.: Confluencias creativas. Un análisis interpretativo de las colaboraciones entre artistas y centros educativos. Arte, Individuo y Sociedad, 34(1), 295-315 (2022). <https://dx.doi.org/10.5209/aris.73872>
9. Oliveira, C. M. D.: A importância da arte na educação: Um exemplo da implementação do Plano Nacional das Artes. Dissertação de Mestrado, Universidade Portucalense (2021) <http://hdl.handle.net/11328/3591>
10. Ostrower, F.: Acasos e Criação Artística. Editora Campus (1995).
11. Ostrower, F.: Criatividade e Processos de Criação. Editora Vozes (2014).
12. Tisdall, C., Beuys, J.: Report to the European Economic Community on the feasibility for founding a "Free International University for Creativity and Interdisciplinary Research" in Dublin. Dublin, Free University Press (1976).
13. Griffiths, M., Felicity Woolf, F.: The Nottingham Apprenticeship Model: Schools in Partnership with Artists and Creative Practitioners. British Educational Research Journal, 35(4), 557-574 (2009). <https://www.jstor.org/stable/40375603>
14. Zhou, C., Lingling, L.: Group Creativity in Learning Context: Understanding in a

- Social-Cultural Framework and Methodology. *Creative Education*, 3(4), 392-399 (2012). <http://dx.doi.org/10.4236/ce.2012.34062>
15. Rancière, J.: *O mestre ignorante – cinco lições sobre a emancipação intelectual*. Edições Pedago (2010).
16. RBE: *Aprender com a Biblioteca Escolar - 2ª edição, revista e aumentada*. Rede de Bibliotecas Escolares (2017). [https://www.rbe.mec.pt/np4/%7B\\$clientServletPath%7D/?newsId=99&fileName=referencial_2017.pdf](https://www.rbe.mec.pt/np4/%7B$clientServletPath%7D/?newsId=99&fileName=referencial_2017.pdf)
17. Oliveira Martins, G. d' (coord.): *Perfil dos Alunos à Saída da Escolaridade Obrigatória*. Lisboa, Editorial do Ministério da Educação e Ciência (2017). https://dge.mec.pt/sites/default/files/Curriculo/Projeto_Autonomia_e_Flexibilidade/perfil_dos_alunos.pdf
18. Creswell, J. W.: *Investigação qualitativa e projeto de pesquisa*. 3ª Edição. Penso (2014).

Illustration as Social Semiotics



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Abstract

Building on the affordances of the illustrator as a socially engaged communicator [1], this paper will survey the opportunities of illustration as a participatory practice. I will argue how in especially complex digital media/text-image relationships illustration can be considered as a form of multimodal “social semiotics” [2], whereby illustration becomes a container for other meanings to be held and effectively shared. I will consider the concept of intericonicity (images inside images) against my contention that illustration can also pull through (in terms of signification) extra non-linguistic meaning from referring to, or agitating against situated digital culture tropes. Furthermore, the ongoing digital prerogative that sees the rise of Ai, digital filters and software manipulation, increasingly makes the photographic image unreliable as reportage, providing in turn a change in mental bandwidth for illustrations that are emotionally charged and or co-constructed. I will argue that potentially, depending on context, this change rejuvenates the reading with an indexical more metonymic function, where the concept of the illustrator as an individual identity and or voice becomes part of the meaning making experience. This connection, perhaps once relegated as *parerga* (supplementary) in conventional text-image led publications has an interesting salience and value in social media and can be, in turn used to foster activist, critical, or culture jamming images and messages. This paper will be supported both by theory and an analysis of selected case-studies. As I move towards conclusion, I will offer a discussion around the emergent trends and prerogatives within augmented reality and Ai, as linked but different to social media and offer some speculative thinking (based on my own practice and that of others) regarding how digital context could mix and meet with the affordances of illustration as social semiotics considering the continued need for social engagement.

Keywords

Social Semiotics,
Participatory Illustration,
Digital Media

1. Introduction to social semiotics

Social semiotics is concerned with both meaning makers and meaning making, and how meaning is situated in the complexities of context. Hodge & Kress [3], Halliday [4], van Leeuwen et al. [2] posit as a field that there is a general acceptance that verbal language is often no longer dominant, and that the cooperation of multiple codes come together in the contemporary

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social sphere. This makes it an ideal bedfellow for the praxis of Illustration. In this paper I plan to explore how illustration (the creative communicative act) when situated in digital platforms nudges into or out right occupies some key phenomena of social semiotics and spend some time reflecting on how the illustrator as a practitioner uses their social position and awareness as part of their practice in the chain of social semiotics. The notion of the sign is borrowed from traditional semiotics. Signs are combinations in which the signified ('meaning') and signifier ('form') have been brought together. That is to say, the relation between 'form' and 'meaning' is not arbitrary but motivated by the maker of the sign [5]. Semiotic resources have a meaning potential, based on their past uses, and a set of affordances based on their possible uses, and these will be actualized in concrete situated social contexts where their use is subject to some form of semiotic regime –and are importantly governed by these specific contexts.[6] In social semiotics a person /sign maker/ meaning maker 'chooses' from an available system of representational semiotic resources. Meaning is choice from a system, this choice is always socially located (not in a vacuum) and regulated, both with respect to what resources are made available to whom, and the discourses that regulate and shape how modes are used by people. There are various kinds of normative discourses for how we use these semiotic resources – sometimes more, sometimes less binding, but nonetheless they do provide 'rules' for their use. [7] Mode is often defined as a set of socially and culturally shaped resources for making meaning where communities co-create their own modes. Whereas an individual can be more idiosyncratic. Becoming a member of a community, social group, or 'school' means becoming an adept user of these modes. [8] Furthermore, for a form of exchange to be treated as a mode this move towards a shared understanding must develop. That leads to another 'test', the community test: the words, or gestures, produced by an individual may be meaningful to the individual, but they are not necessarily shared by a socially and culturally situated group.

2. Social junctions and porous boundaries

Here's our first interesting junction. A key part of a student illustrators personal and professional development is often grounded in how they negotiate the mode, the bank of visual culture in which illustration itself resides. Illustration praxis like approaches to Art Criticism, have normative discourse and ideologies. [9] Tutors, Art Directors, award circuits all influence what is perceived as valuable, commissionable and desirable. Illustrators will develop their personal taste and distaste [10] as a form of meaningful practice and visual sensibility within this mode. This is also negotiated within broader popular audio-visual-textual trends. This balancing act is underpinned by the power dynamics of developing a career in a competitive market, which paradoxically might pit them against (as in competition with) broader norms and trends or more pragmatically, purposefully playing into various modalities (e.g. popular Instagram aesthetics).

Social Semiotics, as a field is also a "reaction to traditions which largely

ignored the social and cultural situatedness and power implications of meaning making.” [7] Discourses of gender, social class, race, institutional norms and other articulations of power shape and regulate people’s use of semiotic resources. These are not ‘codes’ in the sense that they cannot be changed and that they “are simply there” – but they are social rules. [11]

The tradition of participatory research and collaborative creative practices commonly seek to transform these established power relations. This is done by challenging the underpinning conventions and processes that maintain hierarchical knowledge production, while still maintaining an active role (built on praxis) of enabling or creating with (see Fig.1.), rather than say simply visualising or documenting communities.[12] This sees a more complex entanglement for the illustrator entering this space. The anthropologist Lucy Suchman offers the term “situated action” [13] to foreground this complexity, arguing that in any given planned activity or event that engages human participation or interaction needs to be considered alongside a “swarm of contingencies.” As the unexpected and unplanned will emerge (to a lesser or greater extent) within the journey of reaching any desired outcome or goal. Similarly, “social semiotics cannot assume that texts produce exactly the meanings and effects that their authors hope for: it is precisely the struggles and their uncertain outcomes that must be studied at the level of social action, and their effects in the production of meaning.” [14]



Many in the Participatory Design community, [15] take this planning for uncertainty even further and actively seek to problematise the concretisation and or totalizing tendencies in designerly interventions alongside an exploration of the social normative division of praxis/expertise [16]. Luise Vormit-

tag’s doctoral illustration practice (2015-2023) explicitly addresses this particular knot of potential superficial service against the nuanced (and I would argue advance practitioner) skill in negotiating the ethical authorial challenges that naturally emerge in such social contexts. [17] We will return to this notion of advance practice and implications and value of this uncertainty later in this paper.

Inside its own heritage illustration has a stream of socially engaged practitioners, this is often described as meaningful work that gives: authenticity and voice (Oliver Kruger), sensitively bears witness (Laura Carlin), or raises awareness in social justice and activist contexts (Corita Kent, Sue Coe). This legacy acts as the fields own formal semiotic resource or mode, where illustrators could follow in the footsteps of these award-winning practitioners. I have previously discussed [1], how this approach is also fuelled by the broader acceptance of the personal as political (see Carol Hanisch et al 1969 [18]). Whereby individual illustra-

Fig. 1. Cover illustration by David Werner for his book *Nothing About Us Without Us: Developing Innovative Technologies For, By, and With Disabled Persons* (Healthrights, 1998) Now a totem/ emblem of an ideological stance that ethical design should as a process involve co-creation with any users. CC BY-NC-ND 4.0

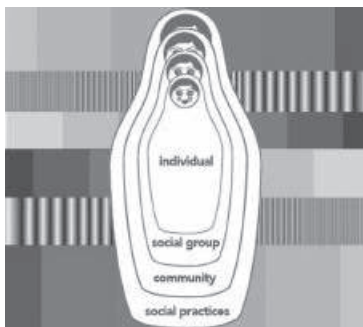
tors become more self-aware of how they are inextricably (and at times problematically) linked to larger social structures, they can find personal value in considering their life experiences or communities as their subject matter and wish to develop their skills and expertise within with this space. An example of this intentionally situated lived experience is Justyna Green's editorial commission for WePresent where she developed her Living with Endometriosis project, empathically visualising her own experience of this painful condition for a broader consumption. [19]

This leaning into Participatory Design and socially engaged practice could also be attributed to enduring freelance pragmatism, where illustrators will always need to follow the money and compete for commissions. In the context of increased arts community projects (at least in the UK) funders can range from local authorities, charitable trusts, the Big Lottery, Arts Council funding, or developers who are looking at ways to evidence public engagement against their S106 Obligations.² There is a tranche of hybrid practitioners such as Rebecca Davies (co-director of People's Bureau) [20] who describes herself as an illustrator/artist working within a participatory practice through illustration, performance and events. Or Mitch Miller *who straddles various domains as artist*, researcher, and inventor of the illustrative style the Dialectogram which "depict places that are marginal, under threat or disappeared. They borrow elements from ethnography, psychogeography and graphic art to depict the relationship we have with place, and each other." [21] Extending this deployment of expertise, type-artist Rose Nordin (Rabbit Road Press, One of My Kind [22]) focuses her practice on publication as a site of exchange and collaboration. Nordin, Miller and Davies offer process and practice-based methods rather than honoring a final image as an outcome that then enters the world to encapsulate all the signification. This approach is fascinating, as in my own participatory practice [23] and as discussed by Vormittag [17], often in highly collaborative work the illustrator/designer will directly encounter our programming – i.e. the desire to create a well-made and realized (read successfully communicative) image, or sequence of images. Whereby in socially engaged practice this might not be possible or even desired. Not aiming to do so feels radical.

2.1. Images are everything, surplus or nothing

Why does this to a formally trained illustrator feel radical to the point of sacrilege? Considering the interplay of social semiotics and illustrations (or made images) against the consensus that we live in a culture that is saturated by images as part of hypercommodified advanced capitalism. Lines are often drawn between what constitutes formal Art (history) against images as a currency in more fluid visual culture, illustration falls purposefully in between this schism but is perhaps more comfortable as a form within visual (and mass) culture. Often debates occur because made images can be loaded with power (to cause offense, to provoke,

2 A section 106 (S106) agreement is a British legally binding agreement or planning obligation between a local planning authority and a property owner. The purpose of a S106 agreement is to mitigate the harmful impact of the development on the local community and infrastructure.



to manipulate) or because they have no authenticity, potency or power: they are untrue, commercial, unoriginal, technically weak, tasteless etc. William J. T. Mitchell, in considering the power of a well-made image offers “The best evidence for the life of images is the passion with which we seek to destroy or kill them... the life of images is not a private or individual matter. It is a social life.”

[24] Images can often become individual sites of contention, whereas in the network and system that can copy and paste, repost and reshare these made images are more expansive, with unlimited and unknown viewership. This I suggest can qualify them less as passive stills or statics but more akin to a situated action full of uncertainty. Whilst the sociologist Niklas Luhmann [24] cautions that we are, our sense of self, is a system kept in equilibrium (or not) through the constant feedback of information we gain internally from the mind and externally from the mirror, others and increasingly social media.

We have now discussed the multiple ‘socials’ that illustrators’ potentially maintain and can braid together in their practice (Fig.2.). Now we will look at some of the social functions of illustration, when situated, published and shared-resshared in digital dematerialised platforms. The ebb and flow of value of made images is co-evolutionary, they cannot be reproduced without society, visual culture, simply put without some human participation, and with the rise and dominance of digital social media this has accelerated this aspect. Here we encounter another key overlap with the field social semiotics who foreground the tension between the desired meaning and the resultant social semiotic meaning. Social media lives and breathes user engagement and participation. Rachel Gannon and Mireille Fauchon also describe how important context also is for reading illustration: “The situation of the work, the locations where it is encountered, as well as the circumstances within which is experienced and by whom, will all influence how the work communicates.” [26]

Studies show how Generation Z and Millennials³ utilize different social media platforms [27]. For Generation Z its Snapchat, Instagram and Tiktok whilst Millennial’s prefer Facebook, X (Twitter) and WhatsApp. Generation Z spend significant amount of time on social media (estimated 4.5 hours a day), as a demographic this indicates that culture is being made and mediated through increasingly visual and video-first social media networks. The recent Covid-19 pandemic has solidified social media’s role as an encompassing resource for this generation, and there’s no going back.

Fig. 2. Visualization of the multiple ‘socials’: individual identity, as a member of society (social group), in/out grouping within the Illustration community and socially engaged design and art practice. Authors own.

³ Pew Research Center considers anyone born between 1981 and 1996 is considered a Millennial, and anyone born from 1997 and 2012 is part of a new Generation Z. <https://www.pewresearch.org>

By connecting to the world through social media and allowing anyone to be amplified, information can spread at record speed. There is no true curation or editorial control. The onus is on the public to interpret what they see. We live in a neoliberal society that prioritizes individual agency, X, Instagram and Facebook use picture-carousel formats with bite-size texts, with adversarial messages being far more likely to surface than well-intended ones. In May 2020 illustrator Steve Brodner (USA) put out a call on Twitter for a “mass art protest idea,” asking artists to draw Trump playing golf on top of the New York Times’s list of named Covid-19 fatalities, below the headline if “US Deaths Near 100,000, an Incalculable Loss.” Marcel Dzama, a contemporary Canadian artist known for his whimsical illustrations - contribution to the call went viral (Fig.3.).

Fig. 3. Marcel Dzama’s 2020 Instagram post featuring his watercolor of President Donald Trump playing golf superimposed over the New York Times memorial coronavirus cover. Authors own.



Brodner in his interview for Artnet discusses how he pre-formulated a mental image of then President Donald Trump golfing as a juxtaposition overlaid on the front page and cons Fig. 3. Marcel Dzama’s 2020 Instagram post featuring his watercolor of President Donald Trump playing golf superimposed over the New York Times memorial coronavirus cover. Authors own. idered this “so straight ahead, everybody should do it.” Whilst, perhaps within the canon of illustration this concept *drawing on top of the physical- digital newspaper page* as a juxtaposition and intertextual statement can be regarded as relatively simple. However, placed as a call within the social media sphere this becomes more situated as an action – a # hash-tagged invitation to both engage in an active act of protest and temporarily band-together within a community in processing the scale and emotions brought up by the real-world context whilst bypassing the passivity that comes with simply reading a broadsheet. Dzama expresses how he was “so gutted and moved by the sheer enormity of all of those names of people who had died of this virus that I wanted to make something. I couldn’t sleep, and working helps me.” A sentiment, also felt by the numerous individuals who also participated in Brodner’s

situated action using different visual approaches, the collective outcomes ultimately (unexpectedly) grew beyond America and into an international field of participation and discussion.

Brodner's work highlights the power of situated, yet socially distributed action built around participatory image making, where the sum of the individual parts provides the impact. This is an interesting rebuttal (or bypass) of the inherent context collapse common in social media – as captured by Danah Boyd (2008), who described how the internet often “flattens multiple audiences into one” for example, if you're browsing Twitter, an offhand comment from your friend sits right alongside a statement from the president of the United States. [28]

In May 2020, when self-taught illustrator Ariel Sinha shared an image that she had created in tribute to Breonna Taylor⁴, like Brodner/Dzama it was done as a “way for me to process my own anger and grief. I really just needed an outlet.” [29] Whilst charged with cathartic intent, her non-photographic digital illustration went viral (the original Instagram post is closing in on 76,000 likes), her action instigated others to ‘make the meaning,’ nudging commemoration into lionization in a space known famous for celebrity worship.

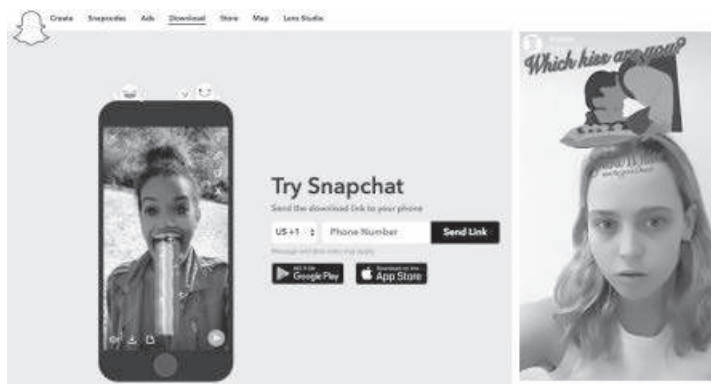


Fig. 4. Left: screenshot of Snapchat's official website in 2021 showing a filter in action. Right: Screenshot of Miu Miu AR Kisses (2019) advertisement. Authors own.

Whilst Sinha/Brodner/Dzama can be seen to instigate processes for image-led meaning making, another interesting contemporary evolution of illustration is the rise of Instagram and TikTok filters as a different configuration of how images and meaning are socially constructed. Filters originated from Snapchat's Lenses in 2015 and are Augmented Reality overlays on top of live action selfies⁵ and or other social media photographic content (see Fig.4.). This takes the act of composing an image directly into the hands of the public, who are now the image makers of a motivated sign. Interestingly this sees the maker performing with a set of possibilities (like Brodner's prompt) then Art Directing and documenting their image. This

⁴ In March 2020, Louisville Metro Police Department officers shot and killed Breonna Taylor, an unarmed Black woman in her home while executing a search warrant. <https://www.naacpldf.org/justice-denied-a-call-for-a-new-grand-jury-investigation-into-the-police-shooting-of-breonna-taylor/>

⁵ Selfie (Oxford Dictionary): is photograph that one has taken of oneself typically one taken with a smartphone or webcam and shared via social media.

act in a multimodal sense also draws down embodied interaction resources such as selection of gesture, gaze and posture, and as a semiotic resource is both an embodied physiological language and contextualised in technological social mores along with any pre-sets of the AR filter itself (which was in turn created by the AR design team). The total of which yields a very context specific semiotic regime with specialised visual grammar [30]. This collaboration with AR filters in the context of self-satisfaction (successful sharable image) places further emphasis on the literacy and navigation of the grammar, limits and choice available in this resource.

Luxury fashion brands are deploying playful, provocative and increasingly culturally astute AR filters – thus garnering customer connectivity and by osmosis prestige by contributing into this endlessly iterating grammar and culture. An example of this is Miu Miu's Kisses AR (2019) launched on Valentine's Day, this filter allowed participants to try predict which famous kiss they were based on randomized image motifs such as Prince Charming's kiss to Snow White from 1937 (see Fig.4.), or the departing kiss in Casablanca (1942) alongside kisses from Flashdance (1983), Corpse Bride (2005), Gone With The Wind (1936). This project is arguably additionally motivated by the power of the historicity of the nested image within the performed self- image and is a shrewd example of leveraging intericonicity/ intertextuality ⁶.

2.2. Collaboration with non-human sign makers

The above examples have explored the social semiotics where humans are the sign maker/ meaning maker who have carefully chosen from the resources available. Whereas we are now in an age where non-human sign makers can enter the social semiotic. Machine learning has been quietly transforming the design profession arguably since the 1960's but as an assistive technology this has recently accelerated its capabilities through the market launch of (and continued investment) in powerful image generators (from simple textual prompts) such as DALL.E (2021) or MidJourney (2022). Whilst open to all to use, professional visual designers alongside creative technologists are experimenting with the power of Ai in realizing conjunctions of form including interrogating how we formally categorize signs and the systems inherent in these structures. An intriguing example of this is Selam X (Berlin) and ART404 (New York) who created Beauty_GAN (generative adversarial network) [31] a type of artificial intelligence algorithm that used machine learning to learn about our contemporary concept of 'beauty' (from published selfies as data sets) and in turn shares back its vision of beauty. The outcomes are not beautiful by any standard definition but rather offer an opportunity of critique and reflection. The varying nature of collaborating with Ai arguably challenges any fixed or traditional notion of agency (of choice, in the biases in the data sets) in social semiotics and can potentially help to foreground the implications in process of remaking signs.

⁶ Intericonicity is a concept derived from intertextuality, applying it specifically to images. It refers to the detectable presence of an image within another image.



Fig. 5. Shows some results from Beauty_GAN, when algorithm was asked to trawled images on Instagram to synthesize a composite of Kylie Jenner's 'beautiful' face, from a gallery of differing outcomes a single image was selected and art-directed for the Dazed Beauty, Issue 0 (2019) front cover. <https://www.dazed-digital.com/beauty/article/43138/1/beauty-gan-kylie-jenner>

3. Reflections and Speculation

In the dual contexts of (increasingly) conscious and collaborative illustration and the potential of participatory practice and activism I argue that the discipline is doubling down on the social relationships. In doing so we are challenging and changing our relationship with the traditional outcome that is a final stable image (to do all the heavy lifting with regards to meaning making). I've outlined some of the key concepts and considerations in this paper – these span multiple modes and situated social practices. The traditional tension between a personal politic, desired meaning (even if this intentionally open/opaque) and the social semiotic is clearly made more diffuse in social media through both the effect of resharing, modification, adaptations and the broader context collapse. Similarly, the increased levels of performativity in image construction (AR Filters), and Ai collaboration requiring more nuanced media literacy. We also acknowledge a new tension in what might be considered professional vs amateur image maker roles, and as boundaries and contexts blur, perhaps shaking the idea of what illustration will be *for* as a praxis in the future, illustrators may well practice expertise in visual and media grammar in the conjunction of form against making and remaking. Furthermore, in contemporary visual culture, sign making can also be enabled (or problematised) through the collaborative use of Ai and the power of image algorithms – allowing creators to posing and interrogate key questions – for example shining light on biases and problematic limits of categorisations. On final reflection, as educators, practitioners, and researchers I think the role of choice (meaning is a choice from a system), free or informed or otherwise feels increasingly important, and the need to not only observe and participate but critique the social functions signs are put to has become even more vital.

4. References

1. Leishman, D.: More Eyes, Different Eyes. *Journal of Illustration*, 5 (2). 191-205. (2018)
2. van Leeuwen, T.: *Introducing Social Semiotics*. London: Routledge (2005)
3. Hodge, R. and Kress, G.: *Social Semiotics*. Cambridge: Polity Press (1988)
4. Halliday, M.: *Language as Social Semiotic*. London: Edward Arnold (1978)
5. Kress, G.: Against Arbitrariness: the social production of the sign as a foundational issue in critical discourse analysis. *Discourse and Society* 4, 2, 169- 193 (1993)
6. Van Leeuwen, T.: *Introducing Social Semiotics*. London: Routledge, 285 (2005)
7. Bezemer, J and C. Jewitt: *Social semiotics in Handbook of Pragmatics*. John Benjamins (2009)
8. Tajfel, H., and Turner, J. C.: *An integrative theory of intergroup conflict*. The social psychology of intergroup relations, (1979).

9. Canonical issues in illustration: Male, A.: *Illustration: A Theoretical and Contextual Perspective* 3rd Revised edition, Bloomsbury (2024) Grove, J., Doyle, S. and Whitney, S.: *History of Illustration*, Bloomsbury (2018) Morgan, C., and Evans, S.: *The Illustration report: The new Canon*. Varoom. (32) 34-43 (2016)
10. Bourdieu, P.: *Distinction: a social critique of the judgement of taste*, Harvard University Press (1979)
11. van Leeuwen, T.: *Introducing Social Semiotics*. London: Routledge, (2005)
12. Boser, S.: Ethics and power in community-campus partnerships for research. *Action Research*, 4(1) 9-21, (2006)
13. Suchman, L.A.: *(Plans and situated actions: The problem of human-machine communication*. Cambridge University Press (1987)
14. Hodge, R. and Kress, G.: *Social Semiotics*. Cambridge: Polity Press, 12 (1988)
15. Participatory Design ACM: <https://dl.acm.org/conference/pdc>
16. Hay, K, et al.: *Making Together Across Space & Time: Mapping Participatory Making when Co-Designing Asynchronously and/or without Colocation*. Participatory Design Conference 2022. Association for Computing Machinery, (2022)
17. Vormittag, L.: *Drawn Together: Illustration, Community and Collaborative World-Making* (will be published by Bloomsbury Visual Arts, (2025) <https://researchers.arts.ac.uk/882-luise-vormittag>
18. Woman Studies: <https://userpages.umbc.edu/~korenman/wmst/pisp.html>
19. Justyna Green interview : <https://theaoi.com/wia/justyna-green-living-with-endometriosis/>
20. Rebecca Davies: <https://cargocollective.com/rebeccadavies>
21. Mitch Miller: <https://www.dialectograms.com/dialectograms-2>
22. Rose Nordin: <https://www.rabbitsroadpress.com/>
23. Donna Leishman: <https://tohavetohold.uk/>
24. Mitchell, W.J.T.L.: *The Surplus Value of Images. Mosaic: An Interdisciplinary Critical Journal*. 35, no. 3, 1-23, (2002)
25. Luhmann, N.: *The autopoiesis of social systems*. *Journal of sociocybernetics*, 6(2), 84-95, (2008)
26. Gannon, R., and Fauchon, M.: *Illustration, Research Methods*, Bloomsbury, 139, (2021)
27. Generation Z: <https://blog.gwi.com/marketing/generation-z-characteristics/> Fluher, S.,; *Gen Z & Millennials Use Social Media Differently*, Pulse data report (2021): <https://www.ypulse.com/article/2021/02/22/gen-z-millennials-use-social-media-differently-heres-x-charts-that-show-how/>
28. Boyd, D.: *Taken Out of Context: American Teen Sociality in Networked Publics* , PhD Dissertation, University of California, Berkeley, (2008)
29. Society 6 Feature: <https://blog.society6.com/the-power-and-beauty-of-representation-with-illustrator-ariel-sinha/>

Design e desenvolvimento de um *packaging eco-friendly* para a linha de cosméticos CôaSkinCare



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Abstract

This paper describes part of a master's research project that integrates scientific illustrations, product design, and sustainability in the cosmetics industry, with a focus on the flora of Côa Valley region. It explores the benefits of native plants for cosmetic formulations, aiming to create eco-friendly and aesthetically attractive products designs. By combining accurate illustrations with sustainable packaging, the project seeks to meet consumer preferences and environmental standards. The project investigates the potential of biodegradable materials for packaging to reduce plastic waste. Market analysis and consumer surveys inform product development to ensure commercial viability. It also explores strategies to communicate the scientific and ecological aspects of the products to consumers. Educational outreach programs aim to raise awareness about the benefits of natural-based cosmetics and sustainable practices. The project aims to contribute to the growing demand for eco-friendly cosmetics while supporting local economies and biodiversity conservation. Overall, the research integrates scientific rigor, design innovation, and environmental responsibility to create a new paradigm for cosmetic product development.

Keywords

Botanical illustration,
Digital technique,
Scientific communication,
Packaging design,
Sustainability

1. Introdução

Este artigo surge na sequência de um projeto de mestrado em Biologia Aplicada, atualmente em curso. O escopo primordial centra-se na exploração das dinâmicas subjacentes à ilustração científica e design de produto, procurando a conciliação entre o rigor e honestidade do conhecimento científico, a função no mercado de produtos cosméticos de origem natural, e ainda a associação com outros valores emergentes que reforcem a singularidade da identidade local e o sentido de pertença. Este projeto surge como uma iniciativa complementar, mas autónoma, que se integra num programa de doutoramento em andamento, alinhando-se com outros esforços já empreendidos para explorar e valorizar os recursos naturais da região do Vale do Côa. Assim, serão objeto deste trabalho, várias espécies vegetais nativas da região, que estão a ser estudadas e ensaiadas tendo em vista a sua incorporação em formulações cosméticas, aproveitando os seus benefícios que já tenham sido cientificamente comprovados.

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A indústria cosmética enfrenta desafios consideráveis no contexto contemporâneo, impelida pela crescente sensibilização e conscientização ambiental e pela demanda dos consumidores por produtos que não apenas proporcionem benefícios estéticos, mas também sejam produzidos de forma ética e sustentável. Por outro lado, observa-se uma crescente percepção, sobre o valor em associar a credibilidade científica a produtos destinados ao setor da saúde e bem-estar do consumidor (sobre uso benéfico e em segurança) que se tornam marcadores de confiança na hora da tomada de decisão. Os casos de campanhas no setor alimentar e de bebidas são vários e em crescendo (Águas do Luso; vinhos vários — como Papa-figos Tinto e Branco, etc. — e as mais recentes campanhas das massas e farinhas da Nacional ou dos azeites Oliveira da Serra 1º Colheita). Nesse cenário, o presente trabalho propõe uma abordagem suportada num ideário já em prática, mas inovadora já que se centra no desenvolvimento de uma linha de cosméticos baseados em produtos naturais, recorrendo à integração de ilustrações cientificamente precisas e um design de embalagens ecológicas, que assim procuram promover o equilíbrio entre diferentes naturezas — a selvagem e ambiental, a humana, a científica, e a estética.

Um dos pilares fundamentais deste projeto reside na conceção de ilustrações científicas, as quais não apenas identifiquem e descrevam as espécies vegetais utilizadas, mas também transmitam informações relevantes sobre as suas propriedades e potenciais aplicações cosméticas. Essas ilustrações serão incorporadas nas embalagens dos produtos finais, não apenas como elementos ornamentais, mas como ferramentas educativas que promovem a conscientização ambiental e a valorização da flora local do Vale do Côa. Paralelamente, o projeto aborda a problemática das embalagens, reconhecendo a importância de mitigar o impacto ambiental associado ao ciclo de vida dos produtos cosméticos. Com esse propósito, serão desenvolvidos designs de embalagens ecológicas, em conformidade com as Diretrizes Europeias de Sustentabilidade de Embalagens, as quais buscam minimizar o desperdício de materiais, promover a reciclagem e utilizar materiais de origem renovável sempre que viável.

Além disso, o processo de seleção e desenvolvimento, não só das embalagens, como das ilustrações incluirá uma análise minuciosa das preferências dos consumidores, visando garantir que os produtos não apenas atendam aos critérios de sustentabilidade, mas também sejam atrativos e funcionais para o público-alvo. Essa abordagem orientada ao consumidor é essencial para garantir a aceitação e o sucesso comercial dos produtos cosméticos desenvolvidos neste projeto.

No decorrer deste artigo serão delineados pormenores sobre a metodologia adotada, as etapas do processo de desenvolvimento, os resultados obtidos até ao momento de submissão e as perspectivas futuras de replicação em outros projetos de investigação científica ou de outras naturezas, mas com denotada vertente ecológica.

2. Comunicação de Ciência

A comunicação no âmbito científico — Comunicação de Ciência — desempenha um papel de suma importância na divulgação de descobertas, na sensibilização e construção de uma consciência pública mais informada e motivada, bem como no fomento de diálogos entre especialistas transdisciplinares e entre este e a sociedade. Neste contexto é importante clarificar e discernir entre o que é a *comunicação científica* e o que se entende por *divulgação científica*, já que ambas promovem a disseminação e difusão do conhecimento científico [6]. A primeira pode ser considerada como uma comunicação *sensu stricto* onde o importante é o transmitir informações de carácter predominantemente científico entre pares de uma academia, por vezes numa linguagem hermética (jargão científico), apoiando-se numa perspetiva intrinsecamente ligada à investigação científica e procurando promover o avanço do conhecimento dentro de um campo específico ou até, enquanto ciência mais fundamental, procurar ir de encontro a soluções mais tecnológicas [6]. Para cumprir esses objetivos faz uso de canais de comunicação especializados, em muito centrados em publicações científicas como revistas da especialidade, volumes monográficos, manuais técnicos, etc,

Já a divulgação científica é primordialmente direcionada ao grande público, leigo, tendo como objetivo maior limar as arestas mais agrestes que dificultam a compreensão das complexidades científicas, tornando a ciência não só mais acessível, interessante e relevante para o público, como mais facilmente assimilada, compreendida e, em consequência, apoiada [6]. Nesta, a disseminação de conteúdo relacionado com temáticas científicas recorre a canais de massificação, como o são os grandes meios de comunicação social, como por exemplo as TV 's, as rádios e podcast, os jornais (digitais ou em papel), as páginas de internet, entre outros.

O exercício de transmitir de forma clara e inequívoca todo o conhecimento científico, tanto em comunicação científica, mas mais ainda na divulgação científica, mostra-se uma tarefa que não é de todo isenta de desafios, os quais precisam de ser identificados e solucionados dentro de um equilíbrio delicado e frágil. Esse exercício pode ser apelidado de “pausterização” da Ciência, que sem deturpar o valor da mensagem, elimina os potenciais perigos perante usos indiscriminados no seio da sociedade civil (F. Correia, comunicação pessoal). Um desses desafios é a barreira imposta pela linguagem a utilizar na comunicação em função do público-alvo pré-definido (seja ela verbal, em texto ou visual). A dificuldade em traduzir conceitos complexos em uma linguagem acessível pode levar a uma desconexão ou perda de identidade (descaracterização) da mensagem a transmitir, não só dentro da própria comunidade científica, como para com a sociedade em geral. A velocidade em que novas descobertas e teorias emergentes são apresentadas presentemente, exigem também uma constante atualização e representam um desafio adicional para os comunicadores de ciência, para manter o público informado de maneira oportuna, rigorosa e atualizada.

Um outro desafio significativo que atualmente presenciamos é a proliferação de desinformação e notícias falsas relacionadas à ciência, que

parecem credíveis, fazem sentido no uso do senso comum ou advogam soluções populistas. Com a disseminação de informações não verificadas nos *mass media* e, mais ainda, em plataformas online, hoje não basta somente bem comunicar de forma criteriosa e o saber contextualizar, como também se mostra igualmente pertinente o combater a desinformação de forma a promover a confiança que hoje está associada à Ciência. Uma outra mais valia é a estratégia de, também em Ciência, se poder recorrer a poder da Imagem e a forma como ela pode dissolver fronteiras linguística, culturais, de habilitações, etárias, etc. — e aqui a Ilustração Científica desempenha um papel cada vez mais versátil e universal.

Assim, o adotar de técnicas de comunicação acessíveis, relevantes e impactantes para o público, evitando tecnicidades e criar analogias, sempre que possível, com exemplos próximos do “mundo real” que, de alguma forma, se entrelacem com a experiência pessoal de cada um de nós (suscitar familiaridade). Ao estabelecer um diálogo aberto e transparente, a comunidade científica pode continuar a construir confiança e promover uma compreensão mais profunda da ciência, bem como promover uma cultura de pensamento crítico e de raciocínio baseado em evidências, típico da cultura científica. Cada vez mais se reconhece a necessidade de que o público e os decisores sociais possam tomar decisões informadas sobre questões sociais importantes, como a saúde, o meio ambiente e as políticas nacionais e globais. Investir no aprimoramento contínuo das competências comunicativas e no uso criativo de múltiplos canais de comunicação, são passos e contributo essenciais para a ciência continue a ser cada vez mais valorizada, compreendida e utilizada em benefício de todos, para uma sociedade mais colaborativa, nivelada e justa.

2.1. Ilustração científica enquanto promotora de ciência

A ilustração científica é uma disciplina que se aproxima da ciência, complementando o seu discurso, e que recorre a ferramentas artísticas que permitem utilizar a metodologia técnica e a criatividade para criar imagens competentes, capazes representar conceitos científicos de maneira visualmente atraente e compreensível — ou seja, é a componente visual, ou ciência visual [7]. Nos últimos anos, a sua importância na comunicação com o grande público tem crescido significativamente. “*Images are becoming what our society is about*” [9] A ilustração científica, por estas razões e devido à proximidade disciplinar que tem para com a ciência, tem desempenhado um papel cada vez mais crucial na promoção da ciência no seio de um público mais amplo. Ao longo da história, desde as primeiras pinturas rupestres até às sofisticadas representações digitais contemporâneas, as ilustrações têm sido uma ferramenta indispensável para se comunicar conhecimento humano e, desde que a Ciência se profissionalizou, no século XVI, é reconhecida e profusamente utilizada pelos cientistas, pelos educadores em práticas/estratégias pedagógicas e, mais recentemente, os comunicadores de ciência.

Uma comunicação eficiente e eficaz em ciência é uma estratégia essencial para o envolvimento do público e a disseminação do conhecimento científico. A ilustração científica desempenha um papel crucial neste

quesito, já que por meio de representações visuais claras e precisas, pode simplificar (seleccionando o que efetivamente é pertinente para aquele perfil de público-alvo) e tornar acessíveis conceitos e abstrações complexas através da imagem (processos de visualização, através da figuração ou uso de metáforas visuais), o que facilita a compreensão pelo grande público. A visualização de conceitos abstratos — como, por exemplo, a representação de processos da divisão celular ou a transmissão sináptica de impulsos nervosos, em Biologia, ou o interior do planeta Terra, a deriva continental, etc., em Geologia; ou a reconstituição de organismos extintos ou paleoambientes, em Paleontologia ou Antropologia Biológica — tem sido áreas em que a ilustração científica se mostra única e imprescindível.

“The skilled scientific illustrator can clarify multiple focal depths and overlapping layers, emphasize important details, and reconstruct broken specimens on paper—results unattainable through photography. Structure and detail may be depicted with cutaway drawings, transparencies, and exploded diagrams” [11].

As ilustrações científicas oferecem, enquanto representação visual, uma plataforma intuitiva que pode ser compreendida pelos mais variados níveis de conhecimento científico que tipifique o perfil de cada público-alvo para o qual foi previamente planeada, ao invés de depender exclusivamente de textos descritivamente densos e onde se faz uso de terminologia técnica (tecnicismos, ou jargão científico). Não é, pois, de estranhar que se mostrem especialmente importantes em contextos educacionais, onde este tipo de ilustrações podem ser utilizados como recursos didáticos para tornar a ciência mais acessível e envolvente para os alunos [8].

Um outro aspecto importante é o papel que a ilustração científica desempenha na documentação sobre a biodiversidade, bem como na disseminação das espécies, ou de campanhas de sensibilização/consciencialização para as espécies ameaçadas de extinção — e muitas espécies animais e vegetais, principalmente de fauna e flora exótica ou de outras áreas geográficas, bem como as que já se encontram extintas, são conhecidas apenas através de ilustrações. Essas ilustrações não apenas servem como registos valiosos da história natural, mas demonstram também serem úteis para maior envolvimento em campanhas de proteção, conservação e até regeneração do meio ambiente (FCorreia, comunicação pessoal).

3. Ilustração botânica

As ilustrações de espécimes botânicos têm sido um meio prático imprescindível para ações de identificação, análise e classificação (taxonomia clássica) durante séculos, auxiliando práticas variadas executadas por especialistas como médicos (medicina natural), investigadores, taxonomistas e herboristas, jardineiros, arquitetos paisagísticos e entusiastas amadores da história natural. Antes da fotografia, a ilustração botânica era a única maneira de registar visualmente as características que permitiram a identificação correta da espécie da planta. A componente da ilustração científica que se dedica ao estudo aprofundado da ciência vegetal é comumente designada de ilustração botânica, uma disciplina que se de-

bruça sobre a representação cientificamente correta das plantas terrestres e macroalgas, procurando capturar todas as suas características anatómicas específicas, sejam externas e/ou internas — cria-se assim um modelo, ou arquétipo, que a representará para a comunidade científica enquanto entidade orgânica específica (espécie). Esta prática desempenha um papel crucial na documentação e estudo da diversidade botânica, tendo-se tornado uma ferramenta visual muito valiosa para a comunidade científica.

Na ilustração botânica é possível empregar uma ampla gama de metodologias, métodos, técnicas e materiais para através do desenho e/ou pintura se obter uma imagem representativa bem conseguida, selecionando cuidadosamente aquelas características que permitirão fazer uma diagnose correta e conduzir com maior precisão a uma identificação positiva da espécie. Cada técnica é selecionada com base na complexidade, na predileção do artista e nas características únicas da planta a ser ilustrada e pode ir desde o desenho com recurso a lápis de grafite a técnicas digitais e outras, como as de pintura clássica, ou analógica, como o são a aguarela ou guache, em contexto singular ou em técnica mista. A observação (análise criteriosa) direta, muitas vezes auxiliada por microscópios, o uso de referências ou espécimes preservados em herbário, fazem parte da metodologia processual para garantir o rigor e correção científica da ilustração, transformando num artigo com valor documental.

3.1. Estampa botânica

Na criação de uma ilustração botânica ou estampa botânica, é essencial adotar uma abordagem metodológica rigorosa e cuidada, atentando-se aos detalhes que definem com precisão as características da planta em destaque. Este processo, intrinsecamente complexo, requer a consideração diligente de diversos fatores para garantir que tanto a precisão científica quanto a integridade estética sejam primordialmente salvaguardadas — e um passo essencial é o acompanhamento, supervisão e validação da ilustração, em todos os passos possíveis e/ou necessários, por um especialista da área. Isto ajudará a credibilizar ainda mais o resultado, em termos científicos, bem como maximizará o carácter documental da mesma (FCorreia, comunicação pessoal).

Numa estampa botânica é fundamental representar com exatidão as características morfológicas das várias partes e órgãos de uma plantas, desde o hábito, à morfologia das folhas, do caule e das raízes, bem como órgãos reprodutivos e frutos/sementes — tudo respeitando as proporções naturais e estruturas anatómicas. Isto envolve a observação/estudo detalhado de cada elemento da planta, incorporando padrões de nervuras, texturas das superfícies, nuances anatómicas, etc.

Um dos elementos preponderantes a serem considerados na conceção de uma estampa botânica é a escolha e aplicação criteriosa das cores, cuja precisão demanda especial atenção. Em ilustrações coloridas, a seleção de uma paleta exata que reflita com fidedignidade as cores reais da planta é crucial (independentemente das nuances dependentes da iluminação, que fisicamente afeta a percepção das cores), demanda a correta seleção de referências visuais (sejam exemplares botânicas autênticos, ou fotografias)

e o posterior emprego de técnicas avançadas na mistura de cores.

A promoção de vários ensaios de composição das várias partes e secções que compõem estampa botânica, é essencial para se maximizar a capacidade de transmitir a informação de uma forma visualmente eficaz. A disposição dos elementos da planta deve ser estrategicamente planeada para criar uma apresentação equilibrada e esteticamente agradável, que fluidifique a leitura de forma sequencial e ordeira, criando uma narrativa coerente e com significado. Isso envolve considerar a disposição das ilustrações e outros elementos em relação ao espaço da página, bem como a criação de um fluxo visual coeso que oriente o espectador através da imagem de forma natural. Pode ser também importante considerar o contexto ambiental em que a planta será representada. A inclusão de elementos adicionais no cenário de fundo, não concorrente em contraste, por vezes, pode fornecer informações adicionais sobre o habitat natural da planta e o contexto na fauna botânica circundante, contribuindo para uma compreensão mais abrangente da sua ecologia e interações com o ambiente.

Por fim, é imperativo que a estampa botânica congregue todas as informações essenciais de identificação taxonómica da espécie em questão. Aspectos como métodos de aferição da escala, seja por meios concretos (escala métrica) ou de aproximação (escalas relativas), revelam-se imprescindíveis na compreensão de uma estampa botânica com função científica ou didática e instrutiva.

3.2. Ilustração Botânica e o Digital

A massificação da utilização do computador para a produção de gráficos e ilustrações constituiu um avanço essencial no que tange a produtividade, nessas áreas gráficas e muito outras, que contribuíram para um franco desenvolvimento social. Tanto para os ilustradores, como para os investigadores a morosidade e desgaste que envolve tarefas manuais repetitivas ou minuciosas, em o erro significava o ter que recomeçar de novo, foi reduzido ou nulificado. E com o desenvolvimento de programas mais detalhados como o Photoshop e Illustrator/Freehand, ou o CorelPhoto/Draw entre outros, muitas das tarefas outrora exigentes, passaram a ser de forma mais produtiva. A introdução da ilustração digital no âmbito da ilustração botânica representa um marco significativo, alçando as práticas tradicionais por meio de técnicas inovadoras e uma abordagem de integração. Este fenómeno de migração para o ambiente digital, não representa apenas uma mera mudança de metodologias, mas é sim uma revolução já que, ao mesmo tempo que respeita as raízes históricas, amplia os limites fronteiriços que manietavam esta disciplina. De facto, as técnicas inerentes à ilustração digital, graças à sua interoperabilidade, propiciam uma amplitude de possibilidades incríveis. A aplicação de camadas, o refinamento de efeitos de luz e sombra meticulosos, a capacidade de agregar mais detalhe, juntamente com a correção instantânea, e tantos outros caminhos e atalhos, convertem-se em instrumentos que libertam o ilustrador e lhe permite investir mais tempo no detalhe, ou mesmo ensaiar novas e mais criativas soluções durante a execução de ilustrações botânicas. Dispositivos periféricos, como as mesas gráficas e softwares cada

vez mais especializados e potentes fornecem uma maleta de ferramentas virtuais quase ilimitada, que possibilita a reprodução das formas botânicas, com a delicadeza, complexidade e supra-qualidade, bem como uma adaptabilidade a um uso múltiplo em diferentes suportes [3]. Não menos importante, a capacidade de disseminação global quase instantânea, com que o ambiente digital mune o ilustrador, representa um avanço imensurável no propósito da difusão do conhecimento científico — já, no agora, e em todo o lado, onde exista um terminal. A imagem, democratiza-se e o que é novo passa a engrossar o repositório das imagens de referência, para trabalhos futuros, cumprindo assim o objetivo de universalização do conhecimento científico (FCorreia, comunicação pessoal).

A ilustração botânica digital, graças a essa plasticidade, transcende sua função visual para se assumir, na plenitude, como uma poderosa ferramenta de comunicação. A capacidade de criar peças detalhadas, tanto interativas quanto estáticas, enriquece a compreensão da anatomia/fisiologia das entidades vegetais, ampliando o propósito da divulgação e a competência educacional.

4. Valorização do ambiente

4.1. Caracterização da flora do Vale do Côa

No âmbito da presente investigação, o objeto de estudo consiste na região do Vale do Côa, situado entre a nascente na Serra das Mesas (Sabugal) e a foz no rio Douro (Vila Nova de Foz Côa), constitui um corredor fluvial significativo, abrangendo aproximadamente 196 km de extensão. Neste contexto, uma diversidade de espécies botânicas é observada que contribuem para a complexidade ecológica deste território. Desde a Reserva Natural da Malcata, onde espécimes como o carvalho-negral (*Quercus pyrenaica* Willd.), o medronheiro (*Arbutus unedo* L.) e a azinheira (*Q. rotundifolia* Lam.) predominam na paisagem, até às encostas íngremes do rio, onde se destacam afloramentos rochosos de natureza mais imponente. Adicionalmente, é possível constatar a presença de um mosaico variado de culturas típicas do mediterrâneo, incluindo a vinha (*Vitis vinifera* L.), o olival (*Olea europaea* L.) e o amendoal (*Prunus dulcis* (Mill.) D.A. Webb), que contribuem para a diversidade agrícola da região.

4.2. Espécies em estudo - Caracterização e morfologia

Para este projeto foram selecionadas 5 espécies características da região do Vale do Côa, nomeadamente o medronheiro (*A. unedo*), a roselha-grande (*Cistus albidus* L.), a esteva (*Cistus ladanifer* L.), o sargaço (*Cistus salviifolius* L.) e o verbasco-pulverulento (*Verbascum pulverulentum* Vill.).

A. unedo: com um porte arbustivo ou arbóreo, pode atingir até 8 a 10 metros de altura, pertence à família Ericaceae. É nativo da região do Mediterrâneo, caracterizado pelo seu tronco tortuoso e casca avermelhada. As folhas verde-escuras são alternadas, coriáceas, lustrosas e de formato oval a lanceolado. As flores são pequenas, brancas ou rosadas, pendentes em inflorescências do tipo panícula. Produz frutos comestíveis, os medronhos, pequenos e globosos (1- 2 cm de diâmetro), de cor vermelha quando maduros.

C. albidus: arbusto perene da família Cistaceae, nativo da região do

Mediterrâneo, podendo atingir cerca de 1 a 2 m de altura. Possui folhas persistentes, alternas, lanceoladas a ovais, verde-acinzentadas e revestidas por uma camada de pelos que lhe confere uma textura aveludada; 2 a 5 centímetros de comprimento. As flores são vistosas e grandes (5 a 7 cm de diâmetro), de cor roxa a rosa, com cinco pétalas, solitárias ou dispostas em grupos terminais. A espécie é valorizada não só pelas suas propriedades ornamentais (frequentemente cultivada em jardins) e também pela produção de óleos essenciais.

C. ladanifer: arbusto perene da família Cistaceae, robusto e que pode crescer até 2 m de altura, sendo nativo da região do Mediterrâneo. Folhas persistentes, alternas, lanceoladas, de cor verde-escura e com cerca de 5 a 10 cm de comprimento. As flores são solitárias e grandes (5 a 9 cm de diâmetro), com cinco pétalas brancas. Esta espécie é valorizada pela resina que exsuda de suas folhas e flores, conhecida como ládano (utilizado na indústria de perfumes e aromaterapia).

C. salvifolius: arbusto perene da família Cistaceae, que pode atingir até 1m de altura e é nativo da região do Mediterrâneo. Folhas persistentes, lanceoladas e aromáticas, com cerca de 2 a 4 cm de comprimento. As flores são solitárias ou dispostas em grupos terminais, com cinco pétalas e cerca de 3 a 5 cm de diâmetro. É valorizado por suas propriedades ornamentais (frequentemente utilizado em paisagismo, devido à sua resistência à seca e sua capacidade de atrair polinizadores) e pela produção de resina aromática.

V. pulverulentum: planta bienal, nativa da Europa e pertencente à família Scrophulariaceae, podendo atingir de 0,5 a 2 m de altura. Folhas basais grandes (cerca de 1 a 2 cm de diâmetro), ovais a lanceoladas, cobertas por uma pilosidade densa e esbranquiçada, formam uma roseta basal densa. Flores pequenas, amarelas, em grande quantidade, formando uma espiga. Esta espécie é valorizada por suas propriedades medicinais e ornamentais.

5. Metodologia e primeiros resultados

Com o principal objetivo de juntar uma perspectiva científica e uma capacidade de interação dinâmica, entre a criação das partes que irão compor a estampa botânica e a função designada enquanto complemento cosmético, foram desenvolvidos uma série de passos, como recomendações (não são obrigatórios) que contribuirão para reforçar essa intencionalidade. Trabalhou-se com material de referência indireta (fotografias e /ou imagens de outras fontes, como ilustrações, videográficas, etc.) e direta, mas conservados (herbários).

O processo de seleção das espécies botânicas foi da inteira responsabilidade da equipa científica e, em última ordem, seguiu o critério de plantas com melhor resposta aos experimentos para validar o seu uso em cosméticos, entre várias espécies testadas. A segunda etapa, de observação, envolveu a análise direta dos espécimes conservados em herbário (estrutura e arquitetura vegetal externa), e também material fotográfico, visando registar as principais características morfológicas e anatómicas (como textura, forma, tamanho, proporções e articulação), no primeiro caso em que as plantas perdem volume e cor, podendo sofrer distorções (por efeito de arranjo em folha de suporte e posterior prensagem

Fig 1. Esboços iniciais, de estudo e composição, da estampa botânica de *C. salviiifolius*



Fig 2. Esboço refinado, ramo florífero (*C. salviiifolius*)



e secagem); com base no segundo conjunto referencial, reconstituiu-se a cor e o volume, eliminando distorções e re-naturalizando o porte. Com base nessas observações prévias, elaboraram-se vários esboços preliminares em técnica de lápis de grafite, traço solto e sombreamento indicativo em trama de linhas paralelas e/ou cruzadas (Fig.1).

Posteriormente, selecionaram-se as melhores hipóteses gráficas e, sobre estas, iniciaram-se as artes finais, já em ambiente digital (Adobe Photoshop), com adição sucessivas de camadas de cor, pintada sobre o esboço e levando em consideração a orientação da luz convencional em ilustração científica, a paleta cromática específica da espécie e suas partes/órgãos e a volumetria/textura desses elementos. A composição da ilustração foi então definida, tentando

criar um arquétipo suficientemente plástico que possibilite a adaptação da forma e porte à sua utilização como rótulos (labelling) em materiais diversos, podendo acomodar blocos de informações adicionais que acompanham estes produtos. Isso envolveu a decisão sobre a disposição dos elementos na composição visual, bem como a redação de informações relevantes sobre a planta, como seu

Fig 3. Evolução fenológica, ao longo do tempo, de botão floral ao fruto maduro (*C. salviiifolius*)



nome científico e características distintivas.

Fig 4. Folha, página superior e inferior (*C. salviiifolius*)



Por fim, a ilustração final passa por um processo de revisões sucessivas (correções de imprecisões e/ou inconsistências) e de validação, quer por especialistas botânicos, quer por ilustradores científicos profissionais, para garantir não só a correção e rigor científico da espécie representada, como também o exercício das técnicas mais corretas e adequadas para fazer exaltar a qualidade estética da planta em causa (Fig.3 e 4).

6. Conclusão

Em conclusão, e com base na investigação apresentada, pudemos perceber a visão interdisciplinar e transdisciplinar que destaca a interceção dos diversos campos, incluindo ilustração botânica, a ciência dos cosméticos, a sustentabilidade ambiental, o design e, ainda em última fase de todo o processo, as práticas de *marketing* (rotulagem e *packing*). E ao investigar essas mesmas dinâmicas, que só por si, representam contextos tão destintos, sublinhou-se assim a importância da ilustração científica como ferramenta fundamental, que faz o elo de ligação entre o conhecimento teórico e a aplicação prática na indústria. A investigação realizada, centrada nas espécies vegetais endógenas do Vale do Côa e a sua incorporação nas formulações cosméticas, fomentam uma visão, não apenas, de ampliar o conhecimento sobre a biodiversidade local, mas também representar um modelo integrado que pode ser adaptado e replicado em diferentes contextos biográficos, mantendo sempre como suporte as mesmas premissas e conceitos-base.

Na composição deste projeto, foi também enfatizada a necessidade de uma comunicação também ela científica, capaz de sensibilizar o público sobre a importância da preservação ambiental, na promoção de valores endógenos, e na valorização de produtos baseados em ingredientes naturais e de origem local. Onde a eficácia dessa mesma comunicação não dependa apenas da clareza e precisão com que os conceitos são transmitidos, mas também da capacidade de incentivar diferentes públicos de maneira acessível. A pesquisa reforçou também a importância das ilustrações científicas como ferramentas de educação e *marketing*, e a sua capacidade de comunicar de forma clara e visualmente atrativa as propriedades e benefícios das plantas utilizadas. Esta abordagem não só melhora o fator de compreensão e a apreciação do consumidor pela flora local, mas também amplia a valorização da conservação e o uso sustentável dos recursos naturais da zona.

Em última análise, o projeto teve como principal objetivo criar um impacto positivo tanto no setor cosmético quanto na conservação ambiental, ao propor uma nova perspetiva que alia rigor científico, inovação no design e responsabilidade ecológica. Ao valorizar os recursos naturais e promover práticas sustentáveis, provou ser uma estratégia valiosa para um futuro mais equitativo e sustentável para as próximas gerações, enfatizando como a ciência, a arte e a indústria podem colaborar para criar produtos que respeitem a natureza.

7. Referências

8. Briscoe, Mary Helen (1996). Preparing scientific illustrations: a guide to better posters, presentations, and publications. <https://archive.org/details/preparingscientiooobris/page/156/mode/2up>
9. Christopher D. K. Cook. (1998). A Quick Method for Making Accurate Botanical Illustrations. *Taxon*, 47(2), 371–380. <https://doi.org/10.2307/1223>
10. Correia, F.:(2022) Ilustração digital. In “Manual de Ilustración Científica-Illustración” (Miquel Baidal, Clara Cerviño & Fernando Correia, Coord.; 395pp). Geoplaneta - Editorial Planeta, Barcelona, España. ISBN: 978-84-08-25222-1.
11. Ellen J. C., Colin J. Yates B and Stephen D. Hopper A-Botanical illustration and photo-

graphy: a southern hemisphere perspective Hickman A - Australian Systematic Botany
<https://www.publish.csiro.au/sb/fulltext/sb16059>

12. Correia F. J. S.,: (2013) Vamos desenhar... um folhado, Parque e Vida Selvagem, no. 44, pp. 70-71
13. Correia, F. (2019). Comunicação de Ciência: Fundamentos e princípios, implicações e perspetivas. In Comunicação de ciência - das universidades ao grande publico (Coord. Fernando Correia & Amadeu Soares). Coleção Biologicando do Dep. de Biologia da Universidade de Aveiro. Edições Afrontamento, Porto
14. Correia, F. (2023). Retratos Naturais – Desenhos de um passado recente. Rev. Parques e Vida Selvagem, nº 64: 68-69 ISSN 1645-2607
15. Correia, F. (2016). “O Valor Pedagógico Da Ilustração Científica — Um Manual Escolar Pioneiro”. Anais do 5º Encontro Brasileiro sobre Ilustração Científica (5º EBIC), UNISUL-Campus Universitário da Grande Florianópolis, Unidade DIB Mussi. Florianópolis/SC, Brasil (20 a 23 de julho).
16. Frankel Felice C., Ronald E. B. Clouse (Journal of Materials Education, 2006) “The Art of Science Communication”
17. Frankel Felice C., Angela H. DePace (2012) Visual Strategies: A Practical Guide to Graphics for Scientists and Engineers
18. Hodges E. R. S. (2003) The Guild Handbook of Scientific Illustration, 2º Edit
19. Janice. Glimm, Lacy. Peter, B. Kaufman, Botany Illustrated Introduction to Plants Major Groups Flowering Plant Families
20. Jen Christiansen (2018) “Illustrating Science: A Conversation with Scientific American’s Visuals Editor” <https://blogs.scientificamerican.com/sa-visual/visualizing-science-illustration-and-beyond/>
21. Kra Perilli (2019) Why We Need Scientific Illustration -The franklin institute- <https://fi.edu/en/blog/why-we-need-scientific-illustration>
22. Randy Olson (2009) Don’t Be Such a Scientist
23. Raymond J. Pool (1929) Flowers and flowering plants : an introduction to the nature and work of flowers and the classification of flowering plants <https://archive.org/details/in.ernet.dli.2015.271119/page/n31/mode/2up>
24. Salgado, Pedro. Bruno, Joana. Paiva, Mafalda. Pita, Xavier. (2015) A ilustração científica como ferramenta educativa NO. 39, PP. 381-392
25. Thomson environmental consultants-Scientific illustration: when art meets science (2021) <https://www.thomsonec.com/news/scientific-illustration-when-art-meets-science/>
26. Trumbo, J. (1999). Visual Literacy and Science Communication. Science Communication, 20(4), 409-425.
27. West, K. (1983). How to draw plants: the techniques of botanical illustration. London

Enredos de Carnaval Ilustrados – A Expressão Gráfica nos Bate-Bolas Contemporâneos do Rio de Janeiro



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Abstract

The *Bate-bolas* are a manifestation of masquerades that are distinguished by annually presenting different plots in their rituals, translated into illustrations on their costumes. Its growing approach to the values of the samba school carnival – innovation, creativity, enchantment – has been imposing increasingly greater technical challenges, as well as the complexification of the language of the illustrations, produced in a specific technique, the glittering. In this article we present the creation process of the *Bate-bola* jacket (for *sombrinha* style), the central piece of the costume, which carries the illustration that summarizes the plot, and we analyze the creative process of two artists for producing the jackets for the 2023 carnival.

Palavras-Chave

Bate-bola, mascarado, carnaval, glitter, ilustração

1. Introdução

Este trabalho é parte da pesquisa de doutorado em desenvolvimento no Departamento de Artes e Design da Pontifícia Universidade Católica do Rio de Janeiro, que tem como objeto de estudo uma manifestação carnavalesca original da cidade do Rio de Janeiro, os Bate-bolas. Como recorte, o estudo tem especificamente se dedicado às fantasias construídas pelos brincantes dessa manifestação para o estilo de *sombrinha*. O objetivo desta apresentação é destacar um aspecto especial dessas fantasias, que é o uso da ilustração como elemento principal na sua composição.

Em razão da limitação do artigo, não concluiremos toda a análise híbrida realizada na tese (análises sintática, semântica e pragmática) das imagens – prevista no trabalho original – e nos detemos em uma etapa de análise relativa aos processos de criação de algumas turmas (coletivo de Bate-bolas), pois apesar do seu caráter efêmero (as fantasias são utilizadas num único ano e descartadas), seus métodos de confecção envolvem diversos processos, técnicas de alta complexidade e materiais sofisticados, principalmente na criação das ilustrações.

2. Mascarados – dos festivais invernais aos Bate-bolas

Bate-bola é o nome dado à manifestação cultural, tradicional da cidade do Rio de Janeiro e arredores, caracterizada por grupos ou indivíduos fantasiados e mascarados que saem pelas ruas da cidade durante o período do Carnaval. A brincadeira no passado consistia em assustar as pessoas,

especialmente crianças, com o som de bater a bola no chão, porém, hoje se constitui mais como um desfile e confraternização com música e dança. A manifestação ocorre fundamentalmente em regiões periféricas da cidade, onde os índices de violência são altos. Por isso, os brincantes, em sua maioria rapazes, são estigmatizados pela mídia hegemônica por meio da associação com a criminalidade[1]. Hoje, as bolas têm sido substituídas por outros acessórios como sobrinhas, bichos de pelúcia, entre outros.

A origem do festejo é imprecisa, mas tem sido associada ao entrelaçamento de tradições europeias, em que o uso da máscara está relacionado a ritos místicos ligados à produção agrícola, com inovações locais[2]. Durante os respectivos ritos neolíticos, homens adultos dirigiam-se à mata e, com intuito de assustar mulheres e crianças, fantasiavam-se com plantas e peles de animais, buscando disfarçar a sua identidade. Manifestações semelhantes podem ser encontradas em diversas regiões da Europa, especialmente no norte de Portugal. O aspecto comum entre elas é justamente o uso de fantasias, o anonimato (pelo uso das máscaras e o sigilo relativo às fantasias, confeccionadas de maneira artesanal e caseira pelos próprios brincantes) e o ato de assustar os espectadores.

Os Bate-bolas trazem bastante dessas tradições. Ainda hoje, os grupos se reúnem alguns meses antes do Carnaval para iniciar o processo de confecção das fantasias, em sua maioria homens, mas já tendo abertura para a participação feminina. Influenciados pelo Carnaval de Escolas de Samba do Rio de Janeiro, pelo rap, pelo funk e outras manifestações culturais brasileiras[3], as fantasias se renovam anualmente, representam um enredo e são criadas com matéria prima industrial ou manufaturada, misturando técnicas artesanais de costura, desenho e impressão. E esse é o aspecto que, nessa manifestação, chama atenção e os diferencia: o uso de ilustrações.

Muitos processos históricos provocam transformações e reinvenções nos ritos dos Bate-bolas. Partindo de suas raízes nas tradições pagãs europeias no aspecto formal e performativo, a manifestação chega ao Brasil, onde adquire novo formato, recebe influências africanas no âmbito da música e indígenas no uso de penas, e continua a se reinventar e renovar seus processos em função do atravessamento da cultura de massa, da evolução de técnicas de impressão, confecção e constante surgimento de novos materiais. Com isso comprovamos a teoria de Didi-Huberman[4] relativa à sobrevivência intermitente das culturas populares em resposta à visão mais drástica de Pasolini[5] que previa a aniquilação dessas expressões pela cultura do consumo massificado.

A evolução da ornamentação das fantasias de Bate-bola é um exemplo claro desse processo. Até a década de 80 as fantasias eram decoradas com bordados de miçangas, paetês, lantejoulas e elementos figurativos simples. Posteriormente, influenciados pela indústria de massa do entretenimento e pelos ritos de festa de aniversário infantil no Brasil, são atravessados por desejos de consumo que envolvem produtos licenciados das narrativas importadas ou peças do vestuário como tênis e grandes marcas – produtos que marcaram sua infância e juventude como signos de desejo e exclusão, simultaneamente. Assim, os Bate-bolas passam a se apropriar de elementos e personagens dessa cultura industrial importada

e produzi-los clandestinamente ao mesmo tempo em que criam e desenvolvem uma expressão gráfica e técnica própria: a gliteragem. Nos últimos anos, observamos possivelmente o início de um processo de superação do desejo de apropriação e consumo de personagens licenciados pelo desejo de expressão de enredos complexos e locais (provavelmente por influência do carnaval das escolas de samba), que assumem papéis de memória, denúncia política, homenagem ou manifestação de religiosidade.

3. Escolas de samba e Bate-bolas – a indumentária como elemento narrativo e a indumentária como suporte para um discurso

No Rio de Janeiro, outra manifestação importante de carnaval são os desfiles das agremiações de Escolas de Samba. A cada ano as agremiações elegem um enredo que será apresentado em seu desfile na Avenida Marquês de Sapucaí em forma de espetáculo composto por música, iluminação, fantasias, performances, coreografias e alegorias gigantescas. Todos esses elementos narrativos são orquestrados para contar uma história que se desenrola em diversas alas, cada uma caracterizada por um conjunto de fantasias ou fantasias únicas (destaques), em um desfile que deve durar entre 60 e 70 minutos (no caso das agremiações do grupo especial). A Avenida Marquês de Sapucaí, no centro da cidade, é o palco onde elas se apresentam individualmente perante os juízes e o público que ocupa as arquibancadas, camarotes e frisas nas laterais da avenida. Todas as apresentações são televisionadas e exibidas em rede nacional. Nesse contexto, esse conjunto de elementos narrativos é projetado visando sobretudo a apreciação distanciada, principalmente pela cabine dos juízes, que se encontra na altura da arquibancada, e avalia vários quesitos de impacto. Por esse motivo, a narrativa é concebida em grande escala: em alas com um grande número de integrantes, alegorias com metros de altura etc. Portanto, cada indumentária (ou conjunto de indumentárias de uma ala) é um elemento narrativo (signo) do enredo cuja significação depende de sua inserção no contexto e têm caráter escultórico.

No caso dos Bate-bolas, as fantasias são confeccionadas a cada ano com o objetivo de representar um enredo escolhido pela turma. As peças da indumentária seguem um modelo mais ou menos padrão, por isso elas não oferecem significações específicas (para além da inserção no rito). As significações relativas ao enredo estão majoritariamente nas ilustrações, com destaque para a ilustração que se encontra nas costas da casaca (algumas turmas também incorporam elementos escultóricos em suas fantasias).

Macacões e casacas são ilustrados com a técnica da gliteragem, que consiste em um processo de pintura manual ou estampa serigráfica em que a tinta recebe uma camada de glitter sobre ela, que adere após a secagem conferindo diferentes efeitos de brilho à pintura. A casaca é o elemento central, considerado o coração da fantasia. Ela traz nas costas (ou na frente também) ilustrações complexas que sintetizam o enredo. As ilustrações dos macacões são menos visíveis por conta das pregas das mangas e da saia.

Todos os integrantes da turma usam fantasias iguais, sendo que, eventualmente, a turma produz variações da casaca com ilustrações

diferentes, sempre para o mesmo tema escolhido naquele ano pela turma. A representação do enredo se encerra nestas ilustrações. Diferente do que acontece nos desfiles das escolas de samba, as fantasias não dependem umas das outras na construção de sentido. Portanto, comparativamente, no caso dos Bate-bolas o enredo é apresentado em menor escala.

Os brincantes se organizam em turmas que, durante o carnaval, performam o rito da “saída”, momento de estréia da fantasia elaborada para o ano, aguardado pelos espectadores locais e celebrado com música funk, fogos de artifício, atrações para as crianças e a corrida dos integrantes da turma. Uma espécie de desfile com performance. Depois da saída e nos dias que seguem, eles circulam mais ou menos em conjunto por festas em outros bairros. Por se tratar de uma celebração de carnaval de rua, os brincantes não dispõem do isolamento do palco para se expor, eles saem no meio da multidão. Por isso, diferente das fantasias de escola de samba, as fantasias de Bate-bola são projetadas visando a apreciação aproximada, à distância do toque. Daí o cuidado que os artistas têm com os detalhes da confecção das fantasias. Porém, a substituição gradual da brincadeira de pique pela performance de desfile; o uso de materiais como boá de penas e plumas; o uso de fornecedores de materiais comuns; e a própria utilização de um tema (que não existia nas fantasias originais), são alguns dos laços entre as duas manifestações. A seguir apresentaremos o passo a passo da criação da casaca contemporânea de Bate-bola apontando para a evolução da gliteragem como técnica e linguagem de ilustração.

Fig. 1. Saída da turma Animação, de Jacarepaguá, no carnaval de 2023. Fantasias criadas por Luciano Guimarães.



4. Etapas de criação das casacas

Em pesquisa de campo, acompanhamos o trabalho de confecção das casacas de dois artistas Bate-bolas do estilo sombrinha para o carnaval de 2023, Luciano Guimarães, cabeça (líder) da turma Animação, e Glauber Silva, cabeça da turma Simpatia. Com isso foi possível delinear um passo a passo genérico e comparar algumas particularidades entre os dois processos, conforme vemos a seguir:

Escolha do enredo. Os integrantes observam as tendências relativas ao enredo e estilo entre outras turmas. Os cabeças das turmas escolhem um enredo geralmente inspirado em temas cotidianos, podendo variar entre elementos da cultura de massa, filmes, homenagens a

personalidades, temas religiosos, fatos históricos ou questões sociais. Os artistas, então, buscam um aprofundamento sobre o enredo por meio de pesquisas para acumular informações e referências visuais.

Criação do desenho. O cabeça da turma faz estudos de composição da ilustração no molde da casaca com traços a lápis, colagens digitais ou outras ferramentas, dependendo do artista. Muitas vezes encomendam desenhos para ilustradores mediante a apresentação de um briefing e discussão de ideias e esboços. Os ilustradores entregam um desenho original ou reprodução (física ou digital). Os desenhos geralmente são feitos com lápis de cor e marcadores ou são imagens digitais vetorizadas a partir de colagens.

Arte final. Os degradês do desenho são reinterpretados em cores chapadas por vetorização da imagem e as áreas de cada cor são traçadas. Esse processo pode ser feito manualmente com lápis e papel vegetal sobre o desenho original (nesse caso as áreas são separadas com linhas), ou digitalmente com programas de edição de imagens vetoriais (nesse caso as áreas são separadas em formas sólidas). O processo manual é adequado para a glitteragem com pintura manual porque as linhas são necessárias para a pintura, e o processo digital é adequado para a glitteragem com serigrafia porque as formas sólidas são gravadas separadamente em diversas telas para a impressão das cores. Nessa etapa os últimos ajustes podem ser feitos no desenho caso não esteja ajustado ao formato do molde da casaca.

Preparação para a glitteragem. Os tecidos onde serão feitas as ilustrações das casacas são cortados e fixados em placas de madeira. O processo que antecede a glitteragem em pintura manual é a impressão das linhas em serigrafia. Deve-se utilizar uma tinta de cor clara para que as linhas sejam cobertas posteriormente na pintura sem deixar sombras. Para glitteragem em serigrafia, o processo de preparação consiste na gravação das telas com a marcação das cores.

Glitteragem. Primeiramente, o artista define a paleta cromática. Cada cor é composta por uma base de tinta e uma camada de glitter sobre ela. Há muitos tipos de glitter, em várias cores, e eles reagem de forma diferente sobre as tintas produzindo efeitos diversos, podendo realçar ou alterar as cores. O gabarito da paleta contém informações sobre a composição das tintas e o tipo de glitter aplicado sobre ela.

A glitteragem é feita em série: a mesma cor é aplicada em todas as casacas por vez. Seja na pintura manual ou na serigrafia, o tecido recebe a tinta e, antes que ela seque, o glitter é aplicado em abundância sobre ela. Não é necessário misturar cola pois a tinta úmida garante a aderência necessária. Ao cobrir a área de tinta com glitter, deve-se inclinar a placa de madeira e bater por baixo para que o glitter excedente caia, preferencialmente dentro de um recipiente para evitar desperdício. É muito importante que a tinta glitterada seque antes que se aplique uma nova cor em outra área do desenho, caso contrário, o glitter excedente de uma cor pode aderir a outra e comprometer o trabalho. O uso de secadores com ar quente pode agilizar o processo.

Montagem da casaca. Os coletes são montados com a costura das partes da frente, das costas, dos fechos, do boá, que dá acabamento nas bordas, e anexação da pintura.

Passo a passo da criação das casacas da turma Animação para o carnaval de 2023.

Fig. 2. Luciano esboça a composição da ilustração no molde da casaca e ajusta os degradês com lápis de cor sobre o desenho impresso.



Fig. 3. Arte final do desenho sobre papel vegetal e produção da tela de serigrafia.



Fig. 4. Arte final estampada no tecido.



Fig. 5. Gliteragem a mão: aplicação da cor, distribuição com o pincel e aplicação do gliter.



Fig. 6. Ilustrações prontas das casacas da turma Animação.



Passo a passo da criação das casacas da turma Simpatia para o carnaval de 2023.⁴

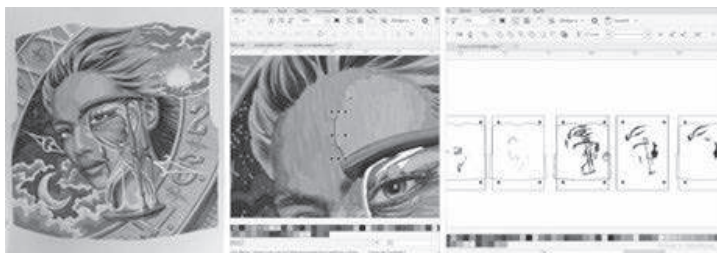


Fig. 7. À esquerda, desenho feito com lápis de cor e marcadores, entregue em arquivo digital, para as casacas da turma Simpatia. À esquerda, processo de separação das cores e criação das telas de serigrafia em programa de edição de imagem vetorial.



Fig. 8. À esquerda, mapa das telas de serigrafia com as cores correspondentes. À direita, fotolitos para a gravação das telas.



Fig. 9. Gliteragem em serigrafia.



Fig. 10. Montagem das casacas da turma Simpatia com as ilustrações prontas.

4. O passo a passo está registrado em documentário gravado e editado como parte desta pesquisa. Ele pode ser acessado através do link: https://www.youtube.com/watch?v=E3rKGs_uL3Y&t=24s

5. Resultados

A tabela a seguir resume algumas especificidades dos processos destes artistas analisadas comparativamente:

Tabela 1. Comparação entre processos do Luciano e do Glauber para o carnaval de 2023

	Luciano	Glauber
Enredo	Amor de mãe	Tempo
Interpretação do enredo	Homenagem à figura materna. Contempla etnias, classes sociais, avós, pessoas que assumem o papel de mãe e Nossa Senhora.	Mostrar o envelhecimento e a efemeridade da beleza, e questionar a preocupação excessiva com aparência física frente.
Linguagem	Realismo	Realismo
Referências visuais	Fotografias; obras de arte	Signos icônicos
Contratações	Ilustrador de confiança	Profissional alheio a cultura Bate-bola
Especialização	Gliteragem	Gliteragem
Atuação na criação da casaca	Direção criativa, gerenciamento, pré-produção e gliteragem	Direção criativa, gerenciamento, pré-produção e gliteragem
Técnicas usadas	Gliteragem com pintura manual	Gliteragem com serigrafia
Ferramentas usadas na pré-produção	Papel vegetal, lápis, canetas, tela de serigrafia, tinta a base d’água, rodo	Programa de edição de imagem vetorial
Ferramentas e materiais usados na gliteragem	Tinta a base d’água, aplicadores, pincel, lápis, agulha, glitter	Tinta a base d’água, telas de serigrafia, rodo, fita adesiva, glitter
Variações da casaca	3	1
Inovações	Aprimoramento da técnica, maior precisão nos detalhes, 18 tons de pele, paleta completa com mais de 150 cores.	Superação pessoal, inserção da turma na nova tendência, buscar estilo novo (com ilustrador de fora do circuito).

Ao acompanhar a produção de duas turmas para o carnaval de 2023, confirmamos que a tendência de aproximação da cultura Bate-bola em direção à cultura do carnaval das escolas de samba e a consequente utilização de novas tecnologias tem trazido desafios cada vez maiores para a criação das ilustrações das fantasias. Primeiramente, o desejo de se expressar por meio de enredos que carregam em si um discurso (e não mais o reflexo de um desejo de consumo dos produtos da cultura de massa) levam os artistas a buscarem novas referências e uma linguagem mais complexa. Se antes seus trabalhos se limitavam a cópias ou releituras de personagens de desenho animado, super-heróis ou personagens de videogame, hoje o leque de referências é mais amplo e os resultados são mais criativos. Além disso, as novas tecnologias incorporadas ao processo levam a um nível de exigência por qualidade ainda maior dos artistas e brincantes, geralmente em relação à produção de detalhes e do uso de degradês com muitas cores – efeitos que impressionam na apreciação à curta distância. A serigrafia, por exemplo, que permite a produção em série com maior controle sobre a uniformidade da produção, ou a experimentação com instrumentos de pintura, como a agulha, que permite maior precisão nos detalhes. Outra consequência relativa ao aumento da expectativa por qualidade, complexificação dos processos, necessidade de especialização dos artistas e domínio sobre técnicas e ferramentas de design intensifica também as relações de prestação de serviços dentro da cultura Bate-bola e, com isso, a emergência de ilustradores profissionais e valorização de seu trabalho.

6. Conclusão

Buscou-se com esse trabalho apresentar uma etapa da análise híbrida que se detém no processo fabril. Materiais e processos apontam no início do desenvolvimento aspectos diretamente ligados a resultados estéticos, custos, complexidade, escolhas culturais e a base social. Assim, começamos a análise do uso da ilustração como elemento principal e distintivo na composição das fantasias de Bate-bolas. Apesar da manifestação carregar uma estrutura bastante semelhante com a descrição dos festivais invernais, o que pode ser uma comprovação de sua origem, o uso da ilustração a particulariza.

Descrevemos o passo a passo de duas turmas (coletivo de Bate-bolas), pois seus métodos de confecção envolvem diversos processos, técnicas de alta complexidade e materiais sofisticados, principalmente na criação das ilustrações. Apesar do seu caráter efêmero, a confecção das fantasias demanda grandes investimentos financeiros e de mão de obra dos brincantes. Sabemos que as ilustrações são pensadas e trabalhadas cuidadosamente, por isso, conforme percebemos no campo, é no seu apelo estético e no encantamento provocado no espectador que estão os objetivos principais dos manifestantes. É nessa característica das manifestações contemporâneas dos Bate-bolas (protagonismo das ilustrações) que se encontra um dos alicerces que sustentam a resistência dessa cultura popular, tal como Didi-huberman acredita. A evolução da manifestação se pauta na experimentação e desenvolvimento de sua expressão gráfica, tanto que cada turma busca sua expressão pessoal como forma de afirmar sua identidade. Portanto, o recente protagonismo das ilustrações é um dos fatores de

transformação e adaptação do festejo que garantem sua sobrevivência.

A ilustração da casaca é o elemento mais importante da fantasia, esse é um dos focos de atenção dos artistas na busca por aprimoramento voltado à produção de imagens cada vez mais ricas em detalhes para serem vistos de perto e inovações técnicas e estilísticas. Tudo isso impulsiona experimentações e avanços técnicos e de processo que resulta em fantasias cada vez mais luxuosas e as ilustrações cada vez mais complexas tecnicamente.

Em virtude, portanto, do acelerado processo de transformação que vimos passar o desenvolvimento técnico de impressão das ilustrações nas últimas décadas, esse registro é de extrema importância para a preservação da memória da manifestação e de sua valorização frente às constantes depreciações da qual são vítimas nas mídias hegemônicas. Essa é uma forma de apresentar e valorizar a importância técnica, artística e cultural dessa manifestação para a cultura carioca e brasileira.

Esse estudo sobre o passo a passo da confecção das casacas aponta ainda para possíveis desdobramentos em outras etapas de análise híbrida que devem chegar até a estudos de recepção junto ao público. Prospectamos levar esse conhecimento para as salas de aula do curso de graduação em Design da PUC-Rio, como já ocorreu em uma oficina de gliteragem realizada em 2023 com o Glauber, a fim de que os alunos incorporem a técnica e a estética em seus repertórios. Com essa ação esperamos contribuir para a valorização da cultura popular brasileira e com a decolonização do ensino do Design no país.

Hoje, os Bate-bolas envolvem uma cadeia produtiva grande com sustentabilidade financeira para vários artistas e artesãos. São mais de mil turmas só no município do Rio de Janeiro e algumas turmas podem chegar a 300 integrantes. E ainda há turmas no restante do estado. Assim, a produção de ilustrações, costura de roupas, sistemas de impressão diversificados e mercado de materiais específicos ocupa profissionais durante todo o ano para uma saída efêmera que acontece só em um carnaval. No ano seguinte, as turmas vão criar novas fantasias com novos temas – realimentando esse setor particular de uso da ilustração.

7. Referências

1. Carvalho, M.: O livro ilustrado e as manifestações da cultura popular: um estudo sobre a sustentabilidade comunicacional e a etnomaterialização. Tese de Doutorado. Orientação Nilton Gonçalves Gamba Jr. PUC-Rio, 2022.
2. Gamba JR., N. G; Andrade, P. Bate-Bolas: rastros materiais de rupturas históricas nas fantasias dos mascarados cariocas. Estudos em Design, v. 28, n.1, p. 92-104. 2020.
3. Pereira, A. V. V. G.: Os Bate-bolas do carnaval contemporâneo do Rio de Janeiro. Textos escolhidos de cultura e arte populares, Rio de Janeiro, v6, n.1, p. 115-124, 2009.
4. Didi-Huberman, G.: Sobrevivência dos vaga-lumes. Editora UFMG, Belo Horizonte (2011).
5. Pasolini, P. P.: Jovens infelizes, antologia de ensaios corsários. Editora Brasiliense, São Paulo (1990).

Mastering Animation through the Lens of Time Time Management and Academic Procrastination in Animation Pedagogy



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Abstract

Mastering the temporal aspects of animation production is crucial for students aspiring to careers in animation, as it significantly influences their future professional development. Therefore, it is essential for students to cultivate these skills during their academic years. A constant challenge faced by many animation lecturers in recent years is the ever-increasing number of late assignments submissions. This phenomenon disrupts the academic workflow, hinders assessment procedures and often brings a negative impact on the dynamics of the course, exacerbating relations between students themselves and between students and lecturers, undermining their authority and devaluing their efforts. In order to delve deeper into the causes, raise awareness of these challenges and propose solutions, I analyzed assignment submissions from the past five years and conducted an online survey among 153 students, aged 18 to 19, enrolled in animation programs at six vocational media colleges in Slovenia. The study aims to identify the causes of academic procrastination in animation students and propose targeted solutions to mitigate it.

Keywords

time management,
academic procrastination,
animation pedagogy

1. Academic Perception of Time and Time Management

Academic comprehension of time is primarily tied to the causal representation of the development of specific events, processes, and the anticipation of the consequences of their evolution. Lecturers approach the concept of time from various perspectives based on their respective fields, yet the commonality lies in the acknowledgment that it is more or less consciously addressed in some form or another. Numerous sources emphasize effective time management as one of the key competencies of the 21st century. It comprises a set of behaviors and strategies aimed at achieving efficient use of time through targeted activities. These include goal setting, prioritization, progress monitoring, and productivity management. It involves a process where, through planning and controlling the time allocated to specific activities, one maximizes the benefits within time constraints, thus improving efficiency and productivity. [1, 2].

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2. Mastering and Managing the Temporal Aspect of Animation

Understanding the temporal dimension is vital for comprehending and interpreting moving images, including film, animation, and computer games, as they significantly differ from other forms of visual culture in this regard. The principle of timing directly relates to the number of frames for a specific animated sequence, determining the duration of the animation through actual measuring (timing it) [3, 4]. Appropriate timing of actions is crucial for establishing the mood, emotions, and reactions of a character, as well as for the viewer's perception and understanding of the unfolding events [3]. It takes animation students quite some time, if not years, to fully comprehend the connection between the number of frames and the duration of the action shown on the screen. Unlike live-action or documentary films, where the time for creating and the time depicted are proportionate, animation requires disproportionate time investment. The movement of characters in animation is created with sequential frames, capturing every slightest movement or change in character motion frame by frame. Consequently, the actual time spent on animation production significantly differs from the duration of the resulting footage, which may be challenging for beginners to grasp, as it requires long hours of work to create just a few seconds of animation. Advances in computer animation have accelerated production, but it still demands more time commitment from its creators than video production [5, 3]. Every animation project, regardless of size, such as a short animation for a study assignment, requires an organized production schedule to ensure timely completion. It is essential to instill in students, from the earliest levels of education, the ability to plan and execute their work within a set timeframe. This cultivated sense of time management is crucial for their professional growth and development throughout their educational journey. A sense of time becomes a cultivated competence necessary for the development of a learner, serving as the foundation for their subsequent professional growth. In the creation of animation, there is a precisely defined sequence of production phases adhered to by every creator, varying slightly depending on the chosen animation technique. Therefore, precise time planning for specific tasks is crucial.

3. Time Management and Academic Procrastination

Academic procrastination is one of the primary reasons cited for poor time management, particularly seen in the delay of assignment submissions and disregard for deadlines [6]. Procrastination can be defined as “the voluntary delay of an intended and necessary and/or personally important activity, despite expecting potential negative consequences that outweigh the positive consequences of the delay” [7, 8]. This tendency to procrastinate is inherent in human nature and even observed in animals. Studies indicate that approximately 50-95% of students regularly procrastinate [7, 8], affecting various areas of life, including academic obligations, work duties, sports, and household chores [9]. Students often engage in activities that provide immediate comfort, such as chatting with friends, browsing the internet, using social networks, and playing com-

puter games, instead of focusing on their primary responsibilities. These less urgent tasks often take precedence over significant responsibilities, particularly when the tasks are perceived as challenging or beyond their perceived capabilities. Tendency to seek immediate gratification leads to the postponement of important tasks and can impede academic and personal development. [10, 13]. This behavior is typically irrational, not imposed by external factors, and often accompanied by subjective discomfort and negative outcomes [7]. Procrastination is therefore linked to several adverse effects, including lower academic performance [14], increased stress [9, 6], and even poorer mental health [9]. Thus, understanding the causes and sustaining factors of procrastination is essential for developing effective reduction strategies. Reasons for academic procrastination are diverse, ranging from internal to external [6, 8, 10, 13, 14, 11, 15, 16, 17, 18]:

Internal	External
lack of intrinsic motivation	Tempo
time management issues (i.e. overestimation of time available to complete tasks)	Mostrar o envelhecimento e a efemeridade da beleza, e questionar a preocupação excessiva com aparência física frente.
poor study habits, learning approaches and self-discipline/organizational skills	Realismo
low self-esteem or lack of self-confidence	Signos icônicos
fear of failure and perfectionism	Profissional alheio a cultura Bate-bola
unfavorable mood and lack of energy	Gliteragem
various negative personal beliefs	Direção criativa, gerenciamento, pré-produção e gliteragem
depression, OCD, ADHD, and other mental health issues, etc	Gliteragem com serigrafia

Procrastination typically evokes stronger discomfort than the task itself. The longer we delay an activity, the higher the likelihood that obligations and demands will accumulate, requiring us to complete more work in a shorter time. [7, 8] Research indicates that those who procrastinate on

academic obligations achieve lower grades and poorer work results. They often experience worry, distress, and feel “under pressure.” Procrastination significantly impacts mental health, diminishes effectiveness in academic work, and elevates stress levels. Some psychologists explain procrastination as a coping strategy for dealing with the emotion of fear/anxiety. Procrastination is frequently associated with perfectionism, and almost always accompanied by feelings of guilt. To avoid the guilt associated with procrastination, we often resort to excuses, justifying the fact that we have temporarily set aside our obligations. The more excuses we make, the stronger the resistance, and the later we will approach the tasks. [6, 8, 11] Procrastination can lead to stress, feelings of guilt, and a crisis, resulting in a significant loss of personal productivity. It can also attract social disapproval due to a lack of responsibility and non-compliance with obligations. These feelings can collectively prolong procrastination. While procrastination is somewhat normal, it becomes problematic when it hinders normal functioning. Chronic procrastination may indicate a deeper psychological disorder. Individuals who chronically procrastinate may find it challenging to seek support due to social stigma and the belief that work resistance is a result of laziness, lower willpower, or lower ambition. On the other hand, procrastination can be a useful way to identify what is personally important to us, as we rarely procrastinate on tasks we highly value. [9, 6]

Research shows that despite large majority of students regularly procrastinate, (80-95%), only about 75% acknowledge themselves as procrastinators. [11] I drew similar conclusions from my own research. The results indicate that college students procrastinate more than university students, with a significant difference in academic procrastination observed between students under and over 20 years old. [19, 8]. Procrastination increases in tandem with the volume of homework and assignments that increasingly occupy a substantial portion of non-school hours, affecting family life/personal time, therefore it would be appropriate to reconsider the rationale behind such practices (assigning such a heavy workload). Over a decade ago, our educational institution implemented a policy to prevent complaints and plagiarism by requiring that a minimum of 80% of coursework be completed during class time, under the supervision of the responsible lecturer. [9, 13, 15]

Some studies indicate an increase in academic procrastination during the COVID era (as supported by my analysis), although the exact reasons for this surge are not precisely determined. [21, 22] One possible explanation offered that some students lost touch with reality while coping with the new normal, coinciding with a surge in online video content consumption and a remarkable increase in computer gaming. A Slovenian national education institute analysis of distance learning during the first wave of the COVID-19 epidemic found that half of high school students (including vocational media) approached teachers, expressing difficulties in managing all school assignments. [22] My survey of student opinions also revealed that students consider overcrowding with assignments as one of the key reasons for missing deadlines. [20, 11]

Tratnik observes that the consequences of academic procrastination

are more far-reaching than one might think. In the contemporary world, individuals' actions are financially valued, and in this context, no one can afford unproductivity as time equals money. The main problem of modern academic procrastination (in terms of delaying studies) ultimately leads to the wastage of budgetary funds and time, which could otherwise be more efficiently used for other purposes. Consequently, academic procrastination brings challenges not only at the individual level but also at the level of the system and the state. [22] Procrastination's impact in the workplace is significant, affecting various aspects of employment. A study of 22,053 individuals showed that high procrastination levels correlate with lower salaries, shorter job durations, and increased unemployment. Women generally procrastinate less than men, potentially giving them an employment advantage. Jobs requiring high motivation are less likely to retain procrastinators [23, 10]. In the media industry, meeting deadlines is crucial, as missing them can breach contracts and lead to order termination or penalties. Future animators must adhere to deadlines to become competitive and reliable professionals.

4. Procrastination and Animation pedagogy

Animation students, like others, can struggle with academic procrastination. However, the nature of animation learning presents unique challenges that can exacerbate this issue. These challenges include the iterative and time-consuming nature of animation projects, technical complexities, and the need for creative inspiration. Addressing this issue requires tailored approaches that recognize the distinct demands of animation education and provide students with effective strategies to manage their time and workflow more efficiently.

Effective production scheduling is essential in animation, a multifaceted process encompassing various stages like conceptualization, sketching, modeling, animating, and post-production. Each stage demands distinct skills and considerable time investment. From ideation to final rendering, animation projects necessitate a blend of creativity, meticulous planning, and precise execution. However, procrastination can derail progress, especially during crucial phases such as planning and execution, resulting in missed deadlines. Compounded by inadequate time management, procrastination becomes a significant challenge for animation students, highlighting the critical need for efficient scheduling strategies. [16]

Project Complexity: Animation assignments often require attention to detail, time-consuming rendering, and iterative processes. Students may postpone initiation or completion of these tasks. The complexity and length of projects can lead to students being overwhelmed, increasing the likelihood of procrastination.

Perfectionism is a common trait among animation students, driven by the desire for flawless results, which can induce anxiety and procrastination. The pursuit of perfection is fueled by the visibility of the final product's quality. Fear of failure or falling short of self-imposed standards often triggers procrastination. [6] Early in their careers, many animators invest extra hours, even taking unpaid work home, to showcase

their skills. However, this practice can lead to negative consequences like burnout in the long term.

Animation heavily relies on technology, and the intensive use of media and software can foster procrastination. Specific software integral to animation can be complex, demanding extensive learning curves. Technological hurdles exacerbate procrastination among animation students. [24]

Animation students may procrastinate if they **lack intrinsic motivation or encounter creative blocks**. Given that animation demands a high level of creativity, experiencing creative blocks can be common. Insufficient inspiration or ideas further contribute to procrastination tendencies. Animation projects frequently entail teamwork, posing challenges like coordinating among team members and reliance on others. Teaching skills in teamwork, communication, and project management can alleviate procrastination-related issues by fostering effective collaboration.

5. Survey

5.1. The Review of Animation Students Assignment Submissions

Upon reviewing projects submissions from the past 4 years (2019–2023), I came to the following conclusions:

- Between 30% to 60% of students, varying by study year, fail to meet assignment deadlines, approximately 80% of these students submit their work by the second deadline (14 days after first), while about 10% manage to hand in their assignments by the third deadline, which falls 14 days before the end of the academic year
- The percentage of students missing both the first and second deadlines slightly increases with the complexity of assignments
- Male students exhibit a higher tendency to miss deadlines compared to their female counterparts, suggesting a potential correlation with the male-to-female ratio in academic procrastination. [19, 8]
- Over the years, there has been a significant increase in the number of students not meeting the deadlines, peaking in the academic year 2021/22, commonly referred to as the “COVID generation”, supporting the research evidence of a rise in academic procrastination during the covid-19 lockdown.
- When reviewing which students (by name) do not submit their assignments on time, we notice a pattern: it is almost always the same individuals who fail to turn in their work throughout all the years of their studies.

5.2. Analysis of Online Survey on Animation Students' Opinions

I sought to gather data on students' opinions through an online survey and compare it to the above survey. The study included 153 senior students, aged 18 to 19, enrolled in animation programs at six vocational media colleges in Slovenia. Despite a higher enrollment of male students, there was a significant predominance of female respondents in the survey (51%). The majority of students (67%) perceive the repercussions of late submissions in professional subjects primarily through organizational challenges in coursework, as delayed submissions reduce the time available for complet-

ing other projects within the program. A third of respondents (31%) indicate that this also impacts the quality of student-teacher relationships, including issues such as lack of respect, diminished authority, and unprofessional behavior, as well as relationships among students themselves (30%). A notable proportion (25%) believe that late submissions lead to assessment problems, as teachers are required to review projects repeatedly. Some express dissatisfaction with the increased need to complete projects at home.

Study year	Nr. of all animation students	Nr. of students by gender	Nr of assignments	Nr. of students missing 1st deadline	Nr. of students missing 2nd deadline	Nr. of students not passing
2019/2020	116	72 males 44 females	7	93 (53 males/ 40 females)	32 (17 males/15 females)	1 (female)
2020/2021	110	64 males 46 females	7	70 (52 males/ 18 females)	22 (21 males/1 female)	2 (1 male, 1 female)
2021/2022	140	79 males 61	8	176 (118 males/ 58 females)	76 (39 male, 37 female)	3 (2 males, 1 female)
2022/2023	136	80 males 56 females	7	149 (96 males/ 53 females)	59 (44 males, 15 females)	5 (3 males, 2 females)
2023/2024	114	121 males 53 females	7	150 (84 males/ 66 females)	59 (21males, 38 females)	10 (4 males, 6 females)
Summary	616	416 males 200 females	36	638 (403 males, 235 females)	248 (142 males, 106 females)	21 (10 males, 11 females)

A total of 72 participants responded with the suggestions on how to improve the situation, aiming to ensure that students submit adequate projects punctually. The responses indicate a strong focus on student-oriented solutions, with relatively few in favor of lecturers. Those who are presumably timely submitters advocate for strict adherence to deadlines and the implementation of negative grading for habitual latecomers. Conversely, others, likely including procrastinators, propose deadline extensions, task simplification, ongoing consultation on submission timelines, the option for home-based completion (with concerns raised about potential plagiarism in group settings), and the possibility of consolidating project submissions

at the end of the academic year (albeit with fears of incomplete academic years). Among more reasoned responses, there is a consensus for clearer instructions, increased encouragement, timely reminders, and, notably, enhanced collaboration among teachers to synchronize task quantities and submission deadlines, thereby reducing overlap. Some express a desire for additional support from study assistants or more proficient peers.

When asked about the adequacy of the workload in animation studies (four shorter assignments in the third year, and five longer ones in the fourth year), 43% responded positively, while the remaining respondents suggested either reducing the number of tasks (22%) or simplifying their complexity (13%). The result is comparable to the percentage of those who do not submit assignments on time. Nearly half of them responded that the time allocated for animation assignments is appropriate. A significant portion (34%) believes that there is not enough time; these mostly explain that the issue is accumulating too many tasks at once from various subjects. Some complained that they do not understand the professor's explanation well, or that it is lacking or inadequate, so they have to make up a considerable amount of work outside study time. This may reflect in the fact that 39% participants wish for more hours of animation practical lessons per week. This is a significant percentage considering that animation is not the most popular subject among students due to its difficulty and time-consuming nature. Same percentage (39%) of the students are thus not in favor of having more hours (e.g., 3) of animation in a single day and would rather maintain the current arrangement. Most believe that their concentration would diminish during prolonged sessions. 25% of respondents believe that the time allocated for animation assignments matches that of a worker in a real company, while 27% perceive that company employees have less time for the same task. Additionally, a quarter (25%) of respondents believe that company workers actually have more time for the same task, suggesting a lack of familiarity with real industry time management processes. The majority of surveyed students (29%) find the complexity and content of animation tasks comparable to those in the real industry, whereas 32% perceive animation study assignments as less complex and challenging compared to industry standards. 39% of students observe that the time required to complete animation assignments is comparable to the time needed for assignment execution in other subjects, while 10% even find that there is less time available for other subjects. This seems logical given that creating design products, videos, or photographs usually requires less time than producing an animated film.

In response to the question of how students generally submit their assignments, concerning time constraints, 29% answered that they regularly submit all projects on time, while 32% claim that they occasionally (rarely) miss a deadline. This is not entirely consistent with my review of the assignment submissions, so I assume that students may be reluctant to admitting to being "hidden procrastinators" (only 14% admit regularly missing deadlines or never submitting on time – only 2%). Those who do acknowledge this tend to attribute it mostly to the need to submit too many tasks simultaneously ("all at once," according to 10% of them). Most

of them choose reasons for which they are not directly responsible; for instance, only 5 respondents cited poor study habits and study approach, 9 mentioned poor time management, 3 indicated poor discipline and organization. Only 1 mentioned personal issues (illness, family relationships).

The majority of students (71%) consider the overall schedule, encompassing both content and time, to be appropriate. Among them, 36% believe they are most effective after the lunch break, while a substantial portion (26%) feel productive during the early hours. Furthermore, 21% report being effective before lunch, with only 6% indicating peak productivity towards the end of their study hours. When queried about their preference for completing assignments at home or at school, 60% express a preference for doing so at home. Their primary reasons include the tranquility and the ability to connect with others online for collaborative assistance. Furthermore, a majority (66%) indicate a preference for working on tasks independently rather than with the aid of a mentor. The survey uncovers that the conflicting viewpoints of present generations of students; while students express a dislike for working at home, they also show reluctance to work at school. This suggests a preference for study environments where goals can be achieved with minimal effort and time.

6. Suggestions for Avoiding Procrastination and Improving Time Management in Animation Studies

After discussions with several Slovenian colleagues who teach animation at different levels of education, we came to a consensus that the most effective strategies to improve time management and mitigate academic procrastination are:

Setting clear deadlines and achievable goals

Animation projects demand long hours and effective time management. Students lacking time management skills may struggle to meet deadlines. Lecturers must carefully plan the time span and difficulty of assignments to avoid unfeasible and stressful workloads. Short deadlines increase pressure, while overly extended ones may cause boredom. Breaking projects into smaller tasks with short-term and interim deadlines can help maintain focus and productivity and thus reduce procrastination.

Teaching and practicing project and time management

Utilizing project management apps and digital calendars helps students track progress, organize tasks, and establish routines while learning time management. Tools like Trello, Asana, Toon Boom, and Blender streamline workflows and improve efficiency. Courses should encourage task sharing and team project scheduling based on set timelines. Detailed schedules are crucial for balancing workloads and preventing burnout, mirroring professional workflows. This approach mirrors professional animation workflows, aiding students in meeting project deadlines effectively. Incorporating planning akin to professional practices, especially as part of assignments, can significantly enhance animation process efficiency.

Regular progress monitoring

Regular monitoring of progress is important to help students manage their workload. It is useful to organise weekly progress reviews and offer in-

dividual meetings to address challenges immediately. Media students often have difficulty managing multiple practical subjects and simultaneous project submissions. Lecturers recommend that educational institutions create an easily accessible spreadsheet of assignment deadlines for both students and lecturers to prevent scheduling conflicts and avoid excessive workloads.

Providing support for technological challenges

Creating a supportive environment is essential for helping students overcome technological challenges. Providing sufficient support and training for software use is crucial to reducing feelings of being overwhelmed. Encouraging peer collaboration and ensuring access to necessary resources can greatly enhance student progress and success.

Rest and Breaks

In addition to utilizing project management tools and technology for time management, it is crucial to prioritize rest and breaks. Regular intervals of rest, such as those facilitated by the Pomodoro Technique, are essential for maintaining creativity and preventing fatigue among animation students.

Motivation and rewards

Empower students to overcome creative blocks by encouraging creative methods such as brainstorming sessions, collaboration, and reviewing examples of good practice. Adopting a positive attitude, reinforced by the introduction of a reward system for timely task completion rather than negative sanctions, can motivate students. Providing regular feedback is essential for maintaining student motivation and engagement.

Flexibility and understanding

Adapt tasks and deadlines to the needs of the individual pupil, and provide support and guidance when needed. For pupils with different learning abilities, differentiation by offering tasks of varying difficulty levels within a single task has proven to be effective. Encouraging an iterative approach and emphasizing the importance of repetition and improvement throughout the learning process, rather than aiming for perfection from the start, can help to reduce pressure and accelerate growth. [25]

7. Conclusion

Mastering and understanding the importance of the temporal aspect is of utmost importance in teaching and learning animation (and other areas of vocational media education). Efficient time management combined with self-discipline is undoubtedly the key to academic and professional success in any chosen career field. The survey results reveal a significant discrepancy between students' opinions (about themselves) and the actual situation. Many do not admit to being procrastinators, and this has consequences for everyone involved in their education. Those who do, mostly do not take responsibility for their actions. Entrepreneurs often hesitate to hire such future employees as they pose significant business risks. Precise task completion is one of the crucial components of professional maturity, achieved gradually and trained from an early age. Collaborative strategies and agreements to address the issue of procrastination and poor time management would be welcomed by many educators, as it evidently represents a current issue at all levels of education. In summary,

animation students are not immune to academic procrastination. By understanding the specific challenges, they face and implementing coping strategies, they can overcome procrastination and enhance their creative and academic journey.

8. References

1. Rashid, A., Sharif, I., Khan, S., et al.: Relationship Between Time Management Behavior and Academic Performance of University Students. *Journal of Business and Social Review in Emerging Economies* 6(4). (2020). <https://www.researchgate.net/publication/351112206>
2. Ghafar, Z., N.: The Relevance of Time Management in Academic Achievement: A Critical Review of the Literature. *V1(4):347-358*. (2024). <https://www.researchgate.net/publication/376982131>
3. Goetz, A., Krajnc, M., Saksida, K., et al.: *Animirajmo!* (2016).
4. Neistadt, W.: *Time Management for Animators & Artists*. (2018). https://www.youtube.com/watch?v=m8_5mRkJeSs
5. Repše, H., Urbič, T., Peštaj, M., et al.: *Animirani film in otroški program slon 2007. Pedagoško gradivo za učitelje in starše II*. (2007).
6. Rahimi, S., Hall, N. C., Sticca, F.: Understanding academic procrastination: A longitudinal analysis of procrastination and emotions in undergraduate and graduate students. *Motivation and Emotion*, 47(3), 554–574. (2023). <https://link.springer.com/article/10.1007/s11031-023-10010-9>
7. Klingsieck, K. B.: Procrastination: When good things don't come to those who wait. *European Psychologist*, 18(1), 24–34. (2013). <https://psycnet.apa.org/record/2013-13184-004>
8. Steel, P.: The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin*, 133(1), 65–94. (2007). <https://psycnet.apa.org/doiLanding?doi=10.1037%2F0033-2909.133.1.65>
9. Sirois, F. M., Pychyl, T. A.: *Procrastination, health, and well-being*. Elsevier Academic Press. (2016). <https://psycnet.apa.org/record/2016-34915-000>
10. Grunschel, C., Patrzek, J., Fries, S. Exploring reasons and consequences of academic procrastination: An interview study. *European Journal of Psychology of Education*, 28(3), 841–861. (2013). <https://doi.org/10.1007/s10212-012-0143-4>
11. Wang, Q., Kou, Z., Yunfeng D., et al.: Academic Procrastination and Negative Emotions Among Adolescents During the COVID-19 Pandemic: The Mediating and Buffering Effects of Online-Shopping Addiction. (2022). <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.789505/full>
12. Neistadt, W.: *Time Management for Animators & Artists*. (2018). https://www.youtube.com/watch?v=m8_5mRkJeSs
13. Hailikari, T., Katajavuori, N., Asikainen, H.: Understanding procrastination: A case of a study skills course. *Soc Psychol Educ* 24, 589–606 (2021).
14. Kyung, R. K., Seo, E., H.: The relationship between procrastination and academic performance: A meta-analysis. *Personality and Individual Differences*. Science Direct. Vol. 82, Pages 26-33 (2015).
15. Bhatt, T., Understanding the Factors Influencing Academic Procrastination: A Comprehensive Review. *Journal of Namibian Studies History Politics Culture* 35(S1):4396-4414 (2023). <https://www.researchgate.net/publication/374556550>
16. Colonia, T. J., Pagente, D., Desierto, D., J., C., et al.: *Time Management and Academic Achievement: Examining the Roles of Prioritization, Procrastination and Socialization*.

International Journal of Innovative Research in Science Engineering and Technology 8(6):766-775 (2023). <https://www.researchgate.net/publication/372316987>

17. Salguero-Pazos, M. R., Reyes-de-Cózar, S.: Interventions to reduce academic procrastination: A systematic review. *International Journal of Educational Research*. Vol. 121 (2023). <https://www.sciencedirect.com/science/article/pii/S0883035523000927>
18. Low, K.: The Relationship between ADHD and Procrastination. (2023). <https://www.verywellmind.com/adhd-and-chronic-procrastination-20379>
19. Arif, H.; Sumbul, S. Muneer, N. S., et al.: Academic Procrastination among Male and Female University and College Students. (2014). <https://www.researchgate.net/publication/327280810>
20. Unda-López, A., Osejo-Taco, G., Vinueza-Cabezas, A., et al.: Procrastination during the COVID-19 Pandemic: A Scoping Review. (2022). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8868816/>
21. Rupnik Vec, T., Slivar, B., Zupanc Grom, R., et al.: Analiza izobraževanja na daljavo v času prvega vala epidemije covid-19 v Sloveniji (2020). https://www.zrss.si/pdf/izobrazevanje_na_daljavo_covid19.pdf
22. Tratnik, T.: Akademski Prokrastinacija. Magistrska naloga. Fakult. za manag., UP. (2020). http://www.ediplome.fm-kp.si/Tratnik_Tina_20200922.pdf
23. Nguyen, B., Steel, P., Ferrari, J., R.: Procrastination's Impact in the Workplace and the Workplace's Impact on Procrastination. (2013). <https://doi.org/10.1111/ijisa.12048>
24. Türel, Y., K., Dokumaci, O.: Use of media and technology, academic procrastination, and academic achievement in adolescence. *Participatory Educational Research*. Vol.9(2), pp. 481-497. (2022). <https://files.eric.ed.gov/fulltext/EJ1317861.pdf>
25. Dionne, F., Gagnon, J., Carbonneau, N.: Using acceptance and mindfulness to reduce procrastination among university students. *Revista Prâksis*, 1, 8–20. (2016). <https://www.researchgate.net/publication/305411981>

Leaf on a Page: The Role of Scientific Illustration as a Tool for Learning Botany



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Abstract

Plant awareness disparity (PAD) is a phenomenon that negatively influences the way we perceive and connect to the plant community around us. PAD is a present reality in basic and secondary school curricula, with a very superficial approach on botany and curricula with no or very few plant examples, which may contribute to greater lack of interest on students about this domain. Consequently, this motivation problem continues through to university level where we still find very few biological sciences students interested in disciplines related with plant diversity as opposed to those related to animals, for instance. Using infographics solutions based on botanical illustration its pretended to face this gap and promote a better engagement and motivation of biological sciences undergraduate students on this area of subject, and even their educators. This article will address to the creation of an infographic displaying angiosperms leaf morphological characteristics, created as a fundamental visual complement to Flora and botanical term Glossaries, the latter being an essential tool for successful plant identification in a classroom or even on a field trip context. As a central model for the infographic page, a “complete leaf” was illustrated using traditional and digital tools, choosing the *Rosa* sp. leaf, to show shape and structural diversity from the start, escaping the traditional model (full margin, simple smooth leaf, among others). Later, others will be created addressing equally pertinent subjects, such as flowers and fruits. Through this synthesizing infographic it’s pretended to inspire new motivational approaches in order to mitigate PAD.

Keywords

Botanical infographics, plant identification, *Rosa* sp., plant awareness disparity (PAD)

1. Introduction

Plants are an essential part of human lives, can be found almost everywhere and usually may go unnoticed quite easily. In this article the term proposed by Kathryn Parsley in 2020 [1], **plant awareness disparity** (PAD), to address this phenomenon, was herewith adopted. PDA has been an alternative to the unintentionally ableist connoted term “plant blindness”, coined by Wandersee and Schussler in 1999 [2]. This difficulty to perceive botanical elements has been theorized to derive from intrinsic (resulting from cerebral evolution, resulting in physiological limitations and particular psychological perceptions) and/or extrinsic (resulting from

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societal and cultural factors, including the education system practices) factor groups — the most likely scenario being an interaction between both when referring to PAD observed in present days.

Starting with the intrinsic factors, we first have the neurophysiological ones, pointed by Wandersee and Schussler (1999), including the limited brain image processing capacity (only 0,00016% of data captured from our eyes is interpreted), which puts in priority images that indicate movement or threat signals, typical from images that include animals. As most plants don't possess locomotion or significative mobility, they get less immediate attention, resulting in an unconscious discrimination [3]. A hypothesis for this preference may lie in evolution itself, as a response from the need to prioritize and recognize animal movement patterns to enhance survival rates, in order to prey and not be preyed upon [4], [5]. Extrinsic factors derived from each individual's experiences, modelled by cultural and societal circumstances. The minimal contact with nature and/or lack of knowledge of origins of what we consume are directly linked to disinterest and consequently PAD [5]. We also tend to like animals (zoocentrism) the most because of behavior similarities they share with us as being reactive and moving or showing that are thinking beings [6], values not commonly attributed to plants.

We can easily observe PAD today reflected in the tendency of students to choose animal biology and veterinary related curricular units more than botany related ones [3], which may be attributed to the concept of "zoochauvinism", precedent to the "plant blindness", highly likely related to short time invested to botany (botany neglect) either in the primary, basic or even in high-school levels [7] — usually compelling it to terms memorization actions and not associating it with students' daily live [8]. Therefore, an animal subject approach is socially considered as a more important resolution than a study of plants option [2], [4].

Although there are no studies that establish direct statistical evidence linking the lack of use of plant-based examples at lower education levels with a lack of interest and higher degrees of PAD later in life, this is one of the most hypothesized factors responsible for this phenomenon. The use of animal examples by teachers to explain biological principles that both animal and plants share, like evolution, natural selection, and cell respiration for example [7], [9] is one of the factors with root in education that make students prone to a smaller interest for plants. Zoocentrism is, in some ways, being reinforced by the educational system, mainly because of the existence of a little number of curricular units which the focus is on botanical issues. For example, in the USA less than 20% of high-school biology courses have plant biology included [7] and most biology teachers have specializations in animal studies [2], [7]. This implies a tendency to not teaching as enthusiastically and profoundly botanical knowledge when compared to zoological knowledge [2].

How can we fight this social phenomenon? This is where scientific illustration comes into play, a tool used to aid botanical recording since the first herbals, that arose from the need to accurately document plants with recognizable medicinal value at time. Records of this practice going as far

as Ancient Greece, with an herbal with colored pictures of plants by the physician Krateuas (Cratevas). Unfortunately, his writings are no longer extant, remaining only fragments of his work inserted in the manuscripts of other authors (figure 1), like Dioscorides's (one of the Krateuas successors) and his highly regarded work *De Materia Medica* published, dated of 29 AC (figure 2) and a popular reference in the Middle and Renaissance

Ages for medical practices [10].

In this ongoing project, scientific illustration is applied to botanical concepts expressed by botanical terms in the form of infographics, more specifically, an infographic composition to help understanding botanical concepts concerning to angiosperm's leaves. This infographic is an integral part of a set of four botanical infographics that will address other morphological aspects in addition to the leaves, essential in the identification of flowering plants, namely the flower/inflorescence, the fruit/infructescence and the root/rhizome. The above mentioned four infographics will integrate an illustrated manual of flowering plants, addressed to biological sciences undergraduate students, consisting essentially of schemes, scientific illustrations, field, and laboratory photos. This illustrated manual is created as an auxiliary aid in the study and identification of angiosperms, aiming turning it more appealing than regular handbooks in contemporary use — usually regarded as manuals with few to no images and extensive and descriptive text in order to describe scientifically heavy concepts difficult to understand using only imagination, and even harder to memorize without the immediacy of a more



Fig. 1. *Ferula* sp. illustration (facsimile) from Dioscorides [10].

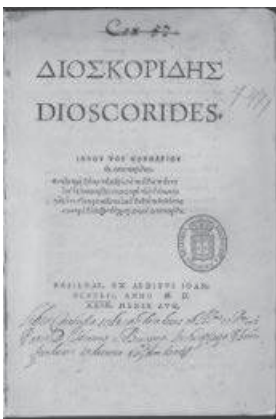


Fig. 2. Book cover page of the *De Materia Medica* from Dioscorides (Biblioteca Nacional Digital)

visual components. Aside from the descriptive contents of the manual itself, other tools will be part of it, such as dichotomous keys, botanical sheets, and summarizing infographics, like the one here represented.

According to various studies, the use of an illustrative component aids understanding of detail, concept analysis skills and concept discussion [11]. An example of this is the Illustrated Dichotomous Keys (IDK), a plant identification tool used by high school and undergraduate students to test its usefulness on a Likert scale from useless (1) to fully effective (5) [7]. In this study, the high school students found the IDKs at least useful (about 8%), with the majority finding them very useful (about 49%) or fully efficient (about 43%); the undergraduate students found the IDKs at

least useful (about 2%), very useful (about 38%) and fully efficient (60%).

Some other interesting examples of illustration used to better understand the external morphology of plants are the botanical illustrated guide of Dare's ferns (East Timor) [12] and the botanical illustrated field guide of trees and shrubs of the Parque dos Pinheiros Mansos (Portugal) [13], which use photos and infographics as complementary tools for learning botany. This is no different when it comes to the use of infographics, such as those discussed in this manuscript. Infographics have been described as the most memorable type of concept visualization among knowledge-sharing tools [11], and can be defined as "the visualization of data or ideas that attempts to convey complex information to an audience in a way that can be quickly consumed and easily understood" [14]. In light of these statements, this tool should prove to be just as effective, as it fulfils the requirements of a useful learning tool, with a good text to image ratio and clear organization of concepts, while having a relatively familiar central subject of study.

In this way, this botanical infographic is intended to provide students of biology and even botanists with the correct nomenclature for the external morphology of leaves, and to show the reader the complexity and diversity of flowering plant leaves in a clear and appealing way.

2. Contextualization and Constructive Process

2.1. Content choices

The contents try to cover the various key aspects of leaves for plant identification in the angiosperm group. After a research through multiple external morphology glossaries to infer what elements would be best to showcase in the infographic [15], [16], [17], [18], a careful selection of botanical aspects to be covered was made, as the following ones: leaf situation, origin, duration, prefoliation, venation, vernation, general shape, base shape, apex shape, margin, composition, lamina surface, indumentum, phyllotaxy and adaptations.

Some concepts where illustration is not needed, like leaf situation, origin, and duration, were chosen to be explained in descriptive text only in the manual mentioned above, avoiding an overload of written information in the infographic.

2.2. Central Leaf Choice

The chosen leaf for this infographic should be one that could show both diversity of characteristic (to escape the conventional, almost symbolic, regular leaf shape) and could be easily identified by the viewer as a leaf. Aside from that, a structurally "complete leaf" would be ideal, since it can demonstrate the most differentiation, containing the three main parts leaves can have: sheath, petiole, and lamina (leaf blade).

Following that line of thought, *Rosa* sp. (common name, rose) leaf was chosen as an example of a "complete leaf", being a compound leaf (one leaf composed of various leaflets), having stipules present and a margin that isn't smooth that contributes to the diversity of criteria. Species leaf choice also rely in having a well-established visual identity depicted vastly around the world, as roses are not only famous symbols for love related matters and

festivities, but also very common garden plants with multiple utilities [19].

With this many attributes in mind, and considering its proportions, the rose leaf can also be easily connected to the various elements (shape, margin, stipule presence, composition, etc.) and sections in the infographic, while creating the least amount of visual noise. Other complete leaves used in literature, such as the leaf of *Zantedeschia aethiopica*, commonly known as calla lily, could prove to be a difficult fit (taking in account its bigger nature; for instance, its long petiole would force the infographic composition to be oriented in a different manner and the contents to be divided by both of its lateral sides; also its arrow shaped lamina would be in conflict with the readers gaze, redirecting it to the outside of the page) [20].

2.3. Material, Methods, and Element Presentation

To support the illustration process and the figurative rigor of characteristics of the infographic elements with more accuracy and fidelity, aside from research on the various glossaries mentioned before [15], [16], [17], [18], the website biorede [21], as well as the taxonomical treatment for the *Rosa* genus in Flora Iberica [19], reliable photographic references were used and carefully observations of fresh biological material were made, mainly for the illustration of the central leaf.

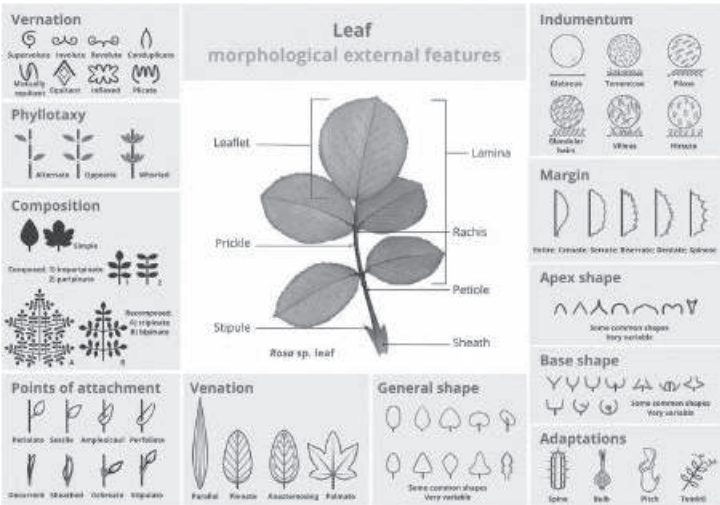
Illustration process started with the sketching of the different botanical elements using a mix media technique (archival ink pens, graphite, and color pencils) on paper; after thumbnailing each element it was carried out in different spatial positions to obtain a previous notion of composition (where each piece of visual information would fit the best; this also could be made in digital environment). Then all individual sketches were digitalized and imported to a free access digital painting computer program (FireAlpaca, version 2.11.3) where they were used as guidelines for the remaining illustration steps to achieve the final artwork.

To establish the species color palette, color was achieved by picking and adjusting medium colors range from photographic records for better color accuracy, speed up color management and to minimize artificial. This was especially true mainly for the central illustration, as for readers of each infographic the highest visual impact is concentrated on it. Remaining elements were also colored having in mind the resulting harmony of the infographic. After the completion of the individual illustrations, they were arranged as in prior essays, thus, to obtain a satisfactory reading and narrative cohesion, prioritizing the proximity of elements with similar or more closely related concepts. The necessity to book spaces (to include text blocks) and maintaining a “breathable” negative space (framing effect), were some of the main concerns in order to achieve a light, visually captivating infographic, but without neglecting or reducing the documentary load below what was desirable and delimited in initial observations.

3. Results and Discussion

The infographic result achieved (figure 3) shows a clean organization and therefore a good readability (visual and text descript). Multiple leaf external morphology aspects were illustrated in a way that respect space reserved to

Fig. 3. *Rosa* sp. leaf infographic on going essay showing organization and spatial disposition of all information blocks referring to the different morphological aspects of angiosperm's leaves.



The *Rosa* sp. leaf revealed itself to be a right choice to use, as the process of construction of the infographic felt very fluid and easy to go through using it as the focus piece to redirect readings. Also practically gathers characteristics relating to most of information blocks (if not all), not leaving in the process any important concept behind. Its overall shape also contributed for the latter matter, as it allowed not only for the information blocks (phyllotaxy, vernation, etc.) to be placed in a way that they didn't suffocate the remaining space, but also for the text relating to directly approached aspects (arrows marking the leaf portions) to be placed and pointed to while being able to have their own white space around.

The main illustration difficulties are due to the fact that in digital work, color is defined within standardized reference systems, like RGB (red, green, blue), HSB (hue, saturation, brightness), HSL (hue, saturation, lightness), CMY (cyan, magenta, yellow) and hexadecimal values [22]. This implies that the accuracy of the color record in digital work can depend on the calibration of the system used, from computer edit to printing process, and additionally and hardest to control, the image presentation calibration of the viewers device, if digitally published [22]. Taking this in mind, it's expected that the Rose infographic may show slightly differently from screen to screen, even though the color choosing method aimed to be the most accurate possible.

The finished infographic, as well as the finished project it is a part of, should prove useful as a tool able to combat PAD, as it provides synthesized

information accompanied by illustrations to support concepts that are usually described with exhaustive text. More than an innovative alternative, it is a strategy that, in similar uses, has proven to work well for a better understanding of botany, both by students and early career plant researchers. The tools based on infographics and photos proposed by the above-mentioned studies [7], [12], [13] reinforce the importance of visual tools, such as infographics, in the learning of botany. As it provides information on key elements for angiosperms leaves identification, infographics can also be an effective tool for identification both in lab, indoors and outdoors.

While fully knowing that notable changes do not only depend on proposals like infographic solutions — as the need for content like the one described in this article rises with the growing necessity to combat PAD — this working project hopes to be a starting point for a greater revolution in pedagogical methods of teaching botany elsewhere, pushing more and more teachers and authors to incorporate illustration into classroom support materials and/or didactic publications, including the earlier education levels, where the bond between students and botanical aspects is crucial to PAD mitigation.

4. Conclusion

Botanical infographics centered in scientific illustrations were proposed as flexible visual systems that may work as a tool to aid in the addressing of botanical concepts and captivate undergraduate biology students for botany — in this case, specifically, related to angiosperm leaf external morphology. It is a clear and functional way of focusing the reader's attention on the essential points for plant identification, serving both field and laboratory use. By presenting a *Rosa* sp. leaf as the centerpiece of the infographic, the aim was to show the diversity of characteristics in a more complete and capable way, while maintaining a familiar image as a contextualizing and guiding element for a non-specialist audience.

The content was organized in such a way as to allow the final infographic to be seen as a not too crowded image, using the negative space to isolate different issues and help systematize it, improving understanding of the concepts.

The use of infographics can be effective as they meet the requirements of being a useful learning tool, with a good text to image ratio and clear organisation of concepts, while having a relatively familiar central theme. However, with this study it's expected to not only raise awareness to the PAD phenomenon and the lack of investment in botanical teaching/learning (pedagogical, educational, and didactic) in schools, but also to raise interest and inspire students and even investigators, using infographics as an effective way to learn plant external morphology concepts. They really should dive deeper into the world of scientific illustration and plants as a working strategy to lead a less tedious approach to botanical matters, that are so intrinsically connected, providing a renewed and visual approach in order to contribute to the knowledge and conservation of plant biodiversity.

5. References

1. Parsley, K.M.: Plant awareness disparity: A case for renaming plant blindness. *Plants, People, Planet*, 2:598–601 (2020)
2. Wandersee, J. H., Schussler, E. E.: Preventing plant blindness. *The American Biology Teacher*, 61(2):82–86 (1999)
3. Colon, J., Tiernan, N., Oliphant, S., Shirajee, A., Flickinger, J., Liu, H., ..., McCartney, M.: Bringing botany into focus: Addressing plant blindness in undergraduates through an immersive botanical experience. *BioScience*, 70(10):887–900 (2020)
4. Hershey, D.: Plant blindness: “we have met the enemy and he is us”. *Plant Science Bulletin*, 48(3):78–84 (2002)
5. Salatino, A., Buckridge, M.: Mas de que te serve saber botânica?. *Estudos avançados*, 30, 177–196 (2016)
6. Flannery, M.C.: Considering plants. *American Biology Teacher*, 53, 306–309 (1991)
7. Silva, H., Pinho, R., Lopes, L., Nogueira, A.J.A., Silveira, P.: Illustrated plant identification keys: An interactive tool to learn botany. *Computers Education*, 56, 969–973 (2011)
8. Piassa, G., Neto, J. M., & Simões, A. O.: Negligência botânica e zoochauvinismo em livros didáticos de Biologia no ensino médio. *Terrae Didatica*, 19, e023020-e023020 (2023)
9. Pany, P.: Students’ interest in useful plants: A potential key to counteract plant blindness. *Plant Science Bulletin*, 60, 18–27 (2014)
10. Arber, A.: *Herbals: Their Origin and Evolution*. Cambridge University Press, Cambridge (1986), pp. 8–11
11. Antonova, A.: Building sophisticated infographics as effective knowledge visualization and knowledge sharing tool. *Rhetoric and Communication e-Journal*, 25:1–21 (2016)
12. Costa, H., Silva, H., Silveira, P.: *Guia ilustrado dos fetos de Dare (Timor Leste)*. UA Editora, Aveiro (2023)
13. Simão, I., Silveira, P., Silva, H.: *Guia de Campo das árvores e arbustos do Parque dos Pinheiros Mansos (Oliveira do Bairro)*. UA Editora, Aveiro (2021)
14. Kibar, P., Akkoyunlu, B.: Searching for Visual Literacy: Secondary School Students are Creating Infographics. 3rd European Conference on Information Literacy, ECIL, Tallinn (2015)
15. Vasconcelos, J.C.: *Noções sobre a Morfologia Externa das Plantas Superiores*. 3ª Ed. Lisboa (1969)
16. Glossário Botânico da Universidade de Coimbra, https://www.uc.pt/herbario_digital/learn_botany/glossario
17. Hickey, M., King, C.: *The Cambridge Illustrated Glossary of Botanical Terms*. Cambridge University Press, Cambridge (2000)
18. Gonçalves, E.G., Lorenzi, H.: *Morfologia Vegetal: Organografia e Dicionário Ilustrado de Morfologia das Plantas Vasculares*. Instituto Plantarum de Estudos da Flora, Nova Odessa, SP, Brasil (2007)
19. Rosa Genus, *Flora Iberica*, http://www.floraiberica.es/floraiberica/texto/pdfs/o6_o87_13%20Rosa.pdf
20. Zantedeschia Genus, *Flora Iberica*, www.floraiberica.es/floraiberica/texto/pdfs/18_179_05_Zantedeschia.pdf
21. Biorede, <http://www.biorede.pt/page.asp?id=3499>
22. Simpson, N.: Colour and contemporary digital botanical illustration. *Optics & Laser Technology*, 43(2), 330–336 (2011)

Alguns contributos para o estudo dos livros de conceitos: a coleção «Foxi & Meg» e os «Atividários», de André Letria



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Abstract

Contrary to what happens in other countries, the publication of concept books in Portugal has been relatively sporadic. However, some obviously innovative and creative examples have appeared in recent years. For the most part, these are books by young illustrators most of whom, nonetheless, already having a commendable work in the field of picturebook design. There has yet been no study that articulates a theoretical reflection concerning the significance of the interaction between images and words in these books. Accordingly, taking as a starting point two sets of books by the illustrator André Letria (winner of several awards, such as the Portuguese Illustration Award, Silver and Bronze medals in the 3×3 Children's Books Annual, and an Award of Excellence for Illustration from the Society for News Design (USA)), this paper aims to conceptualise, as well as question, the kind of literary-didactic blend that may be observed in concept books. To this end, it will focus on four books in the «Foxi and Meg» collection (2004), written and illustrated by the previously referred artist, as well as three other books, two of them written by Ricardo Henriques - *O Mar* [The Sea] (2012), which won a NonFiction mention in the 2014 Bologna Ragazzi Awards, and *O Teatro* [The Theatre] (2015) – and another one by Inês Fonseca Santos: *Dança* [Dance] (2022). This paper will address the composition of (these) concept books and their different kinds of picture and word combinations, a composition which results in distinct hybrid objects which may be identified with either literary formative books or didactic formative books.

Keywords

concept books, non-fiction picturebook, Portuguese illustration, André Letria, children's books

1. Introdução

Globalmente, no livro de conceitos, no livro formativo ou informativo, nos livros enumerativos ou acumulativos ou nos livros de «primeiras noções²» [16] – e a opção por uma destas expressões não deixa também de levantar vários dilemas terminológicos e/conceptuais – para a infância (mas, em certos casos, não apenas), importa, sobretudo, a objetividade e a veiculação de conteúdos. Estes podem consistir na apresentação de palavras pertencentes a campos lexicais bem delimitados, como os animais, as formas, as cores ou os números, por exemplo, ou conjuntos mais amplos, que se prendem com vocábulos mais genéricos relacionados com aprendizagens, circunstâncias ou contextos particulares.

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² Todas as traduções de citações em língua estrangeira são da nossa responsabilidade.

Assim, os livros de conhecimento ou os livros de saber, com os quais se pretende explicitamente, como preconiza Duran, «demonstrar racionalmente», em contraposição àqueles em que se intenta «mostrar emotivamente» [6], ou, ainda, recorrendo a outros termos, os livros formativos ou informativos, como a própria designação sugere, apresentam um conteúdo que «está mais vocacionado para a transmissão de elementos informativos e de divulgação sobre o mundo, no qual a criança-leitor se insere, podendo (...): ser uma lista de imagens – caso dos livros-alfabeto ou sobre objetos do quotidiano – ou uma narração – caso dos livros que retratam situações do quotidiano, com uma certa sequência cronológica.» [2, 250]. Englobando, portanto, duas possibilidades compositivas – a lista de imagens, próxima, por exemplo, do livro-álbum portefólio, e a narração –, ou compondo-se numa espécie de entre-caminho no qual se cruzam o educativo e o literário, e consequentemente, a leitura prática ou «eferente» [3] e a leitura estética [21], as definições avançadas não deixam de dar conta precisamente da já sugerida flutuação terminológica ou conceptual.

Na História da Literatura Portuguesa para Crianças, mais concretamente, na História do Livro Infantil Português, o livro informativo (entendido em termos gerais) não tem ocupado um espaço considerável ou um lugar relevante. A realidade é que, mais do que livros de conceitos ou informativos de autoria portuguesa, imperam as traduções ou os livros importados. Tome-se como exemplo o sucesso de volumes traduzidos assinados pelos britânicos Helen Oxenbury (por exemplo, os volumes *Já Sei!*, *Eu Sinto*, *Eu Vejo* e *Eu Ouço*, publicados em 2005, pela Editora Gatafufinho) ou David Mackee (*As Cores do Elmer*, editado, em 2015, pela Nuvem de Letras), nos dois casos de qualidade inegável, entre outros. No entanto, na última década, por via do aparecimento de algumas jovens editoras, já devidamente reconhecidas no estrangeiro, como a Planeta Tangerina e a Pato Lógico, por exemplo, foram dados à estampa alguns volumes/coleções nos/nas quais a componente informativa se afigura preponderante e é tratada de forma inovadora.

No presente estudo, problematizando e convocando o quadro teórico-conceptual avançado, pretendemos, a partir de uma metodologia qualitativa, analisar criticamente, mobilizando instrumentos próprios da análise hermenêutica, semiótica e estilística, dois conjuntos de obras infantojuevenis. Assim, centraremos a atenção nestes dois conjuntos de volumes, ambos, ainda que diversamente, situados na categoria do livro de conceitos, e ambos também com uma composição visual da autoria de André Letria.

2.1. Os livros de conceitos ou informativos de André Letria

André Letria (Lisboa, 1973-), um dos mais premiados nacional e internacionalmente ilustradores portugueses, assinou os seguintes dois conjuntos de volumes que podem ser situados no domínio dos livros de conceitos: os quatro livros da coleção «Foxi & Meg», editados com a chancela da já extinta editora portuense Ambar, e três volumes, em coautoria com Ricardo Henriques e Inês Fonseca Santos, dadas à estampa pela Pato Lógico, editora que é propriedade do próprio ilustrador em questão.

2.1.1. Os quatro volumes da coleção «Foxi & Meg»

Já na primeira década do século XXI, mais concretamente em 2004, André Letria publicou, como mencionámos, uma série de quatro volumes com a chancela da Ambar.

Sob a designação «Foxi & Meg», antropónimos das heroínas de todos os volumes, são editados *Na Quinta*, *No Teatro*, *As Férias* e *Os Opostos*, títulos que, por exemplo, no caso deste último, viria a transmutar-se em filme de animação em língua inglesa (<https://vimeo.com/17635984>). No último volume mencionado, sucedem-se os antónimos «Alegre/Triste», «Dia/Noite», «Lento/Rápido», «Cheio/Vazio», «Seco/Molhado», «Perto/Longe» e «Fechado/Aberto». Cada uma das coprotagonistas, Foxi, a raposa, e Meg, a galinha, é colocada em circunstâncias que recriam os opostos



Fig. 1. Coleção «Foxi & Meg».

enunciados. Pautado pela simplicidade e por uma arquitetura dicotómica, este é o volume no qual os indícios de narratividade são mais ténues e no qual, em contrapartida, a intencionalidade educativa é mais acentuada.

Com efeito, conforme propõem cataforicamente os breves peritextos patentes na contracapa de cada uma das obras, em *Na Quinta*, *No Teatro* e *As Férias*, as duas personagens animais antropomorfizadas surgem recriadas visualmente em situações sequencializadas e que são sempre antecedidas de uma imagem singular, com uma legenda nominal, semanticamente relacionada com a temática proposta por cada um dos títulos. Assim, em *Na Quinta*, registam-se palavras do universo animal, para, junto a cada uma, ocorrerem pequenos quadros nos quais se representam as personagens desempenhando algumas ações perto dos animais recriados visualmente. Em *No Teatro*, aos vocábulos «Bilhete», «Plateia», «Cortina», «Cenário», «Luz» e «Meg actriz» e à sua representação visual, à qual se junta uma legenda (nominal), segue-se a imagem de Foxi e Meg, em situações distintas, como a compra de um bilhete, estar sentado na plateia, estar no palco, entre outras, devidamente sequencializadas. Na mesma linha, o volume *As Férias* conjuga o registo verbal e visual, apresentando as palavras «Mala», «Avião», «Hotel», «Toalha», «Peixe» e «Côco», seguido de seis ilustrações dominadas pelas duas heroínas da coleção. Também no caso deste texto verbo-icónico se observa uma disposição que revela uma lógica organizativa de carácter espaço-temporal em sequências nas quais se pode constatar um encadeamento e/ou uma progressão.

Em formato reduzido e impressos em papel cartonado, estes livros-álbum primam pela simplicidade compositiva e por um uso muito apelativo/forte e contrastivo da cor. Embora não possuam uma narrativa devida ou integralmente composta, estes volumes possibilitam ao pequeno leitor imaginar uma história, ao mesmo tempo que contacta com um conjunto de palavras que poderá apreender, aprender ou consolidar. Note-se que estes livros integram categorias da narrativa como as persona-

gens e o próprio espaço (tanto físico, como psicológico), além da sugestão de algumas ações, sequencializadas, na maioria dos casos, a partir do encadeamento, como mencionámos.

Deste modo, entre as palavras e as ilustrações, articulando-se ambas no sentido da concretização de um efeito total [18, 193], celebram-se relações diversas. Se, por um lado, as imagens servem para materializar visualmente ou objetivar cada um dos vocábulos (e estes, por seu turno, poderão ser entendidos como legendas daquelas), por outro lado ou ainda, funcionam como representação de espaços físicos e de ações, por exemplo, servindo de anúncio de uma (potencial) narrativa. Entre o discurso verbal – contido e, praticamente sempre, assente numa sucessão de nomes – e o discurso visual, profuso e especialmente empenhado em substantivar as palavras, observa-se uma interação concomitante de repetição, de redundância e de colaboração [15] que, na verdade e em última instância, não deixa de possuir uma raiz didática. Esta não elide, porém, em nosso entender, o carácter estético (ou as suas qualidades artísticas) desta coleção. Acresce, ainda, a função de amplificação, já que oferece um registo (visual) suplementar e abre novas interpretações.

Em conclusão, estes quatro livros de André Letria, livros-álbum especialmente destinados a pré-leitores, de notória qualidade, marcadamente criativos, são um excelente exemplo da restrita edição de autoria portuguesa de obras deste género, uma área que continua a ser visivelmente lacunar em Portugal.

2.1.2. Os Atividários Mar, Teatro e Dança, de André Letria com Ricardo Henriques e Inês Fonseca Santos

Da esquerda
para a direita:

Fig. 2. Capa de *Mar*.

Fig. 3. Capa de *Teatro*.

Fig. 4. Capa de *Dança*.



Numa linha igualmente criativa, os atividários coassinados por Ricardo Henriques e André Letria (*Mar* e *Teatro*) e Inês Fonseca Santos e André Letria (*Dança*) ostentam um conjunto de singularidades que os distinguem não apenas dos exemplares que integram a série «Foxi & Meg», mas também de qualquer volume de similar categoria editado em Portugal e/ou com autoria portuguesa.

Rompendo com modelos, a partir, na verdade, do próprio cruzamento ou mistura de formas e géneros, em concreto do abecedário, aqui substantivado e expandido, tocando a configuração de um dicionário e do livro de atividades, *Mar* (Pato Lógico, 2012), *Teatro* (Pato Lógico, 2015) e *Dança* (Pato Lógico, 2022) – cada um deles, como o título propõe catafori-

camente, construído a partir de um núcleo temático clara ou objetivamente fixado – apresentam a definição/explicação de mais de duas centenas de vocábulos, pertencentes aos campos lexicais em pauta, aos quais se juntaram quase uma centena de propostas de atividades ou desafios. Estas atividades revestem-se de um evidente carácter imaginativo, destacando-se pela sua criatividade [vide, por exemplo, 10, 32-33; 55].

Precisão, exatidão e autenticidade, que, neste caso, decorrem naturalmente de um sério trabalho autoral de investigação, sistematização e síntese, são as marcas expectáveis e, de facto, observáveis nestas obras. Nestas, também se nota um discurso simples e vivo, que se pretende próximo do potencial destinatário (aliás, esta tentativa de proximidade é bem visível em segmentos como na entrada «Ufa!» presente na página 58 de *Teatro*), aspeto refletido em expressões como «Grande Pinta» [10, 43], e que apela abertamente à sua ação. Formas verbais no modo imperativo e seguidas de exclamação, como «Respira!» [10, 42] ou «Disparata» [10, 43], revelam o desafio actancial que o texto vai oferecer.

Uma nota, ainda, para assinalar o facto destas obras, sendo livros factuais ou fundamentalmente alicerçados no mundo empírico ou histórico-factual, oferecerem também breves trechos de cariz ficcional, bastante estimulantes do ponto de vista da imaginação e da criatividade.

Graficamente, as obras em análise possuem um formato ou uma dimensão considerável, refletindo uma especial ponderação técnico-compositiva, designadamente pela conciliação de texto sequencializado a partir do próprio alfabeto, colocado em colunas, com a disposição, em paralelo, de caixas de texto predominantemente retangulares, mas também, por vezes, até circulares [10, 49], que apresentam alusões a pormenores ou curiosidades, por exemplo, e, ainda, de esquemas muito elucidativos [10, 16-17], imagens legendadas [10, 46 e 47; 9, 36-37] ou de ilustrações que exemplificam e esclarecem com particular eficácia [10, 45]. O *design* da página, na qual coexistem texto e ilustração, afigura-se, portanto, equilibrado e sensato. Os jogos visuais consubstanciam-se, ainda, a partir da oscilação cromática, muito embora se constate uma relativa economia a esse nível, na medida em que o azul, o amarelo alaranjado e o rosa forte, para *Mar*, para *Teatro* e para *Dança*, respetivamente, são as cores eleitas, surgindo conjugadas apenas com o branco e os tons de cinza.

Além disso, é notória a presença de um conjunto significativo de ilustrações muito imaginativas [10, 65], dispostas diversamente nas páginas, quer sejam em página singular, quer em páginas duplas [10, 58-59]. Exemplares são, por exemplo, alguns frisos ou tiras visuais [10, 20-21, 50-51, 70-71] ou, ainda, algumas imagens representativas de figuras humanas [9, 34, 52] [10, 35, 49, 56] ou de alguns objetos e instrumentos [9, 14] associados às temáticas tratadas.

De facto, a configuração destes três volumes permite-nos assinalar uma certa desformalização do livro e da própria veiculação de conteúdos que podem ser obviamente lidos como formais, mas que ganham aqui uma película artística, unindo-se a propostas desafiadoras de universos tão distintos como o cinema, a música, a pintura ou a expressão visual e plástica, a dramatização, a dança, a própria escrita criativa, entre outros.

Neste tríptico, as ilustrações desempenham, pois, no essencial, funções como: objetivar o texto verbal ou demonstrar visualmente os conteúdos veiculados (quando, por exemplo, se apresentam mapas, plantas de espaços, entre outros, associados a legendas); clarificar conceitos; fornecer instruções para construir objetos, para concretizar jogos ou tarefas; e ornamentar ou embelezar, dotando o volume de subjetividade e contri- buindo, em certa medida, para um relativo hibridismo.

2. Considerações finais

As duas séries de obras aqui revisitadas comprovam aquilo que, no início deste breve estudo, designámos «dilema terminológico». Nomeá-las como “livros de conceitos” afigura-se como ajustado, visto que, nestes, o alicerce é precisamente a palavra e o seu significado. Paralelamente, a opção pelas designações “livros informativos” ou “livros formativos” também parece adequada, na medida em que propõe informação e, no âmbito dessa proposta, se abre a possibilidade de aprender vocabulário, por exemplo, e, assim, progredir no sentido de uma formação/competência linguística.

Efetivamente, num apelativo “entre-caminho”, no qual se cruzam características próprias dos livros formativos didáticos – estes com uma ostensiva intencionalidade pedagógica – e dos livros formativos literários – nos quais a vertente ficcional e a essência estética são estruturantes e, por isso, tidos como objetos artísticos muito relevantes para uma educação/formação literária –, os volumes analisados apresentam a informação organizada a partir da linguagem e ordenada, no último caso, segundo a ordem alfabética [7, 161]. Almejando, apenas em parte, a objetividade e conjugando as funções metalinguística e informativa da linguagem, aspecto para o qual muito contribuem as imagens que expandem e reforçam as palavras, estas obras evidenciam um carácter estético, por exemplo, pela evocação de narrativas ou de trechos ficcionais e, assim sendo, supõe-se igualmente a presença da função poética da linguagem³.

Acentue-se o facto de talvez o elemento que melhor diferencie estes volumes seja, de facto, a imagem/a ilustração, colocada em conjunto e associada a palavras ou a expressões que, geralmente, cumprem a função de legenda e têm como objetivo ser progressivamente reconhecidas pelo pequeno leitor. De certo modo, são, portanto, no caso da série «Foxi & Meg» aquilo que Teresa Duran designa como livros de imagens, propondo para estes a designação por si cunhada de «imagiários», que entende como livros dirigidos à etapa dos 0 aos 6 anos, compostos por «um conjunto de imagens soltas, encadernadas como um livro, cujo fim é apenas “reconhecer” o que representa aquela figura» [6, 85]. Em outros casos, como referimos, na composição verbo-icónica de características híbridas, pressentem-se sintomas de uma subtil sequencialização, de temporali-

³ Neste caso, as referências às funções informativa, metalinguística e poética são assumidas no contexto teórico das funções da linguagem concebidas por Roman Jakobson. Estas são classificadas em cinco tipos: função referencial ou informativa, função emotiva, função poética, função fática, função conativa e função metalinguística. Cada uma desempenha um papel relacionado com os elementos presentes na comunicação: emissor, recetor, mensagem, código, canal e contexto. Sinteticamente, estas delimitam ou sugerem a intenção do enunciador. Por outras palavras, trata-se da forma como a linguagem é mobilizada para atingir um determinado objetivo. A função poética é aquela centrada na construção estilística ou estética do texto.

dade e de espacialidade. Como tivemos a oportunidade de explicitar em outro contexto [19], estes livros, compostos por palavras e ilustrações, permitem vários tipos de exploração, sendo as mais comuns as atividades de identificação de objetos, de os nomear e de relacionar, para além de poderem promover a colaboração da criança no reconto de pequenas histórias imaginadas e, por vezes, apenas insinuadas no registo verbo-icónico.

Fundamentais do ponto de vista do desenvolvimento e conformação da linguagem, do aprimoramento da percepção e relacionamento entre imagens e palavras e, até, do conhecimento do mundo, os livros que motivaram este breve estudo serão tanto mais formativos, a vários títulos, quanto mais forem colocados em conjunto e a par de outros verbal, visual ou graficamente distintos, tanto não ficcionais como ficcionais. Em todos, parece indiscutível: as ilustrações são estruturantes e imprescindíveis, sendo a sua função crucial, do ponto de vista da conformação do sentido global da mensagem aí partilhada.

3. Referências bibliográficas

1. Appleyard, J. A. *Becoming a reader*. Cambridge: Cambridge University Press (1991).
2. Bastos, G. *Literatura Infantil e Juvenil*. Lisboa, Universidade Aberta (1999).
3. Carter, B. *Lectura eferente. Importancia de los libros de información*. Caracas (Venezuela), Banco del Libro (1991).
4. Carlson, A. *Concept books and young children* - disponível em <http://comminfo.rutgers.edu/professional-development/childlit/books/CARLSON.pdf> (s./d.) (consultado no dia 12 de Julho de 2016).
5. Delahie, P. *J'aime les livres avant six ans*. Alleur, Marabout (1995).
6. Duran, T. *Leer antes de leer*. Madrid, Anaya (2002).
7. Garralón, A. *Ler e Saber. Os livros informativos para crianças*. São Paulo, Editora Pulo do Gato (2015).
8. Garralón, A. «Ficção e informação. Tendências nos livros informativos» - disponível em <http://www.revistaemilia.com.br/mostra.php?id=126> (s./d.) (consultado no dia 26/02/2017) (Artigo originalmente publicado na Revista CLIJ, n.º 166).
9. Henriques, R. e Letria, A. *Mar*. Lisboa, Pato Lógico (2012).
10. Henriques, R. e Letria, A. *Teatro*. Lisboa, Pato Lógico (2015).
11. Letria, A. *Na Quinta*. Colec. «Foxi & Meg». Porto, Ambar (2003).
12. Letria, A. *Os Opostos*. Colec. «Foxi & Meg». Porto, Ambar (2003).
13. Letria, A. *No Teatro*. Colec. «Foxi & Meg». Porto, Ambar (2004).
14. Letria, A. *As Férias*. Colec. «Foxi & Meg». Porto, Ambar (2004).
15. Linden, S. V. der. *Lire l' album. Le Puy-en-Velay, L'atelier du poisson soluble* (2007).
16. Linden, S. V. der. *Tout sur la Littérature Jeunesse De la Petite Enfance Aux Jeunes Adultes*, Galimard Jeunesse (2021).
17. Nikolajeva, M. e Scott, C. *Livro ilustrado: palavras e imagens*. São Paulo, Cosac Naify (2014).
18. Nodelmann, P. *Words about pictures*. Athens, Georgia, Georgia University Press (1988).
19. Ramos, A. M. e Silva, S. R. da. *Leitura do berço ao recreio: estratégias de promoção da leitura com bebés*. In: Viana, F. L., Ribeiro, F. e Baptista, A. (coord.). *Ler para Ser: os caminhos antes, durante e... depois de aprender a ler*, pp. 151-176. Coimbra, Almedina (2014).
20. Ramos, A. M. e Sempériz, M. *Las tendencias del libro de non fiction em España e Portugal: um estudio exploratório em el ámbito editorial*. In: *Tejuelo*, n.º 37 (2023), 129-160 (2023).
21. Rosenblatt, L. *La literatura como exploración*. México, Fondo de Cultura Económica (2002).
22. Santos, I. F. e Letria, A. *Dança*. Lisboa, Pato Lógico (2022).
23. Vasconcelos, A. C., Rodríguez, M. N. e Silva, S. R. da (coord.). *Primeiros Leitores. Primeiras Leituras*. Porto, Tropelias & C.^a (2017).



Narrativas no contexto de Web Design, um olhar sobre novos modos de leitura

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Album narrative, Album ilustrado, Ilustração, Interatividade, Web Design

Abstract

O tradicional livro ilustrado impresso em papel tem assistido, a partir dos finais do séc. XX, a novas formas de exploração interativa de uma narrativa visual. Desde o Cd-rom digital, passando pelos écrans de telemóveis e tablets onde se assiste ao surgimento da narrativa no contexto Web, a leitura de uma narrativa ilustrada faz-se agora com a utilização de novos recursos interativos como o scrool, a ativação por click, parallax ou introdução do som. É uma breve reflexão sobre esta evolução que pretendemos abordar com alguns dos seus exemplos mais emblemáticos.

1. Sobre o Álbum Narrativo

Desde os finais do séc. XIX que o livro ilustrado tem sido um suporte físico relativamente inalterado: o miolo, protegido por capa e contracapa, permite a fruição do desenrolar da narrativa a partir do virar sequencial das páginas em papel. Essencialmente a partir do final do séc. XX, assistimos a uma rápida evolução tecnológica que trouxe novas evoluções ao chamado livro tradicional.

Podemos dizer que o exemplo mais característico de um livro ilustrado é o álbum narrativo, também conhecido em Portugal por álbum ilustrado. É caracterizado pela sua relação entre texto e imagem, que se complementam em detrimento do significado da mensagem narrada apenas por uma história textual. Deste modo, os artistas começaram a preocupar-se com a sintonia das palavras e com a mensagem da narrativa. Assim, o álbum narrativo, (*o picture book* na versão anglo saxónica) é caracterizado pela relação semântica definida pela imagem e pelo texto (Rodrigues, 2009).

Este género editorial surgiu no final do séc. XIX, com as publicações de Randolph Caldecott e ganhou notoriedade nos anos 1960/1970, nos Estados Unidos, Reino Unido, Alemanha e França e mais tarde em 1980/1990, surge, timidamente, explorado em Portugal através de alguns artistas como Leonor Praça, Maria Keil, Cristina Maquias e Manuela Bacelar. Posteriormente, a área do álbum narrativo foi crescendo contando assim com cada vez mais artistas prestigiados como é o caso, atualmente, de Alain Corbel, André Letria, André da Loba, Bernardo Carvalho, Gémeo Luís, Inês Oliveira, Madalena Matoso, Marta Torrão e muitos mais.

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As narrativas inseridas nos álbuns ilustrados, por norma, representam momentos do quotidiano. Deste modo, os autores não consideram o universo narrativo um elemento palpável, mas sim subjetivo, pois a narrativa é criada a partir dos acontecimentos que os rodeiam, no qual é apenas uma das realizações possíveis (Herman, 2009).

Outra característica deste género é o seu desenvolvimento gráfico, unindo a ilustração, texto, design e edição. Através do relacionamento das ações das personagens, características físicas e psicológicas e todo o cenário envolvente, o leitor consegue analisar a história como um todo e não de forma isolada (Bordwell, 2014). Com a evolução das novas tecnologias e meios de comunicação, cada vez mais presentes no dia a dia, foi essencial criar, adaptar e transformar a forma de ler uma história. Desta forma, os artistas começaram a ter interesse em inovar e adaptar a relação entre a palavra e a imagem, usando assim novas formas, formatos e dimensões para combinar a modalidade verbal com a ilustração.

Muitos são os livros, principalmente na área da literatura para crianças e jovens, que utilizam a ilustração de forma a acompanhar o texto. Esta prática passou a ter um papel essencial nesta área visto que consegue cativar os leitores mais novos a esclarecer e interpretar a narrativa. Neste sentido, a tipografia pode ser utilizada de variadas formas, tendo em primeiro lugar uma relação formal, relativamente ao espaço em que o texto ocupa e de que forma é inserida na ilustração. O seu objetivo é sobretudo que seja compreendida e lida, mas também acaba por fazer parte da composição visual, sendo assim importante pensar nela como um elemento gráfico que se encontra integrado na ilustração. Existem, assim, variadas formas de trabalhar o texto e a imagem numa narrativa visual.

Por outro lado, a relação entre estas duas modalidades também pode ser obtida a nível semântico. Antigamente, a ilustração tinha uma função mais pedagógica e realista, representando a realidade tal como ela era, porém, quando surgiu a fotografia, os artistas passaram a ter mais liberdade na concretização das suas ilustrações. Começaram a poder interpretar o texto sem ser de forma literal, podendo recorrer a mecanismos como o antropomorfismo, como é muito recorrente na área das fábulas, a personificação, bem como a metáfora.

Consequentemente, a ilustração começou a conquistar outros valores através de uma forma conceptual, podendo estar assim simultaneamente ao mesmo nível do texto, uma vez que a imagem interpreta as palavras de uma forma mais expressiva. Ou seja, a ilustração é guiada pelo texto, mas não tem a necessidade de se limitar à sua representação.

Porém, Linden (2003), citado por Saraiva (2013), menciona que apesar de ambas as modalidades se relacionarem, é importante compreender alguns elementos paratextuais que possam existir, estudar e interpretar a narrativa e a intervenção híbrida que existe entre o texto e a ilustração nos álbuns narrativos.

Deste modo, de forma a haver uma melhor compreensão da narrativa, Necyk (2007) no seu estudo sobre o livro ilustrado contemporâneo, dá relevância a Nodelman (1988) através do seu livro *Words about Pictures*, onde enfatiza o papel da imagem relativamente ao texto. Uma vez que

a ilustração tem tido uma grande importância para a leitura dos jovens, Nodelman (1988), considera que a publicação *Orbis Sensualium Pictus, de Comenius* (1657), é um *picture book*, visto que é conhecido por ser o primeiro livro infantil que utiliza ilustrações a acompanhar um texto.

No entanto, na Era de Ouro da ilustração em meados do século XIX, vários autores começaram a diferenciar os álbuns narrativos mais antigos dos atuais. Autores como Nikolajeva & Scott (2011) e também Linden (2006) estudaram as várias terminologias sobre os *picture books*, porém, divergem nas suas opiniões. Enquanto as primeiras autoras defendem a independência da imagem e do texto de forma subjetiva, Linden considera a relação entre texto e imagem mais objetiva.

Posto isto, o álbum narrativo não é só caracterizado pela sua narrativa verbal, mas também visual, de forma a corresponder ao texto, usando a interpretação não linear como meio para criar novas narrativas. Deste modo, a imagem pode ter mais informação e novos elementos, de forma a facilitar a leitura da narrativa e com o objetivo de conquistar uma certa qualidade artística (Jalongo, 2004).

2. Literatura Digital

Através do desenvolvimento das novas tecnologias, os meios de comunicação cada vez mais foram evoluindo, comprometendo assim a durabilidade do livro impresso (Chartier, 1999). Deste modo, foram criadas novas ferramentas digitais para um novo meio hipermídia e digital de forma a adaptar a forma de leitura (Santaella, 2013).

Cada vez mais cedo as crianças e jovens têm acesso a vários dispositivos móveis, deixando de parte o livro impresso. Porém, existem várias opiniões sobre o tema, podendo gerar assim, diferentes argumentos. Por exemplo, Richtel e Bosman (2011), citado por Bruno Pinto (2013), afirmam que muitos estudiosos ainda preferem o livro impresso, pois consideram que o toque, o formato e o facto de poderem manusear o livro é muito importante na fase de aprendizagem. No entanto, El Far (2006) considera que os dispositivos móveis como o computador, trouxeram novas ferramentas, que consequentemente criaram uma nova experiência de leitura, mais dinâmica e estimulante através da interatividade.

A partir dessas ferramentas digitais, surgiram assim os primeiros livros digitais em 1971, nos EUA por Project Gutenberg, porém, nessa época, a adaptação feita do livro impresso para o digital não era a correta, uma vez que se tratava de uma digitalização do livro (Miller, 2014). Deste modo, Yokota (2014), afirma que o processo de adaptação foi um pouco moroso, podendo assim realçar algumas fases de evolução dos livros digitais. Inicialmente, os livros eram simplesmente digitalizados para a web sem sofrerem qualquer alteração (figura 1), enquanto numa segunda fase já começaram a inserir algumas ferramentas digitais como é o caso das diferentes perspetivas que o computador disponibiliza, começando assim a surgir as animações (figura 2). Numa última fase, os livros digitais começaram a surgir como aplicações, uma vez que a adaptação já era totalmente interativa e dinâmica, visto que usufruía de ferramentas digitais que interagiam com o leitor (figura 3).

Com a evolução da tecnologia, cada vez mais os artistas começaram a pré-determinar a narrativa através de alguns elementos, não só o cuidado com o layout, texto, imagens, como também com ferramentas digitais como os links e o desenvolvimento das apps. Desta forma, os artistas tinham como principal objetivo a interação entre o espectador e a história (Hunt, 2010).

Com isto, através do estudo sobre a adaptação da narrativa impressa para o suporte digital e os futuros benefícios das novas ferramentas, Yokota (2014), afirma que é importante que a narrativa contenha um conjunto de elementos gráficos e dinâmicos. A ilustração, o texto, o som, a interatividade, a imagem em movimento e até mesmo as atividades com o espectador, são um meio essencial para criar uma narrativa mais expressiva e interativa.



Fig. 1, 2 e 3. When Sophie gets angry-really, really angry, 1999; The Æsop for Children, 1919; Alice for the ipad, 2010.

3. Interatividade no contexto de Web Design

A interatividade é um processo entre dois participantes que comunicam entre si através de ações e também inputs e outputs que podem decorrer na narrativa (Crawford, 2013). A partir da prática da usabilidade, das novas ferramentas e meios tecnológicos, os artistas melhoraram a relação que existe entre o homem e a máquina. Desta forma, a interação não só corresponde a uma troca de comunicação entre o dispositivo e o leitor, como também depende dos novos meios tecnológicos.

Segundo Moraes (1998), existem três níveis de evolução da interatividade. O primeiro nível diz respeito a uma comunicação linear por parte de um dos participantes, como acontece na leitura dos jornais. No segundo nível, já existe uma comunicação por parte dos dois participantes, tendo ambos um papel mais participativo, como acontece na interação com os computadores. Por fim, o terceiro nível contém uma interação totalmente ativa com o produto final, podendo participar de forma mais dinâmica no projeto. Deste modo, o computador é o meio mais interativo entre a relação do homem e máquina, comparativamente com o jornal que é um meio mais limitado. No entanto, é importante sabermos que o homem tem um papel mais participativo do que a máquina, uma vez que a interação que pode existir depende de vários fatores como a velocidade, a amplitude e o mapeamento da narrativa. Apesar de existirem algumas limitações, pois normalmente os produtores do site já têm as escolhas predeterminadas, continua a existir vários graus de interação como é o caso da interação linear; interação hierárquica; interatividade de suporte; interatividade de simulação e interatividade de hiperlinks.

Sims, citado por Almeida (2003), menciona estas interações de forma a simular a interação que possa existir entre o site e o espectador. Assim, através dessa predeterminação e o uso de algumas ferramentas, como o som,

elementos gráficos e o uso da ilustração, é possível criar uma narrativa mais realista, como podemos visualizar na imagem 4. Deste modo, a interatividade no contexto web fez com que houvesse uma conexão entre o leitor e os novos meios digitais, de uma forma mais autónoma e controlada.

Fig. 4. Conjunto de imagens da aplicação “Hat Monkey” de Chris Haughton, 2014.



4. Narrativas no contexto de Web Design

Perante a evolução da tecnologia e ferramentas digitais, é possível perceber que a área da ilustração foi evoluindo consoante os avanços tecnológicos. A ilustração passou a ter um papel fundamental na narrativa em relação ao texto, principalmente na literatura para crianças e jovens. A sua função inicialmente era de acompanhamento, mas mais tarde, por vezes, passou a substituir o texto. Porém, a sua principal função é comunicar uma mensagem, podendo ser uma interpretação mais realista da narrativa ou mais abstrata, beneficiando assim a sua leitura.

Uma vez que cada vez mais o uso de dispositivos móveis era comum, em 1990 surgiram pela primeira vez narrativas no meio digital. O objetivo era tirar partido das ferramentas digitais que existiam na época e integrá-las na narrativa, podendo assim ter uma experiência de leitura diferente. No entanto, as primeiras adaptações para a web eram simplesmente digitalizações dos livros ilustrados, não conseguindo chegar ao seu propósito. Desta forma, autores como Junko Yokota e William H. Teale (2014), não concordaram com a adaptação feita, pois acham que a diferença de suportes não traz muita novidade, uma vez que tudo o resto se mantém. Ou seja, deveria existir um cuidado em desenhar o objeto tendo em conta as ferramentas digitais, dimensão e forma.

Com a evolução e descoberta de novas ferramentas digitais, vários artistas começaram a explorar novas formas de interação e adaptação das narrativas no contexto web. Tirando partido de novas possibilidades, como é o caso do uso do movimento e do som, começaram a surgir narrativas digitais que inovadoras, como é o caso do CD-Rom *Just Grandma and Me* lançado pela editora Random House e a Broderbund em 1992.

Nesta época, a área da tecnologia aumentava o seu desenvolvimento, trazendo consigo várias ferramentas digitais e meios de comunicação, como é o caso do iPad e os telemóveis sem teclas, disponibilizando assim um suporte de maior ecrã. Deste modo, os artistas perceberam que existia uma oportunidade de criar uma nova experiência de leitura de forma a “contar histórias de maneiras que o formato impresso não consegue”

(Yokota, 2015, p.82). Assim, começaram a surgir os primeiros livros digitais para os tablets, como é o caso de *Alice for the iPad* de Lewis Carroll, que é uma adaptação de *Alice no País das Maravilhas* (figura 5).

Esta adaptação é conhecida pela inovação das ferramentas digitais, que fez com que pudéssemos ter mais interação com a narrativa, através do manuseamento do tablet relativamente ao decorrer da história. Outras adaptações conhecidas dessa época é a versão do livro ilustrado *The Heart and The Bottle* de Oliver Jeffers, que é caracterizado pelo uso de efeitos sonoros e movimentos para narrar a narrativa (figura 6). Também a app *The Fantastic Flying Books of Mr. Morris Lessmore*, de William Joyce, é um perfeito exemplo de adaptação para a web, uma vez que foi uma das primeiras apps a serem desenvolvidas para crianças, visto que a história é inspirada numa curta metragem de animação (figura 7).

Sendo a interação o grande foco dos artistas nestas adaptações, começou a existir cada vez mais uma preocupação com a relação entre texto e imagem, com as ferramentas digitais e com a pré determinação das mesmas. Desta forma, era escolhido um meio em que o leitor pudesse fazer escolhas ao longo da narrativa, sendo uma narrativa linear



Fig. 5, 6 e 7. *Alice for the Ipad* (2010); *The Heart and the Bottle* (2009); *The Fantastic Flying Books of Mr. Morris Lessmore* (2011).

ou não. Assim, o utilizador pode mudar a disposição de alguns elementos ao longo da narrativa, ou até mesmo seguir caminhos paralelos, podendo influenciar a narrativa, mas nunca mudá-la totalmente como é o caso das narrativas *The Boat*, *Nasa Prospect* e *Lil' Red*.

The Boat é um projeto animado e interativo baseado numa história de Nam Lee, que expõe a imigração ilegal na Austrália, analisando a imigração do Vietnã nos anos 70. Produzido pela SBB (Special Broadcasting Service) e adaptado por Matt Huynh, em 2015, através de ilustrações em quadrados, quase como se de uma banda desenhada se tratasse (imagem 8). Nesta adaptação, o artista decidiu utilizar uma técnica híbrida, juntando a tecnologia web e ilustrações manuais de tinta da china. Deste modo, com o uso de diferentes técnicas, como é o caso do som, da animação, histórias paralelas, ilustrações expressivas, deformações de textos e ferramentas digitais como o scroll, o artista, através de diferentes meios de comunicação, consegue dar ao espectador uma experiência de leitura diferente e mais parecida com a realidade da história, sentindo-se assim imerso na narrativa.

O projeto *NASA Prospect* ao contrário do *The Boat*, é uma narrativa criada de raiz, tendo assim também que pensar em toda a narrativa verbal, uma vez que não segue uma história já criada. Este exemplo é um site

Fig. 8, 9 e 10. The Boat

(2015) – Site interativo:

[https://www.sbs.com.au/theboat/;](https://www.sbs.com.au/theboat/)

NASA Prospect

(2013) – Site interativo:

http://nasapropect.com/?fbclid=IwAR1_NsokQ9O3PKQKAJF-V-7zUcDN8lTU5gYc-JWTqnY5rTxZ-uDXFS-nzxleVQ;

Lil'Red (2013)

App interativa: [https://appadvice.com/app/](https://appadvice.com/app/lil-red-an-interactive-story/561436050)[lil-red-an-interactive-story/561436050.](https://appadvice.com/app/lil-red-an-interactive-story/561436050)

online desenvolvido pela NASA, com o objetivo de informar melhor o público sobre o sistema solar (imagem 9). Deste modo, em parceria com os estudantes de design da Universidade de Dakota do Sul e o concurso internacional de arte juvenil (*Human in Space Art*), criaram uma narrativa interativa no contexto web, pois a internet é o meio de comunicação mais usado nos dias de hoje. Esta narrativa é destacada pelo uso da ilustração vetorial e por toda a pré determinação do uso de várias ferramentas digitais como o som, o scroll, o parallax e o click, conseguindo assim criar uma narrativa simples, apelativa e comunicativa, que era esse o principal objetivo.

Por fim, destacamos também o projeto Lil'Red que é uma app online baseada na história do Capuchinho Vermelho, criada por Brian Main em 2013 (imagem 10). O público-alvo deste projeto é maioritariamente as crianças e jovens. Desta forma, o autor quis passar uma experiência mais calma, minimizando o medo da história. Para isso, através de uma narrativa animada e divertida, focou-se apenas nas ilustrações e nas animações, não recorrendo ao texto (Bircher, 2016). A composição visual destaca-se assim pela sua profundidade de planos, pelo uso de ferramentas digitais como o click facilitando a mudança de planos, uma vez que a narrativa é horizontal e também pelas animações automáticas. Assim, o artista desenvolve uma comunicação clara e uma visão mais emocional à narrativa, proporcionando uma experiência de leitura diferente da habitual.

5. Conclusão

Posto isto, podemos verificar que devido ao progresso dos meios digitais e ao desenvolvimento de várias técnicas de impressão, a imagem cresceu e começou a tomar partido de várias ferramentas digitais, fazendo com que a ilustração evoluísse. Este crescimento foi intenso e houve momentos em que se pôs em causa o desaparecimento do livro ilustrado. Porém, o objetivo nunca foi terminar com o livro, mas sim adaptar e inovar a ilustração ao meio digital. A web fornece ferramentas que o livro impresso não consegue disponibilizar e que são importantes nos dias de hoje em que o meio digital é onnipresente, sendo que também estimula de forma diferente o leitor e consegue uma interação mais dinâmica. Deste modo, através de uma antecipação e predeterminação de ferramentas, as narrativas digitais conseguem ter um papel mais ativo na leitura, em que o público-alvo pode ser um participante ativo na narrativa.

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6. Referências Bibliográficas

1. Almeida, C. (2003). Novas Tecnologias e Interatividade: Além das interações mediadas. *DataGramaZero - Revista de Ciência da Informação*, Volume 4, n.4.
2. Crawford, C. (2013). *Chris Crawford on Interactive Storytelling* (2a ed.). New Riders.
3. El Far, A. (2006). *O livro e a leitura no Brasil*. Rio de Janeiro: Zahar.
4. Herman, D. (2009). *Basic elements of narrative*. United Kingdom: John Wiley & Sons.
5. Hunt, P. (2010). *Crítica, Teoria e Literatura Infantil*. São Paulo: Cosac Naify.
6. Jalongo, M. R. (2004). *Young Children and Picture Books* (2a ed.). Washington: National Association for the Education of Young Children.
7. Miller, C. H. (2014). *Digital storytelling: A creator's guide to interactive entertainment*. Taylor & Francis.
8. Necyk, B. (2007). *Texto e imagem: um olhar sobre o livro infantil contemporâneo*. [Dissertação de mestrado do Programa de Pós-Graduação em Design do Departamento de Artes & Design do Centro de Teologia e Ciências Humanas, PUC-Rio].
9. Nikolajeva, M., Scott, C. (2011). *Livro ilustrado: palavras e imagens*. São Paulo: Cosac Naif.
10. Nodelman, P. (1988). *Words about pictures: The Narrative Art of Children's Picture Books*. Georgia: The University of Georgia Press.
11. Pinto, B. (2013). *Álbum Narrativo Digital: Uma nova forma de edição*. [Dissertação de Mestrado, Faculdade de Engenharia da Universidade do Porto]. Repositório Aberto da Universidade do Porto. <https://hdl.handle.net/10216/68657>.
12. Crawford, C. (2013). *Chris Crawford on Interactive Storytelling* (2a ed.). New Riders.
13. Saraiva, J. (2013). *O Álbum Narrativo em Portugal na Passagem do Século XX para o Século XXI: Um Estudo sobre a Relação entre a Ilustração e o Leitor-modelo*. [Tese Doutoramento, Faculdade de Belas Artes da Universidade do Porto] Repositório Aberto da Universidade do Porto. <https://hdl.handle.net/10216/74119>.
14. Yokota, J. & Teale, W. H. (2014). *Picture Books and the Digital World - Educators Making Informed Choices*. *The Reading Teacher*, Volume 67, Issue 8 (pp.577-585). International Reading Association.
15. Yokota, J. (2015). *The Past, Present and Future of Digital Picturebooks for Children*. Mireia Manresa & Neus Real (Eds.), *Digital Literature for Children - Texts, Readers and Educational Practices*. Presses Interuniversitaires Europeenes Peter Lang.

7. Referências Eletrônicas

1. Bircher, K. (2016). *Lil' Red: An Interactive Story app review*. Acedido em Agosto. Retirado de <https://www.hbook.com/story/lil-red-an-interactive-story-app-review>.
2. Bordwell, D. (2014, janeiro 12). *Understanding film narrative: The trailer* [post em blog]. Retirado de <http://www.davidbordwell.net/blog/2014/01/12/understanding-film-narrative-the-trailer/>.
3. Lee, N. & Huynh, M. (2015). *The Boat*. Acedido em Fevereiro. Retirado de <https://www.sbs.com.au/theboat/>.
4. NASA Prospect (2013). *NASA: Prospect*. Acedido em Setembro. Retirado de <http://nasaprospect.com>.
5. Richtel, M. & Bosman, J. (2011, novembro 20). *For Their Children, Many E-Book Fans Insist on Paper*. *The New York Times*. <http://www.nytimes.com/2011/11/21/business/for-their-children-many-e-book-readers-insist-on-paper.html>.
6. Rodrigues, C. (2009). *O álbum narrativo para a infância: os segredos de um encontro de linguagens*. Acedido em Outubro. Retirado de http://http://www.casadaleitura.org/portalfbeta/bo/documentos/ot_o_album_narrativo_para_a_infancia_b.pdf.



FURTHER STOPFRAME ADVENTURES IN VR

"The distant future of 3D cinema will see a leap as great as the one from L'Arrivée d'un train en gare de La Ciotat to the train engine in La Bête humaine." Bazin, A. (1952)

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Abstract

Following a successful proof of concept this paper presents further experiments in creating stop motion animation for an immersive virtual environment, using 360 capture of physical puppets and sets. It then looks at new concepts in editing, construction and exporting footage for VR Headsets.

1. WHERE DID WE GET TO?

"Virtual reality, as a narrative medium, through its interactivity and other particularities, presents characteristics that none of the previously mentioned narrative forms {traditional art and cinema} usually possess, and should be recognised as such." Aylett, R. and Louchart, S. (2003)

In my previous paper "Stop frame Adventures in VR" Edgar, T. (2023) [1] I argued that there was an absence of stop motion animation that could be experienced in VR due in part to the nascent nature of emergent technology and in part due to a resistance to new ways of film making. I began to investigate simple, user accessible methods to fill that gap and easily produce animation for VR consumption. Using readily acquired consumer 360 cameras and a link to Dragonframe software I demonstrated that a process to ingest these images provided a workable capture system that allowed for Stop frame animation to be created for a VR environment.

This research will now delve deeper into how we can create practical analogue animation captured in 360 and why watching it in VR might increase the immersive connection to the experience.

Aylett, R. and Louchart, S. (2003) [2] posit that a new narrative theory is needed to review Virtual Reality as a medium in itself, arguing that a balance must be struck between showing and telling, mimetic and diegetic exposition, and that both can be equally represented in the virtual world. They add "Aristotle's plot centered approach does not include interactivity between the author and the user as a possible factor or component of the narrative and this makes it hard to apply to VR without serious modification". This illustrates the tension between cinema's plot driven exposition approach to storytelling and the user freedom and agency provided by immersive film making.

Darnell. E, (2017) [3] further exclaims that VR is "not a movie" in describing the frameless nature of the environment where characters can

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address the viewer directly and include them within the narrative. Breaking the “forth wall” becomes intuitive and arguably a defining attribute of the virtual world, setting out a new methodology for virtual filmmakers.

Having successfully produced a proof of concept in my last research paper, the next part of the investigation concentrates on planning what will be seen when immersed in a Virtual Stop-frame animated world.

Building on the successes of the handful of stop motion artists working in this genre, such as Clyde-Henry, Isabel Peppard, Phil Tippet, Isobel Knowles and Van Sowerwine, [4] one begins to question what makes a narrative work in 360; what to show and how to manipulate the attention of the viewer and how to encourage them to follow the intended directorial path being described while allowing a degree of freedom and agency in the virtual space. Through interviews and collaborative partnerships it will be possible to broaden this research with these key players and develop understanding of their processes and methodologies.

2. WHY USE STOP MOTION?

Stop Motion Animation has a crucial role to play in this exploration of virtual film and story making, providing an intrinsic connection with materiality and identity for the viewer. Suzanne Buchan offers much needed definitions of the animated process and its attraction to the viewer when she says “By feeling empathy with animated forms and figures, spectators can experience an Otherness and, perhaps, joy and enchantment.”

A search of the historical precedents in stop motion animation reveal a sophisticated development of techniques and ingenuity in search of ever increasingly believable performances. From Stanislaw Starawitzc to Tim Burton, by way of Willis O’Brien and Ray Harryhausen, the need to create a character born of material construction that speaks to the audience in magical ways whilst hiding the mechanics of movement allows the animator to fully explore his own acting and reveals his hand in the filmmaking.

This observance of technique allows the audience a much-needed connection to the artist, revealing the “thumbprints in the clay” and forms at least a part of the appeal of stop motion animation over other forms of animated content. To believe the object presented is real, embodied of a tactility and materiality that we half recognise whilst still suspending our belief in a puppet “come to life” connects the observer in ways that are both familiar and also at a remove.

Birgitta Hosea, (2008), [5] quotes Barthes on the personalisation of the viewers role “...suddenly a specific photograph reaches me: it animates me, and I animate it. So that is how I must name the attraction which makes it exist: animation.” (Barthes, 2000 p.20). the observer of stopmotion animation brings their own attraction and engagement in the immersive world of virtual reality.

Suzanne Buchan goes further in defining the audience attraction to puppet animated films, “*I suggest the viewer’s reaction to this animated vitalist-cinematic dialectic is a combination of enchantment and of apprehension.*” Buchan, S. (2013) [6]

This “uncanny valley” of the inanimate come to life, the pet, toy or

monster, born of the playroom and now alive in front of us gives extra weight to the feeling that we are connected and involved in the narrative, placing the puppet in a real material space and giving us license to believe in what we are seeing more truthfully perhaps than limitless digital pixels provide.

A physical limitation where light and shadow, space and weight are felt to exist rather than are imagined connects us to the physicality of the process and an inherent understanding that what we are witnessing is an actual event, albeit one created through a frame-by-frame process of illusion and invention.

Finding an extra immersive dimension to this believed world brings the possibility of even deeper connection that “tricks” the viewer into believing that this space might exist and that they might join the narrative as a participant rather than a passive voyeur.

Its unique ability to offer an uncanny take on reality, using real materials to create a sense of familiarity and recognition whilst fracturing that reality to trick the viewer into unease, can immerse the audience in ways that the digital processes cannot. Carrying this recognition forward to create specific points of reference might allow for a stronger connection in the narrative and place the viewer concretely in the scene.

To capitalise on the twin immersive opportunities of Stopmotion and Virtual Reality we must look to a broader and more versatile output of media experiences that truly explore VR's capacity to provide an immersive connection with the audience. We must continue to develop and research ways that bring the full spectrum of excitement, knowledge, technique, and history to the future of film making.

3. WHAT ARE THE EXPERIMENTS?

“This is a cinema that displays its visibility, willing to rupture a self-enclosed fictional world for a chance to solicit the attention of the spectator.”
(Gunning, T., 2006) [7]

In my initial discoveries and experiments, presented at CONFIA 10, (2023), limitations were found with the methodology of capturing 360 images with consumer cameras and playing them back to control the animation process. Early experiments uncovered a lack of connectivity between the Dragonframe capture software and cameras, with limits to the resultant image quality that led to the use of a second “beauty” camera. This enabled the capture of high quality stored and live comparison images to be recorded which in turn allows for meaningful editorial decisions to be made between each frame.

Building on this practical and technical research, early experiments with the latest Ricoh Theta Z1 camera show improvements in creating a visual link to the shooting environment allowing Dragonframe to connect natively but still do not allow immediate working access to the full capacity of the 7k image to be used.

Experiments will continue, including remote shooting, an assessment of focus limits, exploring the manual controls and some collaboration with the capture software developers is still planned.

Physically supporting the camera from above the set has allowed me

to place the camera lens at the viewers eye level creating an image that would feel natural to the immersed viewer. This technique, with the camera no longer locked to the floor, eradicated tripod shadows and freed the camera to be moved via a motion control rig from above, similar to a dolly shot in live action. In this way the ceiling or sky might then be digitally inserted to disguise the rigging technology.

4. HOW WILL IT IMPROVE?

“VR is not a movie. It’s not a game, at least the direction that we’re taking it. You know, there’s no camera, there’s no screen, there’s no rectangle. There’s no fourth wall to break, so when a character looks at you, they’re just looking at you. You are in their world,” Darnell. E, (2017)

As Brian Allgeier notes in John Bucher’s “Storytelling for Virtual Reality” (2017), with traditional filmmaking, “we’re accustomed to doing cuts, having camera angles, and that’s something we can no longer do in all instances. The more cuts we do, the less immersive it becomes, because you’re always reminded that we’re shifting your viewpoint and you’re not really there.” Bucher, J. (2017) [3]

This presents an opportunity to re assess the use of editing in VR through an exploration of new methods of editing, the use of physical camera moves, how matte painting and clean plates can be used to remove unwanted captured areas to help further our understanding of animating in VR.

Further research areas include designing mounting rigs, for both camera and puppet careful arrangements of practical and environmental lighting and looking at access for animators to reach the puppets on the set to further test and develop the visual embodiment of performance where the puppet and audience interact.

The intended outcome of this research investigation is to define and refine the process, improve on the modified workflow. and finally produce an engaging 360 immersive short film for broadcast.

This practical configuration then asks the filmmaker a more fundamental narrative question; how to move the action, edit shots and change scenes in VR with a 360° camera. To illustrate the questions of how VR storytelling differs from traditional 2D film editing a short animated narrative offers the perfect device to demonstrate and interrogate the traditional production processes that would normally be employed to illuminate the differences between these techniques.

5. HOW DOES VR CHANGE THINGS?

“Human beings crave for stories. That is why we want to tell them and hear them, affect them and be affected by them. IDS (interactive digital storytelling) is the next step where the evolution of digital media is leading to – an era of a digital campfire.” Smed. J, Suovuo. T et al, (2018) [8]

To best illustrate the medium of Stop frame in VR and to contain the action environment to a practical space the narrative will be set in a single room that follows in the tradition of a theatrical “in the round” production, where a character or characters can inhabit and perform their narrative in front of and perhaps also with the viewer.

This produces a “goldfish bowl” set, perfectly illustrated by Barry Purves seminal work “Screen Play” (1993), [9] where the connection between object and story can be more closely aligned. Placing story elements, characters and props within the Initial Viewing Direction (the angle or framing at which the viewer is presented when first donning the virtual headset) provides a centered reference point which in turn creates a more flowing editing process, where Points of Interest can carry the change in action. Designing an element of interactivity with these POI will increase the viewers sense of connection and provide some agency in their journey.

This single room set puts a manageable limit on the physical build required for performance and allows the filmmaker to somewhat control the issues of access and lighting, puppet and environment scales and camera movement. In this way, Smed’s “digital campfire” might be enacted in order to bring an intimate connection to the immersive world.

6. WHAT’S THE STORY?

“I argue that the wonder triggered by animation... comes from its pivot from stillness to motion... Animation reveals the single frame, the brief incremental of time, through the possibility of motion, animation’s ability to transform from static image to moving moment, from inanimate picture to animated image.” Gunning, T, in Beckman, K.R. (2014) [10]

How does the Tom Gunning theory of animated wonder impact in the virtual space? With a new medium such as VR there is a tendency to try to apply existing techniques practices and methodologies to create visual narratives, such as those that have been developed for traditional film. It has been repeatedly proven however that these techniques don’t automatically translate from a 2D screen to a spherical immersive canvas.

What is needed is a narrative structure that allows for a visually compelling and emotionally engaging story on one hand while allowing for enough participatory ambiguity that agency is still given to the viewer.

Discovering how much “control” to give away and the limits of interactivity within a stop motion structure continue to be topics for research development.

Having considered a variety of story options including first person monologues, non verbal stories and narrative vignettes a decision based on the perceived requirements of these options will develop as the visual and environmental requirements of the story are uncovered.

7. A CINEMA OF ATTRACTIONS?

“The potential shock of the cinema of attractions provided a popular form of an alternative temporality based not on the mimesis of memory or other psychological states but on an astonished spectator and the cinematic smack of the instant, the flicker of presence and absence.” Gunning, T. (1993) [11]

As Walter Murch has said, “the visual reality we perceive is a continuous stream of linked images” whereas film “is actually being “cut” 24 times a second. Each frame is a displacement from the previous one.” [12]

How might that observation be applied to the mechanics of stop frame animation where each individual frame is held in stasis and becomes a product of many processed decisions?

Much as Gunning's "Cinema of Attraction" relates to the impact of spectacle and wonder over mimetic exposition, the incremental process of frame by frame animation allows time to make detailed and continuous decisions on what can be seen, how it moves and what relationship it forms with the observer is at the very heart of the animation process. Does a new canvas such as the one VR presents change this dynamic in any way or allow for new and innovative processes to be explored?

How does the removal of the frame endanger the frame itself? Is there any correlation with the projected frame and the projected 360 space?

John Butcher explains:

"Since the inception of film, we have forced a viewer's perspective on our story by placing and moving the camera where we wanted it. This allowed us to use the edges of the frame to craft a window into the world we were creating for the audience. With 360-degree cameras, the field of vision is opened up to a dimension we've never had to deal with before. In essence, we've lost the edges of the frame and thus the traditional way we've manipulated the viewer's perspective." [3]

8. HOW TO START THINKING?

In 2017 experiments were conducted, by Serrano et al, [13] through the practical and technical research on where a viewer looks, to discover exactly how an audience deals with a range of cognitive editing techniques.

The edits explored break down most simply as:

The Basic Cut; where time and location are changed to create a new "chapter" often taking a new center of action or introducing a new character.

The Spatial Edit; where the camera moves to a new location to frame the action but in the same time frame of a scene, and

The Continuity Edit; where a change of viewpoint is made within the same location and timeframe in a scene

Presented in their paper, "Movie Editing And Cognitive Event Segmentation In Virtual Reality Video", Ana. SERRANO, et al (presented at SIGGRAPH in 2017) [13] the authors found that, when eye tracking representative participants, the viewers were quite able to cope with basic chapter edits and some relocated spacial edits, so long as a point of interest was available to register the viewer after the cut. Repeated in-scene camera changes however were deemed confusing to the viewer and continuity edits were no longer an appropriate method for VR storytelling,

Here Walter Murch agrees, that "when the visual displacement is great enough we are forced to re-evaluate the new image as a different context: miraculously, most of the time we have no problem doing this." [12]

9. THE NARRATIVE PARADOX?

"A fundamental challenge in realizing this vision is how to resolve the clash between the interactive freedom expected by the user in such environments and an authorial demand for guaranteed narrative structure. We have called this the narrative paradox" Aylett, R. (2013) [2]

Editing for VR then proves to be less a case of slicing and pasting hard cuts of film but more a system of making informed guesses as to where

your viewer might be looking and then encouraging them, with subtle cues and nudges, to look in the direction you need in order to tell the story.

Jessica Brillhart expertly admonishes the reluctant 2D editor here, when she says:

“The frame is a hard thing for creators to let go of mentally and we find ourselves asking a lot of the wrong questions as a result, like ‘How can we force the visitor to look where we want her to look?’ or ‘How can we discourage a visitor from looking somewhere else?’ But if you believe that the other 240-some degrees matter, you want to embrace a visitor’s freedom as an asset rather than a curse, and you’d like to attempt to leverage rebellion and curiosity instead of rejecting it, then hello and welcome to the crazy.” [14]

Just how much individual control over what the viewer sees leads to a contradiction for the director, as Ruth Aylett explains;

“On the one hand, interactive freedom is a defining characteristic of virtual environments, with users now able to participate actively in shaping a narrative process as characters within it, rather than as the passive spectators of a narrative artefact. On the other, the demand for a satisfying and coherent narrative structure has classically required authorial creation that predetermines the actions of the characters in a narrative.” [7]

10. HOW MUCH TO SHOW?

“Perhaps the most discussed challenge has been the logistical issue of just where to put all the supporting lights, audio, and grip equipment needed to produce the aesthetically appealing productions that audiences have grown used to.”

Bucher, J. (2017) [3]

It becomes obvious then that a balance needs to be reached here between the narrative paradox, where immersive agency is given to the participant, and the possibility for a successful story with linear directorial intention.

This opens up a whole new world of difficulties for the animation director, how much action to include in the design of the space, what to put where, and how to reward the truculent audience member, determined to look in any way possible except that of the best laid wishes of the director, with some form of performance?

There then follows the issue of how to hide all the trappings of the film set, the lights, the rigging and even the animator themselves. As the production of the film continues there will have to be an exacting and intricate balance found where these obstacles can be avoided and overcome.

Added to that is the consideration of guiding the viewer over the changes in frame or action that require regions of interest to be choreographed and interactions to be managed?

11. COMPARATIVE STORYBOARDING

“Telling stories in Virtual Reality is very different than telling stories through traditional films or even video games—it’s going to be a long time until Virtual Reality storytelling is nearly as refined as film. Decades.” Luckey, P. (2015) [15]

So how do we overcome these considerations and translate these requirements into the familiar production process?

The traditional route to a successful storyboard is to break down the script into shots and scenes, assess where and what to point the camera at and perhaps create a top down birds eye plan of the scene, to arrive at a series of thumbnails and positions that inform the storyboarder to choreograph the narrative.

With the removal of the frame from the camera lens, that process of cuts and scenes initially seems unworkable for VR boarding. However, might that top down method of choreography still work for the spherical canvas that VR offers?

Listening to Jessica Brillhart we can ask, where do I want my audience to look to have the best chance of following the flow of my direction? Where is my protagonist and how does my audience interact with them? What action or queue might be best placed to persuade the viewers gaze to come with me and follow the next action?

As Brillhart says:

“in VR, a “frame” is a relative window of experience derived from the visitor’s field of vision. This makes everything a *potential* frame, but also makes a premeditated frame based on my own interests presumptuous and, well, wrong most of the time.” [14]

Therefore the traditional linear, shot by shot storyboard process must be dismissed and the editor must look at scenes within scenes and key Points of Interest in a spherical arena to progress the stories narrative.

12. EDITING IN VR

“Virtual Reality is here to change film language at its core: what is montage, a shot-reverse-shot or a close-up in VR? What is on- and off-screen, when the screens all-around?” Joret, B. (2019) [16]

A process of reevaluating the editorial process involves a prototype beat board and a series of loose camera angles to be moved towards defining an early editing process. Here, a traditional editor might normally start with an animatic made from the storyboard panels, however to avoid hand drawing a complicated 2d representation of an exploded equirectangular projection of the storyboard scene, it was proposed that a careful selection of 360 stills of some maquettes be made to work through a choreography of where the actors might be positioned and how the beats and regions of interest for the narrative might be organized.

Learning from the animatic and maquettes the next stage was to plan the set and puppet build. What is required to satisfy the 360 camera whilst allowing the animator access and the DoP room to light?

13. A LIGHTING AND VFX METHODOLOGY FOR VR

“What stop-motion has in common with live-action is that it has many of the same departments. There’s hair, costume, makeup in the form of paint, gaffers, electricians. So there’s the same sense of real stuff, real light, things being shoved around and gotten ready.” Selick, H. (2009) [17]

Henry Selick reminds us that stop motion animation carries similar apparatus as that used in live action filming, which begs the question, where might we hide these physical necessities when capturing 360

footage? To answer this question a decision to limit the initial location to a 4 walled set that follows a script will provide a “theatre in the round” scenario, where the viewer can easily orientate their point of view whilst being introduced to the story concept. In this way, film gear might be hidden or disguised, or more simply painted out post production

Following an enclosed introduction the plan is to break out of this more controlled setup to create new wider and expansive environments that push the opportunities that Virtual Reality provides the stopmotion animator and allows for greater exploration of wondrous fantastical worlds that would otherwise be un-explorable. Here care will be taken to include matte painting and practical lighting to diminish the potential for gear to break the immersive illusion.

I intend to allow some choice in how these environments can be accessed by the audience and in which order while still holding onto the reigns of the story to keep the narrative in check.

Choreographing this journey, with storyboards, flow diagrams and user options becomes the new animatic process and although this script must remain unpublished for now, the various methodologies and research outcomes will be recorded and presented as evidence for my continued practice as the production proceeds.

14. CASE STUDIES AND OTHER AUTHORS

“Right now we’re still in the darkness of night, poking around with flashlights and trying to find our way there,” Milk, C. (2015) [18]

In looking at a broad host of VR narrative examples it is clear that some camera edits and moves work better than others, often requiring bigger physical cuts and mental leaps than presumed, for traditional film editing bearing out the research findings of ANA SERRANO Et al (2017) and that an editorial process controlling how the narrative expands can, with care, be successfully employed.

Taking queues and looking at solutions from the artists such as Clyde Henry’s “Gymnasia” (2019), Isobel Knowles and Van Sowerwine’s “Passenger” (2019) and Isabel Peppard who is in development of “The Demon Parade”, ([9] a pre-production process that, although markedly different in much of its construction, follows a certain directional logic can begin and will hopefully fulfil the requirements the script.

With a plan to replace and erase unwanted elements of the scene with clean plates and further footage it is possible that a blend of traditional and familiar film methods and new 360 filming techniques will allow for a cohered and exciting outcome to be created without compromise.

As John Bucher asserts:

“VR storytelling and filmmaking will only progress as creators continue to experiment and share what they have learned to work. As with any new medium, learning what does not work will be just as significant as learning what does.” Bucher, J. (2017) [3]

15. WHATS NEXT?

Following the successful acquisition of the development rights to the chosen text the film will move shortly to the pre-production stage of a 15 minute film showcasing stopmotion animation in an immersive environment. I am slowly stepping closer to recreating the immersive excitement of inhabiting a world of characters from my childhood, revisiting that young boy playing with action figures on the carpet.

Future research will next turn towards solving the Narrative Paradox with attention to the mechanics of agency in immersive environments, looking at choice models and user options to increase the sense of identity and involvement.

The author plans to use the process of documenting this practice based research as the basis of a PhD and is actively looking for site specific locations to share and present the film.

From VR Palaces, 4D Cinema spaces to 280 Videodromes and Immersive Gaming centres, it is intended to explore all the social possibilities for communal consumption of a new stopmotion animated 360 VR entertainment!

16. References

1. [Abstract] Bazin, A., Andrew, D. and Andrew, D. (2014) Andre Bazin's new media. Edited by D. Andrew. Oakland, California: University of California Press. Available at: <https://doi.org/10.1525/9780520959392>.
2. Edgar, T. (2023) Stop Frame Adventures in Virtual Reality. CONFIA 10. 173-187 (2023)
3. R. Aylett, S. Louchart "Towards a narrative theory of virtual reality" Received: 28 January 2003 / Accepted: 5 May 2003 Springer-Verlag London Limited 2003
4. Bucher, J. (2017) Storytelling for Virtual Reality: Methods and Principles for Crafting Immersive Narratives. 1st edn. Oxford: Routledge. Available at: <https://doi.org/10.4324/9781315210308>.
5. Clyde Henry, Gymnasia <https://headspacestudio.com/projects/gymnasia/>
Isobel Knowles Van Sowerwine, Passenger <https://www.lmccamp.com.au/passenger>
Isobel Peppard, <https://www.isabelpeppard.com/in-development>
6. Buchan, Suzanne. The Quay Brothers : Into a Metaphysical Playroom, University of Minnesota Press, 2011. ProQuest Ebook Central, <http://ebookcentral.proquest.com/lib/cardiffmet/detail.action?docID=678654>.
7. Gunning, T. (2006) Cinema of Attraction Encyclopedia of Early Cinema . Ed. Richard Abel. London/New York: Routledge, <http://ebookcentral.proquest.com/lib/cardiffmet/detail.action?docID=419768>.
8. Smed, J, Suovuo, T et al, (2018) Modern Perspectives on Virtual Communications and Social Networking, edited by Jyotsana Thakur, IGI Global, 2018. ProQuest Ebook Central, <http://ebookcentral.proquest.com/lib/cardiffmet/detail.action?docID=5521109>.
9. Purves, B (1993) "Screen Play" <https://vimeo.com/72966455>
10. Gunning, T, (2014) Animating Film Theory, edited by Karen Redrobe, Duke University Press, 2014. ProQuest Ebook Central, <https://ebookcentral.proquest.com/lib/cardiffmet/detail.action?docID=1647711>.
11. Gunning, T. 1993///Fall, "'Now You See It, Now You Don't': The Temporality of the Cinema of Attractions", The Velvet Light Trap, vol. 32, pp. 3.
12. Murch, W. (2001) In the blink of an eye : a perspective on film editing. 2nd ed. Los Angeles, Calif: Silman-James Press.

13. Movie Editing and Cognitive Event Segmentation in Virtual Reality Video Ana. SER-RANO, et al (presented at SIGGRAPH in 2017)
14. Jessica Brillhart in Bucher, J. (2018) *Storytelling for Virtual Reality: Methods and Principles for Crafting Immersive Narratives*. 1st edn. Oxford: Routledge. Available at: <https://doi.org/10.4324/9781315210308>.
15. Luckey, P. (2015) <https://www.theguardian.com/technology/2015/nov/03/oculus-vr-founder-classrooms-are-broken>
16. Joret, B. (2019) *Studying Film with André Bazin*. 1st edn. Amsterdam: Amsterdam University Press. Available at: <https://doi.org/10.2307/j.ctvrs8xh6>.
17. Selick, H. (2009) <https://www.avclub.com/henry-selick-1798215699>
18. Milk C. (2015) in Bucher, J. (2017) *Storytelling for Virtual Reality: Methods and Principles for Crafting Immersive Narratives*. 1st edn. Oxford: Routledge. Available at: <https://doi.org/10.4324/9781315210308>.

Illustration and design through intersectional feminist perspectives - the zine “Visual Conversation with Benedetta Crippa”



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Abstract

This article addresses the potential of illustration and editorial design to reflect upon the design practice through the lens of intersectional feminist perspectives and theories. Feminism allows designers and illustrators to understand their practice's effects and consequences better. A practice that materializes ideas with social and political implications. Its goal is to propose alternative ways of doing and perceiving these impactful processes, incentivizing criticality, plurality, and different sources of knowledge. The creation of the zine “Visual Conversation with Benedetta Crippa” started with an interview with designer Benedetta Crippa, who advocates for a feminist stance in illustration and visual communication and discusses the political implications of these expressions. This reading led to reflexive writing, illustrating, and making of a zine. The present project intends to encourage critical discussions around design, its impact, and the possibilities that arise when practicing through feminist perspectives. Additionally, it contributes to showcasing illustration and designing as a means for personal reflection and authorial expression.

Keywords

Illustration, Zines, Design, Intersectional feminism, Editorial Design

1. Introduction

The article aims to unveil and showcase ways of critically reflecting while making, specifically regarding intersectional feminist perspectives in the design field and practice. Through illustration and editorial design, it was possible to explore and visually communicate a personal process of learning, questioning, and reflecting on “wicked problems” (Buchanan, 1992) in design, considering feminist theory and its understanding of social and political dynamics. This paper begins by defining what zines are and how illustrations and illustrative practices happen and are used in their creation. Then, designing through feminist perspectives is explored and framed through an intersectional lens. Afterward, we introduce the designer Benedetta Crippa, her educational background, work, and how it influenced the present project. The second section describes the project in depth, where, through illustration and the principles of zine creation, the way design can be practiced through feminist perspectives was explored. Furthermore, this section explores how illustration, collage, and storytelling can enhance the reading and composing of editorial projects. We

conclude by showcasing and describing the result, a zine/editorial object that mirrors its process. Lastly, we hint at further developments, including visual/editorial projects that, following the same premise, tackle different viewpoints of feminist thinking within design.

2. Crossed territories

2.1. Illustration and Illustrative Practices in Zine Making

The word *zine* stems from *fanzine*, which hints at its origin amidst the sci-fi and horror fan circles in 1930s America. The practice spread and developed with the popularity of the punk movement, becoming a way to express the feelings of individuals and groups who felt misrepresented in mainstream media and public conversations and wanted to share their points of view and writings (Bittencourt & Guerra, 2018). An example is the *Riot Grrrl* publication, which gained popularity in the women-led punk music scene and built a network that produced, distributed, and consumed zines. This network of zine-consuming girls and women wrote about their ideas and daily struggles, which ended up heavily influencing the feminist movement and the dissemination of its messages (Baker & Cantillon, 2022).

Finding a consensual definition of a zine is difficult due to its flexible nature and lack of limits regarding themes, materials, and formats. Additionally, although zines tend to be traditionally physical, nowadays, they are starting to appear in digital online formats – e-zines. Liming (2010, p. 131) defines a zine by its “homemade” production methods, emphasizing avoiding professional techniques. The binding and distribution processes should remain informal, and copies produced should not exceed a thousand units. Cane (2015) argues that the term solely refers to one person making it and circulating it outside mainstream publishing channels. This definition does not touch upon the technological methods of production. Thus, an object can be considered a zine regardless of the format in which it is presented. The project developed and presented in this paper fits within these definitions of a zine. It will not be reproduced through professional printing, binding, or distribution methods and is not intended to be commercialized on a larger scale.

The zine and punk movement were closely tied to the “Do It Yourself” philosophy, which opened the path for a creative space that cared little about visual norms and the formal limits of the design practice (Triggs, 2006). The makers traditionally favored collages to illustrate their writings and used different typographical approaches to shed light on their inner lives and beliefs. Looking close to a “photocopied scrapbook” (Fife, 2019, p. 229), a traditional zine appropriated and reprinted pre-existent images and texts that belonged to other authors (2019, p. 229). The low-cost techniques and the graphic symbols and expressions reflected the anti-institutional sentiment of the punk movement and the desire to rewrite culture to reflect different values (2019, p. 229). As Triggs (2006, p. 73) mentions, the DIY approach helped to augment the “menacing nature of the words.” This is evident, for example, in the lettering cut-outs resembling ransom notes and the use of handwriting. Reading is not a simple process because the text is also “an aesthetic

experience.” It is also an image that translates a speech, an author, an expression (Santos, 2020, p. 4). Using a specific visual system, that spirit was intentionally cast and illustrated (2006, p. 73).

This usage of a specific graphical language to add value and meaning to the content comes close to the logic of graphic and editorial design practice (Mealing, 2003). Image, typography, and their spatial relation influence interpretations and amplify the “semantic potential of a message” (Mealing, 2003). Zines and their editorial work are, by some, considered an overlooked area in graphic design history (Triggs, 2006, p. 69).

Illustration always starts with an element that inspires the making, which differs from its program and is interpreted and translated by the designer (Quental, 2009, p. 109). Following this argument, in the case of zine production, this element is the writing that precedes the creation of a zine, a significant cornerstone of the practice (Sinor, 2003, p. 242). Commonly, the people who illustrate are also the authors of the text, which is used as a starting point. This makes us understand the significant involvement and personal investment brought into zines.

The process starts with the definition of the theme (program), the personal and reflective writing, followed by the illustrative practice, through which “the thought becomes gesture and makes visible the invisible” (Quental, 2009, p. 158). This process is a transmutation, an innovation of what exists (Plaza, 2003, p. xi). The intention of it is not to closely reproduce or to strictly translate what is read. Instead, the illustrator creates its vision and relationship to this work, transforming it into a visual expression that others will interpret and read differently (Santos, 2020, p. 4). The illustration encapsulates a subjective and personal projection of the text/material that preceded it (Quental, 2009, p. 125). The illustrator’s stories, constructions, and “small myths” are carried and represented in the final work (2009, p. 109).

When we examine zines, we see that each spread seeks to express ideas with its mix of collage, drawings, and typography. Some pages resemble illustrations, blending lettering and images. This suggests that illustration is not limited to zines labeled as such. It is an element and a practice that influences how zines are created. Illustration is a big part of making zines, shaping how they are made.

2.2. Design through Intersectional Feminist Perspectives

As shown previously, design can make visible what is invisible and materialize meaning into objects. Rubio and Fogué (2015) argue that design in itself does not have a single politic but, instead, is capable of “articulating and generating different political logics and forms” (2015, p. 19). Design has two distinct ways of operating: “enfolding,” where design integrates and “inscribes” political structures in artifacts, silently influencing people’s use and way of thinking, and “unfolding,” which refers to its capacity to open and enlarge new and different worlds. The “unfolding” capacity in design is seen as a propositional practice, having the power to expand and make visible entities, bodies, and spaces as something political. “Unfolding” works to question and broaden the concept of what integrates the political sphere in design (2015, p. 7).

As Mareis and Paim (2021) suggest, design and its history bear a violent and problematic legacy that asks for its material and conceptual logistics to be examined. This past is shown to work hand in hand with structural systems of oppression that reproduce and nurse pre-existent power and privilege (2021, p. 11). Regarding its values and how it interacts with society, design and its current practice is considered a product of modernism (Buzon, 2020). Modernist thinking left design with a culture that promotes the distancing of the designer from its cultural and social context. This, is because of the deep-rooted belief in a universal form and the desire for a design practice ruled by rationality, objectivity, and cleansed of values (Heller & Vienne, 2018, p. 4). This promoted the decontextualization of the design practice and called for a way of working that strived to be apolitical (2018, p. 4). Given this ingrained tradition of creating and applying knowledge, the field cannot imagine and design socially just futures (Heidaripour & Forlano, 2018). This understanding asks for a design that allows for different worlds and ways of doing (Dominguez Rubio & Fogue, 2015, p. 7). This scenario invites feminist theory to go beyond its role in design activism and become a tool to expand the practice (Heidaripour & Forlano, 2018, p. 519). Structures that inform feminist thought and practice can be used through design and its methodologies (Place, 2023, p. 5).

bell hooks (2000) defines feminism as a “movement to end sexism, sexist exploitation, and oppression” (2000, p. viii). With feminism, women started to examine their ways of thinking, look for means to change their attitudes and beliefs, and then publicly defy social power dynamics (hooks, 2000, p. 8). When working with feminist theory, having an intersectional perspective is crucial. Rooted in black feminist thinking, intersectionality acknowledges and articulates how different identities, such as gender, race, class, and so on, intersect and influence each other (Crenshaw, 1989). This said, it can be used as an “analytical tool” and as a way of questioning and acting critically (Hill Collins & Bilge, 2016). In design, an intersectional perspective recognizes the various shapes in which inequality presents itself and how they can affect and amplify each other. The designer is able to then analyze and intervene in more inclusive and knowledgeable ways (Mareis & Paim, 2021, p. 13).

Designing from a feminist perspective entail looking for alternative knowledge sources and avoiding unilateral viewpoints. Following the feminist standpoint theory, all knowledge and its production is socially situated and, subsequently, integrated into the power structures of patriarchy (Place, 2023, p. 46). This concept directly opposes the idea that factual and irrefutable observations exist and are possible. Donna Haraway (1988) argues that knowledge can never be objective and cannot escape our political and social existence – “situated knowledges” (1988, p. 575). A designer’s knowledge, lack of it, and personal assumptions inevitably inform the making and shaping of a product. The design field, centering the designer as the primary knower, still works based on the assumption of a certain kind of user. Even when certain groups are targeted, the field always works with the “default user,” which, in Western society, is assumed to be white, cisgender,

and male. Audre Lorde (1980) calls this phenomenon the mythical norm. When we embrace the subjective “embodied and situated knowledges” from where we design, we oppose the idea of a neutral discipline (Place, 2023, p. 47). It is in marginalized knowledge that the potential for transformation lies (hooks, 1989), so designing from the margins becomes a defying act of the current design ways (Place, 2023, p. 48).

Intersectionality presents us with the multiplicity and complexity of individual experiences and oppression systems, leading us to plural understandings of the world and design. A feminist vision accepts contradictory and complex ideas to find possibility and resist “universal” ways of doing (2023, p. 117). Queer, disabled, and decolonial perspectives of the practice allow for a critical view of design and open possibilities to unpack, undo and unlearn (Canlı, 2017, p. 332). As Place (2023, p. 119) writes, “bringing this sort of engagement to design has the potential to generate if only momentarily and provisionally, the feminist world we seek – a “world in which many worlds fit.” Understanding design through intersectional queer decolonial feminist perspectives requires understanding that it is not another sub-discipline or methodology but concepts and outlooks that need to permeate its core (Harding, 1987).

An intersectional feminist design ontology questions “who designs, who produces, and who consumes, as well as the how and the why, with an explicit aim of addressing issues of gender, privilege, and oppression.” (Levick-Parkin, 2017, p. 8). From a decolonial perspective, Abdulla defends that design needs to produce knowledge “*with* and *from* rather than *about*” (Schultz et al., 2018, p. 89). These ideas and ways of questioning design surface even more questions. The investigated questions will not get definitive answers or result in a methodology or a policy for all. Instead, they are to guide a reflection and personal praxis toward intersectional feminist ways of designing.

2.3. Benedetta Crippa and the “Norm-critical” Approach

The zine described in this article had as a starting point the interview given by the designer Benedetta Crippa for the book “Feminist Designer: On the Personal and Political in Design” (2023), edited by Alison Place. While talking to the editor, Crippa describes her creative process, values, and professional and pedagogical approach. Benedetta Crippa is an Italian designer who runs her studio, through which she commits to “expand ideas around beauty, the politics of form, and emotion” (Crippa, n.d.-a). Through the incorporation of critical thought, her work has the goal of transcending methodologies and frameworks set by the design canon. The designer intends that her work be specific to the context and its process based on non-violent, direct, generous, and “heart-opening” communication (Crippa, n.d.-a).

She was a student in the master course “Norm-critical Visual Communication” at the Konstfack University of Arts, Crafts, and Design. The course is dedicated to confronting and deepening its students’ understanding of how graphic design and illustration practices intertwine and impact its social, cultural, and economic contexts. In this pedagogical task, they rely on co-learning with the educators and the norm-critical/norm-creative

concepts (Lacey & Teleman, n.d.). The norm-creative approach crosses feminist thought and critical theory (Vinhagen & Zavalia, 2014). Its goal is to achieve social justice and diversity in design by closely analyzing power structures, values, and social limits (Tham, 2019). This approach is built on two steps: norm-criticality, where the designer inspects normative ways of acting, and norm-creativity, which is thought of as alternative ways of practicing (Nilsson & Jahnke, 2018). In this educational context, Benedetta Crippa developed her final project, “World of Desire,” which prompted the making of this article’s editorial and illustration project. This book aims to explore the concept of plurality and visual democracy. These themes were studied and thought through graphic design, decoration, drawing, and textual reflection of their political implications (Crippa, n.d.-b).

Fig. 1. The book “World of Desire” and its 19th spread. (2017)
Available at <https://studiobenedettacrippa.com/world-of-desire>



3. Project development and methodologies

3.1. Reading, Reflective Writing, and Illustrating.

The starting point of this project was the reading of the interview with the designer Benedetta Crippa. This reading made us reflect upon the ideas presented, the discussion, and the values in design brought forward by the interviewee and the interviewer. The following step consisted of writing and reflecting on the current practice in design through a personal, individual, and collective perspective. As in zine creation, this writing exercise initiated the ideating and making the first editorial support and subsequent illustrations (Sinor, 2003, p. 242).

An essential component of feminist practice is the ability and openness to question previously learned knowledge and look at design through a critical lens. As a practice, Illustration asks the illustrator to question their identity and beliefs (Quental, 2011, p. 5), requiring that their personal experiences be brought to the working table and confronted with the “worlds” the inspiring material creates.

Some of the themes included in “World of Desire,” such as the “strange dress,” “the kind door where everyone can enter,” and “queer architecture, us as frames for stories,” served as thematic inspiration.

From left to right:
Fig. 2. Front-cover and pages 4 and 5

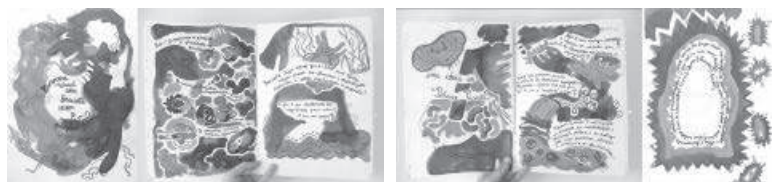


Fig. 3. Pages 6, 7 and 3

They seeped into the illustrations in some ways, gaining different meanings and a dynamic presence throughout the process. The outcome reveals itself as a meeting point between creators and as an unraveling of the standing of the illustrator. The illustrations were then compiled in the first version of the zine, where they were organized according to the in-



tended narrative – the process of reflection and interpretation described. After receiving feedback from colleagues and teachers, we realized it was unclear and too complex for readers to understand. It did not relay the message.

Fig. 4. Layouts made with collage.

3.2. Collage as a Method



Given the consensus regarding the first zine, we experimented with different compositions and formats. An editorial work must be concerned with the flow of a narrative, with its rhythm, and how different moments are portrayed. We are naturally

Fig. 5. Accordion format

sensitive to shifts and changes, so the contrast these shifts offer keeps the narrative going forward (Lupton, 2017, p. 120). Visually, this can be depicted in different ways. Stable layouts, empty space, and symmetry, contrasted with bold compositions and unexpected elements, can make the sequence dynamic. Therefore, the reworking of the layout consisted of searching for a balance between graphical and textual elements and creating a visual narrative that was understandable and benefitted from the expressiveness of the illustrations. This work was done via photocopying, cutting, and composing. Collage combines different “worlds,” locking them together in a composition. Creating relationships between visual pieces can deepen their meaning and generate new ways of reading the work (Brockelman, 2001). The punk zine movement used the method of collage, an accessible approach, to build these third spaces. This space belonged to the authors, allowing them to bring their comments and ideas into visual form. Lastly, this process was preferred for its plasticity and the inevitable slowing down it entails, allowing a prolonged reflection on the project’s themes.

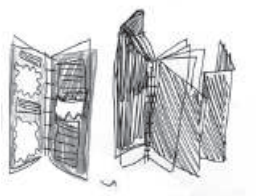


Fig. 6. Sketches

3.3. Form as a Reflection of the Poetry

A designed artifact is the result of constant interpretation of its program. In the end, the object needs to be understood by itself. In other words, it has to be “culturally apprehensible” (Quental, 2009, p. 108). During this phase, the focus was on exploring different ways to integrate the interview into the design object and contextualize the zine. As Providência (2012, p. 39) mentions, design is a metaphor, poetry made visual. This said, the outcome had to be a metaphorical materialization of its process. It had to reflect the reading, the personal reflection, and the overall interaction with the original material and the authors’ ideas.

The sketching and prototyping informed the design of the book-object/zine, showcasing our search to make explicit and physical the close relationship between the two elements involved, designing the form to translate and embody this “conversation.” We used an accordion format to communicate this relationship, highlighting the connection between the content and form (Reynolds, 2007). This format allowed the zine pages to fit with the interview, giving the feeling that their narratives flow together and interweave. The content in the accordion format can be read front to back, back to front, or seen in its entirety, making the narrative fluid (Beckett, 2011, p. 66) and defying the traditional way of reading (Ramos, 2017).

From left to right:

Fig. 7. Pages 10 and 11

Fig. 8. Pages 8 and 9



3.4. Visual Storytelling

The understanding of the illustrations constantly involves the textual content of the interview for its complete understanding and decoding (Quental, 2009, p. 109). Likewise, the visual understanding of the zine is also actively interconnecting and influencing the perception of the interview. The illustrations were treated as editorial elements that created visual relations with the text and spoke for themselves. Meanwhile, the composition process is intended to strengthen the sense of a spirited dialogue between the author and the designer, with moments where they blend or move away from each other, always in a collaborative journey.

The use of contrast and rhythm was vital in communicating this story. Contrast and rhythm are reflected in the tenth and eleventh pages. The focus is intentionally cast on the illustration, significantly reducing the textual elements visible. The same page, when the accordion is lifted, is contrasting. The bare page reveals a substantial amount of text, where Crippa describes the concept of “visual belonging” that the illustration in the zine sets itself to capture. The choice of the typefaces also had the goal of contrast. The font chosen for the reflective zine is typewriter-style to reference the traditional way that



Fig. 9. Front cover

text was included in zines. This stands out against the sans-serif typeface used in the interview. Additionally, this project was a storytelling exercise. In the eighth and ninth pages, Benedetta's illustration lingers behind the accordion and visually symbolizes the presence of her ideas and visual expressions throughout the process. On page 9, the designer's illustration converses with Crippa's work while introducing its graphical voice. The challenge was narrating a story visually, encapsulated within the book-object.

4. Final Remarks

This project had the goal of investigating stances on designing through intersectional feminist perspectives to pave the way for a practice that's more aware, just, and non-exploitative. This navigation is made physical with illustrations and editorial objects, specifically zines. The illustration process made it possible to look inward and outward while contemplating the themes through a critical outlook. Additionally, the project touched upon how recognizing the authorial presence and its unique situated standpoint is essential to its feminist practice. Furthermore, its pertinence also lies in understanding illustration as an editorial component and how it can efficiently communicate a narrative in collaboration with other elements in a spread. The project described in this article is paving the way toward similar editorial explorations within the same themes. Design through intersectional feminist perspectives can have different iterations, voices, and viewpoints on the practice, and so it offers many subthemes to dive deeper into and reflect upon. To conclude, this project was developed in an academic context, so copyright issues relating to the creators or publishers of the work that gave rise to it were not considered. In the future, if there would be intentions to reproduce or distribute, these rights would have to be safeguarded.

5. References

1. Baker, S., & Cantillon, Z. (2022). Zines as community archive. *Archival Science*, 22, 539–561. <https://doi.org/10.1007/s10502-022-09388-1>
2. Beckett, S. L. (2011). *Crossover Picturebooks A Genre for All Ages* (1st ed.).
3. Bittencourt, L., & Guerra, P. (2018). Grrrlzines: Resistência e Pertencimento nos fanzines Riot Girls na cena punk portuguesa. *Vozes & Diálogo*, 17(01), 60–73.
4. Brockelman, T. P. (2001). *The Frame and the Mirror: On Collage and the Postmodern*. Northwestern University Press.
5. Buchanan, R. (1992). Wicked Problems in Design Thinking. *Design Issues*, 8(2), 5–21. JSTOR. <https://doi.org/10.2307/1511637>
6. Buzon, D. (2020). Design Thinking is a Rebrand for White Supremacy. *Medium*.
7. Cane, S. M. (2015). Xerox, Paper, Scissors. *Aperture*, 218, 46–51. JSTOR.
8. Canli, E. (2017). *Queer(y)ing Design: Material Re-configurations of Body Politics* [Doutoramento, University of Porto, Faculty of Fine Arts (FBAUP)]. Repositório Aberto da Universidade do Porto. <https://repositorio-aberto.up.pt/handle/10216/111267>
9. Crenshaw, K. (1989). Demarginalizing the Intersection of Race and Sex: A Black Fe-

minist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics. *The University of Chicago Legal Forum* 1, 1989(1), 139–167.

10. Crippa, B. (n.d.-a). *About the Studio*. Studio Benedetta Crippa : Studio for graphic design and ornamentation. Retrieved 22 February 2024, from <https://studiobenedettacrippa.com/About>

11. Crippa, B. (n.d.-b). *World of Desire*. Studio Benedetta Crippa : Studio for graphic design and ornamentation. Retrieved 22 February 2024, from <https://studiobenedettacrippa.com/world-of-desire>

12. Dominguez Rubio, F., & Fogue, U. (2015). Unfolding the political capacities of design. In *What is comopolitical design?* (Albena Yaneva Alejandro Zaera Polo). Ashgate.

13. Fife, K. (2019). Not for you? Ethical implications of archiving zines. *Punk & Post Punk*, 8, 227–242. https://doi.org/10.1386/punk.8.2.227_1

14. Haraway, D. (1988). Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies*, 14(3), 575–599. JSTOR. <https://doi.org/10.2307/3178066>

15. Harding, S. (1987). ¿Existe un metodo feminista? Debates en torno a una metodología feminista. *G. E. Trad. Bernal, Feminism and Methodoly*, 9–34.

16. Heidaripour, M., & Forlano, L. (2018). Formgiving to Feminist Futures as Design Activism. *DRS2018: Catalyst*. Design as a catalyst for change - DRS International Conference, Limerick, Ireland. <https://doi.org/10.21606/drs.2018.464>

17. Heller, S., & Vienne, V. (2018). *Citizen Designer: Perspectives on Design Responsibility* (2nd ed.). Allworth Press.

18. Hill Collins, P., & Bilge, S. (2016). *Intersectionality*. Polity Press Cambridge, UK; World-Cat.

19. hooks, bell. (1989). Choosing the margin as a space of radical openness. *Framework: The Journal of Cinema and Media*, 36, 15–33.

20. hooks, bell. (2000). *Feminism Is For Everybody: Passionate politics*. MA: South Press.

21. Lacey, P., & Teleman, S. (n.d.). *Master's programme in Visual Communication*. Konstfack University of Arts, Crafts and Design. Retrieved 22 February 2024, from <https://www.konstfack.se/en/Education/Masters-Degree-Programmes/Visual-Communication/>

22. Levick-Parkin, M. (2017). The values of being in design: Towards a feminist design ontology. *GENDER : Zeitschrift Fur Geschlecht, Kultur Und Gesellschaft*, 9(3), 11–25.

23. Liming, S. (2010). Of Anarchy and Amateurism: Zine Publication and Print Dissent. *The Journal of the Midwest Modern Language Association*, 43(2), 121–145. JSTOR.

24. Lorde, A. (1980). *Age, Race, Class and Sex: Women Redefining Difference*.

25. Lupton, E. (2017). *Design is storytelling*. Cooper Hewitt, Smithsonian Design Museum.

26. Mareis, C., & Paim, N. (2021). DESIGN STRUGGLES An Attempt to Imagine Design Otherwise. In *Design Struggles: Intersecting Histories, Pedagogies, and Perspectives* (Claudia Mareis&Nina Paim, 1–3, pp. 11–22). Valiz.

27. Mealing, S. (2003). Value-added text: Where graphic design meets paralinguistics. *Visual Language*, 37(1), 43.

28. Nilsson, Å. W., & Jahnke, M. (2018). Tactics for Norm-Creative Innovation. *She Ji*, 4(4), 375–391. <https://doi.org/10.1016/j.sheji.2018.11.002>

29. Place, A. (2023). *Feminist Designer: On the Personal and the Political in Design* (A. Place, Ed.). The MIT Press.

30. Plaza, J. (2003). *Tradução Intersemiótica* (1st ed.). Perspectiva.

31. Providência, F. (2012). *Poeta, ou aquele que faz: A poética como inovação em design* [Doutoramento, Universidade de Aveiro, Departamento de Comunicação e Arte]. <https://ria.ua.pt/handle/10773/9218>

32. Quental, J. (2009). *A ilustração enquanto processo e pensamento. Autoria e interpretação*. [Tese de Doutoramento, Universidade de Aveiro, Departamento de Comunicação e Arte]. Repositório Institucional da Universidade de Aveiro. <https://ria.ua.pt/handle/10773/3617>
33. Quental, J. (2011). *A ilustração hoje: Hipóteses de sentido na afirmação da identidade de quem ilustra*. 10 Congresso Internacional de Arte, Ilustração e Congresso Internacional de Arte, Ilustração e Cultura Visual na Educação Infantil e Primária, Granada. <https://joana-quental.files.wordpress.com/2014/02/a-ilustracao3a7c3a30-hoje.pdf>
34. Ramos, A. M. (2017). The Accordion Format in the Design of Children's Books: A Close Reading of a Portuguese Collection. *Libri & Liberi: Journal of Research on Children's Literature and Culture*, 2, 313–328. <https://doi.org/10.21066/carcl.libri.8.2.4>
35. Reynolds, K. (2007). *Radical Children's Literature, Future Visions and Aesthetic Transformations in Juvenile Fiction*. <https://doi.org/10.1057/9780230206205>
36. Santos, R. V. (2020). *The visual storytelling as a way to create knowledge and empathy between generations in academic institutions*. 1–14.
37. Schultz, T., Abdulla, D., Ansari, A., Canli, E., Keshavarz, M., Kiem, M., Martins, L. P. de O., & J.S. Vieira de Oliveira, P. (2018). What Is at Stake with Decolonizing Design? A Roundtable. *Design and Culture*, 10(1), 81–101. <https://doi.org/10.1080/17547075.2018.1434368>
38. Sinor, J. (2003). Another Form of Crying: Girl Zines as Life Writing. *Prose Studies*, 26(1–2), 240–264. <https://doi.org/10.1080/0144035032000235909>
39. Tham, J. C. K. (2019, October). Feminist design thinking: A norm-creative approach to communication design. *SIGDOC 2019 - Proceedings of the 37th ACM International Conference on the Design of Communication*. <https://doi.org/10.1145/3328020.3353919>
40. Triggs, T. (2006). Scissors and Glue: Punk Fanzines and the Creation of a DIY Aesthetic. *Journal of Design History*, 19(1), 69–83.
41. Vinthagen, R., & Zavalía, L. (2014). *Normkreativ* (M. Alves & T. T. Factory, Eds.). Premiss Förlag.



Making the Invisible, Visible: Traumatic Flashbacks and the Haunting of Paul Nash

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Abstract

This paper explores visual strategies employed by artist Dave McKean throughout his graphic novel 'Black Dog: The Dreams of Paul Nash' in which he depicted visual representations of war trauma as experienced by official world war one artist Paul Nash. Discussion of the nature of trauma and difficulties that the traumatised have in articulating their experiences are considered and strategies used by film makers to communicate the concept of 'the flashback' are explored within the narrative sequences of McKean's astonishing visual response to his extensive research of Nash's personal experiences of war. Questions are also asked about the ethics of visually representing trauma whilst avoiding sensationalising the theme.

1. Introduction:

'In 2015, the English artist Dave McKean received a joint commission from the 14-18 Now Foundation, as part of a five-year programme of works that were to mark the centenary of the First World War, in collaboration with the Imperial War Museum, the Lakes International Comic Art Festival and the French association On a Marché sur la Bulle. In the context of the centenary commemorations, he was to "illuminate, in a new way, the experiences and impact of the First World War" [1]

In his powerful Graphic Novel *Black Dog, The Dreams of Paul Nash* Dave McKean grapples with the challenging task of visualizing war artist Nash's traumatic experiences during the First World War. He does so by creating surreal, fragmentary dream sequences which attempt to bring to greater consciousness, that which Nash had alluded to in his autobiography, but which was missing from paintings created during his time as an official war artist in locations including Paschendale. As Cathy Caruth has suggested, trauma is very often inaccessible to the conscious mind but can return to

Fig. 1. Mc Kean, Dave
Black Dog



haunt the recipient, in time, as fragmentary pieces which are experienced through a variety of modalities such as dream material, somatic sensations and certain behaviours that align with Freud's theory of 'repetition compulsion'. *'Trauma, according to Cathy Caruth, is a wound inflicted not on the body but upon the mind ...experienced too soon, too unexpectedly, to be fully known and is therefore not available to consciousness until it imposes itself again, repeatedly in the nightmares and repetitive actions of the survivor ...so trauma is not locatable in the simple violent or original event in the individual's past, but rather in the way that it's unassimilated nature ..returns to haunt the survivor later on "[2]*

Through analysis of McKean's response to and interpretation of Nash's war time experiences, (garnered through extensive research including Nash's autobiography 'Outline') I aim to explore visual strategies which McKean utilized to aid with the reader's understanding of trauma. Nash's landscape painting, the Menin Road will also be analysed, in order to shed light on ways in which trauma might be experienced by the traumatised. *'We have seen that mental images return to haunt the narrator. Their resurgence affects Nash's impressionable mind, and this is translated by what could be termed McKean's spectral paradigm, a mode already explored in previous works such as Signal to Noise (Gaiman and McKean 1992),'* [3]. I will be exploring the use of the 'flashback', which has its roots in cinema, as a means to explore memory, such a strategy has been skilfully employed by McKean to disrupt the chronology of sequences which aid with the reader's comprehension of Nash's state of mind as he is unwillingly drawn back to traumatic past events.

Ruth Leys, a noted historian of trauma writes, *'The flashback implies the cinematic possibility of literally reproducing or cutting back to a scene from the past and hence expresses the idea that the trauma victim's experiences are exact "reruns" or "replays" of the traumatic incident '...as such it is beloved of film directors especially those portraying war....we suggest, but of course can never prove, that the cinema and video technology have exercised an important influence on the organization of memory by providing new templates for expressing distress* [4]. In light of Ley's proposition, I deduce that within the context of *Black Dog*, the graphic novel, a form which has been described as a bridge between illustration and film, the flashback is represented visually through the panelling as a repetitive but fragmented replay, not an exact visual representation of an original traumatic event (complete 'cinematic' memories are often missing in sufferers of PTSD) but representations of past events which appear to erupt into the narrative, intrude upon its chronology and play out again in the present.

Roger Luckhurst, in an analysis of PTSD and its relationship to film writes: *'This is not to say that film simply signposts developments of that concept. Luckhurst points to something more dialogic. Given that definitions of PTSD (in the DSM) did not include as symptoms of the experience of the flashback or intrusive images until 1987, cinematic history demonstrated this aspect of the disorder long before psychiatry* [5]. Unlike film, images and sequences in graphic novels are static, however artists such as McKean employ similar strategies such as the flashback, to communicate events

from the past which disrupt the present chronology.

Through the adoption of stylistic and technical approaches, the reverberating trauma which disrupts the chronology of the narrative and in particular, the visual representations of psychological and physiological trauma that Nash experienced, McKean provides his reader with a visual map for understanding how PTSD affects the sufferer. The recurring theme of the black dog, the fractured sequences and nightmares, disruptions of consciousness and other repetitions of themes, seek to articulate how trauma cannot be fully known, but only alluded to. *'Trauma cannot simply be erased, just as it cannot be properly remembered; however, with the help of art, it can be made into a culturally useful discourse, something that is indispensable for the restoration of what the disaster shattered into an inoperative community.'* [6]

2. Menin Road

McKean references Nash's famous painting *The Menin Road* for the front cover of his graphic novel in which the 'black dog' of the artist's dreams is situated aloft a burnt-out tree stump boldly set against a cloud of yellow-grey fog, a reference to the devastating weaponization of mustard gas which was employed to inflict horrific wounds during World War 1. Washes of paint are layered up almost obliterating the dark, charred trees underneath. The dog, which appears as a striking motif throughout the Graphic Novel, is a symbol and composite of the animal and Nash himself. The impact of war and his exposure to the Surrealist movement during this time, forever changed Nash's representations of landscapes – burnt out stumps of trees and muddy trenches replacing the gentle, pastoral scenes he was previously known for.

In *The Menin Road* Nash created a visual representation depicting the aftermath of violent and murderous undertakings in which the traumatic events are hidden from view and contained, lying dormant and embedded within a landscape in which the burnt and charred remains of trees are symbolic of dead soldiers lost to the war. Nash's desolate landscape depicts large, rain filled craters in which the iridescent colours of petrol seep from upturned vehicles, into water – filled craters brutally formed by bombs. There are no bodies in the famous painting and as art historian Andrew Graham-Dixon points out in the BBC documentary 'British Art in War' the use of weapons employed during this war obliterated human bodies and animal carcasses to the extent that there were often no visible traces left behind.

In response to researching a range of sources documenting Nash's experiences of war, McKean visualized hallucinatory images in which he interprets the artists' traumatic experiences, which appear most often as dream material in which he creates surreal, fragmented sequences which break through into and disrupt the narrative, in a sense mirroring the disturbing quality of repressed traumatic memories rupturing the consciousness of the traumatised. In such sequences McKean perhaps represents experiences too harrowing for Nash to hold in his conscious mind.

Nash's intimate relationship with landscapes prior to wartime, in which he created forms that seemingly alluded to a welcoming living,

organic entity, was eventually replaced by devastated landscapes. He was taught to read trench maps during the war and was intimately connected with the terrain in which he lived and worked during this time.

'On trench maps, the words 'copse', 'wood', even 'forest' soon became irrelevant as trees were felled by artillery, reduced to splinters, and charred by fire. So systematic was the destruction and so ruthless the cutting it was estimated that it would take half a century for many areas to be able to produce decent timber again. Indeed, French horticulturalists coined the term 'forest trauma' [7]

The devastated landscapes reverberated with the trauma of the men who fought there as clods of mud blended with tissue from the dead and wounded. The charred trees that appear in Nash's paintings and which are referenced by McKean in 'Black Dog' are symbolic of the men who were maimed or dead: *'Nash saw all this. In the Ypres Salient he was aghast at the sight of splintered copses and dismembered trees, seeing in their shattered limbs an equivalent for the human carnage that lay all around or even hung in shreds from the eviscerated treetops. In so many of his war pictures, the trees remain inert and gaunt, failing to respond to the shafts of sunlight; their branches dangle lifelessly 'like melancholy tresses of hair' [8].*

3. The first hospitalization



In 1917, Nash was transferred from the war to Gosport Military hospital as a result of contracting measles. Within the context of a visually striking double page spread, McKean depicts a feverish Nash in bed where past and present memories collide and soldiers in battle, cannon fire and corpses of horses surround him. The mud hued battlefield merges with the bedsheets as he

Fig 2. McKean, D Black Dog

fitfully sleeps, explosions scattering around the murky landscape and also appearing to erupt from within his mind, as though multiple neurons are firing. The intrusions of traumatic flashback states can become activated both within the context of dreams or whilst awake, and McKean skilfully uses visual strategies which allude to both states of being. The shifting plates of the conscious and unconscious converge as a doctor describes the harrowing wartime situation that Nash has been removed from and that he will once again be confronted when he is well enough to return to the front.

The form of the graphic novel has been described as the bridge between film and illustration in which artists make use of strategies seen in film, for example cropping, and panning in and out of a composition. Certain film theorists suggest that depictions of 'the flashback' in film was used as a vehicle to convey disrupted memory. McKean's own approach to creating flashback sequences appears in the form of surrealistic images in which burnt out tree stumps, cannons, crashed planes, animals and soldiers appear to simultaneously play out in the foreground of the bed as Nash feverishly sleeps – pos-

sibly a reference to Picasso's *Guernica*. McKean's depiction of the flashback blurs the boundaries between both past and present and creates a seamless visual representation in which there is no separation. The monochromatic umbers of McKean's palette evoke the muddy battlefields and trenches of the war, whilst also alluding to the palettes of Nash's war paintings.

4. The second hospitalization

Fig 3. Mc Kean, D
Black Dog



At another point during 1917 Nash was taken to the Swedish Hospital in London after falling and breaking a rib whilst in action in Paschendale. McKean depicts Nash in his hospital bed, alluding to what is now commonly termed 'Survivor's guilt' as the artist recalls '*the mad nightmare of Paschendale*' where, within his nightmare filled sleep, he hears the sounds of his fellow soldiers. In her analysis of the

paintings of Paul Nash Emma Chambers suggests that during this time '*Nash was beginning to show signs of 'shell shock' now known as PTSD, in a letter to his wife Margaret, he wrote that the situation was 'unspeakable, Godless, hopeless.... I am no longer an artist interested and curious.. may it burn their lousy souls'*' [9]. During this time the images he created were barren and devoid of life.

Nash tried to make sense of the senselessness of war and of the destructiveness of humans and nature. In a series of panels in which McKean represents the artist as though walking through an internal landscape, he appears to have retreated behind his own retinas, dwarfed by complex networks of arterial caverns studded with thorns, that in turn become tangled branches in a dense landscape; he finds a bird which leads him to a nest of blue eggs, whereby he philosophises about the paradox of war and nature and asks '*How can this delicate perfection exist in the same world as a 140-ton Howitzer firing 1,000 kg shells that propel hot metal shrapnel into soft human tissue, into minds protected by perfectly proportional, frangible shells?*' [10].

Within these panels, McKean's hallucinatory images visually resonate with contemporary theories of trauma. In the case of the arterial sequences, after several pages of a wordless, chronological narrative, this then segues into a visually disrupted conclusion as panels collapse into less structured images in which networks of arteries appear to suggest visual portals or moments in time through which Nash's hand stretches and grasps further, seemingly coming closer to his reader, attempting to touch the blue eggs. Shifts in the scale of the hand from left to right of the spread increase as it first touches and then holds one of the eggs between finger and thumb. He speaks of the fragility of human minds and flesh, the eggs symbolizing them. In reversed text to the bottom right of the page, Nash asks '*Where is the insanity? In the war? In nature? In the place in my mind where these two things touch?*' [11]

Trying to process the madness he was experiencing on the battlefield and the simultaneous devastation of nature he tries to articulate his confusion: '*the most broken trees even had sprouted somewhere and in the midst,*

from the depth of the wood's bruised heart poured out the throbbing song of a nightingale. Ridiculous mad incongruity! One can't think which is the more absurd, the War or Nature) Nash was both bemused and maddened by the strange absurdities all around him, unsure whether to aim his eloquent anger at the war, at nature or at both' [12].

5. The third hospitalization

'Shell Shock', a term widely used during war time, was reframed as PTSD (Post Traumatic Stress) in the late 1980s and recognised as a real psychiatric injury or wounding of the psyche, experienced by soldiers traumatised by war rather than the formerly attributed sign of malingering or cowardice. During the first World War, those soldiers suffering from what was commonly known as 'Shell Shock' were sent to recuperate in hospitals close to the battlefields. They were often stigmatised as weak willed, seen as 'malingerers' and offered a range of procedures to cure them, including the administering of electric currents to parts of their bodies. Hypnosis, abreaction and rigorous exercise were also recommended as the cure for their illness. Psychiatrists were expected to get the wounded well enough to return to the battlefield. *'Military psychiatry in the UK is generally regarded as having begun in World War One and, indeed the recognition of psychiatric illness in general' [13]*

In 1921, following a catastrophic breakdown, Nash was once again hospitalized, in the *Queen Square Hospital for Nervous Diseases* in London. At this time, it was thought that he may not regain consciousness. In McKean's depictions of this period, through a series of panels reminiscent of analogue film complete with sprocket holes, he confronts his reader with panels depicting a cold and impersonal hospital room, in which Nash lies in a catatonic state, appearing to be unreachable. At times, it is he depicted lying comatose on the bed and at others he is replaced by the black dog, after which a whole page is devoted to a representation of what might be an operating theatre, followed by a dramatic and disturbing sequence of twelve panels, in which Nash been fully subsumed inside of the dog and struggles to fight his way out from the belly of the beast through its jaws, as if Jonah emerging from the Whale. He asks, *'Am I sloughing off the black dog or is he expelling me?' [14]*. In another panel, we see Nash's eyes peering out through the dogs' eye sockets. McKean's representation of the dog is often ambiguous, sometimes it bears Nash's face, at others it becomes a hybrid doctor and at times Nash is incarcerated within the animal.

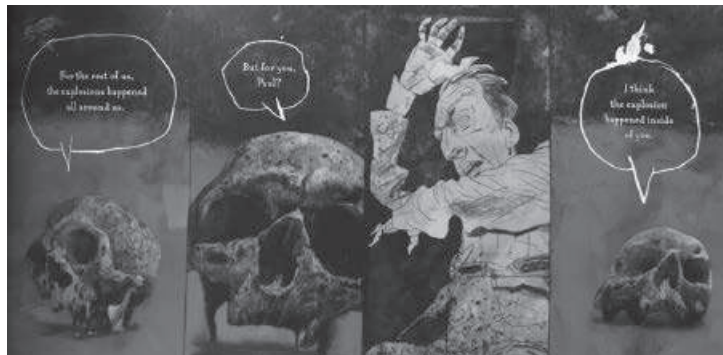
Perhaps this sequence could also be interpreted as a harrowing metaphor for rebirth in which McKean depicts Nash struggling to prise open the dog's jaws, seemingly letting out a silent scream or perhaps drawing his first breath as he gains consciousness, a violent emergence from his former retreat from the perilous world into a catatonic state. Following the violence of the previous sequence and now free of the black dog, Nash is drawn to a keyhole from which a whisp of yellow-green tendrils or perhaps the scent of nature appears, travelling from beyond the confines of the dark hospital room, this being the first appearance of colour in the other-

wise almost monochromatic pages preceding: the colour is reminiscent of spring. On opening the door of the room, he is met by a vibrant, lime green wood, a metaphor for new life for his emergence from a former soul death.

6. The Trauma Vortex

In his representations of trauma, McKean constructs sequences which are, at times, non - linear, and in which intrusive memories erupt and dismantle the narrative chronology. The repetition of certain themes, such as the black dog of the title (an allusion to depression or melancholy) which reappears throughout, at times as a guide leading Nash through deadly terrain, whilst at others chasing him and at one point in the narrative the black dog, lying on a hospital bed appears to have subsumed Nash, as he lies in a coma after suffering a breakdown. Contemporary psychologist Peter Levine in his analyses of psychological injury, has alluded to what he described as the *Trauma Vortex*, a physiological and psychological magnetic force that pulls the traumatised back in time to re -experience moments of terror. He and others working within the field refer to trauma as being ‘*embodied*’, unassimilated and still active in the central nervous system.

Fig 4. McKean, Dave
Black Dog



McKean's strategy of creating wordless visual sequences throughout *Black Dog*, which are chronologically disrupted, demonstrates his creative response to the challenge of both visually representing trauma and his understanding of problems associated with memory and trauma. He utilizes a visual strategy through which he disrupts the chronology of sequence that could be seen to allude to disruptions to both language and memory which can be lost in the wake of traumatic experiences. The traumatized person's ability to recall memories associated with particular events can be severely compromised and symptoms can present as the lack of a cohesive chronological narrative, which is replaced by gaps and silences, holes in the memory, fragments of imagery and waking hallucinations. Cathy Caruth, an important scholar in the field of Trauma proposes that '*What returns to haunt the victim, these stories tell us, is not only the reality of the violent event but also the reality of the way its violence has not been fully known*' [15].

Mc Kean skill fully reconnects his reader both with the harrowing events that Nash witnessed and that which Caruth suggests have not been

'fully known' and therefore have remained unprocessed. In a particularly potent spread, prior to Nash's final hospitalization, McKean visualizes a scenario which may be interpreted as a physical explosion expelling matter outwards, a depiction of a hole, a void, a shattering of matter. A talking skull on the right hand of the spread, suggests that unlike those soldiers confronted with violent explosions externally, Nash experienced them internally, within his mind and this would seemingly also allude to Nash's shattered mind. *'I leave little pieces of myself, scattered about the place'* [16].

7. Conclusion

Post memory is a term used by theorist Marianne Hirsch to describe how traumatic experiences can be communicated to younger generations through writing, painting and film, amongst other mediums. *'The filmic flashback is tentatively traced back to a 20s European Avant Garde and I further outline how this new film form responds to the traumatic impact of the first world war'* [17]. The lack of a cohesive narrative experienced by those following traumatic events, in which language and images are lost, is effectively alluded to in one of Nash's paintings titled *'The Void'*. Luckhurst claims that *'the only ethically appropriate form of representation is not the documentary, the archival or its reconstruction, but instead the presentation of absence, the voiding of reference, the anti-representational.'* [18] In Nash's wartime landscapes, the representation of hard evidence is missing from action. In this sense, they may be seen as holding up a mirror to the traumatised mind. The depiction of a consistent visual narrative in which representations of evidence might be documented, are lost. *'The image reveals that representations of trauma cannot constitute evidence; it documents precisely the abolition of referential system on which the notion of evidence depends'* (Baer, *Citations* 2002: 117). *Any referential art of trauma Baer consequently dismisses as trivial forms of the 'mass-produced sublime' (77).* [19]

Saltsman and Rosenberg further allude to representations of trauma within the visual arts by suggesting that *'If trauma could have a proper visual form, it might be invisible. That is, "a successful" (authentic, honest) rendering of trauma entails the failure of representation.'* [20]. War paintings produced by Nash might be seen to correlate with such theories, as the bearer of witness to these horrific wartime events, his choice to paint traumatic landscapes in the aftermath of war that do not visually represent the shattered bodies speaks to that which is unspoken, unreachable and unknowable. McKean too, although including depictions of soldiers, wounded or dead animals and broken planes, takes a surrealist approach whilst avoiding direct representations of mutilation and gore. Instead, the use of colour and media such as the oozing red present in some of his images is used to evoke a sense of trauma rather than fully confronting his reader with macerated bodies. His indirect surrealistic approach whereby he makes the invisible, visible and through his use of metaphor (such as the black dog) tackles the problematic task of visual representations of traumatic events. I would suggest that his visualisations and representations in *Black Dog* allude to what Freud refers to as the *'return of the repressed'*.

Contemporary trauma theories by those including Bessel Van der

Kolk, describe disrupted memory as a possible signifier, and today MRI scans are able to make visible the impacts of trauma on specific parts of the brain and memory, and suggest that how in such circumstances the brain ‘goes offline’ in order to dissociate from disturbing memories leaving the traumatised with the experience of physiological sensations including anxiety and fear within their bodies and in particular, within the central nervous system. *‘In trauma story is lost. Marooned episodic events express themselves in fugue states as ‘unconscious fixed ideas’. Disassociation is a defence against overwhelming experience. Intense emotional experiences disrupt the integration of perceptual and thinking processes. Memories of overwhelming events are stored as inaccessible fragments.’* [21]

The use of various visual strategies, such as shifts of colour and style throughout McKean’s process resonate with such theories, as intrusive images and bodily sensations erupt into consciousness, dismantling any attempt at a cohesive narrative.

Although visual narratives cannot claim to accurately represent traumatic events, visual techniques can be harnessed to bring some kind of understanding to audiences of how the traumatised might experience their personal narratives as related to trauma. Caruth points out that although survivors of events such as war, carry an ‘impossible’ history within them, such experiences might be witnessed and understood to an extent by those who are exposed to creative work produced in response to these. Nossery and Hubbel tackle the problematic task of visually representing trauma and question how artists might respond to such devastating subject matter without sensationalizing it. With reference to *Black Dog*, McKean bypasses such challenges by underpinning his imagery with extensive research into his subject, including the artist’s autobiography and analysis of his paintings and then distils this knowledge through taking a surrealist approach, in which Nash’s trauma emerges through dreams and disrupted states of consciousness. The expressionistic, surrealist approach adopted, successfully bypasses the more horrific and sensationalist aspects of war and its effects and rather attempts to visualize the psychological impact of trauma.

Through the adoption of certain visual approaches, the reverberating trauma disrupting the chronology of the narrative and in particular, the visual representations of mental and physiological trauma that Nash experienced, McKean provides his reader with a visual map to gaining some insights into the ways in which PTSD can affect the sufferer. The recurring theme of the black dog, the fractured sequences and nightmares, disruptions of consciousness and other repetitions of themes, seek to articulate how trauma cannot be fully known, but only alluded to.

Benyai and Stara propose that art can be beneficial and a conduit for opening up dialogue around the theme of trauma. Audiences who have become desensitized by televised footage of war, may find through the visual language of McKean’s graphic novel, a medium that introduces them to new ways of thinking about war trauma. Those who may resist learning about such events through reading purely text-based history books might find new understanding by engaging with graphic novel formats. As a tool for learning, McKean’s graphic novel might play an important role in edu-

cating younger audiences about the futility of war. To conclude, I would like to propose that McKean has created a body of work in which he provides nuanced terrains of visual information that Nash decided he could not or would not represent. McKean has, instead, visualised and brought to conscious awareness, the inner landscapes of trauma; that which is hidden and embedded within layers of trench and battlefield mud, he unearths, reintroducing landscapes as metaphors of the mind, excavating that which has formerly been buried. McKean writes, '*All the things that happen in the book are real things that happened in Nash's life, but filtered through my imagination. Much in the same way that he looked at the landscape and turned trees to bone and the ground to tortured flesh – you see something real transforming under his Brush. I thought I could do something similar with his life. Dreams are a form of reimagining – you put different events and emotions together and out of it, another way of looking at the world emerges.*' [22]

8. References

1. Promenade Along the Coast: Paul Nash and Dave McKean Revisit Dymchurch Promenade *sur la côte: Dymchurch revisité par Paul Nash et Dave McKean* Aymes, S, <https://doi.org/10.4000/polysemes.5730> accessed 20 Feb 2024
2. The Edges of Trauma Exploration, Benyai T, Stara, A, Cambridge Scholars Publishing, 2013, pg 105
3. Promenade Along the Coast: Paul Nash and Dave McKean Revisit Dymchurch Promenade *sur la côte: Dymchurch revisité par Paul Nash et Dave McKean* Aymes, S, <https://doi.org/10.4000/polysemes.5730> accessed 20 Feb 2024
4. Shell Shock to PTSD: Military Psychiatry from 1900 to the Gulf War Jones, E, Wesley, S Psychology Press, Taylor and Francis, 2005, pg 150
5. The Trauma Question, Luckhurst, R, pg 246, London and New York: Routledge, 2008
6. The Edges of Trauma Exploration, Benyai T, Stara, A, Cambridge Scholars Publishing, 2013, pg 52
7. Cultivating dead trees: The legacy of Paul Nash as an artist of trauma, wilderness and recovery, Gough, P, 2011-12, pg 326 https://www.tandfonline.com/doi/epdf/10.1386/jw-cs.4.3.323_1?needAccess=true accessed 05 Mar 2024
8. Cultivating dead trees: The legacy of Paul Nash as an artist of trauma, wilderness and recovery, Gough, P, 2011-12, pg 326 https://www.tandfonline.com/doi/epdf/10.1386/jw-cs.4.3.323_1?needAccess=true accessed 05 Mar 2024
9. Black Dog, McKean, D, Dark Horse Books, 2016
10. Chambers, E, Paul Nash, Tate Publishing, 2017, pg 30
11. Black Dog Black Dog McKean, D, Dark Horse Books 2016
12. Black Dog Black Dog McKean, D, Dark Horse Books 2016
13. Shell Shock to PTSD: Military Psychiatry from 1900 to the Gulf War, Jones, E, Wesley, S Psychology Press, Taylor and Francis, 2005
14. Black Dog, McKean, D, Dark Horse Books 2016
15. The Edges of Trauma Exploration, Benyai T, Stara, A, pg 171, Cambridge Scholars Publishing, 2013
16. Black Dog, McKean, D, Dark Horse Books 2016
17. Dirk de Bruyn: The Performance of Trauma in Moving Image Art.
18. The Trauma Question, Luckhurst, R, pg 246, London and New York: Routledge, 2008
19. Beyond Trauma: Torturous Times, R, Luckhurst, pg 77, Taylor and Francis online 2010,

- <https://www.tandfonline.com/doi/full/10.1080/13825571003588247> Accessed Mar 20 2024
20. The Edges of Trauma Exploration, Benyai T, Stara, A, Cambridge Scholars Publishing, 2013, pg 5
21. The Performance of Trauma in Moving Image Art, De Bruyn, D, pg 47
22. <https://johnpistelli.com/about/> Accessed Mar 15, 2024

11. Bibliography

23. Black Dog: The Dreams of Paul Nash, Mc Kean, D, Dark Horse Originals, 2016
24. Life in the Trauma Vortex Georgi Y Johnson article
25. <https://issp.inner-growth.org/life-in-the-trauma-vortex/>
26. Teaching History with comic books: A case study of violence, war and the Graphic Novel
27. Encounters with Historical Agency Research paper, Decker, A, Castro, Mauricio, Clark, J, Spencer <https://www.jstor.org/stable/43264152?sid=primo&seq=9>
28. Transmitting the Unspeakable Through Literature and Art, Nossery, N, Hubbel, A, L
29. Aftermath: Art in the Wake of World War One: An Exhibition Review, Hudson, S, 2018, pg 100-109
30. We Are Making a New World, *The British Art Journal*, Duffy, A.P. Vol. 11, No. 2, 2010/11, pg 86-91
31. Unopened Presents, Discovering How Dissociative Processes Obscure Our Gifts, Olivetti, K, 2019, pg 105 - 118; <https://www.theguardian.com/books/gallery/2016/may/27/black-dog-the-dreams-of-paul-nash-dave-mckean>, accessed Mar 02, 2024
32. <https://johnpistelli.com/about/> Review of Black Dog accessed Mar 15, 2024
33. The Body Keeps the Score, Vanderkolk, B, Penguin 2015
34. Waking The Tiger: Healing Trauma Levine, P, North Atlantic Books, 1997
35. Promenade Along the Coast: Paul Nash and Dave McKean Revisit Dymchurch Promenade *sur la côte : Dymchurch revisitée par Paul Nash et Dave McKean* Aymes, S, <https://doi.org/10.4000/polysemes.5730> accessed 20 Feb 2024
36. The Edges of Trauma Exploration, Benyai T, Stara, A, Cambridge Scholars Publishing, 2013
37. Cultivating dead trees: The legacy of Paul Nash as an artist of trauma, wilderness and recovery, Gough, P, 2011-12, pg 326 https://www.tandfonline.com/doi/epdf/10.1386/jw-cs.4.3.323_1?needAccess=true accessed 05 Mar 2024
38. Chambers, E, Paul Nash, Tate Publishing, 2017, pg 30
39. Shell Shock to PTSD: Military Psychiatry from 1900 to the Gulf War, Jones, E, Wesley, S Psychology Press, Taylor and Francis, 2005
40. The Edges of Trauma Exploration, Benyai T, Stara, A, pg 171, Cambridge Scholars Publishing, 2013
41. The Trauma Question, Luckhurst, R, pg 246, London and New York: Routledge, 2008
42. Beyond Trauma: Torturous Times, R, Luckhurst, pg 77, Taylor and Francis online 2010
43. <https://www.tandfonline.com/doi/full/10.1080/13825571003588247> Accessed Mar 20 2024
44. <https://www.bbc.co.uk/programmes/bo4j2yvw>, accessed February 20 2024

The Ancient Door: Narrativa gráfica adaptada ao estilo Manga, género Isekai



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Abstract

The Manga, with its characteristic Japanese comic strips style, is known for its striking and expressive drawings. There are several genres of manga, and in this project, the focus is on the Isekai genre. Isekai is a Japanese light novel/manga/anime genre that centers around a person transported to another world and having to survive in that new environment. This type of plot allows the audience to discover the new world at the same pace as the protagonist. Many of the stories in this genre feature a protagonist who starts out as an ordinary person in the original world and, upon arriving in the new world, acquires skills that help him prosper. Often, knowledge and experience from the real world makes the character make their skills more valuable in the context of the new world. The fact of transporting a person from the real world to an alternative reality allows the story's author great creative and narrative freedom, promoting the creation of a world with its own rules and characteristics. The Ancient Door is a practical project to develop an Isekai-style Manga. It is proposed to create a pilot chapter, which focuses on the life of a young adult who dies subtly and is reincarnated in a fantastic world. This chapter will focus on learning about this new world, where the main character will be able to communicate with the reader in various ways, so that they both understand the tales and challenges of this new reality.

Keywords

Isekai, New World, Fantasy, Illustration, Publication

1. Introdução

The Ancient Door é um projeto de ilustração e investigação, cujo objetivo será produzir um capítulo-piloto no estilo ilustrativo japonês, no formato manga. Com o foco num mundo imaginário, este projeto procura compreender e representar o subgénero *Isekai*, um género que teve mais exploração no início do séc. XXI. A narrativa centra-se numa rapariga que morre espontaneamente e reencarna num mundo de magia e poderes onde ela vai ter de aprender e lidar com este novo mundo. O formato de novela gráfica, com o lançamento estratégico de um capítulo piloto, foi concebido com o objetivo claro de suscitar a pesquisa da narrativa japonesa e explorar a evolução desse meio ao longo do tempo, especialmente desde o período pós-guerra. Este projeto visa proporcionar uma compreensão mais profunda da influência significativa que as histórias

da banda desenhada japonesa exercem sobre a cultura global. O crescimento notório dos Animes/Mangas não comprovam apenas a popularidade como também a relevância duradoura dessas narrativas visuais, não proporcionando um momento de lazer, mas incentivando gerações a refletirem sobre questões sociais, culturais e individuais. A decisão da criação de um capítulo piloto não se encerra na apresentação do trabalho, mas também pretende a conexão ou imersão com o público-alvo, para promover a continuação da obra *The Ancient Door*.

2. O que é o Manga?

A expansão da cultura japonesa para o Mundo.

O manga japonês tem as suas raízes no período *Edo* (1603-1868), quando várias formas de arte e entretenimento popular começaram a se desenvolver no Japão. Durante esse período, a arte de pintura em rolos (*emakimono*) e os livros ilustrados (*kibyoshi*) foram formas populares de entretenimento visual, muitas vezes narrando histórias satíricas, históricas ou folclóricas.

Entretanto, o manga moderno começou a propagar-se de maneira mais significativa no final do século XIX e início do século XX. A influência das bandas-desenhadas americanas e europeias, bem como a popularização das técnicas de impressão em massa, contribuíram para o desenvolvimento do manga japonês. O manga japonês foi moldado por uma variedade de influências culturais e artísticas. A *Era Meiji* (1868-1912), marcada pela modernização e ocidentalização do Japão, trouxe uma série de mudanças sociais e tecnológicas que também impactaram o mundo do manga [1].

A introdução da imprensa de massa e das técnicas de impressão permitiu uma distribuição mais ampla e acessível do manga [2]. Desde então, o manga tornou-se parte da cultura popular japonesa, abrangendo uma variedade de géneros, estilos, e ganhou reconhecimento internacional. As bandas-desenhadas tornaram-se uma forma de expressão cultural amplamente reconhecida, influenciando leitores em outros países asiáticos e em todo o mundo devido ao seu estilo de arte e narrativa únicos. No século XIX, o pintor japonês Katsushika Hokusai publicou uma série de livros encadernados chamada *Hokusai Manga*, deixando um legado notável na história dos mangas. A série de 15 volumes contém uma variedade de desenhos que retratam cenas da vida quotidiana, animais, pessoas e figuras mitológicas [3]. O trabalho seminal de Hokusai é amplamente considerado como uma das primeiras formas de mangá, estabelecendo as bases para a narrativa visual contínua que caracterizaria mais tarde os mangas modernos.

A palavra “manga” é uma combinação de dois termos: “man”, que significa inconsciente ou aleatório, e “ga”, que se refere a um desenho ou imagem [4]. O termo passou a representar não apenas as bandas desenhadas japonesas, mas uma forma completa de arte visual narrativa que se tornaria uma parte importante da cultura pop japonesa. Embora as primeiras histórias em banda desenhada tenham sido publicadas por algumas editoras nas décadas de 1920 e 1930 [5], os mangas como os conhecemos hoje só ganharam fama e reconhecimento por volta da década de 1940. Durante a Segunda Guerra Mundial, estes não foram publicados devido à censura e à falta de recursos. Porém, com o fim da guerra em 1945, a publi-

cação de manga começou a se recuperar. Para os japoneses que enfrentaram o sofrimento da guerra e as dificuldades do pós-guerra, os mangas tornaram-se uma forma de lazer e escapismo. Essa crescente demanda por entretenimento contribuiu para a popularidade e o desenvolvimento da indústria de manga no pós-guerra. Foi neste período que vários artistas começaram a destacar-se, sendo um dos mais destacados Osamu Tezuka. Osamu Tezuka não apenas revolucionou o estilo e a narrativa do manga, mas também desempenhou vários papéis de artista, diretor e roteirista de manga. A sua influência na indústria foi tão grande que ele foi frequentemente chamado de “Deus dos Mangas” e até comparado ao Walt Disney no Japão. As suas obras incluem clássicos como «Astro Boy» e «Black Jack», que ainda hoje são apreciados e influentes [6].



Fig.1 (capa do volume 1, Astro Boy de Osamu Tezuka, publicado em Abril de 1952)

Na década de 1960, inúmeros jovens japoneses, incluindo estudantes universitários e trabalhadores emigrantes de classe baixa em áreas urbanas, começaram a rebelar-se contra os acordos políticos, sociais e culturais existentes. Os jovens expressaram as suas aspirações por meio de movimentos políticos radicais e de uma vasta gama de novas atividades culturais populares, e o meio da banda-desenhada cresceu consideravelmente na segunda metade da década. As atividades políticas e culturais desta geração promoveram o desenvolvimento de grandes indústrias culturais na década de 1970, transformando os novos interesses intelectuais e gostos

estéticos da juventude japonesa do pós-guerra no mercado. Embora o significado político do radicalismo juvenil tenha-se tornado totalmente obscuro até o início da década de 1970, as gerações mais jovens, a cultura juvenil e as jovens mulheres tornara-se o foco de um discurso nervoso sobre o aparente declínio de uma sociedade japonesa tradicional [7].

No Japão do pós-guerra, a juventude emergiu como uma categoria contestada e muitas vezes inteiramente simbólica. A cultura jovem (cultura wakamono¹) que floresceu no Japão desde a década de 1960 é considerada o caldeirão mágico do individualismo japonês do pós-guerra e é vista de forma negativa por muitos intelectuais proeminentes. A identificação de artistas amadores de manga como *otaku* e o debate social em curso sobre o comportamento e a psicologia dos jovens japoneses relativamente à manga reavivou um tema importante de debates anteriores sobre a juventude sob uma nova forma. Os *otakus* foram retratados como parte de uma população jovem que encarna os extremos lógicos do comportamento social individualista, particularista e infantil. Nas suas representações frequentemente macabras do estilo de vida e da subcultura *otaku*, os cientistas sociais exprimiam talvez uma profunda ansiedade quanto ao carácter geral da sociedade japonesa na década de 1990. As semelhanças surpreendentes e inesperadas entre as tendências culturais do Japão contemporâneo e de outras sociedades tardo-industriais pro-

porcionam muitas vezes uma visão social pelo menos tão profunda como a que se encontra nas diferenças culturais que são quase exclusivamente o foco da investigação académica. As semelhanças no desenvolvimento cultural de diferentes sociedades indicam que os processos sociais e culturais internacionais são onnipresentes [8].

O manga amador é um bom exemplo a este respeito: os géneros que emergiram da subcultura japonesa do manga amador na década de 1980 são muito semelhantes aos que existem na produção cultural dos fãs americanos e britânicos de televisão e banda desenhada desde o início da década de 1970. O género de animação, que se tornou popular na nova cultura de fãs britânica e americana dos anos 80 e início dos anos 90 e dominou os vídeos de animação importados, teve origem no final dos anos 1980 com o aparecimento da manga *lolicon* (ロリコン, abreviação de Lolita, a palavra é usada no contexto de pedofilia) no mundo do manga amador. O manga *shoujo* (少女漫画, um dos géneros mais populares na categoria de anime/manga, retrata romance destinado para jovens adultos ou público feminino), escrita por homens ou exclusivamente para homens, com raparigas bonitas empunhando armas pesadas e a lutar para sobreviver num mundo de ficção científica, foi uma grande influência no anime japonês preferida pelos britânicos na década de 1990. O fascínio espontâneo das mulheres britânicas, americanas e japonesas em transformar dramas em série em paródias homoeróticas sugere que todas elas tiveram experiências sociais e culturais muito semelhantes. O que é interessante aqui não são as diferenças frequentemente mencionadas nos papéis das mulheres nos dois países, mas as semelhanças implícitas nas suas experiências. Ao mesmo tempo, a popularidade do anime e da manga de influência romântica japonesa no Reino Unido e nos Estados Unidos na década de 1990 sugere que muitos jovens no Reino Unido, nos Estados Unidos e no Japão também viveram circunstâncias semelhantes e adquiriram gostos e interesses muito semelhantes.[9]

Esta subcultura internacional de manga e *Dōjinshi* (同人誌, termo utilizado para publicações independentes, normalmente revistas) surgiu espontaneamente nos meios de comunicação social amadores, fora das estruturas formais das indústrias dos meios de comunicação social e da cultura, o que indica mais uma vez a forma ativa como as indústrias dos meios de comunicação social e da cultura nestes países estão a moldar culturas nacionais específicas. A cisão entre a indústria editorial e o movimento amador de banda desenhada contemporâneo, nos anos 80, deixou o movimento amador de banda desenhada num estado de anarquia. A organização central da banda desenhada pelos editores e editores de banda desenhada desapareceu do cenário amador, e não existia qualquer sistema de reconhecimento, disciplina artística ou controlo de qualidade para a substituir. Os artistas que não podiam publicar o seu trabalho em revistas de manga aproveitaram este espaço desorganizado para produzir e distribuir o seu trabalho como amadores. Um novo género de manga emergiu do meio da banda desenhada amadora, impulsionado unicamente pelo poder do seu apelo de massas: tal como a década de 1960 tinha encorajado a expansão comercial das revistas semanais, a interação de

massas com o meio da banda desenhada tinha-o dividido em dois géneros distintos na década de 1980. O meio da banda desenhada amadora foi um fracasso colossal do meio. A enorme expansão do meio da banda desenhada amadora demonstra mais uma vez que as características mais salientes da banda desenhada na sociedade do pós-guerra eram a popularidade e a acessibilidade. [10]

Além disso, a exposição generalizada dos jovens a este meio despertou a preocupação das autoridades políticas e educativas. As preocupações com o alcance comercial da banda desenhada e o drama social da *gekiga*, expressas via campanhas de censura da banda desenhada entre 1965 e 1975, ressurgiram entre 1990 e 1992. As campanhas de censura que ressurgiram em 1990-1992 foram dirigidas à banda desenhada amadora, atualmente a área menos controlada e mais livre do meio da banda-deseenhada [11].

3. Vamos falar sobre géneros. O Isekai e a sua popularização!

O *Isekai* é um tipo de narrativa presente em animes, mangas e *light novels* que apresenta a trajetória de um indivíduo comum, geralmente um NEET (*Not in Education, Employment, or Training*), que sofre um acidente trágico, comete suicídio, é assassinado ou simplesmente fica exausto após um longo dia de trabalho, como retratado em “Isekai de Mofumofu Nadenade suru Tame ni Ganbattemasu”, após esses eventos adversos, a protagonista renasce numa nova realidade, mundo ou universo, permitindo ao público explorar junto com o personagem principal essas novas descobertas. O protagonista costuma ser representado por cabelos e olhos escuros, uma característica comum na população japonesa, facilitando a identificação do público. Ao adentrar nesse novo universo, o protagonista pode manter a sua aparência original ou renascer com traços diferentes, podendo ser humano, elfo, aranha e até mesmo criaturas inéditas, como “Tensei Shitara Slime Datta Ken” [12], onde o protagonista reencarna como um Slime, uma entidade azul e gelatinosa com capacidade de absorver outras criaturas e os seus poderes. O objetivo do personagem é explorar e conquistar esse mundo habitado por monstros. Esse estilo narrativo tem conquistado um público significativo nos últimos anos, atraindo uma ampla audiência não só no Japão, mas também internacionalmente. Com a sua temática fantasiosa e muitas vezes escapista, essas histórias oferecem aos espetadores e leitores uma fuga cativante da realidade, transportando-os para cenários repletos de aventura, magia e possibilidades infinitas.

Segundo o artigo *The Darker Sides of the Isekai Genre: An Examination of the Power of Anime and Manga* de Curtis Lu, existem vários tipos de *Isekai*, temos o *Standart Isekai*, essa categorização de *Isekai* é vista por alguns como o padrão estereotipado que a maioria das obras introdutórias adotou. Muitas das obras mencionadas nas secções subsequentes se inspiram nesse modelo e desdobram-se em diferentes direções, mostrando a popularidade desta categoria. Além disso, esse é o estilo mais comum e predominante de *Isekai*, com diversas características que o distinguem. Por outro lado, essas obras são fortemente influenciadas por videojogos. Como resultado,

elas compartilham muitas semelhanças e referências com mecânicas e até objetos de videogames, que traz uma sensação de reconhecimento para muitos espetadores. Essa característica também auxilia na compreensão do género, já que muitos protagonistas podem aceder a um “menu” onde todos os seus dados numéricos, como força, inteligência e sorte, podem ser visualizados. Isso ajuda os leitores a identificar imediatamente quem é o personagem e avaliar o quão forte eles estão no momento. Outra característica é que os protagonistas têm um objetivo específico em mente. Isso pode envolver derrotar o grande mal, que frequentemente é um rei demónio de alguma forma, ou salvar o mundo. A última característica, que também se aplica a outras categorias de *Isekai*, é que os protagonistas possuem uma habilidade ou poder especial e frequentemente dominante que apenas eles podem utilizar. Essas habilidades podem ser descobertas por conta própria ou concedidas por um deus, ou deusa no novo mundo [13].

Enquanto os *Standarts Isekais* se centram na ação, na aventura e no drama e retratam a utilização pelo protagonista de capacidades dominantes, alguns *Isekai* centram-se no romance. Nas histórias de romance, as capacidades especiais tornam frequentemente o protagonista mais popular junto do sexo oposto, realçando a importância desta característica. Para a maioria dos *Isekai* que se enquadram nesta categoria, o público-alvo é fácil de ver, a maioria apresenta um protagonista masculino com novos poderes num novo mundo, em que se apaixona por uma rapariga muito bonita e ao longo da história torna-se um “alvo” de várias mulheres. Ao contrário das histórias de *Isekai* com personagens masculinas, à medida que a popularidade deste género cresce, os autores estão a tentar atrair também o público feminino. Em *Otome Game No Hametsu Flag Shika Nai Akuyaku Reijou Ni Tensei Shiteshimatta*, de Yamaguchi, a heroína reencarna num jogo Otome que conhece bem. Em vez de ser a heroína, transforma-se numa personagem vilã conhecida por intimidar o herói. Ela apercebe-se de que, se seguir a história original do jogo, acabará por morrer no decorrer da história. Para evitar isso, decide mudar o destino da sua personagem, tornando-se amiga do herói [14]. Curiosamente, as suas ações também fazem com que os homens por quem se apaixona se interessem por ela em vez do protagonista, sem se aperceber, ela própria se torna a protagonista.

O *Isekai Slow-life* (vem da palavra japonesa *nonbiri* [のんびり], que significa despreocupado/sem preocupações e tranquilamente) enquanto o género *Isekai* na totalidade se concentra na ação tensa e nas batalhas com adversários fortes, há alguns *Isekai* que são completamente o oposto, mostrando a força e a diversidade do género. A “Slow-life” é outra categoria de *Isekai* mono que pode apelar a um público vasto, mas que se destina àqueles que querem distrair-se das suas vidas ocupadas e aborrecidas e relaxar. Tal como o protagonista, os principais leitores deste subgénero podem exibir um nível mais elevado de escapismo. Uma grande diferença relativamente à típica história do outro mundo é que as personagens do novo mundo não estão geralmente interessadas em tornar-se heróis ou aventureiros. Além disso, as competências e habilidades que adquirem não são normalmente úteis em combate. Em vez disso, preferem viver a um ritmo mais lento e apreciar o ambiente do Novo Mundo.

Paralelamente temos o *Outlier Isekai* que, por um lado, incorpora histórias extravagantes inspiradas em muitos aspetos de outros géneros e, por outro lado, sai do molde estabelecido e vai exatamente na direção oposta. Tal como acontece com outros géneros, os criadores têm de inovar e surpreender constantemente para manter os consumidores interessados. De certa forma, isto é bom para o género, porque significa que tanto os criadores como os espetadores têm um interesse estabelecido nestas histórias. Mas os criadores também têm de inventar situações cada vez mais ridículas para fazer sobressair o seu trabalho. O resultado são obras de outro mundo muito divertidas que mantêm o género fresco e vital. Nos últimos anos, este estilo tornou-se uma das formas mais populares e interessantes de visualizar o género “outro mundo”, tanto do ponto de vista do espetador como do autor. Para o autor, a liberdade de utilizar as regras básicas do cenário permite a criação de novas histórias com um espírito livre. Consequentemente, o público também pode usufruir de mais liberdade criativa, mantendo intactas as regras fundamentais. Uma tendência interessante deste género é de ter um reencarnada numa criatura não humana, no anime *Kumo desu ga, Nani ka*, retrata uma história de uma turma transportada para um mundo Isekai com monstros e magos, a protagonista separada dos restantes personagens é a única que reencarna como uma aranha, o objetivo desta é tornar-se cada vez mais forte para se transformar num monstro de *Rank-S* (categoria máxima atribuída em jogos) em paralelo os colegas de turma tornam-se em magos poderosos para eliminar monstros. [15]

4. O novo mundo? O projeto The Ancient Door!

O projeto teve início do seu desenvolvimento em 2023 na modalidade de projeto para conclusão do Mestrado em Design Gráfico e Projetos Editoriais, sob a orientação do professor Júlio Dolbeth.

The Ancient Door aponta para a criação de um capítulo-piloto com o objetivo de desenvolver entre 36 a 42 páginas, para responder à problemática da criação de um manga do género Isekai, foi realizado uma recolha de estado da arte de obras do género Isekai, para encontrar uma semelhança entre estas recolheu-se o capítulo-piloto de cada uma e criou-se uma grelha síntese onde se fez a recolha de quantas páginas foram elaboradas na totalidade, e quantas destas páginas correspondiam ao mundo real, ao mundo Isekai e até as páginas que retratavam a passagem da morte para o renascimento. Através desta síntese permitiu entender como é que os artistas/roteiristas relacionavam a mesma personagem a dois mundos, por exemplo, no capítulo-piloto da obra “Tensei Shitara Slime Datta Ken” vemos o protagonista como um contabilista de sucesso e ao tentar defender um colega de trabalho, morre num assassinato trágico e conseguimos observar a passagem da sua alma para um novo corpo, e ao longo do capítulo acompanhamos-o a aprender a mexer-se, andar e até mesmo aceder a um novo “menu” onde ele adquire a capacidade de falar com um programa que lhe dá informações ao longo da história. Só neste pequeno contexto vemos que não é importante uma representação detalhada da vida “normal” do protagonista, mas sim a capacidade do seu pensamento para resolver soluções neste novo mundo.

O objetivo da narrativa é cumprir os padrões do género Isekai Slow-Life. Como antes revisto, é um estilo que permite acompanhar o crescimento da protagonista (img.2), onde iniciamos a história desde o momento que ela reviveu neste novo mundo, e acompanhamos o seu envelhecimento e a maneira como interage com novos personagens, idêntico ao estilo de narrativa do manga *Mushoku Tensei de Rifujin na Magonote*, onde acompanhamos o protagonista desde que renasceu no novo mundo e seguimos a sua jornada e como ele interage com a magia.

A narrativa foca-se no dia aparentemente comum de Yuna, uma estudante que vive sozinha. Após uma rotina habitual, pontuada por lembranças dolorosas do seu passado trágico, Yuna sofre um acidente grave. No leito da morte, a sua mente é inundada por pensamentos sobre todas as experiências que perdeu devido às dificuldades da sua vida anterior, quando finalmente abre os olhos, Yuna percebe que está num mundo completamente novo, com uma aparência totalmente diferente.

A história avança alguns anos, revelando que Yuna, na verdade chama-se Amelia, reencarnou em um Isekai (novo mundo), um universo repleto de magia e espécies que ultrapassam as fronteiras do que conhecemos no nosso mundo. Neste novo ambiente, Amelia descobre habilidades mágicas e enfrenta uma série de desafios que testam a sua coragem e determinação. Neste universo fantástico, Amélia encontra-se rodeada de seres místicos e deve aprender a navegar numa sociedade onde as regras da natureza e da convivência são muito diferentes daquelas que conheceu. A sua jornada é marcada pela descoberta de poderes ocultos, amizades inesperadas e pela luta constante para compreender e dominar a magia que se tornou parte da sua nova realidade. Em meio a esses desafios, Amélia adapta-se ao seu novo corpo e identidade, explorando um mundo vibrante e perigoso. Cada dia traz uma nova aventura onde ela deve usar a sua inteligência e força de vontade para sobreviver e prosperar. Com o tempo, Amelia transforma-se de uma estudante simples e solitária numa heroína, desvendando os mistérios deste novo mundo e encontrando um novo propósito que transcende o seu passado trágico. A história *The Ancient Door* é uma viagem de renascimento e descoberta, onde enfrenta as sombras do passado e as maravilhas do presente,

abrindo caminho por um mundo que oferece perigos e possibilidades infinitas.

O título *The Ancient Door*, surge de uma magia criada para o imaginário do mundo *Isekai*, onde a protagonista será a personagem que desperta essa magia antiga, como o nome indica “*Ancient*”, ela será a responsável por guardar a porta que dará acesso a vários segredos deste mundo de magia.

O estilo de desenho adotado neste projeto é inspirado na escola de ilustração japonesa, especificamente no estilo manga, direcionado para um público-alvo que tem interesse no género Isekai e fantasia.

Img.2 Ilustração digital
da protagonista



O design dos personagens, cenários e objetos é cuidadosamente elaborado para refletir as características distintivas do manga, utilizando traços expressivos e detalhes ricos que capturam a essência do gênero.

Para a criação desta narrativa gráfica, uma variedade de materiais específicos será utilizada para garantir a alta qualidade e a autenticidade das ilustrações. Os aparos G serão empregados pela sua facilidade de manuseamento, permitindo traços precisos e controlados. O aparo Maru será utilizado para áreas mais pequenas e detalhes delicados, enquanto o aparo Saji será ideal para desenhar cenários, proporcionando linhas fluídas e contínuas.

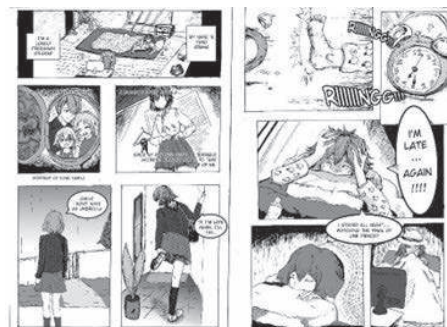
Além dos aparos, serão utilizadas canetas e pincéis pretos para áreas que necessitam de maior preenchimento, garantindo uniformidade e profundidade nas ilustrações. A tinta sumi, uma tinta preta aguada conhecida por sua capacidade de secagem rápida, será utilizada para evitar o arrastamento de tinta e garantir a nitidez dos desenhos ao longo de todo o processo de criação. Esta seleção cuidadosa de materiais não apenas facilita o processo de ilustração, mas também assegura que o estilo visual permaneça fiel às tradições do manga.



img.3 Processo gráfico por fases de uma das páginas desenvolvidas

O modo de leitura desta narrativa gráfica seguirá rigorosamente as mesmas regras do manga tradicional japonês. Assim, o sentido de leitura será oriental, da direita para a esquerda, preservando a autenticidade e a experiência original do manga. Tanto as tiras quanto os balões de diálogo serão

organizados seguindo esse mesmo padrão: sempre de cima para baixo e da direita para a esquerda. Essa escolha é fundamental para manter a integridade cultural e estilística do manga, proporcionando aos leitores uma experiência imersiva e fiel às convenções deste estilo de ilustração (img.4).



img.4 exemplo de dupla página do projeto

5. Considerações finais

The Ancient Door é um projeto ilustrado que encapsula a ideia de uma narrativa adaptada ao gênero Isekai. Dirige-se a um público interessado nesta temática e pretende a materialização de um objeto editorial no estilo tradicional japonês. Este projeto aborda a importância do tema Isekai no contexto atual, visando contribuir para o acolhimento deste gênero no ambiente acadêmico.

O projeto será distribuído tanto online, via plataformas adaptadas à publicação de mangas amadores como a Mangaplus, Fliptru e Tapas, quanto em formato físico. Além disso, estará presente em bancas de artistas e participará em eventos do universo Geek, como a Comic Con e IberAnime. Esta estratégia visa ampliar a recepção de leitores e promover uma maior interação entre a artista e o público interessado neste novo universo Isekai.

6. References

1. Koba, L. (2020, July 24). A História do Mangá. Viajando Com Histórias. <https://viajandocomhistorias.wordpress.com/2020/07/24/a-historia-do-manga/>
2. Kinsella, S. (1998). Japanese Subculture in the 1990s: Otaku and the Amateur Manga Movement. *Journal of Japanese Studies*, 24(2), 289. <https://doi.org/10.2307/133236>
3. Katsushika Hokusai THE COMPLETE WORKS. (2017). Katsushika Hokusai. [Katsushikahokusai.org. https://www.katsushikahokusai.org/biography.html](https://www.katsushikahokusai.org/biography.html)
4. Mangá Studio Japan Sunset . (1996). O que é Mangá? Escola Japan Sunset. <https://www.fabioshin.com/o-que-e-manga>
5. Alt, M. (2020). Pure Invention : How Japan Made the Modern World. Crown.
6. Kinsella, S. (2000). Adult manga : Culture and power in contemporary japanese society. RoutledgeCurzon.
7. Júnior, R. (2017). UM RETRATO DA INDÚSTRIA CULTURAL DE MASSA JAPONESA CONTEMPORÂNEA SOB A PERSPECTIVA DO DOCUMENTÁRIO “TOKYO IDOLS” (2017) (pp. 5-12).
8. Lyon-Bestor, V., Bestor, T. C., & Yamagata, A. (2013). Routledge handbook of Japanese culture and society. Routledge, Imp., Cop.
9. Masami Toku. (2015). International Perspectives on Shoyo and Shoyo Manga. Routledge.
10. Schodt, F. L. (2012). Dreamland Japan : Writings on Modern Manga. Stone Bridge Press.
11. Kinsella, S. (1998). Japanese Subculture in the 1990s: Otaku and the Amateur Manga Movement. *Journal of Japanese Studies*, 24(2), 289. <https://doi.org/10.2307/133236>
12. hew, G. (2019, April 27). What caused anime's isekai boom? [www.youtube.com. https://www.youtube.com/watch?v=coXmYSf7UXs&t=157s](https://www.youtube.com/watch?v=coXmYSf7UXs&t=157s)
13. Lu, C. (2020). The Darker Sides of the Isekai Genre: An Examination of the Power of Anime and Manga20 (p. 1/37) [Dissertation]. <https://repository.usfca.edu/cgi/viewcontent.cgi?article=2190&context=capstone>
14. MyAnimeList. (2020, June 21). Otome Game no Hametsu Flag shika Nai Akuyaku Reijou ni Tensei shiteshimatta... [Myanimelist.net. https://myanimelist.net/anime/38555/Otome_Game_no_Hametsu_Flag_shika_Nai_Akuyaku_Reijou_ni_Tensei_shiteshimatta](https://myanimelist.net/anime/38555/Otome_Game_no_Hametsu_Flag_shika_Nai_Akuyaku_Reijou_ni_Tensei_shiteshimatta)
15. MyAnimeList. (2015, December 22). Kumo desu ga, Nani ka? [MyAnimeList.net. https://myanimelist.net/manga/95353/Kumo_desu_ga_Nani_ka](https://myanimelist.net/manga/95353/Kumo_desu_ga_Nani_ka)

Animating patient stories for medical education: the power of personified storytelling



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Abstract

Medical animations are widely used in public health education. However, this paper posits that incorporating narrative-based patient stories can be more persuasive than didactic infographics, making them particularly effective in eliciting attitudinal, judgmental, and behavioural changes. Cultural representation in patient education is still not fully explored, especially in Southeast Asia, specifically Singapore, where communities of different ethnic backgrounds coexist. More research is needed on how culturally relevant patient stories can be delivered in an informative yet engaging and entertaining manner in a medical context. This project explores how we can devise strategies utilising narrative animation to increase engagement and memory retention in viewers. We discuss creating two short, animated films that aim to entertain whilst communicating the concepts of genetic conditions and hereditary cancer. By documenting the films' creation and highlighting the iterative processes, we show how it was possible to achieve information accuracy with engaging visual storytelling incorporating visual cues for a culturally diverse audience. The paper illustrates the study design and creative decision-making to ascertain how animation and visual storytelling can raise the public's genetic literacy by educating them about hereditary genetic conditions.

Keywords

Medical Animation, Patient Stories, Visual storytelling, Medical Education

1. Introduction

The COVID-19 outbreak demonstrated the critical role of health communication in mitigating the devastating impact of a pandemic and how effective health communication is vital in disseminating accurate information and dispelling misinformation. Properly designed media and creative storytelling can reduce uncertainty, address fears, and promote adherence to behavioural changes such as social distancing [1]. The ability of animation to transcend cultural and verbal boundaries is compelling once we look at how animated graphical informatics have become ubiquitous in science and medicine disciplines. Learning and teaching research confirms that the information an animated character presents promotes viewer retention. [2] The process of graphical simplification, spoken narrative and onscreen symbols and text contributes to a reinforced learning process, cited as a 'spatial contiguity effect', a 'multimedia effect', and a 'personalisation effect' [3]. Starting with how animations

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are used in medical education, we highlight the research supporting the role of patient stories in health education. Patient stories are personal accounts of individuals detailing their experiences with illness, medical treatments, or healthcare encounters [4], providing unique perspectives and insights into the emotional, physical, and social impacts. They also enhance communication, promote cultural competency, and foster patient-centred approaches to care, which are efficacious in public health education. The narrative nature fosters a heightened persuasive power compared to didactic information, making them more likely to elicit attitudinal, judgmental, and behavioural changes [5]. We show how animated patient stories can be designed, conceived, and tested under this framework, arguing that animated patient stories can enhance medical communication to optimise patient and associated carer education and subsequent decision-making by targeting cognitive and affective aspects in the viewer. As the team operated in a particular geographical setting, the research also proposes tailoring the animation content to address the targeted community's specific needs and cultural background.

Therefore, the goals arising from these animated films are several-fold:

To create an accessible and educational resource to empower carriers in their choices regarding genetic disease management, especially in a local Asian context.

To understand the process and limitations of creating an animation featuring an Asian individual, where studies in this field have primarily involved Caucasian participants.

To establish animation authorship in creating patient stories for medical communication.

2. Context

2.1. Affordances in Animation

Animation has the potential to contextualise and disseminate ideas and abstract knowledge, delivering complicated topics in ways that are easier to understand; both these aspects have been well documented by scholarly research. Roe (2013) writes, “factual information is communicated more efficiently via animation than the spoken word” and “animated segments are still used in a non-fictional context to clarify, explain, illustrate and emphasise” [6]. Animation is a way of visualising the invisible. It is regarded as an effective communication tool because it can provide complicated information in a short amount of time.

In Understanding Animation (2008), Paul Wells defines the many affordances of animation to communicate effectively [7]. Narrative strategies include condensation and ellipsis (compressed or edited continuity); synecdoche (a small image or idea that represents the whole or more complex picture); symbolism or metaphor (recognisable signs); sound and choreography (movement, pattern, and rhythm); and penetration (ability to ‘see inside’ and depict inner workings). As it is not reliant on linguistic comprehension or ability, animation can have narratives that are neither linear nor rational. It effectively communicates information to audiences through associative recognition of appealing characters that represent

“every person”. Jayne Pilling echoes Wells’s list of affordances: “Unrestricted by the dictates of photographic realism and traditional narrative, animation can make ... experience palpable via visual imagination, metaphor, metamorphosis and highly creative use of sound.” [8] Animation helps show elements of psychological vulnerability; as Wells comments, “animation has become a vehicle by which inarticulable emotions and experiences may be expressed” [7]. It can also portray issues that cannot be shown as real-life images, whether elements of stories or testimonies are too painful or impossible to photograph or real-life events that haven’t been caught on film and are incapable of adequately being recreated in live action. The penetration quality is an important aspect of animated biographies, autobiographies, and documentaries, particularly those focusing on mental states of mind [9].

2.2. Animation in Medical Context

Until recently, animation used in medical education was primarily limited to visualising complex diagnostic concepts and scientific data in infographics. Yet, based on evidence around the importance of human experience and emotive connection, animated visual storytelling could be understood as a crucial component in health education. Patient narratives could help in “building trust between healthcare practitioners and the people they serve”, and the use of storytelling in communicating serves “human experiences and emotions across disciplines, ages, and cultures” [10].

There is an emphasis that health communication “must capture the public’s attention” to convey reliable messages to be accessible “across languages, ages, cultural affiliations, and education levels” [11]. Yet, the message should not be packaged didactically nor rely mainly on the technical presentation of information, which runs the risk of missing the target audiences, where “framing health messages as informational arguments have proven to be less effective for changing behaviours” [12].

There is value in highlighting the emotional aspect of patient stories, particularly for viewers to understand the ‘genetic discrimination’ that carriers are subjected to. Discriminatory action is defined as unfair treatment by employers, insurers, and other institutions towards those at risk of hereditary conditions. In Asians, this is coupled with the stigma of having ‘bad genes’ [13], where cancer or hereditary conditions have been regarded as taboo and something that should be left unspoken and would negatively affect marriage prospects [14]. Such beliefs within Asian communities have been significant barriers in the creation of filmed patient stories, as carriers were concerned about being singled out and identified as tainted.

Prior research has identified that effective health communication involves the integration of “pictures, narratives, and entertainment education, where the health message... is embedded” and that “the effectiveness and long-term impact of health messages... depend on how well the end users can identify with the content that is presented” [12]. Thus, we aimed to prove that compelling storytelling for healthcare is

best mediated via a culturally sensitive animated narrative. We show how artistic presentations can impact healthcare decisions that arise from new knowledge of a genetic diagnosis whilst addressing concerns of discrimination and marginalisation in an Asian context.

2.3. Animation and Genomics

Specifically, information within the field of genomics is often complex, posing informational challenges for the afflicted. Individuals diagnosed with cancer predisposition syndromes are frequently faced with the task of communicating their genetic test results and diagnosis to at-risk relatives. Those relatives are then recommended to consider genetic testing to clarify their at-risk status. The disclosure process can be challenging due to factors like age, gender, life stage, and cultural differences, compounded by poor genetic literacy [15].

In a meeting held at the National Human Genome Research Institute in 2011, patient narratives and storytelling were emphasised, illustrating the relevancy of genomic concepts in real people and highlighting the need to raise genetic and genomic literacy². This triggered several projects studying how to engage the public on genomics and genetic health issues. Namely, *My Genome Sequence* (Lewis et al., 2020) and *Whole Genome Sequencing and You* (Sanderson et al., 2016) were projects that used animation to explain the necessity for genomic sequencing. Both films used characters as graphical elements and achieved their goal of communicating with and educating the public. Still, they did not feature specific patient narratives or platforms for viewers' emotional engagement, making the information less personal and potentially less relatable.

Numerous examples of narrative storytelling in animation cover genetic-related stories, favouring entertainment versus the accuracy or factuality of the information. In Stephen Spielberg's *Jurassic Park* (1993), the short-animated *Mr. DNA* sequence conveys a complex fictional yet plausible narrative quickly and efficiently. Interspersing the lively and cutesy caricatured narrator and cartoon-style diagrammatic infographics with what appear to be real scientists in a lab, the scene communicates plausibly to an audience exposed to this form of graphical documentary media. In the mini-movie, the not-so-easy-to-grasp concepts seem uncomplicated through the affordances of 'condensation', clever editing and visual storytelling, and character animation³. The hybrid movie *Osmosis Jones* (2001) follows the adventure of the titular character, a white blood cell depicted as a policeman who works to protect his host against a deadly infectious disease, Thrax. Using a heavily caricatured style and primarily focused as a family entertainment piece, it nevertheless contains medical science fundamentals via the affordances of 'penetration' – being able to see inside the workings of the body.

The French educational television series. *Il était une fois... la Vie* (Once

² <https://pubmed.ncbi.nlm.nih.gov/23448722/>

³ It is interesting to add that the idea has given rise to literature that debunks and explains the science behind the popular franchise, guiding the reader through theoretically recreating a dinosaur through real-life genetic engineering. DeSalle, R., & Lindley, D. (1997). *The science of Jurassic Park and the Lost World, or How to build a dinosaur*.

upon a time...the Life (1987), directed by Albert Barillé, is also dedicated to the structures and functioning of the human body. Primarily targeting a young audience, it illustrates, with the help of animated characters and anthropomorphic figures, its microscopic components, from white blood cells to vitamins through to components of DNA.⁴

The dichotomy between animated popular media and animation used in other disciplines presents a ground for structured research. Infographic or ‘explainer’ videos often use appealing characters as an engaging hook. However, they are neither embodied nor told from a patient’s perspective. There is an opportunity to marry narrative content in the context of patient stories with medical information, where elements of sophisticated visual storytelling, character design, and unconventional animated narrative can be employed to not only convey information in a non-didactic manner but to engage viewers using strategies derived from a discipline other than medical science or cognitive science.

3. Approach

3.1. Project Design

The animation design is intended as a prototyping methodology that can be generalised across other medical topics; in this case, the three-year project is designed to create animated patient stories to communicate complex medical genetics concepts to patients and their at-risk relatives.⁵ The evaluative focus is how an Asian adult audience with differing gender, age, race, and literacy levels can receive the animations, understand the information, and potentially be influenced in redirecting behaviour. The project design also considers the visual storytelling of animated patient stories to foster an authorship discourse in an interdisciplinary field of digital humanities and global health studies. The framework includes variables such as content, structure, design, and artistic approach [16]. Two visually distinct short films featuring a specific genetic disorder told through a fictional story based on a real patient experience were created iteratively, with input from the Cancer Genetics Service (CGS) and the National Cancer Centre of Singapore (NCCS).

3.2. Patient Stories & Cultural Representation

Cultural representation in the healthcare system refers to acknowledging, recognising, and including diverse cultural backgrounds, beliefs, values, contexts and practices [17]. It is crucial in healthcare for several reasons: promoting equity and access, devising interventions, treatment plans, and preventive measures to improve patient engagement, adherence to treatment, overall health outcomes and patient satisfaction [18].

Various approaches can achieve cultural sensitivity, including language adaptation, incorporating cultural beliefs and practices, and utilising appropriate communication styles such as storytelling, metaphors, or visual presentations.

⁴ <https://www.france.tv/france-4/il-etait-une-fois-la-vie/>

⁵ Selected participants were asked to share their experiences receiving their genetic test results, the journey of navigating their healthcare decisions, and their considerations related to communication with their at-risk family members. Each animation features one carrier story with varying formats.

First-person storytelling or patient stories are particularly compelling for addressing racial/ethnic minority groups [19]. However, animated patient stories specific to certain ethnic groups are scarcely available.

4. The Films

After preliminary discussions, three conditions were chosen: Familial Adenomatous Polyposis (FAP)⁶, featuring a young Malay girl; Lynch Syndrome⁷, involving an Indian individual discovering a possible inherited genetic condition; and Neurofibromatosis Type1 (NF1)⁸, a story of a young Chinese man learning and understanding how to cope with its symptoms and deal with the self-confidence issues caused by the specific nature of his illness. All three conditions have common traits but different symptoms and presentations. They vary from individual to individual, affect carriers at different stages of life, and require carriers to undergo genetic testing for proper diagnosis and targeted intervention.

After discussion and re-evaluation of the scope and aim of the project, it was decided to focus on just two conditions, FAP and NF1. Creating two distinctively different storytelling modes aligned with one of the established research questions, which asked whether one visual storytelling approach is more effective than another in overcoming language and cultural barriers to communicating medical information.

4.1. “Fatirah”

The first film explores Familial Adenomatous Polyposis (FAP), a genetic condition associated with hereditary colorectal cancer. The current treatment requires patients to undergo surgery at a relatively young age to avoid the development of colon cancer. The narrative design required that information delivery be tactful, and appropriate terms must be used to encourage patients to undergo early genetic testing.

A little Malay girl character, Fatirah, and her family visit the doctor when she is eight years old, where she first learns of her condition and of the procedure that would require her colon to be removed (usually post-puberty around 18 years old), thereby lowering her chances of having colorectal cancer. The story ends with the girl, now a grown-up, accepting and resolving her condition with the help of doctors and a support group. The instructive approach for this linear narrative is appropriate; however, it needs to explore the stress a young individual could experience to exploit dramatic engagement fully.

The family’s attire and linguistic expressions signify their Malay ethnicity. Fatirah and her mother are depicted wearing headscarves, or “coverchiefs,” honouring their Muslim identity [20]. This attire holds profound cultural significance in Singapore [21], where approximately 15.6%

6 <https://my.clevelandclinic.org/health/diseases/16993-familial-adenomatous-polyposis-fap>

7 <https://www.nccs.com.sg/patient-care/specialties-services/lynch-syndrome>

8 <https://www.singhealth.com.sg/patient-care/conditions-treatments/neurofibromatosis-type-1>

of the population identifies as Islamic Malay.⁹ Incorporating this detail acknowledges the tapestry of cultural diversity inherent in Singapore but also ensures a portrayal that is both respectful and authentic.

At the hospital, the medical practitioner elucidates the diagnosis and the requisite steps for a favourable prognosis. However, Fatirah becomes increasingly terrified as she hears the information and the need to undergo surgery. Leveraging the premise that young individuals may engage in imaginative elaboration, the animation transits into a nightmarish portrayal wherein grotesque manifestations of the colon and stomach chase the young girl. In her state of fear, she encounters two personified entities: Doc (doctor marked by a cross on his chest for easy recognition) and Gen (genetics marked by the symbol of a strand of DNA). The two entities initiate an exorcism-style intervention to dispel the menacing ‘monsters’.

This reverently nods to the ‘Pink Elephants on Parade’ sequence in Disney’s *Dumbo* (1941), using specific fluorescent-style chromatic selections and exaggerated animated movements. Evoking a nightmarish, surreal quality, the doctor is depicted here holding a chainsaw to vanquish the malignant tumours. (Fig.1a and Fig1b)



Fig. 1. A. Imaginary ‘Stomach’ and ‘Colon’ monsters. B. Imaginary Doctor with a chainsaw.

It is a deliberate stylistic choice to signal a break from the information-heavy reality of the doctor’s surgery scenario and a moment to understand what might happen inside a patient’s mind when given a scary or life-threatening diagnosis. The primary objective of the first segment is to engage the audience via a locally resonant tone while conveying detailed medical information about the disease. In the film’s second phase, Fatirah steps to the forefront to deliver a self-introduction recounting her challenges and understanding of the diagnosis. By adopting a first-person narrative, reflecting a realistic portrayal of a child grappling with complex terminology, Fatirah delves into the genetic underpinnings of the disease, conveying intricate details through a combination of illustrations and simple schematic visuals rendered in a childlike style.

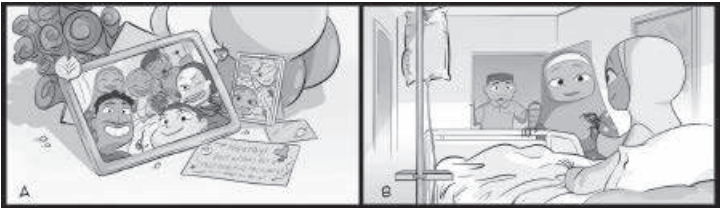
It is another deliberate stylistic device that uses symbolism plus quasi-direct documentation (she might have created this imagery) to enhance both audience comprehension and empathetic appeal.

In the third act, we witness Fatirah’s evolution from a young child to a teenager through snapshot vignettes showing regular body screenings and preventative surgery. As the project design principle states, the video must

⁹ Singapore Department of Statistics. (2021, June 17). Singapore Department of Statistics | Census of population <https://www.singstat.gov.sg/-/media/files/publications/cop2020/sr1/findings.pdf>

conclude positively, so the final scenes in the hospital highlight her “I’ll be Okay” attitude. Local culture references remain- the snapshot of her multi-ethnic friends and her parents coming through the door with food in a tingkat box keeps this specifically Singaporean. (Fig2a and Fig2b).

Fig. 2. A. Well-wishes from multi-ethnic friends in the hospital.
B. Father brings ‘tingkat’ to hospital.

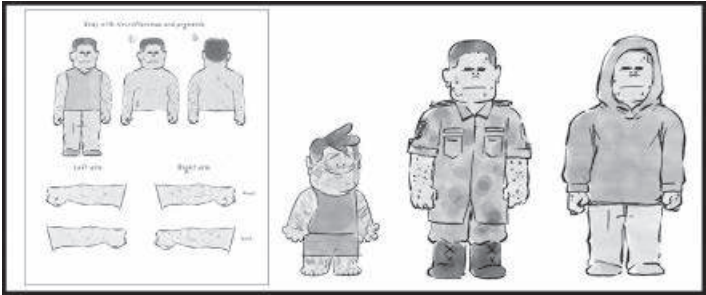


4.2. “Alan”

The second film explores Neurofibromatosis type1 (NF1), also known as von Recklinghausen disease. The visible manifestation of the disease on the body presents physical challenges and psychological implications. Compared to unaffected children and adolescents of the general population, paediatric patients with NF1 have an increased risk of having social difficulties, mental health disorders, and behavioural and emotional problems [22]. Accordingly, developing and accessing psychosocial interventions for patients with NF1 is necessary. A uniform approach to diagnosing and managing NF1 and its complications is a significant concern for NF1 clinicians [23]. The narrative design is based on the premise that patients can embrace a positive alternative outlook to confront challenging situations.

Adopting a non-dialogue-driven linear narrative style, we recount the story of 18-year-old Chinese patient Alan and his struggle with self-image during compulsory National Service. (Fig.3).

Fig. 3. Character designs by Yap Wei Ying.



The condition causes Alan to feel inadequate, shy, and uncomfortable with his self-image due to lumps and benign tumours on different parts of his body. One of the referenced patient stories spoke of a way to cope by covering some of his scars with tattoos. Tattoos can have negative connotations in Southeast Asia associated with crime syndicates and are not favourably received by some of the more traditional Chinese communities. In the film, a young Alan draws and paints himself like his favourite superhero. We follow him interacting with his Ah-ma (grandmother) at home, going

from a carefree, spirited kid to a concerned, self-conscious young adult. The story resolves when Ah-ma benignly encourages Alan to pursue his desire to get cool tattoos that give him some confidence around his peers.

Aiming to be visually sophisticated with a more local intimate nature and to differentiate from the previous film (per research design), the team referenced Isao Takahata's animated feature *My Neighbors the Yamadas* (1999). That film uniquely portrays a typical Japanese family using a delicate colour palette and watercolour background graphic style. It seemed appropriate to use a delicate undertone to depict an individual's journey of dealing with a condition that can psychologically impair his social life. (Fig.4a.4b).



Fig. 4. A. Grandmother showing signs of the condition. B. Confident Alan with a tattoo; delicate tonal palette. C. Infographic sequence design by Yap Wei Ying.

Again, the team used symbols and metaphors to enhance viewer attention, creating cartoon characters with hands for the infographic-style segment explaining the cause and symptoms. [24] With art direction loosely referencing Disney's *Toot, Whistle, Plunk and Boom*, the 1953 Oscar-winning short film directed by Ward Kimball, we introduced the flat-colour 'UPA' design typical of many 'edutainment' films of the 1950s and 60s.¹⁰

The referenced film also contains embedded didactic information, yet utilising artistic license aligns with creating engaging content to facilitate retention. This more graphical interlude, bookended by the personal character's story, draws attention to the technical information through contrast and surprise. (Fig.4c.)

5. Conclusion

The project is currently in the final stage of evaluation. It is hypothesised that through exposure to the videos, participating individuals, the medical community, future patients, and the public may gain a heightened understanding of the importance of genetic testing and general knowledge of genomics and genetic health issues and the impact on their healthcare choices. The outcomes of this study will have broader implications for providing insights into the efficacy of narrative-based animation videos as educational tools for conveying complex medical information via an ongoing exploration of innovative and engaging methods in visual storytelling.

Indeed, illustrated patient stories, including formats such as comics and video games, have shown their effectiveness in evoking empathy and fostering greater understanding for individuals coping with various dis-

¹⁰ <https://www.youtube.com/watch?v=8iVfopPHvjc>

eases. However, the approach proposed in this study demonstrates how animated patient stories go a step further in impacting communication, particularly in healthcare, where visual storytelling serves as a powerful medium for conveying non-tangible experiences and building empathy.

Cultural sensitivity, accessibility, tonal relevance, and representation, particularly in an Asian context, are essential to addressing concerns related to marginalisation and discrimination.

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7. References

1. Finset, A., Bosworth, H., Butow, P., Gulbrandsen, P., Hulsman, R. L., Pieterse, A. H., ... & van Weert, J. (2020). Effective health communication—a key factor in fighting the COVID-19 pandemic. *Patient education and counseling*, 103(5), 873.
2. O'day, D. H. (2007). The value of animations in biology teaching: a study of long-term memory retention. *CBE—Life Sciences Education*, 6(3), 217-223.
3. Mayer, R. E. (2003). The promise of multimedia learning: using the same instructional design methods across different media. *Learning and instruction*, 13(2), 125-139.
4. Bekker, H. L., Winterbottom, A. E., Butow, P., Dillard, A. J., Feldman-Stewart, D., Fowler, F. J., ... & Volk, R. J. (2013). Do personal stories make patient decision aids more effective? A critical review of theory and evidence. *BMC medical informatics and decision making*, 13, 1-9.
5. Shaffer, V. A., Focella, E. S., Hathaway, A., Scherer, L. D., & Zikmund-Fisher, B. J. (2018). On the usefulness of narratives: an interdisciplinary review and theoretical model. *Annals of Behavioral Medicine*, 52(5), 429-442.
6. Annabelle H. Roe, *Animated Documentary* (Houndmills, Basingstoke, Hampshire: Palgrave Macmillan, 2013).
7. Wells, P. (2013). *Understanding animation*. Routledge.
8. Pilling, J. (Ed.). (2012). *Animating the Unconscious: Desire, Sexuality, and Animation*. Columbia University Press.
9. Spark, A. (2019). *Animating Like Crazy: Researching in the Animated Visual Arts and Mental Welfare Fields*.
10. Ike, J., Parker, R., & Logan, R. (2017). Health Literacy and the Arts: Exploring the Intersection. *Studies in health technology and informatics*, 240, 81-95.

11. Adam, M., Bärnighausen, T., & McMahon, S. A. (2020). Design for extreme scalability: a wordless, globally scalable COVID-19 prevention animation for rapid public health communication. *Journal of Global Health*, 10(1).
12. Adam, M., McMahon, S. A., Prober, C., & Bärnighausen, T. (2019). Human-centred design of video-based health education: an iterative, collaborative, community-based approach. *Journal of medical Internet research*, 21(1), e12128.
13. Barlow-Stewart, K., Yeo, S. S., Meiser, B., Goldstein, D., Tucker, K., & Eisenbruch, M. (2006). Toward cultural competence in cancer genetic counselling and genetics education: lessons learned from Chinese Australians. *Genetics in Medicine*, 8(1), 24-32.
14. Chieng, W. S., & Lee, S. C. (2006). Establishing a cancer genetics programme in Asia—the Singapore experience. *Hereditary Cancer in Clinical Practice*, 4, 1-10.
15. Chapman, R., Likhonov, M., Selita, F., Zakharov, I., Smith-Woolley, E., & Kovas, Y. (2019). New literacy challenge for the twenty-first century: genetic knowledge is poor even among well-educated. *Journal of Community Genetics*, 10, 73-84.
16. Brown, A. R., & Sorensen, A. (2009). Integrating creative practice and research in the digital media arts. *Practice-led research, research-led practice in the creative arts*, 154-165.
17. Kreuter, M. W., & McClure, S. M. (2004). The role of culture in health communication. *Annu. Rev. Public Health*, 25, 439-455.
18. Thomas, S. B., Fine, M. J., & Ibrahim, S. A. (2004). Health disparities: the importance of culture and health communication. *American journal of public health*, 94(12), 2050-2050.
19. Lipsey, A. F., Waterman, A. D., Wood, E. H., & Balliet, W. (2020). Evaluation of first-person storytelling on changing health-related attitudes, knowledge, behaviours, and outcomes: a scoping review. *Patient education and counselling*, 103(10), 1922-1934.
20. Reece, D. (1996). Covering and communication: The symbolism of dress among Muslim women. *Howard Journal of Communications*, 7(1), 35-52.
21. Suratman, S., & Esa, S. H. (2017). Malay Community and Culture in Singapore. *Singapore Ethnic Mosaic, The: Many Cultures, One People*, 113.
22. Domon-Archambault, V., Gagnon, L., Benoît, A., & Perreault, S. (2018). Psychosocial features of neurofibromatosis type 1 in children and adolescents. *Journal of Child Neurology*, 33(3), 225-232.
23. Evans, G., Upadhyaya, M., Towers, R., Gleeson, M., Ferner, C. R. E., Huson, S. M., ... & D Willshaw, H. (2007). Guidelines for the diagnosis and management of. *J. Med. Genet*, 44, 81-88.
24. Neeley, S. M., & Schumann, D. W. (2004). Using animated spokes-characters in advertising to young children: does increasing attention to advertising necessarily lead to product preference? *Journal of Advertising*, 33(3), 7-23.



Contornos de Tonalidade, Transferência e Inferência

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Keywords

Contour, Tonal Drawing,
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Abstract

Tonal Contours are lines that define the boundaries of a tonal area of an image. It could be a shadow, a patch of color, a difference in light due to a change in surface orientation, or just a line. Tonal contours are a borderline form of drawing, associated with processes of picture transfer and transitory processes of passage from photographs to drawings, stencils to silkscreens and graffiti. Expressively, they result in ambiguous images where positive and negative of light and shadow are unsolved. However, despite their marginal status, tonal contours offer some interesting clues about perception, because tonal contours show missing information in a tonal image, usually inferred by the higher processes of the visual system. A photograph where shadows usually hide facial features or edges of objects, is usually filled in by the visual system, so that the viewer rarely notices the lack of information.

However, tonal contours are used as a building principle of drawing in some academic methods, as a preliminary basis to shading, and especially as a catalyst for surface contours or modeling lines. Research in artificial vision has given greater importance to the theme of tonal contours, creating some solutions for contour detection, echoing graphic solutions consolidated in the history of drawing. This text thus seeks to relate the historical dimension of tonal contours with visual mechanisms and their repercussion in artificial vision.

1. Introdução

Segundo Charles de Tolnay o Desenho de Observação ou ‘do Natural’ está dividido entre dois polos na atividade gráfica: desenho ‘linear’ e desenho ‘tonal’ ou ‘pictórico’. [1] O primeiro é baseado na linha e no contorno, representando os limites sólidos das superfícies. O segundo descreve mudanças na luz, sombra e na cor local, usando o tom normalmente segundo uma escala de cinzentos. Entre esses extremos, existe uma grande variedade de processos combinando linha e mancha, segundo diferentes relações e expressões. As práticas académicas vigentes no século XIX, mais assumidas ou persistentes em diversos exercícios pedagógicos, tendem a estabelecer etapas de construção do desenho de uma ordem geométrica e estrutural para o contorno e, finalmente,

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um acabamento em claro-escuro. Por outras palavras, a representação e a percepção são conduzidas de espetos internos e permanentes para aparências efémeras e circunstanciais.

Na margem das práticas comuns ou tradicionais, existe uma expressão gráfica familiar a todos os artistas, mas de algum modo peculiar. Por vezes observa-se em ilustrações onde as linhas e contornos definem sombras ou tonalidades de preto, ou cinza-escuro. As formas de sombras e áreas de cor são delimitadas por contornos, mas as tonalidades do desenho são retiradas. Este tipo de desenho poderá designar-se por Contornos de Tonalidade [2], mas não tem uma designação ou estatuto especial no jargão gráfico. Não é simplesmente um desenho de contorno porque não indica apenas limites sólidos, nem um desenho tonal, porque não regista a intensidade de luz ou sombra. Portanto, pode-se dizer que combina os dois tipos de desenho, não sendo nenhum dos dois.

Porém, existe uma relação importante entre o contorno de tonalidades e o sistema visual humano. Por um lado, o sistema visual humano é especialmente sensível a contornos, por outro lado, o desenho produz-se de modo mais imediato e essencial pela via do contorno. É relevante que a percepção visual aceite um desenho de contorno ou linear como suficiente, mesmo sem ter sombras ou cores.

2. Transferência

Nas artes visuais, pouca literatura é dedicada aos contornos tonais e poucos exemplos foram encontrados na história da arte, mas o denominador comum em algumas referências parece ser o conceito instrumental de transferência. Recentemente, David Hockney chamou a atenção para uma estranha semelhança entre desenhos de Hans Holbein, Ingres e Andy Warhol, na qual as linhas das roupas nas figuras de Ingres e Holbein pareciam ser feitas com uma segurança e velocidade inusitadas. [3] Essas linhas não pareciam sofrer da habitual hesitação de outros desenhos desses autores, assemelhando-se às linhas dos desenhos decalcados de Warhol. Com se sabe, Warhol transferia imagens fotográficas para desenho e posteriormente para serigrafia, ignorando deliberadamente se as configurações correspondiam a arestas ou limites tonais. No contexto da investigação de Hockney, esta pista confirmaria que Holbein e Ingres utilizariam projeções de câmara obscura, ou outro dispositivo ótico auxiliar. [4] Com efeito, quando desenho é realizado a partir de uma imagem tonal como uma fotografia ou uma imagem projetada, o processo resulta numa transferência mecânica de limites formais entre tons, sem uma necessária distinção entre limites materiais e mudanças de reflexão ou sombras. Por outro lado, certos limites materiais ficam escondidos entre áreas de sombra, desaparecendo misteriosamente. Assim, nos desenhos de Ingres apresentados por Hockney existem áreas ausentes na representação da arquitetura e essa falha não sugere apenas um lapso, mas uma lógica mecanizada de construção do desenho. A imagem resultante apresenta algumas incoerências na estrutura material dos objetos e, regra geral, esses elementos são involuntários.

No século XVIII, Alexander Cozens publicou o seu método para

‘inventar paisagens’. O pintor deveria manchar uma folha com borrões de tinta e adaptar essas manchas acidentais a motivo paisagísticos: rochas, montanhas, árvores, nuvens. Na segunda etapa dessa adaptação, o pintor deveria colocar uma folha transparente previamente embebida em terbenina sobre as manchas, contornando as configurações de modo a iniciar a representação da paisagem. A passagem do acaso à composição seria dado necessariamente pelo contorno educado das manchas. [5]

No século XIX existem diversos exemplos de contornos tonais transferidos em desenhos de Manet, como estudos para *Déjeuner Sur l’Herbre*. [6] Tal como nos propósitos de Wharol, o uso da transferência deve-se à passagem do desenho para litografia. Contornos Tonais são comuns na transferência ou duplicação de imagens, onde a forma estrutural é substituída pela forma aparente. A ideia de transferência conduz às práticas da Renascença onde os desenhos eram transferidos pelos seus contornos para as pinturas ou paredes, numa técnica designada por “Spolvero”. [7]

Nas artes visuais contemporâneas existem inúmeros exemplos de decalque de imagens para efeito de transferência. Como exemplos mais conhecidos, os já referidos desenhos de Andy Warhol servindo de transferência entre a fotografia e a serigrafia ou pintura. Porém, dessa estética intrinsecamente superficial e destituída de um referente material, Warhol pôde precisamente explorar o primado de uma imagem onde brilhos, sombras e volumes se equivalem, ocultam e disputam o protagonismo. De modo mais contido, mas num universo não demasiado distante, Alex Katz utiliza desenhos de grande formato para transferir a imagem para as pinturas, por um processo de ‘spolvero’ picotando os contornos e seguidamente polvilhando com um pó de giz. [8] Nesses desenhos planos e sintéticos, as linhas recortam áreas de cor e sombra sem preenchimento. Nos exemplos dados, emerge uma estética de ‘stencil’ aproximada à serigrafia e ao grafito, evocando a velocidade de execução, a celebração da superfície plana, onde cor, efeito visual e objeto se equivalem.

Na atividade gráfica contemporânea existem aplicações digitais comuns para extrair contornos de imagens sombreadas ou com cor. Essas soluções tornaram-se muito comuns e com uma margem limitada de originalidade. Nas imagens transferidas, uma das características complementares é a aplicação de sombras com traços diagonais. A sombra não é estrutural no desenho e surge com preenchimento por vezes sem critério.

3. Contornos de Tonalidade são um modo de Representação Anti-Naturalista

Os contornos de tonalidade conferem à representação uma qualidade ‘anti-natural’ na aceção de um anti naturalismo, ou, uma experiência percetiva que não se enquadra na visão comum. Como John Willats escreveu: “Lines are not, in general, acceptable when used to stand for the boundaries of shadows of highlights” [9]. Também Hertzmann insiste insuficiência do contorno para produzir um efeito de realismo. Por sua vez os contornos não se explicam apenas por arestas ou limites físicos. [10] Todavia, os contornos tonais ajudam a diferenciar o tipo de visão baseada na luz e na sombra e a visão que aplica conteúdos da

experiência tátil. Em condições de observação, o artista representa informação que não vê, escondida por sombras ou obstáculos acidentais. Num desenho tonal, o artista pode basear-se na informação recebida pela sua retina e desse modo, áreas de sombra podem preencher as superfícies até ao limite dos objetos, mas também, perturbando esses limites, como nas sombras projetadas. Os contornos tonais revelam a diferença entre os dois principais polos de expressão gráfica e respetivos tipos de perceção, ou seja, entre a expressão linear e a expressão tonal dada pela mancha e pela sombra.

O desenho linear resulta numa representação transparente, mostrando um mundo onde tudo é revelado e tangível. Subordina a observação e a sensação a fatos verificáveis. O desenho tonal, por sua vez, partilha uma aceitação do mundo como relação de luz e escuridão, onde as sombras desafiam a informação material, preservando apenas sensação visual. As zonas de sombra traduzidas num desenho de contorno de tonalidade são simultaneamente desprovidas de informação e sensação, uma zona de ninguém entre a perceção e a especulação. Contornos tonais separam visibilidade (luz) da sombra (invisibilidade) sem a habitual integração das imagens tonais como fotografias ou desenhos em claro-escuro.

A tradução mecânica ou digital de uma fotografia num desenho de contorno de tonalidades não separa informação tátil relacionada com superfícies duras, cantos e arestas, de informação ótica tais como cores, sombras e reflexos ou brilhos. A mistura de informações tangíveis e ópticas produz dificuldades na perceção da imagem quando o contorno de uma sombra esconde e absorve algumas partes importantes de um objeto ou de uma pessoa. O mesmo problema acontece com fotografias, ou num desenho tonal. Muitas vezes contornos tonais são aceites como altamente expressivos, especialmente em banda desenhada ou ilustração, replicando situações luminosas anormais como relâmpagos, “flashes”, explosões ou alucinações, essencialmente distorções no espectro de luz, não sensíveis ao tato.

No entanto, a imagem tonal é recebida como um registo ‘natural’ de uma cena, produzindo não só informação, mas uma impressão da realidade ou um efeito de ilusão. É por isso que estética fotográfica é tão eficaz na representação dos fenómenos visíveis, sendo adotada pela perceção visual como eixo de modelos realistas. Quando uma sombra oculta um rosto ou um objeto, é aceite como o efeito persuasivo de uma condição de luz natural. A falta de informação não é sentida como uma falha, mas como efeito realista com conteúdo expressivo.

Contornos tonais são muitas vezes perturbadores quando envolvem sombras, devido à produção de formas arbitrárias e vazias. Nessas situações o contorno da sombra interrompe a imagem. Contornos tonais são uma imagem derivada da luz onde parâmetros de intensidade foram abandonados, restando apenas as fronteiras das mudanças tonais (sombras ou cor). Pode ser considerada como uma curiosidade gráfica com interesse marginal. Mas contornos tonais podem ser úteis para entender como o desenho representa as coisas e como elas são processadas pela perceção visual.

4. Inferência

Comparando uma imagem tonal com uma imagem de contorno de tonalidade de um mesmo tema, é evidente a discrepância de aparência, do mesmo modo que entre uma fotografia a preto e branco e o seu negativo. Mas pode-se admitir que a informação disponível em ambas as imagens é a mesma. Quando se observa uma imagem tonal, não se deteta informação em falta, tendendo-se a presumir ou ‘inferir’ informação omissa. Com foi poeticamente escrito por Michael Baxandall, sombras profundas são “buracos na representação” (no original “holes in a flux”), criando espaços sem luz e como tais, invisíveis. Em pinturas, desenhos e fotografias, as sombras assumem um efeito pitoresco, aumentando vigorosamente a experiência de luz. [11] Por outro lado, em ilustrações, desenhos técnicos ou científicos, os efeitos tonais são restritos à indicação de relevo, indicando a curvatura dos volumes.

Figura 1. A primeira imagem mostra uma fotografia de sólidos com uma intensa sombra projetada que esconde várias arestas. A segunda imagem mostra uma versão digital dos contornos relativa aos contrastes mais significativos. A terceira imagem mostra a informação normalmente percebida e inferida na observação da fotografia.



Na imagem 1, uma fotografia mostra uma série blocos e sombras projetadas. A sombra projetada resulta numa configuração contrastante e estimulante para a visão. Mas o percepto final da imagem é, tal como se pode observar no desenho, o conjunto de blocos, que em certas áreas é impercetível na fotografia, porque a sombra esconde as arestas. [12]

Assim, se as sombras são ‘buracos’ na representação, o cérebro humano completa a informação em falta num processo designado por Inferência, adivinhando pela lógica, experiência e senso comum. As principais teorias da inferência, como a teoria da Gestalt, estão relacionadas com a teoria geral da percepção por Hermann Von Helmholtz, na qual a percepção completa e preenche informação ausente no estímulo. [13] Este processo é reflexivo, inconsciente, profundo e persistente e desse modo a consciência nem se apercebe que existe informação em falta numa imagem tonal, assumindo que as coisas escondidas devem estar lá. Um segundo aspeto sobre a inferência, relaciona-se com a habilidade percetiva para selecionar informação relevante.

Um dos processos gráficos associados aos Contornos de Tonalidade é o Desenho de Decalque. João dos Santos, em texto de 2021 [14], refere aspetos percetuais relevantes implicados no processo de decalque. Em primeiro lugar a ‘inferência’, ou seja, preenchendo espaços vazios da imagem. E em segundo lugar, pela escolha de linhas mais relevantes na imagem, presumindo o arbítrio sobre configurações mais relevantes do que outras. O mecanismo de inferência é habitualmente ilustrado pelos contornos ilusórios de Gaetano Kanisza, nos quais figuras geométricas negras são obliteradas pelo que se julgam ser figuras geométricas brancas. As áreas vazias são completadas pela percepção, num processo de inferência. Do mesmo modo, as sombras ou vazios na representação são preenchidos por fatores de experiência, hábito e lógica na representação das formas.

Todavia, num desenho de contornos de tonalidade desaparece o contraste de claro-escuro, que habitualmente estrutura a representação em termos de hierarquia: áreas escuras indicam presença e áreas brancas indicam vazio. Este princípio de silhueta ou de sombra como pista principal não é absoluto, mas constitui uma base de orientação comum: as faces em sombra do motivo, a sombra projetada no chão (ainda que não demasiado longa ou obstrutiva), são indicações pictóricas valiosas. Mesmo quando estas sombras escondem informação, surgem como um importante indício de relevo e de espaço.



Figura 2. Imagem de alto contraste de um rosto (Mooney Face) em positivo e negativo e entre ambas, o contorno de tonalidade. Apenas a primeira imagem a preto e branco é compreensível imediatamente. A imagem invertida é mais difícil de interpretar porque a percepção não aceita a colocação de áreas de luz e sombra. O desenho de contorno de tonalidades, comum a ambas combina a informação de ambas

Observando a fotografia de uma face em alto contraste (Mooney Face)[15] destacam-se algumas situações (Figura 2). Em primeiro lugar, a imagem em negativo não é equivalente à imagem em positivo, nem parece sequer natural. Significa que a percepção não aceita sombras em certas partes do rosto, como, por exemplo, na testa. Ou em sentido inverso, não aceita que o espaço das orbitas oculares esteja em luz. Todavia, o contorno de tonalidade é o mesmo para ambas as imagens. Consequentemente, a experiência perceptiva de um desenho de contorno de tonalidades resulta da combinação entre o positivo e o negativo de uma imagem tonal: aceita-se e rejeita-se informação simultaneamente.

Assim, e retomando a dicotomia entre um desenho linear e um desenho tonal, conclui-se que ambos os tipos de representação se especializam em aptidões perceptivas complementares: o desenho linear exclui informação luminosa referindo-se ao tato, e o desenho em claro-escuro serve-se de múltiplas inferências sobre a informação oculta nas sombras. Saliente-se que o desenho linear assume a representação de tudo o que pode ser tocado, ou de toda a superfície e arestas. Daí que um desenho linear seja contínuo e sem espaços por ocupar. A representação de um objeto não pode ser interrompida por um vazio.

Face a esta dupla e articulada compensação de vantagens – integridade de informação no desenho linear e integridade de ilusão no desenho tonal – o desenho de contorno de tonalidades exclui o princípio de hierarquização tonal e também o princípio de representação integral do desenho linear. O desenho de contorno de tonalidades proporciona uma representação onde os corpos físicos são interrompidos por sombras, sem oferecer o poder ilusionista das sombras. O que agora se sente em falta é o que anteriormente era compensado pela inferência.

5. Mapa de Contornos

Uma imagem onde são localizadas as posições e configurações das mudanças de tom é justamente designado por ‘Mapa de Limites’ ou ‘Mapa de Contornos’ a partir de uma tradução livre do Inglês (*Edge Map*) [16] onde a investigação científica cruza o estudo da visão com aplicações computacionais. Procurar um mapa de contornos de uma fotografia é isolar as principais configurações segundo um critério tonal, de cinzentos ou de cores. Após retirar as cores e tons, resta um conjunto de formas relativas aos limites de cada cor. A mudança de tom em numa imagem pode ser referente à sombra, cor, sombra projetada e mudança de superfície. O mapa de contornos não diferencia uma mudança tonal relativa a uma sombra projetada de uma outra mudança atribuída à pigmentação ou ainda de uma mudança de orientação de superfície. Assim, um mapa de contornos é uma expressão alternativa para um desenho de contorno de tonalidades, tratando-se de uma imagem com limites para diferentes áreas de sombra e cor, dependendo de uma escala tonal prévia. Esse processo é comum em programas de edição de imagem onde fotografias passam a desenhos, por “extração de contornos”.

A moderna investigação computacional, aplicável nesses programas, referência necessariamente o artigo de David Marr e Hildreth [17] como precursor de algoritmos para extrair contornos de tonalidades. O detetor de contornos de Marr e Hildreth produz uma ligeira suavização do contraste tonal para evitar ruído visual e posteriormente, um acentuar do contraste. Eliminando as tonalidades, resta apenas a linha de contorno. O detetor de contornos aplica-se em diferentes frequências, produzindo maior ou menor informação conforme as frequências selecionadas.

O processo de deteção de contornos baseia-se na visão humana. Por vezes, os alunos de desenho são aconselhados a definir áreas tonais antes de sombrear o desenho. Ao criar configurações relacionadas com tons, o desenhador estabelece um mapa de contornos do motivo observado. Alguns métodos académicos baseados no curso de Charles Bargue e J. L. Gérôme inspiram-se nas suas célebres litografias destinadas a ser copiadas pelos alunos. O seu método assentava numa série de passos, partindo de uma representação esquemática do modelo para uma divisão entre áreas de luz e sombra. Referido como a sexta etapa no processo de construção da imagem e citando a partir de Gerald Ackerman: “The next step is drawing the boundaries of the shadows (...) the division between shadow and light is indicated with line (...) do not outline the halftone” [18]. É compreensível que Bargue tenha reservas em relação aos meios-tons, geralmente ambíguos e desfocados, pouco suscetíveis de definição, como veremos adiante.

Em autores de livros didáticos de desenho mais contemporâneos como Francis K. Ching propõe-se um sombreado por camadas, onde cada área de sombra ou tom é definido previamente segundo uma ordem do mais claro ao mais escuro. Este processo é estratificado e não adequado a mudanças de tom. [19]

Recuando ao século XVIII, o método de Alexander Cozens é um exemplo de mapa de contornos. Após realizar as manchas aleatórias, o

artista deveria contornar cuidadosamente as formas mais evocativas, procedendo depois a uma tarefa de sombreamento. Numa segunda fase do processo, a imagem seria uma sucessão de mapas de contornos. [21]

Geralmente e quando aplicados ao desenho, os mapas de contornos resultam numa imagem sintética e plana baseada em camadas de sombra e tons. Tal como acontece com a serigrafia, é adequada à criação organizada de imagens, mas não à improvisação e experimentação.



6. Contornos de Superfície

Os contornos de tonalidade referem os limites de sombras e tons, sendo eficientes quando esses elementos coincidem com a mudança de superfícies marcadas por arestas. Por outro lado, contornos tonais poderão representar a mudança gradual na luz refletida numa superfície curva e sem arestas. O escurecimento progressivo observado numa esfera é difícil de traduzir em contornos, como já fora advertido por Charles Bargue. A solução mais acessível passará por traduzir o sombreamento numa escala de cinzentos e seguidamente, procurar o contorno de cada tom. Esta solução resulta em ‘contornos de superfície’ descrevendo o volume topograficamente como marcas resultantes de secções no volume.



No âmbito da Visão Artificial, as principais áreas tonais existentes numa imagem, como, por exemplo, uma fotografia, são zonas difusas ou muito texturadas que geram variações graduais de tom (rampa); contrastes nítidos como duas superfícies de uma caixa (degrau), linhas relativamente difusas e rodeadas de textura (telhado) e linhas nítidas (linhas). [20] Os problemas de tradução dessas situações em contornos são semelhantes aos problemas percetivos da visão, como quando um desenhador procura representar uma cena complexa, escolhendo diferentes expressões da linha. Pressupondo que o desenhador não aplica contornos de tonalidade, pode, no entanto, interpretar o sombreamento contínuo de uma superfície (rampa) criando em primeiro lugar um escalonamento de tons e em seguida, uma série de linhas de divisão desses tons.

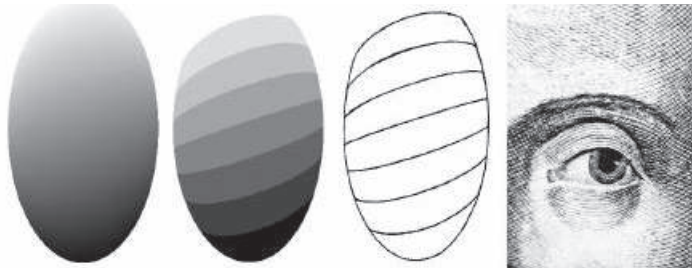
Figura 3. Escala de cinzentos e contornos de tonalidade. O sombreamento de uma superfície pode ser traduzido numa escala diferenciada de tons e posteriormente em linhas de contorno. Essas linhas serão contornos de superfície modelando a curvatura e orientação.

Figura 4. Vários tipos de contorno e contraste. Degrau, Telhado, Rampa e Linha, correspondentes respetivamente a um contraste nítido, uma linha desfocada, sombreamento e uma linha nítida. (Adaptado de Campilho A., Edge Detection, <https://web.fe.up.pt/~campilho/PDI/NOTES/EdgeDetection.pdf>).

No contexto da computação aplicada às ciências da visão, o escalonamento do sombreado pode designar-se por ‘degraus’-*step* – porque cada tom funciona como um degrau numa escala tonal num contraste súbito e marcado. Simplificar uma imagem tonal numa gama reduzida de tons permite salientar formas e configurações relevantes.

Tons graduados definem uma escala, onde os cinzentos são nitidamente marcados gerando contornos definidos. Essa situação é complementar à variação gradual do sombreado sem limites definidos, transformando assim essa continuidade tonal difusa num sistema graduado de tons. Tal tradução pode aplicar uma escala variável, do simples preto e branco até vários tons de cinzento resultando na maior ou menor quantidade de contornos de tonalidade com as consequências implícitas: poucos contornos e configurações eliminam informação relevante, mas pelo contrário, demasiados contornos produzem ruído ou textura. Aplicando este processo ao sombreado de uma superfície curva o efeito será uma série de linhas curvas descrevendo a redondez da superfície, numa expressão gráfica designada por *contornos de superfície*. [22] Essas linhas atuam como linhas de modelação na função topográfica fundamental a muitos processos de sombrear por contornos cruzados, marcando a intersecção de planos imaginários no volume.

Figura 5. O sombreado de uma superfície é transformado numa escala de cinzentos e posteriormente numa imagem de contorno de tonalidades. O resultado são os contornos de superfície indicadores de curvatura. Esse processo é semelhante aos tradicionais sistemas de sombrear por linhas de modelação cruzadas. (Aplicação de filtro ‘posterize’ e posteriormente, ‘smart blur/edge only’ seguido de ‘invert’.)



John Willats relaciona os contornos de superfície com a definição de claro-escuro proposta por Phillip Rawson (*bracellet shading*), enquanto modo de sombrear pelo cruzamento de contornos formando sombra e informação volumétrica, particularmente alusiva de formas curvas. [22] Vasta tradição bibliográfica relaciona esses processos de sombrear típicos do desenho académico com as tramas da gravura e os recursos *discretos* (graduados) explícitos nas linhas de modo a produzir tom e relevo. A título de exemplo, veja-se o texto de Martim Kemp sobre o papel das linhas usadas pelos gravuristas do século XVI. O trabalho de Hendrik Goltzius definia a geometria precisa das formas curvas por uma sucessão de linhas topográficas descrevendo simultaneamente o volume e restituindo o efeito de claro-escuro, sem usar a mancha. [23]

7. Inferência e Transferência

O tema dos contornos de tonalidade oferece um interessante modelo de reflexão sobre a ambiguidade da percepção, por motivar mecanismos de inferência na reconstrução espacial da cena observada. Como recurso

estilístico, aproxima-se de uma estética de “stencil” e grafito, na continuidade de uma longa tradição de desenhos e suportes para transferir contornos entre desenho, litografia, fotografia e pintura. A sua economia formal é apelativa a uma linguagem que evidencia o trânsito e mobilidade de superfícies, tal como foi demonstrado pela obra gráfica de Andy Warhol.

Porém, apesar do seu carácter aparentemente marginal e instrumental, encontram-se relações fundamentais com processos técnicos que apoiam a percepção, sugerindo uma afinidade entre a natureza dos contornos tonais e determinados recursos, entre os quais, os exemplos de Charles Bargue e os contornos de superfície ou as tramas volumétricas, tão comuns no desenho ocidental.

O seu aspeto transitório significa que habitualmente é uma imagem de transferência entre imagens, de modo mais técnico, entre uma fotografia e uma serigrafia, ou entre um desenho e uma pintura. Mas a sua transitoriedade implica também que é uma imagem incompleta, porque as sombras escondem informação e também, porque referem tonalidades ausentes. O positivo e o negativo neutralizam-se. É no seu efeito de estranhas configurações que se revela a presença de sombras e ruído visual e, simultaneamente, a falta de informação material que a inferida pela percepção.

Concluindo, nesse carácter transitório e incompleto, os contornos de tonalidades situam-se afinal no interior dos processos perceptivos relativos à inferência, e também, nos processos de construção da imagem e da representação pela aplicação de técnicas de transferência.

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1. Tolnay, Charles de, *History and Technique of Old Master Drawings*, Hacker Art Books, 1973.
2. Almeida, Paulo F. “Mancha Directa, O Desenho como Percepção e Expressão de Valores Tonais”, Universidade do Minho, Tese Doutoramento, 2008, p. 68.
3. Hockney, David, *El Conocimiento Secreto, El redescubrimiento de las técnicas de los grandes pintores*, Ediciones Destino, 2001, p. 133.
4. Hockney, Idem.
5. Cozens, Alexander, *A New Method of Assisting the Invention in Drawing Original Compositions of Landscapes*, 1875. Versão consultada Paddington Press, 1977 comentada por Michael Marquese, p. 25.
6. Lloyd, Christopher & Thomson, Richard, *Impressionistic Drawings*, Phaidon Press and the Arts Council, 1986, p. 17.
7. Bonford, David (Ed.), *Art in the Making, Underdrawing in Renaissance Paintings*, National Gallery London, Yale U. Press, 2002, p. 61.
8. Genocchio, Benjamim, “Processing Alex Katz From Sketch to Finish”, New York Times,

- 28 February, 2010, p. 10. http://www.nytimes.com/2010/02/28/nyregion/28artsli.html?_r=0
9. Willats, John, *Art and Representation, New Principles in the Analysis of Pictures*, Princeton University Press, 1997, p. 125.
10. Hertzmann, Aaron, "The Role of Edges in Line Drawing Perception", *Perception*, 50(3), 266-275
11. Baxandall Michael, *Shadows and Enlightenment*, Yale U. Press, 1995, p. 1.
12. Palmer, Stephen, *Vision Science, From Photons to Phenomenology*, Bradford Book, MIT Press, 1999, p. 88.
13. Matlin, Margareth, Foley, Hugh, (1996) *Sensación y Percepcion*, 3ª Ed, Pearson Education, México, p. 199.
14. Santos, João dos, "Desenho de Decalque, Translação, Interpretação e Heurística", in CONFIA - 9th international conference on illustration and animation, p. 89.
15. Mooney, Craig, (1957) "Age in the development of closure hability in children", *Can J Psychology* 11 (4): 219-26.
16. Veja-se por exemplo, Palmer, Op. Cit., p. 88.
17. Marr, David e Hildreth, E. "Theory of edge detection," in *Proc. Roy. Soc. Landon.*, vol. B.207, pp. 187-217, 1980. Existe ampla divulgação sobre este tema. Como resumo propõe-se a leitura de Campilho. A, "Edge Detection".
18. Ackerman, Gerald, *Charles Bague Drawing Course*, ACR Editions, p. 24.
19. Ching, Francis K, *Dibujo e Proyecto*, GG México, a partir de Cabezas Lino in "El Manual Contemporâneo" in Molina, Cabezas, Bordes, *El manual del Dibujo, Estratégias de su Enseñanza en el Siglo XX*, Cátedra, Madrid, 2002, p. 232.
20. Cozens, Op. Cit.
21. Campilho A., "Edge Detection", web.fe. up (s.d.).
22. Stevens, Kent A., *Surface Perception from local Analysis and Contour*, Technical Report, MIT, Artificial Intelligence Laboratory, 1980, p. 60. <ftp://publications.ai.mit.edu/ai-publications/pdf/AITR-512.pdf>
23. Willats, Op. Cit., p. 135.
24. Kemp, Martin., "Coming Into Line" in Onians, *Sight and Insight*, Phaidon Press, 1994, p. 233.

Expanded Illustration Practice as an Embodied Sensory Experience



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Abstract

Contemporary illustration can be identified as an interdisciplinary, participatory, and audience-centred art practice. As an intermediary in information communication, it is open to diverse fields, cultures, and issues. Illustration has its own disciplinary uniqueness, and this paper will explore the creative process of collecting, processing, and presenting sensory experiences from the illustrator's point of view.

As the primary inspiration, sensory experience is an indispensable tool to support understanding of the world, assist communication, and confirm their existence. However, apart from vision, the richness and importance of the other four senses are often overlooked due to their abstract and intangible nature. With the increasing use of virtual communication, offline physical interaction has become even more valuable. Especially in this post-pandemic era, it is necessary to highlight the enrichment of sensory experiences. Through a practical project case study, this paper will examine how the methodology of illustration can support the communication of embodied sensory experiences. Bergamot is a multimedia art project presented as a collection of animation, illustration, and paintings, with a particular focus on the haptic communication between mother and daughter. This project proposes that haptics as a language of communication provide a valuable approach to exploring further possibilities of sensory representation by breaking the boundaries of established visual representation. Using a set of illustrative methods, I explore the role of illustration as a tool to transmit multisensory information and deconstruct material information, as well as a communication tool and a method for exhibition design. By drawing attention to sensory experience, illustration can enhance our connection with the world.

Keywords

Expanded Illustration,
sensory experience,
haptics, materiality,
embodiment

1. Introduction: Expanded Illustration

The term 'expand' is frequently used in research articles on illustration [1] [2] [3], as illustration itself incorporates many features that can be described as expanded. Illustrators, researchers, and educators Rachel Gannon and Mireille Fauchon in their book *Illustration Research Methods* describe the principles of illustration practice as social/public, audience-specific, communicative, multi-form, and intentional [3]. In reference to this

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framework, illustration is not only a drawing method but is also critically practised as a tool, a way of thinking [4], and a process [5] to collect, analyse, and communicate information. All these features qualify as expanded forms of illustration. So, how is expanded illustration specifically defined?

Illustration researcher and educator Stephine Black points out that the potential of illustration is realised by an expanded definition and understanding [1]. By embracing the methodologies and epistemologies developed in the related disciplines, illustration can expand its boundaries. So, it is worth learning how the concept of expanded is applied to relevant disciplines.

Numerous disciplines use the term expanded to designate a form that transcends the traditional framework. The term ‘expanded cinema’ was coined by US filmmaker Stan Van Der Beek in the mid-1960s and remains a topic of interest to this day [6]. American media art theorist Gene Youngblood first discussed the idea in his book *Expanded Cinema*; he characterised this form in three aspects: synaesthesia, intermediality, and the global public [7]. His thinking also drove the creators of expanded cinema to question what cinema is and how it can be experienced. They expanded the definition of cinema and offered a radically new viewing experience for their audiences. Valie Export made cutting-edge experimental works, highlighting that expanded cinema also refers to any attempts that ‘activate, in addition to sight and hearing the senses of smell, taste and touch’ [6]. Carolee Schneemann, a pioneer in expanded cinema, believes that ‘film as a sculptural space, multi-dimensional space’ [6].

Parallel to expanded cinema, in the rising field of experimental animation, animation directors also take similar experimental approaches to challenging the traditional understanding of time and space in animation creation [8]. Stepping away from the concept of cartoons, expanded animation breaks the traditional rules of storytelling with fragmented [9], multi-screen, or site-specific creative explorations. By introducing critical methodologies from other fields, expanded animation touches upon a wider exploration of issues such as performance, society, politics, and documentary [10]. In addition to exploring form and medium, the relationship between screen and audience in the cinematic setting, which has been explored in film theory, is also given great attention in expanded animation [11]. Animation directors take the audience’s experience as their creative perspective, providing them with a more active and embodied participatory experience.

In the meantime, in contemporary textile art, a textile is no longer limited to a material object. It is a concept, it is language, and it is metaphor [12]. Textile researcher Catherine Dormor parallels the matrix structure in textile design with textual construction, and this unique language highlights the sensorial engagement with the body [12]. Bauhaus textile artist Anni Albers expanded the understanding of this language by applying it to spatial design. In her essay *The Pliable Plane*, she argued that all primitive forms of architecture, such as tents and yurts, were based on textiles [13]. She considered textiles a structural language and their structure is the foundation of her work, providing a particular perspective for understanding the design of architectural

space. As a result, the expanded textile area is an intermediary in our understanding of the world and our exploration of the interaction between people and the world within an intermedia environment.

The discussions in these related disciplines provide insight into the possibilities for understanding and interpreting the concept of expanded illustration, offering diverse perspectives of the illustration discipline. Several notions of expanded illustration that have been explored in related disciplines appear to be related features; one example is multimedia, which is mentioned in expanded cinema, as a key characteristic of illustration because of its interdisciplinary background. The participatory attribute, which is associated with most related fields, is also a valuable approach for engaging with the social context in contemporary illustration practice [2]. The related spatial concept has also been explored and discussed [14].

However, concerns about the five senses and the embodied experience addressed in expanded cinema and expanded animation have not yet been explored in illustration. As technology has developed, animation, cinema, and illustration, as tools for information transmission, become more widely accessible. They no longer serve the needs of specific people in specific areas but are rather part of the contemporary living environment. As Youngblood stated, 'the intermedia network of cinema, television, radio, magazines, books, and newspapers is our environment, a service environment. It establishes meaning in life, creates mediating channels between man and man, man and society' [7]. This inter-media nature transforms the characteristics of other media languages into a contemporary and expanded perspective for understanding illustration. Films and animations immerse the audience into the world of images through the collaboration of the visual and the auditory, and the darkness of the screening environment. The Bergamot project also emphasises multi-sensory presentation, considering how to engage the viewer's five senses and providing an immersive illustration experience.

2. Methodology

Once illustration assumed a wider context and incorporated critical theories from related disciplines into its methodology, questions were raised, such as, what is the unique perspective of illustration? And how can we understand expanded illustration in its own context? In this context, redefining, reexploring, and recreating illustration is necessary. Because illustration is a unique discipline [1], we must understand and interpret it through its epistemology and methodology to find a basis for the concept of expanded illustration.

As a form of art practice, illustration is driven by the mutual interaction of reflective practice and theory during the making process. Educator Donald Schön observed that reflective practice enables the practitioner to 'make new sense of situations of uncertainty or uniqueness which he may allow himself to experience' [15]. In the creative process, reflective practice and theory constitute a double articulation. Theory emerges from a reflective practice while practice is informed by theory [16]. The two are indispensable and move the project forward by reacting to each other.

Martin Heidegger's notion of handleability posits that practice or experience (sense activity) rather than theory is the basis for research and discovery [16]. The present paper proposes expanded illustration as the presentation of sensory experience, and material thinking can be useful in capturing, interpreting, and presenting the sensual experience. In conjunction with the hand, eye, and mind, Paul Carter sees material thinking as dealing with the tools and materials of production and our handling of ideas [17]. The Bergamot project also focuses on materiality as a research methodology by exploring how materials and processes are practically collected, processed, and presented in cooperation with the five senses.

Based on this methodology, illustration can be considered a mediator medium in the communication of information that operates in four ways:

It supports the recording of information through illustrative methods, whether it is tangible or intangible, visible or invisible.

In terms of materiality, it is also the message itself. It has the unique attribute of a medium, capable of deconstructing and reconstructing information.

Illustration is also a tool to establish communication. Through accessible illustrative methods, the community can naturally establish connections and generate dialogue in this creative environment.

Illustration is a medium that interprets or presents information to the target audience.

These features and strategies can directly or indirectly assist illustration in capturing, interpreting, presenting, and communicating sensory experiences. This hypothesis will be proven by presenting a practical case study using this illustration methodology.

3. Expanded Illustration Case Study: Bergamot

3.1. Observe the Sensory Experience

The senses are the primary tools used to obtain and transfer information. Our senses frame the body of our reality [18]. This allows us to confirm our existence, to understand our position in the world, and to provide a channel for communication with the world. Among the five senses, vision is predominant, immediate, and more straightforward. Due to the dominant role of vision, the significance of the other senses is often overlooked or ignored. The experience of isolation during the pandemic highlighted the need for sensory communication. Research has shown that social distancing regulations are associated with a stronger desire for touch, which is also related to the pleasure of observing touch [19].

The first sense to be developed is haptic. A baby experiences haptic sensation in the mother's womb, which is their first communication with the world. 'As the in utero experience is our first experience of touch, the inclination thereafter is always toward touch' [20]. But how can sensory experience, as a form of invisible, intangible information, be documented and preserved?

Illustration can process this experience. Bergamot is a practical project that explores the mother-daughter relationship through haptic communication. At the early stage of the project, I used a creative method called a sensory diary to record and collect my sensory experiences. Through this method, I documented my sensory experiences in the

relationship. Additionally, by reflecting on the notes, I summarised the key concerns of the project and developed it.

Capturing the Moment. At the outset, I did not have a clear goal, theme, narrative, or vision of the project outcome. I honestly recorded what I experienced at that moment. I used the most accessible tools: a pencil and A4 printing paper, with no reference materials, instinctively employing my own memories as materials to express my feelings. As sensory experience is instantaneous and immediate, it is necessary to use the simplest and most accessible materials to capture the moment in the quickest way possible.

Methods of creation and expression are very diverse, as the experience of reality is complex and multilayered. To record a broader range of information, it is necessary to pay attention to the reactions of multiple senses and use multiple media to capture them. Sounds, visuals, haptics, odours, and tastes are different dimensions of information that can be documented by different media. When words cannot fully capture such complex sensory information, drawing is needed. Anthropologists as well as illustrators frequently use observation drawing as a method for collecting data in their fieldwork. Compared to written notes, anthropologist Lind Mette Kusk felt that drawing made it possible to preserve the magical atmosphere of the moment [21].

In the early stage of Bergamot, I allowed my immediate feelings to take over my hands and body, and I let my hand write or draw as it felt. Sometimes I started with a few lines and followed up with imagistic complements that were inspired by the ‘incomplete’ shapes in the drawing. At other times, I started with a keyword (Fig. 1) but would not intervene too much with the creative process. Deviating from the set word was allowed because that was what came to mind unconsciously. This method opened the content to developing and provided a broad enough foundation for a later direction. The American author Joan Didion points out that a personal notebook is ‘crucial in the way it helps us reconnect with our former selves’ [22]. The sensory diary provides a space for self-dialogue and self-reflection and for sorting out and summarising thoughts.



Fig. 1. Selection of Sensory Dairies

Place for Reflection. Because it is personal, the sensory diary can be a space where the creator feels safe and free. It can accommodate anything, be expanded in any direction (vertically or horizontally), and is free from any external critical judgment or standards. In my sensory diary, I used creative expression as an emotional outlet for any feelings seeking to be fulfilled through my creation process.

After creating a certain number of images, I organised them for critical viewing and consideration from a third-person perspective and

attempted to identify a clearer theme. I noticed that these works had no setting but consistently presented two characters interacting with each other: a girl and a Buddha's hand (a bergamot that resembles the shape of a hand) (Fig. 1). The first thing I could confirm is that I was creating from the girl's point of view. Then who did the Buddha's hand represent? I recalled that, while I was creating, I was thinking about the moments I spent with my mum. The Buddha's hand referred to my relationship with her. These images drove me to reflect on and look back at my mother-daughter relationship. The hand that frequently appeared in the images caught my attention. A warm feeling of touch emerged from my memory. When I was little, my mother always touched my back to put me to sleep, and this warm, haptic communication became a profound moment in the mother-daughter relationship. This realization also reminded me that my communication with my mum was often not verbal or written, but tactile. Words may be divided, and knowledge may be a barrier, but feeling is not. Touch can strengthen the empathetic or affective bond, opening a new channel of communication [23]. This is the unique language we use as mother and daughter, and it is also an expression, in my opinion, suitable to represent this intimate and complex relationship.

Sigmund Freud used the Oedipus myth as a prototype to describe how children are attracted to their opposite-sex parent [24]. Psychoanalyst Hendrika C. Freud has different thoughts on mother-daughter relationships; she believes that daughters are much more influenced by their mothers than by their fathers [25]. Mother is the first person boys relate to, but daughters are in the same situation. Although daughters no longer have an actual bloodline connection to their mothers once they leave their wombs, this relational bond remains unbroken. Hendrika C. Freud supplements her explanation of the mother-daughter relationship with the mythic Greek character Electra as an archetype. The daughter's emotions towards her mother are very complex, and this bond, if too strong, can easily fall into a duality of closure; she describes it as a symbiotic illusion. She believes that the symbiotic illusion is the mutual psychological involvement that leads to extreme interdependence. It refers to the inseparability from the mother inside the daughter's mind, and vice versa [25]. Although what she describes is an extreme situation, I see in her theory some fragments of the mental activities or psychological states that occurred in my relationship with my mother, and this has provided me with a guide to further understanding my personal feelings about the mother-daughter relationship.

Inspired by Hendrika C. Freud's theories and my own experience, I will also demonstrate a dualistic mother-daughter relationship in my work. Mothers and daughters have many similarities, but at the same time, they have many differences, which is what makes this dualistic relationship such a struggle. A woman's inner bond with her mother can be a source of both strength and frustration [25]. In my practice, I portray the mother and the daughter as the Buddha's hand and the human hand, both of which have the same shape but are fundamentally different (Fig. 1). They mutually and consistently wish to be closer to each other, while at

the same time being disconnected by their differences. This power relationship shifts as it grows, affected by changes in the physical and mental states. In the animation, I illustrated the stages of the relationship with abstract elements. I used dots, lines, planes, balls, and space as representations of the stages of development from birth, infancy, childhood, and youth to adulthood (Fig. 2). The language remains abstract to open this narration to a wider audience; it is not only an individual story but a collective one, ‘no utterance is individual’ [26].



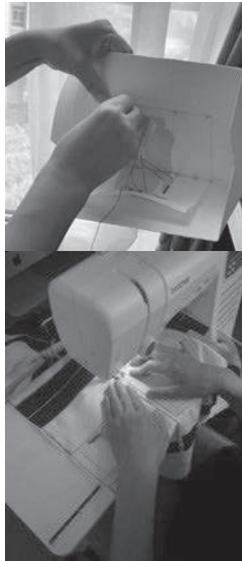
3.2. The Sensory Communication Between Human and Material Through Making

The Sensation Information of Material. To highlight the haptic sense, in the second stage, I considered what materials and techniques would complement my work. Textiles, which are frequently encountered in the domestic environment, caught my attention. They are the primary medium against the body and a second skin protecting the body. Textile artist, researcher, and educator Catherine Dormor concluded that ‘textile is a form of mediation between matter, process and concept’ [12].

In terms of materiality, textiles possess a rich cultural and historical background, as ‘every material is a condensed story’ [27]. From clothing to home products and statement flags, textiles have been a part of human social life. At the same time, though, due to their relevance to women, crafts, and the domestic workplace, their unique technical language and rich creative methodology have been undervalued or ignored. The material and the creator maintain a very intimate relationship throughout the creative process, driving the project forward through a kind of sensory conversation. Similar to drawing, the process of sewing is a dialogue between maker and material. The hand is connected to the fabric through the thread, and as the thread moves, the distance between the hand and the fabric is repeatedly and continuously drawn closer and further away (Fig.3).

In the Bergamot project, textile as a material highlights its haptic qualities. Similar to the term haptic visuality created by media and film scholar Laura U. Marks, ‘vision itself can be tactile, as though one were touching a film with one’s eyes’ [26]. At the same time, textile’s material concepts enhance the ideas the project is trying to express. The fabric itself is both soft and strong, which reflects the female strength I would like to express through the work. During the sewing process, I found that when the incorrectly sewn threads were removed from the fabric, the fabric returned to its original state, with no trace of the past, which reminded me of the mutual tolerance between mother and daughter. But the mother–daughter relationship does not only have a good side. It rises and falls as it matures, just like two threads intertwined. Here, the material is

Fig. 2. Selected keyframes of animation Bergamot

Fig. 3. Making process

used as a language of expression, delivering the sensory information of materiality.

Conversation Through Making. I did not create the project on my own. Due to the lengthy process of textile-making and the complexity of the technique, I invited several makers to assist me in making the Bergamot project. This shifted the work from individual to collaborative, opening it up to more voices. Because textiles are a physical material, requiring makers to come together on-site and collaborate, the making space became a place for the community to meet. During the making process, makers shared their techniques, exchanged their own textile experiences, and worked together to think and solve the challenges in the project. It naturally became an interest group. As they became familiar with each other, the co-creators talked about textile-related issues as well as everyday life. Coin-

cidentally, they were all mothers with daughters, so it was natural to talk about family and mother-daughter relationships during the production. They were united as a community by their shared interest, and because the making process was repetitious, they spent time talking with each other.

Textiles are a mediating tool for communication between people and the world. Textiles ‘materialised the connection between the body and the outer world’ [28]. With the enrichment of technology tools, more people are participating in textile creation not only for economic production but as a way of enriching their personal interests and participating in group activities. The textile-making process becomes a meeting place, ‘craft capabilities can be a way to celebrate togetherness’ [29].

3.3. Creating the Embodied Sensory Space

After the making stage, the next step is how to present the artworks. The project Bergamot was exhibited in a group exhibition called *Living Life Along Paths*, at the Eye Candies Gallery in Shanghai, China, from 8 July to 13 August 2023. It featured the Bergamot animations, paintings, and embroideries on canvas (Fig.4). The exhibition design aimed to create an embodied sensory space through spatial image space and embodied multisensory experience.

Spatial Imagery Space. Returning to the epistemology of illustration, we can view the exhibition space from the perspective of illustration creation. At the beginning of the project, the paper served as an image space, in the form of the sensory diary, allowing the multi-sensory fragments to be presented in 2D space. Such an explorative perspective with spatial and multiform characteristics can also be a method to explore the design of physical space. Considering the images in the space as fragmented elements, it is possible through the spatial organisation to provide



Fig. 4. Living Life
Along Paths Exhibition

an embodied experience by physically walking around and reading in the space. Spatial narrative organisation requires more than merely considering the images themselves; the gaps between images are also part of the narrative. As a spatial narrative language, comics can play a role in conveying image space. The space between two panels in comics is called the gutter [30]. The readers must connect the cartoonist's sequential panels by themselves. The completion of the narrative relies heavily on the participation of the reader; by interpreting the content through their own lens and adding personalised imaginative elements in the gaps, the narrative is finalised. Therefore, the order of the images and the gaps in between must be considered in spatial image space design.

In this exhibition, the Bergamot project presented an animation at the entrance to the exhibition space and a selection of images in a three-walled space to the left of the entrance. The original still frames of the animation were displayed on the back of the animation wall in an attempt to present a narrative link between the finished version of the work and the production process. The sewing works, which used the same technique and material as the animation, hung on the wall opposite the still frames of the animation, and were the first images the audience saw when they walked left into the gallery after the animation. This design was intended to be visually related to the animation. On the wall in the middle was centred a painting entitled 'Intimate', which demonstrated my understanding of the mother-daughter relationship, and two embroidered paintings illustrated the duality of the mother-daughter relationship, which is both immediate and mutual. In the lower-left corner of the space, two embroidery frames were shown as two hands being pulled by threads. As one of the tools commonly used in the textile-making process, the embroidery frame served as a narrative transition in space between the still frames of animation and the canvas works.

Embodied Multisensory Experience. A work that emphasises sensory experience must provide multiple, holistic sensory experiences in addition to the visual sensory presentation. Psychologist and philosopher James J. Gibson considered senses to be perceptual systems [31]. The senses work together to create a coherent perceptual system. Animation combines the visual and auditory senses; these two senses complement each other and carry similar weight in providing sensory experiences. Thus, by visually enhancing the materiality of the material, the sound should also be echoed. Composer Asbjørn Blokkum Flø expresses it beautifully, stating that composing is like creation in dialogue with material,

and this effect is more evident in some traditional instruments than in electronic music [32]. In the Bergamot animation, the violin music created by France Lion is an emotional response to the visual. The texture of the violin's string is conveyed through the sound, and again this becomes an echo of the thread element in the visual. In the exhibition, the music also lingered in the space and became part of the narrative. The sound and the smell of some fresh Buddha's hands (Fig. 4), which were placed in the exhibition space, provided another layer of sensory experience to the show.

Aside from the use of the Buddha's hand in the work and the haptic sensation of the textile, the haptic experience in the exhibition space must also be considered. The natural conditions in the exhibition space, such as light and wind, were taken into consideration. A piece of textile work with light and shadow content was arranged by a window, and some viewers mentioned the harmonious echoing relationship between the sunlight outside the window and the work. There are several works with hanging threads, and the wind added dynamic elements to these static works, giving them a more dynamic expression.

The viewer receives information through the body's movement in this narrative space. A story is formed by connecting the disparate scenes throughout the walk [33]. The completion of the narrative relies on the participation of the viewer. Viewers engage their senses and body to integrate the perceptual information into a holistic concept. Therefore, different viewing angles, distances, and heights resulted in varying receptions of the information. Through this physical participation, the audience mobilises all their senses in the space, participating in the narrative, interpreting the narrative, and discussing the experience. This embodied experience allows the audience to more deeply empathise with the work.

4. Conclusion

This paper demonstrated the possibilities of sensory experience as expanded illustration through the practical project Bergamot. By describing the project's creation process, it provides a glimpse into gathering, creating, and presenting sensory experiences using illustration methodology. As each stage must achieve different aims, this paper also provided specific research methods that can be used in each one. At the early stage, a sensory diary can be used to obtain comprehensive sensory information. During the production stage, focus can be placed on the materiality of the materials, expanding the possibilities of sensory representation in the material, process, and conceptual aspects. In the final stage, the exhibition space can be regarded as a spatial image space, by considering the delivery of sensory information and paying attention to the audience's physical participation in the exhibition space. This enhances the audience's multi-dimensional spatial sensory participation.

The project unlocked possibilities for illustration to explore sensory experiences in different disciplines, media, and spaces. Within less than a year after completion, the animation work was selected for six international festivals, and the paintings have been exhibited three times, receiving positive feedback from audiences in different disciplinary

settings. What is most valuable to me is developing a methodology that can be used to explore sensory experiences from an illustrator's point of view. This also confirmed that illustration as a research methodology is not limited to the traditional context but can assist illustrators to freely use the methods to explore, experiment, and present information across discipline barriers. However, most of the methods in this study are limited to personal use, and I will continue to explore more generalised methods for gathering sensory information. Nonetheless, sensory experience is an emerging area with considerable research value and potential for exploration as a means of expanded illustration.

5. References

1. Black, S.: Illumination through illustration: positioning illustration as practice-led research. University of the West of England, Bristol. (2014)
2. Vormittag, L.: 'Making (the) subject matter: Illustration as interactive, collaborative practice', *Journal of Illustration*, 1(1), pp. 41–67. (2014)
3. Gannon, R. and Fauchon, M.: *Illustration research methods*. 1st edn. London : Bloomsbury Visual Arts. (2021)
4. O'Reilly, J Rich De Courcy, The Raw and The Cooked #8, *Graduates 2013*. Varoom! <http://www.varoom-mag.com/?p=5807> (2013)
5. Mills, R. *Installations: Committere*. <http://www.shedmatter.co.uk/russellmills/mills/installations/committere.html> (2006)
6. Rees, A.L. et al.: *Expanded Cinema: Art*. London: Tate Gallery. (2011)
7. Youngblood, G.: *Expanded cinema*. London: Studio Vista. (1970)
8. Russett, R. and Starr, C.: *Experimental animation: an illustrated anthology*. Van Nostrand Reinhold Co. (1976)
9. Vidakovic, L.: 'Fragmented Narratives: Exploring Storytelling approaches for Animation in Spatial Context', *International Journal of Film and Media Arts*, 6(2), pp. 7–27. (2021)
10. Smith, V. and Hamlyn, N.: *Experimental and Expanded Animation: New Perspectives and Practices*. 1st edn. Cham: Springer International Publishing. (2018)
11. Bond, R. 'Poetics and public space: an investigation into animated installation', *Animation Practice, Process & Production*, 1(1), pp.65–76. (2011)
12. Dormor, C.: *A Philosophy of Textile*. 1st edn. London: Bloomsbury Publishing. (2020)
13. Albers, A.: 'The Pliable Plane; Textiles in Architecture', *Perspecta*, 4, pp.36–41. (1957)
14. Bainton, D.: 'Spatializing Illustration', *VaroomLab [Preprint]*, (2). (2013)
15. Schön, D.A.: *The reflective practitioner*. New York: Basic Books. (1983)
16. Barrett, E. and Bolt, B. (eds): *Practice as research: approaches to creative arts enquiry*. Paperback ed. London: Tauris. (2010)
17. Carter, P.: *Material thinking*. 1. publ. edn. Carlton, Victoria: Melbourne Univ. Press. (2004)
18. Montagu, A.: *Touching: the human significance of the skin*. Columbia University Press. (1971)
19. Meijer, L.L., Hasenack, B., Kamps, J.C.C. et al.: Affective touch perception and longing for touch during the COVID-19 pandemic. *Sci Rep* 12, 3887. (2022).
20. Hagemann, J.: May I Touch Your Meat? Jan Svankmajer, Birth Trauma, and the Gesture Toward Touch, *Bright Lights Film Journal*. 31 October. (2012)
21. Kusk, M.L.: 'ethnoGRAPHIC field notes: On drawn notes and their potentials', in. Andersen, A.O. et al. (eds) *Anthropology Inside Out: Fieldworkers Taking Notes*. Sean Kingston Publishing. (2020)

22. New, J.: *Drawing From Life*. 1st edn. New York: Princeton Architectural Press. (2005)
23. Paterson, M.: *The Senses of Touch*. 1st edn. London: Bloomsbury Publishing. (2007)
24. Freud, S.: *Three essays on the theory of sexuality*. Se, 7. (1905)
25. Freud, H.C.: *Electra vs Oedipus*. London: Routledge. (2010)
26. Marks, L.U.: *The skin of the film*. 3rd printing. Durham: Duke Univ. Press. (2006)
27. Ingold, T.: *Making: anthropology, archaeology, art and architecture*. Routledge. (2013)
28. Bristow, M.: 'Continuity of Touch – Textile as Silent Witness', pp.44-51, in Hemmings, J.: *The Textiles Reader*, London: Berg. (2012)
29. Von Busch, O.: *Civic Crafts and Plug-In Whittling*, *American Craft Inquiry*, 1:1. (2017)
30. McCloud, S.: *Understanding comics*. 1. HarperPerennial ed. New York, NY: Harper Perennial. (1994)
31. Gibson, J.J.: *The senses considered as perceptual systems*. Houghton Mifflin. (1966)
32. Flø, A.B.: 'Materiality in Sound Art', *Organised Sound*, 23(3), pp. 225-234. (2018)
33. vKossmann, H.: 'The Practice of Design in Narrative Spaces: On the Art of Exhibiting', in Kossmann, H., Mulder, S., and den Oudsten, F.d.: *Narrative spaces*. Rotterdam: o1o Publ. (2012).

O potencial da narrativa interativa na educação para a literatura: A adaptação de textos literários para Realidade Estendida



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Abstract

Adaptations have an important role in the transmission and dissemination of information, based on the growing access to audiovisual means of communication, allowing the user to access visual and interactive components, and giving him a greater immersion in the cultural experience. Adaptation can therefore become a tool to increase the understanding of literary themes and the interest in literature. With this potential in mind, we propose an exploration into the advantages of extended reality, a term that covers all the formats of reality, in order to promote the interest in literary texts from the Portuguese secondary school curriculum. This article aims to demonstrate the importance of the subject, and to relate its current state, focused on the revision of the literature for the time being.

Palavras-Chave

Narrativas interativas,
realidade estendida,
narrativas adaptadas

1. Introdução

O desinteresse na leitura está a aumentar em certos círculos de leitores [1]. Algumas das razões apresentadas para este desinteresse são o aumento de outros meios de entretenimento, de grande diversidade e de fácil acesso [2].

Em vista destas observações, deparamo-nos com as seguintes questões de investigação:

- Quais as boas práticas na adaptação de literatura para Realidade Expandida (XR)?
- Quais as valências do uso da narrativa interativa na educação?
- Quais são as características que podem tornar uma narrativa mais apelativa para adaptação para XR?

A sugestão que apresentamos com esta pesquisa não tenta substituir a leitura por meios de entretenimento, visto que ambos são elementos distintos da cultura contemporânea. Procuramos facilitar a compreensão das narrativas através do potencial tecnológico referido, de forma a responder a algumas das queixas apresentadas por estudantes no que toca às aulas de português. Entre estas queixas está o formalismo das aulas, a falta de relação entre os temas dos livros clássicos e as realidades contemporâneas, e a dificuldade na leitura e compreensão dos textos [3].

Estas problemáticas levaram-nos aos seguintes objetivos de investigação:

Reunir algumas das normas que podem guiar um criador na adaptação de narrativas literárias para XR;

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³ Tradução do inglês: *Extended Reality* (XR)

Possibilitar uma melhor e mais fácil aprendizagem e interpretação de narrativas da literatura clássica, através de XR;

Neste artigo apresentamos um estado da arte e estudo exploratório dos temas que pretendemos tratar na investigação enunciada.

2. Estratégia Metodológica

Em termos metodológicos, para assegurar um melhor fundamento para a investigação, foi feita uma revisão da literatura, através da qual se pesquisaram e reuniram vários artigos que nos deram uma melhor compreensão dos temas relevantes para a investigação e para o artigo [4]. O protocolo desta revisão pautou-se pela procura de artigos e outras referências usando o motor de busca *Google Scholar*, e consultas aos livros de procedimentos da CONFIA. Com esta pesquisa, foi-nos permitido estabelecer alguns requisitos para as seguintes fases do trabalho, a primeira das quais foi delinear áreas de conhecimento específico para o artigo. Com estas áreas estabelecidas, foi criado um *image board*, onde foram reunidas várias imagens que informam a criação do design de todos os elementos visuais do jogo, promovendo a coerência entre eles [4].

No futuro, será criado um protótipo que irá recriar uma experiência literária, embora em baixa resolução por motivos do tempo útil disponível para a investigação [5], visando estudantes do ensino secundário de português. Este protótipo será feito com o *Figma*, uma ferramenta digital que permite simular o *design* de aplicações interativas. Ao longo, e após o uso do protótipo, serão feitas questões aos estudantes, de forma a avaliar o interesse na narrativa adaptada a outro médium, bem como as dificuldades no uso do protótipo.

3. Revisão da literatura

A revisão da literatura em curso teve como objetivo compreender de forma aprofundada os diversos temas que englobados neste trabalho. Neste sentido, a secção seguinte fala de adaptação da palavra escrita para outros meios, e dos respetivos desafios que surgem desta transcodificação. Depois de ter estabelecido uma base de conhecimento, apresentamos as dificuldades intrínsecas em adaptar texto para animação e para jogos.

3.1. Adaptação

No seguimento das questões de investigação que introduzimos atrás, propomo-nos a criar uma adaptação fiel de um texto literário, de forma a facilitar a compreensão das temáticas da respetiva narrativa, e estimular o interesse pela sua leitura [6], de forma semelhante ao que aconteceu com as adaptações para filme da saga do *Senhor dos Anéis* [7] e *Orgulho e Preconceito* [8].

Apesar de adaptações literárias serem consideradas pueris por alguns [9], este julgamento ignora que a simplificação e o tempo reduzido que um indivíduo demora numa adaptação a torna num recurso para a compreensão de temas complexos ou de difícil interpretação [6], bem como para a difusão de uma narrativa [9].

Mas mesmo aceitando esta mais-valia da adaptação, é difícil apontar para as características às quais o adaptador deve ser fiel. Imagens e mo-

mentos devem ser alterados ou suprimidos para corresponder de forma euritmica⁴ ao *media* para o qual estão a ser adaptados [10], como p.ex., *The Man in the High Castle* (2015-2019).

Também dependendo da localização e tempo em que a leitura é feita, o horizonte de expectativa, que dita como as morais e temas são interpretados, vai sofrer alterações [11]. Vemos isto nas leituras, e consequentemente nas adaptações feitas da personagem Sherlock Holmes em que a cada nova adaptação sobressaem características e qualidades diferentes, dependendo dos aspetos a que os escritores ou atores escolhem dar ênfase [12].

A animação oferece um potencial interessante para adaptação, pois devido ao seu vocabulário visual vasto, a animação permite transmitir atmosferas, pensamentos e estados de espírito internos sem ter de procurar por equivalentes no mundo real [13]. Para animação, outros autores já compuseram algumas questões com o propósito de guiar um animador na criação de uma adaptação. As questões propostas, e consideradas relevantes são: Qual é o estado de espírito transmitido pelo livro, e como é que este se pode transmitir através das cores, formas e movimentos dos objetos e personagens; quais são as condições, tais como descrição das personagens e locais, que devem ser tidas em conta para manter a fidelidade para com o texto original; como é que o estilo visual (a coerência visual entre os vários elementos da narrativa) dialoga com a interpretação da narrativa; se as técnicas usadas para executar a animação são compatíveis com a agenda do projeto [14].

A adaptação para jogos apresenta desafios relacionados com a interação do jogador com a narrativa. Como foi constatado anteriormente, as adaptações de textos literários para outros meios são consideradas por alguns autores como pueris, uma versão infantilizada da versão original [9]. Embora haja outros aspetos para os quais podemos apontar quando se fala da reputação de imaturidade da cultura de massas dos jogos de vídeo, esta opinião deve-se em parte ao maior foco nas ações das personagens, enquanto nos livros há um maior foco na interioridade das personagens [15].

Porém, estas adaptações permitem que uma narrativa se adapte ao público estimulando a compreensão de temas e questões presentes durante a leitura [6], e atualmente podemos ver uma maior presença da consciência das personagens como um aspeto jogável. Exemplos disto são *Heavy Rain* (Quantic Dream, 2010); *Until Dawn* (Supermassive Games, 2015) e *Life is Strange* (Square Enix, 2015), jogos em que o jogador escolhe entre várias opções e ações, efetivamente jogando os pensamentos e emoções da personagem, e influenciando o seu destino, e onde o aspeto psicológico se revela por meio de estímulos sensoriais. Através de *gameplay*⁵ semelhante, é possível converter não só a ação como a intenção das personagens numa experiência jogável [15]. Esta possibilidade de lidar com a consciência e emoções das personagens como aspetos jogáveis, faz com que os temas psicológicos, emocionais e mentais dos livros possam ser transferidos para um jogo.

4 Euritmico: algo com um ritmo agradável e harmonioso. No contexto de adaptação, significa que alterações são feitas de *media* para *media*, de forma que o efeito geral da história se mantenha, sem impedir a eficácia da história no novo *media* [10].

5 *Gameplay* é o termo para os meios disponíveis para o jogador interagir com o jogo, que se constituem como uma experiência particular.

Tendo em conta os aspetos apresentados, é possível reunir algumas características e questões a ter em atenção para criar um jogo em XR, que transmita o mais possível da narrativa original. Estas questões e características põem ênfase na transmissão da mensagem através das possibilidades visuais dadas pela animação, e das possibilidades demonstradas no *gameplay* de jogos recentes.

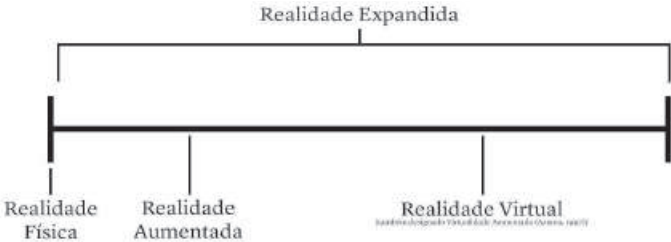
3.2. Tecnologia VR, AR e XR

Ao longo deste artigo foi apresentado o termo XR, aqui agindo como um equivalente a todas as combinações de real e virtual geradas por computador. Esta tecnologia está a evoluir uma grande velocidade, pelo que a terminologia está em constante mutação, e os mesmos termos são usados em diversos artigos referindo-se a combinações e tecnologias diferentes [16].

O termo Realidade Virtual (VR)⁶ é usado de forma intersubstituível para definir um ambiente que ocupa todos os sentidos do utilizador e é completamente gerado por computador [17]; ou um ambiente em que apenas a imagem, que ocupa todo o campo de visão do utilizador, som, e respostas hápticas, são geradas por computador [18].

XR abarca então Realidade Aumentada (AR)⁷, que permite sobrepor imagens geradas por computador com o mundo real [17]; e a VR, que para evitar conflito de termos será usado para definir as tecnologias que alienam parcialmente o utilizador da realidade física, ocupando o campo de visão do utilizador e fornecendo várias respostas sonoras e hápticas [19]. Para maior esclarecimento, apresentamos a figura 1.

Fig. 1 Esquema da abrangência dos termos usados no presente texto, adaptado a partir do trabalho de Milgram e Kishino (1994)



Os dispositivos que permitem o uso de AR partilham três características: combinam o real com o virtual; são interativos em tempo real; e as imagens geradas por computador aparentam ser tridimensionais. Para este efeito, os dispositivos permitem ver o ambiente envolvente, seja por vídeo, ou através de um material transparente [17]. Para que AR funcione sem problemas, é importante que o alinhamento entre os objetos reais e os virtuais funcione corretamente. A este alinhamento dá-se o nome de registo⁸ [17]. Este registo depende do *tracking*: a perceção que o dispositivo tem da sua localização em relação a todos os elementos de AR. Para esta perceção é possível usar: marcas fiduciais, ou seja, códigos ou símbolos que possam ser facilmente identificados e interpretados pelo dispositivo móvel para

6 Tradução do Autor (TA) a partir do original em inglês: *Virtual Reality* (VR)

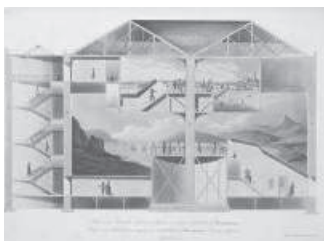
7 TA a partir do original em inglês: *Augmented Reality* (AR)

8 TA a partir do original em inglês: *registration*

compreender a posição do utilizador; b) soluções sem as marcas anteriores, em que o dispositivo usa os acelerómetros do computador ou sistemas de orientação integrados; e c) através da localização por GPS⁹ [20].

Dispositivos que permitem o uso da parte visual de XR incluem *Head Mounted Displays* (HMD)¹⁰, telemóveis, e *tablets*. HMD fornecem uma experiência mais imersiva de XR, mas não estão disponíveis de forma tão imediata para a população geral quanto telemóveis ou *tablets*, que têm atualmente a possibilidade de correr programas com AR [21].

Para o desenvolvimento de AR podem ser usados motores de jogo¹¹ como *Unity*, ou um dos muitos kits e estúdios de desenvolvimento de AR que existem (ARCore; ARToolKit; Sparks Studio). Para o desenvolvimento de VR são usados *Software Development Kits* (SDK)¹², como Oculus SDK, PSVR Dev SDK, ou Google VR SK. Para VR, a escolha de SDK impõe o *hardware* que pode ser usado para o resultado final, pelo que é importante saber com antecedência qual será o dispositivo desejado. Tendo uma ideia mais concreta da tecnologia disponível para a criação de uma experiência para cativar os estudantes, debruçamo-nos a seguir sobre como algumas experiências similares tomaram forma ao longo do tempo, e o que pode suscitar interesse nestas.



Apesar da tecnologia associada com XR ser recente, é possível encontrar experiências de imersão em séculos anteriores.

Um exemplo disto é o panorama do pintor Robert Mitchell. Uma pintura a 360 graus, exposta num edifício criado para o efeito. A abrangência do campo de visão fazia com que os espectadores se sentissem transporta-

dos para outro local, completamente imersos na experiência [22]. Na figura 2 podemos ver um esquema do edifício onde o panorama era exposto.

O desenvolvimento da tecnologia alterou também a experiência de imersão, tal como podemos ver na figura 3.

Atualmente é possível ter acesso a espetáculos como *Impressive Monet & Brilliant Klimt* [23] e *Van Gogh: The Immersive Experience* [24] que usam não só imagens 360º, projetadas em paredes de espaços amplos, como também Realidade Virtual (VR), e espaços onde é possível interagir com as obras dos artistas por meios digitais e físicos, através de modelos 3D, ecrãs tácteis e pintura digital.

Em função deste novo potencial, debruçamo-nos a seguir sobre possíveis fios condutores para estas experiências.

Fig. 2. Esquema do edifício de exibição do panorama. Imagem acedida a 25/03/2024 em: <https://web.archive.org/web/20201030223108/https://www.bl.uk/collection-items/section-of-the-rotunda-leicester-square>

9 A sigla de *Global Position System*. Trata-se de um sistema de navegação que permite a dispositivos com o devido recetor de sinais obter e reconhecer as coordenadas geográficas de um lugar.

10 *Head Mounted Display*, conhecido por óculos de realidade virtual, é um dispositivo tecnológico usado na cabeça que permite ao seu utilizador ver imagens criadas por computador.

11 Tradução do inglês: *game engines*. Programas que contêm as várias ferramentas necessárias para construir um jogo ou aplicação.

12 *Software Development Kits* (SDK) são um conjunto de ferramentas de desenvolvimento de software, usados por programadores, que reúnem as plataformas, sistemas e linguagens necessárias para facilitar a construção de programas e aplicações para determinados serviços.

Fig. 3 Imagens de *Impressive Monet & Brilliant Klimt e Van Gogh: The Immersive Experience*, respetivamente. Imagens acedidas a 07/03/2024, em <https://www.nytimes.com/2021/03/07/arts/design/van-gogh-immersive-experiences.html> e <https://lisboasecreta.co/mo-net-klimt-reservatorio-mae-dagua-amoreiras-espetaculo-imersivo/>



3.3. Narrativas e aprendizagem em tecnologias XR

À falta de um vocabulário próprio para XR a interação entre utilizador e narrativa ainda é muito informada por filmes e jogos. Assim, apesar da falta de literatura sobre a adaptação para XR, podemos observar as dificuldades e mais-valias da adaptação para filmes e jogos, e estabelecer as semelhanças com XR [22]. Em *media* que permite a interatividade com os elementos da narrativa há o desafio de manter a coerência do enredo original [25], pelo que é essencial equilibrar as necessidades do enredo com os critérios da interação [26]. Outro desafio que se apresenta é a diferença que há entre a imagética do leitor, e os visuais apresentados [27]. Esta é uma diferença inevitável, e é o que permite dar à audiência a presença das personagens e eventos da narrativa com os quais pode interagir, e que de outra forma lhe seriam inacessíveis [28]. AR mostra ser um bom instrumento para aprendizagem por ter funcionalidades que suportam a teoria construtivista de educação, que dita que o conhecimento é formado de forma ativa, e não apreendido passivamente [29]. Assim, os alunos constroem o seu conhecimento refletindo nas experiências e ações [30]. Reforçando a aprendizagem há também o impacto multissensorial de XR, que atua no sentido visual, mas também no auditivo e do tacto (através de tecnologia háptica), i. e., uma experiência multissensorial é relevante para a temática da nossa investigação, pois estas experiências auxiliam a consolidação do conhecimento que se pretende transmitir. Para além disto, a interpretação da estimulação sensorial influencia a orientação espaço temporal que o leitor desenvolve no ambiente imersivo [31].

Mas para que todos estes elementos funcionem, é aconselhável que sigam o *Princípio de Coerência*, ou seja, que haja coerência temática entre eles. Esta coerência permite que a narrativa seja compreendida, visto que os estímulos sensoriais que

Fig. 4 Imagens da sala multimédia da Fundação Bayeler. Imagem acedida a 25/03/2024 em: <https://www.youtube.com/watch?v=YAbn-tOPoJo>



não reportem diretamente à narrativa dificultam a compreensão do que é transmitido. As imagens, sons e interações devem corresponder apenas à narrativa em mãos. As ligações a outros tópicos devem ser indestrinçáveis da narrativa criada, para não serem uma distração, e associações que possam ser criadas com outros temas e tópicos devem ser deixados para o lei-



tor [32]. Com esta informação em mente, podemos observar alguns exemplos de narrativas em XR. *Gauguin* (2015) É um livro com AR que faz parte da exposição da *Fundação Bayeler* sobre Paul Gauguin, e que, como podemos ver na figura 3., não usa um ecrã como intermédio com o público.

É uma combinação de imagens impressas e projetadas. Com cada interação é permitida uma experiência amplificada das obras de Gauguin, assim obtendo mais informação sobre estas. Segue os princípios da aprendizagem multimédia, pois a tecnologia empregue recorre a sons e imagens que remetem sempre para informação relevante [33].

Mon Papi, de Manon Louart, é um livro de AR ilustrado, que apresentamos na figura 5. *Mon Papi*, fala do impacto que o Alzheimer tem, não só na vida de quem sofre da doença como dos que estão à sua volta. A vivência com Alzheimer é contada nas imagens do livro, e a versão dos que vivem com o doente é relatada por AR [34]. Esta é das melhores representações da união entre XR e uma narrativa, em que a tecnologia se torna fundamental para a apreciação de toda a narrativa e da sua carga emocional.

As considerações apresentadas estabelecem alguns pontos a ter em conta sobre como desenvolver a parte lúdica de um jogo, o que, em conjunto com as características para a criação duma adaptação literária, evidenciam normas para a composição de um jogo não só consistente com a narrativa original, como interessante e lúdico.

4. Componente Prática

Esta componente ainda se encontra numa fase embrionária, pelo que, apesar de haver algum trabalho desenvolvido, este não é aqui apresentado, dado que ainda não tem maturidade suficiente para tal. Após observar quais os aspetos-chave para uma aprendizagem eficaz de literatura com recurso a XR, podemos procurar narrativas com potencial para fomentar hábitos de leitura, que sejam simultaneamente adequadas para se poderem implementar neste *media* de suporte. Após compreender, especificar e delimitar várias áreas para a narrativa a adaptar, como foi feito em secções anteriores, esta escolha torna-se surpreendentemente mais abrangente. Há numerosas narrativas que podiam ser usadas para ser adaptadas para XR, por possuírem uma sobreposição entre características impossíveis e abstratas com um contexto real, e como o objetivo é educar uma audiência portuguesa quanto à literatura portuguesa, consideramos que será adequado adaptar um livro que pertença ao Programa de Português do Ensino Secundário [36].

O programa curricular de português abrange vários géneros literários, uns que consideramos mais adequados do que outros segundo as razões esplanadas a seguir: poesia, como a poesia trovadoresca, poemas de Luís de Camões, Fernando Pessoa, Antero de Quental, e outros poetas, seria um género interessante para criar interações e imagens, devido à

Fig. 5 Imagem exemplificativa do livro. Imagem recolhida a 25/03/2024, em: <https://www.behance.net/gallery/64605079/Mon-Papi>

variedade de abordagens aos temas que tratam. Mas muitos destes poemas não têm uma narrativa linear, e transmitem sentimentos e emoções sem ligação a um momento e ação específico. Como esta abordagem não foi abrangida pela pesquisa até agora feita, consideramos que seriam um bom objeto de estudo no futuro, mas não foram estes os textos escolhidos para a componente prática desta investigação. Trabalhos que contêm somente elementos realistas como *Os Maias* de Eça de Queirós ou *Amor de Perdição* de Camilo Castelo Branco não contêm elementos que aproveitem as capacidades de XR da mesma forma que outras obras do programa curricular. Com textos dramáticos, como os de Gil Vicente, é possível interagir por meio da encenação da peça.

Isto diminui as possíveis obras a adaptar a textos como *Os Lusíadas*, de Luís de Camões, e *Memorial do Convento*, de José Saramago. Narrativas que contêm tanto elementos realistas como fenómenos que não existem no mundo físico, e que podem ser experienciadas através de XR. Visto ser necessário selecionar um deles para prosseguir, a obra escolhida foi *O Memorial do Convento* [37]. Esta escolha deve-se em parte devido ao potencial da visão de Blimunda Sete-Luas, uma das personagens centrais da narrativa, e à sua capacidade de ver pessoas por dentro.

5. Conclusão

Apesar da parca existência de literatura relativa a adaptações literárias para XR no âmbito da educação, através da literatura disponível sobre outros media foram recolhidos dados que permitiram estabelecer normas para nos aproximarmos de um jogo de XR que permita aos alunos uma experiência tanto interessante como educativa. É possível compreender como e porque é que uma adaptação de um livro para um jogo de XR poderá ser um meio de ensinar a interpretar e compreender os temas e ideias de uma narrativa, e como é um incentivo à divulgação e leitura da obra original. Para além disso, o potencial da proposta de criar uma adaptação em XR para *Memorial do Convento* é reforçada pelos elementos fantásticos da narrativa, que poderão proporcionar uma experiência mais relevante com XR. Seguindo as diretrizes apresentadas anteriormente para adaptação visual e as diretrizes apresentadas para adaptação em termos de interação, cremos que será possível criar uma narrativa iterativa para XR que proporcione aos estudantes um acesso mais apelativo a este texto do programa curricular de português.

6. Referências

1. Neves, J., *Práticas de leitura da população portuguesa no início do século XXI*, ISCTE-IUL (2011)
2. Fleury, L., *Sociologie de la culture et des pratiques culturelles*. C. Armand, Ed.; 3rd ed (2016)
3. Duarte, J. B., Críticas dos alunos de uma escola secundária sobre o ensino da língua portuguesa, da física e da filosofia, *Revista Lusófona de Humanidades e Tecnologias*, 3 (2000)
4. Martin, B., & Hanington, B., *Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions*, Rockport

Publishers (2012)

5. Huang, I.-W., *Exploring Low-Fidelity Prototyping Methods for Augmented Reality Usability Tests*, University of Twente (2018)
6. Bazin, A., Adaptation, or the Cinema as Digest. In J. Naremore (Ed.), *Film Adaptation* Rutgers University Press, pp. 19–27 (2000)
7. Tolkien, J. R. R., *The Fellowship of the Ring*, George Allen & Unwin (1954)
8. Austen, J., *Pride and Prejudice*. T. Egerton, Whitehall (1813)
9. Naremore, J., Introduction: Film and the Reign of Adaptation, In J. Naremore (Ed.), *Film Adaptation*, Rutgers University Press pp. 1–18 (2020)
10. Wallin, M. R., Eurhythmic analysis: A rhetoric of adaptation, *Journal of Adaptation in Film and Performance*, 6(2), 125–139 (2013)
11. Jauss, H. R., & Benzinger, E., Literary History as a Challenge to Literary Theory. *A Symposium on Literary History*, 2(1), 7–37 (1970)
12. Polasek, A. D., *The Evolution of Sherlock Holmes: Adapting Character Across Time and Text*, Montfort University (2014)
13. Wells, P., *Animation: Genre and Authorship*, Wallflower Press (2002)
14. Rall, H., Things That Go Bump on the Screen: Adapting Gothic Literature for Animation, *Adaptation for Animation. Transforming Literature Frame by Frame*, Taylor & Francis Group, pp. 118–189 (2020)
15. Cutting, A., Adapting Henry James’s The Turn of the Screw as a Video Game, *Adaptation*, 5(2) (2012)
16. Rauschnabel, P. A., et al., What is XR? Towards a Framework for Augmented and Virtual Reality Computers in Human Behaviour, *Computers in Human Behaviour*, Vol. 133 (2022)
17. Azuma, R. T., A Survey of Augmented Reality, *Presence: Teleoperators and Virtual Environments*, Vol. 6 (1997)
18. van Zeller de Macedo de Oliveira, M., Coelho, A., & Cardoso, P., *Play the Museum: A framework for designing location-based games with augmented reality for museological spaces* (2021)
19. Ko, S. M., Chang, W. S., & Ji, Y. G., Usability Principles for Augmented Reality Applications in a Smartphone Environment, *International Journal of Human-Computer Interaction*, 29(8), 501–515 (2013)
20. Bimber, O., & Raskar, R., *Spatial Augmented Reality Merging Real and Virtual Worlds* (2005)
21. Barba, E., MacIntyre, B., & Mynatt, E. D., Here We Are! Where Are We? Locating Mixed Reality in The Age of the Smartphone, *Proceedings of the IEEE*, 100(4), 929–936 (2012)
22. Finn-Saisselin, M., How does the audience experience art within a virtual environment today? 6 Ed. *Conferência Internacional Em Ilustração e Animação*, 658–667 (2018)
23. *Impressive Monet & Brilliant Klimt.*, <https://portugalagenda.com/en/event/impressive-monet-brilliant-klimt-lisbon/>
24. *Van Gogh London Exhibit: The Immersive Experience*, <https://vangoghexpo.com/>
25. Riedl, M. O., & Bulitko, V., Interactive Narrative: An Intelligent Systems Approach. *AI Magazine*, 34(1), 67–77 (2013)
26. Salter, A., *What is your Quest?: From Adventure Games to Interactive Books*, University of Iowa Press (2014)
27. Marciniak, M., The appeal of literature-to-film adaptations. *Lingua Ac Communitas*, 17, 59–67 (2007)

28. Wang, M., Callaghan, V., Bernhardt, J., White, K., & Peña-Rios, A., Augmented reality in education and training: pedagogical approaches and illustrative case studies. *Journal of Ambient Intelligence and Humanized Computing*, 9(5), 1391–1402 (2018)
29. Robinson, J. D., & Coltz, J. J., Augmenting Your Teaching using Augmented Reality, *Society for Information Technology & Teacher Education International Conference*, 3352–3353 (2013)
30. Bruner, J., *Acts of Meaning*, Harvard University Press (1990)
31. Bujak, K. R., Radu, I., Catrambone, R., MacIntyre, B., Zheng, R., & Golubski, G., A psychological perspective on augmented reality in the mathematics classroom. *Computers & Education*, 68, 536–544 (2013)
32. Mayer, R. E., Cognitive Theory and the Design of Multimedia Instruction: An Example of the Two-Way Street Between Cognition and Instruction, *New Directions for Teaching and Learning*, 2002(89), 55–71 (2002)
33. iart, <https://iart.ch/en/work/gauguin>
34. *Mon Papi*, <https://www.behance.net/gallery/64605079/Mon-Papi>
35. Maupassant, G., *Le Horla*, Gil Blas (1887)
36. Buesco, H. C., Maia, L. C., Silva, M. G., & Rocha, M. R., *Programa e Metas Curriculares de Português, Ensino Secundário*, Ministério da Educação e Ciência (2014)
37. Saramago, J., *Memorial do Convento*, Editorial Caminho (1982)

Mirror Fellings



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Abstract

The text describes the artistic project "Mirror Feelings", which combines art and artificial intelligence (AI) through a large intelligent mirror. The mirror uses a trained neural network to modify the viewer's reflection in real time, providing an interactive and immersive experience. The work challenges conventional conceptions of identity and reality, exploring the limits between the physical and virtual worlds. Furthermore, the text contextualizes AI in art, highlighting different approaches such as Generative Adversarial Networks (GANs), Machine learning and Deep Learning, and leaving the increasingly pertinent question about shared authorship between the Artist and the AI.

Keywords

Art, Artificial Intelligence, Smart Mirror, Neural Networks, Interactivity, Identity, Virtual Reality, Generative Adversarial Networks, Machine learning, Deep Learning, Creative Autonomy

1. Descrição do projeto artístico

O projeto artístico que desencadeou este artigo é a proposta da obra "Mirror Fellings" que junta a criação artística com a Inteligência Artificial (IA). Esta obra está a ser desenvolvida por Alexandre Carvalho (Estudante de Doutoramento da FBAUP) e por Eduardo Peixoto (Estudante de Doutoramento da UM), na qualidade de artista e programador, respetivamente.

O trabalho "Mirror Fellings" consiste num espelho inteligente de grandes dimensões que muda o reflexo do expectador da obra em tempo real com o recurso à IA. Esta é uma rede neural treinada a partir de referências dadas por Alexandre Carvalho para que este assuma a persona do artista e consiga realizar, esteticamente, modificações aos corpos apresentados. Alterando a fisionomia e outros aspetos do sujeito que está em frente ao espelho.

Na Figura 1 e Figura 2 (composta por diferentes imagens de uma simulação) podemos ver que o expectador ao fixar-se junto ao espelho verá não o seu reflexo, mas sim um corpo alterado pela IA, podendo esta ser múltiplas interpretações baseadas na pessoa, na sua expressão facial, corporal, etc. Nas imagens são propostas muitas alterações das formas que podem ser expressas pela IA e servem sobretudo como referência visual para um melhor entendimento.

O desenvolvimento de um espelho inteligente também apresenta desafios únicos, tanto do ponto de vista técnico quanto artístico. A integração de hardware e software, a usabilidade da interface do utilizador e a manutenção de uma estética coesa são apenas alguns dos aspetos que exi-

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gem atenção cuidada. No entanto, esses desafios oferecem oportunidades para inovação e experimentação, incentivando uma abordagem criativa e colaborativa para a criação de uma obra verdadeiramente única.

Figura 1 – Simulação do projeto “Mirror Fellings”.



Figura 2 – Diferentes imagens de uma simulação do projeto “Mirror Fellings”.



Conceptualmente o trabalho alude a possibilidades físicas presentes em mundos ficcionados e oriundos de universos paralelos. A questão aqui do que é real e como este se liga com o virtual, está presente principalmente na leitura de autores como Deleuze, Baudrillard, Lévy e Bostrom.

Para Deleuze a virtualidade encontra similaridades com o possível, todos os conceitos se movem com relação entre eles, repetindo-se, mas em cada repetição diferentes combinações se potencializam. Para o autor, o “virtual, não se opõe ao real; ele possui uma plena realidade por si mesmo”. Para este autor o virtual tem sim uma realidade em si mesma, que é autónoma, sendo assim uma realidade distinta que se manifesta de diferentes modos (Deleuze, 1996, 1998).

Já em Baudrillard vemos que o virtual potencializou um hiper-real, um “real” mais real que o real, esvaziando-o, porque acaba por ser indistinguível do seu contraponto imaginário (Baudrillard, 1991, 1997). Em oposição, Lévy entende o virtual como criador de novos sentidos, onde a nossa forma atual de comunicar sucede de maneira hipertextual (Lévy, 1993). O virtual tem existência definida, mas sem estar presente materialmente, onde o computa-

dor surge como movimento de pensamento coletivo (Lévy, 1996, 1999).

Este trabalho tem como objetivo questionar o que é a realidade e a sua teorização, tal como sucede com o autor Nick Bostrom. Este considera que o mundo físico é colocado em causa pela ciência, o que possibilita a sua compreensão como na hipótese de estarmos a viver numa simulação, na qual seríamos simulações criadas por civilizações pós-humanas, mas incapazes de o perceberem (Bostrom, 2003).

Assim encontramos o mote para a criação de múltiplas interpretações dadas pela IA que entram nesta temática do questionamento do que é ser “real”, e na exploração de diferentes junções do mundo físico com o mundo virtual, potenciando a imersão e a interatividade num nível conceptual e perceptivo.

É de uma forma interativa e imersiva que é dado ao espetador uma realidade de um outro “eu”, criando através de uma virtualização dada pela IA, um fenómeno quase tátil, como o que nos permite visualizar a nossa forma, ou seja o nosso reflexo no espelho.

Podemos ver, na Figura 2, como numa vista de primeira pessoa, o efeito que teremos com a alteração do nosso reflexo. Neste caso como a forma criada é ela mesmo refletiva é possível denotarmos o nosso reflexo nesta mesma forma.



Figura 3 – Simulação vista da primeira pessoa do projeto “Mirror Fellings”.

Deste modo é conseguido também questionar o papel da IA na arte e a sua evolução como emulação ou autoria partilhada com artistas, de uma maneira que permite uma interação com o espectador da obra e permite uma maior imersão do que nos acostumamos a ver no mundo da arte menos tecnológico. A IA é mais que uma ferramenta tecnológica na produção de arte, podemos pensar nela como algo que está a redefinir a própria criação da arte influenciando desta forma como a pensamos (Abbas et al., 2019; Li & Zhang, 2022).

As novas tecnologias tiveram impacto nas diferentes indústrias criativas, incluindo no mundo da Arte. Os computadores são usados tanto nas artes plásticas, como na música, arquitetura etc. Podendo o próprio computador ser a própria tela, o próprio instrumento, para além de assistir o ser humano em diferentes tarefas, é a única entidade capaz de criar formas de arte por si só (Li & Zhang, 2022).

2. Autoria partilhada entre o artista a e IA

O termo Inteligência artificial (IA) foi pela primeira vez introduzido por John MacCarthy, Marvin Minsky, Nathaniel Rochester e Claude Shannon, colegas na proposta de um workshop com o nome de “2-month, a 10-man study of Artificial Intelligence.”, este workshop originou este novo campo de investigação (Bostrom, Nick, 2019; Kaynak, 2021).

No campo da arte, nos primórdios da utilização do computador como ferramenta criativa, com assistência de inteligência artificial só era conseguida porque os seus pioneiros tinham um profundo conhecimento de linguagens de programação para que as tais colaborações entre humano-máquina pudessem surgir, ou o artista estar socorrido da assistência permanente de especialistas informáticos e de programação para o ajudar a “comunicar” com a máquina (Medina, Erik Nardini & Farina, Mauricius Martins, 2021).

No caso das redes neurais estas são treinadas com o uso de grandes bancos de imagens (ou outros dados dependendo do que se quer obter) que são submetidos aos algoritmos para desta forma estes retirarem ou estabelecerem padrões para assim conseguirem a criação de novas imagens com base nas imagens alimentadas, dando resultados interessantes a nível criativo, ou podendo também emular a essência das imagens no qual foi treinado, ou seja a IA cria imagens inéditas que se assemelham ao que foi fornecido na fase de treinamento. Nesta fase as imagens produzidas apresentam deformações e outros ruídos que alguns artistas apreciam por terem uma estética glitch (Medina, Erik Nardini & Farina, Mauricius Martins, 2021).

Com o desenvolvimento da inteligência artificial os artistas deixaram de estar dependentes de um conhecimento profundo sobre programação uma vez que a própria máquina aprendia por si só, dando-lhe o apropriado database para este decifrar padrões e adquirirem as estéticas das imagens dadas. Esta mudança de paradigma deu a liberdade a mais artistas de procurarem a IA para realizarem trabalhos inéditos numa cooperação entre o mundo físico e o mundo virtual, entre o humano e a máquina. Os resultados assim obtidos eram mais imprevisíveis e apresentam uma independência maior da máquina na intervenção criativa (Medina, Erik Nardini & Farina, Mauricius Martins, 2021).

O artista assim coloca na IA um maior poder criativo e uma dinâmica de coautoria acontece, pois, a geração de imagens que surge por parte de um algoritmo é mais provocada ou originária deste do que do artista que lhe cede esta dinâmica criativa e o controlo do output. Fica o questionamento sobre se o papel do artista e a sua relação de autoria está colocada em causa devido a este estar cada vez menos presente no processo criativo da obra feita com a IA (Irvin, 2005).

Mesmo com este controle criativo atribuído à IA, por parte do artista, o mesmo tem papel determinante no que se trata do processo de seleção das imagens criadas pela IA, tendo o artista o poder de pedir continuamente à IA para seguir o seu processo criativo até satisfazer a visão do artista. Ou, por outro lado, fornecer as imagens alimentadas pela IA na sua aprendizagem, sendo estas da autoria do próprio artista, para que a sua estética de trabalho esteja sempre presente no resultado final. Comportando-se este como uma espécie de curador, diretor de arte ou ainda

como um realizador, fazendo um paralelo com o que acontece no cinema, por exemplo. Desta forma o seu papel enquanto autor está assegurado, mas existe a perda da noção de génio criador (Medina, Erik Nardini & Farina, Mauricius Martins, 2021).

A capacidade de sentir um mundo físico é atribuído ao computador através de sensores, câmaras e outros aparatos que forneçam informações do mundo físico à máquina. Este embodiment dado aos computadores fazem com que este se aproxime fisicamente ao ser humano, permitindo-lhe uma cooperação maior com este. Isto seria paralelo a atribuir um “corpo” à IA, o que acarreta de imediato uma outra aproximação ao ser humano (Marshall & Necker, 2013). Com a adoção de um corpo que pode vivenciar, criar as suas próprias experiências, por intermédio da sua capacidade de interagir com o mundo físico, fará com que a IA se torne por si só um agente criativo, independente de certo modo do artista, numa possível colaboração humano-máquina.

Ao mesmo tempo este embodiment poderia se cingir a um mundo puramente virtual onde uma comunidade hipotética de agentes criativos virtuais exploraria um mundo deles e que estabeleceriam uma arte pela arte independente do ser humano. A arte sendo algo que liga o ser humano ao que vivencia é aqui reproduzido num mundo puramente virtual onde os resultados apresentados por estes agentes criativos podem até não ser compreendidos por nós humanos, mas equivalerem a uma arte de igual maneira realizada por humanos. Este ecossistema constituído por agentes inteligentes que interagem num mundo virtual semelhante ou não ao mundo físico pode ser uma maneira da IA criar os seus próprios objetivos, uma vez que a sua aprendizagem seria consigo mesma, ou seja, entre estas IAs representadas por agentes num mundo virtual (Venancio Júnior, 2019).

O fator decisivo é, no entanto, o conceito da consciência que a IA teria de ter da tarefa que está a realizar, se para esta estava ou não a fazer arte e qual a sua interpretação de arte, isto só poderá acontecer quando a IA se aproximar ou igualar o nosso nível de inteligência, o que ainda estamos para presenciar. No presente momento as máquinas surgem-nos como inteligentes em tarefas singulares para que estão treinadas e não conseguem resolver mais que essas tarefas, ou melhor, se o problema apresentado se desviar do seu propósito inicial para que foram criadas, as IAs dificilmente correspondem efetivamente. Neste momento o dilema da IA é que esta se torne Inteligência Artificial Geral (IAG) para que consiga de facto a aproximação ao nível do nosso cérebro. Assim temos presentemente inteligência mas não consciência, ou seja, detetam padrões mas lhe atribuem significados, leem mas não percebem o que estão a ler (Venancio Júnior, 2019).

Com o surgimento da criação de imagens a partir de texto (prompts) o potencial da IA para a criação de arte foi evidenciado. Mas existe, mesmo com o desenvolvimento de melhores sistemas de IA para a criação de imagens como vemos no Midjourney Dall-E e Stable Diffusion, o debate se este tipo de imagens, mesmo considerando que são criativas por mérito próprio, tenham qualidade de arte (AITA-TEXT et al., 2019).

Os artistas que utilizaram o computador para a criar arte já remontam a cerca 50 anos atrás. Um dos seus pioneiros foi o artista Harold

Cohen que em 1973 criou o programa AARON (aaronshome.com) que produzia desenhos a partir de regras delineadas pelo seu criador. Este programa criava as suas imagens por programação de Cohen e, para produzir imagens diferentes do que inicialmente estava designado, este teria de ser sempre reprogramado pelo artista. Ainda não se comportava, portanto como a IA que é utilizada agora que aprende autonomamente e os resultados apresentados demonstram níveis de criatividade independentes da sua programação inicial, desta forma os trabalhos agora são feitos através de uma classe de algoritmos chamados de “generative adversarial networks” (GANs) que foi introduzido por Ian Goodfellow em 2014 (Mazzone & Elgammal, 2019).

Há que referir que a arte feita através da IA coincide com a arte conceptual onde a conceção mental do objeto artístico seria mais importante que a parte física de criação pelo artista, ou seja, a arte era de quem teve a ideia e não de quem a concretizou. Podendo referir no contexto nacional atual a arte produzida pela artista Joana Vasconcelos, onde esta reúne uma equipa que trata da concretização física da obra de arte enquanto ela se preocupa com a ideia, o conceito da obra de arte.

Simon Colton's Painting Fool é um software muito mais autónomo que AARON, embora não aplique tinta sobre a tela, simula muitos estilos digitalmente simulando o efeito de colagens e pinceladas. O Painting Fool cria os seus próprios conceitos com um mínimo de direção humana, procurando a fonte material à internet. A ideia deste software é procurar produzir arte que tenha valor para uma audiência humana pois emula o que os artistas fizeram através de experiências humanas concretas, refletidas nos seus trabalhos (Mántaras, 2016)

Em 2018 a pintura com o nome de “Portrait of Edmond Belamy” criada pelo coletivo francês Obvious (Pierre Fautrel, Hugo Caselles-Dupré e Gauthier Vernier) foi vendida em leilão pela Christie's pelo valor de \$432,500, quase 45 vezes o valor estimado. Este programa usou o GAN para produzir esta obra com um banco de dados fornecidos de 15000 retratos, produzidos entre os séculos IX e XX. Esta obra levantou questões sobre a sua autoria, originalidade e sobre as artes como espaço de investigação científica (Goenaga, 2020).

Nesta nova vaga de arte feita através da IA, de aprendizagem por parte da máquina, algoritmos que geram imagens novas seguindo a estética que previamente tinha aprendido, existem um papel de pré-curador e uma pós-curador, ou seja, o artista seleciona as imagens para que a IA aprenda o seu estilo e estética e depois dos resultados apresentados, faz uma curadoria final do output fornecido pelo algoritmo generativo. Deste modo o processo criativo é primeiramente feito pelo artista (Mazzone & Elgammal, 2019).

O programa AICAN foi criado no Rutgers' Art & AI Lab e o seu objetivo era de ser um artista quase autónimo. AICAN foi inspirado na teoria de Martindale, usando uma Rede Adversarial Criativa (CAN), que é uma variante da GAN, para esta gerar arte inovadora, equilibrando estética e originalidade. O que diferencia o AICAN é que este não tem uma pré-curadoria, em vez disso foram fornecidas um grande número de imagens representando 5 séculos de arte ocidental sem selecionar estilos ou gé-

neros. Concluindo através de vários testes que as pessoas, na sua maioria (85%) não distinguiam a arte produzida por esta IA de arte produzida por humanos (Mazzone & Elgammal, 2019).

A IA generativa está neste momento a criar conflitos nas áreas dos direitos de autor e propriedade. Em 2023 Boris Eldagsen ganhou o primeiro prémio de um concurso internacional de fotografia com um retrato de duas mulheres revelando uma cumplicidade pelas suas expressões e envolvimento corporal. Posteriormente foi revelado por Eldagsen que o retrato fotográfico a preto e branco fora gerado por IA, rejeitando este o prémio, explicando que esta fotografia gerada não podia ser comparada com uma proveniente de uma máquina fotográfica. De facto o resultado da imagem criada pela IA era indistinguível de uma imagem originária de uma máquina fotográfica que captura o mundo físico, e este é o problema, este concurso foi ganho por uma premissa falsa, a que o retrato seria uma captação do mundo físico (Moura et al., 2023).

O uso da IA acaba por ser controversa não só nas artes plásticas, mas também na literatura. A escritora japonesa Rie Kudan que tinha ganho o prémio literário mais importante do Japão, o Prémio Akutagawa, revelou que 5% do seu romance, “The Tokyo Tower of Sympathy”, foi gerado pelo conhecido ChatGPT da empresa OpenAI. Kudan diz que o uso da IA a deixou expressar a sua criatividade ao máximo, enquanto um júri do prémio não viu como problema o uso da escritora do ChatGPT, admitindo porém que poderá causar problemas no futuro (Capucho, 2024).

Em última análise quem decide o que é arte são as pessoas e instituições que validam se algo o é ou não, isto inclui toda a estrutura do mundo da arte, museus, galerias, curadores e público em geral. Este poder não se encontra na esfera do artista ao este dizer que a sua obra se trata de arte, mas sim de toda uma validação qualitativa dependente do julgamento de outros. Desta forma, algo criado pela máquina, pela inteligência artificial pode ter um feedback que cria ligações emocionais e estéticas a um público humano que o valida como arte (AITA-TETTEX et al., 2019).

Talvez o problema da IA, mesmo se considerando esta como apenas mais uma ferramenta, é a de não haver mais fronteiras para o que se julga ser um artista, pois democratiza de uma forma nunca vista a criação de arte por parte de quem não reuniria aptidões técnicas, o “saber fazer” que de certa forma filtrava a noção (mais clássica) que tínhamos do que é ser um artista. Sendo assim a IA poderá no futuro mudar a perspetiva humana do que é a arte e esta sair da esfera exclusiva do ser humano e estar presente num novo ser inteligente, uma IA com inteligência que poderá superar a nossa.

3. Caso de Estudo: Arte e Espelho Inteligente

A tecnologia por de trás do “Mirror Feelings” é inovadora e foi pensada para criar uma experiência envolvente e reflexiva para os espectadores. Este projeto baseou-se nos avanços mais recentes na inteligência artificial e no processamento de imagem, utilizando técnicas de machine learning descritas por Goodfellow, Bengio e Courville (2016) com base no treino de uma rede neural capaz de modificar o reflexo do espectador em tempo real. A rede neural é alimentada por uma vasta gama de referências fornecidas

pelo próprio artista, permitindo que esta assuma uma persona e realize modificações estéticas nos corpos apresentados, incluindo alterações na fisionomia e outros aspetos físicos. A Realidade Mista é aqui tida como criadora de novas realidades, remetendo a obra de arte à análise entre a relação que o artista tem com os meios de expressão. Através de diferentes técnicas e abordagens, presenciamos um constante desafio com os limites da arte tradicional, onde é proposto uma nova forma de interação com o público.

Artistas como René Magritte, Robert Smithson, Bruce Nauman e Dan Graham, lidam com questões conceituais semelhantes nas suas obras, onde podemos ter estas mesmas como referências artísticas com as mesmas preocupações que na obra “Mirror Fellings”.

Na pintura com o nome “A Traição das Imagens (Isto não é um cachimbo)”, Magritte apresenta-nos um quadro de um cachimbo pintado com a frase “Ceci n’est pas une pipe” (“Isto não é um cachimbo”) que questiona a relação entre representação e realidade, desafiando a percepção do espectador sobre o que é real e o que é arte. Desta forma o autor convida a refletir sobre a natureza da linguagem e da imagem, e sobre a capacidade da arte de representar o mundo (Foucault, 1983) (*The Betrayal of Images (This Is Not a Pipe)*, sem data).

A relação entre a arte e o espaço é explorada nas obras de Smithson. Em “Yucatan Mirror Displacements” (Deslocamentos do espelho de Yucatán), o artista coloca espelhos em paisagens naturais, onde altera a percepção do espectador sobre o que o rodeia. Ao refletir o ambiente natural, os espelhos criam uma nova perspetiva, que convida o público a questionar suas próprias noções de espaço e tempo (*Robert Smithson / Yucatan Mirror Displacements (1-9)*, sem data).

Nauman na instalação, em circuito fechado, “Live/Taped Video Corridor” (um estudo do grupo de trabalho *Performance Corridor*) colocou dois monitores acima um do outro, estando estes no final de um corredor com perto de dez metros de comprimento e 50 cm de largura, onde o superior mostra a transmissão em circuito fechado de uma câmara na entrada do corredor, posicionada a uma altura de cerca de três metros. Ao se entrar no corredor e ao se aproximar dos monitores, rapidamente o espetador depara com a área monitorada pela câmara. No entanto, quanto mais perto se chega do monitor, mais longe se fica da câmara, fazendo com que a imagem da pessoa no monitor se torne cada vez menor, sendo outro ponto de desconforto o facto de o espectador se ver por trás (Net, 2024).

Podemos constatar conceptualmente os mesmos traços em trabalhos mais recentes como os de Rafael Lozano-Hemmer, os de Yayoi Kusama e também nos de Refik Anadol. Onde Lozano-Hemmer na sua instalação “Pulse” (*Collections Detail*, sem data) por exemplo, explora temas como a identidade, vigilância e a relação entre o corpo humano e a tecnologia. Podendo estabelecer paralelos com as instalações de espelhos de Kusama (*Infinity Mirror Rooms – Yayoi Kusama*, sem data), onde esta cria ambientes infinitos e desorientadores usando pontos (ou bolas) e padrões repetitivos. Já Anadol incorpora a Inteligência Artificial que transforma dados em paisagens visuais hipnotizantes como vemos nas suas obras “Dreaming of Sacred Spaces” e “Machine Hallucinations” (*Renaissance Dreams – Palazzo Strozzi*, sem data).

Deparamo-nos assim, no momento presente, com uma Arte em constante evolução, onde as instalações digitais interativas, que utilizam as mais recentes tecnologias, representam uma das áreas mais inovadoras dessa evolução. Os artistas através da tecnologia e da criatividade desafiam os limites da expressão artística e convidam o público a um papel cada vez mais participativo da experiência estabelecida entre o artista, a obra e o espectador, num diálogo dinâmico na criação da obra de arte.

4. Desenvolvimento e Tecnologia

No âmbito do hardware, o “Mirror Feelings” incorpora uma série de componentes essenciais. Um espelho semitransparente ou de duas vias, como o Espelho de Vidro Espelhado de Duas Vias, é o suporte físico para a projeção das imagens. Por trás deste, um monitor LED de tela plana exibe as imagens manipuladas pela IA, enquanto um computador ou Raspberry Pi, como o modelo 4B, atua como o cérebro do sistema, executando o software necessário para a interação.

A caixa que acomoda o hardware não é apenas um elemento funcional, mas também contribui para a estética e integração da obra. Uma câmera, como a Raspberry Pi, e sensores adicionais são utilizados para capturar e processar informações do espectador, permitindo uma interação mais imersiva e personalizada.

No que diz respeito ao software, o “Mirror Feelings” tem um sistema operativo adequado e uma interface do utilizador (UI) que permite a exibição das informações desejadas no espelho. Além disso, aplicações e integrações como o OpenCV e modelos de IA, como o ChatGPT ou MidJourney, são utilizados para alimentar a rede neural responsável pela manipulação das imagens refletidas.

O desenvolvimento e codificação envolvem o uso de linguagens de programação como JavaScript, HTML, CSS, Python, entre outras, dependendo das necessidades específicas da interface do utilizador e das funcionalidades personalizadas requisitadas para o projeto. Materiais para o Espelho Inteligente:

Hardware:

- Espelho semitransparente ou espelho de duas vias: Um espelho que permite a passagem de luz para trás, enquanto reflete a luz para a frente. Pode ser adquirido em lojas especializadas em materiais de construção ou online. Exemplo: Espelho de Vidro Espelhado de Duas Vias.
- Monitor: Geralmente, é um monitor LCD ou LED montado atrás do espelho semitransparente. Exemplo: Monitor LED de Tela Plana.
- Computador ou Raspberry Pi: Dispositivo que permita executar o software do espelho inteligente. Raspberry Pi é uma escolha popular devido ao seu tamanho compacto e flexibilidade. Exemplo: Raspberry Pi 4 Model B.
- Caixa para acomodar o hardware: Para proteger e montar o monitor, computador e os outros componentes eletrônicos.
- Câmera: Para o reconhecimento facial ou corporal. Exemplo: Câmera Raspberry Pi.

- **Sensores:** Para permitir integrar funcionalidades adicionais e assim termos mais precisos na detecção das emoções.

Software:

- **Sistema Operativo:** O sistema operativo instalado na placa de computador.
- **Interface do Utilizador (UI):** Desenvolvimento de uma interface do utilizador adequada para mostrar as informações desejadas no espelho. Pode ser algo personalizado ou até mesmo um software de código aberto como o Magic Mirror.
- **Aplicações e integrações:** OpenCV, modelos como o ChatGPT ou MidJourney.
- **Desenvolvimento e codificação:** Desenvolvimento de funcionalidades personalizadas, precisamos de programação, como JavaScript, HTML, CSS, Python, etc., dependendo da tecnologia escolhida para o desenvolvimento da interface do Utilizador.

5. Contextualizar IA na Arte

A integração da Inteligência Artificial (IA) na arte representa uma evolução significativa no campo da expressão criativa, oferecendo novas possibilidades estéticas e conceituais. Destacam-se diferentes abordagens fundamentais, como as Generative Adversarial Networks (GANs), Machine Learning e Deep Learning, que desafiam as noções tradicionais de autoria e originalidade na arte (Goodfellow et al., 2014; Huang et al., 2015).

As Generative Adversarial Networks (GANs) são arquiteturas de redes neurais que geram novos dados realistas a partir de um conjunto de entrada, desafiando conceitos convencionais de autoria. O Machine Learning, por sua vez, é aplicado na criação de obras de arte geradas por computador, como demonstrado no projeto “The Next Rembrandt” (Huang et al., 2015). Outras técnicas de IA, como Redes Neurais Convolucionais (CNNs) e Processamento de Linguagem Natural (NLP), expandem os limites da expressão artística.

Através do Deep Learning, os artistas exploram a criação e manipulação de imagens, análise de estilos artísticos e interpretação de obras de arte (Mordvintsev et al., 2015; Rao & Ballard, 2015). Redes neurais são capazes de criar composições musicais originais e gerar poesia em estilos específicos, contribuindo para uma interseção frutífera entre arte e tecnologia (Francois et al., 2018).

6. Conclusão e Trabalho Futuro

O projeto “Mirror Feelings” representa uma evolução significativa na interseção entre arte e tecnologia, desafiando as percepções convencionais de autoria e realidade na arte contemporânea. A integração da inteligência artificial no processo criativo oferece novas possibilidades estéticas e conceituais, proporcionando uma experiência envolvente e reflexiva para os espectadores.

Este artigo serve como conceção inicial da ideia e do potencial do projeto. Para o trabalho futuro, é essencial implementar e melhorar a ideia, explorando ainda mais as potencialidades da IA na arte. Isso envolverá experimentar novas técnicas e abordagens para ampliar os limites da expressão criativa. Além disso, será importante investigar o impacto social, cultural e ético dessa integração, bem como as implicações relacionadas à autonomia criativa da IA e à colaboração entre humanos e máquinas na produção artística.

7. REFERÊNCIAS

8. Abbas, A., Choi, M., Seo, J., Cha, S. H., & Li, H. (2019). Effectiveness of Immersive Virtual Reality-based Communication for Construction Projects. *KSCE Journal of Civil Engineering*, 23. <https://doi.org/10.1007/s12205-019-0898-0>
9. Baudrillard, J. (1991). *SIMULACROS E SIMULAÇÃO*. Relógio D'Água. <https://www.relogiodagua.pt/produto/simulacros-e-simulacao/>
10. Baudrillard, J. (1997). *Tela total. Mito-ironias do virtual e da imagem*. (5a). Editora Sulina. <https://www.editorasulina.com.br/detalhes.php?id=215>
11. Bostrom, N. (2003). Are We Living in a Computer Simulation? *The Philosophical Quarterly*, 53(211), 243-255. <https://doi.org/10.1111/1467-9213.00309>
12. Bostrom, Nick. (2019). *Superinteligência—Caminhos, Perigos, Estratégias*. Relógio D'Água. <https://www.relogiodagua.pt/produto/superinteligencia-caminhos-perigos-estrategias/>
13. Capucho, I. (2024). Vencedora de prestigiado prémio literário japonês reconhece que inteligência artificial a ajudou a escrever parte do livro. *Observador*. <https://observador.pt/2024/01/19/vencedora-de-prestigiado-premio-literario-japones-reconhece-que-inteligencia-artificial-a-ajudou-a-escrever-parte-do-livro/>
14. Collections Detail. (sem data). MAC Montréal. Obtido 2 de junho de 2024, de <https://macm.org/en/collections/oeuvre/pulse-room>
15. Deleuze, G. (1996). *Deleuze Filosofia Virtual*. Editora 34. <https://www.editora34.com.br/detalhe.asp?id=25>
16. Deleuze, G. (1998). *DIFERENÇA E REPETIÇÃO*. Relógio D'Água. <https://www.relogiodagua.pt/produto/diferenca-e-repeticao/>
17. Francois, A., Karpathy, A., Babaeizadeh, M., Ni, P., Shlens, J., & Schulman, J. (2018). Unsupervised learning of video representations using LSTMs. *arXiv preprint arXiv:1502.04681*.
18. Foucault, M. (1983). *This is Not a Pipe*. University of California Press.
19. Goenaga, M. A. (2020). A critique of contemporary artificial intelligence art: Who is Edmond de Belamy? *AusArt*, 8(1), 49-64.
20. Goodfellow, I., Pouget-Abadie, J., Mirza, M., Xu, B., Warde-Farley, D., Ozair, S., ... & Bengio, Y. (2014). Generative adversarial nets. In *Advances in neural information processing systems* (pp. 2672-2680).
21. Goodfellow, I., Bengio, Y., & Courville, A. (2016). *Deep learning*. MIT Press.
22. Hall, S. (2013). *Representation: Cultural representations and signifying practices*. Sage.
23. Huang, A., Liu, A., Chen, L. C., Murphy, H., van der Maaten, L., & Weinberger, K. Q. (2015). Unsupervised learning by program synthesis. *arXiv preprint arXiv:1511.06411*.
24. Infinity Mirror Rooms - Yayoi Kusama: Infinity Mirrors | Hirshhorn Museum | Smithsonian. (sem data). Obtido 2 de junho de 2024, de <https://hirshhorn.si.edu/kusama/infinity-rooms/>
25. Irvin, S. (2005). Appropriation and Authorship in Contemporary Art. *British Journal of Aesthetics*, 45(2), 123-137. <https://doi.org/10.1093/aesthj/ayi015>
26. Kaynak, O. (2021). The golden age of Artificial Intelligence. *Discover Artificial Intelligence*, 1, 1. <https://doi.org/10.1007/s44163-021-00009-x>
27. Lévy, P. (1993). *As tecnologias da inteligência, O futuro do pensamento na era da informática*. Editora 34. <https://www.wook.pt/livro/as-tecnologias-da-inteligencia-pierre-levy/90037>
28. Lévy, P. (1996). *O que é o Virtual?* Editora 34.

29. Lévy, P. (1999). *Cibercultura*. Editora 34.
30. Li, J., & Zhang, B. (2022). The Application of Artificial Intelligence Technology in Art Teaching Taking Architectural Painting as an Example. *Computational Intelligence and Neuroscience*, 2022, e8803957. <https://doi.org/10.1155/2022/8803957>
31. Mántaras, R. L. de. (2016). Artificial Intelligence and the Arts: Toward Computational Creativity. *OpenMind*. <https://www.bbvaopenmind.com/en/articles/artificial-intelligence-and-the-arts-toward-computational-creativity/>
32. Marshall, P., & Necker, E. H. (2013). Theories of Embodiment in HCI. Em S. Price, C. Jewett, & B. Brown, *The SAGE Handbook of Digital Technology Research* (pp. 144–158). SAGE Publications Ltd. <https://doi.org/10.4135/9781446282229.n11>
33. Mazzone, M., & Elgammal, A. (2019). Art, Creativity, and the Potential of Artificial Intelligence. *Arts*, 8(1), Artigo 1. <https://doi.org/10.3390/arts8010026>
34. Medina, Erik Nardini, & Farina, Mauricius Martins. (2021). Inteligência artificial aplicada à criação artística: A emergência do novo artífice. *Manuscrita*, n. 44. <https://www.revistas.usp.br/manuscrita/article/view/185586>
35. Moura, L., Oliveira, A., Cuzziol, M., Gouveia, S. S., & Oliveira, R. F. (2023). *Inteligência Artificial & Arte*. Independently published.
36. Mordvintsev, A., Olah, C., & Tyka, M. (2015). Inceptionism: Going deeper into neural networks. *Google Research Blog*. Retrieved from <https://research.googleblog.com/2015/06/inceptionism-going-deeper-into-neural.html>
37. Net, M. A. (2024, junho 2). Media Art Net | Nauman, Bruce: Live-Taped Video Corridor [Text]. *Media Art Net*. <http://www.medienkunstnetz.de/works/live-taped-video-corridor/>
38. Norman, D. A. (2013). *The design of everyday things: Revised and expanded edition*. Basic Books.
39. Rao, A., & Ballard, D. H. (2015). A deep learning approach to understanding art history. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems* (pp. 417–426).
40. Renaissance Dreams—Palazzo Strozzi. (sem data). Refik Anadol. Obtido 2 de junho de 2024, de <https://refikanadol.com/works/renaissance-dreams-palazzo-strozzi/>
41. Robert Smithson | Yucatan Mirror Displacements (1–9). (sem data). The Guggenheim Museums and Foundation. Obtido 2 de junho de 2024, de <https://www.guggenheim.org/artwork/5322>
42. Rogers, Y. (2012). *Interaction design: Beyond human-computer interaction*. John Wiley & Sons.
43. The Betrayal of Images (This is not a pipe). (sem data). Obtido 2 de junho de 2024, de <https://www.artsy.net/artwork/rene-magritte-the-betrayal-of-images-this-is-not-a-pipe>
44. Venancio Júnior, S. J. (2019). Arte e inteligências artificiais: Implicações para a criatividade. *ARS (São Paulo)*, 17(35), 183–201. <https://doi.org/10.11606/issn.2178-0447.ars.2019.152262>
45. Литя-Тетех, К., Шингальська, Г., & Интеллектом, Ж. С. III. (2019). Artificial intelligence painting: Is it art, really?

O fenómeno de transmediação na revista ilustrada portuguesa



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Abstract

Technological growth has triggered a phenomenon of transmediation, which is a transition from content presented in a certain format to another. Nowadays, the most prominent transitions are those that begin in analog media and move to digital platforms, as observed in some newspapers, in magazines, and in correspondence itself (conversion of letters to emails), among others. Illustration and animation are also not unrelated to these conversions and, as such, the techniques and challenges related to digital creation and this transition, in these two areas, increase every day. In the international context, some examples of this possibility can already be seen, such as the Spanish magazine *Pantera* (2019) or the Italian magazine *Brillo* (2020), where at the time of purchase the desired format is chosen (printed or digital). There are also cases such as the Spanish magazine *Ilustra Woop* (2023), where its consumption is entirely digital. However, the illustrated magazine designed for children is not a media immediately associated with a digital basis.

In the Portuguese context, there are still few examples of the transformation of printed versions into digital format, especially in the field of illustrated magazines for children. To date, there isn't known a national illustrated magazine that can be read and/or consulted exclusively through a screen (such as an iPad, a tablet, or even a mobile phone). This article therefore aims to highlight the potential and aesthetic strengths of the playful component resulting from interactivity with the touch screen. Therefore, we will seek to demonstrate how transmediation can enhance access to content that encourages the growth of children's visual literacy. This article belongs to a project under development within the scope of the Master of Illustration and Animation. In a practical context, this work aims to explore the potential of illustrated magazines in a digital environment and understand how illustration and animation can coexist and bring new meanings, interpretations, and experiences to the child consumer. It is based on these circumstances that *Giroflé* emerged, aiming to create a prototype of an illustrated and animated Portuguese magazine for tablets.

Keywords

Portuguese Illustrated Magazine; Illustration for children; Transmediation; Interactivity

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1. A revista ilustrada para a infância: origens e evolução

Em Portugal, foram vários os escritores e autores que mencionaram que a redação destinada à população em massa, no século XIX, era escassa. Também frisaram que os pesados volumes que existiam eram de vocabulário muito pesado e dirigido, grande parte das vezes, às elites. Face a este cenário, Eça de Queirós (1845-1900), na obra de Glória Bastos (1997), confronta-nos com a seguinte observação: “eu às vezes pergunto a mim mesmo o que é que em Portugal lêem as pobres crianças”. [1, p. 16]

As primeiras preocupações observadas, no contexto nacional, atinentes às edições para a infância surgiram, portanto, nos finais do século XIX. Nesta época, podemos verificar que“(…) um dos lugares mais marcantes para o aparecimento de textos que tomam a criança como tema literário, sobretudo em poesia, são os periódicos.” [1, p. 19-20]. Inicialmente, estas edições tomaram a criança como tema, antes desta ser vista como público. Contudo, isso acarretou um olhar além fronteiras e uma atenção sobre o contexto europeu, em particular, acabando Portugal por seguir as pisadas dos seus vizinhos na disponibilização de textos que tinham na criança o seu recetor preferencial.

A tradução para a língua portuguesa de obras como *Os Contos Completos dos irmãos Grimm*, de Jacob Grimm (1785-1863) e Wilhelm Grimm (1786-1859), assim como a compilação d’*Os Contos de Hans Christian Andersen* (1805-1875), foram contemporâneas das primeiras edições nacionais para a infância. Esta recuperação de contos tradicionais e de fábulas populares impulsionou, em Portugal, obras como o “periódico *Branco e Negro* (1896) e [a] revista *Para as Crianças*, com início em 1897 (...) [que deram a] conhecer numerosas histórias tradicionais”. [1, p. 31]

Na linha do que vinha acontecendo noutros países, apareceram em Portugal estas primeiras tentativas de escrita periódica para crianças. As mais bem sucedidas localizam-se já perto do último quartel de Oitocentos: no parâmetro da longevidade destaca-se francamente *O Amigo da Infância* (1874); na colaboração privilegiada de autores portugueses encontramos o *Jornal da Infância* (1883), o *Almanaque das Crianças* (1892) e a *Revista Branca* (1898), títulos que colaboraram com alguns nomes que se notificaram na área da escrita para crianças no século XIX. [1, p. 35]

Ao longo deste período foram surgindo numerosos jornais de recreio e de instrução, apesar de algumas destas publicações não ultrapassassem um ou dois números. Aqui, importa destacar a *Biblioteca Familiar e Recreativa* (1835), visto que impulsionou a origem de edições dirigidas à criança. Esta possuía nos “objetivos [sic] editoriais (...) uma menção explícita ao destinatário privilegiado, a “mocidade portuguesa”, designação esta presente igualmente no subtítulo” [1, p. 46]. Referimos que impulsionou pois, apesar deste objetivo que certamente inspirou futuras edições, este periódico era mais *sobre* a criança, e não *para* ela.

Ainda neste século, iremos assistir ao nascimento das primeiras publicações periódicas para o público infantil. Referimo-nos ao *Ramalhinho de Puerícia* (1854) e ao *Jornal da Infância* (1883). Este



último (ver Fig. 1.) é descrito como um “semanário ilustrado, instructivo [sic], recreativo e moral” [2, p. 48].

Os primeiros modelos de revistas ilustradas infantis possuíam uma vertente didático-pedagógica formal muito vinculada até ao final do século XIX, de modo a poder cumprir os requisitos que os governantes procuravam incutir na futura geração. Os seus conteúdos podem ser categorizados em duas vertentes: uma de ficção, sem dúvida com um cariz moral marcante e recorrente; e entre uma outra de intuito informativo, já que temos de considerar a importância instrutiva que estes periódicos

tinham de assumir perante as rédeas dos governos da altura.

Até ao início do século XX, a ilustração foi alcançando níveis de visibilidade e de relevância comunicativa crescentes nos mais variados suportes. Porém, o objetivo dos periódicos ilustrados que circulavam na época era, essencialmente, uma crítica humorística, como por exemplo a famosa personagem “Zé Povinho” (ver Fig. 2.) de Rafael Bordalo Pinheiro (1846-1905). A sua primeira aparição foi na 5ª edição d’*A Lanterna Mágica* (1875), a 12 de junho, ainda no primeiro ano de publicação. Nos seus



primórdios, a revista ilustrada portuguesa visava, portanto, um público adulto, ao contrário das publicações atuais [1].

Nos anos 20, surgiram as primeiras ilustrações em publicações de suplementos e em revistas para o público mais novo.

Uma das edições mais relevantes será a *Pim-Pam-Pum!* (1925) (ver Fig. 3.), tendo sido o suplemento infantil português

mais duradouro, contando com um total de 2554 edições ao longo de 52 anos. [3]

A década de 30 conta com o surgimento da primeira revista ilustrada para crianças – *O Papagaio - revista para miúdos* (1935), cujas capas (ver Fig. 4.) ostentavam um layout onde ilustração e texto surgem cuidadosamente articulados.

Esta atenção estética suscita um aumento do consumo destas revistas para crianças, um crescendo “(...) que atinge o seu auge no fim da década de trinta” [2, p. 52], fortalecendo a posição de outros suplementos como *O Gafanhoto* (1903), *O Diabrete* (1941) e, ainda, o famoso *O Mos-*

Fig. 1. Primeiro número do *Jornal da Infância* (4 de janeiro de 1883) [1]

Fig. 2. Primeira caricatura de Zé Povinho (à direita) via Museu Bordalo Pinheiro (2024)

Fig. 3. Primeiro número do suplemento *Pim Pam Pum!* (1925), via Hemeroteca de Lisboa (2005)



Fig. 4. Exemplos das capas de *O Papagaio - Revista para Miúdos*. Edição Nº1, Nº5 e Nº6 (da esquerda para a direita), via Tralhas Várias (2018)



quito (1942), que se socorreu, de modo inovador à ocasião, da publicidade, assim como da publicidade ilustrada.

Porém, as repercussões de um ambiente político ditatorial (1933-1974) fizeram-se notar no contexto português. O Magistério Infantil e as suas escolas foram extintas, e a Mocidade Portuguesa nasceu. Houve uma quebra no número de obras para a infância (incluindo revistas e suplementos de jornais infantis) e as que existiam focaram-se em temáticas patrióticas, moralistas ou tradicionais [4].

As consequências deste ambiente político repressivo e controlador contribuíram para o decréscimo da edição de originais portugueses devido à censura. A imperatividade das publicações se alinharem com os ideais da política vigente era imensamente castradora. As poucas que circulavam serviam apenas para enaltecer os valores do Estado Novo Salazarista. Vejam-se edições como *Lusitas* (1943), um jornal destinado a meninas, e o *Camarada* (1947), um jornal para meninos, ambos publicados pela Organização da Mocidade Portuguesa.

Foi na década de 50 que a criança foi, finalmente, vista como um público consumidor com características próprias. Os *comics* norte-americanos estavam a contagiar todo o tipo de leitor, pois a sua grande tiragem proporcionava preços mais apelativos, assim como o seu uso de cores chamava a atenção do consumidor infantil [4]. *O Mundo das Aventuras* (1949) foi um exemplo de publicação que aproveitava esta onda *western*. Contudo, estas obras eram consumidas de modo clandestino, e era o que “os rapazes e as raparigas (...) faziam durante o Estado Novo, levando para as escolas o fruto proibido, os “Mosquitos” os “Mundos de Aventuras” os “Cavaleiros Andantes” (...). Havia nisso um particular consolo: uma forma subtil de resistência”. [5, p. 24]

Apesar de muito distintos, foram estes dois géneros de publicações que incutiram hábitos de leitura, contribuindo para a educação e fidelização do público infantil, “ainda que pouco exigente” [4, p. 104].

Nos anos 60, graças a uma maior alfabetização, o consumo de livros, de revistas e de produções de cinema dirigidas ao público infantil cresce. Este fenómeno acaba por valorizar ainda mais a criança como consumidor: “desde então o segmento infantil começou a ser reconhecido como um grupo independente e aumentou a relevância dada a este segmento” [6, p.15].

Já na década de 70 é inevitável ter-se em consideração o 25 de Abril de 1974. O aumento da quantidade e qualidade das edições pensadas para o público infantil é alicerçado na nova crença de que os livros existem para

educar, sensibilizar, fazer sonhar, brincar e crescer, pelo que “todas estas características somadas à intensificação do mercado em entender a perspectiva da criança (em vez de dirigir-se aos pais) e à concepção da criança cidadã, gerou [...] o constructo da criança consumidora, i.e., um consumidor com autonomia, direito de escolha e relação direta com seus objetos de consumo” [7, p. 42]. Gradualmente, também se verifica um crescimento do suporte de revista ilustrada, como por exemplo, com a *Clave sem Sol* (1975).

Com os anos 80, o poder aquisitivo das crianças aumenta graças às mesadas ou trabalhos temporários simples, estimulando o consumo do público infantil [7]. Foi nesta década que se começou a publicar em português europeu a popular *Nosso Amiguinho* (1986). Esta revista tem origem brasileira. Contudo, ela fez parte da infância de muitos jovens-adultos portugueses de hoje, e o periódico ainda se mantém no ativo. Ele trouxe para o setor uma vasta oferta de conteúdos para o leitor: contos, bandas desenhadas, passatempos, jogos, palavras cruzadas, entre outros. Porém, esta publicação diferencia-se pela sua expansão em termos de suporte. “Já a turma do Nuguinho, de “Nosso Amiguinho”, estampa outros produtos além da sua própria revista, tais como DVDs com histórias infantis, músicas, Bíblias, jogos, camisetas e material educativo. Esses produtos reafirmam as tendências pedagógicas e de lazer para a mídia infantil na sociedade secular.” [8, p. 641]

A crescente preocupação pelos níveis de literacia infantil aumenta nos anos 90, trazendo congressos e encontros relativos ao livro e à leitura, incentivando, consequentemente, o consumo de revistas ilustradas.

A prosperidade das opções de exploração das artes deu-se graças ao decréscimo da censura, que abriu um amplo leque de temáticas que podem, agora, ser trabalhadas. O apogeu das novas tecnologias também permitiu o surgimento de novos modos de criação e a exploração do trabalho de artistas. Já na área da ilustração, na década de 90 “(...) as portas abrem-se definitivamente a novas experiências que procuram o cruzamento de várias áreas para criar ilustrações cada vez mais complexas sob o ponto de vista da educação artística.” [4, p. 230]. Complementar a isso, o desenvolvimento tecnológico banalizou o uso de computadores e *softwares* como ferramentas de ilustração, por exemplo, tornando possível que a componente artística se situasse “na fronteira entre a pintura, a escultura e as artes gráficas.” [4, p. 218]. A ilustração começou a explorar novos suportes e com o auxílio de outras ferramentas começou a exibir “imagens em movimento e em situações que fundem o texto ouvido com o texto lido, uma possibilidade proposta pelas novas tecnologias”. [4, p. 224]

Nos anos 2000, veio a lume a *Terra do Nunca*, um suplemento do Magazine, do *Jornal de Notícias* (1888). Contudo, as revistas ilustradas conquistaram um suporte individual e independente, mesmo que com publicações mais prolongadas (semestralmente, trimestralmente, etc.). Desde esta nova década, surgem também os designers ligados ao mercado editorial para a infância, emprego que, nos dias de hoje, está fortemente ligado à ilustração. Esta simbiose entre escritores, ilustradores, designers e, por vezes, editores tornou a presença da ilustração cada vez mais dominante [9], assim como (re)emergente noutros formatos além livro.

O “privilegio da imagem sobre o texto” [10] tornou-se numa estratégia cada vez mais aplicada nos suportes de leitura para a infância. É possível nomear exemplos de revistas ilustradas contemporâneas que aderiram a essa estratégia, tais como a *Up Kids* (2010-2014), *Voa* (2014-2020), *Triciclo* (2017-2021) ou *Dois Pontos* (2020-2022), que já terminaram os seus projetos de revistas e magazines ilustrados. Porém, ainda existem exemplares no ativo, tais como a *Aguça* (2021) ou a *Dólitá* (2021).

2. A revista ilustrada digital

Com o crescimento dos meios digitais e da sua utilização da parte das por parte das crianças, as revistas, de um modo geral, tendem a criar sinergias e a fundir diálogos de convergência entre o universo analógico e o mundo virtual. Desde 1959 que a criança é vista como cidadã com direitos e deveres. É graças à importância que esta faixa etária adquiriu que suportes como a revista ilustrada para crianças ganharam reconhecimento. E, com a evolução tecnológica, este *media* tem vindo a explorar suportes novos para lá do papel. Contudo, esta transição também se deve ao facto de o seu público-alvo ser um utilizador ávido de produtos digitais de entretenimento e, como tal, as marcas procuram cada vez mais criar marketing direcionado para esta faixa etária [11]. A atualização deste produto implica uma adaptação às “características intrínsecas deste ambiente e de outros *media* no meio estático, ao mesmo tempo que criam diferentes estratégias de ampliar o seu alcance a partir da utilização das ferramentas de *media* sociais, transmutando-se num artefato híbrido” [7, p. 15].

Dada a evolução tecnológica e o crescimento do uso dos meios digitais, existem revistas ilustradas que tiram proveito desse tipo de suporte e, graças ao fenómeno da transmediação, agregam os seus conteúdos aos formatos além-papel. “The electronic screen is already taking over several of the functions of paper. This transitional phase has been predicted ever since the early days of the web” [12, p.56]. Ainda assim, importa frisar que isto não quer dizer que seja todo o conteúdo da revista consultado exclusivamente através de um ecrã.

Algumas revistas contemporâneas ilustradas para a infância internacionais tais como *CLIJ* (1987), *Anorak* (2006), *Petit Sâpiens* (2016), *Kiwi* (2016), *Cucú* (2017), *Namaka* (2017), *Aww* (2019), *Pantera* (2019), entre outras, destacam-se por uma ligação sincrónica e evidente com o virtual, devido à geração que querem abranger. Já entre os exemplares portugueses que se podem contemplar no universo em análise encontram-se títulos como *A Casa do João* (2017-2021) ou o da *Aguça* (2021-).

Apesar de o consumo do material da publicação através de um suporte digital (ainda) não ser possível, nos casos acima elencados, alguns deles envergam pela complementaridade do digital, isto é, possuem conteúdos *online* que suplementam a versão inicialmente impressa. Estes conteúdos não implicam necessariamente uma repetição do conteúdo presente na revista impressa. Assim, pode ser uma matéria ou conteúdo extra, ou até uma continuação da publicação, como artigos ou ilustrações que não apareceram no periódico análogo.

Um caso exemplificativo desta situação é o da *Aguça* (2021). A *Aguça*

dirige-se a um público aficionado pela ilustração, e é uma revista ilustrada com entrevistas, passatempos, *comics*, artigos e um brinde (até à data, um poster A3 em risografia em cada fascículo). Embora este periódico não possua uma contraparte digital, é possível verificar a existência de conteúdo que vai para além do papel nesta revista. Assim, a passagem do analógico para o digital, nesta situação, assume a forma de um conteúdo extra, em formato de *blog* (ver Fig. 5), onde são disponibilizados artigos centrados em



autores, eventos dedicados à área da ilustração, ou editoriais temáticos. Com os artigos, a revista acaba por expandir o conteúdo ao qual o leitor pode ter acesso. Já com a divulgação de eventos através do website, como o *Ilustrenda* ou oficinas,

Fig. 5. Website do *Aguçã*, separador do Blog, referente a temáticas relevantes na comunidade da ilustração (via <https://loja.agucamag.com/blogs/news>)

o periódico consegue que a interatividade deixe a dimensão do papel ou do ecrã. Esta interação passa a dar-se a um nível presencial.

Contudo, também existem publicações que podem ser consultadas, na sua íntegra, através de outro suporte para além do papel. Veja-se a título de exemplo a revista *A Casa do João* (2017) (ver Fig. 6), dirigida



a um público infantil. Através da plataforma *Issuu* temos a simulação da viragem de páginas de um modo intencionalmente idêntico ao sucedido numa revista analógica. Apesar de estar à distância de um *click*, isto é, da imediatez

Fig. 6. Visualização online da revista “A Casa do João” (via https://issuu.com/geraltrintaporumalinha.com/docs/a_casa_do_jo_o_-_revista_de_litera/2)

do acesso, o resultado desta consulta online em termos sensoriais não é o mesmo que quando vivenciado pela leitura do formato impresso.

3. Definição e potencialidades do processo de transmediação

Se nos centrarmos na palavra transmediação, o prefixo “trans” deriva do latim e quer dizer “através”, “além” ou “do outro lado de”; já “mediação” provém da palavra “*media*”, que abrange os meios de comunicação em massa [13]. Assim, podemos definir o conceito de Transmediação enquanto “process where a story, a subject or a theme gets dispersed across multiple delivery channels, with the purpose of creating a unique entertainment experience that is unified and coordinated” [13, p. 142].

O conceito de transmediação é um ato de adaptação do mesmo conteúdo e/ou narrativa para um suporte diferente [14]. Este processo vai mais além da mera transição do formato impresso de livros para a versão fílmica (ou vice-versa). De facto, ela está tão presente que

é caracterizada como um processo algo “descontrolado” devido à sua onnipresença [15]. Linda Hutcheon afirma que grande parte da população já consumiu uma adaptação, mas a convicção do “nunca é tão bom como o original” e a crítica à fidelidade para com o conteúdo inicial ainda estão bastante incutidas na sociedade.

Porém, as adaptações são realizadas das mais diversas formas. Se elas são percebidas como inferiores, haverá um motivo que justifique o porquê da sua existência prevalecer. Além de que, ao contrário desta apreciação algo depreciativa, elas encontram-se a crescer em termos quantitativos.

O fenómeno da transmediação acontece porque, em primeiro lugar, o surgimento de novos tipos de *media* e de novos canais de massas necessita de uma variedade de narrativas para satisfazer um leque suficientemente amplo e diverso de públicos. Em segundo lugar, a transformação do público e a sua tendência para se envolver com histórias, isto é, contar, mostrar e interagir com elas continua relevante. Todos os tipos de *media* acabam por ser imersivos, mas uns contam histórias (como no caso dos livros), outras mostram-nas (como filmes, teatro, ópera, ballet, re-encenações históricas), e ainda há outros que permitem à audiência participar (como videojogos ou parques de diversões). Além disso, a familiaridade da repetição (que pode ajudar na interpretação) conjugada com a surpresa das mudanças pontuais atrai os consumidores. Devido à sociedade consumista do presente e à convergência mediática, existe uma terceira motivação para a continuidade das adaptações: a evolução de estruturas de produção, de distribuição e de marketing, que incluem o impacto do *franchise* [16].

Evidentemente que as adaptações podem englobar mudanças de suporte e isto acaba por se tornar um benefício, pois ajudam a obra original a “sobreviver” [16, p.31]. Aliás, há casos nos quais os suportes se mesclam e, por exemplo, *posters*, atores ou cenas de filmes passam a ser capas de livros que deram origem à longa-metragem nas edições seguintes.

“As a creative and interpretive transposition of a recognizable other work or works, adaptation is a kind of extended palimpsest and, at the same time, often a transcoding into a different set of conventions. Sometimes but not always, this transcoding entails a change of medium.” [15, pp. 33-34]. Apesar desta consciencialização do suporte não ser imediata, o *medium* onde a adaptação ocorre influencia o processo de consumo e a experiência no seu todo. Aliás, é crucial diferenciar as potencialidades dos diferentes *media* e das artes em que são materializadas as obras.

Cada forma de expressar e de materializar uma história tem a sua sintaxe e maneiras de criar significados para o consumidor, e a adaptação de uma forma de arte para outra, “like all formal conventions, [...] both constrains and enables; it both limits and opens up new possibilities.” [15, p.35]. Veja-se, por exemplo, como os livros possuem mais detalhe, enquanto os filmes necessitam de uma história mais condensada devido ao tempo geralmente estipulado para este formato. Porém, este *media* também possui outros elementos sensoriais (como atores, vozes, música, cenários, etc.).

Tal como mencionado anteriormente, o público gosta de se envolver nas histórias ao contá-las e/ou mostrá-las, e esta envolvimento tem um grau de imersão específico para cada consumidor; porém, é no “uso deliberado

do utilizador” [15] que está o elemento distintivo dos *media* digitais de hoje. Neste caso, referimo-nos particularmente ao grau de diferenciação inerente à interação do consumidor com o produto. De um modo concomitante a esta singularidade, a interatividade cria igualmente pressupostos que exigem ser aplicados nos mais variados suportes tecnológicos: o senso de coerência, para além de narrativo, tem também de ser espacial; este senso é criado pelo utilizador, e não pelo criador, visto que ambos têm um papel na perceção da obra alvo da interação [17].

Os produtos interativos e a sua multissensorialidade criam um universo no qual o utilizador se sente integrado. Estes suportes podem ser digitais, como é o caso dos videojogos, artefactos de realidade virtual/aumentada ou, ainda, elementos que possuem “interactive storytelling” [15], como os CD-ROM’s, DVD’s que proporcionam essa experiência graças a menus de exploração e a conteúdo extra, ou, noutros casos, com uma dinâmica dos websites. Porém, é imperativo entender que existem adaptações que não são digitais e que, apesar de conhecidas, não são interpretadas imediatamente como adaptações e/ou produtos interativos. Merecem destaque a este respeito os parques de diversão/temáticos, nos quais os suportes físicos/não-digitais e a interatividade com o consumidor coabitam de um modo bastante harmonioso e com sucesso. A este papel que o consumidor assume perante um ambiente ao ser forçado a interagir não só com os objetos, os cenários e as tecnologias, mas também com os atores e até com outros consumidores, é atribuída a designação de “staging of interactivity” [18]. No geral, o tipo de suporte acaba por afetar o grau de interesse por parte do público, e no caso em que há necessidade de interação, o *joystick*, a consola, o ecrã, o teclado, o rato, o braço da máquina de recolher peluches, os carrosséis, tudo isso são



Fig. 7. Esquema de como a Transmediação funciona comparado com os *media* tradicionais [13, p.144]

extensões físicas das pessoas enquanto consumidores, já que “[w]e are the medium and the medium is us” [19, p. 37].

Após esta breve revisão teórica do fenómeno de transmediação, é possível concluir que esta conversão é um processo extremamente presente na cultura visual mundial, na atualidade. Numa abordagem mais esquemática para facilitar a compreensão, Bulibaşa (2023) apresenta uma analogia da transmediação com um puzzle (ver Fig. 7): anteriormente as peças eram componentes separadas e hoje, graças à convergência mediática, elas complementam-se.

A more visual definition would have you imagine a puzzle formed from three, four or more pieces – when experimenting a transmedia universe, each piece of this puzzle represents a different medium in which part of a certain story is told: you can experiment only one piece

of this puzzle and the story will still make sense (...) or you can search for the rest of the pieces and use your own knowledge to put together the whole puzzle (...). When succeeding in putting together all the pieces and creating the whole image of the story, having all the information that was initially scattered throughout multiple delivery channels, you actually experiment a Transmedia Universe as a whole. [13, p. 142]

4. A revista ilustrada na transmediação

Através desta breve análise da evolução da revista ilustrada portuguesa, é possível concluir que a ilustração editorial está a sofrer uma mudança na maneira como é apresentada em termos de conteúdo e de informação [18]. Complementar a esta afirmação, é evidente que “no longer can illustrators expect the closure of an image in published printed form, but rather a continued dialogue between creators and readers or audiences in emerging digital environments [20, p. 23].

Já é possível verificar esta transição nos formatos de *audiobooks* e nos

ebooks, em subscrições de jornais *online*, entre outros. Quanto à revista, ela não passa de “um artefacto que continua a cumprir a sua função tradicional, mas, ao mesmo tempo, revelando-se como um palco para a inovação, que assegura a sua evolução e reafirma a sua importância social e cultural” [21].

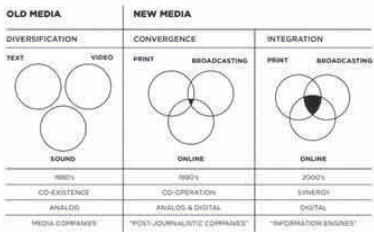


Fig. 8. Análise da transição dos meios de comunicação com a entrada dos mecanismos digitais [21, p.52].

O mesmo pode ser tido em consideração no universo da revista ilustrada para crianças, já que este público, nos dias de hoje, nasce e cresce numa era digital e o seu consumo é cada vez mais voltado para esse meio. Graças à cultura de convergência, *media* analógicos e tecnológicos começam a co-habitar e a partilhar conteúdo (ver Fig. 8.), fazendo parte do dia-a-dia dos consumidores [22].

Aliás, graças a esta convergência, o consumo da revista ilustrada pode ir além do que nos é fornecido no formato analógico. A sua passagem para outro *media* não-analógico pode ser explorada e complementada com as opções de utilização digital. Os *media* ilustrados, como é o caso das revistas para crianças, podem tirar proveito das funcionalidades de suportes digitais, como por exemplo o computador, o *iPad* ou os telemóveis. As possibilidades passam por vários fatores: primeiro, as opções de utilização do monitor, como o *click* do rato (ou polegar) com seleção, arrastamento, ampliação ou diminuição, entre outras; segundo, as opções de exposição e de aproveitamento do ecrã como suporte, por via, por exemplo, da oportunidade de tirar partido da cor-luz (RGB) através do uso de cores que requerem outros custos na impressão (como neons), uso de imagens com transparência, ou também pela implementação de animação, de objetos interativos (clicáveis ou amovíveis, por exemplo) e, até mesmo, de outras funcionalidades menos comuns no mundo im-

presso, como o som. De um modo complementar a estas opções, existem ainda funcionalidades que vão para além do ecrã, como a localização, o reconhecimento da sua orientação (horizontal ou vertical), o abanar ou o agitar do dispositivo e a própria vibração do ecrã (quando aplicável) são apenas mais alguns exemplos que podemos destacar. [10]. Estas possibilidades podem incitar, a nosso ver, a uma experiência mais participativa, contribuindo para um uso mais lúdico destes objetos.

As contingências da transmediação e a sua presença constante no nosso quotidiano tornam “frequentes as situações em que uma determinada mensagem deve ser transposta para outros canais, de forma a diversificar as formas de comunicar” [23]. A ilustração, fortemente presente nas páginas de revistas ilustradas que têm na criança o seu potencial recetor, numa plataforma digital, poderá passar para uma animação, enriquecida com outros sentidos (como o som), ou até ser transformada numa aplicação ou produto interativo. A passagem do papel para o digital é uma realidade muito presente na dinâmica entre ilustradores, designers e editoras. Assim, cremos que com esta direção que os avanços tecnológicos estão a tomar, naturalmente irá “(...) facilitar a convergência de diferentes *media* num mesmo sistema, [o que] aumenta a possibilidade de promover interações entre eles. É esta a razão que nos leva a concluir que o contexto digital serve, como nenhum outro, os propósitos da transmediação.” [23, p. 37]

5. Considerações Finais

Numa época onde a sociedade exige um acesso a produtos cada vez mais imediato e acessível, *franchise*, *fan culture* e qualquer tipo de conteúdo co-existem em variadas plataformas, mas também conseguem manter-se e compreender-se quando consumidos individualmente. Esta transmediação dos *media* mostra-se um fenómeno cada vez com maior relevância e presença nos objetos de consumo atuais, e a ilustração é uma das áreas que também passa por esta adaptação. O avanço desta área tem vindo a ser notório, ao longo dos últimos anos, apoiado por diversos suportes editoriais. Posto isto, é possível concluir que a revista ilustrada portuguesa se encontra em crescimento, explorando um território nunca antes pisado: a corda bamba entre a impressão (o analógico) e o digital.

Ao tirar proveito de várias plataformas podemos beneficiar de um “multitrack medium” [15], ou seja, de um conteúdo que se manifesta em mais do que um suporte. Isto acaba por expandir as opções de perceção da matéria, como observado, por exemplo, na revista ilustrada *Aguça*. O aproveitamento das singularidades dos vários suportes acaba por adicionar possibilidades de escolha de leitura, assim como um didatismo à experiência do utilizador.

Contudo, este mesmo periódico também revela carências que podiam ser colmatadas mediante a adição de um maior grau de interatividade e de imersividade, caso fossem aplicadas as estratégias como uma diferenciação sensorial ao passar a revista do formato analógico para o digital. As estratégias enumeradas anteriormente poderiam ser aproveitadas, tais como o som, a animação, o proveito das cores RGB, entre outras. E apesar de haver quem possa argumentar que o ecrã nos limita o olhar e retira da

experiência do toque, é a mesma linguagem e gramática das escolhas de enquadramentos, movimentos, edição, uso do *click*, arrastamento, vibração e outras variáveis que influenciam o momento de consumo.

Conclui-se que a revista ilustrada portuguesa, a ilustração, a imagem e a cultura estética, no geral, vão-se adaptando e (re)inventando com o passar do tempo, quer seja devido aos avanços tecnológicos, quer por exigência do público. Numa era cada vez mais focada no digital, é natural ver-se uma transição para esse meio, e certamente que o objeto de estudo deste artigo irá passar por essa mutação.

6. References

1. Bastos, G.: A Escrita para Crianças em Portugal no Século XIX. Caminho (1997)
2. Santos, G. S. M. M.: Ilustração de livros de Literatura Infantojuvenil em Portugal [2000-2009]: tipificação, tendências e padrões de receptividade do público-alvo (Tese de Doutoramento, Instituto de Educação da Universidade do Minho). Repositório Institucional da Universidade do Minho. <http://repositorium.sdum.uminho.pt/handle/1822/38467> (2014)
3. Mendes L. M. L. F.: Ler em tempo livre durante o Estado Novo: a função do suplemento infantil Pim-Pam-Pum na formação da criança (Dissertação de Mestrado, Instituto de Educação da Universidade Lusófona de Humanidades e Tecnologias). Yumpu. <https://www.yumpu.com/pt/document/view/12638004/ler-em-tempo-livre-durante-o-estado-novo-recil> (2010)
4. Silva, S.: A Ilustração Portuguesa para a Infância no Século XX e Movimentos Artísticos: Influências Mútuas, Convergências Estéticas. (Tese de Doutoramento, Instituto de Educação da Universidade do Minho). Repositório Institucional da Universidade do Minho. <https://repositorium.sdum.uminho.pt/handle/1822/19682> (2011)
5. Pinto, R. L. L.: A Censura e as Publicações Periódicas Infanto-Juvenis no Estado Novo: o papel da Comissão Especial para a Literatura Infantil e Juvenil e da Comissão para a Literatura e Espetáculos para Menores (1950-1968). (Tese de Doutoramento, Faculdade de Letras da Universidade de Lisboa) Repositório da Universidade de Lisboa. <https://repositorio.ul.pt/handle/10451/37925> (2019)
6. Sá, M. P. C.: As crianças como mercado influenciador: a influência das crianças na tomada de decisão dos pais (Dissertação de Mestrado, faculdade de Economia e Gestão da Universidade Católica Portuguesa). Repositório Institucional da Universidade Católica Portuguesa. <https://repositorio.ucp.pt/handle/10400.14/19319> (2015)
7. Morais, L. N.: O design editorial de revistas para crianças: a ‘nova’ infância. (Dissertação de Mestrado, Faculdade de Belas Artes da Universidade do Porto). Repositório Online da Core. <https://core.ac.uk/download/pdf/302952385.pdf> (2017)
8. Bellotti K. K.: “‘Delas é o Reino dos Céus’: Mídia Evangélica Infantil e o Supermercado Cultural Religioso no Brasil (Anos 1950 A 2000)”. História, 28 (1), 621- 652. (2009)
9. Brito, I.: O álbum ilustrado e o público juvenil - entre as exigências do currículo e a promoção da literacia visual. (Dissertação de Mestrado, Departamento de Educação e Ensino à Distância da Universidade Aberta). Repositório Aberto. <https://repositorioaberto.uab.pt/handle/10400.2/4401> (2014)
10. Silva, S., Madureira M., Tavares P.: O livro ilustrado digital e o livro ilustrado impresso. Possibilidades de transição. CONFIA (2012)
11. Ferreira J.: O papel da criança no processo de decisão de compra da família. (Dissertação de Mestrado, Faculdade de Economia da Universidade do Algarve). Repositório

Online da Core. <https://core.ac.uk/download/pdf/61510611.pdf> (2013)

12. Ludovico, A.: Post-Digital Print: The Mutation of Publishing Since 1984. *Onomatopée* (2012)

13. Bulibaşa, A. L.: In-Between Worlds: A Complex Transmedia Universe about Myths, Creatures and Traditions. *Studia Ubb Dramatica*, LXVIII (1). pp. 141-157. Babeş-Bolyai University (2023)

14. Salmose N. & Elleström L.: *Transmediations: Communication Across Media Borders*. Routledge (2020)

15. Hutcheon, L.: *Theory of Adaptation*. Routledge (2006)

16. Fehrle J.: Introduction: Adaptation in a Convergence Environment. *Adaptation in the Age of Media Convergence*, 7-30. Amsterdam University Press. https://assets.ctfassets.net/4wrp2um278k7/6UMTedCBUp9zW1EN38fhZ/8fb561b9cc9a4a2ba3608a39aa8f8e35/9789048534012_ToC_Intro.pdf (2019)

17. Tong, W. L. & Tan, M. C. C.: *Vision and virtuality: The construction of narrative space in film and computer games*. Universidade Nacional de Singapura. (2002)

18. Wand, E.: *Interactive storytelling: The renaissance of narration*. BFI. (2002)

19. Hayles, K.: *The transformation of narrative and the materiality of hypertext*. *Narrative*, 9 (1), 21-39. Ohio State University Press (2001)

20. Shelby A.: *Editorial Illustration: Audience Interaction through Time and Space*. 10ed. Conferência Internacional em Ilustração e Animação [International Conference on Illustration & Animation]. pp. 23-36. Instituto Politécnico do Cávado e do Ave. (2021)

21. Santos, R. P. V.: *O Influxo da Mudança do Álbum Ilustrado: A Influência da Gramática Digital* (Tese de Doutoramento, Faculdade de Belas Artes da Universidade do Porto). Repositório Aberto da Universidade do Porto. <https://repositorio-aberto.up.pt/handle/10216/80137> (2015)

22. Freire, M.: *Jornalismo de Revista em Tablets: Um estudo dos aplicativos para iPad da Revista Wired e Katachi*. LabCom (2016)

23. Baudouin, P.: *TRANS-MEDIA-ACÇÃO: Processos de Transmediação como ferramenta criativa em Design de Comunicação* (Tese de Mestrado, Faculdade de Belas Artes da Universidade de Lisboa). Repositório da Universidade de Lisboa.

https://repositorio.ul.pt/bitstream/10451/6953/2/ULFBA_TES%20429.pdf (2011)



Illustrating the Unconscious: Commissioned Creativity and Emergence

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Keywords

Practice research,
Illustration, Drawing,
Narrative, Experiential,
Selfhood, Identity

Abstract

Practice research is often contested in significance, just like illustration produced as part of a commissioning process. This paper seeks to establish a reading of images made by commission and asks if there is a self-knowledge value in illustration for the image maker that emerges over time? The aim is to demonstrate what practice research can offer the practitioner, the researcher and broader academic communities and be 'effectively shared'.

There are circumstances where the best or only way to shed light on a proposition, a principle, a material, a process or a function is to attempt to construct something or to enact something, calculated to explore, embody or test it." (Bruce Archer, 1995b)[1]

To extend an understanding of illustration as a form that lives beyond its immediate use, this case study uses a specific interpretative lens. This paper explores illustration-based practice research from the perspective of an illustrator and an adopted person. As part of my PhD enquiry on visualising absence, I have adapted attachment theory as a way of categorising the legacy of primal separation of infant and mother at birth. I am arguing that the stages of separation and subsequent effect on brain development produces characteristics that can be visually expressed in cultural forms and in the visual work of individuals with that experience.

'where emotionally significant attachment-related events and experiences have been excluded from conscious processing they can continue to exert a powerful influence on current ways of perceiving and thinking about the world' (Bowlby, 1979)[2]

In this paper, I use my own commissioned illustration artwork to identify visual constructions that can be read as representative of attachment related experiences and legacy behaviour. I demonstrate the double life of work produced for one intended use that can be understood in an alternative reading.

1. Introduction

Visual research methods are used in the Social Sciences to generate evidence to answer research questions. Social Science constantly seeks better quality evidence to examine and formulate theory and strategies through the interpretation of empirical data. The discipline recognises that images are meaning making devices and since the late 1990's much work has centred on visual research methodology [3].

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This development has significance for our discipline and can be applied to deepening the understanding of illustration. Gannon and Fauchon's *Illustration Research Methods* [4] has pioneered a practical understanding of how illustration can extend the available tools of visual research, and this paper is designed to give an example that combines practice with a specific lens of embodied experience.

I will look at illustration imagery produced by the commissioning process and reflect on what can the image evoke beyond its intended communicative use, such as in affective, emotional, and sensory meaning. This exercise is from a specific position and draws methodology and interpretive meaning from a number of theoretical fields as well as the social sciences, such as attachment theory, psychotherapy, and cultural theory.

The reason for combining theory from various disciplines is an attempt to find meaningful representation for my position as an illustration practitioner and adoptee. If illustration practice is under researched, then adoptee illustrators is even more unexplored. The dual lens of identity, illustration and adoption, is important, and I will argue that is not incidental. I will look at the relationship between transactional visual production and the nature of primary separation and propose how one is related to another.

2. The appeal of illustration

How illustrators understand their practice as a research tool is emergent and serviced by a number of recent publications following *Illustration Research Methods* [5]. Why this is happening in 2020's may be related to larger technological developments, ubiquitous digital access and the hyper visibility of mass culture, or a reaction to a machine learning future to focus more on human/analogue processes. The representation of individual identity offered by observing and making, rather than a virtual button photographic capture has consistent popular creative appeal as evidenced in applications for *Illustration degree* courses⁵. Many of those graduates will never be commissioned and paid to make illustration for reproduction or screen, not because of ability but just because of changes in media consumption and volume. However, the appeal of what lies at the core of both, to be an illustrator and what the process requires, continues to grow.

Interpretation of source material is the basis of the illustration art discipline and is inherently subjective, whether from observation or imagination, the outcome is a decision of the maker, what is relevant is selected and prioritised. The work is a visual expression of individual choice and values not necessarily initially mediated by anyone else. Depending on the perceived success of the image function, what content is not relevant is either in a peripheral supporting role or left out. An unsuccessful image is often described as confusing or unclear as to its communication purpose, or the fault lies in its applied use, the image works but is in the wrong place for intended audience. This paper looks at unconscious image content development as well as conscious decisions.

3. Commissioned meaning

The commissioned illustration process brings a complex set of conditions and expectations. Founded on a trust of delivering a useable outcome meeting a specific need by a required time, a commission is a gamble. For an art director, editor, or any form of commissioner in an organisation it is usually a gamble with someone else's money. However, the continuity of the job role of commissioning and being commissioned, being an illustrator, relies on getting the right person to make the right thing for the expectation of the audience. Something new is being sourced and until it appears many factors may intervene between intention and deadline. It is a pressurised transactional process that is an outcome propelled by conscious forces of motivation. For the illustrator there is the making of new work, often dependent on a commissioning process of familiarity, a continuing vein of previous work. There is the fee that pays bills and can also validate the importance of the work. There is also confirmation of currency as someone wants your new work and will pay for it; as illustrator Chris Brown asked in a recent talk “does the ‘illustrator’ exist without a commission?”[6]

But commissioned illustration itself disappears. Most published imagery has a shelf life, most digital a screen life and will be either recycled, deleted or overwritten. The ephemeral nature of editorial and advertising illustration has contributed to its low cultural status, linked to daily journalistic opinion and trends, and quickly replaced with a newer version.

I am asking if the pressurised process of making work to order has a longer-term significance? Can the performance and process of making image against time restriction across unrelated content, represent a deeper meaning, generated from more than logical thought?

To explore these questions I am using a visual research method to propose what a set example illustrations can communicate that established forms of knowing don't acknowledge.

Knowledge traditions work by forming a premise and seek to support it through evidence, then elaborate, sometimes mystify, disregard what doesn't fit, as well as argue the importance of the perspective[7].

4. Unknowing

My position begins with a biological experience that gifts not knowing through a primal separation and led to a practice that spans a sense-making action between words and pictures, Illustration.

I was separated from my biological mother after 14 days and placed with my adopted family within a month. I have no experience of further separation from a primary caregiver after that time or of institutional care or fostering. I have no conscious memory or recall of the event before or after separation, around the age of 4 was told that I was adopted. I had a happy childhood and loved and bonded with my non-biological parents. Around early adulthood I began tracing following a deep inquisitive instinct to know more about myself. At 30 I met my birth mother and have maintained a positive relationship with her and her family. Tracing biological roots gave an understanding of selfhood and I feel privileged to be part of my half biological family.

In the last 3 years, a new awareness of the separation event emerged by undertaking a structured PhD enquiry into ‘visualising absence’. Through a system based research approach I am exploring absence and how it might be represented, trying to address the contradiction of making a non-presence present. From a cultural theory perspective Paul Fuery observes that absence is prevalent in many cultures and disciplines, from physics and mathematics to zen buddhism to western avant-garde art and further recognizes that absence has key distinctions[8]. He identifies that there is the absolute absence of outer space, a void, ‘La Vide’. It is an elusive conceptual position that fascinates cultural production by unused potentiality. Blank books, imageless films and silent music all represent to a degree a confrontation to expectations and contest power structures[9].

And there is another form of absence that I am focused on, the lack of presence of what was. A kind of phantasm, this absence is not the weird ‘beyond experience’ of Hauntology[10] but an attempt at sense-making of the ‘beyond remembering’ of primal separation.

By learning about attachment theory and subsequent effects of separation I began to recognise my own life behaviours. Employing John Bowlby and Mary Ainsworth’s theory of four basic attachment patterns[11], secure, anxious, avoidant, chaotic, I recognised expressive equivalents in my illustration practice output.

5. Fields of knowledge

There is a growing popular understanding of the impact of trauma and those affected. Gabor Mate in particular has articulated medical insights and shaped theories of societal causes of problems in childhood development and healing. It is important work that has supported one of my PhD research projects to produce new narratives that enable the recognition of reactions for self-knowing. But one of the problems with research is how to keep a core research focus, the problem multiplies with interdisciplinary questions. What theory is essential, what is tangential and how to prioritise and synthesise meaningfully? I have needed to reference various fields of knowledge but remain mindful of what gives insight for the development of a visual research methodology. In Psychoanalysis, the theory and understanding of a person is based on ‘self-image’[12]. There are two ends of the ‘image’ spectrum; a more rigid determinist model based on the principle of conflict (main theorists were Sigmund Freud, Madelaine Klein) and at the other end of the spectrum a softer determinist position based on a deficit in our environment (led by John Bowlby, D. W. Winnicott, Ronald Fairbairn)[13]. Bowlby rejected the Psychoanalysis so-called mind concept because he thought it was an unnecessary level of conceptualisation. He considered that people are shaped intra-personally, fundamentally biological before developing psychic structures[14]. This latter theory supports how physical environment and experiences and genetic inheritance will affect the development of a person. There remains a lot of conflicting opinions in Psychology and a history of bitter feuds, further complicated by the power of pharmaceutical profits to frustrate a consensus on what is irrefutable[15]. For many professionals’ empirical

fact is the only reliable guide and scientific materialism has reinforced this position. For an illustration practice based researcher, I have drawn upon theory that has resonance to sense make, to name and identify what has emerged through my visual practice.

6. Under researched

Changes in the knowledge of how the brain works and physiological effects from an increase in stress hormone activity has informed new scientific fields of theory since the 1990's[16]. Neuroscience reveals how the brain supports mental processes; developmental psychopathology studies the impact of adverse experiences and subsequent development; and what is termed interpersonal neurobiology, is the study of how our behavior influences those around us. The separation event that this paper refers to occurs at a stage of life that is under researched as, most studies of the human brain are from 3-6 months. However what is agreed is that adverse early life experience is now broadly acknowledged to compromise the brain area that troubles the embodied feeling of being alive[15]. In studies of trauma, the recalibration of the brain's alarm system has been shown to affect the system of separating relevant information from irrelevant, leading to lifelong confusion without treatment. To the experiencer of adverse conditions, the world does not make sense in the same way as a person without that experience[15]. Tests on the working of the brain in trauma victims reveal that images of past trauma activate the right side, which is understood as the location of the intuitive, emotional, visual, spatial functions; and deactivate the left side that does all the talking, rationalising, and logic. The right hemisphere is the first to develop in the womb and carries the non-verbal communication between mother and infant. The left becomes active later in the acquisition of speech, naming and understanding relationships, it is called upon to explain experience and order sensemaking. The right stores memories of senses and what feels like intuitive truth or 'the way things are'. Trauma recovery theory maintains that the pre-verbal experience is remembered but cannot be recalled in words. The proposition made by trauma therapists is that by alternative processes of recall, other than words, an authentic sense-making of self is more possible[15].

7. Visual Taxonomy

Agreeing with the therapeutic approach that seeks to name and materialise experience to process it, I am developing a taxonomy of primal separation using a visual research methodology to identify visual forms[3]. My reading of attachment theory and self-image identifies that certain characteristics of imagery/images are evocative of different aspects of primal experience legacy. Through recognition of visual form, the awareness of self-image and sense-making may develop.

The basic four attachment stages have gone through many iterations and elaborations and renamed by other people since being established in the 1960s by Bowlby and Ainsworth, and therefore it can be confusing when reading popularisers and interpreters. I have been reminded

that they are not meant to be anything like as rigidly separate as the four words suggest, secure, anxious, avoidant, chaotic. Words as names or locators don't accurately describe the mass of emotional associations in each category. A more helpful analogy would be to think of four cloudy smudges moving and overlapping; each category is a set of words and link with more liminal groups of words as they morph from one to another. Categorisation aims to define, but these clusters of associative feelings are closer to the smudginess of chalk images. The 'stages' outlined below may be experienced in a chronological sense, but don't have a prescribed order like moving up or down a ladder.

Testing



I have begun to link the four attachment theory stages to visual elements of my illustration practice, what follows is an example selection:

Editorial illustration for columnist's article about motherhood and self-image. In retrospect fits well with my current focus but at the time was part of a daily commission cycle and not made as comment on self identity. A reading now could be a

faceless 'mother' holding the recognisable image of her biological offspring. Significant that the mother's anonymity, a lightless void, faceless to facing an illuminated, looking, but body absent mask. Instead of intended message of conflicted identity in one person, it could describe a complex relationship between two biologically related people.

Attachment theory keyword: **Secure**, equates with recognition. A stage that is illuminated, whole, contented and fitting. In visual terms balanced and stable. Knowing, confirming and authoritative. Maternal protection.

Visual Practice element: Relates to **Material**: chalk pastel has characteristics that I found to be hypnotic to use.



Tactile immersion by using fingers to apply to a surface. Associates with chalk boards in a 1960's classroom, memorising and erasure with ghostly residue. The surface grain of chalk is reproducible in digital scanning and has a virtual analogue texture. In chalk pastel as a medium, the deepest non-reflective black readily available is reoccurrent in my images. Vivid colours that can be applied immediately and expressively. Without exercising a lot of control in technique, the medium rapidly becomes chaotic. As my methods developed I found that the things I couldn't

Fig.1 Selfie Identity, 2006. Times Newspaper

Fig.2 Strangers on a Train, Patricia Highsmith

Fig.3 Confidential
Agent



represent, a lot of fine detail, became things I could exclude in ideas and composition. Pastel application is messy and I developed techniques to get results I wanted; soft patches contrasted with sharp lines. I also found ready made tones of grey and labelled sticks of ready made colour to be helpful with my red-green colour blindness.

The cover illustration for the 2017 Folio Society edition of Patricia Highsmith's first novel (1951). Screen rights bought by Alfred Hitchcock and adapted to a eponymously titled film released in 1953. The black and white film treatment changed the lead characters profes-

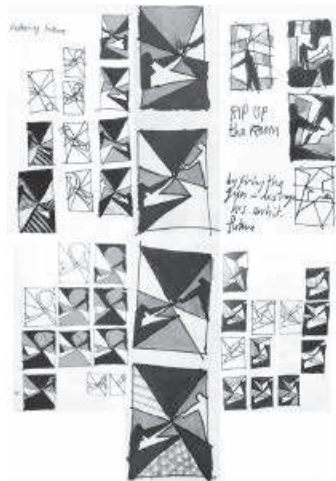
sion from an architect to a tennis pro and was a popular and successful mainstream movie. I was commissioned by the Folio Society to make a hardback cover edition with eight full-page internal colour illustrations. Attachment theory keyword: **Intervention**, which equates with something that is done to you. Prefigured by alarm, this stage is a shock. Like an explosion, shattering, broken, fragments. Mental violence. Removal and exposure, cold, crossed out. Disorientation and incomprehension, incomplete. Visual Practice element: this can relate to **Point of view**, pictorial composition places the viewer in a subjective position, many of my pictures show a low view looking up or along. Angled and off-kilter axis are not used as eye-catching tricks, but I always maintained as expression of feeling of the content / text / issue being represented. Commonplace infrastructure is distorted into unrecognisable forms that threaten the viewer by proximity.

What might be significant is distant or disappearing or obscured. The viewer is left having experienced something but it's not clear what or why left in that position.

Internal illustration for 1998 Folio Society edition of Graham Greene's novel. The main protagonist is hunted through 1930's London by an unknown force, the novel is a good example of Greene's pervading ambiguity of existence.

Attachment theory keyword: **Despair**, that equates with lack of agency. Sunset into night, darkness. Murky and fogged, endless waiting, witness. End of road, closed. Outscaled by blank space.

Fig.4 development
thumbnails from over
200. 2015 Folio Society
edition of *Strangers
on a Train*, Patricia
Highsmith.



Visual Practice element: Relates to **Contrast**: the imagery for 'dark content' leans toward a limitation of content, limited informing light sources and a reductivism. Anonymous threat. Unanchored and floating, falling. In this illustration I gave the scale contrast emphasis by maximising the blank white of the page. The lack of agency is emphasised by not giving any anchoring shadow or textural evidence of the road presence.

Attachment theory keyword: **Adaption**, that equates with gaining agency. Mapping and searching, labelling evidence. Piecing together, trying to make sense of abstract shape, mending and covering up. Fear of repeat of intervention, fear of unrecognizable threat, being judged, target.

Visual Practice element: Relates to **Iteration**: the process of searching for a visual result that employs the above that never really concludes. The thumbnail is a device make a summary of some aspects of a final point, but not everything. By obsessing over one stage later detail stages are omitted and can lead to a visual shorthand.

8. Conclusion

This paper is part of a larger research and creative project to understand what pictures can tell us and what they can do beyond the scope of words. The material presented here is part of a proposal that is in the process of being tested through discussion and dissemination, trying to find explanations for why things look the way they do. By looking at the commissioning process, its pressures and expectations, and where creative responses originate, I have only just begun an understanding that is nonetheless very meaningful to me as a practitioner, teacher and researcher.

Identifying factors that shape our cognitive functioning and understanding of how to communicate meaningfully with others is one goal, perhaps more essentially another is how to communicate with ourselves. What is logical and meaningful for one is not the same for another, Illustration offers a specific individual space for diverse voices. I am asking what is uniquely communicated through images and specifically through the practice of Illustration and its creative position between images and words. I have proposed that the practice can carry visual expression of experience before language. It is worth considering that significant issues for adoptees can be trivialised by individuals who claim it doesn't matter, who speak from a place of uncritical privilege. The value of visual materialising for self-knowledge depends on how a practice makes sense of the world and perhaps in helping others in their understanding and sense of self. Not knowing something can perhaps be turned into an active advantage in addressing the gaps or making of new knowledge possible.

9. References

1. Archer, Bruce (1995a). The Nature of Research. Co-Design, Interdisciplinary Journal of Design, 6-13.
2. Bowlby, J. (1979). Behavioral and Brain Sciences / Vol. 2 / Issue 4 / Published online by Cambridge University Press: 2011, pp.637-638
3. Glaw, X., Inder, K., Kable, A., & Hazelton, M. (2017). Visual Methodologies in Qualitative Research: Autophotography and Photo Elicitation Applied to Mental Health

Research. *International Journal of Qualitative Methods*, 16(1).

4. Gannon, Rachel and Fauchon, Mireille (2020). *Illustration Research Methods*. Bloomsbury.
5. Bloomsbury Research in Illustration series, <https://www.bloomsbury.com/uk/series/bloomsbury-research-in-illustration-series/>
6. Brown, Christopher (2024) practitioner lecture at Art Workers Guild, London.
7. Steup, Matthais (2005). Epistemology. In Zalta, Edward N. (ed.) *Stanford Encyclopedia of Philosophy* (2014).
8. Fuery, Patrick (1995) *The Theory of Absence: Subjectivity, Signification, and Desire*. NY : Praeger Books.
9. Irímia, Alexandra. (2023) *Figures of Radical Absence*. De Gruyter.
10. Fisher, Mark. (Fall 2012) What Is Hauntology?. *Film Quarterly*, vol.66, no.1, pp16-24.
11. Ainsworth, M. S., & Bowlby, J. (1991). An ethological approach to personality development. *American Psychologist*, 46(4), 333-341. <https://doi.org/10.1037/0003-066X.46.4.333>
12. Safran, J.D., Gardner-Schuster, E. (2016) *Encyclopedia of Mental Health* (Second Edition)
13. Mitchell, Stephen, A. (1995) *Freud and Beyond: a history of Modern Psychoanalytic Thought*. New York: Basic Books
14. Bowlby, J. (1969) *Attachment and loss*. Vol 1. *Attachment*. New York: Basic Books.
15. van der Kolk, B. (2014) *The Body Keeps The Score*. New York: Viking.
16. van der Kolk, B. (2006) Clinical Implications of Neuroscience Research in PTSD. *Annals of the New York Academy of Sciences* 1071 p 277-93.

The Role of Scientific Illustration in Bird Conservation: a Case Study with Steppe Birds in Portugal



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Abstract

Steppe birds are currently highly threatened by habitat loss and fragmentation, requiring urgent conservation action. In this article, we suggest using Scientific Illustration as a means of communicating science to publicise and raise awareness on the main threats that have the greatest impact on these species. Due to its predominantly visual nature, Scientific Illustration allows us to communicate science and technical content to a wider audience, particularly non-specialists, in a more attractive, simple and visually-summarized way. Under the guidance of the BIOPOLIS-CIBIO MOVE group, we undertook to produce six infographics, each focusing on one of six steppe bird species - Great Bustard (*Otis tarda*); Eurasian Stone-Curlew (*Burhinus oedipnemos*); Pin-Tailed Sandgrouse (*Pterocles alchata*); Black-bellied Sandgrouse (*Pterocles orientalis*); Little Bustard (*Tetrax tetrax*) and Montagu's Harrier (*Circus pygargus*) - and the threats that most impact them, in order to make the general public aware of the need to take urgent measures to preserve them. We then explain the method used to produce the illustrations of the species, using the Little Bustard as a case study. Using digital illustration techniques, we highlight the basic steps for creating the different structures of the bird in question, as well as the infographic dedicated to the species.

Keywords

Steppe birds conservation;
Little Bustard;
Ornithological Illustration;
Science communication;
Bird illustration;
Infographics

1. Introduction

1.1. Conservation of threatened species in Portugal - the case of steppe birds

The conservation of species and biodiversity in general is a contemporary and ongoing concern in our daily lives. It is increasingly important to understand how human decisions and activities impact our natural resources, species and ecosystems.

In Portugal, governmental, non-governmental and also research organisations are working to preserve species threatened by the increasing loss and fragmentation of their natural habitat, human presence and disturbance, and climate change. Farmland birds, also known as steppe birds, are one of the groups of animals whose population has declined the most in Portugal, mainly due to the transformation of extensive agriculture into irrigated land on more productive soils, and intensive grazing on less

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productive soils [1]. Steppe birds are characterised by their ecology, which is adapted to open and extensive environments, practically devoid of tree or shrub vegetation, with most of these species nesting on the ground. Many of these birds originate from the true steppes, which later adapted to extensive agricultural areas. In the case of Portugal, the traditional areas of extensive cereal farming coincide mainly with the regions of Alentejo and Nordeste Transmontano, as a result of the centuries-old practice of extensive agriculture, which is based on a system of rotation of rainfed cereal crops (such as wheat, barley or oats), that then alternate with fallow land that is grazed and legume crops. Despite not being considered natural steppes, these regions provide a similar habitat to the birds and are of paramount importance for the conservation of steppe birds [2],[3],[4].

Thus, the maintenance of extensive agricultural activity is crucial for the subsistence of biodiversity. Species such as the Little Bustard (*Tetrax tetrax*), the Great Bustard (*Otis tarda*), the Eurasian Stone-Curlew (*Burhinus oedipnemos*), the Montagu's Harrier (*Circus pygargus*), the Pin-Tailed Sandgrouse (*Pterocles alchata*) and the Black-bellied Sandgrouse (*Pterocles orientalis*), are presently among the most threatened ground nesting steppe birds in Europe, with unfavourable conservation statuses (Vulnerable, Endangered and Critically Endangered) [5].

1.2. Science communication as a strategy for scientific knowledge democratisation

It is therefore increasingly relevant to highlight endangered species such as steppe birds and raise awareness that the observed declines are a result of human exploitation and disturbance, stressing the urgency needed to take action and change practices aiming to mitigate the threats affecting these birds.

Science communication using different strategies and channels (science journalism, theatre, filmed documentaries, etc.) plays a fundamental role in democratising access to scientific knowledge for the general public. Rather than simply transmitting information of a mundane nature, the main mission of science communication is to share scientific content, either to an audience of peers, within the same research area (*strictu sensu* science communication), or to a generalised and broader audience (*latu sensu* science communication) [6],[7],[8]. This type of communication, given its wide range of recipients, must also be prepared and constructed to ensure the effective transmission of the information being disseminated and, more importantly, that it is assimilated and integrated into everyone's knowledge.

On the one hand, between peers and experts in a given field, mutual understanding of concepts and theories is essential, in order to obtain a reading that is "in line" with what the science communicator wants to convey, and thus obtain validation of the new learning. On the other hand, when it comes to science communication aimed at the "common citizen", its effectiveness can be inferred from the readers' understanding, so the more accessible, i.e. the more simplified, synthesised and emphatic the discourse, the greater impact it will have with the general public, particularly in terms of their perception of the problem discussed and their knowledge of possible solutions, ultimately leading to informed decision-making and engagement [9].

1.3. The importance of scientific illustration in communicating and raising awareness among non-specialised audiences

Scientific illustration can be an ideal vehicle for communicating science next to the general public, aiming for the dissemination of attractive, simple and succinct scientific knowledge. In fact, according to Correia [10], Scientific Illustration presents itself as “a communication model” which, through the “drawn image”, can clarify and complement scientific information. It is also a versatile and comprehensive model of communication, being applicable in a multitude of scientific areas - from ecology to medicine and anthropology - and through various media (in physical format, such as scientific journals, newspapers, exhibition posters or in digital format, such as documentaries, websites, applications/programmes). All of this allows for easy and multifaceted access to the more lay public.

Scientific illustration, as an image, also has certain characteristics that differentiate it from an artistic or imaginative image. According to Correia [11], it should be a “thought-out and strategically constructed image” with a well-defined objective. It should therefore fulfil the functions of *gathering* scientific data objectively and without deviation, *communicating* this data to the target audience and, finally, *attracting and awakening* the latter to the message in order to obtain greater attention and a better understanding of the message being conveyed.

This takes us back to our own human biology, as we use vision predominantly to interpret and decode the world around us. For this reason, the inclusion of visual elements to replace or complement scientific discourse is a central factor in reaching a non-specialised audience [12]. Additionally, it is theorised that there are two systems for representing information: verbal and non-verbal. Considering that information is processed differently in the human mind, it is predicted that the concomitant use of different stimuli, namely verbal information and visual information, could lead to a more effective learning process [13].

Scientific illustration can therefore be used as a tool to educate the general public about the current state of threat facing steppe birds, highlighting the impacts that human activity has on these species. The use of attractive illustrations and their implementation in accessible media could trigger greater interest on the public, create more knowledge about the topics discussed, and ultimately empower them to make decisions and, above all, seek solutions.

1.4. Ornithological illustration and the production of bird illustrations

Birds are a group of vertebrates that throughout history have aroused a great deal of interest and proximity to human beings, both from an economic point of view (in hunting, livestock farming and as domestic animals) and from an artistic and cultural point of view [14]. On one hand, in folklore and popular tradition, there are various references to bird species associated with abstract ideas and values, such as the owl, for their wisdom, the crow, representative of death, and the white dove, as a

symbol of peace. Birds also occupy a prominent place in the arts: whether in literary works, the visual arts or more recent media such as cinema, birds inspire and attract human beings [15].

Ornithology has gradually formalised itself as an area of study that is increasingly rooted in “a vast, structured body of knowledge that is duly integrated into the theoretical body of science” [15]. More recently, birds have been recognised as key to carry out ecosystem services such as seed dispersal and pest control [16]. In addition, the application of various media using images and illustrations to disseminate information has made the contact with this science increasingly accessible, attracting not only academics but also the general public to this diverse group of vertebrates. For example, *illustrated field guides* are an indispensable tool in ornithological tourism (in activities such as *birdwatching*), allowing the safe identification of the different species of birds seen. The use of scientific illustrations in this type of media is an added value, where the species must be represented in the most accurate way and free from misrepresentation (something that can happen when using photography).

2. Creating an Ornithological Illustration

Scientific illustrations must be developed in line with current scientific knowledge and purposely created to allow a clear reading of the species represented. This final representation is called the *archetype* of the species, in which all the “diagnostic characteristics” that best represent the species (referenced through photographs and/or previous illustrations) are brought together in order to create a valid representational model [17].

As such, the process of creating a scientific illustration should begin by gathering all the information needed to feed the creation of the archetype of the species under study, grouping together all the morphological/anatomical elements that will serve to unequivocally identify it. Correia [18] points out that “one of the most common errors” in the scientific representation of a species is the insufficient gathering of information about it, highlighting some simplification methods that lead to this error, namely: the use of a single visual reference (be it a photograph or illustration), which in turn makes it possible to repeat misrepresentations of the image used; or the sole reliance on visual references without the use of supplementary information that characterises the species, producing omissions in important morphological characters.

In the specific case of illustrating birds, the illustrator should try to get to know their general anatomy in order to better understand their poses and movements [14]. The bird should be studied from the most general to the particular characteristics, starting with the shape and size of its body and then moving on to the different specific elements that characterise it: head, type of beak, eyes, type of legs, structure of the feathers on the wings and tail and, finally, its colouring and patterns [14],[18]. In addition to this initial research, it is also recommended to consult and seek advice from experts on the species or group of species in question, in order to have a better outlook on its behaviour (typical body pose, or mating ritual, for instance) and further enhancing the illustration.

Once all the essential information has been gathered for an objectively correct and rigorous representation of the bird, the pose chosen for its representation should also be taken into account. It should be in profile, facing to the left, due to its bilateral symmetry, with the exception of birds such as owls (Strigiformes), whose flattened face shape requires its depiction facing forwards [14]. As in most bird species, the male has more showy plumage and more differentiated groups of feathers, so he should occupy a prominent place in the representation of the species, and the female should be in the background, having a more muted plumage. Juveniles should also be depicted if they differ morphologically from adults, or at least the specific part of the body that differs from the adult [14].

Although there is no specific technique for illustrating birds and there are several effective methods for depicting them, using digital techniques is an efficient option both in terms of resources and time spent creating the illustration. Currently a constantly growing and evolving method, digital illustration encompasses different creation methods for which there are various image creation programmes, both in 2D and 3D. This technique can be used to create a purely digital image, or even incorporated into the process of digitally editing or altering an illustration previously created though traditional media. When it comes to 2D image production, Adobe Photoshop stands out as one of the best suited programs for this purpose, as it makes it possible to work in *layers* and replicate similar elements in a structure, such as scales in reptiles or feathers in birds. This use of *layers* will allow the illustration to remain editable throughout the creation process, making it possible to make any changes that do not jeopardise the entire illustration [19].

2.1. The Little Bustard (*Tetrax tetrax*) - a case study

In view of the current urgency to act for the conservation of steppe species, we are currently developing a project to raise awareness and communicate science, using Scientific Illustration, in which threatened steppe bird species will be represented. With the support of the MOVE research group (BIOPOLIS-CIBIO), 6 infographic posters will be developed dedicated to characterising these birds, their current distribution in the Iberian Peninsula and the main threats impacting them. The species covered: Great Bustard, Eurasian Stone-Curlew, Black-bellied Sandgrouse, Pin-Tailed Sandgrouse, Little Bustard and Montagu's Harrier, represent steppe birds currently under great conservation vulnerability and have been the main focus of study by MOVE. This research team group will act mainly as a source of specialised knowledge for the review of the illustrations and production of the infographics.

We explain below the method used to produce the archetypes of the species covered, using the illustration of an adult male Little Bustard as a case study.

As previously mentioned, the first step in correctly illustrating an archetype of a species is to gather all the relevant information about the taxonomic elements that will allow it to be identified with certainty. Thus, the following description of the little bustard has been assembled: Otidid (of the bustard family) medium-sized, the size of a female pheasant, 40

to 45 cm long with a wingspan of between 83 and 91 cm; the male is easily identified during breeding by its black neck with white stripes, whose feathers stand up when in mating courtship, giving it a “swollen neck” appearance; the head and throat are lead grey and the crown is streaked with brown; the eyes are pale yellow and the beak is grey, strong, straight, of medium length and slightly flattened at the base; the upper part of the body is sandy brown with dark spots and the lower part is whitish; it has white wings, with black tips on the outer primaries and on the primary coverts. Its number of *remiges* (flight feathers located on the wings) is divided between eleven primaries and seventeen secondaries on each wing, with the fourth primary feather being considerably shorter than the others. The tail is short, white with brown spots, made up of 18 *rectrices* (flight feathers located on the tail); the legs are long and end in three-toed feet, light yellowish grey in colour [20],[21],[22],[23].

Once the necessary information was gathered, we looked at typical body poses, colour tests and representation of the different taxonomic elements, using photographs of the species previously selected and provided by the MOVE research team as well as other images gathered during the research process. Video references were also included, as well as other illustrations to better complement the characterisation of the species (Fig. 1).

A suggested initial step in creating a preliminary sketch involves constructing a “chimera” (Fig. 2, *left*), assembling all relevant elements to characterize the species, thereby facilitating the planning and composition of the final illustration [19].

After constructing the chimera of the species and its preliminary sketch (Fig. 2, *centre*), the final illustration was developed. Correia [19] proposes a method for creating digital illustrations that takes advantage of the re-editing potential of digital drawing applications, based on the interaction between the different *layers* that make up the illustration. Because of its simple approach, without compromising the quality of the work, and because it makes the most of time, we decided to use this method for the little bustard archetype.

Fig. 1. Illustration of an adult little bustard from Svensson’s Bird Guide (Svensson et. al., 2022) (left); photograph of a little bustard in courtship behaviour by MOVE (BIOPO-LIS - CIBIO)(centre); preliminary studies of the species (left).



Following the method described, an initial *layer* was created in which the silhouette of the species was delimited around the preliminary sketch, and then painted with the dominant colours of each structure (e.g. whitish chest and belly, greyish-yellow legs, etc.) (Fig. 2, *right*). This first *layer* will always be the last, and all the others will be added on top of it. Therefore, in a next *layer* in *Linear light* blending mode, the pixels of the structure were painted with warm grey (50% of each CMYK colour) and the volume-etry was created by darkening or lightening this neutral tone with the *burn* and *dodge* tools, respectively. In another *layer* below this, the texture was created, also covered in “50% grey”, applying different brushes, patterns

or levels of opacity. In the case of the illustration of the little bustard, the texture *layers* were created by representing the feathers and grouped into folders for each structure (head, neck, chest, belly and legs). More *layers* were needed to create the idea of down feathers on the bird's body. A *drop shadow* and *bevel emboss* effect was applied to each feather *layer* to emphasise the volume of the feathers (Fig. 3, *left*). Finally, a last *layer* was created to add any colour changes or patterns needed to represent the species.).



Fig. 2. Progress of the illustration, from the construction of the chimera (left), to the sketch (centre), to the basic painting (right).

In order to create the feathers isolated from the wings, it was necessary to adapt the method used until then. The remiges, rectrices and cover feathers were created individually and then grouped into structured folders for each group of feathers (Fig. 3, centre). Each of the feathers consisted of a base *layer*, with the shape and colouring of the feather, and another *layer*, above it, with the design of its structural parts, namely, the central shaft (the *rachis*) and the individual strands that extend from it (the *barbs*), for greater textural effect. *Drop shadow* and *bevel emboss* effects were also applied to these *layers*, respectively.

For the illustration of the feet (Fig. 3, *right*) it was also necessary to adapt the methodology for representing the scales. Initially, a base *layer* was created with the colouring of the paws and above this a new layer for the scales, with the *Bevel emboss* effect applied, producing the effect of volume for each scale drawn. Finally, a colour *layer* was added for details and a final *layer* with the overall volume, in *Linear light* blending mode, as described above.

Each of the body segments was built following this method by interacting *layers*, and whenever it was necessary to add any changes (either in colour, size or volume) it was possible to do so without compromising the final illustration (Fig. 4).



Fig. 3. Construction of the different structures (beak, eye and head down) (left); Construction of the individual feather groups (centre); Construction of the legs and respective scale texture (right).

2.2. Building an infographic

Once the illustration was completed, it was then incorporated into the production of the infographic posters. These six infographics will be dedicated individually to each species mentioned earlier, with each one focusing on the threats with the greatest impact on the species addressed.

Graphic elements such as archetypal illustrations of the species will be added, including sexual dimorphism (if present), common poses and species' behaviors, food included in their diet, representation of eggs and/or nests, as well as elements directed at the threat addressed - representation of human activities or infrastructures in interaction by visual rhetoric with the illustrated specimens. These elements will also be accompanied by short informative texts to complement the illustrations, using simple phrasal constructions specifically adapted to a non-specialized public.

In order to produce the infographics, prior studies were carried out and the different elements planned were arranged (Fig. 5, *left*). It was determined that the infographics would be presented in a horizontal orientation, so as to provide a panoramic reading of the image. In line with the more traditional left-to-right reading pattern, typical of occidental culture, the graphic elements were organized in this direction as well as diagonally across the page, to allow the reader to obtain the maximum amount of information at a first glance. As far as the organization of the infographics was concerned, it was decided that the central illustration should take up 3/4 of the page, with the remaining space dedicated to a sidebar in which the species would be formally identified, with a general description of it and smaller illustrations of the species' archetypes. This sidebar would also include references, links of interest to readers, author crediting and the organizations involved (University of Aveiro, CIBIO-BIOPOLIS and MOVE research group).

In the case of the little bustard, we aimed to highlight as a central threat the loss and fragmentation of its habitat resulting from the conversion of traditional farming practices to intensive and more productive ones. We have thus depicted an extensive fallow landscape, in which individuals of the species are present, contrasted with an area of intensive agriculture, delimited by fences and with structures and machinery frequently used in this type of farming (Fig. 5, *right*).

Once the infographics have been completed, we plan to disseminate them through the MOVE group's website and social networks, as well as science communications, meetings and awareness-raising actions with local communities (including education institutions such as schools), through the distribution of the printed infographics.

3. Conclusion

Art and aesthetics have an undeniable dimension of reaching the observer and awakening in them a wide range of emotions and interpretations. It is present in everything that surrounds us: in the design of objects, clothing, media and, on a more intimate and basic level, in nature, inspiring in turn, in form and function, the very aesthetic will of the human being.

Through the production of realistic and scientifically accurate illustrations of the represented species and the use of media supported by

Scientific Illustration, we aim to “pull the trigger” that aesthetics have on the general public, capturing their initial attention and interest, assigning a “face” to species that many were previously unfamiliar with, and highlighting the value that these species hold. Additionally, we seek to synthesize and present information about threats in an attractive and easily readable infographic, with the goal of decoding and enlightening on a subject that is inaccessible and even complex for some.

Allied with the symbiosis of science and art, we aim to raise awareness about the urgent need to protect these birds, stimulate dialogue

about possible solutions, and engage *stakeholders*, particularly governmental entities and/or non-governmental organizations whose activities impact or involve these birds and their habitat. We hope that our intervention will bring about changes in the literacy of communities near and/or in contact with the steppe areas, as well as inspire a change of course that needs to be taken as soon as possible.



Fig. 4. Finished illustration of the Little Bustard

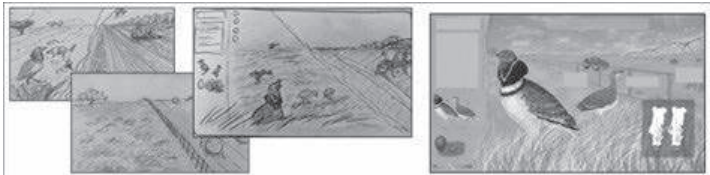


Fig. 5. Initial studies and composition tests for the infographic (smaller images on the left); Early infographic composition, still in progress (right).

4. References

1. Silva, J. P., Gameiro, J., Valerio, F. & Marques, A. T.: Portugal's farmland bird crisis requires action. *Science*, 383(6679), 157 (2024)
2. Alcazar, R. & Barosa, L.: Plano de Conservação Pós-LIFE. Projeto LIFE Estepárias: “Conservação da Abetarda (*Otis tarda*), Sisão (*Tetrax tetrax*) e Peneireiro-das-torres (*Falco neumannii*) nas estepes cerealíferas do Baixo Alentejo (LIFE07/NAT/P/654)”. LPN, Castro Verde, Portugal (2012)
3. Juana, E.: Steppe Birds: A Characterisation. In: Bota, G., Morales, M. B., Mañosa, S., Camprodon J. (eds.) *Ecology and Conservation of Steppe-land Birds*. ISBN: 84-87334-99-7, pp. 25-48. Lynx Edicions, Centre Tecnològic Forestal de Catalunya, España (2005)
4. Santos, T., Suárez, F.: Biogeography and Population Trends of Iberian Steppe Birds. In: Bota, G., Morales, M. B., Mañosa, S., Camprodon J. (eds.) *Ecology and Conservation of Steppe-land Birds*. ISBN: 84-87334-99-7, pp. 69-102. Lynx Edicions, Centre Tecnològic Forestal de Catalunya, España (2005)
5. Cabral, M. J. (coord.), Almeida, J., Almeida, P. R., Dellinger, T., Ferrand de Almeida, N., Oliveira, M. E., Palmeirim, J. M., Queiroz, A. I., Rogado, L. & Santos-Reis, M. (Eds.): *Livro Vermelho dos Vertebrados de Portugal*. Instituto da Conservação da Natureza, Lisboa (2005)
6. Costa, I.A.: Comunicação de Ciência, sem dúvida(s)! *Revista Ciência Elementar*, 10(1), 016 (2022)
7. Correia, F. J. S.: Comunicação de ciência: fundamentos e princípios, implicações e perspectivas. In: Correia, F. & Soares, A. (Eds.) *Comunicação de Ciência: das Universidades ao*

- grande público. Pp. 21-65. Ed. Afrontamento, Porto (2019)
8. Slough, McTigue & Scott W.: Introduction to the Integration of Verbal and Visual Information in Science Texts. *Reading Psychology*. 31, 206-212 (2010)
 9. Gomes, M., Loureiro, S., Correia, F.: O uso da infografia na compreensão da divulgação científica. In: 7th International Conference on Illustration and Animation, pp. 565–570. IPCA, Viana do Castelo (2019)
 10. Correia, F. J. & Fernandes, A. S.: Desenhar para (Re)conhecer: O Papel da Ilustração Científica nas Missões Científicas do Espaço Lusófono. In: Congresso Internacional Saber Tropical em Moçambique: História, Memória e Ciência. IICTJ - Jardim Botânico Tropical, Lisboa (2012)
 11. Correia, F.: Ilustração científica - imagem sobre-o-natural. *Parques e Vida Selvagem*. 35, 45-47 (2011)
 12. Bill Dennison speech to Latonell conference, Ontario, Canada. University of Maryland (2010) - Centre for Environmental Science, <https://ian.umces.edu/blog/bill-dennison-speech-to-latonell-conference-ontario-canada-part-1-science-communication/>
 13. Sánchez-Holgado, P., Arcila-Calderón, C. & Frías-Vasquez, M.: The effect of interest and attitude on public comprehension of news with data visualization. *Front. Commun*. 8: 1064184 (2023)
 14. Cerviño, C.: Aves. In: Baidal, M., Cerviño, C. & Correia, F. (eds.) *Manual de Ilustración Científica - Ilustraciencia*. ISBN: 978-84-08-25222-1, pp. 264-278. Geoplaneta - Editorial Planeta, Barcelona, España (2022)
 15. Cavaleiro, F.: A Narrativa Ornitológica em Tradução Iconográfica: Ensaio de Observações Possíveis. *Forma de Vida*. 12, 04 (2018)
 16. Whelan, C. J., Wenny, D. G., Marquis, R. J.: Ecosystem Services Provided by Birds. *The Year in Ecology and Conservation Biology* 2008, 1134(1), 25-60 (2008)
 17. Correia, F.: Ilustração Científica - Portal para o Mundo da Ciência. *Parques e Vida Selvagem*. 57, 58-63 (2019)
 18. Correia, F.: Vamos desenhar... um pardal. *Parques e Vida Selvagem*. 35, 48-49 (2011)
 19. Correia, F. J. S.: Ilustración Digital. In: Baidal, M., Cerviño, C. & Correia, F. (eds.) *Manual de Ilustración Científica - Ilustraciencia*. ISBN: 978-84-08-25222-1, pp. 162-177. Geoplaneta - Editorial Planeta, Barcelona, España (2022)
 20. Svensson, L., Mullarney, K. & Zetterström, D.: *Guia de Aves: Guia de Campo das Aves de Portugal e da Europa*. Assírio & Alvim (2022)
 21. Featherbase - Little Bustard, <https://www.featherbase.info/en/species/tetrax/tetrax>
 22. Bird ID - Nord University: Little Bustard, <https://www.birdid.no/bird/eBook.php?specieID=1151>
 23. Oiseaux-birds: Little Bustard, <https://www.oiseaux-birds.com/card-little-bustard.html>

A écfrase recursiva para uma definição de ilustrapoeta, a partir da exposição “Infinitas Galáxias - diálogos interartísticos I



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Resumo

A écfrase recursiva vem propor uma nova dimensão actuante para a figura do ilustrador: o *ilustrapoeta*, enquanto sujeito poiético, na ilustração de poesia e na escrita autoral de poesia.

A partir das séries desenvolvidas para a exposição “Infinitas Galáxias - diálogos interartísticos I”, pretende-se demonstrar as metodologias operacionais adoptadas para a presente fundamentação — do poema lido, do conjunto de ilustrações realizadas, do evento do poema-porvir à escrita de novos versos — como consolidação da incorporação da *poíesis* e do papel do ilustrapoeta.

Abstract

The recursive ekphrasis aims to propose a new active dimension for the figure of the illustrator: the “illustropoet,” as a poetic subject, in the illustration of poetry and in the authorial writing of poetry. Based on the series developed for the exhibition “Infinitas Galáxias - diálogos interartísticos I,” the intention is to demonstrate the operational methodologies adopted for the present foundation — from the read poem, the set of illustrations created, the event of the poem-to-come to the writing of new verses — as a consolidation of the incorporation of poesis and the role of the illustrator-poet.

Todo o poema é sobre aquele que sobre ele escreve. [1]

1. Introdução

Considerando a pertinência de qualificação do conceito de *ilustrautor* (Alan Male)[2], enquanto especialista crítico e criador de obras de ficção e de não-ficção, o *ilustrapoeta*, para além de ilustrador de poesia, inscreve-se num novo regime: a escrita autoral de poesia. Esta correspondência aberta da poética, coloca a prática da ilustração e do ilustrador, num modo de campo expandido, entre a palavra e a imagem e vice-versa. Um gesto contínuo entre a mão que desenha e que escreve sobre suportes e mecanismos comuns, como desdobramentos entre o dizível/invisível e o indizível/visível.

Kate Newell [3] coloca a ilustração contemporânea como um processo intelectual de reflexão, onde apresenta o lugar do ilustrador como especialista e figura de autoridade, na esfera da interpretação da palavra e da ima-

Palavras-Chave

Ilustrapoeta; Écfrase
Recursiva; Palinódia
Imagética; Ana Luísa
Amaral

gem. Assim, o papel do *ilustrapoeta*, como figura que incorpora a *poíesis*, em interligações do textual ao visual, firma um lugar de processos simultâneos, que passam não só pelo critério dialogante do verso à imagem, como o seu inverso. Um ofício contínuo que reflecte um movimento de quem lê, ilustra e escreve poesia. Este campo comum carece da voz e da investigação de quem ilustra poesia, enquanto pensador e fazedor do saber, sobre a criação da imagem e sobre os seus processos metodológicos, como reflexão crítica e pertinente nas áreas como a investigação em arte e da imagem.

Para se apresentar e melhor se compreender os reflexos desta intertextualidade e deste modo de fazer, é importante estabelecer, como fundamental, relações entre conceitos e espaços interdisciplinares como transdisciplinares, que operam em oscilações intermediais[4]. O ponto de relação entre o ilustrador que lê o poema, não passa tanto por uma transmediação nem uma adaptação. O conceito de adaptação, para Claus Clüver[5] não deve estar enquadrada nos regimes da écfrase, porque é como se, na sua ação se tapasse o processo e os seus resultados. Para Clüver, a transposição intermedial torna-se melhor definição, por estabelecer escolhas de permanência e alternância no campo da *poiesis*.

Neste artigo, coloca-se em primeiro lugar a análise da experiência empírica, numa metodologia operacional que vem de sistemas linguísticos da poética (que serão contextualizados e explicados), tais como: a écfrase, a écfrase invertida (W. J. Mitchell) e o terceiro pictural (Liliane Nouvel), para se chegar ao conceito proposto de écfrase recursiva. Em segundo lugar, demonstra-se os resultados pelos processos da realização de três séries de ilustração para a exposição “Infinitas Galáxias - diálogos interartísticos I”, a partir da obra poética de Ana Luísa Amaral³, na Casa Comum, Edifício da Reitoria da Universidade do Porto, entre os dias 22 janeiro e 6 de abril de 2024.

2. A écfrase

Das várias considerações e definições que ao longo da história da literatura e da poesia foram tomadas em consideração, a noção que aqui se destaca — por esclarecer e clarificar a ordem da interpretação, mais do que da descrição do exercício ecfástico — foi escrita por Barbetti [6], em 2011, e diz que: [a écfrase] não é uma representação visual que está inscrita, mas uma percepção visual de uma imagem que é “traduzida”, num esquema verbal. É a escrita de um poema a partir de uma imagem artística. Walter Benjamin, com o conceito de traduzibilidade[7], afirma que toda a tradução é uma forma e que para apreendê-la como tal, é preciso retornar ao original, pois aí reside a sua lei.

³Ana Luísa Amaral (1956-2022) foi professora de Literatura e Cultura Inglesa e Americana no Departamento de Estudos Anglo-Americanos da Faculdade de Letras da Universidade do Porto e investigadora e membro da Direção do Instituto de Literatura Comparada Margarida Losa (ILCML/FLUP). As suas áreas de investigação foram Poéticas Comparadas, Estudos Feministas e Estudos Queer. Coordenou o projeto internacional (financiado pela FCT) “Novas Cartas Portuguesas: 40 Anos Depois”. A qualidade da investigação que desenvolveu valeu-lhe o Prémio Ensaio Jacinto Prado Coelho 2018 (por *Arder a Palavra e Outros Incêndios*), bem como a Medalha de Mérito Científico 2022 do Ministério da Ciência, Tecnologia e Ensino Superior. Desenvolveu ainda atividade enquanto tradutora de William Shakespeare, Emily Dickinson, entre outros. A obra literária inclui poesia, literatura para a infância, uma peça de teatro e uma novela. O reconhecimento internacional da sua obra traduziu-se em múltiplas traduções de livros seus para línguas estrangeiras.

Deste modo, ao se ultrapassar a noção de ordem descritiva para uma ordem interpretativa, abrem-se as possibilidades simultâneas de se ler e de se ver, não só pela representação textual, bem como da palavra que, por sua vez, faz ver a imagem primeira. O que então parece ser um movimento retórico e performativo do entendimento do conceito de écfrase, torna-se conceptualizado e traz à discussão, hoje em dia, novas práticas, processos participativos como híbridos, nas formas de ver, ler, escrever e nos modos de reescrever.

Para Maria Augusta Babo[8], a écfrase dobra a representação por se tratar, não de uma operação de “dupla representação, mas antes de uma dupla convocação, visto que o regime verbal cria, fabrica uma imagem visual, sem que esta seja de facto a representação do real.” Assim, o que permanece sob a ordem do visível ou o que ainda esteja formalmente presente, resgata, ao mesmo tempo, uma ação do corpo e da presença do artista. Enquadrando assim os lugares definidos da écfrase e naquilo que se conhece como o evento fenomenológico de leitura[9], entre o textual e o visual, com o surgimento de “O Terceiro Pictural”[10], defendido por Liliane Novel a partir de 2017, dá a conhecer os processos de formulação de uma imagem mental que, por sua vez, precede o poema inicial e se conceptualiza como um par imagético, numa relação hermenêutica do texto e do que é visível. Ao fazer ver imagens, estas são simultâneas e justapostas com o texto, para além do significante e de um significado.

A ponte da écfrase é a de permitir que uma forma de representação adote características de outra, mesmo que operem de formas diferentes. O “Terceiro Pictural” vem estabelecer um ponto-chave para aquilo que se pretende estabelecer como a charneira da écfrase invertida à écfrase recursiva.

3. A écfrase invertida

Na écfrase invertida coloca-se o poema como fonte primária de actuação, para a criação de uma ilustração. O poema faz gerar imagem e torna-se numa operação poética. Mais do que uma transcrição, torna-se uma transcriação[11], porque é pelo verso ou ainda um lado oculto do poema, que se vai estabelecer o lugar gerador de uma imagem.

Inicialmente a alteridade entre texto e imagem e a relação externo-interno, na produção de um texto ou de uma ilustração, tinha como consideração e ponto de partida a descrição de algo que se encontrava fora da poética (um lugar de agência da écfrase na memória para a imaginação). Na écfrase invertida, a imagem não é projecção do textual, mas antes uma convocação ainda em reverberação, pois é antegerada e pré-gerada no lado oculto da palavra. A partir da apresentação de transversalidade da écfrase invertida apresentada por W. J. Mitchell[12] e a combinação intermedial, proposta por Claus Clüver[13] e Irina Rajewsky[14] que desmontam as relações de comparação (como a *ut pictura poesis* de Horácio) e hierárquicas (como a *paragone*[15]), para se tornarem ponto de ignição e de pulsão, como plataforma de transmissão entre: poema, verso e palavra e a produção de uma imagem.

Para se poder chegar à écfrase recursiva é necessário situar a écfrase e o ilustrador de poesia, enquanto praticante de um exercício écfrástico invertido. O ilustrador produz portanto formulações sobre as suas

operacionalizações, quer tanto na sua amplitude, quer no seu domínio da análise, seleção e da interpretação textual. Newell [16] reforça ainda que o poema primário não fica propriamente perdido. Um *medium* evoca/convoca os atributos de um, ao mesmo tempo que cria a ilusão da sua presença, porque cria uma linha espaço-temporal, entre o texto e a percepção visual. O que não é dizível pode ser visível e trazer lugares ocultos da invisibilidade e do indizível e defender o lugar da imagem, como afirma Jacques Rancière[17] como aquele que encena uma relação do dizível com o visível. Potências de relação na alteridade imagética e textual.

4. A éfrase recursiva

A éfrase recursiva propõe a escrita de um novo poema, como consequência de um evento da *poesis*, no ilustrador e que surge de um percurso em várias dimensões entre: a leitura de “um poema primeiro” e a realização da ilustração com o terceiro pictural — dimensão concêntrica para aquilo que se manifestará num poema-porvir — e que fará gerar a escrita autoral: a escrita de um novo poema, pela mão do ilustrador.

Para se chegar à éfrase recursiva é necessário percorrer cinco dimensões poéticas.

Na primeira dimensão situa-se o poema primeiro(P1), na segunda dimensão a ilustração(I2) do poema primeiro(P1). Na terceira dimensão situa-se o “Terceiro Pictural”, como potência da primeira e da segunda dimensão($P \times I$)3, que gera a manifestação e a incorporação de um pré-textual, um pré-P1, que gera o poema-porvir, na quarta dimensão(P4), que por sua vez, será pulsão criadora da éfrase recursiva (a escrita de um novo poema), na quinta dimensão(P5).

4.1. A éfrase recursiva e as cinco dimensões poéticas:

Primeira Dimensão: Poema - (P1) = P;

Segunda Dimensão: Ilustração - (I2) = I;

Terceira Dimensão: a partir do “Terceiro Pictural” - $((P \times I)3) = P \times I$;

Quarta Dimensão: Poética-porvir - (P4) = $f(I \times P)$;

Quinta Dimensão: Éfrase Recursiva - $g(P4) = (P5)$

Metodologia operacional:

$P1 \rightarrow I2 \rightarrow (P \times I)3 \rightarrow P4 \rightarrow P5$

Definição da éfrase recursiva: $P1 \rightarrow P5 \rightarrow P1 \dots$

Este movimento sequencial, coloca o ilustrador como autor da escrita de um novo poema. São múltiplas dimensões entre/in /trans/coincidentes, que acontecem entre a leitura de um poema, a criação da ilustração com a escrita de novos poemas e que tornam o poema lido, a ilustração e o poema-porvir como eventos interartísticos, que estabelecem relações de alteridade contínuas, entre a palavra e a imagem.

A diferença entre os dois sistemas (textual e visual) e as suas características, são agora processos colaborativos. Já não são representações, muito menos mimetizações, mas uma performance com efeito de funções, onde a éfrase é agente

Figs. 1, 2 e 3. O processo da éfrase recursiva não tem um movimento cíclico / em espiral / de eterno retorno(fig.1). Ao voltar à primeira dimensão, o movimento é de ascensão e mutação(-fig.2). No entanto, uma forma de se entender a éfrase recursiva (fig.3): a sua expansão nas várias dimensões é de cadência e ordem variável e que, apesar de aqui, os vários movimentos serem visíveis, é importante referir que estes se dissolvem, não ancorando P1.



e produz potências geradoras de gestos e ações. Ao se entender que a écfrase recursiva é um gesto performativo, torna cada dimensão num movimento sequencial, que gera e dissolve a anterior. As cinco dimensões da écfrase recursiva não estão necessariamente em corrente ou ancoradas ou ainda visíveis na dimensão seguinte. Desta forma, a écfrase recursiva ao fazer voltar à primeira dimensão (textual/o poema), não quer necessariamente fazer com que o movimento seja de eterno retorno, mas sim a *poiesis*, como formulação e produção sequencial, em constante construção e reverberação evolutiva, pelos efeitos das dimensões anteriores, que a incorporam de diferentes formas..

5. O ilustrapoeta

Ao definir-se que a écfrase recursiva é da ordem da interpretação de que da descrição, torna as ações da ilustração e da escrita, não em dois sistemas separados, mas em coexistência no ilustrador - um ser com os dois. Esta coexistência quebra a dicotomia de transposição e de adaptação — de um para o outro — mas o de dois, num. O poema primeiro (mesmo escrito por outrem), não é externo ao ilustrador: este incorpora-se, no seu todo ou em partes selecionadas, como um corpo que se aloja na consciência, na sensação do ilustrador e se torna moldante: a enérgeia suficiente para se converter em imagem. Este efeito de incorporação mede-se pela proporção e pela forma como se permite ser inter/em/com o ilustrador, gerador de um campo de forças, mesmo que por vezes arbitrárias, nos campos da intuição, da sensação, da revisitação, como da construção de uma imagem que reúne a memória e que paralelamente constrói uma futura: o poema-porvir(P4). Para a compreensão do alcance destas ferramentas linguísticas no processo criativo, a ação experimental do ilustrador torna-se dialogante e alarga as possibilidades de ação, como contributo pluridisciplinar, na constante construção de uma gramática própria, que sustenta as suas características imagéticas na poética. O ilustrador, torna-se então num ser poiético, estabelecendo-se num lugar actuante entre a criação da imagem e a escrita de poesia.

A autoria do ilustrador enquanto criador de imagens, não passa só pelo seu domínio no campo da interpretação e criação textual (o ilustrador), mas da pluralidade enquanto sujeito poético. Um estado consciente do pré-verbal, para compreender a agência da écfrase no seu imaginário, já que “a imagem poética não é mera figura estética ou questão de efeito literário. (...) A imagem poética é a percepção construída na linguagem do que é estranho no que é familiar.”[19] Trata-se de exercício ecfrástico em espelho, uma experiência exclusiva do ilustrador.

6. A incorporação, o poema como um corpo, em “Infinitas Galáxias - diálogos interartísticos I”

Antes de se enunciar os processos metodológicos do *ilustrapoeta*, como efeito da incorporação do poema e como caso de estudo as três séries realizadas em “Infinitas Galáxias - diálogos interartísticos I”, é necessário enunciar um dos momentos que se firmaram como impulsionadores para a presente investigação: Em 2021 foi organizado pelo MiraFlor (Porto), um curso de escrita de poesia com Ana Luísa Amaral. Neste curso, para além

da contextualização teórica, foram fornecidas ferramentas para o conhecimento da poética, com exercícios de escrita, lançados pela poeta. Foi igualmente neste período que, o contacto entre a ilustradora e a poeta foi estabelecido diretamente e, onde também, se deu início ao diálogo sobre a investigação em arte, na área da ilustração, que aqui se apresenta.

fig.4. Comentários
de Ana Luísa Amaral
(2021) ao poema
escrito.



Recentemente e revisitando os conteúdos deste curso, encontrou-se um dos ficheiros com comentários e sugestões de Ana Luísa Amaral.

Enfatiza-se este documento, não só por ter a acuidade (e o privilégio) do olhar

da poeta a vários poemas que se escreveram, mas principalmente por neste, particularmente, sugerir (em 2021), que se alterasse a palavra “regresso” para “retorno”. Este “retorno” surge como dimensão-catalisadora, no campo e no espaço-temporal de um lugar-memória-porvir, puramente individual. Anuncia-se em si mesmo, como movimento de “retorno”, já que é, mutuamente a palavra de alteração para o fim do poema (2021); título de um dos poemas de Ana Luísa Amaral (1990) e que, em 2023 — sem lembrança desta sugestão ao poema que se escreveu — foi motor para a produção de uma série com cerca de 15 ilustrações — que posteriormente estiveram em exposição em “Infinitas Galáxias - diálogos interartísticos I” (2024) — período em que, surpreendentemente e sem intenção prévia, se regressa a este mesmo documento, guardado em arquivo.

A exposição “Infinitas Galáxias - diálogos interartísticos I”, inseriu-se no programa comemorativo “Ana Luísa Amaral, Figura Eminente U.Porto” (2023/2024), entre os dias 22 de janeiro e 6 de abril de 2024, na Casa Comum, edifício da Reitoria da Universidade do Porto. Nesta exposição foram apresentadas uma seleção de ilustrações, em três séries, a partir de três poemas de Ana Luísa Amaral (ALA): “Assim se Revisita o Coração” (2022), “Retornos” (1990) e “Vozes” (2011). A poesia de ALA foi assumida como motor impulsionador para a criação artística que explorou o ritual ritmado — da palavra (intervalo e silêncio), da criação de imagens (gestos e ações, em movimentos e pausas) — de quem ilustra poesia para também a escrever. Um exercício ecfrástico em espelho: o verso e o seu inverso, como formulação de hipóteses experimentais e intermediais, a partir da relação entre o dizível, o visível e as suas invisibilidades ou no que ficou por dizer. Assumindo-se como reverberação da poesia, o gesto criativo abriu outros movimentos, convidando a voltar a olhar, voltar à imagem, voltar à leitura e ter vontade de voltar - um reparar.

Do ponto vista formal, a poesia de ALA trouxe novas formas de construção: do papel das palavras para o papel da composição imagética, da matéria da tinta à fluidez da água. As obras em escala contida e na dimensão rigorosa do círculo, estabeleceram associações e prenúncios entre o micro e macrocósmos: céus e galáxias, mares e infernos, num percurso sempre feito para dentro. Foi neste percurso, em constante reflexão e atenção, que o evento de incorporação do poema se manifestou. Esta experiência em-

pírica aliada à investigação teórica no campo da ilustração de poesia, tem proporcionado um esclarecimento pertinente, como contributo na criação de um novo conceito de *écfrase*: a *écfrase recursiva* para o *ilustrapoeta*.



“Assim se revisita o coração” resultou num painel com cerca de 50 obras (das mais de 100 realizadas), de composições etéreas, onde a representação de elementos figurativos é praticamente inexistente e que conduziu um constante exercício de revisitação, não só ao poema, mas à obra. Uma palinódia imagética, um voltar constantemente à ilustração anterior - um visitar-se, um (re)ilustrar, um reescrever(-se). Este movimento de ilustração que se materializa em série e que ao mesmo tempo, faz voltar à anterior, abre hipóteses de múltiplas leituras, relacionando-as também

com a definição de palinódia (o poeta que retorna a um poema anterior e reescreve-o, já de um outro lugar). A ilustração de “Assim se revisita o coração”, acabou por estabelecer uma nova noção de “entre-tempos”. Em primeiro lugar, pela experiência empírica que, ao se iniciar uma nova ilustração, esta situa-se e é um lugar único de interpretação, diferente do anterior e com resultados diferentes. Não se complementam, não se completam, mas fixam esse momento de atuação. Um tempo imagético, como fixação do momento, como fixação imagética do poema nesse Presente.

Em segundo e por fixar imageticamente um momento temporal, a ordem narrativa — como composição sequencial — acaba por se tornar na exposição, organizada em relações combinatórias: composições cromáticas e pelo formato do suporte. Ao representar o que ficou do poema (*écfrase invertida*) e o voltar a representá-lo já num outro lugar-tempo, aumentando os resultados, a quantidade de um (poema) para mais de cem ilustrações, traz uma nova leitura de relação, quer seja no suporte, na visualização ou no lugar da ilustração de poesia.

A partir desta noção de uma fixação imagética do poema, a ilustração de poesia, abre outras possibilidades, como campo expandido de uma particularidade. A ilustração de um poema, pode ter vários mecanismos que partem não só da interpretação do poema, mas na utilização de uma estrofe, verso ou palavra, como particularidade que concentra em si, toda a potência para a criação de uma imagem. Este lugar-potência-textual tem a capacidade de quebrar com o ponto referente (o poema). É pela manifestação do efeito de incorporação que a ilustração é criada, uma vontade que pode ou não passar pela ordem narrativa ou a de contar histórias, porque na produção de múltiplas ilustrações, o poema se dissolve. As ilustrações acabam por ter uma leitura individual e que podem ser dissociadas da série (e do painel em exposição), mas que, pela sua ordem (sequência de composição), surgem como uma nova leitura ensaiada, uma nova narrativa que apesar de não ser de uma ordem rigorosa sequencial de imagens comunicantes (porque é vista como um todo), como vemos em muitos dos álbuns ilustrados, a noção de narrativa permanece. Desta forma, o leitor-

fig. 5. Fotografia da série “Assim se Revisita o Coração”, na exposição “Infinitas Galáxias - diálogos interartísticos I”, janeiro de 2024. Ficha técnica: Acrílico, aguarela, guache e grafite aguarelável sobre papel, 16 cm ø

-espectador de ilustração, não faz tanto a leitura da imagem em busca do poema / significado, como ponto de referência para uma narrativa, mas muda a escala do olhar (e da leitura), pelo efeito de multiplicação que a série apresenta. Na sua quantidade e na sua revisitação, a série é vista como um “todo”, por ultrapassar a ordem descritiva⁴ para a ordem de interpretação, ao mesmo tempo que coloca em ausência o ponto referencial. O “todo” é então um lugar intersticial e dinâmico, em que cada ilustração da série, tem um lugar comunicante na sua raiz, mas que já não é visível. O lugar intersticial é então efeito de operacionalização comunicante, mas autónomo e que não depende um do outro, neste caso, nem da ilustração anterior nem da seguinte, porque vai dissolvendo o lugar-origem, a primeira dimensão (P1). Desvanece-se a sua origem, porque entre dimensões (que são potências somadas), passa a haver o efeito de incorporação.

A segunda série “Retornos”, com cerca de 20 ilustrações, apresenta novas pausas, como montanhas, representações mais figurativas e que se apresentam no brilho e na invisibilidade que a própria grafite proporciona. Uma síncope visual, porque em si, permanecem imagens e elementos visuais guardados na memória, para se revelarem em formas circulares, em distâncias desdobradas, um avesso onde o novo poema anda em volta e se vai construindo. “Retorno” é desta forma, palavra-lugar que remete ao inicial (2021), ao desenlace (2023) e ao lugar-duplo-revir (2024). Este avesso poderá ser entendido como intervalo suspenso, numa dimensão comunicante ou de uma *passagem* (Benjamin), um ser com o outro, para estádios em dimensões ressonantes e que se manifestará, depois da leitura do poema “Vozes” e ainda durante a realização da terceira série: como lugar de incorporação para a escrita de um novo poema.

Para que se entenda a incorporação, o poema como um corpo, como manifestação do poema-porvir com os vários sentidos do conceito de écfrase — das ações da escrita e da interpretação textual e do que é matéria do visível ou origem — é pelo seu inverso (a écfrase invertida ou écfrase visual) e pelo evento de leitura do terceiro pictural, que se manifesta a sua formulação: uma incorporação do poema lido/dito e sentido. A incorporação mais do que uma noção de rizoma, surge como vasos comunicantes, como consciência auditiva de uma “atualização em segundo plano”, que fica em permanência, no campo da sensação flutuante da ilustradora. É pelo rigor na atenção deste campo ressonante, que as palavras se moldam, se transformam e provocam mutações intermediais, num novo corpo, num modelo recíproco de encontro entre o visual e o textual. A imagem é potenciadora de trazer à memória um já pré-poema, de um poema-porvir. Foi pelo encontro dialogante, na terceira e última série da exposição, criada a partir de dois poemas de ALA (“Retornos e “Vozes”), que o evento de incorporação, como manifestação de palavras e versos flutuantes de um poema-porvir, se tornou mais claro, como necessidade de se fazer pronunciar. Uma voz em movimentos oscilantes para fazer surgir um intercâmbio de atividades, entre o fazer, ouvir e o ver - um outrar o poema - ser com o poema, assim como com a ilustração.

4 “A função primária [da écfrase] não é descritiva.”(Clüver, 2017:15)

Dos poemas selecionados, o que fica inscrito como incorporação é já por si, uma futura memória visível, uma palavra-memória, oculta até à ação da ilustração e que só é revelada, em versos flutuantes em volta. Esta dimensão simultânea de criação é manifestada na vontade pela e da escrita, como prova e resultado do percurso entre a mão que lê e o olhar que desenha o poema. O passo em ação para o salto foi o de primeiramente confiar na queda. Aceitar a incorporação dos poemas, como pontos de ignição para a ilustração e que, simultaneamente, fizeram moldar a escrita.



Um novo poema

*E permito-me o texto como o rio,
 as palavras
 fluidas como rio
 A memória limpíssima é de ti
 e cobriu tudo⁵
 de água, céu, montanha
 e fogo
 Porque era na lava desta terra
 que eu nascia*

fig. 6. Série: “um novo poema”, 2023 (selecção) Acrílico, aguarela e grafite aguarelável sobre papel 30 cm ø

Pretendeu-se honrar os versos dos poemas primeiros, como gesto de reconhecimento para a criação destes dois conceitos: o de *écfrase recursiva* e o de *ilustrapoeta*. Assim como, o lugar-consciente da incorporação do poema para a formulação de *ilustrapoeta*: o poema como um corpo, na sua gestação, na sua formulação em cadência e ritmo próprio: a relevância, substância e importância, como lugar de criação e de reconhecimento do ver a voz do ilustrador: do *ilustrapoeta*.

É ainda objetivo futuro desenvolver ilustrações dos poemas autorais e levar como considerações teórica-práticas, das operações metodológicas do *ilustrapoeta*, da *écfrase recursiva*, como corpus da presente investigação de ilustração de poesia.

7. Conclusão e considerações futuras:

No efeito de incorporação é necessário circunscrever o lugar que se invoca: o de trazer à superfície uma visibilidade da palavra, que se manifestará de formas simultâneas: a visual e a textual, que se referem mutuamente e que privilegiam o exercício do ver: “expõe[m] a face inaparecida de todo o visível.” [21]

Na *écfrase invertida*, a imagem é antegerada, como se fosse o lado oculto e invisível do verso, do que não se lê. Um lado secreto da origem da palavra, onde talvez esteja o ponto primordial de ignição para a imagem. E talvez aí esteja o ponto de ignição para a imagem: tornar visível o que não é revelado, o que não é dizível.

A *écfrase recursiva* relaciona não só o poema e a ilustração, mas todo o processo criativo desde a primeira leitura (a escolha), os gestos e traços, as marginálias textuais e visuais, formas somadas para a acção do

⁵ A partir dos poemas “Retornos” e “Vozes”, Ana Luísa Amaral.

gesto imagético como da escrita: o acto de (se) escrever. Os mecanismos são resultados, são causas, são reflexos e não propriamente processos de desenvolvimento, porque situam o momento presente da investigação e levantam reflexões para um pensamento sistematizado, crítico que tem como forma operante a ilustração, a poesia e a escrita de poesia.

Levantar a âncora é também poder derivar-se (e não ficar à deriva), é poder criar uma poética contínua, das vozes, dos transvestimentos e uma abertura às dimensões congregantes e intercambiantes, um outrar na performance (um ser com o poema, um ser com a imagem). Poder ver a ilustração do poema autoral, lê-los e dizê-los.. Uma outra forma de ver e de ler, para o *ilustrapoeta*. Desta forma, a voz autoral é vista: porque é lida, também. Porque pode ser dita! A dobra do *ilustropoeta* futuro.

The poet is both present as the speaking voice and the creator of the graphic pattern and absent in the sense that, like the painter, he conveys a significant part of his message in silence – the permanence of the text supplements the ephemerality of the voice. Mitchell, W., J.[22]

Ao ser dito e ouvido, o poema autoral do *ilustrapoeta*, levanta outras noções de leitura: como o ritmo. Cadências, velocidades, pausas e intervalos: ver e ouvir a sua própria *enérgeia*. Serão estas coincidentes com a sua própria ilustração?

Para considerações futuras, pretende-se ainda trazer como exercício experimental o lugar do texto em movimento (em vídeo ou em filme de animação), sobreposto à ilustração do poema, com a imagem fixa: uma contra-corrente para a instantaneidade das imagens, nos dias de hoje.

O ritmo de leitura do poema será dirigido pela voz do *ilustrapoeta*. A forma como lê o seu poema é uma forma correspondente à cadência da construção / revelação da imagem. Um “interplay of the visual and the verbal.”[21] A imagem-fixa, no poema em movimento, pretende ser então, um novo evento de leitura visual que condiciona o ritmo de leitura da imagem (que só é vista na sua totalidade), quando o texto em movimento terminar.

Por fim e ainda tecendo outras formulações sobre a écfrase, nos dias de hoje, pretende-se criar formas experimentais da écfrase recursiva, na era da inteligência artificial (IA).

The easiest way to imagine the future of writing, is to imagine culture as a gigantic transcoder from text into image. It will be a sort of black box that has texts for input and images for output. All texts will flow into that box, and they will come out again as images. History will flow into the box, and it will come out of it under the form of myth and magic.” Vilém Flusser’s[23]

Para isso, levantam-se as questões: Será o *prompt* uma nova forma de écfrase? /Enquadrando a écfrase na IA e nas cinco dimensões apresentadas da écfrase recursiva, o Terceiro Pictural, tornar-se-á na Primeira Dimensão? Neste caso, a imagem mental será o motor que gera o *prompt*. Será processada antes do poema e da ilustração final - uma projecção ante-gerada da ilustração ou do poema. O terceiro pictural tornar-se-á na primeira dimensão que, pela sua descrição verbal / textual (*prompt*), será atirado para uma dimensão virtual (IA), que lhe responde / corresponde (ou não).

8. Bibliografia

1. Amaral, Ana Luísa.: A Psicanálise da Escrita in: O Olhar Diagonal das Coisas. p. 887, Lisboa, Assírio & Alvim (2022).
2. Male, Alan: "The Illustrator as Author of Fiction" in *Illustration. A Theoretical & Contextual Perspective*. p. 162, Lausanne: AVA Publishing (2007).
3. Newell, Kate: *Adaptation and Illustration: a Cross-disciplinary Approach*, Palgrave Studies in Adaptation and Visual Culture, 1. p. 63, Palgrave (2017).
4. Rajewsky, Irina: *Intermediality, Intertextuality, and Remediation: A Literary Perspective on Intermediality*. *Intermédialités: Histoire et Théorie des Artes*, in *Desde Lettres et des Techniques / Intermediality: History and Theory of the Arts, Literature and Technologies*, n.º 6. pp.43-64 (2005).
5. Clüver, Claus in Thomas M. Leitch *The Oxford Handbook of Adaptation Studies*. p.464, Oxford University Press, USA (2017).
6. Barbetti, Claire: *Medieval Visions: A New Discussion of Interarts Theory in Boehm*, Gottfried. p.11, New York: Palgrave Macmillan (2011).
7. Benjamin, Walter: A tarefa do tradutor. In: *Escritos sobre mito e linguagem*. p.19, São Paulo, Editora 34 (2011) [original: 1921].
8. Babo, Maria Augusta: Da imagem da linguagem in *Imagem e Pensamento*, Coimbra, Comunicação e Sociedade 23. p. 11, Coimbra, Grácio Editor. (2011).
9. Krieger, Murray: *Ekphrasis: The Illusion of the Natural Sign*, Baltimore. p.9, Johns Hopkins University Press. (1992).
10. Liliane Louvel: A reading event *The Pictorial Third*. p.21, *Sillages critiques* (2016).
11. Campos, Haroldo: Da transcrição: poética e semiótica da operação tradutora. p.110, Belo Horizonte, FALE/UFGM, Edições Viva Voz (1993).
12. Mitchell, W., J., Thomas: *Ekphrasis and the Other*, from *Picture Theory*. p.5, Chicago, The University of Chicago Press (1994).
13. Clüver, Claus: *Changing borders: contemporary positions in intermediality*. pps. 15,16, Lund, Lund University (2007).
14. Rajewsky, Irina: *Intermediality, Intertextuality, and Remediation: A Literary Perspective on Intermediality*. *Intermédialités: Histoire et Théorie des Artes*, in *Desde Lettres et des Techniques / Intermediality: History and Theory of the Arts, Literature and Technologies*, n.º 6. pp. 51,52 (2005).
15. Heffernan, James A. W.: *Ekphrasis and Representation*. p.1, *New Literary History*, Vol. 22, No. 2, Probing: Art, Criticism, Genre (1991).
16. Newell, Kate: *Adaptation and Illustration: a Cross- disciplinary Approach*. p. 169, Savannah, USA (2017).
17. Rancière, Jacques: *O Destino das Imagens*. p.105, Lisboa, Orfeu Negro (2011).
18. Broch, Renate: *Ekphrasis in the Digital Age: Responses to Image*. p. 226, University of Stuttgart (2018).
19. Merleau-Ponty cit. por Dias, João Sousa: O que é a Poesia?. pp. 33,34 Lisboa, Documenta, Sistema Solar (2014).
20. Nancy, Jean-Luc: *O prazer no desenho*. p.68, Lisboa, Fundação Carmona e Costa: Documenta (2000).
21. Bradford, Richard: *Graphic Poetics Poetry as Visual Art*. pp. 195,196, Londres, Continuum International Publishing Group (2011).
22. Mitchell, W., J., Thomas: *Ekphrasis and the Other*, from *Picture Theory*. p.161, Chicago, The University of Chicago Press (1994).
23. Flusser, Vilém: *The Future of Writing in: Writings*. Translated by Andreas Strähle. pp. 63-69, Minneapolis, University of Minnesota Press (2002) [original:1983].



The Collision of Glitch Art and Contemporary Animation Styles

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Keywords

Glitch Art; Animation
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Abstract

Glitch art, as a distinctive mode of visual expression, has emerged as an unignorable artistic style on the contemporary stage. It leverages technical errors in digital or analogue media to create aesthetic beauty, presenting a challenge to traditional aesthetics. As a form of artistic expression, its linguistic characteristics are increasingly recognized by artists, constituting an aesthetic creation based on faults. The application of glitch art in contemporary animation and film production has been deeply explored, including in the film *"Serial Experiments Lain,"* which reveals how this artistic style examines the impact of technology on individual identity and perception of reality. Additionally, examples from *"Spider-Man: Into the Spider-Verse"* and its sequel demonstrate that glitch art can effectively enhance narrative depth and visual impact. These works employ techniques such as fragmented composition and the separation of red, yellow, and blue channels to depict the collision and interaction between multidimensional universes, enhancing the audience's immersion and emotional experience. Furthermore, glitch art not only enriches the forms of artistic expression but also serves as a crucial tool in modern art and cultural critique, prompting profound reflections on technology, society, and cultural phenomena.

1. Introduction of Glitch Art

The term "glitch" was first recorded in 1962 during an American space program, where it described errors in the transmission of signal images. The famous astronaut John Glenn used the term "glitch" to describe these errors. Although he was not the inventor of the word, his use of it certainly helped it gain widespread attention in the 1960s [1]. Due to his significant role in American space history and the extensive media coverage of his space missions, John Glenn's use of the term "glitch" facilitated its popularization among both technical and non-technical groups. Although the term might have existed before his usage, his application of it undoubtedly accelerated its adoption in English, particularly when describing technical malfunctions and issues. Subsequently, the term "glitch" quickly evolved to describe a variety of unresolved phenomena, particularly referring to electronic errors and malfunctions.

In the 1990s, the term "glitch" became fashionable within the disco

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culture, particularly due to the popularity of music videos. During this time, a group of musicians, fond of electronic experimental music, began to deliberately use electronic noise in their compositions, giving rise to “glitch music” [2]. Thus, glitch became a highly recognizable aesthetic style. Starting from pop music, it continually entered the public eye, influencing areas such as advertising design, television variety shows, and street culture. Today, glitch art has evolved into a novel and trendy current within visual arts.

Initially, glitch art emerged as an unexpected image error within electronic imaging technology. Over time, these glitched electronic images evolved into a unique visual language, establishing a distinct aesthetic style. Gradually, they were incorporated into artistic expressions, becoming increasingly accepted and familiar to the public. Later, artists began to create glitches intentionally, and glitch art started to make its presence felt in the field of art and design. This intentional use of glitches allowed artists to explore and manipulate visual disruptions, further embedding this style within contemporary artistic practices [3][4].

In the postmodern context, glitch art has increasingly become an unignorable style on the contemporary stage [5]. Artists utilize this medium in unique ways to present special visual effects, employing aesthetic faults for deliberate manipulation and innovation. Glitch art embodies an intentional expression of dysfunction and error, but it transcends mere representation of faults. Instead, it represents an aesthetic creation based on faults, leveraging existing resources for new artistic expressions. This style not only challenges conventional aesthetics but also invites viewers to reconsider the role of imperfection and error in the creative process. Thus, glitch art can be understood as beautified faults, using the creation and reproduction of malfunctions to fulfil aesthetic activities, an art language that stands in opposition to traditional aesthetic ideals. It pursues an aesthetics of imperfection, signalling a strong temporal characteristic. Therefore, glitch art, originating in and reflecting the contemporary era, embodies a significant contemporary artistic and cultural movement. This style challenges and expands the boundaries of what is traditionally considered beautiful, engaging with, and reflecting modern concerns about technology, error, and the unpredictability of digital life.

2. Glitch Aesthetics

In published research, Betancourt [6] explored the concept of glitch, using it as a case study and model to develop a set of theories critical of modernity. He specifically focused on examples from digital art and aesthetics, providing a rigorous theoretical foundation and framework for contemporary theory. This approach underscores the relevance of glitch art not only as a form of aesthetic expression but also as a critical tool in understanding and interrogating the implications of digital technology in art and society. Christopher has questioned the notions of perfection and imperfection within digital environments, arguing that everything humans can create is a perfect, binary realization. In a world considered flawless, these small glitches represent a fracture in the ideal superficial environment, challenging the assumption that the digital world is without imperfections. This

perspective is echoed by leading theorists including Kim Cascone and Angela Lorenz, who have questioned the essence of digital imagery [7]. Their work highlights how digital artifacts, such as glitches, can disrupt our conventional understandings of digital media, suggesting that imperfections can reveal deeper truths about the technologies we use and the cultures we inhabit. Menkman emphasizes the importance of understanding glitch culture in the context of its relationship between technological and cultural dimensions. He advocates for a broader perspective to study the characteristics of glitch effects, which can inspire more intriguing interpretations of our experiences with glitch media [8]. As the boundaries between reality or new media art and animation become increasingly blurred, the domains where glitch art appears have also broadened. The impact of digital media on animation brings it closer to contemporary discussions on aesthetics, socio-political issues, and technological culture [9]. As a digital form, animation is influencing various aspects including academia, art, and culture, subsequently affecting people's everyday lives [10].

Firstly, in the academic realm, animation, as an educational tool and research method, is transforming traditional teaching and research approaches. Particularly when complex concepts are presented through visual means, students can gain a more intuitive understanding of abstract theories. In academic research applications, the visualization of data and simulation experiments enhances the effectiveness of research presentation, aiding scholars in better conveying their viewpoints.

Secondly, animation also holds a significant place in the field of art. Artists, by exploring new visual effects and narrative techniques in animation, create works with diverse styles. From traditional hand-drawn animation to CGI, animation has expanded the boundaries of art. The integration of glitch art with animation further propels this trend, challenging conventional aesthetic notions and showcasing the limitless possibilities of digital art.

Thirdly, in the cultural domain, animation, as a crucial component of popular culture, plays a vital role in the dissemination and exchange of global cultures. For instance, Disney animated films are a prominent part of global popular culture [24]. Many outstanding works not only disseminate their own national cultures but also draw inspiration from other countries, such as the well-known "*Mulan*" · "*Aladdin*" and "*Pocahontas*", thereby promoting cross-cultural understanding and exchange.

In Japan, animation similarly serves as an important vehicle for cultural dissemination. Hayao Miyazaki's works, such as "*Spirited Away*" · "*Castle in the Sky*" and "*My Neighbour Totoro*," have achieved not only domestic success but also widespread international recognition [22][23]. Through unique narrative styles and visual artistry, these directors convey Japanese culture and aesthetic concepts globally. These animations have garnered substantial fan bases not only in Asia but also in Europe and the United States, further enhancing Japan's cultural influence worldwide.

In summary, as form of expression, animation permeates various aspects of life through multiple avenues. This integration highlights how digital art not only transforms artistic practices but also challenges and redefines cultural narratives. Additionally, it pushes the boundaries of how

art is perceived and engaged with in the digital age. Through animation, different cultures establish channels for communication and exchange, becoming a bridge for global cultural interaction.

3. Fault Art Goes from Accidental to Active Creation

In the nineteenth century, the advent of the camera posed a significant challenge to traditional easel painting. Previously, easel painting had held an unrivalled societal status due to its unique capacity for documentation and representation, a function that was incomparable with text and other art forms of the time. This ability to capture and reproduce visual reality made painting an indispensable societal tool [11]. Following the advent of photography, painting art shifted towards the expression of spirit and concept, moving away from its previous focus on realistic replication. This transition was in part due to the conflict between the documentary capabilities of traditional painting and emerging photographic techniques, prompting artists to explore more of painting's artistic possibilities. For instance, the studies of light by Claude Monet, a representative of the Impressionist movement, the vigorous brushstrokes in Vincent van Gogh's paintings, and the deconstruction of objects by Pablo Picasso in Cubism, represent artistic expressions that photography could not achieve. Modern art emphasizes the expression of personal emotions, valuing individualized artistic expression where being "unlike" holds more artistic value than being "like." This shift reflects a broader movement in art towards prioritizing subjective interpretation over objective representation, thereby enhancing the unique, irreplaceable role of painting in exploring deeper emotional and conceptual dimensions.

As more artists began to reevaluate the significance of painting, a multitude of artistic movements emerged, including Impressionism, Post-Impressionism, Cubism, and Fauvism [12][13]. These movements reflect a fundamental shift away from classical painting's role as a medium of record. The obsolescence of traditional painting techniques focused on accurate depiction and documentation allowed artists to shed the burden of faithfully mimicking and recording objective reality. They were no longer bound by strict adherence to proportion, perspective, anatomy, and structure. Considerations of form, texture, and spatial accuracy became less critical, allowing painting to even counter "representational art" by expressing the subjective emotions of the artist. For instance, Matisse's wildly vibrant use of colour, Picasso's increasingly abstract compositions, Pollock's action paintings, and Mondrian's abstract canvases, collectively illustrate a gradual departure from the depiction of objective realities.

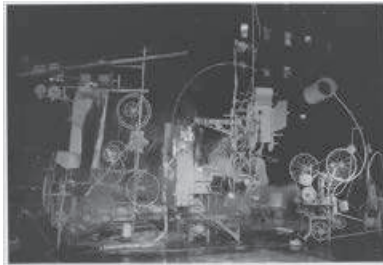
As technology continues to advance, digital creation has emerged as a new artistic trend. Glitch art is merely one phenomenon among many artistic movements. It should not be viewed simply as an error; rather, it aptly reflects the element of chance. Importantly, the significance of glitch art depends on the aesthetic cultivation and personal experiences of the artist involved. Today, artists engage in glitch art creation as a proactive choice, deliberately challenging conventional aesthetic principles. Therefore, we can say that glitch artists focus on depicting the serendipity

present in their artworks, emphasizing the intentional embrace of the accidental and the unpredictable in their creative process.

4. Glitch Artwork

Purely discussing glitch art, it is rare for works within this genre to be considered classic masterpieces in the history of aesthetics. However, errors often play a crucial role in elevating artworks to classic status. Jean Tinguely is renowned for his sculptural machines that operate automatically but are filled with malfunctions. His most famous work is “*Homage to New York*,” as shown in figure 1, a one-time installation exhibited at the Museum of Modern Art in New York in March 1960. This piece, assembled from various mechanical devices, was characterized by its unpredictability, and ultimately self-destructed through a designed system disorder, culminating in the entire installation burning and being destroyed. The critical nature of the work is undeniable; as the artist himself stated, “I wanted to express the end of civilization through sculpture,” with the perpetually self-destructing machine serving as a metaphor for modern society [14].

Fig. 1. Homage to New York (1960), Jean Tinguely. Available at: <https://www.moma.org/calendar/exhibitions/3369>



Marcel Duchamp’s “*The Large Glass*” serves as a retrospective example of glitch art, as shown in figure 2. Originally intended as a critique of the mechanization of modern love, the piece met with an unexpected accident when it was shattered while being moved after its first exhibition. This accident resulted in the glass being covered

with a web-like pattern of cracks. Interestingly, Duchamp believed that these cracks enhanced the message he intended to convey: the technical processes used in the creation of the work mirrored the mechanization theme, thereby reinforcing the critical intent of his artwork [15].

Fig. 2. The Large Glass (1915-23), Marcel Duchamp. Available at: <https://www.khanacademy.org/humanities/art-1010/dada-and-surrealism/dada2/a/duchamp-the-bride-stripped-bare-by-her-bachelors-even>



As a material widely used in modern architecture, glass embodies dualities of transparency and opacity. In the context of Duchamp’s work, the glass’s inherent qualities and the accidental cracks together deepen the artwork’s thematic explorations, blending material reality with conceptual critique. This

interplay between the material properties of glass and the thematic content of the work exemplifies how materials can extend beyond their physical properties to contribute to deeper metaphorical or symbolic meanings in art.

On one hand, it causes the viewer to overlook its presence during observation, while on the other hand, its material properties, by manipulating light and temperature, tangibly alter our perceptual relationship with

the space. The incident of shattering precisely foregrounded this medium representative of modernity, compelling viewers to acknowledge the existence of this technical intermediary while observing the contents on the glass, thereby realizing the illusory transparency of the “technological environment” that typically remains hidden in the backdrop of existence.

5. Glitch Art is Evolving towards Digitalization

In the early 20th century, examples of glitch art in avant-garde cinema were relatively scarce, largely because these films predominantly mimicked painting styles such as Cubism and had not yet developed a materialist art form that directly addressed the medium of film itself. In 1935, Len Lye created “*A Colour Box*,” a film featuring purely manual colour drawings directly on the film strip. Lye used combs and sticks to create various colourful spots and lines on the film as shown in figure 3, which were then played as the content itself, exposing the entire filmmaking process to the audience and revealing the depth of flat images. This depth not only has a spatial quality that entices us to touch but also embodies the temporal process of filmmaking. Therefore, it not only reproduced a technical method but also represented a specific historical context.



In the late 1970s, early new media artists began to utilize the concept of glitch art to create their works. Before 1978, still in the pre-digital era, American game engineers Jamie Fenton and Raul Zartisky used videotape technology to produce a glitch

art short film titled “*Digital TV Dinner*”, as shown in figure 4. Additionally, Dick Ainsworth created the sound effects for this short film, using sounds from a game called Bally Astrocade. The Bally Astrocade was a second-generation home video game console in America, a cartridge-based home gaming device. Using this technology and its features, the artists deliberately interfered with the game and then used video recording equipment to document the resulting images and sounds from the game console [16].



In addition to “*Digital TV Dinner*,” another significant work in glitch art that also involves television is “*Magnet TV*” by Nam June Paik as shown in figure 5, who is hailed as the father of new media art. Created in 1965, this work featured a large magnet placed on a television set, which distorted the im-

ages and sounds displayed on the screen due to the magnetic interference. This intentional disruption by Paik typifies human-made interference and his deliberate actions positioned him as a pioneer in the field of glitch art.

Currently, we are in an era characterized by abundant information and rapidly evolving technology and science. Glitch art has moved

Fig. 3. *A Color Box* (1935), Len Lye. Available at: <https://www.youtube.com/watch?v=ep1g2YmST6w>

Fig. 4. *Digital TV dinner* (1979), Jamie Faye Fenton, Raul Zaritsky. Available at: <https://letterboxd.com/film/digital-tv-dinner/>

Fig. 5. Magnet TV
(1965), Nam June Paik.
Available at: <https://whitney.org/collection/works/6139>



beyond simply reproducing mechanical faults and digital errors, which might seem overly simplistic and crude today. Particularly with the advancement of technologies like AI, and in an environment where anyone with a smartphone or computer can create art, it might seem that the barriers to becoming an artist are increasingly lower. However, this is not entirely the case. Merely reproducing and displaying visual works in a glitch style may no longer be popular, and it could even be considered somewhat outdated.

In the context of this new era, a group of artists are rethinking the ways new images are created, their meanings, and the interplay between technology and action, all under the banner of returning to authenticity and pursuing innovation. These artists explore the functions and implications of their work in a digitally saturated culture, seeking deeper engagement with the technologies they use and the audiences they reach.

6. Development of Glitch Art in the Field of Animation

Although glitch art manifests across various domains in the digital age, the most common occurrences involve data and digital device malfunctions. Animators incorporate elements such as fragmented or missing images and distorted colours into their work, creating unique visual characteristics and metaphorical effects. This utilization of visual disruptions not only enhances the aesthetic dimension of the animations but also serves as a commentary on the imperfections and unpredictable nature of digital technology.

For example, the animated film *“Serial Experiments Lain”* (1998) delves deeply into the relationship between the internet, reality, and identity in both its visuals and narrative [17]. While not directly employing glitch art, the film extensively uses digital distortions and signal interference effects in its portrayal of the digital world, like the concept of signal disruption caused by a magnet in *“Magnet TV.”* In *“Serial Experiments Lain,”* glitch art is not merely a visual style; it is closely integrated with the narrative, enhancing the thematic exploration of how digital realities can blur and distort our perceptions of self and others.

As the protagonist Lain delves deeper into the Wired world (an entity similar to the internet), the real world begins to show distortions and glitches. These visual effects reflect the fusion and contrast between the virtual and the real. Moreover, in the film, glitch art also symbolizes Lain’s emotional and psychological state. As her mental state shifts—experiencing loneliness, confusion, and fear—the director uses screen glitches and visual distortions to represent these emotional changes. The use of glitch art in the film enriches the exploration of her inner world, allowing viewers to viscerally experience her psychological transformations. These elements of glitch art not only create a unique visual experience but also

add layers of meaning and depth on a narrative level. This approach positions glitch art as a critical tool for discussing technology, identity, and the intersections of the virtual and real, making “*Serial Experiments Lain*” a pioneering work in both its visual and thematic innovation.

Additionally, the Japanese anime director Mamoru Oshii’s “*Ghost in the Shell*” (1995) extensively employs the fundamental characteristics of postmodern art in aspects such as background scenes and character design. In the American adaptation by DreamWorks, “*Ghost in the Shell*” also incorporates glitch art styles to create transition effects. Compared to traditional scene cuts, these transitions offer a more integrated visual experience and a stronger sense of subjective consciousness, even the main poster of the film is glitch-art style, as shown in figure 6.



“*Ghost in the Shell*” is a highly acclaimed science fiction work renowned for its profound philosophical inquiry and avant-garde visual style. Although the film does not primarily utilize glitch art as its main visual technique, its imagery and narrative style frequently incorporate aesthetics associated with digital and mechanical malfunctions, complementing certain elements of glitch art. This blending enhances the film’s exploration of themes like the fusion of human consciousness with technology [18]. In fact, the film primarily explores complex themes and deep reflections through its examination of future technologies, artificial intel-

ligence, and human identity. The visual effects in the movie, such as digital interfaces, code streams on screens, and virtual reality scenes, while not directly presenting glitch art, indeed convey a sense of disarray in societal and psychological states resulting from the proliferation of technology.

Some scenes in the film may metaphorically reflect the concept of glitch art, such as when errors occur within the real technological spacetime or artificial intelligence systems, resulting in distorted or overlapped images on the screen—these are visual manifestations caused by technological malfunctions. Additionally, the film’s visual representation of complex networks and data flows can also be seen as an appropriation of glitch aesthetics, thereby emphasizing the inherent chaos and unpredictability within the digital world.

Although the visual representation in “*Ghost in the Shell*” is not entirely in the traditional sense of glitch art, its treatment of the blurred boundaries between technology and identity resonates to some extent with the themes of glitch art. It demonstrates the types of visual and ideological malfunctions that can occur in interactions between technology and humans. The integration of these visual effects with the screenplay results in an effect that is greater than the sum of its parts.

Another highly successful animated film, “*Spider-Man: Into the Spider-Verse*,” must be mentioned for its production technique that continues the adaptation style of “*Sin City*.” This film breaks conventional formats,

Fig. 6. *Ghost in the Shell* (2017), director: Rupert Sanders.
Available at: https://www.imdb.com/title/tt1219827/?ref=tt_mv_close

boldly using black and white colours, high contrast, and stark visuals to emulate the original comic's form and atmospheric feel, creating a unique and novel noir comic film style [19][20]. This new approach is not confined to simply translating comic content and aesthetics into film, but rather it allows the film to become "comic-ized." This postmodern style, from content to form, paves a new direction for comic book adaptation films. Therefore, in addition to its comic-like execution, the production team of "*Spider-Man: Into the Spider-Verse*" blended traditional comic elements with modern animation techniques, also extensively utilizing glitch art elements to enhance visual effects and narrative storytelling. The use of glitch art in the film vividly displays the instability and malfunctions of people and buildings disrupted by the collider. For example, the

Fig. 7. Spider man:
Into the Spider-Verse.
Available at: [https://
www.iyf.tv/play/fMV-
1too8WgE](https://www.iyf.tv/play/fMV-1too8WgE)



Fig. 8. Spider man:
Into the Spider-Verse.
Available at: [https://
www.iyf.tv/play/fMV-
1too8WgE](https://www.iyf.tv/play/fMV-1too8WgE)



middle-aged Peter Parker, who travels through different universes due to the collider's disturbance of space-time, occasionally experiences visual glitches, risking being torn apart or disappearing. This clever use of glitch art not only avoids confusing the audience but effectively conveys the impact of temporal-spatial disorder on living beings. Secondly, glitch art in "*Spider-Man: Into the Spider-Verse*" is primarily used to depict the collisions and chaos between different universes. When multiple Spider-Man characters from different universes

meet, their worlds begin to overlap and become chaotic due to technological glitches. This visual expression not only enhances the aesthetic beauty of the animation but also effectively conveys the theme of universal chaos within the story. These glitch effects manifest as image distortions, colour misalignments, and the presence of noise and static on the screen, simulating the visual experience of digital device malfunctions in the real world.

The visuals in the film are infused with a sense of technology and futurism, where the glitch art style, through electronic device malfunction effects, permeates the entire film, aligning with the core ideas of the story. Incorporating glitch effects into futuristic technological elements fractures the complete visuals, creating a fusion and contrast with new technologies and devices, which not only underscores the theme but also enhances the central message [21]. Secondly, the use of geometric collage in glitch art aids in blending the film's artistic style of three-dimensional rendering into two dimensions. For instance, a TV news broadcast scene is predominantly in dark blue tones, creating an atmosphere of terror and emptiness with its cool colour scheme. However, during the broadcast, a

sudden appearance of magenta-coloured geometric glitch signals disrupts the cool colour atmosphere, enriching the layers of visual expression. Additionally, the use of glitch art creates split screens, leading to new compositional forms. Thirdly, many films and animations also employ glitch art to depict street culture, often in combination with hip-hop culture. The street culture depicted in the film resonates with American graffiti, establishing a foundational tone that aligns with the everyday American family setting of “*Spider-Man: Into the Spider-Verse*.”

Fourthly, glitch art is also used to enhance the atmosphere of tension or impending danger in the film. When the television displays a disrupted signal, it could indicate interference from other electronic signals, suggesting that other dangerous signals are affecting the entire scene. This is often accompanied by increasingly intense background music, reflecting the severity of the situation. This technique not only heightens the emotional impact but also visually and audibly signals to the audience the escalation of critical events in the narrative.

In addition, in “*Spider-Man: Across the Spider-Verse*,” the glitch art style is continued, with one prominent technique being the separation of red, yellow, and blue channels. This technique, unique to the film’s visual style, accentuates the dynamics and chaos between the multidimensional universes. The separation of the red, yellow, and blue channels is a common glitch art technique that creates visual errors and a sense of depth by separating the three primary colour channels in an image. In this film, this artistic effect not only enhances the visual dynamism but also deepens the audience’s perception of tension and complex emotions within the scenes. It directly portrays the conflicts and instability between universes, making the narrative more vivid and tense.

7. Conclusion

Glitch art, as a distinct style within visual arts, capitalizes on the aesthetic potential of technological failures and errors to continually challenge and expand our understanding of technology, aesthetics, and culture. This analysis reveals that glitch art occupies not only a niche within traditional art domains but also plays an increasingly significant role in modern digital media and film production. The core characteristics of glitch art—unpredictability, visual distortion, critique of technology, exploration of cultural implications, and experimentation—not only enrich the forms of artistic expression but also make it an important tool for modern art and cultural critique. It challenges the boundaries of traditional aesthetics by showcasing the dialogue between perfection and imperfection, prompting deep reflection on technology, society, and culture.

The application of glitch art in the anime “*Serial Experiments Lain*” demonstrates how this style intertwines with deep cultural and philosophical issues. Through glitches in imagery and sound, the anime explores the impact of modern technology on individual identity and the perception of reality, reflecting the social phenomena of information overload and technological runaway in the digital age.

With the advent of the new media era, social structures have become

increasingly multifaceted, and animated films are no longer confined to traditional modes of expression. Influenced by postmodern art, many animation studios are seeking innovation and exploring new visual spectacles. Japanese anime directors such as Mamoru Oshii, Katsuhiro Otomo, and Kim Min have expressed their boundless imagination in forms of surrealism, providing audiences with unique narrative experiences. Similarly, American animated films have been influenced by the Hollywood and Disney models, innovating upon tradition. “*Spider-Man: Into the Spider-Verse*” has overturned conventional animation paradigms by using comic-style visual effects and incorporating various elements of postmodern art, offering audiences a refreshing visual experience.

Indeed, the application of glitch art in films, particularly in animated movies like “*Spider-Man: Into the Spider-Verse*” and “*Spider-Man: Across the Spider-Verse*,” fully demonstrates how this art form can be used to enhance narrative and visual experiences. Through glitch visual effects, glitch art deepens the visual representation of collisions and interactions between multiple dimensions, enabling viewers to intuitively feel the complexity and dynamism of the story. This visual technique not only increases the immersion of the story but also gives the films a sense of innovation and uniqueness in their artistic expression. Therefore, the integration of glitch art with other forms is likely to provide a compelling artistic experience.

8. Reference

1. C. J. Fry and H. Ma, ‘Encounters with Errors: How the error shapes relationships with digital media practice’.
2. S. H. Church, ‘Against the tyranny of musical form: glitch music, affect, and the sound of digital malfunction’, *Crit Stud Media Commun*, vol. 34, no. 4, pp. 315–328, Aug. 2017, doi: 10.1080/15295036.2017.1333624.
3. D. Eldin Tantawy and A. Hesham Mohamed Emam El Halaby, ‘The Evolution of Glitch Art from Origin to the Present Introduction’.
4. J. McDermott, J. Correia, and J. Romero, *Evolutionary and biologically inspired music, sound, art and design*. Springer, 2014.
5. D. B. Shaw, ‘The Aesthetics of Retrieval: Beautiful Data, Glitch Art and Popular Culture’, *Anthropocenes – Human, Inhuman, Posthuman*, vol. 1, no. 1, Oct. 2020, doi: 10.16997/ahip.15.
6. M. Betancourt, *Glitch art in theory and practice: Critical failures and post-digital aesthetics*. Routledge, 2016.
7. C. Murphy, *Glitch: designing imperfection*. Mark Batty Publisher, 2009.
8. R. Menkman, ‘The Glitch Moment (um), Institute of Network Cultures (2011)’. 2020.
9. E. Vavarella, ‘Art, Error, and the Interstices of Power’, 2015.
10. M. Betancourt, ‘Glitch Art and the cinematic articulation of the “shot”: the convergence of datamoshing with the long take’, *J Vis Art Pract*, vol. 21, no. 1, pp. 47–71, 2022, doi: 10.1080/14702029.2021.2020592.
11. M. North, *Camera works: Photography and the twentieth-century word*. Oxford University Press, 2005.
12. J. Elkins, ‘How to Think about Oil Painting, Using the Language of Alchemy’. [Online]. Available: www.jameselkins.com.
13. R. Wollheim, *Painting as an Art*, vol. 33. Princeton University Press, 2023.

14. R. Bek and C. Fronhnert, 'Jean Tinguely's script for "Homage to New York" (1960)', in *Making and Transforming Art: Technology and Interpretation, Archetype*, 2014, pp. 117–122.
15. L. D. Henderson, *Duchamp in context: science and technology in the Large Glass and related works*. Princeton University Press, 2005.
16. M. Betancourt, 'The Invention of Glitch Video: Digital TV Dinner (1978)'. [Online]. Available: www.michaelbetancourt.com
17. T. K. Prindle, 'Nakamura Ryūtarō's Anime, Serial Experiments, Lain (1998), as an Expository Anime', 2015.
18. A. Corbett, 'Beyond Ghost in the (Human) Shell', *J Evol Technol*, vol. 20, pp. 43–50, 2009, [Online]. Available: <http://jetpress.org/v20/corbett.htm>
19. S. Summers, 'Adapting a Retro Comic Aesthetic with Spider-Man: Into the Spider-Verse'. Oxford University Press UK, 2019.
20. J. A. Donoso Munita and M. A. Penafiel Durruty, 'Transmedial transduction in the spider-verse', *Palabra Clave*, vol. 20, no. 3, pp. 763–787, 2017.
21. N. Wilson, 'Spider-man Into the Spider-verse and Writing for the New Age of Animation', 2022.
22. G. Raz, *Hayao Miyazaki: Exploring the early work of Japan's greatest animator*. 2018.
23. D. Cavallaro, *The anime art of Hayao Miyazaki*. McFarland, 2015.
24. L. Artz, 'Animating hierarchy: Disney and the globalization of capitalism', *Glob. media J.*, vol. 1, no. 1, 2002.



Textured Surfaces in Stop Motion Animation: Unveiling the Metaphorical 'Skin' of Internal Individuality

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Abstract

Animation theory and criticism, coupled with the development of methodological frameworks, enable authors to offer diverse perspectives, enriching the ongoing discourse on animation history and fostering a collective memory of film analyses. By meticulously mapping, observing, categorizing, and analyzing animation discourse, a structured and rigorous approach validates credible results, leading to insights that advance knowledge in the field of animation. In this paper, we examine Yegane Mogaddam's 2023 animated short film "Our Uniform," which blends stop motion and 2D animation in its 7-minute runtime and was nominated for an Oscar in 2024. Based on the director's own experiences, the film provides a poignant portrayal of growing up in Iran as a female, revealing genuine and moving testimonies. Despite cultural and religious constraints against women depicted in the film, it maintains a non-judgmental approach that resonated with viewers. Utilizing Peres, C. (2019) [1] analytical model, our objective is to identify key concepts, patterns, and exceptions within the film, contributing to a deeper understanding of animation film analysis and potentially inspiring new research concepts or theories.

1. Animation Methodology analysis and case study

The methodology employed in this study is based on Cátia Peres's Ph.D. thesis, during which the analytical model was initially developed (Peres, C., 2019). With only minor modifications in terminology, this model integrates foundational theories and concepts in animation analysis, drawing from the works of renowned figures such as Sergei Eisenstein, Norman McLaren, Hayao Miyazaki, Paul Wells, John Berger, and Umberto Eco. The primary aim of this model is to systematically structure and consolidate information regarding key concepts, themes, films, authors, or subjects within the realm of animation. This structured approach facilitates a comprehensive analysis of case studies by employing a set of predefined variables. The model is composed of three major blocks, encompassing different aspects of animation, around which this article is structured: the conceptual structure, the graphic structure, and finally, the sequential and continuity structure.

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2. Conceptual Structures

The film “Our Uniform,” directed by Iranian animation filmmaker Yegane Mogaddam, constitutes a work of significant artistic and cultural relevance, offering a vivid and poignant exploration of the experience of growth and identity within the sociopolitical context of Iran. The narrative unfolds the story of a young Iranian girl, who, through her school uniform, relives the significant moments of her education and personal growth. The metaphorical and tangible use of the uniform fabric as a visual and narrative element is particularly noteworthy, lending a unique sensory authenticity to the cinematic experience. “Our Uniform” has received several accolades, including the top prize at the Cinanima Festival in Espinho, Portugal, in 2023. Its selection for the short film category at the 2024 Oscars underscores its narrative and visual prowess, delicately portraying the subtle oppression faced by females from the innocent perspective of a female child. The film sheds light on the struggle between collective conformity and individual expression, prevalent in cultures like Iran, where females are mandated to wear the hijab and cover their hair. The mandatory uses of hijab rule arose in the aftermath of the 1979 Islamic revolution. As outlined by Shirin Ebadi (2011) [2] it arose when the Islamic revolution came to power after the Shah Pahlavi dynasty, subsequently led by Ayatollah Khomeini. This marked a period characterized by tyranny and oppression, particularly directed towards women and human rights, a condition that persists to this day, followed by his successor, leader Ali Khamenei. In such societies, females face pressure to conform to standardized appearances and behaviors, leading to the suppression of personal autonomy and expression. Devoid of Iranian funding, the film was entirely carried out with limited resources, with the director’s father assuming the role of producer. It is noteworthy that the artist enjoyed significant freedom both in approaching the thematic elements and in experimenting with the cinematic construction processes. The result of this creative freedom is palpable and evident, showcasing the ability to produce impactful work even in the face of financial constraints.

The film’s universe is intricately defined by a narrative discourse that blends elements inspired in her own story and journey, narrated by the female director herself, which is provocative in exploring themes such as the requirement for females to cover their hair as a social rule. Delving into a myriad of crucial themes regarding oppression and pluralism, notably concerning the uniform’s role in homogenizing individuals. Simultaneously, the director offers a more expansive and appreciative outlook on the diverse colors, textures, and forms of human existence. Alongside Yegane’s integration of her own uniform into the artwork, the depiction of covering the hair emerges as an intrinsic facet of this uniform.

In Iran, the act of women covering their hair is deeply rooted in culture and religion, reflecting social norms, traditional values, and religious beliefs that shape female identity and gender dynamics in society. This practice, carried out through the hijab or veil, transcends mere attire; it symbolizes significant cultural and social values. Claudia Yaghoobi (2020) [3] also addresses the conditions of females with their bodies in Iran,

according to the theocratic power in the country which imposes laws that undermine female freedom, health, education and security of their own bodies and lives. Associated with Islam and its emphasis on modesty and virtue, it is seen as an expression of religious devotion and obedience to divine commandments. Additionally, it is influenced by social norms and expectations, reinforced by family, community, and, as highlighted in the film, the state, with non-compliance resulting in legal and social consequences such as fines and imprisonment. Therefore, for many Iranian females, covering their hair represents adherence to social norms and a means of avoiding stigma and censorship. A scene from the film stands out on this theme where a student at her study desk is observed by the teacher, who walks along a measuring tape. The teacher's intention is to conceal the student's hairline with a veil. However, the attempt is thwarted, as each time the hairline is covered, her braid emerges, leading to a repetitive cycle of concealment. The image of the teacher on the measuring tape symbolizes the rigidity and repetition of this act.

Fig.1. Frames of the film “Our Uniform”, directed by Yegane Mogaddam (2023, 7’00”)



In another scene, hair exposure is intensified as a hand forcefully pulls the character out of her uniform by the hair, leaving her naked. This symbolizes an imminent threat of divine punishment, and the character is exposed to other women, culminating in her execution by burning at the stake. This sequence illustrates the complex relationship between hair exposure and social, religious, and cultural aspects that associate them with concepts of sin, transgression, and punishment. While some women adopt the hijab as a symbol of religious and cultural identity, others see it as an oppressive imposition and advocate for greater freedom and autonomy regarding dress standards. However, the connection between hair and sexuality is not exclusive to Islamic ideas. It is deeply rooted in patriarchal ideologies and social norms that seek to control and suppress female expression. Some Orthodox Jewish women shave their hair and wear wigs to cover it in public. In Christianity, devout women often use veils or scarves to cover their hair during prayer as a sign of respect and submission to God. Additionally, nuns wear attire that also includes hair coverings. These practices illustrate the diversity of approaches within religious traditions regarding women's hair. However, it is important to note that while these choices reflect personal and religious convictions, they significantly differ from state-imposed regulations on attire, emphasizing the distinction between personal religious choice and external coercion.

Hair has long been associated with sensuality and seduction. In Greek and Roman mythology, figures like nymphs and the goddess

Venus are often depicted with long hair, as seen in works like *The Birth of Venus* by the Italian painter Sandro Botticelli, where Venus's hair subtly veils her intimate parts. In ancient legends, such as that of *Medusa* in Greek mythology, hair also plays a symbolic role, being transformed into serpents as punishment for her incomparable beauty. Throughout history, hair length and style have been associated with gender identity and social norms. Kurt Stenn's work, "Hair: A Human History" (2016) [4] highlights the cultural construction around long hair in women and short hair in men, emphasizing the deeply ingrained association between hair and femininity. Although a common practice in contemporary times, the act of cutting women's hair throughout history has challenged societal expectations. Joan of Arc, by cutting her hair before leading troops into battle, rejected gender roles and embraced a warrior identity. In Disney's animation, *Mulan* cuts her hair to disguise herself as a warrior in a male-dominated sphere. On the other hand, the iconic character *Rapunzel*, with her long hair, passively awaits rescue. In the animation *Breadwinner* (2017), a child's decision to cut her hair to work and financially support her family defies traditional gender norms. The documentary *Keep Sweet: Pray and Obey* (2022) delves into the Fundamentalist Church of Jesus Christ of Latter-Day Saints, led by Warren Jeffs, highlighting his absolute control over followers and the abuses and manipulations perpetrated. The strict dress code, including long dresses and specific hairstyles for women, symbolized submission to Jeffs' authority and compliance with the group's strict moral code. This context underscores the relationship between hair and religion, similar to that explored in Marjane Satrapi's film *Persepolis*, depicting the life of a young Iranian woman after the Ayatollah revolution, which mandated the use of veils to cover hair.

Simone de Beauvoir's assertion that "One is not born but rather becomes a woman" (Beauvoir, 1949, p. 283) [5] and Judith Butler's (1990) [6] theory on gender as performative action demonstrate a series of culturally constructed behaviors and forms for the enactment of this role. Butler argues that gender identity is a social construction continually reinforced through repetitive practices. In this case, hair serves as a "habitus", representing a pattern of social and cultural norms internalized and reproduced by individuals, as proposed by Pierre Bourdieu (1989) [7]. Moreover, hair-styling serves as a manifestation of the "habitus" of a specific culture.

3. Graphical Structures

The graphical structures and vocabulary of the film combines two types of form, materiality and technique, which affects the complex structures of meaning in the film. The first one, is what we formally call in this paper as "world skin" or "materiality skin", which is a materiality that covers the surfaces of the stop motion world, conceived by real fabric material, from Iranian school uniforms. In this group of materiality we observe different types of fabric (uniform, veil), buttons, zippers, ribbons, pins. Above this defined "fabric world skin" stop motion universe, a 2D animation layer made in Adobe Photoshop is impressed, superimposed or projected defining a second type of graphical vocabulary. At the same time, this

fabric-world-skin is malleable, moldable and modeled in some quantity of animation, such as folding and unfolding its fabric, curling in and curling out the fabric as an arm opening up, or as “leg-trousers” rolling down, opening buttons in the fabric, or opening parts of the fabric with zippers, as if the fabric would work as a singular world of imagined and intangible materiality where internal thoughts are projected and “printed”, bringing a whole invisible universe to become visible. The result of this fabric skin world is a huge metaphor of the film, as if saying that the world as this girl knows it only exists within this material, which stands for, “a life for females only exists inside a uniform”. In this case, this skin materiality codes the film in a very symbolic way, making content and form indivisible from meaning and a form of reasoning and perceiving significance. As Arnheim (1969) [8] defined in his body of work, thinking in visuals is a natural and genuine form of cognition as we perceive the world itself from a sensory process too, making images and symbols very relevant and sometimes more intelligible than language. Also, Arnheim (1988) [9] continues, that form but also movement and content are indivisible from meaning. According to Berger (1972), [10] visibility stands for this same concept, of what means to see and to be seen, as two different processes and subjects filtered by viewers’ intuitions and values. Fabric of the inform is in this case, is both an element of the theme of the film, part of formal and graphical structures as well as part of the material technique and movement and indivisible from meaning. The combination of the two techniques in the film that belong to different types of graphical vocabulary, is what we defined formally in this paper as a “duality of graphical vocabulary”, materiality and expression”, a concept, which makes the film more complex and which enriches the work with originality, combining two worlds that do not obey or belong to the same universe of rules, plasticity, expression, physics etc. turning films that use this strategy into more disruptive and original in graphical expression. In the figures below (Fig. 2), we can see the two results of configuration of characters, divided into two realms of graphical vocabulary: 2D technique (on the left) on top of the “surface skin of the uniform or in denim” (Fig. 2), or characters that are configured within a “*duality of materiality*”, (on the right) depending on its materiality, resulting in different approaches to character design.

Fig.2. Frames of the film, “Our Uniform”, directed by Yegane Mogaddam (2023)



While in the first picture, characters are painted and configured within a classic stylization from the 1990's, echoing some references to films such as *The Village*, directed by Marc Baker (1993, 15 min), in the second picture, due to the duality of materiality the characters are configured with a much more hybrid and contemporary style, originality, disrupting proportions standards and textures, which conveys a diverse significance

of meaning due to the constraints and potential of materials. Other animations have made use of this sort of “world skin” in stop motion, making use of materials such as paper, buttons, fabric, clay, legos, sand, painting or others. Both *Dodu, Rapaz de Papel* (Dir.: José Miguel Ribeiro, 2009, PT, TV series) and *The Science of Sleep* (Dir.: Michel Gondry, FR, UK, 2006, 1’45”) make use of the concept of “paper-skin”, making worlds that differ from reality intentionally and which rely on its materiality and expression. In *Dodu, Rapaz de Papel*, the result is a naive universe fully made of paper, taking most advantage of the playfulness of the materiality of the paper with imagination, in a “play game” or “make believe world” which captures the imagination of children. In, *The Science of Sleep*, an earlier film, the result is more disruptive as the combination between the paper world and real actors makes the combination imaginative but also more eccentric and complex in terms of vocabulary in a universe of adults, and which aims to turn visible the subjective and imaginative worlds of the characters within various graphical strategies. Both, *Ema e Gui* (Portuguese TV series, dir.: Nuno Beato, 2020, PT, TV series) and *Casaco Rosa* (dir.: Mónica Santos, 2020, PT) uses this same concept of *fabric-world skin* in their animations, using fabrics with different patterns, colors and textures. The result in *Ema e Gui* is very stylized due to the nature of the geometric cut of the fabric scrap, smashed into a flat surface which covers the whole world in pieces of fabric, which creates, as *Dodu*, a “make believe world” which is both imaginative and playful to watch and as well fluffy and children friendly. In *Casaco Rosa*, the result is very stylized with rigor and precision into a skin of “pop-candy world” although, as *Science of Sleep* the result is more complex in terms of story and metaphor, in a world where a “pink empty coat-character” uses empty clothes, fabrics and other related objects to recall an historical event in a beautiful technique.

One example that is closer to our case study, within the “duality of graphical vocabulary, materiality and expression” is the animated short, *The Bigger Picture* (Dir.: Daisy Jacobs, 2014). Due to the combination of various materials and physicality of materials such as plastic, wood, fabric which belong to the stop motion world (although not used as “world skin material”, but within a combination of diverse stop motion materials) with a vocabulary that is opposed in materiality such as painted, smashed figures against a surface, makes this animation short very original and complex as the two materials have to coexist within different rules. In the film we can observe painted character’s arms grabbing stop motion shopping bags, or a painted character bed sheets with a stop motion iron. At one point in the film, this effect becomes exceptionally original (0’55”) when one of the characters opens a cupboard where the other character is painted and with opening as well half of his upper body. As well at a certain point in the film (2’21”), one of the painted characters grows and stretches in height in a stop motion world, which is also quite striking. As well one the characters hovers the stop motion world such his painted brother and mother seated in chairs and as well the painting on the wall. “Duality of material and expressions” are not “make believe worlds”, as they are intentionally designed to disrupt the audience from any sort of logic,

reality, using different materials that act individually and although they affect each other, they do not depend or obey the other material in expression because of its physical constraints.

In terms of form, the shape of the uniform works in multifunction ways, sometimes as a map, sometimes as a *skin- surface*, and sometimes as clothes, or a road where the school bus rides, to deliver girls in school, entering through the uniform as entering into a world of fabric or prison where everything is ruled by the norms of a controlled system and where every fragment of diversity is absent. Symbolically, this fabric -skin surface works as a symbol to hide individuality and to shut every voice and any fragment of diversity. We also defined in this paper the concept of *formal script*. Similarly to what happens with color script, form also acquires a different stylization and function along the film evolution to distinguish both moments in the film in for, indivisible from significance, evolving the uniform from a map, to a brick door, a patio or a texture. The uniform itself, works as a meta-concept of the story of talking about the lack of identity, the void, the absence of singularity, choices, and personality to become a mere group with identical materiality that we cannot escape from.

Fig.3. Frames of the film, “Our Uniform”, directed by Yegane Mogaddam (2023)



The stop motion technique materials also offer secondary actions such as a zipper opening up, a light that gets illuminated on the window-pocket of the uniform, the uniform shaking when the school bell rings, and some other details that help to give context. All elements that refer to the structures of the country (roads, buildings, schools) are in real fabric, while the actions and situations are animated in 2D. As Wells (1998) [11] states symbol and metaphor invest in a comparison which finds an equivalent to make its significance more functional and to add connotation to an object rather than a mere representation in resemblance with reality. In the pictures below the symbolic fist stands for a collective voice in opposition to voiceless individuals.

Fig.4. Frames of the film, “Our Uniform”, directed by Yegane Mogaddam (2023)



In our case study, two techniques raise a clash between past and present as if showing that there's a new path to conquer to allow a better context to these girls and young people, one that can have color, freedom of choice and speech. Looking into the duality of materials, other films

have used mixed techniques. *Tango* (dir. Zbigniew Rybczyński, 1981; PL) employed a blend of stop motion, collage, and pixilation, resulting in a strikingly original effect. Similarly, *Kite* (dir.: Martin Smatana, 2019, PL) incorporates mixed techniques, utilizing materials, papers, and drawings to define its world. The BAB - Biennial of Animation Bratislava, directed by Martin Smatana (opening intro for Festival, dir.: Martin Smatana, 2022), employs scenography crafted from second-hand clothes and recycled textiles, imparting a distinctive context to the film. These textures, in reference to reality, position the film within a specific era, context, and world, lending it credibility and authenticity. *The Bigger Picture* (Dir.: Daisy Jacobs, 2014, 7'15", UK) also explores these themes.

In terms of *stylization*, the subjectiveness of this fabric world rescues the audience from reality to open the door of the director's world, with more intimacy, resembling a *visual construction*. In our case study, this effect almost functions as a *visual confession* another concept we formally define as using images to translate things we cannot tell (either by censorship or by incapacity) and from which we translate our internal and emotional world into pictures, symbols, and visual metaphors.

Texture is another key element in this film, a way to hide individuality and to release it, bringing to the film the same duality as mentioned before. A real texture brings a resemblance with the referent of the real world assigning to it a significance. As well, by the end of the film when the character travels abroad, she metaphorically immerses herself in her own skin, which is also made of real skin. During the credits, several additional characters are depicted as highly diverse, suggesting that in this film, everyone respects each other's individuality.

Color script is also defined and obvious in the film and it marvelously explores the color script as a tool to tell the story within two major tones. A very vibrant and colorful tone is used every time the director evokes people or facts that happen outside Iran such as traveling abroad, evoking in the images diversity of colors and textures as a symbol of identity of every individual, while when the film contextualizes Iran the use of color follows a dense gray tone of the inform and the frame becomes only a monotone palette of grays and brown, where the color of skin is always absent and dark. Color works as well as a metaphor of the concept of the film.

4. Sequential and continuity Structures

Formally known theorists, Rudolph Arnheim [8], Roland Barthes [12], Umberto Eco [13], Berger [10], Panofsky [14], have strongly written in the fields of visuality, sign, symbol, metaphor, semiotics, perception and rhetoric which are particularly important for the animation discourse and analysis of movement. Eco's semiotic theory on *Obra Aberta* (1962, 1978) [13] defends the idea that every piece of art is open to a multiplicity of significances and meaning, amplified in its semantic universe to an immense number of interpretations and propositions from viewers. As an example, a flute might be considered by various viewers different things and within different levels of significance. According to Barthes, visual semiotics establish both an interconnection between signs, symbols, and different

meanings and as well within a cultural function of the individual to connote any sign or symbol with values of his own culture, an interpretation that can range from age to various aspects of culture. Edward Said recalls in *Orientalism* (1978) [15], the problem of western culture to embrace other cultures particularly the Oriental, African, and Middle East cultures and the ability to understand and co-exist within values tolerance among such different values. As an example, a color or a symbol might differ according to each culture. Also, Panofsky (1970) [14] enhances the value of geography, social class, perspectives, ethics etc. to understand meaning.

Adding to this context and according to Arnheim (1954) [16] in his studies of movement, perception influences and affects the ability of acquiring and altering significance according to how objects or characters move. As an example, a graphical representation of a chicken can changes if this same iconographic representation of chicken starts to behave or act as a cat or a tiger, altering completely our perception and significance of what we see. In sum, movement, performance, and behaviors work as a way to code significance as much as language codes a sentence or as much as representation codes an image. As well the perception of it might vary according to our culture and values into different meanings. In animation, because the resemblance with the reality of an object or character is not important, movement becomes even more relevant than graphical representation in order to achieve a full significance of a character. Body movement, gestures, expressions, are both a work of graphical representation and as well a work of body of movement representation which rescues us, from reality into a world of perception of a certain idea, psychology of a character, values, culture, geography. In this case we can witness several layers of significance according to various aspects. Regarding the sequential and continuity structures of the film, the film evolves in very short shots organized and edited into fast pace, benefiting from a quick editing where the most important is the key ideas, key moments of what does it feel to be female, in opposition to long emotional shots. One of the most exemplar shots of the film happens at 00:04:24:00, when the character opens her uniform and searches inside to find a big void, an empty person, who very deeply has a second layer of uniform which open switch a zipper and even deeper gives access to a brain which when opens its pins gives us a picture of a uniform, as if saying that there's not singularity, personality, development inside, which quite sad to watch.

As the director explains in an interview for *Cartoon Brew*: “Endless combinations and therefore endless visual possibilities” allowed this shot to be this way. Movement in this case allowed more understanding of the essence of the film as it is through movement that we grasp and gaze at the significance, through visuals that distort, hang, pin the fabric in a

Fig.5. Frames of the film, “Our Uniform”, directed by Yegane Mogaddam (2023)



claustrophobic universe. The duality of materials used in the technique also reinforce possibilities in movement that were possible otherwise. The film is beautifully planned in short shots, which are enhanced by quick editing, changing fast from past to present and unfolding the overall events. It presents economy of animation, time ellipses, without lacking the details of the story which can be immensely profound and emotional at the same time. The continuity of shots seems to jump from event to event centering its telling only on the most important things in this girl's life in a neutral tone but at the same time showing much more than words are saying to exhibit a portrait of a female these days which is somehow intolerable at least. The narration plays a great part of the film as it explains very clearly the context of the Iranian schools almost as a shout for help. The narration partially confessional, partially neutral about what is to be a female in Iranian schools, seeks to voice, be heard as part of her individuality, which is genuine, naïf, happy, hornets, almost like a letter, a loud though of her own story, of her intimacy that documents, with credibility, what is not to have a voice using her own voice.

5. Conclusions and contributions

The analysis of the animated film "Our Uniform" unveils a myriad of foundational concepts that not only enrich our comprehension of the film itself but also contribute to the broader field of animation. The notion of "*world skin*" underscores how the materials utilized in crafting the film's worlds become inseparable from their meaning and content, transcending mere visual representation to become indispensable elements in narrative construction. This approach not only adds a layer of aesthetic depth but also underscores the significance of considering materiality as a central aspect in the creation of animated worlds.

The second concept is what we defined in this paper as the "*duality materiality*" concept, which uses the combination of materials to create disruptive and complex worlds detached from reality or from "*make believe worlds*". Another contribution is what is defined in this paper as "*visual confession*", in which visual elements show more than tell, due to some sort of censorship or incapacity to verbalize something that is very strong or emotional. Furthermore, a concept contribution is what we define as *formal script*, that defines the formal evolution along the film to depict meaning within function indivisible from meaning. In overall the contributions of the analysis of the case study because of its essence of experimentation and exploration of new possibilities.

Lastly, the enduring connection between hair and its exposure to the repression of women throughout history and across various religions underscores how something as commonplace as hair remains a potent symbol of gender oppression. By delving into the film and integrating Bourdieu's habitus concept, particularly in examining attire and the hijab within Iranian culture, we significantly enrich our understanding of these complex issues. By considering how the characters' uniform choices and hijab use reflect social norms, cultural contexts, and individual narratives, we deepen our comprehension of the dynamics portrayed in the film. Thus, both the film

itself and our analysis of it prompt us to collectively reflect on and challenge these enduring patterns still present in contemporary society.

As our next steps to advance this study, we plan to expand our analysis by categorizing the various terms encountered during our investigation of stop-motion animation, with a specific focus on skin and surface analysis. These collective reflections underscore the importance of experimentation and the pursuit of new approaches within animation. By challenging established norms and presenting innovative narrative and aesthetic strategies, “Our Uniform” not only sets a standard but also stands out as a remarkable example of cinema for its depth and beauty.

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6. References

1. Peres, C., (2019). *Liberated Worlds - A method of analysis on the work of Hayao Miyazaki* (Phd Thesis).
2. Ebadi, S. (2011). *The Golden Cage: Three Brothers, Three Choices, One Destiny*, Publisher: Kales Press, ISBN:0979845645
3. Yaghoobi, C., (2020). *Temporary Marriage in Iran, Gender and Body Politics in Modern Iranian Film and Literature*. Published online by Cambridge University Press, ISBN:9781108768948.
4. Stenn, K. (2016). *Hair: A human history*. Simon and Schuster.
5. Beauvoir, S. (1949) *The Second Sex*. Trans. Constance Borde and Sheila Malovany-Chevallier. New York: Knopf.
6. Butler, J. (1990). *Gender Trouble: Feminism and the Subversion of Identity*. Routledge.
7. Bourdieu, P. (1989). *A gênese dos conceitos de habitus e de campo*. In: Bourdieu, P. O poder simbólico. Lisboa: Difel.
8. Arnheim, R. (1969). *Visual Thinking*. University of California Press
9. Arnheim, R. (1982/88). *The Power of the Center: A Study of Composition in the Visual Arts*. University of California Press
10. Berger, J. (1972). *Ways of Seeing*. Penguin Books.
11. Wells, P. (1998). *Understanding animation*. Taylor & Francis LTD
12. Barthes, R. (1972). *Mythologies*. Hill & Wang / Barthes, R. (1981). *Camera Lucida: Reflections on Photography*. Hill and Wang: New York. | Barthes, R. (1977). *Elements of Semiology*. Hill and Wang
13. Eco, U. (1962). *Obra aberta*. Perspectiva | Eco, U. (1978). *A Theory of Semiotics*. Indiana University Press; First Edition | Eco, U. (1986). *Semiotics and the Philosophy of Language (Advances in Semiotics)*. Indiana University Press. | Eco, U. (1991). *The Limits of Interpretation*. Indiana University Press.
14. Panofsky, E. (1970). *Meaning in the Visual Arts*. Penguin Books.
15. Said, E. W. (1978). *Orientalism*. New York: Pantheon Books.
16. Arnheim, R. (1954). *Art and Visual Perception: A Psychology of the Creative Eye*. University of California Press

7. Referenced Filmography

1. *Persepolis* (Dir.: Marjana Satrapi, 2007, 1:36', FR, USA, animation feature)
2. *The Breadwinner* (Dir.: Nora Twomey, 2017, IR, Cartoon Saloon, animation feature)
3. *Carne* (Dir.: Camila Kater, 2022, 12', BZ, animation short)
4. *The Science of Sleep* (Dir.: Michel Gondry, FR, UK, 2006, 1:45', animation feature)
5. *Dodu, Rapaz de Papel* (Dir.: José Miguel Ribeiro, 2009, PT, TV series, Sardinha em Lata)
6. *Ema e Gui* (Dir.: Nuno Beato, 2020, PT, TV series, Sardinha em Lata)
7. *Casaco Rosa* (Dir.: Mónica Santos, 2020, PT)
8. *The Village* (Dir.: Marc Baker, UK)
9. *The Bigger Picture* (Dir.: Daisy Jacobs, 2014, UK, animation short)
10. *Tango* (Dir. Zbigniew Rybczyński, 1981; PL)
11. *Kite* (Dir.: Martin Smatana, 2019, PL)
12. *Mulan* (Dir. Tonny Bancroft and Barry Cook, 1998, Walt Disney)
13. *Keep Sweet: Pray and Obey* (Dir. Rachel Dretzin and Grace McNally, 2022, Netflix)

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Drawing in the visual identity design process: Casa da Arquitectura

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Abstract

The outcome of a design project is judged by whether it succeeds or fails in achieving an objective, executing a function and the quality of how it manages to do it. This paper proposes an evaluation of the development process that leads to the final formalization and its consequent consideration. It is focused on the performative act of drawing and its performance as a tool for reflection, for mediating between rational intention and the mechanical consequence of the members who execute it (hand-brain operability), and its usefulness as a conductor of a process and communicator of development methodology and narrative.

In graphic design, however synthetic and clear a manual of graphic standards and the presentation of a solution may be, the process validates the result not only by what works in practice, but by what has been discarded and has not withstood constant reflection, criticism, and testing. A final layer is added: the consideration of the aesthetic autonomy and transversal utility that the methodology anchored in the exploration of drawing can achieve. It is by investigating drawing that hypotheses are glimpsed, proposals are criticized and confirmed, and solutions are corrected and shaped.

The practical case that illustrates this reflection is a two-year final project of a master's degree in design, which includes the theoretical contextualization, the project record and the presentation of a solution for a new visual identity for the multidisciplinary cultural entity Casa da Arquitectura, in Matosinhos, Portugal. Our research question was to understand the value of drawing in the design process of this new flexible visual identity and through our active research we were able to validate drawing as a key instrument to assist ideation and testing for the solution.

1. Casa da Arquitectura, Portuguese Centre for Architecture

Established in 2007 in Matosinhos, Casa da Arquitectura serves as the Portuguese Centre for Architecture at local, national, and international levels. Since 2017, it has been located within the Real Vinícola complex, which houses exhibition spaces, archives, and facilities for events related to architecture and other artistic and socio-cultural fields. The institution hosts, archives, and makes available various architects' collections, fostering discourse to strengthen the connection between architecture and

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society. As Casa da Arquitectura expands, its communication needed to become more complex due to its multifaceted activities. The institution is currently reflecting on its communication strategy, which is complicated by diverse programming targeting different audiences and themes. Financial constraints partially hinder innovative responses to emerging public needs and engagement with younger voices in architecture. Therefore, Casa da Arquitectura requires a cohesive visual identity system to address its fragmented image, clarify its mission, and enhance communication.

The development of this visual identity system requires a comprehensive approach, integrating extensive research and technical and theoretical knowledge from both graphic design and architecture. The relationship between these fields is characterized by parallel developments and intersections that go beyond the typical client-provider dynamic, evident in shared definitions, processes, tools, and objectives. Understanding this relationship is crucial for the visual identity commission, as it allows for a nuanced understanding of the group's expression, including the decoding of symbols, critical analysis of solutions, and contribution to the process and implementation. Architects and communication designers typically share a common language, references, and use mark making as a tool for exploring and conceptualizing ideas.

2. Depth and exploration of drawing in design

Drawing is mind expanding in design, it serves as a portal to new dimensions, new solutions and varying possibilities. Design students and professional designers usually keep a sketchbook in which they register their ideas [4]. Besides being an accessible tool, drawing allows the coordination between hand and brain, which is a powerful strategy in the design process, not only for the student or researcher, but also for all stakeholders in the design project: when producing and showcasing design iterations, all the parts involved can quickly and promptly engage in the process – students, tutors, audience, and clients. [5] As the architect and author of *The Value and Aim of Sketching* states [6], one can quickly put the idea down on paper before it fades. Ideas might fade quickly. But investing with a tool that is always accessible and almost universal, one can grab the idea, put it to the test, communicate it and validate it towards oneself and to others, more immediately than with any other tool. The ideation process can only be operationalized once it is pragmatized; once there is some sort of image that can be communicated, expressed, and rationalized. Since the mind has a quicker coordination with the hand [7] it has a prompter substantiation for the design process. And that is a very vital, energetic, feature in the design process.

Furthermore, the expressiveness, plasticity and ambiguity in quick manual sketching, can promptly open the spectrum interpretation, and allow greater originality [8] as it serves as a thinking tool for the design

4 Tavares, P.; Albino, M.; Jorge, S.; Madureira, M.; (2023).

5 Glaser, M. (2008).

6 Kahn, Louis I. (1931).

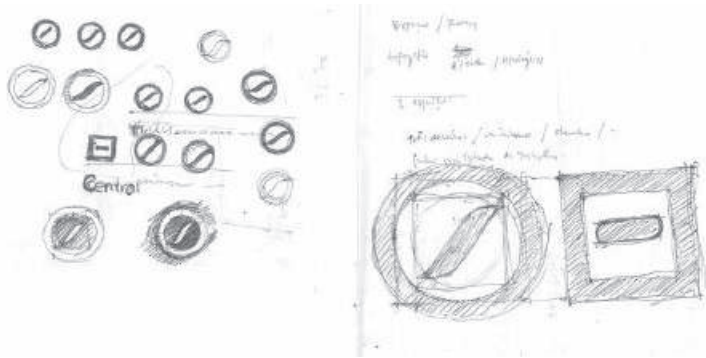
7 Wilson, F. R. (1998).

8 Molina, J.J. (2005); Rawson, P. (1969); Willats, J. (2006).

process, in particular, for the visual identity project.

According to the definition of Drawing by Tate,[⁹] Drawing involves dragging a tool across a two-dimensional area leaving a trail. In French and Italian, it is *dessiner*, similar to *dessin*. *Disegnere*, similar to *disegno*, already contains the idea of planning and composition of Design. However, Anglo-Saxon authors prefer the term *mark making* in relation to *drawing*: they consider the expression more contemporary and linked to the varied forms and objectives that Drawing contemplates (we may observe this in the drawings by the designers Francisco Providência – figure 1, drawings from the design process phase – and Jean Widmer – figure 2, sketches and final iteration of the visual identity for the Georges Pompidou National Centre for Art and Culture, in Paris - a graphic synthesis of the unique architectural structure designed by Renzo Piano and Ricard Rogers). «For designers, drawing—or thumbnail sketching—is a way of thinking. It’s a way to plan and visualize creative solutions for a logo, a poster, a chair, a website, or a room’s interiors” [¹⁰]. A distinct and memorable Design project, which effectively solves the challenge of the brief, is built using the visual thinking skills trained in Drawing: composition, visual hierarchy, contrast, synthesis, rhythm, balance, and proportion, for example. Drawing allows design students and their process to be more spontaneous and intuitive, as well as it invites them to experiment with new ways of communicating their objectives, exploring, and improving concepts in a tactile way, intellectually training abilities, expanding the creative potential.

Fig. 1. Francisco Providência, Marca/Identidade, 1990, 21x42cm, Black pen on paper. Source: A Virtude do Desenho na Proximidade do Projeto, 2018.



The approximate nature of drawing in the process of conceiving a visual identity project, can betoken the structure and meaning for its final stages.

In the turn of the 19th to the 20th century, mimetic virtuosity was replaced by the capacity for abstraction, attention, synthesis [¹¹] and finally, focus - something absolutely essential in the 21st century, in which the proliferation and pervasiveness of visual stimuli of all kinds makes concentration very difficult and disperses attention. [¹²]

9 Tate. (n.d.), (2023).

10 Quito, A. (2016).

11 Lehrer, J. (2011).

12 Lorenz-Spreen, P.; Mønsted, B. M.; Hövel, P.; Lehmann, S. (2019).



Fig. 2. First sketches by Jean Widmer © Philippe Migeat and final design solution. Source: www.centrepompidou.fr/en/magazine/article/40-years-after-the-secrets-of-a-now-iconic-logo

In this way, through drawing, the design project opens doors for reflection, concept, affect, complexity in its synthesis, while opening possibilities. It creates interaction with the memory of the author and observer, it generates opportunities that would otherwise not be so accessible, would turn non-polysemic, non-ambiguous, there would be nothing to add, to refine: the design process takes effect and it becomes richer with and through drawing, it calls for interaction with others (tutors, teachers, audience) because they interact, they complete the message, they engage, observe and create evolution in a pragmatic way. This tactile, gestural mark making process, enables strong synergies with the brain's sensory and motor cortices and its synapses, engaging both cognitive and motor functions, bridging the gap between physical interaction and cognitive



processes. It allows for quick, intuitive connections within the brain, enhancing both creative expression and analytical thinking, aiding, and enriching the design project.

The rich language of drawing is a library of paths, structures systems and is like a portal to possibility; in short, it expands the vocabulary of design options.

Fig. 3. © Michel Denancé. Source: www.rpbw.com/project/centre-georges-pompidou.

3. The research process, iterations, refinement, and consequent proposal of a visual identity system for Casa da Arquitectura

The first forays into the project helped to establish the premises of the approach. According to the information gathered in the critical analysis, any solution should bear in mind the need to behave as a multiplicative, flexible, and dynamic system, and be endowed with a language capable of various discourses and physical and digital responses.

The link to architecture, direct and indirect, in any iteration of the solution's visual language, should be immediate and inseparable. The vocabulary needs to be familiar, both on a technical level, from within the profession, and on a general level, from the external and common perception of architecture. This premise justified an incessant search for symbols and sketches related to architecture, construction, geometry, the urban, housing, the building, the design of a space, the texture of materials and the rhythm of elevations and stereotomy. This was the fuel for shaping the proposal, not in a redundant way, but as silent signifiers, substitutes for

words, as stated by Joan Costa [13] when referring to the iconic values of a form, abstract or figurative, in the symbolic representation of an idea.

3.1. Drawing on architectural images

These premises were followed by the processes of gathering and hierarchizing references and the exercise of abstraction in finding common forms and repetitions through sketching and drawing. In the field of architecture, one of the first approaches, which proved to be fundamental and transversal in the development of the project, was the attempt to mathematically explain the proportions present in nature and the consequent relationships with the human figure. The golden section, the golden rectangle and the Fibonacci numerical sequence have been used throughout history. Examples of this are the representation of ‘Vitruvius’, 1492, which Leonardo DaVinci used in painting and architecture; the ‘Golden Section’, 1936, which served Ernst Neufert’s ergonomic studies, and which are still used and expanded today, to consult the ideal measurements of spatial relationships and the articulation between objects; and ‘Modulor’, from 1950, which Le Corbusier used to base his modular studies. This last example particularly emphasized the parallelism sought between architecture and graphic design when reducing Le Corbusier’s sketches to graphic expression and highlighting the importance of a replicable unit and its fitting into a grid. Technical representations, such as floor plans, elevations, and other analogue quick sketches were analyzed, edited, and dissected (vide figure 3), as well as several representations of the immediate in sketches and drawings (vide figure 5).

As can be observed in figure 5, during the process of analyzing and replicating sections of the photographs, the aim was to capture the most significant features while disregarding those aspects that were

Fig. 4. Floor plans and elevations in the Casa da Arquitectura archive. Source: Author’s work on various images collected.

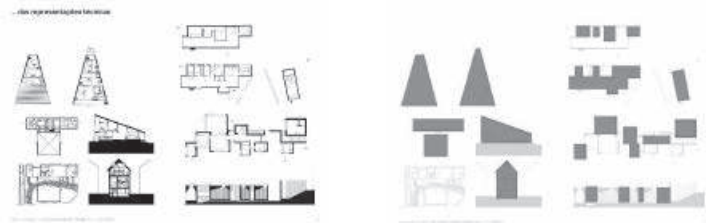


Fig. 5. Project sketches. Source: Author’s work on various images taken from the Casa da Arquitectura Archive.



not essential to the work or author. The most distinctive elements of the work present in the photograph were identified, considering the rhythm of its contour and the balance between form and background. The outer contours and varying angles of the silhouettes of the projects were adjusted, drawing sections of the projects in a flat red color over the photographs to create silhouettes.

The components were refined and modified, selecting the most recognizable ones, particularly those with dynamic positive-negative relationships and with high identifiability. Certain elements were edited to enhance clarity of form by removing extraneous elements and emphasizing key features. If the most relevant components were diminished during the simplification of the silhouette with flat color, adjustments were made to preserve the harmony between the shape and background rhythm, as well as the movement of the contour.

After the work done on the references, the development of the project was marked by four phases of formalization. Each one was characterized by reflection and criticism, which were fundamental in identifying problems and flaws in the solution, justifying the next stage and the new objectives to be achieved. The various iterations contributed different weights to the final solution. The elements that resist the logic of the premises, when found, become transversal and support the evolution of the project's narrative.

3.2. Customized typography

The first phase was filled with sketches of graphic explorations around the basic dichotomies of architecture (empty/full, inside/outside, line/plane) and the articulation of symbols and geometries inspired by the references. The main idea at the beginning was to create a personalized, moldable, and fluid typography. The symbology of the elements that would make it up should be sufficient to link it to the architecture and build the entire vocabulary of a communication system. The starting point for the various exercises was the grid based on the golden rectangle, both in its subdivision and expansion. Each attempt at formalization resulted from a specific appropriation of the grid and its potential for variation.

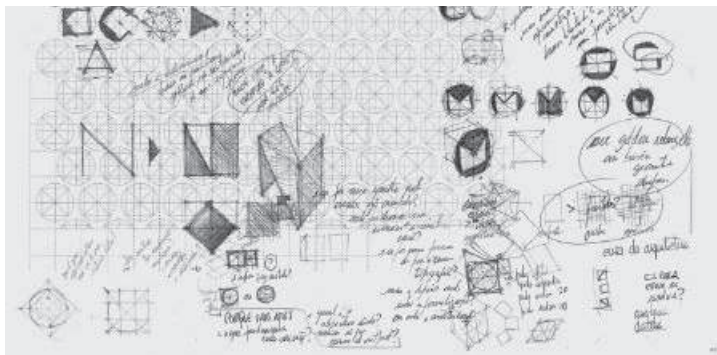
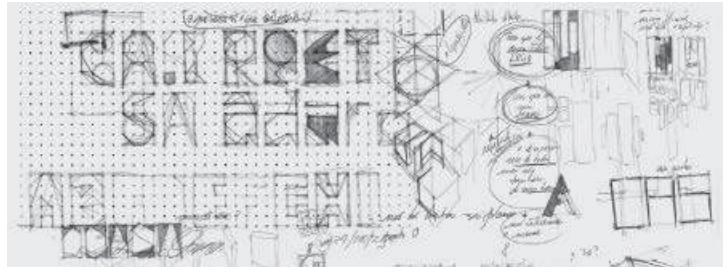


Fig. 6. Phase 1 sketches. Approach 1 - defined by the outside of the golden rectangle, the customization and formation of characters. Source: main author.

Fig. 7. Phase 1 sketches. Approach 2 - characters defined by spaced fills of the rectangle grid and connection of points inside it. Source: main author.



3.3. Visual syntheses

On this phase, the reflection converged more on the specificity of references brought by Casa da Arquitectura instead of those retrieved from the expanded universe of architecture as discipline. The heterogeneity of the collections and the thousands of documents that make them up is the distinguishing factor from all its counterparts. The plastic value of each piece, which is inseparable from the content that expresses it. The dimension of what it gives rise to and catalyzes: exhibitions, reflections, discussions, publications, inspirations. It is the starting point for all Casa da Arquitectura activity. If each object/model/drawing/photograph/document is an expression of its author's identity, then the articulation of all of them, the joint stain, is the DNA of Casa da Arquitectura.

Fig. 8. Progression to the first set of visual syntheses of the system. Source: main author.



Fig. 9. First set of visual syntheses of the system. Source: main author.



3.4. Laconic visual syntheses and definition and articulation: institutional and thematic

The third phase of development focused on the possibility of creating visual syntheses disconnected from specific pieces in the collection, in order to represent the institutional side of Casa da Arquitectura. The communication system remains the same, the structure of the development of the images maintains the grid, the limits, the relationship between form and background, full and empty and scale of the forms, but the genesis is reformulated so that the result is laconic, purified, independent of association with style, work, or author. The identification of each graphic

piece stems from its structure and integration into a system and not from recognizing the reference that originated it.

The process and rules for constructing the new visual syntheses made it possible to think of the iterations in a generative way. The parameters start from fitting into the grid, subdividing the golden rectangle and making shapes proportionally larger than the first one stipulated. The finite results of this composition can be expanded by modifying the boundaries of each unit. The important thing to retain is the relationship between the parts and the plastic and graphic relevance of each image.

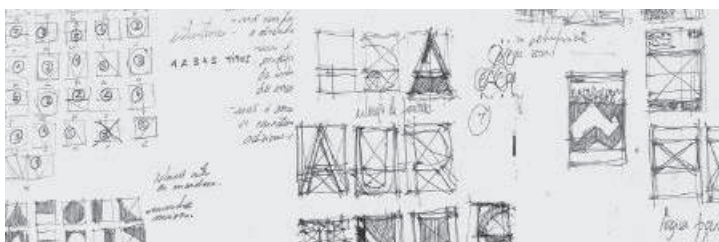


Fig. 10. Exploring the addition of laconic elements to characters. Source: main author.

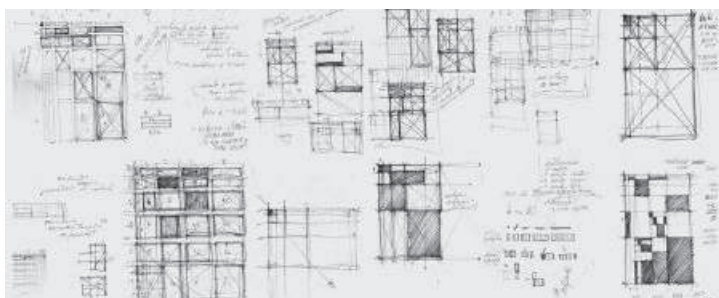


Fig. 11. Exploring the graphic competence of the rectangle on the grid. Source: main author.



Fig. 12. Institutional Posters. Source: mock-ups made by the main author.

4. Conclusion

The research through and with drawing: made by the synthesis, emulation drawings that came from photographs of the authors' works, by the leveling or exaggerating of the most iconic parts; planning drawings of models, elevations, grids and technical representations; by the sketch tests of grids, customization of typography and articulation of elements in layout, present in the process of designing a new flexible visual identity for Casa da Arquitectura in Matosinhos, allowed us to communicate, refine and validate solutions and verify the importance of manual drawing

as a thinking tool, as a form of communication, expression and opening up possibilities that were then used in the final visual identity.

Through the research in drawing in this design process, the relevance of the various expressions of mark making in the exploration of tangible connections between themes, in the immediate prediction of communication behaviors, in the understanding and explanation of visual intentions and in the informative report of the development process of a visual identity was tangible and enabled us to substantiate the significance of manual drawing as an instrumental tool for conceptualization in this design project. Particularly, it underscored the value of diverse mark making expressions in facilitating the tangible integration of themes, the immediate anticipation of communicative behaviors, the comprehension and articulation of visual intents, and the documentation of the development process of a visual identity. In essence, drawing was recognized as a multifaceted tool for reflection, communication, and information, while also being appreciated for its aesthetic and final qualities, possessing inherent value beyond its initial utilitarian purpose.

5. References

- Costa, J.; Raposo, D. (2011). *Design para os Olhos. Marca, Cor, Identidade, Sinalética*. Dinalivro.
- Glaser, M. (2008). *Drawing is Thinking*. Harry N. Abrams.
- Kahn, Louis I. (1931). *The Value and Aim of Sketching*. In A. Latour (Ed.), *Writings, Lectures, Interviews* (pp. 10-11). Rizzoli.
- Lehrer, J. (2011). *Proust Was a Neuroscientist*. Canongate Books.
- Lorenz-Spreen, P.; Mønsted, B. M.; Hövel, P.; Lehmann, S. (2019). Accelerating dynamics of collective attention. *Nature Communications*, vol. 10. Retrieved from <https://doi.org/10.1038/s41467-019-09311-w>, last accessed 2020/01.
- Magalhães, G; Providência, F. (2018). A virtude do desenho na proximidade do projeto. *Revistarquis, Escuela de Arquitectura de la Universidad de Costa Rica (UCR)*.
- Molina, J.J. (2005). *Los Nombres del Dibujo*. Madrid: Cátedra
- Pierron, S. (2020). 40 years after, the secrets of a now-iconic logo. Retrieved may 2024, from <https://www.centrepompidou.fr/en/magazine/article/40-years-after-the-secrets-of-a-now-iconic-logo>.
- Quito, A. (2016). Design has nothing to do with art: Design legend Milton Glaser dispels a universal misunderstanding. In *Quartz*. Retrieved may 2023, from <https://qz.com/823204/graphic-design-legend-milton-glaser-dispels-a-universal-misunderstanding-of-design-and-art>
- Rawson, P. (1969). *Drawing*, 2nd ed. Philadelphia: University of Pennsylvania Press, 1987
- Willats, J. (2006). *Drawing and Ambiguity*. Tracey: Drawing and Visualization Research
- Wilson, F. R. (1998). *The Hand: How Its Use Shapes the Brain, Language, and Human Culture*. Pantheon Books.
- Tate. (n.d.). *Drawing*. In Tate. Retrieved may 4, 2023, from <https://www.tate.org.uk/art/art-terms/d/drawing>.
- Tavares, P.; Albino, M.; Jorge, S.; Madureira, M.; (2023). *Drawing, Order, Chaos and Teaching*. ID+IPCA.

The Virtual Production Studio Network: Contributions and Shortcomings for Educators, Students and Professionals



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Abstract

Virtual Production (VP) represents a transformative shift in filmmaking, enabling real-time visualisation of digital scenarios and visual effects during production, a departure from traditional post-production methods. Amidst the COVID-19 pandemic, VP gained relevance by offering cost-effective solutions and making off-site and remote collaboration among cinema crews and film industries possible. However, the adoption of VP technology and procedures is hindered by the lack of trained personnel within higher education institutions. The Virtual Production Studios Network (VPSN) research project intends to fill this gap by preparing teachers and students to engage with VP and advance VP studios. To do so, VPSN provides educators and professionals access to blended-learning and hands-on workshops, to familiarise them with VP so they become the future of the creative industries. This article reports the experience gained from VPSN-hosted activities, where participants showed adaptability resilience, and the willingness to do real-time improvisation, something key for attaining VP success. Despite the challenges, such as the steep learning curve to harness the VP knowledge ecosystem, we highlight the importance of building understanding among film crew members to attain effective collaboration. The integration of VP into education curriculums holds promise in enhancing the preparation and learning of students. We were able to identify three main contributions: 1) VP learning materials have great potential for revolutionising diverse fields beyond the audiovisual; 2) VP processes can entice the search for new creative results and aesthetic trends, and, the improvisation of ways to work with available equipment at the margins of VP; 3) VP processes roots on the power of simulation, something with great potential to influence and enhance work disconnected from audiovisual media. In sum, VPSN's initiatives underscore the transformative potential of VP in education and industry, offering a pathway for students and professionals to navigate digital production landscape.

Keywords

Virtual Production;
Animation, Education;
Game Engines; Mocap

1. Introduction

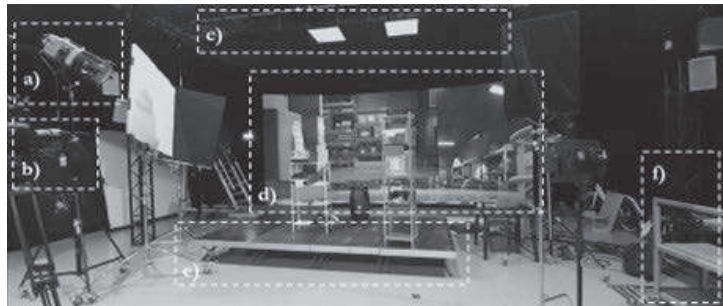
Virtual Production (VP) is a groundbreaking technological approach to take traditional filmmaking processes into digital realms, by creating animated, realistic real-time digital scenarios or VFX, and displaying

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them, e.g., in high-density led panels volumes. Unlike traditional methods where VFX visualisation occurs during editing, VP allows this to occur during production [1,2]. This significance can be traced back to amidst the COVID-19 pandemic remote hiring necessities, enabled by technological advances. VP makes film, animation, game, and art creation more cost-effective, allows real-time processing and display of film sets using accessible game engines, and, off-site distanced distributed collaboration, something that transformed work on this area's related industries [3]. VP is underlined by benefits but also shortcomings, like the lack of trained personnel by higher Education Institutions (HEIs) apt to work on this fast-paced, advancing technology landscape [4]. The Virtual Production Studios Network (VPSN) intends to respond to this shortcoming by preparing students to engage with VP upon graduation, and by setting strategies for advancing VP studios. VPSN is a research project consortium of HEIs led by VIA University College in Denmark, Breda University of Applied Sciences (BUAS) in the Netherlands, the NORD University in Norway, and the Polytechnic Institute of Cávado and Ave in Portugal. Given the mentioned potentials and shortcomings, this article aims to provide a glimpse of technologies and educational activities in the framing of the VPSN project and speculating on how to use them to advance IPCA's curriculums.

Fig. 1. Components of the BUAS XR stage setup: a) traditional lighting; b) high-performance digital video cameras with a motion capture (MOCAP) system syncing its movement with UNREAL scenarios in real time; c) LED panels at the top and sides to project ambient light from this scenario; d) main LED projection volume; e) traditional stage platforms; f) brain bar, the computing power to control and monitor the previous components (the other part is hidden by the led volume).



To address preparation shortcomings, the VPSN project provides these resources: 1) for teachers and professional trainers in educational and creative industries, the access to market and academic research, hands-on practices and VP teaching and training curriculums for integration in HEIs education curriculums; 2) for students and graduates from creative industries in Europe, the theoretical and practical information on how to use VP studios; 3) for the creative industries (animation, gaming, film, or digital media), indirect innovative benefits hinged on student practices with skills and know-how in VP [5]. We consider that VP practices are valuable to produce animations for virtual or augmented reality applications, because we carried the development of animations as digital, real-time controlled, movie mock-up backgrounds to be registered to a physical, Extended Reality (XR), film studio, depicted in Figure 1.

The BUAS XR stage contains technology and traditional resources

to do small VP, XR is a common umbrella abbreviation that encompasses a variety of terms, like Augmented Reality (AR) and Virtual Reality (VR). As with similar stages, it uses a led volume as an enhanced chroma-key screen, i.e., an augmented, real-time virtual scenario, and several flavours of MOCAP to sync actors, cameras, lighting, and virtual 3d asset movement [6].¹ With this in mind, this article reports the results of two VPSN training, hands-on workshops, the first, involving teachers and professionals, the second, involving students. By reporting these empirical experiences, we intend to clarify benefits and shortcomings of VP processes and technology for education, animation, cinema, and related industries. The VPSN education pipeline involves several stages akin to traditional filmmaking but follows specificities which are depicted in Figure 2.

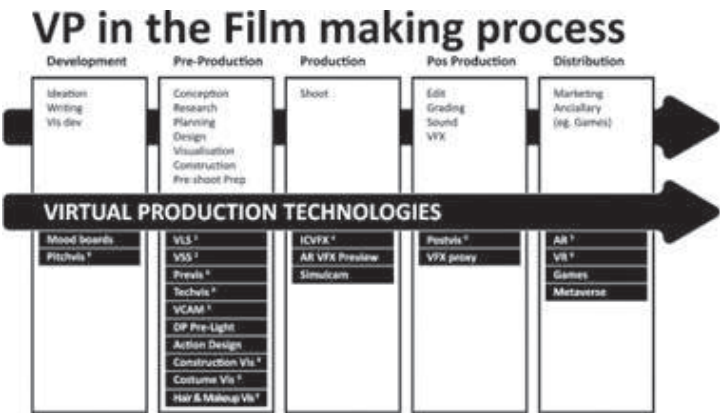


Fig. 2. VP in the film-making process, the abbreviated numbers relate to: 0. Visualisations; 1. Virtual Location Scout; 2. Virtual Set Scout; 3. Virtual Camera; 4. In-Camera Visual Effects; 5. Augmented Reality; 6. Virtual Reality. Schema adapted from Brad Blackburn² presentation at the 2024 VP Gathering on April 4th 2024 at BUAS.

Both traditional and VP follow the same key development stages, but for the latter the emphasis is on pre-production, an already big parcel in any movie production. VP adds the work on virtual asset components and their operation which characterise SFX done in productions such as *The batman* (Warner Brothers, 2022) or *The Mandalorian* (Disney +, 2019). We won't delve deeper in VP jargon as it is already documented [8], and because it would be beyond the scope of an article focused on providing a glimpse of VP benefits and shortcoming for educators and professionals interested in setting a foot in the area.

Initial development for the teacher's workshop was anchored on a script that situates film action on a fictitious abandoned greenhouse overtaken by two scientists to carry out plant growth experiments. Manuals and content were prepared by BUAS beforehand to sustain participant blended learning, between off-line self-allocated hours, and on-line pre-sential workshops. Blended learning was used as acquiring VP knowledge in its many sub-areas requires a lot of time investment. Under the VPSN time-framing, teachers would receive training first and act as film crew members in a small VP production, a process that would then be replicated by students in another workshop under these same teachers' supervision. Pre-workshop activities involved traditional movie pre-production with

some emphasis on the specificities of VP. This process began with initial offline training using Epic’s video tutorials about Unreal and Davinci Resolve software. The predefined script enabled prompt traditional pre-production work from the teacher’s crew until April 21st, 2023. Pre-production involved the elaboration of creative visions, storyboards, breakdown-sheets and tech-plans, some of which are illustrated in Figure 3.

Fig. 3. (Left to right) Preproduction breakdown sheets with plans for scenes, camera lights, actor positions and movements, to ease work during the teacher’s workshop shooting days from NORD, and procedures and phased deliverables for the process.



Learning software and elaborating the pre-production documentation enabled developing movie previsualizations (Previz), a 3D simulated environment that allows rendering an animated sequence, to check if it meets final film expectations and shooting doability, and to pinpoint unpredicted aspects to explore. Each partner institution crew had to develop their own previz and documentation from the script to maximise training, and only one solution would be produced depending on feasibility and potential possibilities to push experimentation in the BUAS XR stage, e.g., day-to-night lighting accelerated timelapses with multiple actor instancing, as depicted in figure 4.



Fig 4. Left to right, stills of IPCA’s crew to experiment with lighting timelapse and instancing.

The previz virtual scenario was also used to check if it would comply with the minimum viable technological performance requirements to be displayed in BUAS XR led volume in real time, and again if it would be close to the wanted result [8,9], a screenshot of a previz made by IPCA, developed in UNREAL is depicted in Figure 5.

Fig 5. UNREAL screen showing a greenhouse model with metahumans and physical acting space.



Experiential on-site workshops ensued next, as teachers and VP professionals from the VPSN HEIs consortium travelled to the University of Applied Sciences in Breda in May 2023 in its XR Stage facility, to develop a VP short from the pinpointed pre-production work version. Students developed their own VP in January 2024, the only difference was that they were mentored during blended-learning activities by the same teachers that took the trainers workshop, and used a self-proposed script, results are depicted in Figure 6.



Fig 6. Trainer's workshop short still (left), and students workshop short still (right). These shorts were accessible in the VPSN Youtube webpage in 28th of April 2024, at: <https://www.youtube.com/@VirtualProductionStudioNetwork>

2. Discussion

Both workshops operated similarly in terms of process and outcomes for both teachers and students, regardless of being different target groups. The time to learn and to familiarise oneself with VP software was (and still is) of utmost importance, something that sits at the front door for anyone trying to enter this new world and trend in filmmaking. Anyone committed can, with modest computing hardware, make this preparation independently of having access to a VP equipped studio. However, properly harnessing VP is a life-long preparation endeavour, that need to remain open to accelerated changes and updates in the field. This need for commitment was clear for participants in both workshops as those who had previous software or cinematography role experience were quickly assigned to the main film production tasks, such as real-time 3D artist, or director of photography. Those with less experience had the opportunity to level knowledge in other roles such as set production designer or gaffer.

Harmonising the understanding between crew roles proved somewhat difficult because of the natural push and pull between the interests of those focused on cinema and those focused on games. Such challenges may be overcome by developing a common vocabulary through constant content exchange between creatives in both fields [10]. Although a new vocabulary did not emerge, constant dialogue did occur to respond to the workshops' project-driven nature aspects such as deadlines, and unexpected obstacles emerging during shooting, factors that prevented disagreements. These obstacles ranged from tuning camera MOCAP and the virtual scene to update at a reasonable framerate, overcoming led screen aliasing, dressing the set with zero budget, amongst others.

The obstacles themselves advanced improvisation as a crucial component for VP success, as they indirectly enticed crew members to turn into a well-oiled filming machine, apt to overcome both traditional cinematography and new VP obstacles, like delighting unwanted light from the led volume. Improvisation occurs when crew members respond promptly to other's improvisation on a given situation, e.g. camera operators follow actors' improvisation by operating cameras and changing lenses appropriate-

ly, gaffers adjust their lighting, and sound recordists adjust their position and settings accordingly [11]. The importance for improvisation extends to many Art endeavours and life circumstances, as dialogue in the film set led to acts of spontaneous creation where crewmembers exchanged information in coordination, i.e. it was not about compromising according to individual perspectives but about creating something new and mutually enriching [12], such spontaneous creation are depicted in Figure 7.

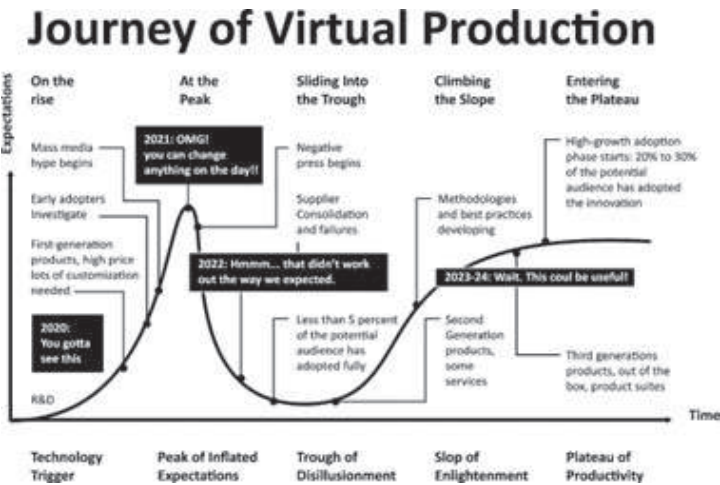
Fig 7. Moving the set due to led volume restraints, and to speed shooting (top row), interior set made with lighting supports (bottom left), and balcony made of stage platforms (bottom right).



Improvisation occurred during the teachers’ workshop, as we were pressed to shoot scenes under deadlines, e.g., moving the entire set instead of the lighting (camera track remained unchanged), as this proved easier due to the limited led volume space. This solution allowed economy of means, time, and made consistent lighting, one of the most difficult aspects to control in VP, possible. In the students’ workshop, improvisation occurred e.g., through the repurpose of stage platforms as balconies to physically crop the led volume, and using light supports to create an interior curtain set dressing.

The myriad of obstacles like learning time, communicating among areas of knowledge, or the improvisation solutions on-the-fly, points to commonalities between traditional filmmaking and VP, so why insist on

Fig. 8. The Journey of Virtual Production, adapted from Brad Blackbourn presentation at the 2024 VP Gathering on April 4th, 2024, at BUAS.



using it in the first place? Arguably VP can, with enough training equipment and software, help create SFX or simulated scenarios that would be difficult to attain with traditional means, or prohibitively expensive. However, VP is also far from being a one-size-fits-all solution, as a modest video camera and an outdoor setting coupled with enough creativity can make shooting more accessible and quicker to harness than a fully equipped, optimised XR stage. This concern can be explained by the intersection of Gartner's hype cycle with VP, which allows to trace the journey of VP technology popularity, as schematized in Figure 8.

Gartner's hype cycle maps the evolution journey of technological innovations, through *peak*, *disillusionment*, and *resurgent* stages. It is used to make investment educated guesses on novel products. The model is criticised on the fitness and meshing of its components [13], however, we use it here to emphasise the notion that VP must be employed carefully, as it won't cover all cinematography needs. VP's current state lies between the *Slope of Enlightenment* and the *Plateau of Productivity*, something we believe is due to two main reasons: more mature, scalable, and affordable technology; new intuitive methods and practices, and something new: VP's adoption by other niches and audiences, like musicians or animators became apparent in a VPSN masterclass depicted in Figure 9.



Fig 9. Photos from Bartosz Barlowski[3] Masterclass: Animation and Cinematics for ICVFX on April, 3rd 2024 at BUAS. Both pictures demonstrate the use of Rokoko's MOCAP, and its physics integration with an Unreal Scenario.

The masterclass covered advanced Unreal Engine animation, character rigging, MOCAP using *Rokoko* suits and software, AI content generation and syncing all this with physics simulations and other audiovisual components to create cinematics and broadcasting it through *Aximmetry*. Equally important was the opportunity to check this instructor's and other specialist's portfolios, which asserted the value of work done in other VP niches. The displayed work pointed out that a lot can be made without harnessing every single piece of VP software or hardware, as what really matters is carefully choosing what to use and how to use it to achieve distinguishing results.

Among the workshop shortcomings we highlight the effort and basic necessary time to master the Unreal Engine, as keeping oneself up to date with these skills can quickly become a life-long endeavour. We believe that there is a need for significantly more time to familiarise with core VP software than what was allocated in the offline portion of the workshops. Further, given that both workshops targeted small film shorts, reaching this goal surpassed learning opportunities for crew members beyond the roles they were allocated in the first place. We are not dismissing specialisation, however, knowing the VP ecosystem as a whole and being able to assume as many roles as possible within it, will make us better profession-

als. Further, students need to reinforce their communicating skills to better work with each other in the framing of individual film roles, a gap that we witnessed in the offline portion of the workshop which then translated into its face-to-face session.[4] The masterclass, in turn, emphasised the need for more time to learn VP subjects, as we ran into obstacles caused by insufficient learner preparation beforehand and limited time to harness heavily-packed subjects. By gathering all this information, we can weave next some considerations on how we, teachers, can use lessons learned from the VPSN project activities according to realistic class needs and professional settings in the VP market and industry in our country.

3. Conclusions

We lecture design and audiovisual disciplines such as video, and 2D and 3D animation, while targeting the production of a vast array of traditional and digital media content, from editorial printing to cinematography and video games, hence our interest in mapping existing VP processes, depicted in Figure 10, to use them to enhance existing curriculums.

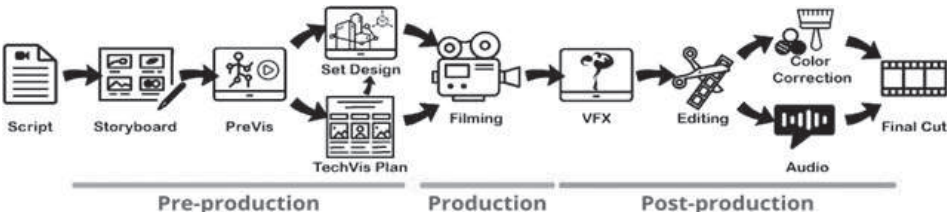


Fig 10. Stages for the VP process, from scripting to final cut (2024).

The following conclusions are of speculative nature due to limited access to VP tech, as exposure to LED volumes and camera MOCAP software occurred only in the BUAS XR stage, and because we are beginning to ponder on possible overlaps between VP processes and topics explored in IPCA’s disciplinary curriculums. Such overlaps are also restricted as developing a Previz using the UNREAL or doing post-production and compositing using Da Vinci Resolve, require steep learning curves and computing power that surpasses the capabilities of many of our student’s laptops. Despite these restrictions, we unveiled three potential contributions inspired by VPSN activities.

Improving learning materials in IPCA’s educational curriculums aimed at diverse Design disciplines, such as video which has already benefited from new preproduction manuals, briefs and exercises, as illustrated in figure 11.

Enticing the search for new creative results and aesthetic trends inspired by VP processes, something that can be made using meagre equipment at the margins of VP, e.g., a webcam to shoot, coupled

Fig 11. (Left to right) cutting and transitional video exercises, creative vision, scripting, storyboarding shot breakdown and pre-production work that pave The Fly (2024) film short.



with a smartphone to synchronize the shot with the UNREAL camera, green paper as a chromakey and a model figurine as an actor.[5]

Using the power of realistic simulation underlining VP processes, can influence and enhance work disconnected from audiovisual media. The creation of realistic simulations is achieved by meshing physical and virtual worlds that, something useful in diverse areas of knowledge and industries, e.g., product, architectural and design previz as means to inform development and decision-making.

In sum, the transformative potential of VP in education and industry, offers diverse paths, such as those hypothesised before, with great potential to help students and professionals navigating digital production landscapes.

4. References

1. Priadko, Oleksandr & Sirenko, Maksym. Virtual Production: A New Approach to Filmmaking. Bulletin of Kyiv National University of Culture and Arts. In: Series in Audio-visual Art and Production. 4. 52-58 (2021)
2. Kavakli, M., & Cremona, C. The virtual production studio concept: an emerging game changer in filmmaking. In: IEEE on Conference Virtual Reality and 3D User Interfaces (VR) (pp. 29-37). IEEE Computer Society (2022)
3. Advanced Imaging Society. Virtual Production Workflows & Insights, <https://youtu.be/81f6FPnWMCI?feature=shared>
4. Virtual production: From Studio to classroom, <https://www.vpstudio.network.com/>
5. Batho G. State of VP and its Future Implications, <https://www.vpstudio.network.com/industry-interview-with-zoltan-batho-g-state-of-vp-and-its-future-implications/About-VPSN>. <https://www.vpstudio.network.com/about/>
6. Rauschnabel, P., Felix, R., Hinsch, C., Shahab, H., Alt, F. What is XR? Towards a Framework for Augmented and Virtual Reality. In: Computers in Human Behavior, Volume 133, 2022, <https://doi.org/10.1016/j.chb.2022.107289>.
7. Jungherr, A., & Schlarb, D. The Extended Reach of Game Engine Companies: How Companies Like Epic Games and Unity Technologies Provide Platforms for Extended Reality Applications and the Metaverse. Social Media + Society. 8 (2022)
8. Chanpun, P. Virtual production: Interactive and real-time technology for filmmakers. Humanities, Arts and Social Sciences Studies 23(1): 9-17 (2023)
9. Kadner, N. THE VIRTUAL PRODUCTION FIELD GUIDE VOLUME 2. Epic Games, <https://www.unrealengine.com/en-US/blog/volume-2-of-the-virtual-production-field-guide-now-available>
10. Dooley, K., & Emery, S. Creating screen stories with game engines: challenges and opportunities for students and researchers working collaboratively across disciplines. In: Media Practice and Education, 24:1, 21-34 (2023)
11. Collins, D. Aesthetic Possibilities of Cinematic Improvisation. In: Croatian Journal of Philosophy, Vol. XIX, No. 56- McGill University, Montreal, Canada (2019)
12. Nachmanovitch, S. Free Play: Improvisation in Life and Art. New York: Penguin Putnam Inc . (1990)
13. Dedehayir, O., & Steinert, M. The hype cycle model: A review and future directions Technological Forecasting and Social Change. Elsevier, vol. 108 (C), pages 28-41 (2016)



Desenhar uma voz: caligrafar a língua portuguesa e a língua castelhana enquadradas num percurso visual ao longo das estampas caligráficas na obra pioneira de Manuel Barata

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Palavras-Chave

desenho, fonética, escrita, caligrafia, livro

Keywords

drawing, phonetics, writing, calligraphy, book

Resumo

Este artigo apresenta um estudo em torno da obra de desenho de escrita de Manuel Barata. As razões desta escolha radicam na originalidade artística e no carácter inovador que a sua obra revela, tendo em conta que dedica especial atenção à criação de uma caligrafia verdadeiramente portuguesa, também castelhana; demonstrando um método, uma capacidade de explicação, de criação da caligrafia muito própria, facto que coloca o seu trabalho num plano também pedagógico. No que diz respeito à **Problemática** assume-se aqui uma posição de natureza linguística, assente em postulados próprios, vertidos numa interpretação dos contrastes da pronúncia portuguesa, na sua grande constância fonética, permitindo a imaginação e a criatividade do desenho da escrita do autor; facto também explicado para língua castelhana, onde Barata produz graficamente uma paladar fonético que convoca uma voz clara e encorpada, assim remetendo para a língua espanhola, assumindo uma sonoridade redonda, lânguida, própria de Espanha. Os **objetivos** deste artigo passam por estabelecer uma relação clara com os seus antecessores, fazendo uma ponte com a obra de Ludovico degli Arrighi, Giovanni Antonio Tagliente, Giambattista Palatino, Juan de Yciar e Giovanni Francesco Cresci; paradoxalmente, demarcando a tenacidade de Barata na forma como inova de modo individual, consciente, informado e pragmático, sendo claramente um homem do seu tempo. Na nossa **metodologia** partimos de um mapeamento e seleção das estampas de Barata, a montante a jusante dos desenhos de escrita portugueses e castelhanos, para assim se observarem os seus processos, através de uma sequência de estampas organizadas de modo criterioso. Os resultados obtidos, partindo da análise das estampas essenciais, permitem no final obter uma clara e detalhada percepção da abordagem total do autor à caligrafia de chancelaria ou Cancellaresca, fortemente preocupado com a qualidade da legibilidade do desenho da escrita.

Abstract

This article presents a study about the work on drawing of writing by Manuel Barata. The reasons for this choice are rooted in the artistic originality and innovative character that his work reveals, taking into account that he devotes special attention to the creation of a truly Portuguese calligra-

phy, also Castilian; demonstrating a method, a capacity for explanation, for the creation of calligraphy that is very much his own, a fact that places his work on a pedagogical level as well. With regard to the **Problematic**, a position of a linguistic nature is assumed here, based on its own postulates, poured into an interpretation of the contrasts of the Portuguese pronunciation, in its great phonetic constancy, allowing the imagination and creativity of the author's writing design; This fact is also explained for the Castilian language, where Barata graphically produces a phonetic palate that summons a clear and full-bodied voice, thus referring to the Spanish language, assuming a round, languid sound, typical of Spain. The **objectives** of this article are to establish a clear relationship with his predecessors, making a bridge with the work of Ludovico degli Arrighi, Giovanni Antonio Tagliente, Giambattista Palatino, Juan de Yciar and Giovanni Francesco Cresci; paradoxically, demarcating Barata's tenacity in the way he innovates in an individual, conscious, informed and pragmatic way, clearly being a man of his time. In our **methodology**, we start from a mapping and selection of Barata's prints, upstream and downstream of the Portuguese and Castilian drawing of writing, in order to observe their processes, through a sequence of prints organized in a judicious way. The results obtained, based on the analysis of the essential prints, allow in the end to obtain a clear and detailed perception of the author's total approach to chancery or Cancellaresque calligraphy, strongly concerned with the quality of the legibility of the writing design.

1. Introdução

Barata é o primeiro calígrafo português a quem um poeta, Luís de Camões, dedica um soneto, o número 187, da edição de 1685, das *Rimas Várias de Luiz de Camões* [1], também presente no manual de caligrafia que vamos agora analisar. O poeta terá inclusivamente seguido os preceitos caligráficos de Barata no primeiro manuscrito de *Os Lusíadas*.

O desenho da escrita que se desenvolvia em Itália e em Espanha, durante o século XVI, não tinha paralelo em Portugal até ao momento em que Barata edita *Exemplares de Diversas Sortes de Letras* [2], em 1590. Depois desta obra teríamos que esperar cento e cinquenta anos até que surgisse um novo manual de caligrafia. No século XVIII surgiram os manuais caligráficos de Andrade de Figueiredo e de Jacinto de Araújo e, já no século XIX, a obra de Ventura da Silva. Deste modo iniciar-se-ia em Portugal uma trajetória heterogénea de calígrafos e caligrafias que devem a Barata o seu primeiro impulso. Afirmo Eduardo Lourenço, em *Portugal como Destino*, que nós portugueses “temos uma certa imagem ‘publicitária’ do mundo (...)” e ainda hoje “nos últimos quinze anos, o que podemos considerar como mais representativo do que somos na ordem da cultura sofreu uma inegável mudança. Consola verificar que grandes nomes das letras, das artes, da arquitectura, da poesia, do teatro, do cinema começam a fazer parte da paisagem europeia” [3]. Neste sentido, Barata é também um grande nome da cultura portuguesa, tendo um lugar inquestionável na paisagem caligráfica europeia. A este propósito, constata-se que as histórias dos portugueses, todas “contam as aventuras celestes de

um herói isolado num universo previamente deserto. Tudo se passa como se não tivéssemos interlocutor” [4] como afirma Eduardo Lourenço, em *O labirinto da Saudade - psicanálise mítica do destino português*. Barata foi um homem e um “herói isolado” que produziu a sua obra num tempo ainda vazio e “deserto” de calígrafos.

2. Influências europeias e inspiração ibérica – enquadramento histórico

A obra de Barata tem que ser observada à luz do contexto caligráfico europeu, tendo em conta que o calígrafo não ignorou aquelas que julgamos serem as suas influências: Ludovico degli Arrighi, Giovanni Antonio Tagliente, Giambattista Palatino, Juan de Yciar e Giovanni Francesco Cresci. A análise ao seu trabalho permite verificar que o autor conhecia outras obras similares tendo em conta a sua estratégia de difusão da caligrafia de chancelaria que se empregava em Itália desde o século XV e que a maioria dos manuais europeus empregava desde o início do século XVI.

Na Europa, os calígrafos tiveram que enfrentar o domínio da caligrafia *Gótica*, considerada uma caligrafia mais nobre e requintada. Ao afirma-se contra esta tendência, e introduzindo a caligrafia de chancelaria em Portugal, Barata revela-se representante da modernidade caligráfica no nosso país.

Nas estampas de Barata podemos observar vários estilos de *Cancellarescas*: modelos mais elementares reservados a uma prática quotidiana, lado-a-lado com modelos mais adequados a uma utilização profissional da caligrafia.

O manual de caligrafia *La Operina*[5] (1522), de Arrighi, terá sido uma das obras que influenciou Barata. *La Operina* é, no dizer do tipógrafo Stanley Morison, um “produto da burocracia eclesiástica centrada em Roma. O seu autor designava-se a si próprio calígrafo da Chancelaria apostólica”[6]. O seu livro é dos primeiros na lista de publicações de espécimes impressos de caligrafia de chancelaria, constituído por dezasseis folhas onde revela diversos exemplares de letra para diferentes utilizações. Neste sentido *La Operina* define-se como um pequeno trabalho que pela via religiosa se terá difundido no continente europeu, chegando até Portugal.

Um ano depois surgia o livro de caligrafia de Tagliente, *Lo presente libro insegna la vera arte de lo eccellente scrivere de diverse varie sortie de litere*, impresso em Veneza em 1524, tendo sido editado trinta vezes; o enorme talento caligráfico de Tagliente permitiu-lhe produzir um manual de caligrafia que se disseminou pela Europa, podendo falar-se num fenómeno de proliferação da caligrafia de Itália. O seu trabalho é caracterizado por um cuidado extremo com a ornamentação e numa variação de inclinações entre as maiúsculas e as minúsculas, sendo as primeiras direitas e as segundas inclinadas.

Uma terceira figura fundamental na caligrafia da renascença italiana é o *penman* Palatino, caracterizado por Oscar Ogg como sendo o “calígrafo dos calígrafos”[7]. O seu trabalho é diferente dos outros dois pois para além de instruir através de texto e estampas a caligrafia de chancelaria utiliza para esse fim todos os modelos de letras antigas e modernas de to-

das as nações, como as letras alemãs, francesas, espanholas, os alfabetos gregos, hebraicos, árabes, cirílicos e os caracteres criptográficos.

Palatino imprime o seu manual de caligrafia em Roma, o *Libro nuovo d'imparare a scrivere* seria editado em 1540, revisto e reeditado em 1545 e 1566. Colocou grande cuidado nas caligrafias da Idade Média, particularmente a *Gótica Rotunda*, desenvolvendo igualmente a caligrafia de chancelaria através do patrocínio da igreja, tendo em conta o interesse do Vaticano nesta caligrafia e o facto do calígrafo ser um intelectual proeminente no círculo de Roma.

A *Cancellaresca* de Palatino é caracterizada por uma grande sensibilidade no espaço entre letras que apresentam pouca inclinação, um sentido de verticalidade e algum contraste entre os traços finos nas linhas oblíquas e os traços grosso nas linhas verticais e horizontais que constroem as letras.

A obra caligráfica de Arrighi, Tagliente e Palatino influenciaria inúmeros autores europeus, chegando também a Espanha. Poderíamos ser levados a pensar que Barata tivesse tido conhecimento dos três autores italianos através de Espanha onde se realizou um processo de mimetismo do estilo caligráfico dos italianos, contudo, a hipótese de ter tido contacto directo com os manuais de caligrafia de Itália é mais acertiva, tendo em conta a difusão destas obras na Europa.

Em 1550, um prelo em Saragoça, imprimiria a *Arte Subtilissima por la qual se ensēa a escreuir perfectamente*[8] de Juan de Yciar, um jovem do País Basco que se instalou na capital da região de Aragón. Yciar é o precursor e o patriarca da caligrafia espanhola apresentando na sua obra uma grande diversidade de alfabetos *Cancellaresca*, *Humanista*, assim como capitais romanas ao estilo de Dürer. Na verdade, Yciar produziu uma primeira edição, em 1548, intitulada *Recopilacion Subtilissima Intitulada Orthographia Practica* e uma segunda edição aumentada, de 1550, que corresponde à obra que temos vindo a referir.

Comparado com os seus modelos italianos, este trabalho é de menor qualidade, talvez por ser realizado por um autor muito jovem, menos subtil no uso da pena e nos traçados da caligrafia. Não seria de esperar que um autor de vinte anos pudesse acompanhar a subtileza de Arrighi, o vigor de Tagliente, ou o denso esplendor de Palatino, mas Yciar introduz a caligrafia de chancelaria em Espanha podendo ser caracterizado como um continuador ibérico dos três autores italianos.

No manual de Yciar são também apresentados desenhos geométricos de capitulares romanas, que vamos encontrar na caligrafia portuguesa, particularmente no trabalho de Barata e Andrade de Figueiredo. Para Yciar estas capitulares que sobreviveram à destruição de Roma são surpreendentemente denominadas *Góticas* e noutras ocasiões, de forma mais apropriada, designadas *Latinas* e *Romanas*.

É através da obra *Essempare di piu sorti lettere*[9], de 1560, e de *Il perfectto scrittore*, de 1570, que Giovanni Francesco Cresci cria um estilo caligráfico renovador, que terá certamente influenciado Barata pois a data das estampas do calígrafo português distam 12 anos da edição da primeira obra do calígrafo italiano.

Cresci é autor da caligrafia *Cancellaresca Moderna* cujas letras têm as extremidades em forma de bolbo. Cresci critica o excesso de angulosidade das letras de Arrighi, Tagliente e Palatino, realizando uma caligrafia mais modulada e menos quebrada.

A caligrafia presente nos manuais de Arrighi, Tagliente e Palatino era caracterizada por uma certa angulosidade, surgindo vértices e traços por vezes difíceis de executar, sendo difícil ligar as letras entre si. Cresci procura contrariar a lentidão da caligrafia tendo em conta os ângulos oblíquos que os três autores desenvolveram e o facto da manipulação da pena ser difícil. Assim, nos seus modelos caligráficos as ligaturas entre letras são mais fáceis de realizar porque as letras são mais curvas, a inclinação melhor ajustada, a ponta da pena está mais próxima e é de corte mais curto que no passado. Mais ainda, os floreados são agradáveis e a mão pode escrever mais depressa tendo em conta o traço utilizado.

A caligrafia de Cresci produz letras de grande legibilidade onde os ascendentes e os descendentes são pronunciados permitindo uma nova certeza de decifração das letras individualmente e da palavra como um bloco de muito mais fácil leitura, se comparada com os autores referidos anteriormente. Este novo maneirismo e clareza gráfica permitem que os próprios gravadores das obras realizem um trabalho de maior perfeição tendo em conta a pouca utilização de ângulos e arestas vivas. Revelando-se um calígrafo moderno e documentado, Barata traduz na sua obra uma renovação gráfica que teria continuadores.

3. Os interlocutores de Manuel de Barata

São diminutas as análises gráficas ao trabalho de Barata, para além de algum esforço biográfico em torno do calígrafo. Tendo em conta a falta de testemunhos vamos recorrer em primeiro lugar aos calígrafos Jacinto de Araújo[10] e Ventura da Silva[11], que no século XVIII e XIX, respectivamente, tecem comentários à sua obra que importa registar, principalmente por virem de autores para quem, no desenvolvimento do seu trabalho, Barata constituía uma referencia nacional – em testemunhos recolhidos por Oliveira Ramos na obra que já tivemos oportunidade de referir.

Vamos ainda registar um terceiro contributo do investigador Francisco Dias Gomesna *Analyse e combinações philosophicas sobre a elocução e estilo de Sá de Miranda, Ferreira Bernardes, Caminha e Camões*, de 1793, que terá contactado directamente com as estampas de Barata, num testemunho recolhido por Ferreira Lima[12].

Jacinto de Araújo considera que o trabalho de Barata é profundamente inovador para o seu tempo tendo em conta a utilização de chapas de metal para a gravação das estampas pois, ao contrário da xilogravura, esta técnica permite mais detalhe no registo da escrita. Outro dado importante e que corrobora o que temos vindo a referir é o paralelo que Jacinto de Araújo estabelece com Cresci, particularmente com a obra *Il perfectto scrittore*, onde para além da utilização das chapas de metal se verifica uma opção formal por uma caligrafia de maior modernidade criando assim uma ponte estilística entre Barata e o calígrafo italiano.

A reflexão de Ventura da Silva, por seu turno, incide na ruptura com

a caligrafia gótica e no surgimento da caligrafia de chancelaria, que se deve a Barata e às suas estampas. Ventura dá ênfase a este aspecto tendo em conta que procura confirmar a origem da utilização de uma caligrafia moderna em Portugal, condizente com os preceitos caligráficos do resto da Europa, presentes na edição de autor que Barata publica em 1752 e que Ventura reconhece como o primeiro “calligraphico que nas Hespanhas appareceu com Originaes de Letras abertas em chapas”[13].

Por último, Dias Gomes caracteriza a obra de Barata como um dos grandes documentos da criação gráfica e da cultura visual em Portugal, recorrendo a uma adjectivação que promove apologeticamente a obra do calígrafo; para além disso, o investigador regista ainda o nome do calígrafo Filipe Neri para deste modo reflectir sobre o legado de Barata e a presença da sua caligrafia em obras posteriores dedicadas a este tema. Ao invocar o nome de Barata de forma tão elogiosa Dias Gomes procura encontrar na obra do calígrafo um exemplo paradigmático que sirva de exemplo aos maus professores de caligrafia e a má execução da escrita que se registava em Portugal.

Diga-se ainda que estes três testemunhos revelam o quão diminuta é a leitura crítica actual da obra de Barata. Para além dos enquadramentos históricos e das comparações estilísticas, bastante limitadas, com calígrafos nacionais e estrangeiros, não se encontram análises de fundo relativas às opções gráficas e ao próprio desenho de escrita presente na obra do calígrafo.

4. Percurso pelas estampas do manual caligráfico de Manuel Barata

O manual de caligrafia de Barata é constituído por três páginas tipográficas e dezanove estampas onde são desenvolvidos diversos estilos caligráficos. A observação detalhada de uma seleção de cada uma das estampas vai permitir verificar as opções estilísticas do calígrafo português e identificar paralelos com autores estrangeiros que o antecederam. Depois da capa onde está designado o título do trabalho, a segunda folha da obra contém um prólogo de João de Ocanha que revela a existência de um conjunto de estampas caligráficas, que dizem respeito ao projecto de 1752, constituído por uma colectânea de estampas soltas. Neste texto Ocanha coloca-se a si próprio como fiel depositário da obra de Barata e organizador de um trabalho pedagógico que merece o louvor e apoio de todos os que pugnam pela boa caligrafia.



Figura 1 e Figura 2. Manuel Barata - Exemplares de Diversas Sortes de Letras, Capa e prólogo da Edição João de Ocanha.

Figura 3 e Figura 4. Manuel Barata -
*Exemplares de Diversas
Sortes de Letras.* Texto
ao leitor de João de
Ocanha acompanhado
de soneto de Camões.
Estampa 1.



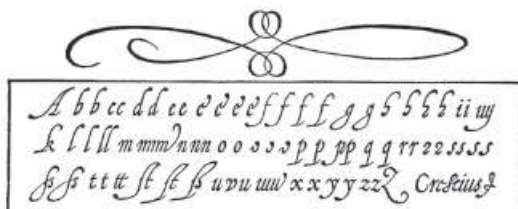
Na terceira folha tipográfica, João de Ocanha dedica um pequeno texto aos leitores, onde revela a sua função de editor e organizador da obra, enquadrando o projecto de Barata, que já não assistiria à edição do trabalho dedicada a todos “os que desejam de chegar a perfeição da arte descrever”. Mais adiante Ocanha dá conta do seu papel neste processo: “co lhes comunicar as estampas que deixou acabadas de sua mão, que eu determiney emprimilas, ainda que não tão perfeitas, por causa da sua morte, pera virem a luz” [14].

Ainda na terceira folha tipográfica inclui-se o já referido soneto de Camões, numa composição gráfica em que é importante referir alguns detalhes referentes à tipografia: O texto de Ocanha na metade superior da folha, utiliza um tipo de letra romano, idêntico ao da página anterior mas num corpo de letra maior, com uma capitular ‘I’ decorada; na margem inferior da página temos o soneto de Camões, utilizando um tipo de letra de menores proporções, em itálico, formando deste modo uma composição muito equilibrada.

Nas estampas de Barata podemos encontrar quatro tipos de caligrafia *Cancellaresca*, que aqui descrevemos sintética e cronologicamente: *Corsiva*, *Formata*, *Bastarda* e *Moderna*, demonstrando uma amplitude caligráfica por parte do calígrafo se pensarmos nas quatro *Cancellarescas* que vamos observar ao longo deste trabalho. A *Cancellaresca Corsiva* de Barata apresenta um desenho anguloso, de *arestas* vivas e visualmente condensada. As ascendentes e descendentes afastam-se do corpo primitivo terminando sempre em curva. A *Cancellaresca Formata* do calígrafo português é uma caligrafia ligeiramente inclinada para a direita, mais curva e não tão estreita como a anterior. Trata-se de uma caligrafia não ligada que faz uso de pequenas gotas nas ascendentes e patilhas nas descendentes, que se apresentam curtas. Noutras situações Barata opta por terminar as ascendentes e descendentes com patilhas filiformes. A terceira *Cancellaresca* que Barata realiza é denominada *Bastarda* pois é uma síntese das duas primeiras. Apresenta-se estreita como a *Cancellaresca Corsiva*, e tem as hastes das ascendentes e descendentes curtas com patilhas filiformes, como a *Cancellaresca Formata*. O último estilo caligráfico, dentro deste conjunto de quatro caligrafias é a *Cancellaresca Moderna* onde Barata constrói as extremidades das letras em forma de gotas grossas, sendo os seus traços filiformes.

A estampa 1 de Manuel Barata onde se pode ler “*Exemplaria Cancellarescarum (...) Emmanule Baratta, Olyss. MDLXXVII*” revela um grande sentido de detalhe no traçado e destreza de mão. Esta primeira estam-

pa, realizada em 1577, corresponde à capa de um conjunto de estampas iniciadas em 1572 e nela se pode observar uma síntese de vários estilos caligráficos: *Romana* maiúscula e minúscula, *Gótica Textura* do século XV e caligrafia *Cancellaresca Corsiva*.



A estampa 2, onde se lê “Aaabcdefg (...) Script. à Leuman. Ottarab. Lusit. Vlisb. Anno Dni. 1572”, revela exemplares de caligrafia *Cancellaresca Moderna*, é constituída por uma única maiúscula e pela totalidade das minúsculas do alfabeto. As letras apresentadas, pela sua estrutura e elementos decorativos, aludem claramente a Cresci. Nas minúsculas pode observar-se a gota que se forma nas ascendentes e a terminação em linha das hastes descendentes de ‘p’ e ‘q’. A gota referida é particularmente pesada e o traço final é, pelo contrário, extremamente fino e delicado gerando um estilo caligráfico algo desequilibrado onde zonas negras dão lugar a traços filiformes. Acrescente-se ainda a propósito desta estampa que a frase na margem inferior da página está também caligrafada em *Cancellaresca Moderna*.

Figura 5 e Figura 6. Manuel Barata - Estampa 2. Abecedário de Cresci.

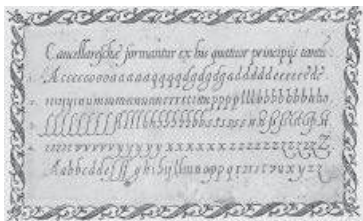


Figura 7 e Figura 8. Manuel Barata - Estampas 3 e 4.

A estampa 3 de Manuel Barata, que inclui a frase “Cancellaresca formatur ex his quatuor principys tantu. (...) yzz” dá a ver um exemplar de *Cancellaresca Formata* que o calígrafo trata de forma especial: não se observam angulosidades mas elementos filiformes, rectos ou curvos, com uma pequena modulação. A letra ‘g’ é um bom exemplo tendo em conta que apresenta estas características de carácter muito gestual. Na generalidade verifica-se pouca condensação das formas, característica da caligrafia *Cancellaresca Formata*, embora as gotas que Barata desenhou nas ascendentes das letras ‘b’ e ‘d’ e a saliência central em gota da minúscula ‘e’ tragam reminiscências da caligrafia *Cancellaresca Moderna*, observada na estampa anterior. Neste sentido a alusão ao trabalho de Cresci em torno da caligrafia *Cancellaresca Moderna* é notória também na *Cancellaresca Formata*.

Figura 9 e Figura 10. Manuel Barata -
Estampa 5 e 6.



Na estampa 4, Barata escreve “Aaabcddeeffggg (...) Initium sapientiae timor domini... AABBCDDDEE... Primum querite reonum Dei & omnia adycientur vobis MB” e nela podemos observar a continuação da caligrafia *Cancellaresca Formata* observada na estampa 3. Na metade superior da estampa o calígrafo descreve as variações de desenho das minúsculas caracterizadas por uma ligeira inclinação para a direita; na metade inferior, representa variações gráficas para cada uma das letras maiúsculas, realizando um complemento decorativo para algumas delas, como no caso de ‘A’ e ‘N’. Noutras situações realiza uma transformação radical do desenho da letra como em ‘C’ e ‘E’, construindo opções caligráficas que ficam ao critério do escrevente.

Na estampa 5, “Maiuscula Cancelchae (...) Barat. Scrib.”, o calígrafo reúne um conjunto de maiúsculas que são relativas à caligrafia *Cancellaresca Formata*, explorando mais intensamente as variações gráficas que uma mesma letra pode ter. Esta opção, ao descrever, quase até ao limite, o desenho da letra individualmente, radica nos mestres italianos que construíam inúmeras possibilidades caligráficas para solucionar uma letra maiúscula.

Nesta quinta estampa onde as letras surgem em maior escala é possível observar um traço perfeccionista e um apuro da legibilidade individual de cada letra, graças à utilização do buril, do qual Cresci foi o grande inovador[15]. Este instrumento permitiu criar linhas mais finas e definidas, e controlar com rigor a modulação. Esta técnica, que superava a xilogravura permitia um desenvolvimento da caligrafia sem precedentes.

A estampa 6 de Barata, dedicada às abreviaturas, ainda no âmbito da caligrafia *Cancellaresca Formata*, mostra as composições do autor para cada uma destas estruturas caligráficas, extremamente refinadas no entrelaçar da linha e na relação que se estabelece entre a letra de tamanho normal e a letra elevada e diminuída. As abreviaturas de termos vários como Alteza, Beatíssimo ou Excelentíssimo, revelam um grande cuidado na relação de escalas caligráficas. Por outro lado, o facto da palavra estar abreviada permite a criação de um espaço suplementar, em branco, onde Barata constrói arabescos de carácter decorativo. A este propósito, veja-se a quarta composição, “Altíssimo” onde o traço decorativo, que nasce na parte superior da letra ‘A’, curva para a esquerda, prolongando-se pela direita, formando assim o traço central da maiúscula inicial, indo depois desenhar a letra elevada ‘M’ que junta um ‘o’ para terminar a abreviatura.

A estampa 7, “Letra Portuguesa (...) M. B. O escrueo e Lx.^a”, e a estampa 8, “Don Sebastian per Graça d. D.^a Rey de Portug.l e dos Algarves

(...) Manuel Barat. a fez e lix.^a”, correspondem a um momento fundamental da sua produção gráfica, tendo em conta que é aqui que o autor produz uma nova caligrafia nacional, dita *Portuguesa*, exprimindo o desejo de deixar um estilo caligráfico revelador da personalidade do seu país.



Figura 11 e Figura 12. Manuel Barata - Estampas 7 e 8.

Do ponto de vista gráfico, esta caligrafia é menos inclinada que os exemplares caligráficos que surgem em Itália no século XVI. Barata apresenta desenhos caligráficos totalmente originais na forma como relaciona estilos anteriores à caligrafia *Cancellaresca*, construindo estruturas gráficas de palavras e frases totalmente díspares daquelas que se desenvolviam na Europa.

Algumas letras evidenciam reminiscências da caligrafia *Carolina*, tendo em conta a sua legibilidade e o diminuto corpo primitivo, inspirando-se Barata na estrutura da caligrafia *Gótica Cursiva* do século XV, conferindo-lhe um certo carácter barroco e gestual, recusando, na maioria dos casos, a estética *Cancellaresca* de Arrighi, Tagliente e Palatino.

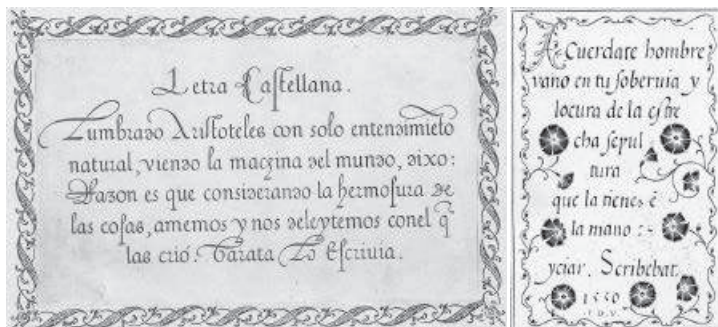
Assim, para cada letra, encontramos três estruturas base que, nalguns casos, se podem multiplicar em várias opções suplementares: em primeiro lugar um desenho de letra que respeita a estrutura convencional e de maior legibilidade; em segundo lugar, a letra com uma forma mais remota em relação à convenção alfabética, sendo ainda possível descodificar a letra em causa; finalmente, a letra com um ou vários elementos gráficos associados que permitem realizar uma escrita ligada, seja com a letra anterior, posterior, ou ambas.

Algumas minúsculas que apresentam um desenho mais simples e convencional aproximam-se ainda da caligrafia *Romana*.

É preciso salientar a variação de contraste acentuado, principalmente nas maiúsculas. Podemos observar zonas totalmente filiformes que depois dão origem a zonas de traço muito grosso, com a pena assente nos dois bicos.

A enorme variação de desenho de cada uma das letras da caligrafia *Portuguesa*, alude ao facto de Portugal ser um país de contrastes em termos de pronúncia. Se compararmos a pronúncia do Alentejo com as regiões nortenhas percebemos que esta caligrafia pretende responder a variantes sonoras regionais muito marcadas. Por outro lado a língua portuguesa apresenta uma grande constância fonética que faz com que as inúmeras variações de traçado do alfabeto não impeçam a descodificação perfeita da letra em causa; é esta constância e a sua *segurança* fonética que permite a Barata uma tão grande imaginação caligráfica.

Figura 13 e Figura 14.
Manuel Barata - Estampa 9. Uma página da Arte Subtilíssima da Yciar.



A estampa 9 onde Barata escreve “*Letra Castellana (...) Barata Lo escriuia*” representa a caligrafia *Castelhana* dando seguimento à abordagem onde inscreve a caligrafia num país, pelos exemplos da caligrafia Portuguesa e Castellhana.

Quando realizou estas estampas, Barata já teria conhecimento do manual de caligrafia de Yciar, onde se pode observar uma caligrafia *Castelhana* ligeiramente inclinada e algo imperfeita, seguindo os preceitos da caligrafia *Cancellaresca*, tendo em conta as angulosidades que as letras apresentam. Neste sentido, dificilmente se pode observar o estilo caligráfico de Yciar como sendo espanhol tendo em conta que a caligrafia se aproxima muito mais da italiana.

Ao contrário de Yciar, os traços das maiúsculas de Barata nunca acabam em corte de pena mas sim em linha filiforme. No caso das minúsculas da caligrafia *Castelhana* do autor português, se observarmos a primeira palavra do texto (*‘lumbrado’*), podemos constatar que a haste ascendente da letra ‘b’ é dupla, subindo e depois descendo, terminando em linha filiforme. A letra ‘d’, por outro lado, fica circunscrita ao espaço primitivo, fazendo alusão aos versaletes, tendo em conta que não apresenta haste ascendente. No seu conjunto é uma caligrafia modulada e de pouco contraste, legível e de desenho homogêneo se pensarmos na articulação e coerência de todas as letras do alfabeto.

Podemos dizer que as características fonéticas da língua espanhola estão presentes na caligrafia que Barata inventou. A caligrafia é aberta, com olhos de letra – os brancos interiores – generosos, revelando uma voz clara e encorpada, perfeitamente adaptada à língua espanhola, uma língua redonda e lânguida tal como a sua caligrafia *Castelhana* da estampa 9. A caligrafia *Castelhana* de Barata adapta-se efetivamente à língua espanhola. Veja-se que não apresenta o desenho anguloso de Palatino que vai ao encontro da língua italiana e do seu *stacatto* fonético que conduz a uma caligrafia de mais contraste claro-escuro.

Na estampa 15, onde se lê “*OS iusti meditabuntur (...)*”, podemos observar uma estampa que Manuel Barata dedica à caligrafia *Cancellaresca Formata*, produzindo um exemplar deste estilo caligráfico diferente daqueles que observamos nas estampas 3 e 4. Desapareceram as gotas pretas de terminação das hastes ascendentes, dando agora lugar a patilhas filiformes que terminam os traços superiores. A caligrafia é estreita e não existe ligação entre letras no acto da escrita, apresentando-se muito legível e de leitura extremamente confortável.

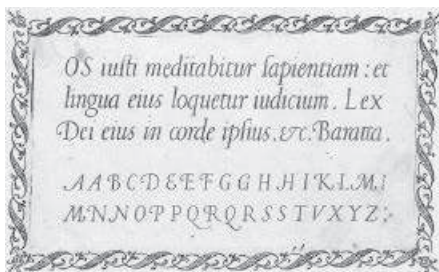


Figura 13 e Figura 14.
 Manuel Barata - Estampa 15. Libro Nuovo de Palatino.

Comparemos agora a caligrafia *Cancellaresca Formata* de Barata com a de Palatino, calígrafo que produziu um exemplar histórico desta caligrafia na sua obra de 1540, *Libro nuovo d'imparare a scrivere* [16], de que reproduzimos um exemplo. Podemos verificar que a *Formata* de Barata é menos angulosa, ligeiramente inclinada, apresentando traços curvos na maioria das letras, enquanto que a de Palatino é mais contrastada e menos curva.

Por outro lado, Barata elabora uma forma eficaz de revelação do desenho das minúsculas e das maiúsculas da estampa 15, mostrando o funcionamento das primeiras em acto de escrita contínua, sem as isolar, correndo no entanto o risco de não se poder visionar a totalidade do alfabeto; em baixo revela as segundas de forma individual, de 'A' a 'Z'. Tendo em conta que a utilização das minúsculas é mais frequente, torna-se fundamental observar o seu funcionamento e a forma como as letras se articulam entre si quando o escrevente utiliza este estilo caligráfico. Neste sentido, é mais útil a observação de uma textura caligráfica constituída por poucas linhas do que a observação de cada uma das letras individualmente. É de referir uma certa condensação da caligrafia minúscula, sendo as maiúsculas mais abertas e mais quadrangulares no seu desenho, evidenciando menor inclinação. Com isto, Barata revela uma preocupação ao nível da economia da leitura, tendo em conta o número de letras por linha: o facto das minúsculas se apresentarem estreitas permite um encaixe funcional entre as letras, o que faz com que se possa escrever mais texto dentro da mesma página.

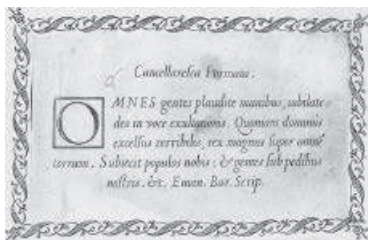


Figura 15. Manuel Barata - Estampa 16.

Na estampa 16 onde Barata escreve "Cancellaresca Formata. OMNES. (...) Eman. Bar. Scrib." podemos verificar a continuação da visualização da caligrafia *Cancellaresca Formata* numa página equilibrada visualmente, tendo em conta os brancos envolventes e a paginação do texto. Esta estampa revela-se de grande importância pois mostra o funcio-

namento deste estilo caligráfico em corpo de texto reduzido, testando a legibilidade individual de cada letra e o conforto na leitura da palavra e da linha de texto. Para que as boas condições de recepção do texto caligráfico

pudessem acontecer Barata ofereceu ao texto uma entrelinha generosa que permitia maximizar a legibilidade e a leitura, tendo perfeita noção de que a leitura confortável e a legibilidade de um texto se obtém, não com uma caligrafia de grande formato mas com uma entrelinha generosa e um corpo de texto mais pequeno, como se pode ver nesta estampa.

Figura 16 e Figura 17. Manuel Barata ~
Estampas 17 e 18.



Na estampa 17, onde se pode ler “ECCE NVNC BENE (...) Bar. Scrib”, e na estampa 18, podemos verificar que a caligrafia *Romana* de Barata é caracterizada pela forma como a pena altera a grossura do traço quando realiza um movimento vertical, mais grosso, um movimento horizontal, mais fino, ou um movimento oblíquo caracterizado por uma grossura intermédia. Esta natureza cursiva da caligrafia está também patente nas patilhas, que são de estilo fino e curvo no final de cada traço. Estas normas no traçado fazem com que Barata abdique de alguma expressão caligráfica para se cingir ao traço da pena e à sua subtil modulação entre fino e grosso. Este esforço vai no sentido de uma maior homogenização das letras do alfabeto, dando indícios de uma abordagem tipográfica.

5. Conclusão

Em termos de conclusão podemos afirmar que o trabalho de Barata estabelece em Portugal um novo padrão caligráfico, assente num número limitado de estilos que o calígrafo seleciona tendo em conta critérios de legibilidade, qualidade gráfica e modernidade. Não se dispersa por variantes históricas para revelar o seu virtuosismo e opta por se cingir a um conjunto de estilos que pretendem renovar a caligrafia em Portugal e dar uma nova qualidade à escrita quotidiana.

Numa época em que a caligrafia *Gótica* não respondia aos desejos de legibilidade, a introdução da caligrafia de chancelaria ou *Cancellaresca* através das estampas de Barata, elevam a qualidade da legibilidade do desenho da escrita.

Por outro lado, o seu trabalho evidencia um desejo de criação de uma caligrafia ibérica tendo em conta que entre os vários estilos que trata, se debruça sobre a caligrafia *Portuguesa* e a caligrafia *Castelhana*. É de assinalar a forma como cada uma destas duas caligrafias se adaptam com bom senso à língua portuguesa e espanhola, respectivamente.

6. Referências

1. Camões, Luís Vaz de; Rimas Várias de Luís de Camões, Comentadas por Manuel de Faria y Sousa. Madrid; Theotonio Damaso de Mello; 1685 e 1689, 2 vols. (ver ainda a edição fac-similada,

com nota introdutória de F. Rebelo Gonçalves e prefácio de Jorge de Sena, Lisboa, Imprensa Nacional-Casa da Moeda, 1972, 2 vols)

2. Barata, Manuel; Exemplares de Diversas Sortes de Letras Tiradas da Polygraphia de Manvel Barata Escritor Portugves, Acrescentados Pello Mesmo Avtor, Para Comvm Proveito de Todos [...]. Impresso em Lisboa, por Antonio Aluarez: A Custa de João de Ocanha liureyno; Anno de 1590.
3. Lourenço, Eduardo; Portugal como Destino; Lisboa; Gradiva; 1999; p. 78.
4. Lourenço, Eduardo; O labirinto da Saudade - Psicanálise Mítica do Destino Português; Lisboa; Gradiva; 2004; p. 24.
5. Arrighi, Ludovico degli; La Operina di Ludovico Vicentino da imparare di scrivere littera Cancellaresca; Roma; 1522.
6. Morison, Stanley; Early Italian Writing Books, Renaissance to Baroque; Boston; Godine; 1990.
7. Assim referido por Oscar Ogg no seu prefácio à obra: Calligraphy, An Unabridged Reissue of the Writing Books of Arrighi, Tagliente e Palatino; Londres; Dover; 1953.
8. Yciar, Juan; Arte Subtilissima por la qual se enseña a escreuir perfectamente; Saragoça; 1555.
9. Cresci, Giovanni Francesco; Essemplare di piu sorti lettere; Roma; 1560.
10. Ramos, Manoel d'Oliveira; 'O Calligrapho Ventura da Silva'; in: Ventura da Silva, A Sua Obra Nacional, Monumento à Sua Memória; Porto; Livraria Portuense; 1899; p. 7.
11. Ramos, Manoel d'Oliveira | Cit. [10] | p. 7
12. Ferreira Lima, Henrique de Campos; 'Subsidios para um Bio-dicionário de Caligrafos Portugueses' in: Anais da Bibliotecas e Arquivos, Vol. III - Nº 10, Abril-Junho; Lisboa; Oficinas Gráficas da Biblioteca Nacional, 1922. p. 211.
13. Ramos, Manoel d'Oliveira | Cit. [10] | p. 7
14. Ocanha, João; Lector; in: Barata, Manuel | Cit. [2] | p. 3.
15. Anderson, Donald M; Calligraphy, The Art of the Written Forms; Nova York; Dover; 1992. p.
138. Nas palavra de Donald M. Emerson "o buril podia produzir linhas finas, mais do que qualquer outras obtidas na gravação de madeira. Cresci desaprovava a gravação, as suas distorções e o efeito imediato da sua escrita cursiva foi uma querela ácida com Palatino".
16. Palatino, Giovambattista; Libro Nuovo D'Emparare A Scrivere; Roma; 1540.



Art Direction and the Symbolism of the horse in the film *Mulan*: how Art Direction benefits from the symbolism of the horse to empower female characters

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Keywords

Art direction. Audiovisual metaphors. Female empowerment. Horses. *Mulan*

Abstract

This study analyzes how the Art Direction uses the metaphorical figure of the horse in Disney audiovisual productions, specifically in the film *Mulan* (1998), with an emphasis on female empowerment, in order to highlight the constructions of *mise en scène* from the elements of visual communication. Theoretical framework is anchored in the archetypes by Carl Jung and Marie von-Franz, and theoretical references are guided by Donis A. Dondis' work on visual language.

1. Introduction

A film's Art Direction has many purposes, one being visually coordinate every visual concept, aligning them with the desire of the General Director. The Art Director is responsible for some main decisions, helping teams such as camera, make up, and costume, which many times are working in conjunction with the Director of Photography. In 2D productions, i.e. animations, the Art Director conducts studies to adapt and bring into reality all idealized visual concepts to every type of cinematic piece. Therefore, this professional has an indubitable compromise with research about setting, environment, and scenography, teaming up with makeup and costume artists to create something unique.

This article investigates how Art Direction works with 2D animation scenes to translate symbolism and related meanings, with the intent of building scenes charged with visual metaphors, seeking to transmit messages and enchant spectators. In this context, this paper is based on the following question: **How does Art Direction benefit from visual metaphors to construct a narrative and empower female characters, especially through the symbolism of the horse?**

The end goal of this study is to analyze, identify and punctuate how bonds created between female characters and horses empower women, in both audiovisual narratives as well imagistic manifestation. We also analyze how concepts of symbolism, studied by Carl G. Jung in Semiotics, alongside precepts of modern feminism, are present in the Art Direction, such as archetypes that instigate the imaginary of these heroines and their narratives.

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It is by this richness in symbolism, figurations, and interpretations that we are able to assimilate some of the Art Direction and Narrative Direction's decisions. Linking these ideas with Semiotics and modern feminist philosophy is a way to dissociate female characters from a perspective of "lacking".

Every piece, be it drawn, recorded, built, or represented in any shape possible, only exists from the union of visual components, literal and symbolic, so that there are narratives rich in metaphors. The Art Director's main role is to analyze how these different elements can be combined in diverse stories, so that it is possible to work them in artistic ways, building a cinematic piece.

2. Visual, scenic, and behavioral representations of heroines in narratives

The film *Mulan*, released by Disney in 1998, tells the trajectory of our homonym protagonist with her great horse friend Khan, who becomes an important companion to Mulan during her journey to save China.

Its narrative starts with the Huns attacking China during the Han dynasty. After this attack, the emperor calls for Every Family man to present themselves to the Chinese army. So, our heroine's father, already old and wounded from a previous war, is required to present at the battalion. In order to spare him, Mulan decides to take her father's place, so at night she dresses his armor, takes her horse and goes to war.

What is the relation between the horse figure in Mulan and her character's empowerment? Having a trusty ally during epic moments in the story was a huge support for her psychological and personal development as a character; with her horse's help she strengthens herself expressively, facing various perils and enemies, with the main goal of preventing her father from fighting in yet another war, but she ends up doing much more than that and proves to herself and others her value as a woman.

Khan is presented to the audience as a loyal companion, fairly intelligent and sentient of the world around him, when transporting Mulan on horseback to her matchmaker and also, in the final scenes, when Mulan is revered by China's Emperor, Khan also bows to her, which we can assimilate as a great gesture of friendship, loyalty and mutual recognition.

By analyzing other movies, we can notice the figurative union between horses and women. In these stories, we observe a combination of the main rebel female figure with wild horses (*Flicka*, 2006), as well as opposite personalities, as in a gentle horse and a rebel protagonist (*Brave*, 2010); in the same manner, there are also young girls with grave emotional wounds healing themselves with the help of an equine friend (*Sonhadora*, 2006; *Black Beauty*, 2020). In the movie *Black Beauty* (2020), there is an indicative of psychological development of the character who loses her parents in a car accident, only to find emotional growth and healing through the affective connection to a wild mare, eventually overcoming her past trauma.

These combinations give strength to the female characters, at times being complementary, creating an expressive dichotomy in narratives,

and it is at this point that Art Directors act, creating incredible visual stories, based on empowerment, be it from the animal or its amazon, seeking to break society's archaic patterns.

Even before *Mulan*, we observe Disney appropriating equine personalities as support for protagonists, and these characters translate sentiments of loyalty, courage, and dexterity. In every story, be it with male or female protagonists, we trace key characteristics showcased in the horse characters, such as their high fidelity. They are extremely loyal to their owners and very intelligent, being capable of making their own decisions and actively interact with other individuals in the story. With studies based on these films, many questions about feminine empowerment arise, alongside the archetypes Art Direction uses to construct visuals and narratives, be it a movie or series. From this pattern traced in North American cinematic productions, we find female characters in different moments of their lives having contact with horses and, continuously, watch their plot develop around this friendship, showcasing the psychological benefits of this union, favoring both the protagonist and her horse companion.

By using different expression plans, the *mise en scène* made by the Art Direction presents to us the psychic and psychological development of the character, who faces various obstacles and, thanks to her equine sidekick, can overcome them.

Through the scenic decoupage of *Mulan*, we provide a panoramic view of the aspects chosen by the Art Direction, combining them with patterns recognized in the movies previously mentioned. In this case, we realize that horses are repeatedly emotional and physical support animals to such characters, serving as companions and often used for riding or traveling, freely acting in important scenes of each movie. *Mulan* showcases a sincere friendship with Khan, who is well disposed and cares for the heroin. Acting on its intelligent and sarcastic traits, Khan follows *Mulan* in her journey to fight in the army and save China.

In this perspective, we have some points to identify, such as: the distortion of the feminine archetype, which, contrary to the masculine, it is not often recognized as latent ability, but fragile and vulnerable, in need of a physical and emotional support. *Mulan* already has a courageous and fearless personality, often limited by her family to appease her ancestors and the society of her time. However, in this story, we see the breaking of patterns repeated in previous narratives, bringing to focus a determined protagonist, indocile and non-conformed, capable of overcoming unim-ageable obstacles with the help of her equine friend.

The characters' pains through their stories serve as a starter point; by feeling diminished or taken away from their dreams and goals, women are not discouraged, and such afflictions create a spark to go further, so their horse companions help them go away from these places of disaffection into arduous paths, which, if overcome, can lead to satisfactory moments in their lives.

Art Direction has the fundamental role of knowing, analyzing, and structuring different narrative styles, so it is not only necessary to be

versed in Visual Literacy and Gestalt, but also essential to have aesthetic sensibility, both anthropological and social, to comprehend how to portray certain humanitarian questions with moving images, as example: the advance of women in social causes.

A horse is an animal with abundance of symbolism and meaning in different cultures, their main traits represent strength, autonomy, and self-confidence, while female characters are often represented as fragile, dependent, and chaste. However, this analysis is not a fix point, and these relations go through modern adaptations in various narratives. Marie-Louise von Franz affirms that the instinct of power and determination is a manifested fact in society and many stories [1], while Jung declares that the impulse of individualization, seeking to be what one is, ends up being the more important impulse, going against Freudian assumptions [2].

3. *Mise en scène*: visual constructions of narratives and heroines (and why they make so much sense)

What is *mise en scène*? And why is it important that we see these bonds between female characters and their horses? Its proper translation is “to put on the stage”, being a French expression from theater. In a certain scene, it represents everything with its showcased elements: the actors with figurine and makeup, artificial or natural light, scenography elements and the ambient itself. In every narrative, every imagery construction carries many metaphors, telling us a lot about what is happening in the story, and the significance of each character in their time in the spotlight.

Donis Dondis explains in his text that there are countless points of view by which we can analyze a piece of work, visual or audiovisual, and one of the most revealing is to decompose it into their building elements, to better comprehend the whole [3]. Through decoupage of specific scenes of various narratives, we see the many forms *mise en scène* can favor and show the symbolic bonds between our heroines and their horse companions.

[...] exemplify how the horse can act as a transformative symbol in the human psyche resulting in psychological development. The character, who presents himself dissociated from his abilities and desires due to excessive use of rationalization, is invited by the instinctive symbolic power of the horse to approach his aspects to reintegrate them into his consciousness [4].²

It is through the Gestalt that this phenomenon occurs, where the images are interpreted in different ways by the people. And to guide the interpretation of the

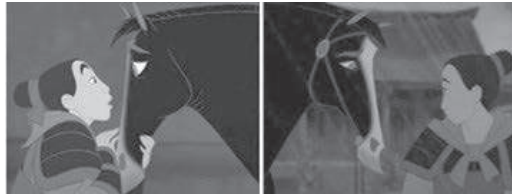
mises en scènes, we will exemplify how these elements tie the story, from Jung thesis with archetypes, as well as thesis from Donis Dondis in visual language.

Fig. 1. Stills from *Mulan*. Scene where Mulan arrives at the matchmaker, bravely controlling her horse by the reins, breaking previous feminine patterns as seen in other Disney movies. We see her as a fierce woman, capable of controlling an animal much larger than she is. The colors in her palette scheme are also different of what we see in previous princesses: apart from the pastels, baby pink, soft blues, we see mint green, red, grey and mid tone blue. Also, her hair uncombed, flowing in the wind with some straws in it.



²Translated by the author

Fig. 2. Stills from *Mulan*. Scene where the young and fearless protagonist fetches her horse from the family stable and leaves to war during a rainy night. Although, at first, the black horse looks at her seemingly spooked, he accepts to go with Mulan on this journey. In the second frame, they make eye contact, and this symbolical act, unites the delicate figure of the heroine with the dark strong figure of the horse.



To portray how everything that has been mentioned is intertwined, Dondis says “visual elements consist of the basic sub-

stance of what we see, and their number is reduced: the point, the line, the shape, the direction, the tone, the color, the texture, the dimension, the scale and the movement” [3].

Khan and Mulan exchange looks, and, in this second scene, we can feel their powerful bond, while they travel together to the army camp. It is demonstrated by a horizontal line from their sight how the imagery and metaphorical equity exists between these characters. The closed plane of the two scenes being analyzed bring us a sensation of closeness between characters, creating an intimate and safe environment, where silent feelings of courage and refuge are shared from one to the other.

We can deduce it as the strength of love, which resulted in Mulan’s strategy and Khan’s decision to follow in her journey, to be by his friend’s side. In the second image, the characters form a heart, where Khan, in his grandiosity, remains with his face near Mulan, revealing affection and care, something we do not see in any other human character close to the girl.

In every scene that Mulan talks to the horse, we see the steed maintaining eye contact with her, which brings us a feeling of closeness, friendship, and trust. One of the Art Direction’s intentions is to showcase that there can be strong bonds of fellowship in unconventional ways between two very different characters. The visual balance of the characters, combined by the framing of the decoupage scenes, narrates a silent story in parallel, where their friendship grows stronger, through Mulan’s secret plan of fighting the war in her father’s place.

Fig. 3. Stills from *Mulan*. Scene where Mulan feels inclined to leave the army’s camp. Our heroine feels defeated by the harsh training, however, her horse companion stands by her side, as a silent friend and is here also when she decides to embrace her inner strength and stay in the camp.



In the analyzed composition of this third scene, we see how Khan behaves near Mulan, as if he is hugging her, calling back to their friendship. The expression plane is caused by the jet-black color of the horse, which envelops Mulan, in a more closed plane. When seeing both figures interact, we get a notion for the horse’s bigger size, and in the last screencap, how his color relates to the background and his size to Mulan, bringing a sense of safety and support. Through the selection of screencaps, we can see how the angle direction emphasizes the character’s feminine power, with her spontaneity and free

expressiveness, as well as how her horse positioning brings us familiarity. While Khan expresses physical force with his presence, he also follows Mulan with his eyes, showcasing worry and affection towards her and thus serving as an emotional support animal.



By the development of Self, our heroine becomes stronger while her personality is being defined by the overcoming of herself, creating a more independent and fearless self- image than before. Having an animal friend by her side has given her an expressive

emotional support. At the film's beginning, we see a young woman holding the horse's reins to control it inside her property (first still of figure 1). In later scenes, said control blossoms into a beautiful friendship (figure 4).

One of the main visual elements described by Donis Dondis is scale. According to the author, "The big can't exist without the small" [3], so scale is established by the relative size of existent visual clues. We can observe them in scenes, comparing objects and living beings and the environment where everything is present. In her book *Sintaxe da linguagem visual*, Dondis defines that three known shapes (triangle, circle and square) figuratively express three basic visual directions, that are perceived when we decompose a scene, and so: square – horizontal and vertical; triangle – diagonal and, lastly, circle – curve [2].



By combining different concepts and studies, we realize the metaphorical importance of the horse, which surpasses his role as a mere pet.

4. Conclusion

The combination of a female character with a horse companion is not by chance and it is certainly not to be seen as a pejorative one. This research clearly collects arguments to demonstrate how strong those symbolic bonds can be, and how the Art Direction can benefit from symbolism and visual literacy to craft amazing relationships among the most different characters.

After analyzing the whole film, we realize how impactful it was for our heroine to have a horse as an animal companion, but also, carrying a strong symbolism as true guardian through her journey of self-knowledge.

With the intent of contributing to the large framework of symbolism

Fig. 4. Stills from *Mulan*. Scene where Mulan shows her vulnerability, and Khan comforts her in a sad moment after a battle. The figure of the horse "embraces" the figure of the woman, causing feelings of comfort and closeness. Our heroine remains sitting, and the silhouette of the black horse around her creates a sensation of protection.

Fig. 5. Stills from *Mulan*. Scene where both characters help and support each other during a blizzard caused by a previous battle. She bravely jumps on the horse, takes the reins, and even when they both look "scared", our characters remain close and face the danger of the blizzard.

of the figures of women and horse, paraphrasing Carl Jung, symbols don't have only one meaning, but an endless supply of interpretations and metaphorical applications that alter how different media, be it books, movies, series, or fantastical immaterial patrimony. With reasonable arguments, we observed how horses and women represent different roles, but are balanced at the same time, and it tells us different stories that share some links.

The movie *Mulan* (1998) is a rich combination of aspects such as growth and human individualization, this being a concept defended by Carl Jung where the primal impulse of said characters is to become what they truly are; this phenomenon happens due to the union of a person and their horse companion, in which the animal becomes a catalyst of growth, making possible overcoming certain obstacles.

All studied visual constructions demonstrate a refined imagery and metaphorical intelligence, showcasing how the finesse chosen by the Art Direction strengthens concepts, which to us can seem subjective in a narrative, but when seeing it in a finished piece, it fills us with meaning and symbolism.

Art Direction becomes mastery, orchestrating and organizing visuals with great complexity in its intentions, in a way that such components empower female protagonists from different contexts and historical periods, benefitting of all the horse's metaphorical framework, who becomes much more than a supporting character, being a loyal companion, forming a dynamic set through a strong bond with its amazons.

In conclusion, Art Direction overflows the simple process of choosing and configuring characters with elements that fit a narrative, so that it can manifest emotions and ideas through visual literacy [2], telling the audience the story that the Executive Direction, together with the scriptwriter and cinematographer, want our minds and hearts to focus on.

5. References

1. VON FRANZ, Marie-Louise. *A busca do sentido*. Paulus, Sao Paulo (2018).
2. DONDIS, Donis A. *Sintaxe da linguagem visual*. Martins Fontes, São Paulo (2019).
4. PIO, Letícia Marino. Contribuições ao tema do simbolismo do cavalo, por meio da análise do filme *Sonhadora* (Dreamer). *Ânima Instituto de Estudos Junguianos*, <https://www.animaestudosjanguianos.com.br/br/canal-jung/34/contribuicoes-ao-tema-do-simbolismo-do-cavalo-por-meio-da-analise-do-filme-sonhadora-dreamer>.
5. YOUTUBE. A importância da alfabetização visual, com Martin Scorsese (2018), https://www.youtube.com/watch?v=zZGmxmBNQOA&list=WL&index=3&t=7s&ab_chan_nel=CarolMartins.
6. VAZ, Adriana; SIQUEIRA, Paulo Henrique; SILVA, Rossano. Criação, análise e compreensão de mensagens visuais através do alfabetismo visual. *GRAPHICA' 13. XXI Simpósio Nacional de Geometria Descritiva e Desenho Técnico*. Florianópolis (2013).
7. MORIARTY, Frederico. Os arquétipos femininos. *Terceira Margem* (2020), <https://terceiramargem.org/2020/07/12/os-arquetipos-femininos/>
8. DOSSIÊ CAVALOS. Os bastidores do universo equino. O simbolismo do cavalo, <https://dossiecavalos.wixsite.com/home/single-post/2016/07/29/o-simbolismo-do-cavalo>.
9. MURDOCK, Maureen. *Heroine's Journey: Woman's Quest for Wholeness*. Shambhala Publications, California (1990).
10. RENATO, André. O homem Imaginário. Blog Sombras Elétricas (2007), http://sombras-eletricas.blogspot.com/2007/02/o-homem-imaginario_05.html.

A Bela Adormecida: propostas de leitura e de revisualização contemporâneas



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Abstract

In recent decades, a number of authors have produced diverse fairy tale retellings. Some of these stories often present a critical perspective on these traditional narratives, particularly in their depiction of gender roles and stereotypes. Object-books have emerged as popular mediums for creating these alternatives to the classic fairy tales, particularly targeted at children and young audiences. This format prioritizes the visual and pictorial elements of storytelling, often in conjunction with textual elements. The primary objective of this article is to make known the main narrative singularities, with a specific focus on the verbal and pictorial components, as well as materiality, of a two books corpus of revisitations of the classic tale *Sleeping beauty*. Through this analysis, we aim to delineate the distinguishing features of these reinterpretations and visual reconstructions in contrast to the original tale.

Keywords

Object-Book; Picture-Book; Illustration; Fairy-Tales; *Sleeping Beauty*

1. Introdução

Este artigo parte de um projeto mais lato, ainda em processo de desenvolvimento, no âmbito do Mestrado em Ilustração e Animação, no Instituto Politécnico do Cávado e do Ave, que tem por objetivo a criação de um livro-objeto, dirigido ao público juvenil, construído a partir da exploração de mecanismos mistos. Ambiciona-se, portanto, a construção de um formato híbrido, que reescreva, por via de um exercício parodístico verbal e visual o conto *A Bela Adormecida*. Para o projeto, propomos realizar ilustrações a lápis de cor, nas quais os personagens serão caricaturados com subtilez exageros nas suas formas e através de traços faciais deliberadamente distorcidos, o que criará um efeito expressivo e humorístico e destacará os aspetos distintivos de cada personagem. Além disso, desenvolveremos cenários altamente detalhados, incorporaremos referências a outros contos de fadas e aos elementos simbólicos d'*A Bela Adormecida*, como a sebe de espinhos ou o fuso, por exemplo.

O presente artigo inicia com uma breve discussão sobre o livro-objeto e a sua importância nos estudos da ilustração e no contacto com narrativas tradicionais. Em seguida, destacam-se a relevância e a evolução dos contos de fadas, com ênfase nas reescritas e reinterpretações visuais pós-

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-modernas. Elencam-se igualmente alguns criadores que se dedicaram à ilustração de contos de fadas, seguidos de algumas considerações sobre a leitura do conto *A Bela Adormecida*. O *corpus* textual é composto por uma seleção restrita a duas obras e a nossa proposta de análise visa compreender as principais singularidades verbais, icónicas e gráficas que caracterizam a tendência atual de reescrita de contos clássicos em formato de livro-objeto. Esta limitação intencional do *corpus* deve-se a uma decisão metodológica, orientada por critérios alusivos à natureza parodística do discurso verbal, à materialidade e à componente visual, mas também relativos às condicionantes do próprio evento. Ainda assim, importa sublinhar que o relatório final do projeto contemplará um conjunto mais amplo de obras que serão alvo de objeto de estudo.

1.1. Notas sobre o livro-objeto

O universo editorial do livro-objeto é composto por uma vasta e variada oferta de formatos. A materialidade e a interatividade que lhe são inerentes distinguem-nos de outros suportes literários mais próximos da leitura convencional. Sara Reis da Silva define-o como um “artefacto ou (...) objeto híbrido que conjuga intersemioticamente registos estéticos diversos como o discurso literário, a ilustração, o design ou a engenharia do papel” [26]. Este artefacto estético tem motivado o desenvolvimento de investigações académicas [16, 22], em diversas áreas, como a pedagogia; a psicologia do desenvolvimento infantil; as artes visuais, a ilustração, área onde se insere este artigo; a literatura; ou o design [22].

Entre as características definidoras do livro-objeto estão o predomínio da imagem sobre o texto, tornando a composição gráfica muito cuidada e fundamental à compreensão dos vários sentidos da obra; a diversidade de elementos tridimensionais e bidimensionais; a manipulação de dobras, de abas, de rodas ou *volvelles* e de elementos móveis que conferem ao livro um potencial interativo; bem como, a aplicação/exploração de diferentes materiais e texturas. O leitor interage com estes artefactos, não raras vezes, por via da intervenção física e sensorial. Além disso, o leitor atua como um veículo fundamental de decifração da globalidade dos significados da obra, uma vez que existem elementos dentro do livro, como os mencionados acima, que têm de ser manipulados durante a leitura para uma completa decifração do livro [22, 23].

Este formato abrange diversas categorias, com recursos e mecanismos particulares, alguns dos quais apresentam características bidimensionais, como os livros *pull-the-tab*, os livros *lift-the-flap* [14], livros de imagens transformáveis (*dissolving images*) [17], livros com perfurações e/ou cortes, conhecidos como *cut-out books*, os livros-acordeão, concertina ou *leporello* e livros às tiras. Também existem outras categorias onde estes livros assumem uma forma tridimensional. Alguns deles são os livros *pop-up*, os livros túnel e os livros-carrossel [17]. Mas também há livros que se destacam pela sua sonoridade, os livros com sons ou música que, “por ejemplo, a través de la inclusión de botones con sonido (...) permiten la audición repetitiva de melodías y de sonidos característicos del universo” [17] tematizado no livro.

Como podemos observar, o livro-objeto é um formato plural e diverso que está relacionado com outros formatos, como o livro-brinquedo, o livro-álbum e o livro de artista pela contínua experimentação e pelo contínuo hibridismo, o que torna mais desafiante a definição de categorias estanques. Segundo Isabel Mociño, “(...) falar de libro-obxecto é situarse ante un campo experimental que abrangue un amplo universo ao redor do álbum ilustrado, dos libros interactivos e tridimensionais, nos que os procedementos materiais, de deseño e as diferentes linguaxes manteñen un constante diálogo creador, polo que a obra resultante non se cingue a ningún dos parámetros establecidos, ao confluír nela diferentes áreas liminares da produción (dende a dos libros ilustrados, libros de artista, os libros-xoguete, os libros-xogo etc.) e da recepción (crossover ou dual address)” [18].

No que diz respeito à temática do livro-objeto, narrativas clássicas como os contos de fadas tradicionais são comumente reinterpretadas neste tipo de edições, e dirigidas ao público infantil e/ou juvenil. Entre os principais contos clássicos que são tema destas edições encontramos *A Bela Adormecida*, conto selecionado para este projeto de mestrado.

Dentro do campo dos contos de fadas, alguns autores produziram várias reescritas ou *retellings* destes contos. Algumas destas histórias projetam uma visão crítica sobre os contos de fadas tradicionais a que se referem, por exemplo, criticando os padrões estereotipados de gênero refletidos nos mesmos.

2. Estudos feministas sobre os contos de fada e as reescritas pós-modernas

No seu livro *Critical and Creative Perspectives on Fairy Tales* (2011), Vanessa Joosen afirma que, desde o início da década de 1970, os contos de fadas têm sido objeto de adaptações, reinterpretações e paródias pós-modernas, bem como de publicações académicas. Esta década, identificada como correspondente a um período de renascimento dos contos de fadas, coincidiu com abordagens teóricas inovadoras da literatura, onde se espelham novos valores como o feminismo e outras preocupações filosóficas e sociais da época [11]. Na introdução é citada Alison Lurie, estudiosa que, em 1970, publicou o artigo “Fairy Tale Liberation” na *New York Review of Books*, desencadeando um debate sério e duradouro sobre a relação entre as mulheres e os contos de fadas. Neste artigo e no que o seguiria em 1971, “Witches and Fairies”, Lurie argumentou que os contos populares e os contos de fadas tinham personagens femininas fortes e que, portanto, poderiam promover a libertação das mulheres [9]. Em 1972, o estudo de Marcia K. Lieberman “Someday My Prince Will Come” refutou o principal argumento de Lurie de que os contos de fadas retratam personagens femininas fortes. Lieberman afirmou que “An examination of the best-known stories shows that active resourceful girls are in fact rare; most of the heroines are passive, submissive, and helpless” [12]. Mais tarde, em 1979, Sandra M. Gilbert e Susan Gubar escreveram uma “provocative analysis of *Snow White* in *The Madwoman in the Attic* [that] marked a new, palimpsestic type of feminist fairy-tale reading: behind the surface layer of the Grimms’ tale, they detect a model for feminine rebellion” [11]. Na primeira parte do livro, as autoras analisam em profundidade o conto *Little Snow White*,

destacando a figura da madrasta e a sua relação com Branca de Neve, “(...) la acción central del cuento — de hecho, su única acción real — surge de la relación entre estas dos mujeres” [7]. A história apresenta duas representações comuns de mulheres na literatura patriarcal: Branca de Neve como a mulher “anjo”, delicada, dócil e passiva, ao mesmo tempo que se retrata a madrasta enquanto mulher “monstro”, astuta, ativa e *afeminada*. Dessa forma, “Gilbert and Gubar recognize the relevance of *Snow White* for adult readers as a multilayered text that provides insight into the construction and possible subversion of the two female archetypes.” [11].

Contudo, no âmbito da ficção, os contos de fadas e as reescritas pós-modernas ostentam um assíduo uso da intertextualidade, apostam na rotura de fronteiras entre géneros, na *collage*, ou seja, no uso de diferentes ideias ou textos de obras literárias diversas para formar um novo corpo literário, e por múltiplos pontos de vista dentro da história. Observa-se também um carácter metaficcional e lúdico e um uso frequente de paródia, do *pastiche* e do surrealismo [28].

Como o texto que se pretende utilizar neste projeto é uma versão de autor que se aproxima da paródia, torna-se relevante fazer uma breve exposição acerca deste termo.

A paródia é um (inter)género [6] que utiliza a intertextualidade [24] para imitar uma ou mais obras anteriores, mesmo sem intenção cómica [27]. A definição de paródia mudou ao longo dos séculos, segundo Linda Hutcheon [10]. Atualmente, a paródia é habitualmente pensada como um texto cómico e, na verdade, importa lembrar que “el género paródico estuvo reducido, hasta bien entrado el siglo VIII, a un tipo de texto meramente cómico; en este sentido, la parodia quedó equiparada a la burlesque” [6]. Mesmo assim, há autores, como Hutcheon, que defendem a existência de uma paródia séria [10]. A paródia utiliza um jogo intertextual com o texto ou textos originais e, muitas vezes, esta prática elogia ou homenageia o texto a que se refere ou, pelo contrário, o põe em causa ou subverte [10].

O exercício de paródia também pode ser abordado de forma visual, através da representação do texto por meio de imagens; ou bem referenciando ou imitando representações visuais anteriores do escrito. Obras importantes para a humanidade, como textos religiosos e obras fundamentais da literatura, têm sido representadas visualmente ao longo dos tempos, dando lugar a grandes obras de arte que influenciaram um vasto número de pessoas [13]. A instâncias da igreja cristã primitiva, as histórias do Antigo e Novo Testamento foram representadas de forma visual por meio de magníficos frescos, pinturas e esculturas. Também têm sido realizadas reconstruções dramáticas, em suntuosas pinturas a óleo, das cenas e temas da literatura clássica [13]. Note-se igualmente que, no século XIX, foram publicados uma grande quantidade de volumes de fábulas, contos populares, contos de fadas e lendas [5] enriquecidos com numerosas imagens, descritivas e atmosféricas, de ilustradores y grabadores como Tenniel, Cruikshank, Rackham y Beardsley [13]. De acordo com Alan Male, historicamente a arte, e mais reciente e especificamente a ilustração, têm proporcionado uma importante exposição visual de muitos mitos, lendas, contos e acontecimentos fictícios, escritos tanto por autores anónimos e pouco conhecidos, como pelos autores mais venerados da literatura [13].

3. Ilustração do conto de fadas

Segundo Alice A. Carter (2019), no século XVIII, as publicações educativas para as crianças coexistiam com contos de fadas e contos folclóricos dirigidos ao entretenimento familiar. Recorde-se, a este respeito, a obra *Histoires ou Contes du Temps Passé Avec des moralités* (1697), de Charles Perrault (1628-1703), que contém o conto em estudo sob o nome de *La Belle au Bois Dormant*. Este livro, quase duzentos anos após a sua publicação, foi ilustrado por Gustave Doré (1832-1883). Nas suas ilustrações para *Little Red Riding Hood*, Doré captou o caráter alarmante da versão de Perrault ao interpretar o momento em que o lobo pede à menina que se despa e suba para a cama com ele, uma representação que não faz cedência à sensibilidade das crianças mais pequenas, até porque, no início, os contos de Perrault não eram considerados literatura infantil [5].

Outro célebre exemplo são as ilustrações de John Tenniel (1820-1914) para *Alice's Adventures in Wonderland* (1865), de Lewis Carroll. Tenniel consegue refletir visualmente a originalidade e a fantasia da história: “[he] created a convincing alternate universe in which humans, animals, architecture, and landscapes were rendered with a persuasive realism that linked the fantastic and the commonplace” [5].

Outro ilustrador que trabalhou na ilustração arquitetada a partir dos contos clássicos e de histórias de fantasia para crianças foi Arthur Rackham (1867-1939). Nas suas ilustrações de *Alice's Adventures in Wonderland*, Rackham expande os elementos fantásticos do texto, de um modo diferente do de Tenniel, que seguia a narrativa quase palavra por palavra, e é criticado por isso [5]. Mas, além do conto de Carrol, Rackham ilustrou vários contos dos irmãos Grimm como *Snow-white and Rose-red*, *The True Sweetheart* ou *The Little People's Presents* no livro *Little Brother & Little Sister and other tales* (1917) [20] e *Hansel and Gretel* (1900) [5].

Também Walter Crane (1845-1915) ilustrou muitos clássicos, como as Fábulas de Esopo e os contos popularizados pelos irmãos Jacob (1785-1863) e Wilhelm Grimm (1786-1859). Crane foi um adepto do movimento *Arts and Crafts* e sintetizou a estética japonesa com elementos do medievalismo popular entre os pré-rafaelitas. Com esta técnica ilustrou mais de quarenta livros infantis, tais como *Beauty and the Beast* (1874-1875) e *The Sleeping Beauty in the Wood* (1876), entre outros [5].

Na atualidade são muitas as revisualizações em formato de livro de contos de fadas. Um bom exemplo é a obra de Benjamin Lacombe (1982-), um criador que, além de ser um ilustrador de renome, é o diretor artístico da coleção “Cuentos Clásicos Ilustrados”, da editora espanhola Edelvives. Entre os títulos ricamente ilustrados desta coleção encontram-se *Cuentos silenciosos* (2010), um livro *pop-up* que inclui entre as suas histórias a *Bela Adormecida*. As suas ilustrações são “complejas y barrocas (...) [y] en ocasiones, incómodas” [4]. Põe em causa uma certa tendência marcada pela oferta de conteúdos adocicados e fáceis às crianças, pelo que ele prefere elaborar imagens sofisticadas e artísticas que introduzam as crianças no mundo da arte [4].

Tendo em conta a abordagem pictórica dos contos clássicos acima referidos, podemos destacar algumas características que consideramos importantes para o nosso projeto de revisualização d’A *Bela Adormecida*.

Uma dessas características passa por uma das funções da ilustração em expandir a descrição do texto e em ampliar seus conceitos. Por exemplo, a ilustração pode acrescentar informações adicionais, na interpretação de Gustave Doré do *Little Red Riding Hood*, onde ele não apenas ilustra o visível, mas também incorpora elementos abstratos como o perigo e a tensão da cena. Da mesma forma, Arthur Rackham, nas suas ilustrações para *Alice's Adventures in Wonderland* também expande a dimensão fantástica da obra, enriquecendo a narrativa visualmente [5]. Quanto à interpretação de Tenniel, consideramos importante poder aplicar a capacidade do autor de inserir elementos fantásticos dentro de cenários e situações cotidianas de maneira convincente. Walter Crane, por sua vez, ilustra a relevância de integrar diversas influências artísticas para criar um estilo único e evocativo. Além disso, o autor reforça a importância de uma abordagem artesanal e estética [5]. Por último, o trabalho contemporâneo de Benjamin Lacombe exemplifica a importância de desafiar tendências mais aligeiradas aplicadas à ilustração dirigida às crianças. As suas ilustrações são um lembrete de que a arte infantil e juvenil pode e deve ser uma introdução ao mundo da arte, oferecendo profundidade e reflexão [4].

4. A Bela Adormecida: o conto

O conto d'A *Bela Adormecida* é um enredo elementar da memória literária coletiva universal. E, como parte de um legado imaterial fundamental, ocupa o estatuto de clássico da Literatura Infantil e Juvenil. A sua preservação até aos dias de hoje deve-se às compilações de contos da tradição oral que os foram imortalizando. Vários foram os que compilaram uma versão desta história, tais como Giambattista Basile (1575-1632), Charles Perrault e os irmãos Jacob e Wilhelm Grimm [15].

A longa letargia de que sofre a *Bela Adormecida* é para Bruno Bettelheim [2] uma referência a uma fase de passividade comum à adolescência. É um período de grandes mudanças onde os jovens alternam fases de repouso e de atividade. Bettelheim refere-se ao repouso da *Bela Adormecida* como uma concentração demorada e intensa, necessária para a maturidade sexual e para o crescimento pessoal da jovem.

O autor citado fala do simbolismo da menstruação no conto, pois é à idade em que a jovem se pica com o fuso e cai nesse pesado sono, os quinze anos na versão dos Grimm e quinze ou dezasseis em Perrault [20], que no passado era mais frequente o começo do período menstrual. A este título repare-se que são treze as fadas apresentadas na versão dos Grimm, pois é o mesmo número dos meses lunares, método segundo qual se dividia antigamente o ano. Este ano tinha vinte-oito dias, similar à duração do ciclo menstrual. Como nesta versão há doze fadas boas e uma má, Bettelheim aponta que a *maldição* desta última fada representa os dias do sangramento menstrual [2].

Nestas três versões do conto, a jovem encontra-se com uma velha a fiar. Nas versões de Perrault [20] e dos Grimm [8], nesta passagem, a já adolescente *Bela Adormecida* “explora las áreas de existencia antes inaccesibles, simbolizadas por la habitación oculta en la que [está] anciana está hilando” [2]. Enquanto na versão de Basile [3], estas áreas, novas para ela, chegam do exterior do palácio, pois a jovem vê a velha

desde uma janela e pede-lhe para se aproximar. Na linguagem popular é frequente a menção à menstruação como maldição, tal como na Bíblia. O sangramento, por via do fuso, dá-se quando Bela Adormecida encontra esta velha *mulher* (não um homem), e na Bíblia também se refere que a menstruação é herdada de mulher para mulher. Na versão dos Grimm, o lugar onde se encontra a senhora a fiar corresponde a uma torre, pelo que as escadas têm de ser em espiral. Para Bettelheim, nos sonhos este tipo de escadas representa experiências sexuais. Também na versão dos Grimm, no alto da torre, a jovem encontra uma porta com uma chave na fechadura. Ela gira a chave para entrar e encontra no quarto a mulher. Aqui, o giro da chave simboliza o coito [2].

Por fim, quando a jovem fica inconsciente, nas versões de Perrault e dos irmãos Grimm, uma sebe de espinhos cresce à volta do castelo para protegê-la. Na versão dos Grimm, os príncipes que tentam chegar até à jovem antes de que haja “transcurrido el tiempo necesario para su maduración” [2] ficam presos na sebe e morrem. A sebe impede-os de entrar porque a princesa ainda não está pronta, e o contato sexual poderia ser psicologicamente prejudicial. Nesta versão, quando a princesa atinge a maturidade física e emocional, pronta para o amor (o casamento e o sexo), os espinhos transformam-se em grandes e belas flores, e não impedem o príncipe de chegar à torre onde repousa a princesa [2]. Mas, quando este passa, voltam à forma de espinhos [8].

Para a versão de Basile foi consultado o livro *El cuento de los cuentos*, 1995 [3]. Já para a versão de Perrault, a edição *The complete Fairy Tales by Charles Perrault* (2009) [20] que contém uma nova tradução inglesa da edição de 1697, por Christopher Betts. Ambas as versões contam com duas partes e abordam os temas da “iniciação sexual, a maternidade e o canibalismo” [15]. A versão dos Grimm assemelha-se à primeira parte de Perrault, omitindo os temas da maternidade e do canibalismo, e sendo muito mais subtil com o tema da iniciação sexual. Para esta análise usamos a versão traduzida do conto *Dornröschen (Briar Rose)* [8], de J. Zipes, como hipotexto principal das reescritas/revisualizações que aqui trazemos pela sua proximidade com o projeto em curso. Começa com um casal real que não pode ter filhos. Um dia, um caranguejo anuncia à rainha que vão ter uma filha, a quem chamaram Briar Rose. Muito contente, o rei organiza uma grande festa para a qual convida doze fadas. Onze das fadas dão os seus dons à princesa. Mas, uma décima-terceira fada chega à festa e, zangada por não ter sido convidada, amaldiçoa a rapariga: aos quinze anos, ela será picada por um fuso e morrerá. A fada que ainda não tinha anunciado o seu dom, suaviza esta maldição: ela não morrerá, cairá num sono de cem anos. Por tanto, o rei proíbe todos os fusos. Ainda assim, ao chegar a jovem aos quinze anos, encontra uma velhinha a fiar. Pica-se com o seu fuso e cai inconsciente. Magicamente, todo e todos no castelo adormecem. E uma sebe de espinhos começa a crescer à volta da fortaleza para proteger a jovem de intrusos. Os homens que tentaram atravessar a sebe, antes de se cumprirem os cem anos, ficam presos e morrem. Após este tempo, um príncipe que tinha ouvido falar de Briar Rose chega ao castelo e, no lugar de espinhos encontra flores, que, à medida que ele avança, voltam à forma

de espinhos. Depois de atravessar grande parte do palácio, encontra a jovem. Parece-lhe tão bela que a beija. Esta acorda, e com ela todo o castelo. Finalmente, os dois, felizes, celebram o seu casamento [8].

5. Análise do corpus textual

Avançamos, agora, com uma proposta de leitura, centrada na dimensão gráfico-pictórica e narrativa de um *corpus* composto por duas reescritas e revisualizações do conto *A Bela Adormecida*. Trata-se de dois livros-objeto, o primeiro correspondente a uma tradução em língua portuguesa da versão original *Wake-up Sleeping Beauty: An Interactive Book with Sounds* (1997), de Jonathan Allen, intitulado como *Acorda, Bela Adormecida! Um Livro-surpresa com Sons Divertidos* [1], bem como do livro concertina *La Bella Durmiente* (2017) [19], dos espanhóis Sergio García e Lola Moral. Optamos por explorar este formato, pois dá prioridade aos elementos visuais e pictóricos da narração de histórias, muitas vezes em conjunto com elementos textuais. Os dois livros selecionados realizam uma releitura e revisualização do clássico *A Bela Adormecida*, cada um deles abordando-o de forma distinta e subvertendo os elementos da história original.

Esta proposta de análise será feita de acordo com os sete aspetos caracterizadores das reescritas pós-modernas, propostos por Vanessa Joosen [11]:

1. Cronotopo⁴: a história é deslocada para um cenário contemporâneo ou historicamente mais reconhecível.
2. Atitude perante o sobrenatural: a fronteira entre a magia e o realismo é repensada. Por exemplo, a reescrita pode ter um narrador pouco confiável, pelo que não se pode saber, com certeza, se a magia aconteceu, ou a nova versão aposta numa narrativa mais realista.
3. Caracterização: na adaptação do conto de fadas, o desenvolvimento psicológico dos personagens torna-se muito importante. A sua caracterização pode mudar e as suas ações tornarem-se mais compreensíveis.
4. Otimismo: as reescritas dirigidas a um público infanto-juvenil costumam optar por um final feliz característico de certos contos tradicionais.
5. Ação: algumas reescritas pressupõem que o leitor conhece o conto original, deixando de fora uma parte substancial da ação para começar por outra parte diferente da história. Por exemplo, *in medias res* (a meio da história) ou *in extrema res* (no final).
6. Estilo: as repetições desaparecem da reescrita de contos de fadas, mas as fórmulas fixas e os números simbólicos mantêm-se.
7. Discurso narrativo: a narração muda para a primeira pessoa, na voz da protagonista, da antagonista, ou de um personagem secundário e/ou são usados elementos narrativos mais complexos, como os *flash backs* ou o contraponto [11].

Iniciamos com *Acorda, Bela Adormecida!* [1], de Jonathan Allen um livro com elementos móveis e com sons, ainda que, quando se efetuou a consulta do exemplar usado para a análise, este estivesse já um pouco deteriorado. A seleção de este livro-objeto cujo discurso sonoro não era já

⁴ O cronotopo (do grego *kronos*, “tempo”, y *topos*, “espaço” ou “lugar”) é a unidade indivisível formada pelo tempo e o lugar em que se desenvolve uma obra literária ou artística.

audível deveu-se à natureza subversiva e humorística da própria narrativa, em articulação sincrónica com elementos interativos/móveis e sonoros. Consideramos importante ressaltar que se tentou procurar outras fontes online que nos permitissem ouvir a história com a dimensão sonora intacta, mas o único vídeo encontrado parte de um exemplar também ele danificado (<https://www.youtube.com/watch?v=ilwrZX9grPg>).

Acorda, Bela Adormecida! [1] apresenta, assim, um mecanismo manipulável em cada dupla página, sem contar com as “guardas”, usadas nesta obra para iniciar/finalizar a história. Os mecanismos do livro são do tipo *pull-the-tab*, exceto o último, que se move automaticamente ao virar a página. Ao puxar as tiras dos mecanismos é possível, portanto, mover a figura do príncipe, que está a fazer alguma ação barulhenta na tentativa de acordar a jovem.

Segundo os sete aspetos propostos por Vanessa Joosen, o cronotopo no texto muda para um tempo e espaço indefinidos e fictícios onde convivem elementos contemporâneos, como guitarras elétricas e perfuradores pneumáticos, com pajens, príncipes y princesas. Nas ilustrações, podemos identificar este cronotopo indefinido e misturado, no espaço do quarto da princesa. A guitarra e o perfurador pneumático modernos contrastam com o vestuário dos personagens, mais “medieval” ou “antigo”. A atitude perante o sobrenatural mantém-se igual à do conto original pois fala-se de um feitiço, quebrado por um beijo. Isto é visível na tranquilidade permanente da princesa que continua a dormir, apesar das tentativas ruidosas do príncipe Adalberto para a acordar. A protagonista apenas abre os olhos imediatamente após o beijo do pajem João. A caracterização também muda: introduz-se o personagem nomeado de João, o pajem do príncipe, aquele que finalmente acorda a princesa e se casa com ela. Nas expressões faciais e corporais podemos observar a personalidade do príncipe, decidido, irritável e galã e, também, do pajem, sensível, assustado e empático. A reescrita é otimista, estratégia comum nos recontos para público infantil, assim como paródica e humorística. Também pode notar-se o caráter otimista no estilo simpático e divertido da ilustração, por exemplo na boda, onde todos os actantes sorriem exceto o príncipe Adalberto. Na escrita, a ação muda relativamente ao conto original: a reescrita começa *in extrema res*, ou seja, no final da história. Veja-se a representação da chegada do príncipe, reconhecível nas ilustrações pela sebe de espinhos. É omitida grande parte do conto, pois pressupõe-se que o leitor conhece a história. Quanto ao estilo, o texto apresenta elementos simbólicos como a sebe de espinhos e o beijo que acorda a princesa. Ainda que deixando outros para trás, como a velha e o fuso, devido às omissões realizadas. Por fim, no discurso narrativo, a história conserva o discurso narrativo na terceira pessoa tal como o conto original.

La Bella Durmiente [19], com texto e cor de Lola Moral e desenho de Sergio García, é um livro concertina, pelo que as imagens de cada uma das páginas fazem parte de uma ilustração contínua e alongada, usando a forma do “tallo de espigas de un rosal (...) que funciona como contenedor de la historia” [25]. Este tipo de suportes em formato de livro-concertina “además de resultar innovadores por ser formatos poco convencionales que permiten desbordar los límites de la página, nos permiten concebir

una relación diferente del dibujo a la hora de llevar a cabo su interpretación” [25]. No texto, podemos identificar um cronotopo diferente e concreto, diferente, portanto, da história original. Assim, a ação decorre num castelo situado na Europa, e se considerarmos as referências a personagens históricos, como Ana Bolena, assim como à Royal Geographical Society, de Londres, somos levados a pensar que esta se situa na Inglaterra.

No texto, faz-se várias alusões a períodos históricos como o reinado de Henrique VIII (século XVI), à Era dos Descobrimentos (do século XV ao XVII) e à atualidade, pela referência a um estranho “pássaro”, que nas ilustrações podemos ver que é uma asa-delta. Assim, a história terá iniciado aproximadamente no século XV ou XVI e acaba já no século XXI. Nas imagens, as épocas históricas faladas são remarcadas nas tendências das vestes dos pretendentes de Talía. A atitude perante o sobrenatural no texto mantém-se, pois reina a magia e a fantasia. Nesta narrativa fala-se de fadas madrinhas, de uma bruxa e de um feitiço de morte suavizado num sonho de cem anos. A princesa acordará sozinha, no final desse período, ao avistar o seu primeiro “príncipe”, mas ela não gosta dele. Deste modo, esta fica, durante vários séculos, acordada, e a cada cem anos, um novo príncipe pode aceder ao castelo. Mas ela não gosta deles, até avistar e embater num pássaro que, afinal, é um homem. E é este, a quem ela decide beijar, quem rompe o feitiço e quem desfaz a sebe de espinhos. A atitude perante o sobrenatural, na imagem, coincide com o texto. Veja-se a forma da bruxa, que é, literalmente, uma flor de espinho com um nariz pontiagudo, e a passagem do tempo refletida no envelhecimento de Talía. A caracterização neste texto muda. A personagem da princesa é, aqui, muito mais desenvolvida, além de se tornar protagonista da sua própria história. A reescrita é otimista e, como tal, termina com um final feliz. Repare-se nas ilustrações na figura confiante e tranquila de Talía, assim como nos desenhos onde Talía beija o rapaz da asa-delta, e onde os dois se olham com ternura, e seguram as mãos um do outro. A caracterização de todos os personagens neste plano visual é distinta da do conto original. Por exemplo, a forma herbórea da bruxa; a aparência, mais humana do que feérica, das fadas madrinhas; e nas vestes de Talía, que, já no final do livro, têm um aspeto muito contemporâneo. A ação na escrita e na ilustração, não muda, é linear. Mas, na ilustração tem a peculiaridade de revelar várias coisas a acontecer ao mesmo tempo, na mesma página, e de mostrar repetidos personagens, em diferentes momentos da história. Por exemplo, numa mesma página, um mensageiro é desenhado três vezes, enquanto cavalga. Assim como os reis, também desenhados três vezes em baixo do mensageiro: primeiro saudando ao povo; segundo, a rainha grávida junto do rei; e por último, os reis com a bebé. Quanto ao estilo, no texto há vários elementos simbólicos que não foram sido mantidos: Talía pica-se com um espinho de rosa e não com um fuso e o número das fadas é reduzido para três. O único elemento que é conservado, tanto na escrita como na ilustração, é a sebe de Espinhos. Por último, o discurso narrativo muda: a história é narrada na primeira pessoa por Talía, depois de tudo ter acontecido.

6. Conclusão

Após termos analisado os dois livros do *corpus*, *Acorda, Bela Adormecida!* [1] e *La Bella Durmiente* [18], podemos registar algumas conclusões. Ambos preservam o otimismo característico dos contos clássicos, uma estratégia comum nos recontos para o público infantil, ao mesmo tempo que introduzem elementos de paródia e de humor que o tornam mais acessível ao público contemporâneo. São adicionados novos personagens à história, e mudados notavelmente os originais. Podemos observar, também, que o *corpus* tem uma ação linear, embora nem sempre comecem exatamente no mesmo ponto que a história original. *Acorda, Bela Adormecida!* [1] começa *in extrema res*, o que exige que o leitor tenha um conhecimento prévio do conto original. Em comum, todavia, apresentam um tempo e um lugar pseudo-medievais, com anacronismos e elementos modernos, aproximando-se do cronotopo original da história, porém de maneira flexível e lúdica. O mesmo acontece com o sobrenatural, as duas histórias mantêm a fantasia, mas subvertem os acontecimentos mágicos originais do enredo, ampliando e enriquecendo o universo d'A *Bela Adormecida*. Quanto ao estilo, estes livros retêm alguns elementos simbólicos, como a sebe de espinhos ou o beijo e omitem outros, como a velha, o fuso ou as treze fadas. Por último, *Acorda, Bela Adormecida!* [1] conserva a narração na terceira pessoa, com um estilo narrativo visual bastante convencional. Já *La Bella Durmiente* [19] inova, com o uso da primeira pessoa do singular e com um estilo de ilustração que apresenta, na mesma página, os mesmos personagens em diferentes momentos da diegese, assim como várias ações a acontecer no mesmo plano.

No que toca à materialidade e à interatividade, *Acorda, Bela Adormecida!* [1] possui dois tipos de mecanismos: os elementos móveis do tipo *pull-the-tab* e a dimensão sonora, que conseguem tornar a leitura numa experiência mais participativa e lúdica. Por sua vez, o livro-concertina *La Bella Durmiente* [19] apresenta uma relação inovadora entre as páginas do livro, que permite interpretar o conjunto formado pelas ilustrações de uma forma diferente da observada na leitura convencional [25]. Na dimensão visual, ambas apresentam ilustrações cuidadas e cativantes, mas com estilos diferentes. *Acorda, Bela Adormecida!* tem desenhos simplificados e arredondados, enquanto *La Bella Durmiente* [19] possui um desenho estilizado e influenciado pelo mundo da BD. Em suma, este tipo de suporte incita “a uma ligação afetiva ao universo do livro” [15], pela sua materialidade e a sua relação entre palavras e grafismos; ao mesmo tempo que subvertem o conteúdo do conto original e enriquecem o seu universo, ainda que a sua leitura implique, por vezes, um conhecimento prévio da história original.

7. Referências

- Allen, J.: *Acorda, Bela Adormecida! Um Livro-Surpresa com Sons Divertidos*. Abril/Control Jomal & Ediciones Beascoa: Linda-a-Velha (1997).
- Bettelheim, B.: *Psicoanálisis de los cuentos de hadas*. Crítica: Barcelona (1994).
- Basile, G.: *El cuento de los cuentos* (2º vol.). Siruela: Madrid (1995).
- Bravo, E.: Benjamin Lacombe. Ilustración para aprender a ser adultos. In: *Visual. Magazine de diseño, creatividad gráfica y comunicación* [Website] (2018). <https://visual.gi/benjaminlacombeilustracion-para->

-aprender-a-ser-adultos/

5. Doyle, S.; Grove, J. & Sherman, W.: History of Illustration. Fairchild Books: New York (2019).
6. García, M.J.: De la Paródia como intergénero. Tonos digital: Revista de estudios Filológicos, Nº 28, pp. 1-26. Universidad de Murcia: Murcia (2015). <http://hdl.handle.net/10201/42896>
7. Gilbert, S., & Gubar, S. La loca del desván. Ediciones Cátedra & Universitat de València.
8. Grimm, J. & Grimm, W.; Zipes, J. (trad). The Original Folk and Fairy Tales of the Brothers Grimm: the Complete First Edition. Princeton University Press: Princeton and Oxford (2014).
9. Haase, D.: Fairy Tales and Feminism: New Approches. Wayne State University Press: Detroit (2004).
10. Hutcheon, L.: A theory of parody. The Teachings of TwentiethCentury Arts Forms. University of Illinois press: New York New (2000).
11. Joosen, V.: Critical and Creative Perspectives on Fairy Tales: An Intertextual Dialogue between Fairy-Tale Scholarship and Postmodern Retellings. Wayne State University Press: Detroit (2011).
12. Lieberman, M.: Some Day My Prince Will Come. Female Acculturation through the Fairy Tale. In: College English, Vol. 34, No. 3 (Dec., 1972), pp. 383-395. National Council of Teachers of English: Chicago (1972).
13. Male, A.: Illustration. A theoretical & Contextual Perspective. Bloomsbury: London (2020).
14. Martins, D.: Histórias Surpreendentes: Para uma caracterização do livro lift-the-flap. En revista Devir Educação, pp. 37-57. Universidade Federal de Lavras: Lavras (2017). <http://devireducacao.ded.ufla.br/index.php/DEVIR/article/view/47>
15. Martins, D.: A Bela Adormecida: materializações especiais de um legado imaterial. In Pereira, C. (ed.) (2020), Literatura Infantojuvenil: Livro-objeto e património. (pp. 33-56). Tropelias & Cª: Porto (2020).
16. Martins, D.: Era uma vez... três livros-objeto da Editorial Majora: recriações de Branca de Neve. In: livro Silva, S.R. da (org.). (2020). Clássicos da Literatura Infantojuvenil em Forma(to) de Livro-Objeto. pp. 61-77. Universidade do Minho: Braga (2020). <https://doi.org/10.21814/uminho.ed.13>
17. Martins, D. & Silva, S. R.: Reconfiguraciones de cuentos clásicos en libros-objeto: el caso de Los tres osos. In: Anuario de investigación de literatura infantil y juvenil, 19. Universidad de Vigo: Vigo (2021). <https://doi.org/10.35869/aiij.voi9.3711>
18. Mociño, I. (coord.): Libro-objeto e xénero: Estudos ao redor do libro infantil como artefacto. Universidade de Vigo: Vigo (2019).
19. Moral, L. & García, S.: La Bella Durmiente. Bibbuck: Madrid (2017).
20. Perrault, C.; Betts, C (trad): The Complete Fairy Tales by Charles Perrault. Oxford University Press: Oxford (2009).
21. Popova, M. (29/02/2016). Arthur Rackham's Rare and Revolutionary 1917 Illustrations for The Brothers Grimm Fairy Tales In themarginalian.org <https://www.themarginalian.org/2016/02/29/arthur-rackham-brothers-grimm/>
22. Ramos, A. M. (org.): Aproximações ao Livro-objeto: das Potencialidades Criativas às Propostas de Leitura. Tropelias & Companhia: Porto (2017).
23. Ramos, R. & Ramos, A. M.. Cruce de lecturas y ecoalfabetización en libros pop-up para la infancia. In: Ocnos : Revista de Estudios sobre Lectura, 12. pp. 7-24. Universidad de Castilla-La Mancha: Toledo (2014). <https://www.redalyc.org/pdf/2591/259132660001.pdf>
24. Sant'Anna, A.(2003). Paródia, Paráfrasis & Cia. Brasil: Editora Ática
25. Serrano Torres, F.: El contenedor de historias como estrategia narrativa. María Antonieta y la revolución francesa [Trabalho fim de máster]. Universidad de Granada: Granada (2022).
26. Silva, S. R. (org.): Clássicos da Literatura infantojuvenil em forma(to) de livro-objeto. UMinho: Braga (2020).
27. Skłodowska, E.: La Parodia En La Nueva Novela Hispanoamericana (1960-1985). John Benjamins Publishing Company: Amsterdam/Philadelphia (1991).
28. Watson, K.: The Postmodern Picture Book in the Secondary Classroom. In: English in Australia 140. ISSN 0155-2147, Pp 55-57. Australian Association for the Teaching of English Inc: Norwood (2004)

O legado de grandes animadores e suas bibliografias



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Abstract

The purpose of this article is to provoke critical reflection through a bibliographic review of several books whose authors, even before publication, were actively engaged professionals in the Western animation industry. Their interpretations and insights are examined within the educational context for students in the field of animation cinema. Highlighted are certain books that emphasize animation principles and best methodological practices derived from the knowledge and experiences of acclaimed animators in the Western industry.

Keywords

Animation, technical bibliography, methodology, professional practice

1. Introdução

Este artigo pretende mostrar a trajetória, o desenvolvimento e a documentação de metodologias no campo da animação, e o quanto foi possível aprimorar alguns conhecimentos sobre os princípios da animação, em específico para grupos de estudantes de animação, área que tem crescido por todo mundo nas últimas duas décadas de forma exponencial. A arte da animação, assim como diversas áreas da comunicação, é composta por um amplo conteúdo e referência audiovisual. A informática e o surgimento das tecnologias digitais e canais digitais de transmissão, tornaram esses segmentos fortes e atraentes mercados que continuam a se desenvolver cada vez mais, segundo números divulgados pelo BNDES [1].

As animações brasileiras vêm ganhando força em diversas mídias e públicos. Obras animadas brasileiras preenchem o horário nobre dos canais de TV paga e passam a aparecer nos cinemas nacionais. Elas também vêm recebendo indicações e ganhando os principais prêmios da animação mundial. Esse grande potencial de desenvolvimento da animação do país já havia sido identificado pelo BNDES, mas até então não haviam sido realizadas estimativas sobre o mercado brasileiro consumidor de animação. Para realizar essa avaliação, este artigo construiu metodologia baseada em valores de consumo disponibilizados publicamente, em premissas estabelecidas para o mercado internacional e extrapoladas para o mercado nacional e em dados disponíveis de estudos já realizados em âmbito global. O valor do mercado brasileiro consumidor de animação em 2016 é estimado em quase R\$4,9 bilhões. BNDES Set., Rio de Janeiro, v. 25, n. 49, p. 7-27, mar. 2019 [1].

Atualmente as informações, conteúdos técnicos e fundamentos da

animação, são disseminados em variados suportes e diversos formatos, facilitando a busca de conhecimentos técnicos e formação geral para estudantes, profissionais e aspirantes a produtor do setor de audiovisual[1]. No entanto, grande parte desse complexo conteúdo é absorvido e aprimorado apenas por profissionais especializados e pesquisadores do setor ou durante o ofício prático de seu desenvolvimento comercial, sendo difundido em blogs e sites, muitas vezes mais um aglomerado de dicas do que realmente um detalhamento específico dos conteúdos a serem apreendidos conceitualmente.

O que se percebe entre jovens estudantes no Brasil ao procurarem conhecimento aprofundado no assunto é por vezes uma repetição da história e a simplificação dos fundamentos em sites e blogs que estão beirando a secularidade, o que não é um problema, se não fosse em alguns casos, difundido de maneira sintetizada ao extremo e com possíveis distorções de interpretação, com a prerrogativa de que seriam no caso mais didático, e ou simplificados para fácil compreensão. A crítica que se faz por assim dizer, não é por conta do que temos exposto na web sobre animação, mas como para um jovem animador essas informações podem trazer maior reflexão para seus projetos, para tanto FUENTES [2] afirma:

“Ao colocar em jogo a capacidade de despertar a sensibilidade do espectador, e ao conduzi-lo inteligentemente por um caminho de referências culturais, formas, imagens, signos e cores, que provêm do mundo habitual, estas se transformam gerando algo novo que indubitavelmente é o mesmo mundo recodificado.” (FUENTES, 2006, p.44) [2]

De forma geral, esses materiais disponíveis na web servem como um recurso inicial para aspirantes a animadores, estudantes, educadores e profissionais que desejam expandir seus conhecimentos e habilidades no campo dinâmico da animação.

Em uma descrição generalista dos possíveis conteúdos encontrados em ebooks sobre animação ou sites e blogs especializados temos os seguintes tópicos recorrentes:

História da Animação: Geralmente começam com uma visão histórica, traçando a evolução da animação desde seus primórdios até as práticas contemporâneas. Compreender as raízes da animação pode ajudar a fornecer contexto para seu estado atual e tendências futuras[4].

Princípios Fundamentais: Em sua maioria eles exploram os princípios essenciais da animação, como timing, squash and stretch, anticipation, staging e exaggeration. Esses princípios servem como base para criar animações convincentes e por vezes dramáticas se estiverem alinhados às situações em que os personagens estão vivenciando.

Storyboard e Roteiro: geralmente os sites de animação abordam os processos de storyboard e roteiro para planejar e visualizar sequências animadas antes do início da produção. Esta seção pode incluir dicas sobre narrativa, desenvolvimento de personagens e estrutura de enredo, em alguns casos se aprofunda em enquadramentos e movimentos de câmera.

Design de Personagens: Uma parte significativa nestes repositórios de conteúdos é dedicada ao design e desenvolvimento de personagens.

Discute-se a criação de personagens memoráveis com personalidades distintas, formas atraentes e movimentos expressivos, mas dificilmente os alinha ao uso dos princípios de animação.

Técnicas de Animação: onde se explora várias técnicas de animação, incluindo animação tradicional desenhada à mão, stop-motion e animação gerada por computador cut-out. Também é bem comum abordar tópicos como rigging, keyframing, motion capture e alguma referência sobre efeitos especiais.

Software e Ferramentas: Na era digital, a familiaridade com software e ferramentas de animação é crucial. Em sua maioria os sites podem fornecer tutoriais e insights sobre softwares populares de animação como Adobe Animate, Toon Boom Harmony, Autodesk Maya ou Blender entre outros.

Estudos de Caso e Exemplos: Exemplos do mundo real e estudos de caso ajudam a ilustrar conceitos e técnicas-chave discutidas muitas vezes por profissionais convidados em entrevistas, ou até mesmo por dubladores. Analisar animações bem-sucedidas pode fornecer insights valiosos sobre o que torna a animação eficaz e envolvente.

Esse resumo realizado pelos autores não pretendeu de forma alguma defamar ou invalidar os conteúdos encontrados na web, mas trazer luz à discussão de como esses tópicos são frequentes sendo banalizados e de certa forma pouco aprofundados, muitas vezes citados em conversas e entrevistas em podcasts e vídeos no Youtube sem maiores explicações e aprofundamento.

“A ausência de informação produz inevitavelmente resultados superficiais, cosméticos.” (FUENTES, 2006, p. 32) [2]

Também em menor profusão percebe-se ainda mais dois pontos a serem citados: Considerações Éticas e Legais: Dada a importância dos direitos de propriedade intelectual e práticas éticas na produção de animação, percebemos essa abordagem de tópicos como direito autoral, plágio e sensibilidade cultural, raramente discutidos por profissionais com cunho jurídico.

Com esse apanhado de informações nesta pesquisa netnográfica em aproximadamente 3 meses aqui compiladas no artigo, claramente entendemos sua importância e facilidade de acesso, mas podemos perceber um certo contraponto a partir da citação de THOMAS, Frank; JOHNSTON, Ollie [5] em seu livro *illusion of life* que nos alerta:

“Transmitir um certo sentimento é a essência da comunicação em qualquer forma de arte. A resposta do espectador é emocional, pois a arte dialoga com o coração. Isso dá à animação uma habilidade quase mágica de alcançar o interior de qualquer audiência e se comunicar com pessoas em qualquer lugar, independentemente das barreiras linguísticas. Essa é uma das maiores forças da animação e, certamente, um dos maiores aspectos desta arte para o jovem animador estudar e dominar.” (THOMAS; JOHNSTON, 1995, p.15) (Tradução livre dos autores) [5].

É possível perceber o quanto os autores colocam a interpretação da emoção em destaque aqui, de fato, a mensagem muitas vezes pode superar as barreiras de linguagem e interpretação por conta do impacto sinestésico causada pelo design/arte sugerida na animação e sua estética,

sendo assim ainda pouco discutido o papel interpretativo e da dramaturgia posto pelos animadores ao dar vida a um personagem ou cenário. Nos parece aqui que a falta de repertório consistente no quesito técnico fundamental, também se faz carente na função interpretativa da animação, ambas têm o mesmo peso para que se realize um bom projeto de animação é preciso que técnica e sentimento estejam alinhados, em resumo, desenhar utilizando técnicas e princípios de animação para representar o sentimento e extrair o melhor de uma ou outra ação cênica.

“O design é uma atividade projetual de duplo sentido: projeta-se internamente sobre a obra a partir de sistemas semióticos que lhes são próprios e, nessa ação, projeta-se um tipo de relação social.” (LEDESMA, 2005, p. 32) [3]

Então a autora LEDESMA [3] explicita sobre um tipo de relação social a partir de sinais e símbolos, formas de representação, de algum maneira, um diálogo, uma interação entre animação e espectador gerando sentimentos e sensações, também citada por THOMAS, Frank; JOHNSTON, Ollie [5], muitos animadores em suas escolas tiveram a preocupação com a interpretação e o sentimento e isso nos responde que não importa se estamos utilizando a mais recente tecnologia ou a clássica animação de papel, mas, o que passa muitas vezes despercebido é como os fundamentos de animação são pouco explorados, é comum alunos de animação em nossas aulas (*depoimento dos autores*) não saberem responder quais princípios foram aplicados para produzir uma determinada cena, isso demonstra uma possível falta de domínio da essência contida na linguagem propriamente da animação, independente da técnica.

“O fato de fazer cinema a partir de desenhos e pinturas fazia o filme de animação ser apreciado de maneira diferente do cinema de ação ao vivo, exigindo a formulação de regras artísticas próprias, as quais vieram a ficar conhecidas como os princípios fundamentais da animação – abordagens de desenho baseadas na observação do movimento que resultaram em conceitos básicos capazes de proporcionar encenação convincente às figuras criadas no papel. A animação passava a contar com uma linguagem.” (LUCENA JR, 2002, p. 19) [4]

O que queremos alertar nas premissas colocadas até aqui é que, muitas vezes, muitos dos conteúdos disponibilizados gratuitamente na internet, independente de formato, vídeo, podcast, textos e apresentações em slides, não enfatizam o essencial interpretativo para animar. O pensar sobre o “ato do fazer e dar vida” de grandes animadores, em específico os que trabalharam na formação de outros animadores, como é o caso dos The Nine Old Men [6], por exemplo, esse pensar, aparentemente pouco discutidos e muito menos apresentados aos jovens estudantes de forma organizada com suas metodologias de trabalho, se um personagem deve andar, não é somente a divisão do ciclo de passos que o dará a ação, mas sim entender porque ele está a andar e com quais intenções e sentimentos ele caminha.

2. Primeiras escolas e o desenvolvimento bibliográfico por animadores.

A primeira escola de animação inaugurada no mundo nasceu na Europa, foi a Escola de Belas Artes de Paris, na França, em 1896. Foi lá que Émile Cohl, um pioneiro da animação, começou a experimentar técnicas de animação, incluindo desenhos animados em papel. Essa escola desempenhou um papel crucial no desenvolvimento inicial da animação como forma de arte e entretenimento. No início do século 20, várias escolas de animação começaram a se destacar por suas contribuições para o desenvolvimento dessa nova arte.

A Belas Artes de Nova York (Estados Unidos) também desempenhou um papel significativo no desenvolvimento da animação, com destaque para o trabalho de animadores como Winsor McCay, que é conhecido por criar o personagem do desenho animado «Gertie the Dinosaur».

Outra escola de Belas Artes é a de São Petersburgo (Rússia): a escola foi um centro importante para a animação russa no início do século 20, com artistas como Ladislav Starevich ganhando destaque por suas inovações na técnica de animação com bonecos.

Por fim, a escola de Belas Artes de Tóquio (Japão): a animação também estava se desenvolvendo rapidamente, com artistas como Oten Shimokawa e Seitaro Kitayama sendo pioneiros na indústria de animes.

O trabalho destes animadores tem em sua trajetória uma forte influência de seus grupos de estudo e sua produção profissional, neste breve panorama sobre as primeiras escolas é possível perceber como animadores na história se revelaram como criadores de técnicas e estilos, sendo propriamente os primeiros pesquisadores da arte da animação, gerando documentação para consulta técnica e formativa. Neste artigo aprofundaremos em alguns deles em específico animadores norte americanos que trabalharam comercialmente no mercado de entretenimento, deixando claro que riquíssimas contribuições foram feitas por todo mundo em especial na Europa, berço desta arte cinematográfica.

2.1. Animadores norte-americanos que influenciam outros animadores

Os animadores dos anos 1920 trabalhavam apressadamente para atender às demandas de mercado, e isso, somado a poucos recursos gráficos e de representação, deixavam de dar vida às suas produções. Walt Disney almejava atingir a ilusão da vida em seus trabalhos, ou seja, o personagem tinha que representar, dar a impressão de que possuía vida própria [4].

“Estou interessado em divertir as pessoas, em dar prazer, particularmente fazê-las sorrir, ao invés de estar preocupado em ‘expressar-me’ através de obscuras impressões criativas.” (LUCENA JR, 2002, p. 98), Apud - The Illusion of life [4]

Como dito, [4] Disney tinha desde os primeiros momentos de seu negócio uma visão de excelência em pesquisa e consequentemente ensino, ele sabia que precisava treinar os seus animadores para se destacar. Walt Disney em seu estúdio, surge para dar um novo patamar à animação, tendo a excelência como foco. Por mais genial que fosse Felix the Cat,

sua personalidade se estruturava em cima de piadas visuais, ou seja, suas animações não possuíam histórias estruturadas, e sim uma sucessão de piadas visuais nas quais os personagens se apoiavam.

Já é fato o exemplo de Branca de Neve e os Sete Anões (1927 a 1935) deu à Disney e sua equipe não só desafio de produzir um longa-metragem animado, algo antes já feito, mas sim de produzir um longa-metragem animado que captasse a atenção das pessoas e as fizesse assistir do início ao fim com interesse. Mantendo os desejos e aspirações de Walt Disney, através de um memorando escrito à Donn Graham em 1935, (chefe das aulas internas de treinamento e orientação no estúdio de animação da Walt Disney Productions de 1932 a 1940. [7] Durante sua produção, o receio da reação de insatisfação do público perante um filme muito longo e só com desenhos, o fez contratar diversos desenhistas altamente qualificados, assegurando-lhe que a qualidade final do filme, satisfizesse a maioria do público, fato este que garantiria um retorno financeiro satisfatório. DEJA, Andreas [6] complementa que entre os anos de 1927 e 1935, foram contratados nos estúdios da Disney, diversos artistas que ao longo de suas brilhantes carreiras e sucessivos trabalhos de animações primorosas se tornaram conhecidos e passaram respeitosamente a serem chamados por seus colegas de “The Nine Old Men”. Estes são: Les Clark, Eric Larson, Ward Kimball, Wolfgang Reitherman, Milt Kahl, Frank Thomas, Ollie Johnston, Marc Davis e John Lounsbery [6].

DEJA, Andreas [6] explica, o nome «Nine Old Men» foi criado por Walt Disney em referência ao filme «Gone with the Wind» («E o Vento Levou», em português), onde um personagem se refere aos «Nine Old Men» da Suprema Corte dos Estados Unidos.

Cada um desses profissionais se destacou por sua autenticidade e personalidade marcante. Personalidade esta que quando espelhada em seus trabalhos resultava em cenas de animações memoráveis como por exemplo a célebre cena do beijo involuntário durante o jantar provocado por sugarem o mesmo fio de macarrão entre os personagens Dama e Vagabundo, no longa “Lady and the Tramp” de 1955. Ou então a “walk dança” no meio da selva dos personagens Baloo o urso e Mogli o menino lobo, no filme “The Jungle Book” de 1967 [6].

A partir do longa metragem Pinocchio (1940), graças à dedicação, espírito colaborativo e empenho desse grupo de animadores “The Nine Old Men” a Disney passou a lançar no mínimo um longa-metragem por ano, mantendo e aprimorando um papel fundamental no desenvolvimento e refinamento da técnica de animação, bem como na compreensão da narrativa visual na animação desenvolvida desde Branca de Neve e os Sete Anões (1937). [6]

2.2. Animadores autores

Dando um salto no tempo, em 1961, juntamente com outros profissionais, W. Disney tornou-se cofundador do California Institute of the Arts (CalArts). Localizada em Valência, Los Angeles, Califórnia, a ideia por trás da criação da CalArts era fornecer um ambiente educacional inovador e multidisciplinar para artistas e criativos, onde pudessem explorar diferentes meios de expressão artística e colaborar em projetos interdisciplinares.

Disney tinha uma visão de uma escola que combinasse diversas formas de arte, incluindo artes visuais, teatro, dança, música e, é claro, animação.

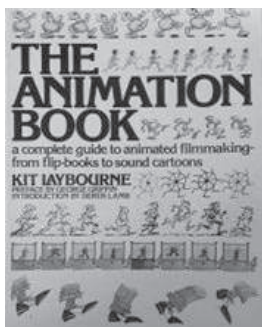
A CalArts procura motivar seus alunos assim como Walt Disney fazia com seus funcionários, trazendo professores e palestrantes para o estúdio a fim de manter a qualidade de animação criada por alguns animadores veteranos como Ollie Johnston e Frank Thomas quando começaram a escrever livros já no final de suas ilustres carreiras, *ILLUSION OF*



Fig. 1. página do livro *illusion of life*, <https://www.flickr.com/photos/mypondoras-box/10640535184>

LIFE publicado em 1981, é um destes exemplos mais conhecidos, deixando o legado aos novos e promissores talentos que estavam ingressando.

A Disney de 1949 a 1986, concentrou-se em estabelecer um programa de treinamento para novos animadores juntamente com Eric Larson que acabou sendo nomeado chefe do programa de treinamento em 1970, dando palestras e orientando individualmente cada aluno a se expressar em suas cenas de animação[6]. Stanchfield, parceiro de Larson, começou a dar aulas e palestras semanais de desenho gestual para todo o estúdio, entre seus alunos estavam os jovens desconhecidos Brad Bird, John Lasseter, Don Bluth, Glen Keane, Andreas Deja e tantos outros. Um dos primeiros resultados positivos desse trabalho, surgiu no longa “Uma cilada para Roger Rabbit” dirigido pelo lendário Richard Williams, havia uma modelo servindo de pose para os animadores, com longas pernas vestidas como a personagem Jessica, e W. Stanchfield se movimentava como ela ajudando os animadores a observar e extrair nos movimentos aquilo que a tornava bonita e sensual, a animação da personagem foi orientada e supervisionada por Stanchfield. O impacto dessa performance se tornou a “bíblia” da animação para cada jovem entusiasta na equipe dos artistas e acabaria influenciando outras obras como “A pequena sereia”, “O rei leão”, “Aladim” e “A bela e a fera”. Na década de 1980, a bibliografia sobre animação, disponível nos EUA ainda não era tão extensa como hoje, destacando-se o livro “The Animation Book” um guia completo para produção de filmes de animação, de flipbooks a desenhos animados sonoros, escrito por Kit Laybourne, teve sua primeira edição em 1979,

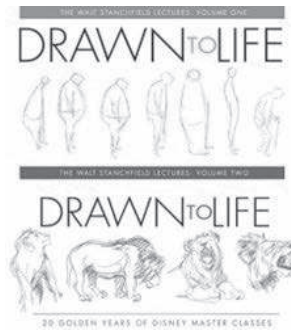


sendo o mais completo para a época. Kit Laybourne, um produtor executivo para TV e educador, dissertou sobre os princípios da animação de forma simples, mas suficiente para a aprendizagem. O livro, desenvolve aspectos técnicos e tornou-se bastante conhecido e utilizado na época, por diversos profissionais e aspirantes, auxiliando no desenvolvimento da animação autoral, como expressão artística e profissional.

Mas o que se mostrou uma grande contribuição bibliográfica aproximadamente um

Fig. 2. capa do livro *The animation book* edição primeira, arquivo dos autores

Fig. 3. capas dos livros
Drawn to life 1 e 2,
montagem de imagem
pelos autores



extensa em relação a qualquer série de assuntos relacionados ao desenho como uma arte, tornando-o um dos principais mentores a partir de então.

Drawn to life “Dando vida a desenhos”, os anos de ouro das aulas de animação na Disney, foi lançado pela editora Focal Press na década de 1980. São dois volumes muito completos contendo ensinamentos, desenhos, anotações, registros e comentários feitos durante suas aulas na CalArts. Stanchfield, aborda de maneira filosófica e técnica os mais de 120 fundamentos necessários para aperfeiçoar desenhos na área da animação.

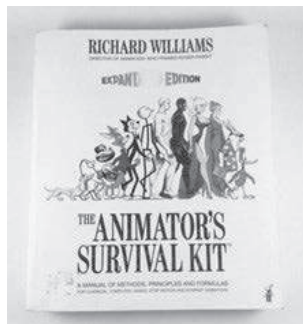
Como citado anteriormente, entre os anos de 1927 a 1935, foram contratados nos estúdios da Disney, diversos artistas.

Muitos outros livros foram editados sobre as obras individuais destes artistas, citamos Marc Davis como exemplo. Davis esboçava a forma feminina nas aulas de desenho vivo, de maneira impressionante, e foi convidado para ajudar no estúdio e proporcionar uma aparência realista na personagem Branca de Neve, cuja produção estava em andamento. Esse fato, traçou sua carreira como animador de protagonistas, princesas e vilãs, mas essas literaturas não possuem o mesmo intuito pedagógico em discutir os fundamentos do desenho e da animação. [6]

O que vem a seguir sim, é uma das obras do século XXI já aclamadas pela academia e também profissionais do mercado de animação. «The Animator «s Survival Kit» livro escrito por Richard Williams, renomado animador britânico vencedor de três prêmios Oscar. Publicado pela primeira vez em 2001, o livro rapidamente tornou-se uma referência indispensável para animadores e entusiastas da animação em todo o mundo.

O livro aborda os princípios fundamentais da animação de forma detalhada e acessível. Williams compartilha sua vasta experiência e conhecimento técnico como animador e diretor (Uma cilada para Roger Rabbit 1988) para orientar os leitores em todas as etapas do processo de animação, desde os conceitos básicos até técnicas avançadas. Conhecido por sua abordagem prática e foco na anatomia do movimento, ensina aos leitores como criar animações

Fig. 4. capa do livro
The Animator «s Survi-
val Kit Animated
<https://www.carousell.ph/p/art-and-design-the-animator%E2%80%99s-survival-kit-by-richard-williams-animation-book-205931092/>



convincentes e realistas com explicações muito minuciosas e detalhadas. Ele explora aspectos como timing, espaçamento, poses-chave, easing in/out, squash and stretch, e muitos outros conceitos essenciais para dar vida aos personagens na tela.[8]

Uma característica marcante do «Animator «s Survival Kit» são as ilustrações detalhadas e os exemplos práticos que acompanham as explicações teóricas. Williams utiliza desenhos e storyboards para demonstrar os princípios em ação, proporcionando uma compreensão visual e prática para os leitores.[8]

3. Considerações finais

Esta pesquisa analisa um recorte específico nas produções bibliográficas de animadores norte-americanos que foram influenciados por seus colegas durante um período marcado pelo desenvolvimento simultâneo da técnica, da tecnologia e do crescimento dos mercados de animação estadunidense. Observamos que a prática documentada desempenhou um papel fundamental, geradora de inovações e estabelecendo critérios técnicos específicos para a busca da excelência na atividade. Graças à atenta observação e à sensibilidade dos artistas mencionados, foi possível relatar e construir um legado teórico substancial que continua relevante até os dias de hoje, contribuindo significativamente para o aprendizado e o aprimoramento da arte da animação.

Voltamos a afirmar que naturalmente nas plataformas digitais se encontra muito material interessante e de qualidade, mas por vezes sem o devido rigor acadêmico alinhado a sensibilidade interpretativa já citada anteriormente, imprescindível na construção de métodos. O que se pretendeu aqui, foi mostrar que a prática destes artistas consagrados da animação comercial norte-americana, teve e têm um papel preponderante como pesquisa e servem a todos como base para novas produções bibliográficas a partir das suas revisões e citações, novos autores e professores da área devem dar atenção a essas obras utilizadas neste artigo, e assim também entender como esses artistas puderam transformar aquilo que era a busca pela excelência e eficiência em produções comerciais de animação com a sua tradução e organização de etapas processuais em conceitos e metodologias de trabalho.

4. Referências

1. BNDES Set., Rio de Janeiro, v. 25, n. 49, p. 7-27, mar. 2019
2. FUENTES, Rodolfo. A Prática do Design Gráfico: uma metodologia criativa. 1ª edição. São Paulo: Rosário, 2006.
3. LEDESMA, Maria. Diseño y comunicación: teoría y enfoques críticos. Buenos Aires: Paidós, 2005.
4. LUCENA JR, Alberto. A Arte da Animação: técnica e estética através da história. 1ª edição. São Paulo: Editora Senac São Paulo, 2002.
5. THOMAS, Frank; JOHNSTON, Ollie. The Illusion Of Life. Disney Animation. Edição ilustrada. Califórnia: Disney Editions, 1995.
6. DEJA, Andreas. The Nine old men. 1st Edition. Boca Raton: CRC Press, Focal Press Book Florida, 2015.
7. STANCHFIELD, Walt. Drawn to life. Vol. 1. Rio de Janeiro: Elsevier, 2011.
8. WILLIAMS, Richard, The Animator «s Survival Kit Animated. Faber and Faber London 2009



Bringing Emotion to Animation

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Keywords

2D character; 2D animation, emotional performance, gesture, anatomy

Abstract

This paper investigates the importance and methods of acting through 2D character in animation, focusing on character-driven actions. To fully comprehend the most prominent methods of creating successful characters for animation, it is important to analyze different parts of this art form by looking separately into what it is combined of; such as basic shapes, anatomy, performance, gesture, expressions, etc. 2D character design for animation differs from other types of character design, such as for video games or illustrations, mostly due to the factor of movement that needs to be considered in its design. It cannot be too detailed in its appearance; otherwise, creating movements with character becomes difficult and time-consuming. The research found that each character is dependent on its performance by several factors such as attributes and characteristics. Therefore, there are many aspects to consider for emotional performance in 2D character animation.

1. Bringing emotion to animation

In 2D animation, acting through character merges artistic skills, technical expertise, and knowledge from psychology. Furthermore, understanding who the character is allows animators to create authentic and believable performances, as they are rooted in the character's unique traits [5]. This concept aligns with the views of Stanchfield and Brodie, (2020) and Hooks (2011), both emphasizing character-driven actions, motivated by their emotions to most effectively convey the story theatrically. Character personalities are acted out in animation through gestures. Animation scenes consist of gestural drawings, distinguished from still drawings by elements like overlapping action, drag, squash and stretch, imbalanced stances, or unconventional perspectives [9]. Connors (2017) describes it as the spontaneous capture of moments in time, often based on direct observation or life studies [3]. Bluth (2005) adds that animation is fundamentally about acting, in which real emotions must be played out in the best way possible to avoid lifeless gestures [2]. In other words, to be familiar with characters personality and understand how they would act and react in various situations.

To further illustrate this, Aulia and Aditya (2017) categorize basic body postures into four types: open, closed, forward, and backward. These

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postures convey a character's attitude and reaction toward objects or situations. It is important to remember that not all characters walk or move the same way [1]. Depending heavily on the characters personality traits and physical attributes. Therefore, each of four types carry limitations and advantages depending on specificities of the character. However, "a good model is one with shapes that can be animated into various poses and expressions without losing its character." [9]. Emphasizing on the importance of simplicity in character design and ability to shape various movements to carry the narrative. A great place to start mapping out these poses is from Michael Chekhov's concept of *psychological gesture*, as described by Hooks (2011), in which every character has one defining psychological gesture. This gesture encapsulates the character's core traits and motivations, influencing their actions [6]. Once the main posture is set in place, it becomes easier to understand other gestures the protagonist would perform. Therefore, it is crucial from the narrative perspective to design each character to be able to perform gestures according to their physical appearance. For example, an obese character sprinting in a zero-gravity running competition or a skinny character lifting heavy weights would be unrealistic. Unless it is used in theatrical over exaggerated purposes for contrast.



For instance, Bill Plympton uses the character's blandness which serves as a canvas to create a contrast between normalcy and extremity [11]. This extremity can be carried out through exaggeration. Exaggeration in animation amplifies the motives and emotions of characters more clearly and makes them understandable for the audience [6]. As in the example from image, the character design is an everyday worker, but when emotional, the body is distorted and exaggerated

Figure 1: Character from *Your Face* by (1987) Bill Plympton.

into various poses to add drama. Creating contrast between actions.

Moreover, "Michael Chekhov was also the first acting teacher to use atmosphere in a conceptual way. And atmosphere can, in turn, affect the kind of gestures a character makes. His idea was that every scene has its own atmosphere." [6]. For example, if it is windy or rainy and the character is walking, the body gesture of a walk cycle should be different compared to a sunny weather walk. It also means that it is crucial to "read the room" to see what kind of atmosphere in the environment is beneficial to carry the narrative further. To act successfully, the gesture should carry out the same story. It would be unnatural in atmosphere concept to use high contrast compared with physical gesture concept. We could create confusion in the audience and might end up losing believability.

Connors (2017) adds to the concept of exaggeration in gesture drawing by stating that it involves pushing the boundaries of the gesture; over-emphasizing the actions is crucial to the story we are telling [3]. "Exaggerated emotions will yield exaggerated dramatic impact." [2]. 2D animation

offers artists a creative playground in which exaggerations and defying the conventional proportions of the human body and laws of reality are encouraged to be broken [7]. In animation, there are no such limitations on gestures like those with live actors. Drawn characters can be shaped into positions that are often impossible for human actors. For example, if the character is required to do a split, it can be drawn easily, whereas with human actors, the director is dependent on the physical skills of the live actor. As Stanchfield and Brodie (2020) aptly express, animation goes beyond referencing live actor poses; it is more about capturing each gesture so that the audience can feel the intended narrative [9]. However, Harder (2023) emphasizes the importance of technical correctness in gesture drawing and the need for the characters to be anatomically correct since the audience can discard the believability of the character because humans are daily exposed to *correct* human anatomy [5]. Hyeon-gyu (2018) further supports this theory, explaining that anatomy plays a crucial role due to the need to portray human behavior in the context of the scene [7]. On the contrary, Stanchfield and Brodie (2020) argue that while anatomy is a valuable tool, knowledge and skill of it alone do not make a great character animator; transforming feelings and impressions into a gesture is much more valued than correct human anatomy [9]. Moreover, “The more iconic a character’s shape and proportions are, the more likely you are to identify them quickly” [5]. For example, *Once Upon a Thread* (2014) by Patrícia Figueiredo has one of the most unconventional character appearances, yet they are all created by using basic shapes in their anatomy, establishing a resemblance to human characters, and through that, allowing the audience to relate to their experiences. She has considered the character’s personality, crafting their appearance to closely resemble the essence of what they represent. For instance, the character who is knitting looks like a big ball of yarn. Figueiredo is using the personality traits in character design for theatrical impact.

Figure 2: Character from “Once Upon a Thread” (2014). Credits: Patrícia Figueiredo



While we typically see exaggeration in key poses, it is not only limited to these big actions but should also be applied to subtle gestures like the slight movement of a finger, the goal is to illustrate certain aspects of the narrative [3]. Nevertheless, gestures can be either subtle or exaggerated; what is important is that they advance the narrative. When the whole ani-

mation is a series of exaggerated movements, it can result in the audience feeling disconnected. Achieving balance in gestures is a clearer approach to sustaining audience interest throughout the film. Well timed pauses, hesitations, and anticipation are all as strong as movement itself. It is crucial to leave the room for characters to think and react, preventing the animation from becoming a mechanical sequence of actions [6]. Drawing parallels between music and animation, Bluth (2005) puts emphasis on rhythm in animating characters, in which the body is an instrument to be squashed, stretched, and distorted [2]. Wells (2009) describes how different character body parts naturally exhibit various timings, which are also due to the character's emotional state and figure. Just like different musical instruments have sound variations and size differences, so do characters [12]. It is therefore important not to spend too much time drafting perfect gestures until the rhythm is not established [2]. In addition to rhythm, harmony contributes to the flow, similarly, aligning elements into a unified whole. Furthermore, this type of harmony acted through characters is shaping their actions and interactions into the life of animated motion [3]. The importance of rhythm and harmony becomes clear when timing the animation sequence. Character rhythm and emotion should not be too fast, complex, and constantly overexaggerated; it might lose a sense of reality, and the audience might not be able to empathize with the character. Stronger empathy can be also created through characters facial expressions. "At the simplest level, there are eight basic emotions: happiness, sadness, astonishment, fear, anger, disgust, interest, and pain." [1]. Emma Calder talked about the importance behind her decision to use



human eyes for her characters in her mixed-media animation *Beware of Trains* (2022). She believes that the human eye has the most expressive facial features. By incorporating the real-filmed eyes of actors onto animated 2D characters, she was able to convey her character's emotions more vividly (CONFIA 2023).

Figure 3: Still from *Beware of trains* (2022) by Emma Calder. (Norwich Film Festival, 2022)

2. Design

Not all animators are talented gesture drawers and cannot create anatomically correct characters. Hyeon-gyu (2018) suggests taking inspiration from cubism to simplify human anatomy for animation, the simplification of the structure of the muscles and body in general can help to create more visually appealing and understandable movements [7]. As in *My Darling Shadow* (2016) By Conor Whelan, characters are combined using simple shapes and outlines. With half of the face transparent, however, we don't feel it being incomplete.

Being familiar with the main shape helps to further identify the obstacles and come to the correct gesture [9].

“Because the muscles of the human body are intertwined in a curvilinear form, it is difficult to understand their structure. Therefore, by creating and assembling the form-centered muscle groups necessary for animation, it becomes easier to understand the complex muscle structure.” [7].

Figure 4: Still from *My Darling Dahadow* (2016)
by Conor Whelan.



By using simple geometric shapes, animators can draw anatomically more realistic characters. It is beneficial to adopt this mindset because it will lead to more expressive drawing, particularly in scenes where body language holds significant importance [9]. Hyeon-gyu (2018) makes a distinction between static and animated 2D characters, in which the animated one focuses on the silhouette, the outer form. Thus, demanding a greater understanding of mobility. In practice, excessive anatomical focus can undermine the advantages of silhouette expression and dynamic exaggeration in character animation [7]. Characters come in different sizes and shapes. “Designing characters around base shapes for contrast and appeal is a time-tested tradition among animators.” [4]. Considering the three-dimensionality of these shapes, understanding the principles of perspective, and recognizing effective line work are central to this process, as described by Stanchfield and Brodie (2020) [9]. Su and Zhao (2011) primarily rely on the characters silhouette with experimentation with basic geometric shapes. Once they have achieved the intended contrast, only then do they continue to incorporate finer details [10]. It is important to be familiar with the perceptions around these shapes since they play a crucial role in conveying the personality of the character and can resonate with different audiences. For instance, round and soft shapes may resonate with a younger audience; in contrast, characters with sharp features can evoke edginess in an older demographic. Additionally, considerations of weight, flow, and simplification play pivotal roles in the design to create characters that project sturdiness, as well as defining their visual narratives [5]. This alignment of shape language with narrative is also highlighted by Su and Zhao (2011), who state that character design involves body ratios ranging from two to nine, with smaller ratios often contributing to a character’s perceived lovability, while larger ratios tend to reflect intimidating figures [10]. Understanding the variety of shapes present in human anatomy is essential to capturing the personality behind

the physical appearance. Furthermore, the tradition of basing characters on shapes, as emphasized by Doucet (2022), underlines the significance of the shape-language connection between the character body parts, the world they occupy, and with the rest of the cast [4]. Harder (2023) suggests putting characters next to each other to compare the shapes, for instance, within the same show, the choices in shape and language can vary [5]. Doucet (2022) brings an example from *Aladdin* of using these different base shapes for contrast between characters [4].



Figure 5: Character sketches from *Aladdin* (Doucet, 2022)

Another critical consideration in character design is achieving a contrast between the characters and their backgrounds. According to Harder (2023), it can be achieved with thicker outlines [5]. It is worth noting that Kupferer (2011) analyses this topic extensively and urges caution when it comes to the use of outlines,

stating that they are for artistic stylization and do not correspond to the natural world; instead, it is advised to use texture, color, and light to add contrast, which also further produces three-dimensionality into 2D character [8]. Moreover, the use of color can evolve throughout the narrative, contributing to the characters development and transformation; as they change, so do their surroundings, either through transitions in color or light [5].

Designing for different genders introduces a unique set of challenges regarding the selection of foundational shapes. Su and Zhao (2011) observe distinctions between male and female character design based on simple lines, in which females are drawn with more curves and rhythm, while men tend to have straighter lines [10]. While the temptation to draw conventional gender-associated shapes, like the upward triangle for females and the downward triangle for males, can become risky, losing audience engagement. Moreover, as noted by Harder (2023), it is important to challenge outdated stereotypes that have portrayed men as strong and heroic and women as weak and dependent [5]. While there is a common understanding of the shape of a male figure, the rules can be broken to create a more memorable character. While Bluth (2005) finds male character design to be the more challenging, contrary to Su and Zhao (2011) find that female character design is the most challenging because they must navigate between conventional aesthetics and the unique personality of the character. Whichever is more challenging perhaps depends on the designer's previous experience and gender. When creating a character, the designer must set aside their own gender and personal identity to immerse themselves in the character's perspective; they must assume the roles in fashion, hair, and makeup together with the director, actor, and photographer simultaneously through observation [10]. Addressing not only gender differences but also cultural diversity is essential in character design. Character designs send a message about

their identity, whether intentional or not; factors like gender, appearance, and posture convey familiar concepts and stereotypes. Using these traits effectively can help create contrast between different characters, inspiration should be drawn from the animators own cultural backgrounds for the most authentic design expression; however, if it's not possible, extensive research should be conducted to create an authentic character from another culture [5]. When designing a character for animation, the most important part is to think about the movement the character needs to do later, which is the most important thing compared to illustration or other static art forms. It should be avoided to judge a character solely on aesthetics [10]. Instead putting emphasis on expressive gesture and facial expressions for emotional performance.

3. Conclusion

In conclusion, emotional performance in animation involves character-driven actions that are deeply rooted in the unique personality and characteristics of each character, and these are expressed primarily through gesture. Each character has a distinctive psychological gesture that embodies their key attributes and provides both limitations and advantages in creating further movement. These gestures, which reflect the core of the character's personality, play a crucial role in conveying emotion and intent to the audience.

To create dynamic and engaging movements, it is essential to use contrast within scenes through gestures, exaggerating some while making others more subtle or bland. This contrast helps to highlight the emotional peaks and valleys of the narrative, making the animation more compelling. It is also important to consider how the atmosphere affects the movement of the characters through natural elements such as rain and wind. These environmental factors can add a layer of realism and depth to the animation, affecting how the characters interact with their surroundings and enhancing the overall emotional impact.

For better anatomical representation, it is recommended to use simple geometric shapes, which can even be simple outlines. This approach simplifies the complex structure of the human body, making it easier to animate while still maintaining a recognizable shape. While accurate human anatomy helps the audience relate to the characters, it is equally important to focus on emotional performance and exaggerate certain aspects for dramatic impact. As highlighted by Hyeon-gyu (2018), an excessive focus on anatomical correctness can undermine the benefits of dynamic exaggeration and silhouette expression, which are essential for creating memorable and emotionally resonant characters.

Pauses and anticipation should complement extreme scenes to create a rhythmic flow in the animation, similar to music where harmony between movements encourages greater empathy with the character. These elements help build tension and release, guiding the audience's emotional response and enhancing the storytelling.

Characters come in different shapes and sizes, each of which resonates differently with audiences. For example, round and soft shapes

can appeal to younger audiences by conveying a sense of security and friendliness, while sharp features can convey angularity and intensity, appealing to an older demographic. Creating contrast between characters and their backgrounds through outlines, textures and colors is crucial. This contrast not only makes the characters stand out, but also supports the overall visual storytelling by emphasizing their roles and relationships within the narrative.

In addition, challenging cultural and gender stereotypes in character design can lead to more inclusive and diverse representations. This inclusivity not only broadens the appeal of animation, but also promotes a more relatable and authentic experience for a wider audience.

In summary, while there are many steps we can take to create emotional performance through 2D characters, much of the success lies in the thoughtful design and clearly defined personality of each character. A well-designed character with a strong personality foundation will naturally lend itself to a dynamic, engaging and emotionally resonant performance, making the animation a richer and more immersive experience for the audience.

4. Acknowledgements

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5. References

1. Aulia, E., & Aditya, C. S. K. (2017). “Panawa” animation movement design: Rat character with human personality. 2017 4th International Conference on New Media Studies (CONMEDIA). 182-187 <https://doi.org/10.1109/conmedia.2017.8266053>
2. Bluth, D. (2005). *The art of animation drawing*. DH Press.
3. Connors, A. (2017). *Gesture drawing: A Story-Based Approach*. CRC Press
4. Doucet, R. (2022). *Character design course*. z-lib.io. Retrieved September 9, 2023, from <https://z-lib.io/book/16867510>
5. Harder, J. (2023). *Creative character design for games and animation*. <https://doi.org/10.1201/9781003243533>
6. Hooks, E. (2011). *Acting for animators* (3rd ed.). Routledge. / iTunes Apple Ebook page numbers <https://itunes.apple.com/WebObjects/MZStore.woa/wa/viewBook?id=0>
7. Hyeon-gyu, Lee (2018). *Use and Application of Human Anatomy for Animation Animation Education*. [Doctoral dissertation, Kyoto Institute of Technology] <https://annas-archive.org/md5/fa079dccc1e20b59000e4d0b226ac643>
8. Kupferer T. Y., (2011). *Creating the illusion of depth and volume in animated forms without contour lines*. [Master thesis, Savannah College of Art and Design].
9. Stanchfield, W., and Brodie, L. (2020). *Gesture drawing for animation*. Independently published.
10. Su, H., and Zhao, V. (2011). *Alive character design: for games, animation and film*. Retrieved May 24, 2024, from <https://dl.acm.org/citation.cfm?id=2095818>
11. Wells, P. (2006). *Fundamentals of Animation* (0 ed.). Fairchild Books AVA.
12. Wells, P., Quinn, J., & Mills, L. (2009). *Basics Animation 03: Drawing for animation*. AVA Publishing.



Comida e Memória Familiar: Um Arquivo Auto-Narrativo Ilustrado em construção

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Abstract

Since the dawn of civilization, sharing a meal has always been more than a mere necessity - it is a social act that brings people together, whether they are family, friends, or strangers. Food goes beyond its function of sustenance; it is a social bond that allows for creating memories and strengthening relationships while preserving traditions. The influence of food on our family memory is evident, as it is within this same context that our first routines are born and developed.

All memories have a social and personal aspect, and food is intrinsically linked to both. A group meal is an individual, shared, and cultural memory, perpetuating practices of a collective identity. These habits, built and maintained over time, connect past, present, and future, allowing old memories to be revived and transmitted to future generations.

Illustration emerges as a fundamental tool for reflecting on the importance of these simple yet significant moments that shape our culture and identity, as well as assisting in their preservation and perpetuation. The goal is to raise awareness about the importance of preserving family practices and to act as agents in their transmission and evolution through an illustrated book that explores my own family.

1. Introdução

Pensar em ilustração é pensar em narrativas ou contar histórias a partir de imagens, é esta particularidade que a define e que lhe dá importância histórica. Ao longo deste artigo a ilustração é defendida como ferramenta e forma de expressão única, cuja gramática foi e continuará a ser um meio poderoso para a comunicação de ideias, emoções e narrativas individuais ou coletivas para diferentes públicos que lhe conferem relevância em relação a outras práticas de produção de imagens. Recorremos à ilustração para tornar visível histórias e realidades à volta da comida e das refeições familiares que muitas vezes desvalorizamos, esquecemos ou não entendemos como relevantes no que pode ser a identidade do que é uma "família".

As ilustrações produzidas ou em esboço partem de um exercício de introspecção que envolve o acto da "refeição" à mesa explorando a auto-narração de diferentes histórias oriundas do contexto familiar nuclear e mais alargado com o objetivo de as comunicar, de as tornar públicas e assim talvez de as perpetuar.

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Recordamos as inúmeras horas que passamos à mesa, mas talvez não paremos para refletir sobre a importância que esses momentos têm na nossa identidade individual e coletiva. A refeição é mais do que o simples ato de comer, é igualmente um espaço e tempo de trocas diversificadas. Essa partilha faz dos indivíduos participantes ativos na memorização de receitas, sabores, cheiros que nascem no seio familiar e que se atualizam em cada nova refeição. Assim, reconhecermo-nos como um agente ativo e capaz de transportar connosco memórias partilhadas à mesa foi, no meu caso em particular, onde o interesse por esta investigação académica se iniciou. Na repetição dos rituais, das celebrações, das histórias e das receitas vi uma forma de fazer as práticas e as memórias familiares chegarem mais longe, perpetuando-as e, consequentemente, preservando-as. O objetivo principal é contribuir para a importância de preservar as tradições familiares à volta de comida, celebrando e materializando essas memórias através de um artefacto ilustrado que sirva como um arquivo de identidade da minha família. O enquadramento teórico apresentado neste artigo é parte do projeto da investigação em mestrado em curso na FBAUP e fundamental para a sustentação da componente prática que se objetiva num livro ilustrado auto-narrativo.

2. Como a Comida Conecta com a Memória

2.1. A Memória e a Comida

Marcel Proust (2003), em “Search of Lost Time” [1], fala-nos sobre a conexão *anormal* que a comida tem com a memória. O passado está escondido algures para lá do nosso domínio e muitas vezes em partes do nosso dia a dia que nem imaginamos. No livro, o autor recorda (p. 42) que ao comer uma *petit madeleine* mergulhado no chá, ele é mentalmente transportado para outro tempo. Remexendo no seu passado, a memória volta a Proust e transporta-o para a sua infância, através do sabor, mas também do local onde se encontrava, de volta a Combray. Esta passagem no romance de Proust capta a forma complexa como a comida pode estimular a memória e a imaginação, navegando não apenas no sabor, mas nas histórias coletivas, nas relações e nos lugares. Proust reflete ainda sobre o momento em que um sabor nos faz viajar no tempo, uma vez que o passado se torna algo tão presente, que deixamos por segundos de saber em que tempo vivemos. Desta forma, mostra-nos esta perspetiva apelando à importância do sabor e do cheiro como veículos de memórias, “Mas quando de um passado distante nada subsiste, depois de as pessoas terem morrido, depois de as coisas estarem partidas e dispersas, ainda assim, sozinho, mais frágil, mas com mais vitalidade, mais insubstancial, mais persistente, mais fiel, o cheiro e o sabor das coisas permanecem suspensos durante muito tempo, como almas, prontos para nos lembrar, esperando e desejando pelo seu momento, no meio das ruínas de todo o resto; e carregam sem vacilar, na pequena e quase impalpável gota da sua essência, a vasta estrutura da recordação” (p.45) [1]. Como Jon Holtzman (2006) defendeu em “Food and Memory” [2], a comida deve ser entendida como uma construção cultural que está enraizada na nossa experiência do mundo. Assim, acaba por estabelecer uma sensação de pertença, seja

pelas conexões interpessoais que surgem dela como pelas memórias que são criadas e moldadas através da comida, ajudando-nos a lembrar e a esquecer. Já quando falamos de memória, é importante ter em atenção a subjetividade que nela subsiste na maneira como o passado é memorizado e utilizado para a construção do presente e do futuro. O ato de comer é uma rotina diária, realizada várias vezes ao dia, que estabelece uma ligação entre o indivíduo e o mundo, ao mesmo tempo que conecta espaço e tempo. Desta forma, a comida torna-se uma experiência que envolve tanto aspectos cognitivos como emocionais e físicos, aumentando a sua importância e potencial como um veículo de memória [2].

A memória associada à comida frequentemente evoca uma nostalgia, transportando-nos a tempos que são na maior parte dos casos impossíveis de repetir, permitindo-nos revisitar pessoas e sabores do passado. Recordar torna-se fundamental, tornando-nos capazes de reconstruir cerimónias e preservar rituais [2].

A memória pode ser uma lembrança privada, uma identidade pública, uma parte da história ou uma leitura do momento presente. Questionar de que forma a comida se relaciona tão facilmente com a memória é fundamental, passando sobretudo por entender que o ato de comer transmite poderosas pistas mnemónicas, a partir do cheiro e do sabor, fundamentais na criação e associação de memórias [2]. A comida desempenha um papel fundamental ao organizar as nossas relações com o passado. O sabor, o cheiro e a textura dos alimentos desencadeiam memórias passadas, que podem influenciar as nossas escolhas, hábitos e rituais alimentares. Ao analisarmos estas memórias, podemos compreender como pequenos hábitos e ritos do nosso quotidiano contribuem para a formação de memórias individuais que também fazem parte de uma cultura partilhada (Straczuk, 2020) [3]. As memórias que associamos à comida merecem uma análise cuidadosa, pois por vezes a comida é apenas um componente superficial; o que verdadeiramente adquire valor e nos leva a recordá-las são as relações sociais que estavam intrínsecas ao momento em que a memória foi criada [3].

O ato de comer é transversal tanto ao contexto público como ao contexto íntimo. Desta forma, as memórias relacionadas à comida unem diferentes níveis de experiência: pensamos nelas com a mente, experienciamos com o corpo as suas sensações, e processamo-las tanto num contexto individual e coletivo, contribuindo para a formação da identidade de quem somos.

2.2. Memória Individual

A memória individual refere-se à capacidade do cérebro humano de armazenar, processar e recuperar informações sobre experiências passadas, conhecimentos adquiridos e competências aprendidas ao longo da vida (Connerton, 1989) [4]. Não obstante, podemos dizer que existe nela uma «certa noção de verdade», compreendendo que, por vezes, esta verdade é perturbada ao lidar com formas subjetivas associadas ao passado, acabando por influenciar a nossa percepção e construção do presente [2].

Maurice Halbwachs (1992) [5], em “On Collective Memory”, argumentou que a memória individual é criada num ambiente social específico,

cujas formas de perceber e compreender o mundo influenciam a maneira como pensamos e vivenciamos a nossa experiência. Ao recolher ou recordar o passado, um indivíduo quase sempre adota uma perspetiva do grupo em que se encontrava inserido na altura. Desta forma, a memória coletiva, ou de grupo, existe apenas com o objetivo de cristalizar as memórias individuais dos membros constituintes. Assim, como pertencentes aos grupos sociais em que vivemos, reconhecemos e registamos as memórias da comunidade num espectro individual e coletivo [5]. Esta forma de armazenar no contexto coletivo, foca-se sobretudo no desenvolvimento individual dos padrões e normas específicas da cultura, que vão sendo absorvidos por um indivíduo no contexto da sua comunidade (Assman, 2008) [6]. Quando pensamos sobre a presença da memória individual nos contextos sociais, focamo-nos sobretudo na memória cognitiva, ou seja, a expressão de narrativas preservadas em termos verbais ou mesmo em forma de artefactos [6].

Paul Connerton, em “How Societies Remember”, explica que “Invo-car o passado através da memória pode ser feito de duas formas distintas: *acting out* e *remembering*” [4]. O *acting out* é uma forma de ação em que o indivíduo, dominado por desejos e fantasias inconscientes, revive uma memória no presente com uma sensação imediata, intensificada pela recusa ou incapacidade de reconhecer a sua origem e, consequentemente, o seu caráter repetitivo. O *remember*, por outro lado, não se limita a simplesmente recordar eventos de forma isolada; trata-se de ser capaz de formar sequências narrativas significativas, resultando numa construção constante que, por sua vez, faz parte de um esquema ou codificação. Nessa codificação mnemónica existem três dimensões fundamentais: semântica, verbal e visual, formando assim um mapa mental da memória [4].

Como Justina Straczuk [3] defende, existe um efeito muito peculiar e importante no que toca aos sentidos, pois estão ativos no processo de relembrar algo, explicando a forte relação que existe entre a memória, os sentidos e as emoções. Na evocação de memórias, um poder emocional singular é atribuído aos sentidos do olfato e do paladar, devido ao facto de estarem localizados mais próximos da amígdala, que desempenha um papel crucial no processamento das emoções, em comparação com outros sentidos. Devido a esta proximidade, as conexões neuronais são mais curtas, o que os torna capazes de desencadear reações emocionais de forma mais rápida e fácil do que nos sentidos da visão, audição e tato [3].

No mesmo sentido Holtzman [2] defende que a comida tem um poder simbólico significativo em relação às nossas memórias, pois está intrinsecamente ligada à nossa materialidade, sendo simultaneamente uma parte essencial da constituição das nossas interações sociais.

2.3. Memória Coletiva

Geralmente acreditamos que a memória é uma faculdade individual. Mas se assim fosse, de que forma a memória coletiva é preservada e sustentada? A recolha cultural de tradições e as práticas corporais que repetimos, carregam consigo memórias intrínsecas que preservam a identidade coletiva [4].

Vivenciamos o presente num contexto que está sempre ligado a eventos e/ou objetos passados, e dessa forma, com referência a algo que

não estamos a vivenciar no momento presente. Além disso, vivenciamos o nosso presente de maneira distinta conforme os diferentes passados que somos capazes de conectar a um momento atual que experienciamos. Daí a dificuldade de extrair o nosso passado do nosso presente: não apenas porque os fatores presentes tendem a influenciar, ou até distorcer, as nossas recordações do passado, mas também porque os fatores passados tendem a influenciar, ou distorcer, a nossa experiência do presente [4]. Assim a memória é algo dinâmico, sendo constantemente reconstruída e reorganizada dentro da estrutura social em questão [5].

Pierre Nora (1989) [7], em “*Lieux de Mémoire*”, introduz o conceito de *lieux de mémoire*, que se centra em objetos ou eventos que encapsulam memórias, quando o vasto e íntimo contexto da memória desaparece. As cerimónias comemorativas como aniversários, casamentos, funerais, entre outras, são muito importantes pois marcam os rituais de uma sociedade e consequentemente os seus hábitos. Para Connerton [4] todos os princípios das memórias têm na sua origem um elemento de recolha. Quando um grupo social faz um esforço em começar algo novo, é nesse esforço que nasce então uma nova memória coletiva, que pode vir a tornar-se uma memória cultural. No entanto, começar algo de raiz é quase impossível, pois em todos os modos de experiência baseamo-nos sempre nas nossas experiências particulares num contexto anterior para garantir que sejam compreensíveis. Quando abordamos a memória coletiva, é importante entender as suas diferenças perante a reconstrução histórica e a memória social que está implícita. Uma não depende da outra, no entanto a reconstrução da história pode ser muito importante para dar forma e significado à memória de grupos sociais. Para além disso, enquanto a reconstrução histórica leva muitas vezes à produção de histórias escritas, com um carácter formal, as histórias mais informalmente contadas são uma das atividades básicas que caracteriza as ações humanas - sendo um símbolo de memória coletiva. A narrativa de uma vida faz parte de um conjunto interligado de narrativas, está inserida na história dos grupos nos quais os indivíduos definem a sua identidade [4].

Halbwachs [5] defende ainda que a memória coletiva nasce dos rituais comemorativos. Assim, a ordem social é carregada precisamente por memórias coletivas partilhadas, que estão ligadas às crenças e às práticas. Segundo o autor, aquilo que une os grupos sociais é a memória coletiva, que funciona quase como uma sinergia, possuindo um significado e ação social, tanto de individualidade como de coletividade. Os grupos em que nos inserimos, tem experiências relevantes e pontos de vista que são transversais às vidas individuais dos seus participantes. Mesmo as nossas memórias mais individuais podem ser moldadas por estruturas sociais. A perda da memória priva-nos do sentido de existência, enquanto o ganho da mesma nos restitui esse sentido e a conexão com o coletivo [5].

Não estando a memória coletiva inscrita nos nossos corpos, esta é vivificada pela ação do mesmo (Narváez, 2013) [8]. Pierre Nora [7], defende que para além dos rituais e cerimónias comemorativas que fazemos persistir até hoje, também os veículos que encapsulam memórias, sejam eles eventos, objetos, estátuas, se tornam simultaneamente algo coletivo como individual.

Maurice Halbwachs [5], afirma que é a partir da filiação e da sensação de pertença a um grupo social que os indivíduos são capazes de adquirir, de localizar e de relembrar as suas memórias. Cada recordação, por mais pessoal que seja, ou de eventos dos quais fomos as únicas testemunhas, ou de pensamentos e sentimentos não expressos, existem em relação a um todo conjunto de conceitos partilhados por muitos outros: pessoas, lugares, datas, palavras, formas de linguagem, ou seja, com toda a vida material e moral das sociedades às quais pertencemos. A memória coletiva persiste através da partilha de algo em comum. Dessa forma, é importante que os membros da sociedade com mais idade, sejam capazes de transmitir estas representações aos membros mais novos. Num contexto familiar, o papel dos avós torna-se fundamental, pois atravessam os intervalos geracionais, comunicando as suas memórias. Na maioria das famílias, estes desempenham um papel crucial em manter viva a narrativa do grupo familiar. Manter essa atividade narrativa é investir na transmissão de memória, contribuindo para a passagem da identidade na comunidade [4]. A família e as suas tradições culturais, ocupam um papel fundamental na formação e organização da memória coletiva, nomeadamente a socialização da comida [5].

3. Família e Relação com a Comida

3.1. Ritual Gastronómico Familiar

A cultura entre múltiplas designações pode ser definida por ideias, valores, atitudes praticadas num grupo ou comunidade. As cerimónias comemorativas tornam-se momentos fundamentais para a transmissão dessa cultura, um fator fundamental que orienta as ilustrações do projeto prático que irá acompanhar este enquadramento teórico. Assim, a comida acaba por invocar a nossa memória e cultura coletiva, conectando-se à herança e à identidade familiar. São desenvolvidas conexões emocionais, um sentido de pertença e um orgulho étnico (Almerico, 2014) [9].

O ritual gastronómico familiar é muito importante pelo valor simbólico que induz, ditando o significado e as diferenças culturais da identidade coletiva em que se manifesta. Cada país tem os seus pratos nacionais, regionais e a sua cozinha tradicional e isso é algo que identifica os indivíduos e ao mesmo tempo é identificada pelos outros (Lupton, 1994) [10]. Desta forma a conexão que podemos sentir com as nossas origens e a nossa identidade familiar e coletiva vem muitas vezes da comida, podendo estar relacionado mesmo com os próprios sabores, os utensílios utilizados ou o local onde tudo se transforma. A comida desempenha um papel fundamental na construção da identidade familiar, e é preservada pela recordação e repetição de momentos já passados (Carolan, 2022) [11]. O aroma da comida familiar pode automaticamente evocar emoções e desejos, pois a comida é um repositório de identidade, memória e tradição. Tudo aquilo que nós chamamos hoje de tradição foi anteriormente construído. E como tudo, também essas tradições vão mudando e reconstruindo-se (Counihan & Esterik, 2019) [12].

Como R. I. M. Dunbar (2017) [13], explica, usufruir das refeições com companhia acaba por nos ajudar a relacionarmo-nos melhor com a nossa

comunidade. Comer em grupo (*communal eating*) foca-se na partilha das refeições e tem vários benefícios, entre os quais criar o sentido de pertença, de relações e conexões dentro dessa mesma comunidade e beneficiando ainda a nossa saúde física e mental. Para além de nos auxiliar a produzir e libertar serotonina, ajuda no processo de ligação entre as pessoas, uma vez que comer só por si pode permitir a criação de endorfinas, libertando-as no contexto coletivo [13].

3.2. A Cozinha e os Utensílios que Guardam Memórias

Connerton [4], defende que o corpo guarda memórias e é através dele que conseguimos voltar a recordar e a reviver rituais passados. David Sutton e Michael Hernandez (2007) [14] exploram esta ideia a partir dos objetos do mundo culinário como portadores de histórias múltiplas. A cozinha torna-se um espaço de transformação, onde os objetos emergem como meio para a criação de algo novo [14].

Por sua vez Emily Walmsley (2019) [15], defende que a cozinha é um lugar onde a tradição conecta as pessoas e a cultura. É um espaço que acaba por funcionar como uma multiplicação de si mesmo. Muitas vezes a identidade coletiva e familiar surge deste universo e da experiência sensorial.

Os utensílios de cozinha podem vir a incorporar memórias pessoais e coletivas da família. Assim, são bons veículos para objetificar a vida, as histórias e as memórias partilhadas - podendo mesmo carregar a aura das tradições em si [14]. Encontram-se ligados à história familiar pela forma como vão sendo muitas vezes passados de geração em geração. São uma das formas como o passado vai interagindo com o presente, perpetuando a identidade coletiva. Existem ainda objetos classificados de um ponto de vista inalienável. David Sutton (2008) [16], apresenta-os como *heirloom objects*, em “A Tale of Easter Ovens: Food and Collective Memory”. Estes objetos são removidos do uso diário e permanecem intocáveis na história e na herança familiar, tornando-se uma presença do passado no presente e projetando a memória da identidade familiar para o futuro.

Deste modo, Connerton [4] argumenta que, tal como o corpo conecta as memórias sociais aos hábitos de memória, os objetos também o fazem, tornando-se uma extensão do próprio corpo e fortalecendo o ritual no seu processo. O valor de um objeto é um reflexo das ações que as pessoas realizaram com ele e a sua história.

Os utensílios têm o potencial de se tornarem vozes na cozinha, narram outros tempos e lugares, enquanto desempenham o papel de nos ajudar na preparação das refeições. Assim, podemos dizer que os valores e as histórias de uma identidade familiar podem ser revisitadas pelo o uso de um objeto em específico.

3.3. Passagem de Geração em Geração

Passar a cultura de geração em geração torna-se uma obrigação de cada um de nós como participantes de uma identidade coletiva. Como referimos anteriormente, as identidades interseccionais são construídas com e através de práticas e ideologias alimentares. Como Mary Douglas (1972) [17] defendia, a refeição encontra-se num sistema de analogias repetidas.

Cada refeição carrega algo do significado das outras refeições; cada refeição é um evento social estruturado que estrutura os outros à sua própria imagem. Dessa forma preservar determinados rituais familiares, como exploramos anteriormente, passa por repetir continuamente o valor que se deposita nesses momentos. As receitas, os livros e os utensílios auxiliam o processo da preservação desta cultura plural, só o desempenham, pois, existem indivíduos que conscientemente preservam as tradições, as histórias individuais e coletivas e o conhecimento. Comer torna-se então uma prática fundamental para revisitarmos as nossas memórias, conectamo-nos aos sentidos e às nossas práticas [18].

As receitas são uma das ferramentas mais importantes para permitir a identidade familiar passar de geração em geração. Para além de serem uma forma de ensinar a cozinhar e aprender técnicas, tornam-se ainda uma memória fundamental materializada em muitos dos casos sobre a forma do papel solto ou caderno, para que não se perca o conhecimento e possa ser constantemente revisitado e experimentado. A preservação destas memórias alimentares advém em grande medida da compreensão do valor sensorial das mesmas [18].

A passagem de geração em geração é uma parte fundamental na criação e na preservação da identidade cultural e na pertença à família. Ser um agente ativo na sua preservação – no meu caso – passa por transportar e comunicar as tradições, sejam elas em forma de receitas, conhecimentos, práticas manuais ou mesmo preservação de objetos que reforcem a pertença à identidade familiar. “Essas memórias estão incorporadas de diversas maneiras nos indivíduos e na sociedade. Estão inseridos nas histórias de indivíduos e famílias ao mesmo tempo que tratam de discursos individuais e partilhados sobre gosto e cheiro; estas contam narrativas familiares a partir de um ponto de vista de um membro da família em particular” (p.171) [16].

4. Conclusão

As ilustrações realizadas até ao momento são consequência de uma vontade pessoal de colecionar histórias que deram origem a um arquivo familiar em construção que agora se trabalha sobre a forma de livro ilustrado. Com o passar do tempo fui-me tornando uma colecionadora de histórias e, sobretudo, de momentos. Sempre foi de coração aberto que recebi as histórias que a minha avó me contava, vezes e vezes sem conta. Por vezes mesmo repetidas, a verdade é que traziam sempre um pormenor ou outro de novo - fosse uma cor ou um sabor. Estar presente nestes momentos permitiu-me pertencer e construir a minha identidade familiar.

A comida sempre foi o nosso elo como família – “Vem até cá hoje, vamos cantar os parabéns e comer o bolo da avó”. – Desde pequena recordo as horas que passava a preparar tudo para a chegada dos familiares. A minha mãe sempre adorou receber, e mais que isso, garantir que estivesse tudo perfeito e do agrado de quem nos visitava. O carinho com que fazia tudo e as horas que dispunha e colocava em cada prato que chegava à mesa, sempre foi algo que admirei. A minha avó ensinou-me muito na cozinha. Sentar-me à mesa para partilhar uma refeição com a minha família é dos meus momentos preferidos. É quase como provar amor em forma

sólida. A comida uniu-nos e fez-nos permanecer juntos, é a desculpa para mais um encontro familiar, uma risota, uma partilha de memórias ou de ambições futuras. Quando comecei a perceber que estes encontros familiares iam sendo cada vez menos, senti vontade de agarrar o tempo e de multiplicar as horas dos domingos à tarde que passávamos em volta da mesa. Dessa forma, gravar, arquivar, partilhar e perpetuar as histórias que se mantêm presentes pareceu-me uma forma de homenagear a minha família. As suas memórias individuais formam o todo que pertence a todos nós. Assim, procurei compreender a forma como na nossa história os sabores sempre nos uniram. Para me aproximar desta realidade familiar, utilizei diferentes abordagens, que me permitiram conhecer, conversar e questionar sobre as memórias.

Conversei com doze familiares entre os 10-85 anos, passando por todas as gerações presentes da família. Estas conversas tiveram uma duração em média de uma hora e foram conduzidas com o objetivo de conhecer as diferentes realidades individuais e consecutivamente a preservação de memórias familiares. Desta forma, as perguntas focaram-se sobretudo em propriedades ligadas à comida, nomeadamente: as diferentes

percepções da refeição; as memórias relacionadas a cerimónias comemorativas familiares; as comidas que dão nostalgia; cheiros e sabores que recordam; alimentos e as suas histórias, maneiras de confeccionar, entre outros. Foram feitas de forma semi-estruturada, seguindo um guião de perguntas, no entanto abrindo sempre espaço para a divagação de histórias e memórias que podiam ser dadas pelos participantes. Este método acabou por se revelar muito completo, tendo em conta a quantidade de informação que dele foi possível retirar e analisar posteriormente. Foram ainda consultados arquivos fotográficos familiares. Esta metodologia permitiu mais uma vez conhecer realidades passadas e focou-se sobretudo no objetivo de consultar memórias, podendo vir a transportá-las para o presente, bem como conhecer as realidades, os ambientes e as casas de outros tempos. Deste arquivo foram selecionadas imagens que se tornaram úteis para a inspiração do ambiente ilustrado na narrativa. Este acabou ainda por ser um bom veículo de auxílio durante a entrevista, reavivando a memória e permitindo recordar ainda mais do que aquilo que estava presente na mente.

A observação de campo foi ainda um exercício bastante importante na forma como se encontrou maioritariamente aliado aos momentos da entrevista. Permitiu-me conhecer os espaços, os utensílios, os hábitos e ainda os lugares onde residem e habitam estas memórias. Conhecer as realidades habitacionais dos familiares, tornou mais simples e eficaz a imaginação dos ambientes que iriam ser posteriormente ilustrados. Tornou ainda possível a observação de práticas, objetos ou mesmo espaços que demonstram valor para a identidade coletiva.

A constituição deste arquivo de histórias permitiu-me obter nova informação sobre a minha família, conhecer pessoas que desconhecia, as suas personalidades, os seus gostos e a forma como ilustram, narram ou vivenciam algumas das tradições que preservamos no nosso contexto familiar. Muito do que ouvi e vi já me eram familiares, contudo, existi-

ram novas histórias e acima de tudo ao que conhecia foi-lhe acrescentado novos níveis de informação provenientes dos relatos de diferentes membros da família que experienciaram o mesmo evento ou pela forma como foram passados para a geração mais nova. Por fim, foi a partir deste arquivo que imaginei espaços onde essas memórias existiram, tais como, os jardins da casa da bisavó, a mercearia do Mota ou a carrinha do leiteiro. Tentei perceber cheiros e sabores pelas descrições que me foram lidas e explicadas. Conheci muito de todos nós, e sobretudo do que posso designar como a nossa identidade enquanto família.

Ilustrar esses momentos tornou-se a melhor forma de os comunicar, em cada ilustração irá residir um lugar, uma pessoa, um cheiro ou sabor e sobretudo um dia muito importante na nossa memória familiar.

O livro ilustrado nasce destes testemunhos. Das doze pessoas entrevistadas surgiram diferentes realidades, que se cruzam entre si. Destes momentos nasceram histórias sobre as cerimónias que repetimos – aniversários, Natal, Páscoa, magusto e vindimas; sobre os longos almoços de domingo e as conversas que deles surgem. Revelaram-se ainda receitas e descrições de sabores, como o gelado de morango da avó Lina, a pizza da mãe e o bolo delícia da bisavó Quitéria. Além disso, descrições de espaços, de cozinhas ou de objetos foram igualmente ilustrados, da mesma forma as memórias em volta da cozinha e da comida, tais como a preparação dos pudins no Natal ou as viagens à avenida para ir à mercearia. Todas essas descrições foram reunidas, acabando por ser divididas em diferentes momentos no livro. A narrativa explora a essência da comida, dos lugares, das personagens e acima de tudo o gosto de nos juntarmos à mesa que nos identifica como família. Reflete sobre a importância que estes momentos têm para a preservação da identidade coletiva que conhecemos e vivenciamos. Inspirada na ideia defendida por Connerton [4], esta identidade é preservada através dos dias que marcamos no calendário para nos encontrarmos, sejam eles aniversários, cerimónias cristãs, celebrações de estações ou mesmo pequenos rituais que repetimos. Assim, o livro ilustrado organiza-se cronologicamente a



Da esquerda para a direita:

Fig. 1. Entrevistas e observação de arquivos fotográficos

Fig. 2. Esquícios do conteúdo recolhido



Fig. 3. Storyboard

Fig. 4. Ilustração final com trabalho de cor

partir destas mesmas celebrações. Queremos enfatizar que anos após ano, existe a segurança em saber que no ano seguinte tudo faremos para nos sentarmos à mesa de novo. Há assim uma promessa de mais uma mesa cheia e de novas memórias por vir. Apesar de a narrativa nos mostrar uma realidade comum em termos daquilo que são as cerimónias que celebramos todos os anos, a ilustração acompanha e apresenta a realidade da minha identidade familiar. Deste modo, o esforço que colocamos em mais um encontro, acaba por contribuir para a constante preservação e ainda perpetuação dessa nossa identidade familiar, a que todos fazemos parte. Por fim, pretendemos que este livro ilustrado se torne num agente ativo na preservação da minha memória familiar, para que se entenda que a participação e recolha destes momentos será talvez o mais importante contributo deste objeto editorial para a preservar e relembrar.

5. References

1. Proust, M. (2003). *In Search of Lost Time*. Penguin UK.
2. Holtzman, J. D. (2006). Food and Memory. *Annual Review of Anthropology*, 35(1), 361–378. <https://doi.org/10.1146/annurev.anthro.35.081705.123220>
3. Straczuk, J. (2020). “I STILL REMEMBER THIS TASTE”. *SENSES AND EMOTIONS IN PERCEIVING CULTURAL CHANGE*. Institute of Philosophy and Sociology, Polish Academy of Sciences, Warsaw. <https://journals.iaepan.pl/ep/article/view/2448/2330>
4. Connerton, P. (1989). *How societies remember*. Cambridge University Press.
5. Halbwachs, M. (1992). *On Collective Memory*. University of Chicago Press.
6. Assman, J. (2008). *Communicative and Cultural Memory*. Springer.
7. Nora, P. (1989). Between Memory and History: Les Lieux De Mémoire. *Representations*, 26(Special issue), 7–24.
8. Narváez, R. F. (2013). *Embodied collective memory : the making and unmaking of human nature*. University Press Of America.
9. Almerico, G. (2014). Food and identity: Food studies, cultural, and personal identity. *Journal of International Business and Cultural Studies*.
10. Lupton, D. (1994). Food, Memory and Meaning: The Symbolic and Social Nature of Food Events. *The Sociological Review*, 42(4), 664–685. <https://doi.org/10.1111/j.1467-954x.1994.tb00105.x>
11. Carolan, M. (2016). *The sociology of food and agriculture*. Routledge.
12. Counihan, C., & Penny Van Esterik. (2019). *Food and culture : a reader*. Routledge.
13. Dunbar, R. I. M. (2017). Breaking Bread: the Functions of Social Eating. *Adaptive Human Behavior and Physiology*, 3(3), 198–211. <https://doi.org/10.1007/s40750-017-0061-4>
14. Sutton, D., & Hernandez, M. (2007). Oral History Society Voices in the Kitchen: Cooking Tools as Inalienable Possessions. *Oral History Society*, 35(2).
15. Walmsley, E. (2019). Race, Place and Taste: Making Identities Through Sensory Experience in Ecuador . In *Food and Culture*. Routledge.
16. Sutton, D. (2008). A Tale of Easter Ovens: Food and Collective Memory. *Social Research: An International Quarterly*, 75(1), 157–180. <https://doi.org/10.1353/sor.2008.0056>
17. Douglas, M. (1972) Deciphering a Meal. In *Food and Culture*. Routledge.
18. Sutton, D. (2018). Cooking Skills, the Senses, and Memory: The fate of Practical Knowledge. In *Food and Culture*. Routledge.

Origens e Perspectivas do Metaverso: Uma Análise Multidisciplinar sobre sua Gênese, Evolução e Recepção



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Abstract

This article presents a comprehensive analysis of the genesis and evolution of the concept of the metaverse, adopting a multidisciplinary approach. It explores not only the technological development associated with the metaverse but also the transformation of structures in immersion and entertainment in the arts, cinema, and games. The study aims to elucidate the interconnected process of metaverse formation, from its conceptualization to its production, examining the mechanisms of creation and their materialization in different media. Additionally, it analyzes the various receptions of the concept, including emerging questions and challenges. The objective is to provide a solid understanding of the metaverse, situating it within the broader context of technological and cultural development. By doing so, we aim to establish a foundation for critical reflections on this emerging phenomenon, intending to contribute to a comprehensive understanding of the metaverse and its implications.

Resumo

Este artigo apresenta uma análise abrangente da gênese e evolução do conceito de metaverso, adotando uma abordagem multidisciplinar. Explora-se não apenas o desenvolvimento tecnológico associado ao metaverso, mas também a transformação das formas de imersão e entretenimento nas artes, cinema e jogos. O estudo visa elucidar o processo interconectado de formação do metaverso, desde sua idealização até sua produção, examinando os mecanismos de criação e sua materialização em diferentes meios. Além disso, analisa-se as diferentes formas de recepção do conceito, incluindo questionamentos e desafios emergentes. O objetivo é fornecer uma compreensão sólida do metaverso, situando-o no contexto mais amplo do desenvolvimento tecnológico e cultural. Ao fazê-lo, pretendemos estabelecer bases para reflexões críticas sobre esse fenômeno emergente, objetivando contribuir para uma compreensão abrangente do metaverso e suas implicações.

1. Introdução

No ano de 1996, foi lançado o filme de animação japonês *Ghost in the Shell* (攻殻機動隊), dirigido por Mamoru Oshii e adaptado por Kazunori Itô do mangá homônimo de Masamune Shirow. A trama se desenrola em um

Keywords

Metaverse, Immersive Technologies, Immersion, Technological Evolution.

Palavras-Chave

Metaverso, Tecnologias Imersivas, Imersão, Evolução Tecnológica

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futuro *cyberpunk* na Tóquio de 2029, seguindo a história da Major Motoko Kusanagi, líder de uma equipe de segurança pública japonesa, enquanto investiga uma conspiração envolvendo um hacker americano conhecido como “Puppet Master”. Este futuro apresenta avanços na tecnologia cibernética que permitem a separação entre a consciência e o corpo dos indivíduos, possibilitando aprimoramentos ou substituições completas por partes cibernéticas, dependendo de seu papel na sociedade.

O termo “fantasma” é introduzido na narrativa para referenciar à consciência que reside no corpo (a «casca»). Embora inicialmente considerado um fracasso de bilheteria, o filme alcançou reconhecimento crítico e se tornou um marco no gênero de ficção científica e animação após seu lançamento em VHS. Atualmente, é reconhecido como uma obra cinematográfica canônica que aborda questões complexas sobre a fusão entre a consciência humana e as máquinas, as regulamentações tecnológicas e seu impacto social, bem como as noções de aprimoramento corporal e consciencial, incluindo suas implicações psicológicas e sociais. Num futuro altamente tecnológico, a obra revela as complexidades inerentes às regulamentações que buscam lidar com a integração da tecnologia nas vidas das pessoas. Suas ponderações sobre os limites da humanidade em um contexto de alta tecnologia estabelecem a obra como um marco no domínio da ficção científica e da animação japonesa, contribuindo para discussões acadêmicas que abordam a interface complexa entre a tecnologia e a condição humana.

Podemos compreender como reside uma parábola sobre a busca da humanidade em um mundo cada vez mais imerso no tecido do metaverso, onde as fronteiras entre o físico e o digital se desvanecem, exigindo que confrontemos não apenas as maravilhas, mas também os dilemas éticos e existenciais que emergem desse encontro. Neste sentido, este artigo apresentará uma análise abrangente da gênese e evolução do conceito de metaverso, adotando uma abordagem multidisciplinar. Explora-se não apenas o desenvolvimento tecnológico associado ao metaverso, mas também a transformação das formas de imersão e entretenimento.

O estudo tenciona elucidar o processo interconectado de formação do metaverso, desde sua idealização até sua produção, examinando os mecanismos de criação e sua materialização em diferentes meios, com isso em mente podemos estabelecer que o nexo entre o metaverso e o uso da imagem animada ou ilustrada reside na capacidade dessas formas de arte visual de enriquecer e aprimorar a experiência imersiva dentro do metaverso. As imagens animadas ou ilustradas têm o potencial de criar ambientes virtuais mais envolventes e realistas, proporcionando aos usuários uma sensação de presença e interação mais intensa. Além disso, através da animação e ilustração, é possível contar histórias complexas e cativantes, permitindo aos usuários explorar diferentes enredos e universos narrativos de forma visualmente estimulante. Essas imagens também oferecem oportunidades para a personalização e criação de avatares, cenários e objetos, permitindo que os usuários expressem sua criatividade e individualidade de maneira visualmente impactante. Ademais, o uso de imagens animadas ou ilustradas no metaverso facilita a comunicação e a

expressão de ideias, emoções e conceitos complexos de forma visualmente acessível e atraente para uma ampla audiência. Portanto, a integração de imagens animadas e ilustradas no metaverso amplia as possibilidades de imersão, narrativa, personalização e comunicação dentro desse ambiente virtual, enriquecendo a experiência dos usuários e expandindo as fronteiras da criatividade visual.

Além disso, analisa-se as diferentes formas de recepção do conceito, incluindo questionamentos e desafios emergentes. O objetivo é fornecer uma compreensão sólida do metaverso, situando-o no contexto mais amplo do desenvolvimento tecnológico e cultural.

2. Por uma epistemologia do Metaverso

Atualmente o conceito de metaverso é compreendido diante de três perspectivas diferentes. A primeira dessas perspectivas, nos permite compreender o metaverso como uma plataforma que combina a realidade aumentada, a realidade virtual e a realidade mista (XR) com objetivo de criar ambientes digitais imersivos. Esses ambientes digitais podem variar desde experiências interativas em 3D até recriações digitais de ambientes do mundo real. O objetivo é que os usuários consigam interagir e imergir nesses ambientes e com outros usuários, utilizando dispositivos como óculos de realidade virtual ou mista, assim como smartphones, tablets ou outros dispositivos de realidade aumentada.

A origem da palavra “Metaverso” pode ser rastreada até sua composição por meio do prefixo “meta”, que denota uma qualidade de transcendência ou ir além, e o sufixo “verso”, uma forma abreviada de “universo”. Portanto, em sua essência, o termo Metaverso implica a existência de um domínio que ultrapassa os limites do mundo físico. Especificamente, esta concepção de um “universo além” em referência a um ambiente que é gerado por computador, e esta definição demarca claramente o Metaverso das interpretações que podem sugerir conotações metafísicas ou espirituais relacionadas a domínios para além do reino físico. Além disso, é crucial destacar que o Metaverso é caracterizado por ser um ambiente digital que se desdobra em três dimensões, proporcionando uma experiência de imersão completa para seus usuários.

A imersão, neste contexto, denota a sensação de estar completamente envolvido e inserido nesse espaço virtual, criando uma ilusão de presença real. Essa característica fundamental distingue o Metaverso de conceitos mais amplos, como o ciberespaço, que engloba a totalidade do espaço *online* compartilhado em todas as suas dimensões de representação, mas não necessariamente implica uma imersão tridimensional completa. De acordo com o pesquisador e cientista da computação John David N. Dionísio da universidade americana de Loyola Marymount University;

Embora o Metaverso sempre faça referência a um espaço digital tridimensional imersivo, as concepções sobre sua natureza específica e organização têm evoluído ao longo do tempo. A progressão geral tem sido de considerar o Metaverso como uma versão ampliada de um mundo virtual individual para concebê-lo como uma ampla rede de

mundos virtuais interconectados. [...] Os usuários acessam o Metaverso por meio de terminais de computador que projetam uma perspectiva de realidade virtual em primeira pessoa em óculos e fornecem som digital estéreo em pequenos fones de ouvido que se encaixam nas orelhas do usuário. Os usuários têm a capacidade de personalizar seus avatares com a única restrição de altura (para evitar avatares de milhas de altura), de se locomover a pé ou em veículos virtuais, de construir estruturas em parcelas de terreno virtual adquiridas e de se envolver em toda a gama de atividades sociais e instrumentais humanas. [12]

Assim, o Metaverso é, tanto em forma quanto em funcionamento, essencialmente um mundo virtual extremamente grande e densamente povoado que opera não como um ambiente de jogo com parâmetros e objetivos específicos, mas como uma cultura digital de natureza aberta que opera em paralelo com o domínio físico.

Em uma segunda perspectiva, temos o conceito de metaverso como uma infraestrutura descentralizada baseada em criptografia *blockchain*, na qual os usuários podem criar, possuir e trocar ativos digitais de forma interoperável. Isso significa que os ativos digitais, como criptomoedas, tokens não fungíveis (NFT's) e outros itens virtuais, podem ser transferidos e utilizados em diferentes plataformas e ambientes virtuais. A interoperabilidade é fundamental para permitir a propriedade e o comércio livre de ativos digitais entre diferentes partes no metaverso, garantida a segurança, idoneidade e o direito à propriedade.

A ascensão dos ativos criptográficos e a tecnologia *blockchain* têm gerado grande interesse e adoção por parte de diversos empreendedores e entusiastas. A tecnologia *blockchain*, que é o cerne das criptomoedas e de outros ativos digitais, oferece uma infraestrutura descentralizada e segura para a criação, armazenamento e transferência de ativos digitais. Isso tem levado à exploração de novas aplicações para além das criptomoedas, abrindo espaço para a integração dessa tecnologia inovadora a modelos de negócios diversos. Além disso, uma tendência emergente nesse cenário é a criação de novas classes de ativos, denominadas “cripto-compositáveis”.

Essa ideia envolve a combinação de ativos criptográficos diferentes ou a utilização de um ativo criptográfico como componente na criação de um novo ativo. Um exemplo disso é o projeto “Kitty Hats70”, que permite aos usuários associarem acessórios, como chapéus, aos seus *Cryptokitties*. Esses acessórios são representados por tokens ERC-20 na *blockchain* e estão vinculados aos gatos virtuais. Dessa forma, os gatos podem ser personalizados e valorizados com a adição de acessórios, ampliando o conceito de propriedade e exclusividade. De acordo com o cientista da computação e cofundador da *startup* Briq, empresa de protocolos de construção de NFT's do metaverso, Sylve Chevet;

As indústrias criativas são definidas como indústrias que giram em torno do comércio de produtos artísticos e culturais criados por um artista ou por um grupo de artistas, sendo o elemento central da indústria. Isso engloba setores como cinema, artes visuais, artesanato, design,

museus, arquitetura e livros. Mais especificamente, o comércio gira em torno do uso e troca de propriedade intelectual. O ato de ouvir música transmitida pelo Spotify envolve um processo que abrange toda a indústria, desde o músico que cria a música e assina um contrato de publicação com uma grande gravadora, até a gravadora que assinou outro contrato com o distribuidor para os direitos de transmissão. O mesmo processo se aplica à compra e exposição de uma pintura na casa de alguém, em que o comprador deve estar em conformidade com os direitos morais dos autores e a licença de direitos autorais. Licenciamento e direitos autorais, como provas de propriedade, são fundamentais para as indústrias criativas. Essas indústrias passaram por diversas transformações, incluindo a digitalização e a distribuição *online*, a primeira iniciando nos anos 80 e a segunda no final dos anos 1990. [8]

Uma terceira perspectiva, mais ampla e anterior às tecnologias atuais, conceitua o metaverso como um mundo digital, se concentrando na formação e relação desses mundos virtuais persistentes e em constante evolução, nos quais os usuários podem criar, explorar e interagir com outros usuários. Plataformas como *Roblox* são exemplos de ambientes onde os usuários podem criar e compartilhar seus próprios jogos e experiências interativas. Esses mundos virtuais podem abranger desde jogos até espaços sociais, permitindo que as pessoas se conectem, se divirtam e até mesmo criem negócios virtuais dentro desses ambientes.

Antes de entrar no conceito propriamente dito de metaverso, é necessária uma discussão sobre os conceitos de realidade concreta e interação, que empreenderemos a seguir.

Na obra *A Imaginação*, de Jean-Paul Sartre, escrita em 1950, o filósofo, a partir de uma analogia com uma folha de papel, descreve sobre como se pode compreender a existência de objetos na realidade concreta e suas relações com os processos de construção imagética, a partir da produção de uma teoria da existência e ideação de imagens e de como estas se limitam às formas de experiências reflexivas. O autor afirma ainda que é preciso “livrar-se de nosso hábito quase invencível de constituir todos os modos de existência segundo o tipo da existência física” [32]. Esta reflexão inicial nos oferecerá um preâmbulo conceitual com relação à origem e à evolução do conceito de metaverso.

Conforme o autor, a compreensão do modo como a consciência humana se manifesta por meio de escolhas deliberadas requer uma análise aprofundada dos conceitos de “em-si” e “para-si” tal como concebidos por Jean-Paul Sartre. O autor sustenta que o entendimento desses conceitos é crucial para desvendar a complexa relação entre a consciência e o mundo circundante. A expressão “em-si” é uma construção filosófica sartreana que se refere a tudo o que existe no universo, com uma notável ressalva: exclui a própria consciência humana, que Sartre denomina “para-si”. Em suma, o “em-si” abarca todas as entidades objetivas, sejam elas materiais ou abstratas, e é representativo de uma realidade independente da experiência consciente.

Por outro lado, o “para-si” encapsula a essência da consciência humana e as atividades mentais que a acompanham, caracterizando, assim, o aspecto subjetivo e autoconsciente da existência. A distinção entre “em-si” e “para-si” é fundamental para a filosofia existencialista de Sartre, pois ela dá origem a uma série de questões significativas relacionadas à liberdade, à responsabilidade e à agência do ser humano. A partir dessa dicotomia, Sartre explora como a consciência humana, em sua natureza de “para-si”, é capaz de transcender a condição de mero observador passivo do “em-si”.

Isso implica que a consciência humana não está confinada à simples contemplação do mundo objetivo, mas, em vez disso, desempenha um papel ativo na atribuição de significado e na tomada de decisões. As escolhas deliberadas, então, são intrinsecamente ligadas à natureza do “para-si”, uma vez que a consciência humana é responsável por dar forma ao mundo subjetivo, construindo seus próprios significados e valores. É interessante ainda pontuar como o filósofo interpreta e conceitua a realidade concreta em relação a subjetividade dos indivíduos e a forma como interpretamos os objetos no mundo, afirmando que

[...] Principalmente discute-se o problema da subjetividade no contexto do conhecimento, ressaltando o desenvolvimento desta na práxis, ou seja, na interação prática ou afetiva com os indivíduos do meio circundante. É consensual reconhecer que a subjetividade desempenha um papel crucial na transição para a objetivação. [...], parece evidente que o processo dialético efetivo envolve a transição de um estado material para um estado objetivo, uma vez que não se pode atribuir ao ser material a característica de ser objetivo, uma vez que o objetivo está intrinsecamente ligado ao subjetivo. A progressão do ser material, em sua forma atual, porém ainda não objetiva, para a realidade objetiva e social, com todas as contradições que tal transição implica, pressupõe a existência do componente subjetivo, tanto a nível coletivo quanto individual. [33]

Ainda de acordo com Sartre, dentro de uma investigação epistemológica mais aprofundada, torna-se evidente que o conhecimento humano, quando sujeito a um exame rigoroso e metódico, está intrinsecamente ligado ao domínio do determinismo e da objetividade. O fundamento da cognição humana repousa em nossa capacidade de apreender, analisar e categorizar elementos do mundo real, tornando-os objetos passíveis de estudo e compreensão. A apreensão de tais objetos ocorre por meio de um processo que envolve a delimitação precisa e a apreensão de suas características distintas, conferindo-lhes uma realidade objetiva. No entanto, quando adentramos o domínio do que transcende os limites da realidade concreta e que não pode ser adequadamente apreendido através de categorizações objetivas, nos deparamos com uma esfera mais abstrata do conhecimento. Trata-se de uma realidade que não pode ser estritamente objetiva, uma vez que se manifesta apenas como uma interrupção, tanto no âmbito objetivo quanto no subjetivo, das experiências individuais e coletivas. Essa realidade, que escapa à categorização e ao enquadramento em conceitos pré-estabelecidos, constitui um desafio para os limites da objetividade do conhecimento humano.

Essa esfera de conhecimento, que transcende o domínio estritamente objetivo, é muitas vezes associada a experiências e fenômenos que escapam à tradicional análise racional. Trata-se, segundo Sartre, de um território onde as fronteiras entre o sujeito e o objeto, o concreto e o abstrato, tornam-se fluidas, e a compreensão não se encaixa perfeitamente nas estruturas convencionais de investigação e análise. Assim, o conhecimento dessa realidade se configura como uma zona de transição, onde a objetividade cede espaço à subjetividade e à interrupção da experiência, requerendo uma abordagem mais flexível e adaptável.

Dentro da história das artes literárias, pictóricas e visuais é difícil identificar quando e onde iniciam as primeiras narrativas em que surge o desejo do protagonista de aventurar-se ou dominar realidades fantásticas divergentes de suas próprias realidades factíveis. Dentro da crítica literária, vemos uma primeira investida em busca de outras formas de representação de mundos não-heterogêneos em *A Divina Comédia* de Dante Alighieri.

Neste poema, dividido em três partes e subdividido em trinta e três cantos, acompanhamos o percurso de Dante, Virgílio, Beatriz e São Bernardo sob a égide do cristão do *quattrocento* que vai do inferno ao céu em busca de redenção. Este primeiro empreendimento literário que busca reproduzir uma realidade que diverge da concretude do mundo como o percebemos e se estabelece como uma forma finita, depreende um conjunto de regras claras, expressivas e sistemáticas. Embora ainda distante do que temos hoje enquanto conceito do metaverso, ele nos oferece uma primeira forma de desejo de representação de realidades distantes e diferentes e que nos permitem imaginar novas possibilidades. Duzentos anos após a primeira versão do *Inferno* de Dante, Miguel de Cervantes nos apresentava um personagem que, em uma tentativa de negar a realidade concreta, lutava com moinhos de vento ao vislumbrar gigantes em sua fachada. O primeiro romance moderno é também uma primeira reflexão sobre as possibilidades narrativas de construção de realidades distintas e que nos oferecem, como leitores, um refúgio do mundo [2].

Percebemos na literatura e na mitologia asiática um movimento que se assemelha ao observado na história da arte do ocidente. Na obra *A viagem de Sun Wukong para a Lua*, conto clássico chinês que remonta ao século XVI, somos levados a percorrer caminhos fantásticos ao lado de Sun Wukong, o Rei Macaco, aprendendo a habilidade de se transformar em qualquer coisa ou pessoa que desejar, e que utiliza suas habilidades para ir a Lua. Nesta obra percebemos a necessidade de estabelecimento de uma relação entre o mundo real e o fantástico, sendo ela intermediada pelas ações de seu protagonista com o intuito de criar uma condição de simetria e equilíbrio entre os dois mundos, que são afetados e influenciados pelas ações de seus agentes: Os homens e os seres míticos. A realidade do mundo existente dentro destas narrativas é estabelecida pela intermediação entre o mundo como ele de fato o é e o mundo como ele poderia ser, através das relações entre homens e deuses e se manifestando por meio de um simulacro [26].

Essa experiência simboliza a ilusão e a natureza enganosa de muitas das tentações que o Rei Macaco encontra em sua jornada. Em relação à

ideia de simulacro, essa passagem da história destaca como o simulacro pode representar uma realidade aparente, mas vazia, que atrai a atenção e os desejos do indivíduo. O banquete lunar, na narrativa, é uma representação enganosa do desejo humano por prazeres sensoriais, levando Sun Wukong a cair na armadilha da ilusão.

Este conceito está presente na visão do sociólogo e filósofo francês Jean Baudrillard, destacando-se a concepção de simulação, a qual denota a suplantação do imaginário da representação. Baudrillard argumenta que o ápice deste imaginário é alcançado quando os cartógrafos buscam representar o território de forma ideal, aspirando a uma coextensividade entre o mapa e o território, porém, paradoxalmente, este ideal se dissolve na própria simulação. A simulação, conforme delineada pelo autor, transcende o mero exercício especulativo e discursivo, emergindo como uma força central e primordial, caracterizada por atributos nucleares e genéticos distintos daqueles tradicionalmente associados à representação. A metáfora especular que permeia a relação entre o ser e suas manifestações, entre o real e seus conceitos, perde sua validade neste contexto (Baudrillard, 1991). Nesse sentido, a coextensividade imaginária não encontra mais espaço, cedendo lugar à miniaturização genética como o fundamento da simulação. Nessa perspectiva, o real é gerado a partir de entidades reduzidas a escala minúscula, matrizes e memórias, bem como modelos de controle, permitindo a produção de múltiplas reproduções indefinidamente. O autor afirma que;

Nesta passagem a um espaço cuja curvatura já não é a do real, nem a da verdade, a era da simulação inicia-se, pois, com uma liquidação de todos os referenciais — pior: com a sua ressurreição artificial nos sistemas de signos, material mais dúctil que o sentido, na medida em que se oferece a todos os sistemas de equivalência, a todas as oposições binárias, a toda a álgebra combinatória. Já não se trata de imitação, nem de dobragem, nem mesmo de paródia. Trata-se de uma substituição no real dos signos do real, isto é, de uma operação de dissuasão de todo o processo real pelo seu duplo operatório, máquina sinalética metaestável, programática, impecável, que oferece todos os signos do real e lhes curto-circuita todas as peripécias. O real nunca mais terá oportunidade de se produzir — tal é a função vital do modelo num sistema de morte, ou antes, de ressurreição antecipada que não deixa já qualquer hipótese ao próprio acontecimento da morte. Hiper-real, doravante ao abrigo do imaginário, não deixando lugar senão à recorência orbital dos modelos e à geração simulada das diferenças. [6]

No que concerne às interações complexas entre hiper-realidade, simulacro e poder (notadamente o poder financeiro e econômico), que se estabeleceram no contexto da sociedade contemporânea, podemos perceber que, no que compete ao capital, existe um aproveitamento de destruturações de referências tradicionais, como princípios e fins, moral e ética, para estabelecer uma nova ordem baseada na equivalência e na troca. Em outras palavras, o capital promoveu uma radical reconfiguração

de valores, rompendo com as distinções tradicionais do verdadeiro e do falso, do bem e do mal, e estabelecendo uma lógica de equivalências que serve como base para o seu domínio. Baudrillard afirma [6] que o sistema capitalista é capaz de criar realidades artificiais e, ao mesmo tempo, destruir o valor de uso tradicional de produtos e serviços em prol de uma lógica de acumulação de riqueza.

A noção de “liquidar o princípio de realidade” refere-se ao fato de que o capitalismo, ao estabelecer uma ênfase na lógica de equivalência e de troca, enfraqueceu a importância das relações tradicionais entre produção e consumo, valor de uso e valor de troca. A manipulação se torna uma ferramenta central do poder, enfatizando como a percepção da realidade é cada vez mais moldada e manipulada, criando uma sensação de irrerealidade nas questões cotidianas.

Estamos num universo em que existe cada vez mais informação e cada vez menos sentido. Três hipóteses: - Ou a informação produz sentido [...], mas não consegue compensar a perda brutal de significado em todos os domínios. Bem se podem reinjetar, à força de *media*, mensagens, conteúdos; a perda, a dissipação do sentido é mais rápida que a sua reinjeção. Neste caso é preciso fazer apelo a uma produtividade de base, para substituir os *médias* defeituosos. É toda a ideologia da liberdade de palavra, dos *media* desmultiplicados em inúmeras células individuais de emissão e até dos *antimídia* (rádios piratas etc.). - Ou a informação não tem nada a ver com o significado. É outra coisa, um modelo operacional de outro tipo, exterior ao sentido e à circulação do sentido propriamente dito [...]. - Ou então, pelo contrário, existe correlação rigorosa e necessária entre os dois, na medida em que a informação é diretamente destruidora ou neutralizadora do sentido e do significado. A perda do sentido está diretamente ligada à ação dissolvente, dissuasiva, da informação, dos *media* e dos *mass media*. [6]

Este fenômeno revela uma capacidade única da arte e da literatura em conceber e apresentar ao público um espectro mais amplo de realidades possíveis. Ao fazê-lo, essas expressões culturais desafiam as limitações do mundo concreto e expandem as fronteiras da experiência humana.

Através da imaginação criativa e da construção de cenários fictícios, as obras de arte demonstram como o ser humano é capaz de explorar o desconhecido e o surreal, fornecendo, assim, um espelho para a compreensão mais profunda de sua própria existência e do mundo que o cerca. Dentro desse contexto, a ideia de simulacro desempenha um papel crucial na criação de realidades alternativas. Ela permite que os artistas e escritores repliquem, de maneira artística e literária, elementos da realidade concreta, mantendo, ao mesmo tempo, um grau significativo de distância e estranheza. Ao fazer isso, essas obras desafiam as noções convencionais de realidade, questionando o que é percebido como “real” e oferecendo ao público a oportunidade de explorar e refletir sobre as complexidades da experiência humana.

3. Mudanças na definição e parâmetros do Metaverso

Durante a década de 1970, observou-se o surgimento dos primeiros mundos virtuais baseados em texto, conhecidos como MUD's, ou Calabouços Multiusuários, os quais emulavam ambientes remisscentes das narrativas do *Senhor dos Anéis* ou do jogo *Dungeons & Dragons*. O pioneiro MUD1, desenvolvido por Roy Trubshaw e Richard Bartle em 1978, foi influenciado diretamente pelo jogo *Zork*. Posteriormente, em 1986, surgiu o primeiro ambiente multiusuário com recursos visuais, introduzindo o conceito de “avatar” para representar os usuários em um ambiente virtual bidimensional. Posteriormente, em 1990, foi concebida a primeira CAVE, um protótipo para sistemas de realidade virtual imersiva.

Ao longo da década de 1990, ocorreu um avanço significativo no desenvolvimento de ambientes digitais imersivos, culminando, em 1994, com a criação do Web World, o primeiro mundo isométrico, onde milhares de usuários podiam interagir, construir e explorar, antecipando sistemas de co-criação com alterações em tempo real. Essa era foi marcada pela integração de gráficos tridimensionais, áudio incorporado e interações sociais entre os usuários. Em seu artigo *The P.R.O.S.E. Project* (2011), Richard Gilbert identificou cinco características fundamentais para determinar o estado da arte de um mundo virtual, destacando a capacidade de suportar muitos usuários, a presença de gráficos tridimensionais e áudio integrado, a imersão, a persistência do ambiente virtual e a ênfase nas atividades e objetivos criados pelos usuários para moldar o mundo virtual [15].

Nesse contexto, ao explorarmos o conceito de Metaverso, como dito anteriormente, podemos decompor a palavra em seus elementos constituintes: o prefixo “meta”, que denota uma ideia de transcendência ou além, e o sufixo “verso”, que deriva de “universo”, sugerindo uma realidade distinta do mundo material. Este “universo distante” remete a uma dimensão virtual criada por computador, permeada por noções metafísicas ou espirituais que transcendem o domínio físico. Trata-se de um espaço tridimensional totalmente imersivo, em contraste com a concepção mais ampla de ciberespaço, o qual engloba o ambiente digital que reflete todas as interações *online* em suas múltiplas representações dimensionais.

O Metaverso pode ser conceituado como uma tecnologia em constante evolução, destinada a criar ambientes virtuais imersivos que viabilizam a interação e exploração de mundos virtuais pelos usuários. Nesses ambientes, é possível manipular objetos, explorar cenários e interagir com outros participantes de forma análoga à experiência no mundo físico. A trajetória do Metaverso teve início na década de 1990, quando o primeiro ambiente virtual imersivo foi desenvolvido. Essa tecnologia foi pioneiramente elaborada pela empresa norte-americana VPL Research, que lançou o Virtual World Toolkit, o qual permitia aos usuários criarem e interagirem com elementos virtuais, como objetos, cenários e outros usuários, em um ambiente virtual.

O metaverso foi mencionado pela primeira vez por Neal Stephenson, autor do romance de ficção científica de 1992, *Snow Crash*. Nesse livro, Stephenson descreveu um mundo virtual onde as pessoas podem se conectar, interagir e colaborar de forma imersiva. Essa ideia foi poste-

riormente adotada por outros escritores, desenvolvedores de jogos e criadores de tecnologia e ajudou a moldar o conceito de metaverso atual. A história se passa em um universo distópico e aborda temas como linguagens, programação, mundo corporativo, tecnologia de ponta e a cultura da comunidade hacker. A trama segue os esforços do protagonista, Hiro, enquanto ele investiga um vírus chamado *Snow Crash*, que está causando problemas para todos no mundo virtual do Metaverso. Invadido por teorias da conspiração, Hiro luta contra muitos vilões, incluindo o temível Panda, enquanto descobre a verdade por trás do *Snow Crash*. O romance explora o lado obscuro da computação, linguagens e cultura, enquanto desafia as fronteiras entre os mundos real e virtual.

No mundo de *Snow Crash*, o metaverso é um ambiente virtual acessado por meio da interface do cérebro. Esse ambiente virtual permite que os usuários naveguem e interajam com diversos conteúdos digitais. O Metaverso pode ser usado para acessar e compartilhar documentos, jogar, interagir com outros jogadores, criar aplicativos e conduzir negócios. No livro, o Metaverso é o lar de muitas criaturas virtuais, incluindo servos inteligentes e humanos reais controlando avatares.

A grande realização de rife foi que não há diferença entre a cultura moderna e a suméria. Temos uma grande força de trabalho que é analfabeta ou semialfabetizada e que depende da TV - que é como uma tradição oral. E temos uma pequena, extremamente letrada elite de poder - as pessoas que entram no metaverso, basicamente - que entendem que a informação é poder, e que controlam a sociedade porque têm essa semimística habilidade de falar línguas mágicas de computador [40].

Em seu livro, os humanos interagem com NPC's inteligentes e entre si em um mundo que parece uma metrópole ao estilo *Blade Runner*, muitas luzes neon e primariamente um ambiente noturno, ao seu centro uma grande avenida conhecida como *The Street*. Essa avenida cobre a circunferência do "Planeta". No conceito de Neal Stephenson os usuários acessam o ambiente virtual através de terminais de computador com óculos de realidade virtual, proporcionando uma visão estereoscópica em primeira pessoa, com isso os usuários têm a possibilidade de enxergar profundidade. Os usuários têm grandes possibilidades de personalização na aparência de seus avatares, ao contrário de um jogo, o espaço não era limitado a regras específicas.

Desde a introdução do romance de Neal Stephenson, o conceito de Metaverso tem experimentado uma notável evolução, impulsionada pelos avanços tecnológicos que possibilitaram a materialização de mundos virtuais na esfera cotidiana. Este fenômeno tem sido acompanhado pelo desenvolvimento de concepções cada vez mais intrincadas e abrangentes acerca do Metaverso. Um marco significativo nesse processo evolutivo foi a contribuição do *Projeto Metaverse Roadmap* em 2007, conforme registrado por Smart et al [34]. Nessa iniciativa, foi apresentada uma abordagem multifacetada e inovadora do Metaverso, a qual englobou dois elementos fundamentais: em primeiro lugar, as "tecnologias de simulação, que dão

origem a espaços virtuais fisicamente persistentes, como os mundos virtuais e espelhados”; e, em segundo lugar, as “tecnologias que enriquecem virtualmente a realidade física, como a realidade aumentada”.

O primeiro componente focou a criação de ambientes virtuais que são capazes de perdurar no tempo, assemelhando-se a mundos virtuais e espelhados. Esses ambientes proporcionam uma experiência imersiva e persistente aos seus usuários, destacando-se por sua tridimensionalidade e capacidade de simulação, o que contribui para uma sensação de presença e envolvimento significativos. O segundo componente da concepção do Metaverso proposta pelo *Projeto Metaverse Roadmap* direcionou a atenção para as tecnologias de realidade aumentada[34]. Estas são caracterizadas por sua capacidade de aprimorar virtualmente a realidade física, conectando informações em rede e inteligência computacional a objetos e espaços físicos do mundo real. Isso permite a sobreposição de elementos virtuais à visão do mundo físico, criando assim um ambiente híbrido, que combina aspectos do mundo real com elementos virtuais. É relevante ressaltar que, enquanto o Metaverso é geralmente associado a ambientes virtuais autônomos e imersivos, a inclusão da realidade aumentada como parte desse conceito expande suas fronteiras, criando uma interface entre ambientes puramente virtuais e aqueles que são estritamente reais ou físicos. Esta interseção entre a realidade aumentada e o Metaverso ilustra a diversidade de abordagens e possibilidades dentro deste campo em constante evolução.

O impacto das tecnologias de simulação e da realidade aumentada no desenvolvimento do Metaverso é evidenciado na maneira como as experiências de realidade virtual e realidade física têm se tornado cada vez mais entrelaçadas. Essa evolução representa um desafio empolgante e uma área de pesquisa em crescimento, à medida que continuamos a explorar as potencialidades e limitações do Metaverso em suas múltiplas manifestações e interações com o mundo real. De acordo com John Dionísio;

Embora esse esforço seja notável em sua tentativa de visualizar o Metaverso em termos mais amplos do que um mundo virtual individual e esteja avançando rapidamente (mas, afinal, que tecnologia não está?), a inclusão de tecnologias de realidade aumentada serviu para redirecionar a atenção das qualidades essenciais de imersão, tridimensionalidade e simulação, que são os fundamentos dos ambientes de mundo virtual. Consideramos o espaço da realidade aumentada como um subconjunto do Metaverso que constitui um ponto de interseção entre ambientes puramente virtuais e ambientes puramente reais ou viscerais. Assim como qualquer sistema de mundo virtual, as construções de realidade aumentada também acessam ativos e dados de um estado de mundo autocontido ou compartilhado, sobrepondo-os a uma visualização do mundo físico em vez de um mundo sintético. [12]

No início da década de 2000, a tecnologia começou a se desenvolver ainda mais, com a criação do jogo *Second Life*. Esta plataforma permitiu que os usuários criassem e interagirem com objetos, cenários e outros usuários em um ambiente virtual. Esta plataforma foi projetada para permitir

que os usuários criassem e interagissem com objetos, cenários e outros usuários em um ambiente virtual, como se estivessem em um mundo real. O jogo permitiu uma qualidade que até então era praticamente esquecida, a possibilidade de conteúdos criados por usuários. Mas efetivamente o que motivaria os usuários a cocriarem conteúdo? Thomas Kohler, professor da Hawaii Pacific University, do departamento de marketing e inovação, nos indica alguns obstáculos que devem ser superados, um deles é a arquitetura aberta, facilidade que resulta da proximidade com a marca, navegação clara e estrutura e, por último, a experiência em si. Os autores descrevem de forma convincente o novo modo de produção, onde o anfitrião Linden Lab facilita a liberdade e o empoderamento irrestrito do consumidor. As capacidades criativas de cada consumidor do Second Life produzem recursos acessíveis aos membros da comunidade e passíveis de apropriação para fins corporativos. [21]

Baseado nos conceitos e tecnologia até então existentes, em 2007, o *Metaverse Roadmap Project* propôs uma nova atualização do conceito de metaverso, introduzindo duas vertentes, uma de tecnologias de melhoramentos físicos através de interfaces virtuais, ou seja, o equivalente à realidade aumentada atual e outra de mundos persistentes inteiramente virtuais criados através de tecnologias de simulação.

As duas propostas acarretam novas perspectivas para o como pensamos o metaverso. A estrutura da realidade aumentada possibilita uma união do real e do virtual, algo extremamente relevante, pois quanto menor a diferença entre o mundo físico e o mundo digital menos interferência imersiva teremos ao transitarmos entre eles. Já na segunda proposta, observada mais frequentemente em jogos, mundos *online* em jogos do estilo MMORPG como *World of Warcraft* e *Minecraft* detêm um número massivo de jogadores que se auxiliam e criam conteúdo para o próprio entretenimento, mundos gerados procedimentalmente como *Minecraft*, permitem um infindável número de aplicações, seja no entretenimento, na educação ou na interação social, em que poucas restrições e muita liberdade criativa dão asas a mundos personalizados e diferentes entre si.

4. NFT'S e Metaverso

As NFT's são tokens únicos e indivisíveis que representam a propriedade ou a posse de um item digital específico ou um ativo digital. Enquanto as criptomoedas tradicionais, como o *Bitcoin*, são fungíveis (ou seja, podem ser trocadas por outras unidades idênticas), as NFT's são únicas e têm identidades distintas. Essa característica das NFT's as torna ideais para representar bens digitais exclusivos, como obras de arte digitais, vídeos, músicas, colecionáveis virtuais e muito mais.

A interligação entre as *Non-Fungible Tokens* (NFT's) e o Metaverso ocorre devido à capacidade das NFT's representarem a propriedade e a autenticidade de ativos digitais dentro desse ambiente. Por exemplo, um indivíduo pode criar uma obra de arte digital exclusiva e emitir uma NFT que represente a posse dessa obra de arte. Essa NFT pode ser registrada em uma *blockchain*, oferecendo uma evidência inalterável de propriedade e autenticidade. No Metaverso, essa NFT pode ser exibida em galerias vir-

tuais, comercializada e trocada entre usuários. No contexto do Metaverso, as NFT's também podem ser utilizadas para salvaguardar a propriedade de marcas, indivíduos e direitos autorais. Por exemplo, uma empresa pode emitir uma NFT que representa a posse de sua marca dentro do Metaverso. Isso permite à empresa estabelecer sua identidade e proteger sua propriedade intelectual em um ambiente virtual. Da mesma forma, indivíduos podem emitir NFT's que representam sua identidade virtual ou direitos autorais sobre conteúdo digital, garantindo, assim, a propriedade e autenticidade desses ativos no Metaverso.

Em suma, as NFT's oferecem uma forma de assegurar a propriedade e autenticidade de ativos digitais dentro do Metaverso. Elas podem ser utilizadas para representar obras de arte, marcas, identidades virtuais, e mais, permitindo que os proprietários desses ativos tenham controle sobre sua propriedade e se beneficiem de seu valor no ambiente virtual compartilhado do Metaverso.

5. Processos de virtualização

Com o advento da imersão no mundo digital, desde meados dos anos 1990, os indivíduos nas sociedades contemporâneas vêm experimentando novas formas de interação social. Hoje vivemos entre a tangente do mundo físico e do mundo virtual, no qual muitas vezes percebemos que há um maior zelo entre o que é apresentado no mundo digital em relação ao mundo factual. Personas, avatares e perfis em redes sociais nos permitem não apenas projetar a forma como desejamos ser percebidos (além da apresentação de ideias, vozes e performances e objetos artísticos que outrora não seriam possíveis), mas também nos permitem desfrutar da sensação, nem sempre lícita, de um certo anonimato, que parece proteger os indivíduos das críticas e retaliações que suas ações possam ter diante da interface que separa os dois mundos. Essa dicotomia serviu de ponto de partida para as reflexões de Hiroshi Ishii, pesquisador e professor do MIT Media lab. De acordo com ele, em *Tangible Bits: Towards Seamless Interfaces between People, Bits and Atoms*:

Apesar da nossa cidadania dual, a ausência de acoplamentos contínuos entre essas existências paralelas deixa uma grande divisão entre os mundos de bits e átomos. No momento presente, estamos divididos entre esses espaços paralelos, mas desconexos. Agora, estamos quase constantemente “conectados” para que possamos estar aqui (espaço físico) e lá (ciberespaço) simultaneamente. Fluxos de bits vazam do ciberespaço através de uma miríade de telas retangulares para o mundo físico como feixes de fótons. No entanto, as interações entre pessoas e ciberespaço estão agora em grande parte confinadas a caixas tradicionais baseadas em GUI (Interface Gráfica de Usuário) em *desktops* ou *laptops*. As interações com essas GUI's estão separadas do ambiente físico ordinário no qual vivemos e interagimos. [19]

De acordo com Hiroshi Ishii, estamos vivenciando uma busca incessante por meios de converter cada forma de matéria física - não apenas sólidos,

mas também líquidos e gases - presente em nossos espaços, em interfaces que conectam pessoas e informações digitais com o objetivo de ativar nossas sensações e trazer uma experiência digital mais apurada. Esse avanço nos permite ampliar tanto a qualidade quanto a abrangência das interações entre indivíduos e o mundo digital. Nesse contexto, o metaverso desponta como um espelho da cultura e da sociedade, refletindo uma transformação fundamental em nossas identidades, transformação essa em que já é possível perceber seus desdobramentos a curto prazo. À medida que adentramos o universo digital, nossas identidades digitais assumem uma importância crescente em relação às nossas identidades reais. A qualidade e a amplitude dessas relações podem ser redefinidas, transcender as limitações físicas e conectar pessoas de diferentes partes do mundo.

Nesse sentido, as interações sociais ocorrem de forma simultânea ao fluxo constante de informações digitais, criando uma simbiose entre a cultura digital e as conexões sociais. O metaverso se torna um espaço de expressão, experimentação e vínculo. A necessidade de entender e se adaptar a essa nova realidade se torna crucial, pois influencia não apenas a forma como nos relacionamos com a tecnologia, mas também como nos conectamos uns com os outros. No entanto, enquanto nos envolvemos profundamente nesse mundo digital, é importante manter uma reflexão crítica sobre o impacto dessas transformações. Devemos considerar os desafios éticos e sociais que surgem, garantindo que as identidades digitais sejam complementares e respeitem as identidades reais, sem substituí-las por completo.

Compreender a *media* requer não apenas considerar sua materialidade, mas também sua institucionalidade. É por esse motivo que a internet apresenta um desafio peculiar, pois é uma infraestrutura tecnológica na qual coexistem diversas institucionalidades e diferentes camadas tecnológicas superpostas à base infraestrutural. Essa complexidade nos convida a refletir sobre como as representações dos sujeitos são moldadas e mediadas nas esferas digitais e do mundo real. As tecnologias de comunicação, incluindo a internet, desempenham um papel crucial na construção dessas representações, proporcionando espaços onde as identidades podem ser construídas, exploradas e compartilhadas de maneiras antes inimagináveis. Essa extensão das identidades para o mundo virtual nos desafia a repensar a forma como nós percebemos e nos relacionamos com os outros.

Ao considerar a relação entre *media*, identidade e representação, é fundamental reconhecer a diversidade de perspectivas e experiências presentes, pois as representações podem variar de acordo com fatores como cultura, gênero, classe social e muitos outros. Nesse sentido, de acordo com o pesquisador britânico Stuart Hall, a noção de identidade dos indivíduos é algo fundamental para a compreensão da experiência no mundo digital como fator de mediação de nossas experiências e para a compreensão de que a identidade não é um dado fixo e estático, mas sim um processo fluido e em constante transformação.

Hall contestou a ideia de que a identidade seja algo inato e natural, argumentando que ela é socialmente construída e moldada por uma variedade de fatores, como cultura, história, linguagem e poder [16].

Segundo ele, a identidade é formada através de práticas discursivas e representações simbólicas, e que essas práticas são influenciadas pelas relações de poder presentes na sociedade.

A identidade surge não tanto da plenitude da identidade que já está dentro de nós como indivíduos, mas de uma falta de inteireza que é “preenchida” a partir do nosso exterior, pelas formas através das quais nós imaginamos sermos vistos pelos outros. Psicanaliticamente, nós continuamos buscando a “identidade” e construindo biografias que tecem as diferentes partes de nossos “eus” divididos em uma unidade porque procuramos recapturar esse prazer fantasiado de plenitude. [16]

Para Hall, a identidade não é algo que possuímos de maneira fixa, mas sim algo que constantemente negociamos e construímos em relação aos outros e ao contexto social em que estamos inseridos. Ele destacou que a identidade é marcada por diferenças e contradições, e que as pessoas podem ter múltiplas identidades, que são moldadas por diferentes aspectos de suas vidas, como gênero, raça, classe social e orientação sexual. Além disso, o autor enfatiza a importância da agência individual e coletiva na construção da identidade. Ele argumentou que os indivíduos têm a capacidade de resistir e contestar as identidades impostas pela sociedade dominante, e que as identidades não são fixadas de forma definitiva, mas podem ser transformadas e reconstruídas ao longo do tempo. No metaverso, os indivíduos têm a oportunidade de experimentar e transformar suas identidades de maneiras novas e ampliadas. Eles podem adotar avatares, que são representações digitais de si mesmos, e explorar diferentes formas de expressão e interação. Essa capacidade de metamorfose das identidades dos sujeitos no metaverso está intimamente ligada à visão de Hall sobre a identidade como um processo em constante transformação. De acordo com o autor:

Em certa medida, o que está sendo discutido é a tensão entre o “global” e o “local” na transformação das identidades. As identidades nacionais, como vimos, representam vínculos a lugares, eventos, símbolos e histórias particulares. Elas representam o que algumas vezes é chamado de uma forma particularista de vínculo ou pertencimento. Sempre houve uma tensão entre essas identificações e identificações mais universalistas - por exemplo, uma identificação maior com a “humanidade” do que com a “inglesidade” (englishness). Essa tensão continuou a existir ao longo da modernidade: o crescimento dos estados-nação, das economias nacionais e das culturas nacionais continuam a dar um foco para a primeira; a expansão do mercado mundial e da modernidade como um sistema global davam o foco para a segunda. [...] A proliferação das escolhas de identidades é mais ampla no ‘centro’ do sistema global que nas suas periferias. Os padrões de troca cultural desigual, familiar desde as primeiras fases da globalização, continuam a existir na modernidade tardia. [16]

No entanto, é importante reconhecer que as identidades digitais no metaverso são construídas dentro de um contexto social e cultural específico, assim como as identidades *offline*. As pessoas trazem consigo suas experiências, valores e relações sociais ao se envolverem no metaverso, e esses elementos continuam a influenciar a forma como constroem e apresentam suas identidades digitais.

No entanto, ainda é preciso compreender o conceito de experiência transformadora, que atravessa a construção das identidades dos indivíduos. O pensador francês Jacques Rancière desenvolveu a ideia de como a experiência estética pode ter um efeito político e transformador sobre o espectador. Rancière argumenta que a arte não deve ser vista apenas como uma forma de entretenimento passivo, mas como uma prática que pode desafiar as estruturas de poder existentes e estimular a emancipação do indivíduo [30]. Ainda, segundo ele, a experiência estética pode ser emancipadora quando o espectador se envolve ativamente com a obra de arte, desafiando as estruturas de poder existentes. Da mesma forma, no metaverso, em um ambiente virtual tridimensional e interativo, os participantes têm a oportunidade de projetar e explorar suas próprias identidades e desejos de maneiras que podem desafiar as normas e limitações da vida real.

No metaverso, os indivíduos podem criar avatares, representações digitais de si mesmos, que podem ser personalizadas de várias formas. Isso permite a experimentação com identidades alternativas, permitindo que as pessoas se afastem das construções sociais tradicionais e explorem diferentes facetas de si mesmas. Assim como o espectador emancipado de Rancière se torna um participante ativo na produção de significado, os participantes do metaverso podem assumir o controle de suas narrativas e redefinir as convenções estabelecidas.

O problema então não se refere à validade moral ou política da mensagem transmitida pelo dispositivo representativo. Refere-se ao próprio dispositivo. Sua fissura põe à mostra que a eficácia da arte não consiste em transmitir mensagens, dar modelos ou contra modelos de comportamento ou ensinar a decifrar representações. Ela consiste sobretudo em disposição dos corpos, em recorte de espaços e tempos singulares que definem maneiras de ser, juntos ou separados, na frente ou no meio, dentro ou fora, perto ou longe. [30]

Além disso, a experiência no metaverso pode proporcionar uma sensação de liberdade e possibilidade, pois as limitações do mundo físico podem ser superadas. Os desejos individuais podem ser projetados e explorados de maneiras que talvez não sejam viáveis na vida cotidiana. Isso pode levar a uma sensação de empoderamento e autodeterminação, semelhante à emancipação do espectador no contexto estético proposto por Rancière. No entanto, é importante destacar que tanto no texto de Rancière quanto no metaverso, a emancipação e a experimentação não são necessariamente isentas de desafios e complexidades. Ainda existem estruturas de poder e normas sociais que podem influenciar e moldar as

experiências no metaverso. É fundamental considerar questões éticas, como a responsabilidade e a ética digital, ao explorar as possibilidades de experimentação no metaverso.

Ainda de acordo com o autor, a noção de experiência está atrelada a uma ideia de coletividade, pois não se trata simplesmente de uma vivência individual de algo, mas uma forma de participação coletiva que desafia as hierarquias sociais e políticas. Na obra *A Partilha do Sensível*, o autor afirma que a experiência é entendida como um momento de conscientização e resistência política, em que indivíduos contestam as hierarquias sociais e reivindicam seu direito de serem vistos e ouvidos [29]. Essa experiência implica em uma reconfiguração da partilha do sensível, ou seja, das formas de percepção e expressão que determinam o que é visível e audível na sociedade.

O regime estético das artes é aquele que propriamente identifica a arte no singular e desobriga essa arte de toda e qualquer regra específica, de toda hierarquia de temas, gêneros e artes. [...] Ele afirma a absoluta singularidade da arte e destrói ao mesmo tempo todo critério pragmático dessa singularidade. Funda, a uma só vez, a autonomia da arte e a identidade de suas formas com as formas com as quais a vida se forma a si mesma. [...] O estado estético é pura suspensão, momento em que a forma é experimentada por si mesma. O momento de formação de uma humanidade específica. [29]

No mundo real, as formas de experimentação podem ocorrer através de ações coletivas, manifestações, ocupações de espaços públicos, protestos e outras formas de engajamento político. Essas experiências podem desafiar as normas estabelecidas, abrir espaços para vozes marginalizadas e questionar a distribuição desigual do poder e da visibilidade na sociedade. Já, no mundo virtual, as formas de experimentação também desempenham um papel significativo. Através da internet e das plataformas digitais, as pessoas têm a oportunidade de se expressar, compartilhar suas histórias, conectar-se a comunidades e participar de debates e movimentos sociais.

A experiência no mundo virtual pode permitir a ampliação da visibilidade, especialmente para grupos que tradicionalmente são excluídos ou silenciados na esfera pública. No entanto, é importante reconhecer que as formas de experimentação no mundo virtual também estão sujeitas a dinâmicas de poder e controle. As plataformas digitais podem filtrar e moldar o que é visível, privilegiando determinados conteúdos e restringindo outros. Além disso, a falta de acesso igualitário à tecnologia e à conectividade pode perpetuar desigualdades sociais e limitar a participação de certos grupos.

Ainda no contexto da experiência, há também a relação com a escala de presença nos mundos virtuais a partir da imersão proveniente dessas vivências, de acordo com a autora Stefan Sonvilla-Weiss na obra *(In)Visible: learning to act in the metaverse*, a presença se refere à sensação de estar presente em um ambiente virtual ou metaverso, enquanto a experiência diz respeito às vivências e percepções que ocorrem nesse ambiente [38].

A noção de presença pode ser compreendida como a percepção de estar fisicamente presente em um espaço virtual, mesmo que o corpo do indivi-

duo esteja localizado em um lugar físico distinto. A conceituação da escala de presença emerge como um elemento fundamental na análise da imersão e do engajamento do sujeito em ambientes virtuais. Esta escala propõe quantificar o grau de sensação de “estar lá” em um ambiente virtual, abrangendo desde a mera consciência da existência do ambiente até uma completa absorção e identificação com ele. O incremento na escala de presença está diretamente relacionado a uma percepção mais intensa de realismo e envolvimento na experiência virtual, aspectos essenciais para promover uma interação significativa e satisfatória com o mundo virtual. Nesse contexto, as interfaces tridimensionais (3D) emergem como elementos cruciais na mediação dessas experiências imersivas, uma vez que possibilitam aos usuários uma interação mais natural e envolvente com o ambiente virtual, contribuindo, assim, para a ampliação da escala de presença.

Além disso, o processo de conexão no mundo virtual representa um momento-chave em que os indivíduos estabelecem uma ligação com o ambiente virtual, seja por meio de dispositivos tecnológicos específicos ou por interfaces de realidade virtual. Este processo desempenha um papel fundamental na construção da presença, possibilitando que os usuários se envolvam de forma mais profunda com o ambiente virtual e explorem suas potencialidades. Por outro lado, o processo de desconexão, caracterizado pelo término da interação com o ambiente virtual e o retorno à realidade física, é igualmente relevante. Este momento de transição pode suscitar uma série de reações emocionais e psicológicas nos usuários, tais como o “choque de retorno” ou a dificuldade de readaptação ao ambiente físico após uma experiência imersiva no mundo virtual. Assim, compreender os processos de conexão e desconexão no contexto das experiências virtuais é crucial não apenas para a análise da presença, mas também para uma compreensão mais ampla dos efeitos e implicações dessas experiências na vida dos indivíduos.

6. Conclusão

Na contemporaneidade, há uma notável transição na cultura de comunicação inerente ao metaverso, um ambiente virtual tridimensional onde as interações humanas ocorrem e que está se tornando cada vez mais significativo na sociedade contemporânea. Essa transição é caracterizada por uma metamorfose substancial que abrange vários aspectos, como as preferências individuais, a direção editorial dos conteúdos, os padrões de consumo e as oportunidades de trabalho, além da satisfação das demandas do público que participa desse universo digital.

Anteriormente, a configuração dessas tendências e a determinação dos padrões de comportamento estavam predominantemente sob o controle das grandes corporações, que exerciam uma influência preponderante sobre a definição do que era socialmente aceito e valorizado. No entanto, o cenário atual se destaca pela proliferação e diversificação de profissionais atuantes em diversos campos, como publicidade, tecnologia e branding, cujas práticas estão promovendo uma reconfiguração significativa das modalidades de comunicação e interação no contexto do consumo de produtos e serviços relacionados ao metaverso. Essa expan-

são do espaço digital está redefinindo as dinâmicas de mercado e criando oportunidades tanto para as empresas quanto para os consumidores, levando a uma reestruturação dos modelos de negócios e estratégias de marketing para se adequarem a essa nova realidade virtual.

Como demonstrado, é possível observar não apenas o progresso tecnológico associado ao Metaverso, mas também as transformações nas formas de imersão e entretenimento. Este estudo busca elucidar o processo interconectado de formação do Metaverso, desde sua concepção até sua realização, examinando os mecanismos de criação e sua manifestação em diversos meios. Dessa forma, podemos identificar as diferentes percepções do conceito, incluindo os desafios e questionamentos emergentes.

O Metaverso pode ser compreendido como um vasto e densamente povoado mundo virtual, operando como uma cultura digital paralela ao domínio físico, que permite a criação, posse e troca de ativos digitais de forma interoperável através da tecnologia blockchain. Esta infraestrutura descentralizada, baseada em criptografia blockchain, facilita a propriedade e o comércio livre de ativos digitais entre diferentes partes, assegurando segurança, integridade e direitos de propriedade. Portanto, o conceito de Metaverso abrange a criação de ambientes virtuais imersivos que possibilitam a interação e exploração de mundos virtuais pelos usuários, permitindo a manipulação de objetos, a exploração de cenários e a interação com outros participantes de forma análoga à experiência no mundo físico.

As implicações do multiverso na ilustração e animação podem ser exploradas de forma inovadora e criativa. Na ilustração, o multiverso oferece a oportunidade de representar realidades alternativas e conceitos abstratos de maneira visualmente impactante. Na animação, o multiverso permite a criação de narrativas complexas e não-lineares, onde diferentes universos coexistem e interagem de maneiras surpreendentes. Essas abordagens desafiam as noções tradicionais de espaço e tempo, estimulando reflexões críticas sobre a diversidade de possibilidades e a relatividade da realidade, conforme fundamentado na aceção original do termo multiverso.

7. Referências

1. Abolrichard. "Put-That-There". Computer Graphics, V. 14, N. 3, P. 262-270, 1 jul. 1980. Disponível Em: <https://doi.org/10.1145/965105.807503>. Acesso Em: 25 out. 2023.
2. Alighieri, Dante. A Divina Comédia. São Paulo: Editora 34, 2017, 696 p.
3. Ariyadewa, P. D. Et Al. Virtual Learning Model For Metaverses. 22 nov. 2010. Disponível Em: <http://10.1109/Icter.2010.5643267>. Acesso Em: 10 out. 2023.
4. Aytas, M.; Can, A. From Real Spaces To Virtual Spaces: The Metaverse And Decentralized Cinema. Journal Of Design For Resilience In Architecture And Planning, V. 3, N. (Special Issue), P. 49-59, 30 Dez. 2022. Disponível Em: <http://10.47818/Drarch.2022.V3sio70>. Acesso Em: 25 out. 2023.
5. Ball, Matthew. The Metaverse: And How It Will Revolutionize Everything. Nova York: Liveright Publishing Corporation, 2022. 328 P.
6. Baudrillard, Jean. Simulacros E Simulação. Lisboa: Relógio D'água, 1991. 195 p.
7. Brutzman, D. The Virtual Reality Modeling Language And Java. Communications Of The Acm, V. 41, N. 6, P. 57-64, jun. 1998. Disponível Em: <https://doi.org/10.1145/276609.276620>. Acesso Em: 25 out. 2023.

8. Chevet, S. Blockchain Technology And Non-Fungible Tokens: Reshaping Value Chains In: Creative Industries. *Ssrn Electronic Journal*, 2018.
9. Cheslack-Postava, Ewen. A Scalable Server For 3d Metaverses. *Usenix Atc '12: Proceedings Of The 2012 Usenix Conference On Annual Technical Conference*, Berkeley, jun. 2012.
10. Costa, C. T. Anotações Sobre O Metaverso. *Revista USP*, N. 134, P. 197-222, 16 set. 2022.
11. Davis, A. Et Al. Avatars, People, And Virtual Worlds: Foundations For Research In Metaverses. *Journal Of The Association For Information Systems*, V. 10, N. 2, P. 90-117, fev. 2009. Disponível Em: [Http://10.17705/1jais.00183](http://10.17705/1jais.00183) . Acesso Em: 10 out. 2022.
12. Dionisio, J. D. N.; Iii, W. G. B.; Gilbert, R. 3d Virtual Worlds And The Metaverse. *Acm Computing Surveys*, V. 45, N. 3, P. 1-38, jun. 2013.
13. Dublon, G.; Paradiso, J. A. Extra Sensory Perception. *Scientific American*, V. 311, N. 1, P. 36-41, 17 Jun. 2014.
14. Greenwold, Simon. Spatial Computing. 2003. 132 F. Dissertação (Mestrado) - Curso De Media Arts And Sciences, School Of Architecture And Planning, Massachusetts Institute Of Technology, Cambridge, 2003.
15. Gilbert, Richard. The P.R.O.S.E. (Psychological Research on Synthetic Environments) Project: Conducting In-World Psychological Research on 3D Virtual Worlds. *Journal of Virtual Worlds*, Vol. 4, 2011, 18p.
16. Hall, Stuart. A identidade cultural na pós-modernidade. Rio de Janeiro: Editora Lamparina, 2006, 64p.
17. Haraway, D. Antropologia Do Ciborgue: As Vertigens Do Pós-Humano. São Paulo: Autêntica, 2009. 128 P.
18. Heun, Valentin Markus Josef. The Reality Editor: An Open And Universal Tool For Understanding And Controlling The Physical World. 2017. 199 F. Tese (Doutorado) - Curso De Program In Media Arts And Sciences, School Of Architecture And Planning, Massachusetts Institute Of Technology, Cambridge, 2017.
19. Ishii, H. E Ullmer, B. (1997). Tangible Bits: Towards Seamless Interfaces Between People, Bits And Atoms. In *Proceedings Of The Acm Sigchi Conference On Human Factors In Computing Systems (Chi '97)*. Acm, New York, NY, USA, 234-241. Doi: [Http://10.1145/258549.258715](http://10.1145/258549.258715) . Acesso Em: 10 out. 2022.
20. Jenkins, Henry. Cultura Da Convergência. São Paulo: Ed. Aleph, 2006.
21. Kohler, Thomas & Matzler, Kurt & Füller, Johann. Avatar-Based Innovation Using Virtual Worlds for Real World Innovation. *Technovation*, Volume 29, Issues 6-7, June-July 2009, Pages 395-407.
22. Krishna, R. Et Al. Visual Genome: Connecting Language And Vision Using Crowdsourced Dense Image Annotations. *International Journal Of Computer Vision*, V. 123, N. 1, P. 32-73, 6 fev. 2017. Disponível Em: [Http://10.1007/S11263-016-0981-7](http://10.1007/S11263-016-0981-7) . Acesso Em: 10 out. 2022.
23. Lévy, Pierre. O Que É O Virtual? 2 Ed. Tradução De Paulo Neves. São Paulo: Editora 34, 2011.
24. Lévy, Pierre. Cibercultura. 3 Ed. Tradução De Carlos Irineu Da Costa São Paulo: Editora 34, 2010.
25. Lipovetsky, G.; Serroy, J. A Cultura-Mundo: Resposta A Uma Sociedade Desorientada. São Paulo: Companhia Das Letras, 2011. 207 p.
26. Menglong, Feng. Os Melhores Contos de Fadas Asiáticos. São Caetano do Sul: Editora Wish, 2023 416 p.
27. Mintz, A. G. Midiatização E Plataformização. *Novos Olhares*, V. 8, N. 2, P. 98-109, 6 Dez. 2019. Disponível em: [Http://10.11606/Issn.2238-7714.No.2019.150347](http://10.11606/Issn.2238-7714.No.2019.150347) . Acesso Em: 10 out. 2022.
28. Paradiso, Joseph A. The Next Step: Exponential Life. Cambridge: Openmind Books, 2017. 32 P.
29. Rancière, Jacques. A Partilha Do Sensível. São Paulo: Editora 43, 2005. 68 P.

30. Rancière, Jacques. O Espectador Emancipado. São Paulo: Wmf Martins Fontes, 2014. 258
31. Roth, C. Et Al. The Experience Of Interactive Storytelling: Comparing “Fahrenheit” With “Façade”. Entertainment Computing – Icec 2011, P. 13–21, 2011.
32. Sartre, Jean Paul. A Imaginação. São Paulo: L&PM Pocket, 1ª edição, 2008, 145p.
33. Sartre, Jean Paul. O que é Subjetividade? Rio de Janeiro: Editora Nova Fronteira, 2015, 160p.
34. Smart, John. A Metaverse Roadmap: Pathways to the 3D Web, 2007, 28p.
35. Smith, Richard Gordon. Clássicos Japoneses Sobrenaturais. Rio de Janeiro: Darkside, 2023, 352 p.
36. Saks, E. Using Cinematic Virtual Reality To Get Acquainted With The Metaverse. Baltic Screen Media Review, V. 10, N. 2, P. 252–271, 1 Dez. 2022.
37. Spierling, U.; Ido Iurgel. “Just Talking About Art” – Creating Virtual Storytelling Experiences In Mixed Reality. Lecture Notes In Computer Science, P. 179–188, 1 jan. 2003.
38. Sonvilla-Weiss, Stefan. (In)Visible: Learning To Act In The Metaverse. Wien: Springer-Verlag/ Wien 2008. 167 P.
39. Stănescu, G. The Impact Of Virtual Reality And Augmented Reality On Storytelling. The Future Of Journalism In Metaverse. Social Sciences And Education Research Review, V. 9, N. 2, P. 115–118, 2022. Disponível Em: <https://doi.org/10.5281/zenodo.7474376> . Acesso Em: 10 out. 2022.
40. Stephenson, Neal. Snow Crash. São Paulo: Editora Aleph, 2008, 630p.
41. Steuer, J. Defining Virtual Reality: Dimensions Determining Telepresence. Journal Of Communication, V. 42, N. 4, P. 73–93, dez. 1992. Disponível Em: <https://doi.org/10.1111/j.1460-2466.1992.tb00812.x> . Acesso Em: 15 mai. 2023.
42. Tori, Romero; Hounsell, Marcelo Da Silva (Org.). Introdução A Realidade Virtual E Aumentada. Porto Alegre: Editora Sbc, 2018.
43. Victa De Carvalho. Dispositivo E Experiência: Relações Entre Tempo E Movimento Na Arte Contemporânea. Revista Poiésis, V. 9, N. 12, P. 39–50, 1 Dez. 2008. Disponível Em: <https://doi.org/10.22409/poiesis.912.39-50> . Acesso Em: 10 out. 2022.
44. Yuen, S. C.-Y.; Yaoyuneyong, G.; Johnson, E. Augmented Reality: An Overview And Five Directions For Ar In Education. Journal Of Educational Technology Development And Exchange, V. 4, N. 1, 1 jun. 2011.
45. Zagalo, Nelson. Da Experiência Narrativa Em Diferentes Media. Abordagens Da Narrativa Nos Media: Centro De Estudos De Comunicação E Sociedade, Universidade Do Minho, Minho, Dev. 2014 ISBN 978-989-8600-31-8. Disponível Em: <https://bit.ly/3qlblou> . Acesso Em: 10 out. 2022.
46. Zagalo, N.; Branco, P. (EDS.). Creativity In The Digital Age. London: Springer London, 2015. <http://10.1007/978-1-4471-6681-8> . Acesso Em: 10 out. 2022.
47. Zagalo, Nelson. Virtuais Worlds And Metaverse Platforms: New Communication And Identity Paradigms. Hershey: Igi Global, 2012. 24 P.
48. Wertheim, Margaret. Uma História Do Espaço: De Dante À Internet. Tradução De Maria Luiz X. Borges. Revisão Técnica Paulo Vaz. – Rio De Janeiro: Jorge Zahar Ed., 2001.
49. Wiener, Norbert. Cibernética E Sociedade: O Uso Humano De Seres Humanos. 2. Ed. São Paulo: Cultrix, 1985. 181 P.

Character Design as a Storytelling Tool in the Videogame Ratchet and Clank 3



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Abstract

This paper presents a brief analysis of the design of the main characters of the videogame Ratchet and Clank 3, while comparing these designs with previous versions present in the Ratchet and Clank franchise. This analysis aims to reflect and explore how the characters' design in the context of the videogame helps to convey their narrative roles and personalities. The characters' designs also serve the purpose of expressing the themes and story present in the videogame, as well as explaining the character's arcs within the videogame franchise. For this analysis, we mainly focused on the possible meanings of color theory and shape language, when applied to these characters; we also reflected on the possible interpretations of their visual characterization, which is presented through body shape and size, accessories, clothing and other graphic aspects of each character. We've concluded that the Ratchet and Clank series relies on character design stereotypes, and then either builds upon them, for exaggeration purposes or comic effect, or subverts them, to create interest and depth. We have also found that character design techniques, such as keeping similar color palettes to show affiliation and connection between characters, while using opposing colors in the characters' designs to demonstrate rivalry, helps to intuitively convey the videogame story. The strategies are useful to videogame development, since this is a medium that thrives on quick and effective communication with the players.

Keywords

Video games, visual storytelling, character design

1. Introduction

This paper is part of a visual analysis project, developed for a Master's program in Video Game development, where we analyzed how a character's visual design can effectively help convey the narrative of the game and personality of the character themselves.

The game used to explore this topic was *Ratchet and Clank 3* [3], a 3D platformer developed by Insomniac Games, originally released in November of 2004 for the PlayStation 2. Other titles in the series are also referenced in this paper when needed, to establish relevant comparisons regarding the evolution of the characters' designs.

Each chapter in the paper will analyze the design of a different character, by looking at their color scheme, shape language, different iterations of the char-

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acter and the meaning of each iteration in the context of the game it appears. We will conclude the paper with a reflection on the techniques employed in the characters' design, on what hopefully the paper accomplishes and what topics can be explored by those who wish to delve deeper into this topic.

The symbology and meaning of color is heavily debated and context reliant. Authors like Bryan Tillman [15] and Eve Heller [18] stating that the same color can represent various and/or opposite concepts – green can represent both vitality and pestilence – or the same concept being represented by different colors – intellect can be represented by both blue and yellow [15, 18]. Shapes have a more defined understanding, with round shapes being considered gentler and sharper ones more aggressive, with natural proportions being considered more beautiful and appealing [16].

2. Character Design in *Ratchet and Clank 3*

For this case study, we will analyze the designs of four characters from the game *Ratchet and Clank 3* [3]: Ratchet, the main character; Dr. Nefarious, the villain; Clank, the protagonist's robot sidekick; Captain Qwark, a recurring secondary character. We will analyze their visual appearances in the game and establish comparisons to their appearances in other games of the *Ratchet and Clank* franchise, in order to show how they might have changed to fit each game's narrative. These characters were chosen due to the roles they occupy in the narrative and the archetypes they embody: with a hero, a sidekick, a villain and a trickster, we cover a wide range of character archetypes which provides for a better analysis.

2.1. Ratchet

Ratchet, the main character in the game *Ratchet and Clank 3* [3], is a Lombax, a species of anthropomorphic felines, with yellow fur, pointy ears, and a tufted tail. He has a small build, sporting an adventurous personality, and has been described as eager, stubborn, cheerful, and cunning. Very agile and dexterous, Ratchet is a mechanic by trade, working mainly in spaceships. He always carries the "Omniwrench 8000", a tool that he uses both for combat and repairs, serving as a visual indicator of his profession.

In *Ratchet and Clank 3* [3], unlike other titles, Ratchet's color palette is dominated by grays and dark browns, as seen in Figure 1. This happens due to the armor that he wears: it emanates a sense of practicality and robustness - brown can represent labor and physical effort, as it is closely related to dirt and wood, while grays can represent metal and metallic qualities like sturdiness and safety. These colors also represent the game's context, where Ratchet becomes a Galaxy Ranger's sergeant and a member of the "heroic" group Q-Force, as well as his origins as a mechanic. Underneath the armor, his yellow fur is visible, conferring an appearance that inspires speed and agility. Ratchet has a rather small build, when compared to other characters and enemies. and it's packed with circular shapes (particularly his facial features), giving him a friendly and reliable visage. The feet and ears have more triangular and pointy shapes, creating a silhouette with very angular extremities that communicates agility and speed, features that define the character [15].

An existing detail about Ratchet's color palette is the connection it establishes with Veldin, his home planet. Veldin is a world with desert and rocky terrain and, as such, it is depicted with yellow and brown colors, two tones that prevail in Ratchet's color palette in this game. This creates a sense of belonging, visually indicating that the character originates from this planet, something very important to the game's narrative since its plot is triggered by the invasion of Veldin.



Fig. 1. Screen captures of *Ratchet and Clank 3* [3]: Ratchet holding the weapon Plasma Storm, with Clank on his back (left), and Ratchet's in-game model (middle). On the right, we see Ratchet's color palette.

Ratchet has a small build and exaggerated facial features that create a slight “babyface” effect, meaning he has big round eyes that take up a significant proportion of his face [12]. This gives the character a friendlier appearance, but also creates a certain sense of inferiority when compared to others, especially when it comes to physical strength [12]. The fact that Ratchet, as the “hero”, does not have a tall, large, and muscular physique (as seen in characters like Captain Qwark, a character we'll discuss later), makes it seem like the protagonist is at a disadvantage in every battle he fights. The act of the underdog hero beating insurmountable odds is a common stereotype in adventure fiction - as seen with characters like Frodo Baggins from the *Lord of The Rings* series, the Straw Hat Pirates from the *One Piece* franchise and Rocket Raccoon from the *Guardians of the Galaxy* movies. Ratchet's dimensions are used as a visual narrative tool to emphasize this message.

In the first iteration of the character, visible on the far left of Figure 2, in the original video game *Ratchet and Clank* [1], Ratchet did not wear any armor, having a color scheme dominated by the yellow of his fur, the brown of his gloves, hat, and suspenders, and the green of his trousers. The character's costume and coloring invoke a sense of “functionality” that is solidified by his wrench, transmitting the idea that he is a mechanic. In the second game, Ratchet is recruited by Megacorp, a faction in the game, that offers him a set of armor similar to the one used in the video game *Ratchet and Clank 3* [3], with the major difference being its green coloration instead of gray, representing vigor and fortitude [18], since the goal of the armor in both games is to reduce damage taken by the player. In *Ratchet: Deadlocked* [4], the sequel to *Ratchet and Clank 3* [3], Ratchet is kidnapped and forced to fight to the death in a clandestine arena. Here, the armor worn, depicted in the middle of Figure 2, is red and gray, with blades and other sharp and slightly asymmetric shapes. In this situation, red may convey the idea of blood and hostility, while gray can represent coldness and resilience. The big, sharp, and asymmetrical shapes inspire

feelings of intimidation, brutality, and discomfort, reflecting the situation that the player finds himself in [15]. Beyond that, this armor is the only one that hides Ratchet's face: combined with the silhouette of the armature, this makes Ratchet almost unrecognizable, reflecting the nature of the story where he fights for fame, fortune, and survival, instead of his standard moral values that move him to do his heroic acts in the other games of the franchise [16]. In the following titles, his armor's design follows, in a general sense, the principles established in *Ratchet and Clank* 3 [3]: a form-fitting shape with the characteristic helmet and gloves, with the major differentiating factor between the various iterations being the color scheme: browns, greens or blues, with gray and black. Regardless of the chosen palette, the objective is to always convey a sense of rigidity, vitality, technological advancement, and safety [15,18]. In the titles where Ratchet does not wear armor, his design is an iteration of the first game visual, with the addition of a short-sleeved orange shirt: this piece of clothing complements his color scheme and simultaneously conveys his adventurous and carefree personality [8].

Fig. 2. Screen captures of the evolution of Ratchet's design throughout the franchise. From left to right, we can see Ratchet's design in: *Ratchet and Clank* [1]; *Ratchet and Clank* 2 [2]; *Ratchet: Deadlocked* [4]; *Ratchet and Clank: A Crack in Time* [6]; *Ratchet and Clank: Rift Apart* [8].



2.2. Dr. Nefarious

Dr. Nefarious is a recurring character in the series and the main antagonist in *Ratchet and Clank* 3 [3], with a vendetta against Ratchet, Clank and Captain Qwark. Dr. Nefarious is a robotic mad scientist and one of the most notorious super villains in the galaxy having in its criminal record crimes like intergalactic war, conspiracy, betrayal and attempted genocide. He is usually described as being sadistic and egomaniacal, deriving pleasure from his villainy and never showing remorse for his actions, regardless of their consequences. He is vain to the point of many of his creations being made in his image and a lot of his servants inherit his mannerisms and physical features. Dr. Nefarious has a deep-seated hatred for all organic life, referring to them as “squishies”, vowing to destroy them all, eventually. Dr. Nefarious' biggest motivation is vengeance, either targeted towards his mother or the protagonists, sparing no efforts, sacrifices or morals to achieve his goals.

In *Ratchet and Clank* 3 [3], Dr. Nefarious' look is dominated by dark tones, specifically in his torso, arms, and legs, as seen in Figure 3. These parts of the body share an analogous color scheme composed of dark shades of blue and gray, which seem black under certain lights [14]. This is a stark contrast with the rest of the scenery and characters that, despite having low quality textures due to hardware limitations, have more saturat-

ed and vivid colors, even when considering enemy NPCs³ and other robots. These colors convey the idea of coldness, malevolence, and mercilessness [15], which are defining traits of his personality. Dr. Nefarious' design also has bright red highlights that represent both electrical energy and wickedness, since red eyes are a common stereotype in evil characters – as seen with The Infected in the film *28 Days Later* (2002), Sebastian Michaelis in the anime *Black Butler*, and Batman in the *DC Flashpoint* comic books.



Fig. 3. Screen captures of Dr. Nefarious in a *Ratchet and Clank 3* [3] in-game scene (left), his overall design (middle), and his color palette (right).

Dr. Nefarious' body has slender limbs and pointy shapes. These shapes contrast with the head, which features an egg-like form. The character's body shapes reinforce the character's evil personality and his role as the story's main villain: from the tall and slender armature that is stereotypical from someone treacherous and conspirator - as seen in characters like Yzma from the animated film *Emperor's New Groove*, and Count Orlok from the *Nosferatu* film - to the arms' aggressive shapes; as well as the abnormal proportions that invoke a slight sense of dread [16]; in conjunction with the transparent egg-shaped head. The head not only cements the strange proportions, but it also works as a dome for the character's brain: an amalgamation of gears, devices and pistons. The green color of the dome complements the red accents, especially the eyes, and instills a feeling of toxicity [18], something that alienates biological life, nailing it to the observer that Nefarious is a mechanical being. The gigantic head are also stereotypes for extremely intelligent characters - as seen in characters like Dr. Neo Cortex from the *Crash Bandicoot* video game series; Mojo Jojo from the animated television series *Powerpuff Girls*, and Megamind from the movie *Megamind*.



Fig. 4. From left to right, screen captures of Dr. Nefarious' designs in: *Ratchet and Clank: a Crack in Time* [6]; in *Ratchet and Clank: All 4 One* [9]; in *Ratchet and Clank: Rift Apart* [8].

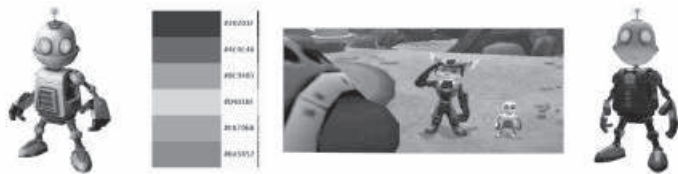
³ Definition of NPC: abbreviation of non-playable character: a character in a game that is not controlled by someone playing the game. – Cambridge Dictionary

After *Ratchet and Clank 3* [3], Dr. Nefarious would become one of the most recurring characters in the franchise, with his design suffering only minor changes: his eyes became more sunken into his face, nearing his visage more to that of a skull, including in his design another allusion to death, doom, and despair, while reinforcing his role as the main villain, as seen in Figure 4 on the left [6]. In his third appearance, the dark blue tones in his members were swapped for purple, indicating the character's growth of power and accumulated infamy [18]. In this context, purple represents (specifically evil) power, leadership, and importance, but at the same time closes the gap between Dr. Nefarious' and other characters' color schemes (since purple is a more vivid color than the prior dark blue). This is a good representation of the fact that, in this game, Dr. Nefarious becomes Ratchet's ally and is a playable character. The fissure in his mechanical face, that he has exclusively in this iteration, can be read as a "break in character" since Dr. Nefarious is usually a villain [9]. In his most recent appearance, the character's eyes were fitted with rotating eyelids, but this only serves to make him more expressive. It's also noteworthy that the crack in his skull has been fixed and his purple coloration darkened, symbolizing his return to an antagonistic role, as seen on the right of Figure 4 [8].

2.3. Clank

Clank is a robot created by the Zoni tribe and Ratchet's best friend. Although his body was assembled in a robot factory, due to his alien creators, he possesses a Zoni soul, that was given to him upon his creation by Orvus, his father figure. Clank is very intelligent and curious, possessing deep knowledge on various topics, offering advice when needed. He is also very trusting and tends to see the good in people, which sometimes leads other characters to take advantage of his naiveté. Clank also possesses a strong moral compass, often rejecting the temptations of power and feeling guilty for his actions, even if they were justified. He is also both focused and flexible, preferring to complete the mission without distractions, but finding time to enjoy himself and have fun.

Fig. 5. From left to right: Clank's design in *Ratchet and Clank 3* [3]; his color palette; cut scene from the videogame, that shows the complementary designs of the protagonist and his sidekick; Clank's in *Secret Agent Clank* [10].



Clank's design is surprisingly simple, as visible in Figure 5, especially when compared to other characters. Since he is a robot, his body is made of a titanium metal alloy, which is conveyed by the metallic gray color that dominates his body. This, combined with the black highlights used mainly on his joints and visible moving parts, grants Clank the classic robot color palette – as seen with the Cyberman in the *Doctor Who* television series, the T-800 Terminator model from the *Terminator* franchise and Codsworth from the videogame *Fallout 4*. Clank's eyes are a vibrant and

electric green. He has a small antenna on top of his head, with a glowing red light, possibly representing activation and alertness, in the sense that Clank is “awake” when the antenna glows red.

Clank’s body is teeming with round shapes: from his torso with rounded shoulders and rounded edges of his hip, to the rounded edges of his hands and joints, without forgetting to mention his round head and eyes. This fact, coupled with his diminutive stature, imbues Clank with a look of warmth, kindness, and trust, three adjectives that define the character’s personality, creating another example of “babyface”: those childlike features (round shapes and big eyes) are seen as warm and trustworthy, but also more dependent and submissive [12]. This creates a character that both evokes sympathy and warmth, but not exactly respect or authority.

When we compare Clank and Ratchet designs, we can see contrasting elements and similarities. For example: Clank lacks almost any sharp edges, having instead almost exclusively round and square shapes. Clank’s color scheme is also much simpler than Ratchet’s: with the robot’s metallic gray conveying his artificial body, while Ratchet’s yellows, browns, and oranges are earth tones that convey his nature as a living creature. One thing they share, however, is their relatively small size. These details reflect their dynamic as best friends: Clank’s calm and measured personality serves as a foil for Ratchet’s playful and adventurous demeanor, represented by their differences in shape language and color scheme. Their short stature also communicates their closeness: as mentioned with Ratchet, the “unlikely hero” trope is emphasized by their size, and with Clank being the smaller one, he gets labeled as the “hero’s sidekick”. And when looking at the two artificially made robot characters, we can see that Clank’s bright metal colors and round shapes contrast with Dr. Nefarious’ dark tones and sharp shapes, creating a visual rift between the lawfully aligned Clank and the villainous Dr. Nefarious.

Unlike the other characters so far, Clank’s design has suffered little to no changes in all his appearances in the videogame franchise. That is due to the audience’s amazing reception of the character: Ted Price, founder of Insomniac Games, stated that they “nailed” Clank [16]. This popularity led them to develop a spinoff game based around Clank, called *Secret Agent Clank* [10]. In this game, Clank’s torso was colored to imitate a tuxedo (Figure 5), in reference to spy movies like the James Bond series.

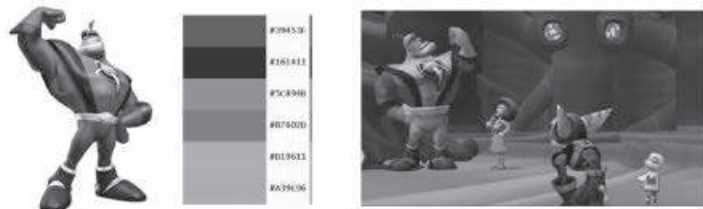
2.4. Captain Qwark

Captain Qwark is a major recurring character and one of Ratchet’s allies in *Ratchet and Clank 3* [3]. Despite being an antagonist in the first and second game, he ends up becoming one of the most enduring friendships the heroic duo has built. Captain Qwark is marketed and portrayed as a courageous, noble, and mighty superhero, who is the founder and leader of the group of “heroes” known as Q-Force. However, his role in the game is of comedic relief due to his blunders.

Captain Qwark’s color palette is dominated by green, black, and gray (Figure 6): these colors come from the superhero outfit he always wears. Green is used as the main color of the suit and gloves, while black and gray are used for edge highlights and the tights under the suit, respectively.

There are also orange and yellow highlights on his belt and boots. He has the “Qwark” logo on his chest: a blue and black atom with a lightning bolt. The shape of the logo resembles a “Q”, which is a common superhero character design trope – Superman from the DC comics, Daredevil from the Marvel comics, Mr. Incredible from the movie *The Incredibles* (2004), and many more, all have a logo in their chest related to their superhero name.

Fig. 6. From left to right, screen captures of: Captain Qwark’s design in *Ratchet and Clank 3* [3]; his color palette; cut scene from the videogame, that shows the difference in size between the cast of characters.



Captain Qwark is tall and has broad shoulders. He is very muscular, with the square shapes of his torso and the defined muscles in his arms emanating a sense of security and physical strength. He has exaggerated proportions, with an enormous chest and arms, on top of his smaller lower body, cementing strength as the defining feature of the character. Captain Qwark also has a protruding chin with squared shapes of comedic proportions – another superhero trope embodied often by Superman, in different iterations of the character. Lastly, he possesses a small antenna with a shining red light, on top of his eye mask, another stereotype design of a superhero – many superheroes wear masks to hide their civilian identities, such as Batman and Flash from *DC Comics* and earlier renditions of Captain America from Marvel comics.

Comparing Captain Qwark’s design to Ratchet’s, we can see how their designs portray different meanings. Captain Qwark’s body is big, sturdy and muscular, like one would expect the hero of the story to look like; meanwhile, Ratchet’s body is that of the unlikely hero, due to his short stature and slender figure. Captain Qwark also looks sturdier and slower than Ratchet, whose defining traits are speed and agility. These opposing designs are also reflective of their personalities: while Ratchet is a small and physically weaker character with a strong moral compass, Captain Qwark is cowardly, selfish, bumbling, foolish and narcissistic with “flexible” morals. His heroism is a façade, and he takes credit for his peers’ work, making his character a caricature of the “idealized superhero”, as depicted on the right of Figure 6 [17].

Captain Qwark’s design has not changed throughout the various games and iterations; however, he has donned various disguises to escape publicity. These disguises do not hide his personality or general silhouette and he often uses these to escape accountability and/or obligation. Most characters do not recognize him when he is undercover, which is a recurrent comic gag in fiction and adventure media – like Team Rocket in the *Pokémon* series with Team Rocket, the Turtles in *Teenage Mutant Ninja Turtles* series, and Azura in the game *Fire Emblem: Fates*.

3. Conclusions and Future Developments

With this analysis, it became clear that the character design in the Ratchet and Clank series employs various character design tropes or stereotypes to efficiently communicate some characters' roles in the videogame and, thus, shape the players expectations regarding the game world. Nevertheless, these tropes and stereotypes are not presented at face value, and are often built upon or subverted, which creates more meaningful, deep and complex character representation. This can be used for comedic effect – as it happens with Captain Qwark who looks like a typical superhero but is indeed rather useless and vain. It can also be used to create interest and empathy towards an unexpected hero, such as Ratchet, who at first glance doesn't look heroic, but whose morals and actions reveal him to be the true hero of the story. We also confirmed that design can help to more easily convey the relationships between characters: the friendly duo Ratchet and Clank are smaller, rounder, friendlier characters who share some visual similarities; and they then contrast with the story's villain Dr. Nefarious, whose dark colors and sharp design helps convey his role as an evil antagonistic character. In summary, the main cast of the video game is composed of unique and easily recognizable characters, who efficiently communicate their narrative role in the game's story and help shape players expectation when interacting with the game.

Hopefully, we showcased the importance of thoughtful character design in building and communicating a narrative in an interactive medium such as a video game. We plan to expand on the topic of *Ratchet and Clank* series' character design, by looking into the new characters Rivet, Kit and Emperor Nefarious, introduced in the latest game *Ratchet and Clank: Rift Apart* [8]. They are extra-dimensional counterparts to Ratchet, Clank and Dr. Nefarious, respectively, and the dynamics between the six of them could be the subject of a design analysis.

4. References

1. Insomniac Games (2002). "Ratchet & Clank" (Game). Sony Computer Entertainment. PlayStation 2
2. Insomniac Games (2003). "Ratchet & Clank: 2" (Game). Sony Computer Entertainment. PlayStation 2
3. Insomniac Games (2004). "Ratchet & Clank: 3" (Game). PlayStation 2
4. Insomniac Games (2005). "Ratchet: Deadlocked" (Game). Sony Computer Entertainment. PlayStation 2.
5. Insomniac Games (2007). "Ratchet & Clank: Tools of Destruction" (Game). Sony Computer Entertainment. PlayStation 3
6. Insomniac Games (2009). "Ratchet & Clank: A Crack in Time" (Game). Sony Computer Entertainment. PlayStation 3.
7. Insomniac Games (2016). "Ratchet & Clank" (Game). Sony Interactive Entertainment. PlayStation 4.
8. Insomniac Games (2021). "Ratchet & Clank: Rift Apart" (Game). Sony Interactive Entertainment. PlayStation 5
9. Insomniac Games (2011). "Ratchet & Clank: All 4 One" (Game). Sony Computer Entertainment. PlayStation 3.

10. High Impact Games (2008). “Secret Agent Clank” (Game). Sony Computer Entertainment. PlayStation Portable
11. PaletteGenerator - Create Natural Palettes from Images - <https://palettegenerator.com/>
12. Isbister, K.: Better Game Characters by Design - A Psychological Approach. CRC Press. Boca Raton (2006)
13. Color in games: An in-depth look at one of game design’s most useful tools - Color in games: An in-depth look at one of game design’s most useful tools (gamedeveloper.com)
14. The fundamentals of understanding color theory - <https://99designs.com/blog/tips/the-7-step-guide-to-understanding-color-theory/>
15. Tillman, B.: Creative Character Design. CRC Press. Routledge. Boca Raton. (2012)
16. Star, D. (2003) “Command Performance”. Official Playstation Magazine. Pag. 36
17. Lee, S., Buscema, J.: How to Draw Comics The Marvel Way. Atria Paperback , New York (1984)
18. Heller, E.: A psicologia das cores: Como as cores afetam a emoção e a razão. Olhares. São Paulo. (2021)

“Back in my day...” Humanizing history through grandparents’ stories



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Abstract

In recent years, documentary animation has become the focus of critical and public attention, particularly in autobiographical experiences. In this article, we will be interested in those that attempt to recover family histories, specifically involving the last actors of the events of the 20th century: grandparents. We sense that there is an interest on the part of directors to reconstruct or preserve the most intimate memory of the family through the story of the elders of the family and, in this sense, a will to understand ourselves through the family heritage. In this essay we propose the study of four animated productions in order to analyze them in order to extract common characteristics and identify identity traits of this subgenre.

1. Introduction

Animated documentaries are in good health in the current audiovisual panorama: we can prove it with feature films such as *Persepolis* [1]; *Waltz with Bashir* [2]; or *Flee* [3] that won multiple awards at the Oscars, Annie Awards or Golden Globes, something that demonstrates a marked interest not only on the part of the creators but also on the part of the public and critics in stories that fuse animation techniques with ‘a documented point of view’ [4]. In fact, according to Ehrlich, this type of production has grown rapidly since - and thanks to - this precise moment: ‘in 2008, animated documentary still sounded like something of an oxymoron. However, since 2009, the medium has proliferated widely [...]’ [5, p.2].

Now, if the animated documentary is constructed as an audiovisual genre in its own right, we observe that within its borders, trends or sub-genres emerge that, beyond focusing on recreating or making visible certain socio-political phenomena - such as wars, migrations or repression - as the films mentioned above would do, the focus is placed more on the person who shares their story in the first person within these socio-political contexts, as a ‘first-person narration’ [6] [7]. That is, it has more to do with the experience one has of the facts than with the facts themselves, or as Cristina Formenti well defines it ‘the main characteristic of nowadays animated documentaries is that they linger more on the feelings and emotions experienced by one or more real-life people rather than on illustrating mere facts concerning them.’ [6, p.65]

Keywords

autobiographical
animation, documentary
animation, testimony,
collective memory, family
identity

Thus, within the boom enjoyed by this autobiographical dimension within the animated documentary, we identify certain works that demonstrate an eagerness to rescue the memory of the last closest survivors: the grandparents. In certain animated productions made in the last decade, family history is the focus of the narrative: the directors - grandchildren of the main protagonists - try to preserve in their own way the memories that have survived the passage of time, with just enough historical documentation to back up the words collected. Their intention is not to divulge the causes and consequences of the historical events mentioned in the life stories but to witness their impact and repercussions on a small scale: that of an individual, a couple and/or by extension a family. In this sense, the directors of these films adopt a possibly more autobiographical approach within the documentary genre, where the film places more value on the memory of an event than on the event itself; in other words, they start from the particular in order to universalize the general account.

These films have attracted international attention and have not failed to provoke critical enthusiasm, such as those that will be the focus of our essay, a sample of four short films and films entirely or partly produced in France. This is composed of *Saïgon-sur-Marne* (Aude Ha Leplège, 2019) [8], a joint interview with the director's Vietnamese grandfather and French grandmother that gives us insights into the challenges of an intercultural marriage, the Vietnam War and love; *Souvenir Souvenir* (Bastien Dubois, 2020) [9] a meta-narrative short film where the director confronts the family taboos provoked by his French grandfather's participation in the Algerian war; *C'était pas du Bourgogne* (Mathias de Panafieu, 2020) [10] which illustrates a somewhat harsh anecdote with humorous overtones of his grandfather's Second World War; *No Dogs or Italians Allowed* (Alain Ughetto, 2022) [11] a feature film where the director makes his presence evident in the construction of the family history - and thus of the film's own elements - amidst famine, life in the mountains, three wars and cultural challenges.

It is curious to note that, despite their strong autobiographical component, they not only win festival recognition in the animation category - Best Animated Short at the Sundance Film Festival and at the Annie Awards for *Souvenir, souvenir*; Jury Prize at the Annecy Film Festival for *No Dogs Or Italians Allowed*; Grand Prize for Best Short Film at the Anima Festival for *Saïgon-sur-Marne* - but they are also winners in the documentary section - Best Documentary at the Anim'est for *Souvenir Souvenir*; Best Documentary Award at the Kaboom Festival for *Saïgon-sur-Marne*; Audience Award at the Festival International de Fiction Historique de France for *C'était pas du Bourgogne*. With this observation, we can corroborate that our show falls within the definition of animated documentary established by Annabelle Honess Roe - whose work we will take as a point of reference throughout this article- according to which 'an audiovisual work (produced digitally, film, or scratched directly to celluloid) could be considered an animated documentary if it: (i) has been recorded or created frame by frame; (ii) is about the world rather than a world wholly imagined by its creator; (iii) has been presented as a docu-

mentary by its producers and/or received as a documentary by audiences, festivals or critics. '1 [12, p.4].

Therefore, in this article we will be interested in identifying, if appropriate, the identity traits of the subgenre in question by means of a case study consisting of the four animated films mentioned above that make up the sample of this study. In order to find out whether they share specific characteristics, we will carry out a comparative analysis taking into account what functions the use of animation in these films fulfils according to Honess Roe's classification [12] and we will study them in more depth considering three parameters: the focus or motivation of the directors; the narrative elements and the graphic elements.

2. Methodology

As mentioned in the previous section, we will take as a point of reference and starting point the taxonomy established by Annabelle Honess Roe regarding the functions of animation within the documentary genre [12]. According to her, there are different types of animated documentaries and these can be grouped or classified according to the role that animation plays in them, which are 'three key ways: mimetic substitution, non-mimetic substitution and evocation.' [12, p.23]. In this sense, the intention of the following section will be to determine whether the films chosen for the sample belong to one or more of these categories, thus placing them within the general framework of the animated documentary genre.

To do this, we will first of all watch several viewings of each of the works in the exhibition and complete our personal notes by reading interviews, making-of, analyses and/or film reviews and press dossiers [13--21]. We will draw up a comparative table of certain narrative and graphic criteria for each film (related to themes, authenticity, temporality, etc.), which will provide us with keys to determine which category of the taxonomy they fall into. In addition, and with the intention of further refining the analysis, we will break down and identify more specific elements that can be considered part of the 'animator's vocabulary' in the words of Paul Wells [22, p.122]. [22, p.122]. In this way, we intend to draw conclusions about the similarities or differences in this potential sub-genre and determine whether there is a uniqueness and/or key-concepts specific to this type of contemporary productions.

3. Analysis of the case study

If we follow the logic of Honess Roe's reflection, 'thinking about the way the animations functions will be useful in terms of thinking about what aspects of reality the animated documentary is hoping to reveal to an audience' [12, p.26]. Thus, framing the films in one category or another will not only help us to group them but will also allow us to understand part of the creative intentions of their authors. Starting with the first step described in the methodology - the repeated viewing of the films and the taking of personal notes on them - in the first instance, we clearly identify that these films fall into Honess Roe's taxonomy under two of the three terms.

Non-mimetic substitution. Firstly, in all the films, animation is used as a non-mimetic substitution, something that is evident in the fact that each of them has a marked personal visual style, far removed from any representation that faithfully imitates the known real world. Although the characters maintain an anthropomorphic appearance, they are stylized representations with a fairly free graphic interpretation. In fact, the use of non-mimetic substitution in these cases is not surprising, as it is a resource frequently used by interview animated documentaries such as *Saigon-sur-Marne*, *C'était pas du Bourgogne* and *Souvenir Souvenir*.

Evocation. All the films use animation to convey memories, emotions and subjectivity either through the technique and graphic style itself or through creative narrative techniques.

Starting from this first premise, we now set out to investigate the elements or resources used which, based on the viewing and theoretical research carried out, we have decided to group into three subsections: the approach or motivation of the filmmakers; the narrative elements; and the graphic elements. As for the first parameter - the approach - we will focus on external reasons - a brief social context - and more precisely on the internal reasons that lead directors to make films about their grandparents' stories, based mainly on interviews and press dossiers [13--21].

As for the second and third parameters - narrative elements and graphic elements - we have highlighted multiple items that are shown in the comparative table corresponding to each one. In this way we can draw partial conclusions regarding the commonalities and differences in the substance and form of the sample, which in Susan Danta's words are 'central concerns of animated documentaries'. [23, p.97]

3.1. Approach / Motivation

The figure of grandparents is evolving over the generations and their role within the family is more important today than in previous centuries. As Martine Segalen observes, they now play a 'role as transmitters of memories, and their role vis-à-vis their grandchildren has changed a lot. Younger, in good health and enjoying a satisfactory retirement, they no longer embody the image of the old man [...] and contribute to the dynamism of family relations.' [24]

Within this context, it is understandable the emergence of new ways of bringing grandparents' stories and tales to life by grandchildren who have - a priori - a closer relationship with them than ever before. The rise of this type of stories is not limited to the field of animation, as we can see in the world of comics with *Naftalina* by Sole Otero (Fnac-Salamandra Graphic International Graphic Novel Prize) [25] or *Estamos todas bien* by Ana Penyas (National Comic Prize) [26]. But returning to our object of study, although both *Saigon-sur-Marne* and *C'était pas du Bourgogne* are inscribed in the situation described by Segalen - a close and habitual grandparents/grandchildren relationship where, as a spectator, we do not detect any tensions, so that the stories seem to be freely told - this is not the case of the other two films. On the one hand, in the case of *Souvenir*, *souvenir*, the director's grandfather is unwilling to tell openly - neither to

him, nor to any member of his family - about the life episodes he has questions about: 'my grandfather was in the Algerian war but he never talks about it. He doesn't want to talk about it' (01:27); we can detect that there is a family taboo on the subject that ends up being the very skeleton of the short film. On the other hand, in the case of *No Dogs or Italians Allowed*, the director's close relationship with his grandparents is no longer possible, as they died long before the film was made. As a result, the director reconstructs the family memory by drawing on the personal memories that each of the grandchildren has of their grandparents, as well as his own.

Reinforcing our argument by reading interviews and press releases [13-21], we can identify different intentions - or motivations - of the directors of this exhibition. The first, and perhaps the most obvious, is the desire to pay homage, or at least an affectionate nod, to the grandparents in question: in the words of Alain Ughetto, 'First of all I wanted to pay homage to my grandmother, who died when I was twelve years old' [13]. Even in *Souvenir Souvenir*, where the difficult relationship between the director and his grandfather is evident due to the taboo mentioned above, and although it is not a predominant aspect of the short film, Dubois explains in the press dossier that he does end up turning his film around by placing his grandmother as the key protagonist and, therefore, pays her a certain homage by putting the relationship of his two grandfathers 'back at the centre of the story. To finally see through her eyes how the war affected her life, my grandfather's and ours. Let the word come from the one who has remained in the shadows.' [19]

Secondly, there is a desire to find out more, to fill in the blanks in the family history. As Aude Ha Leplège says, 'I wanted to archive the history of my family, because I realised that there were many things I did not know. [...] It is a wound that has not been completely closed, and I have been somewhat wrapped up in it ever since I was a child'. [15].

Finally, the very fact of making films with such intimate stories aimed at an international audience demonstrates a certain yearning to construct a collective memory from the particular, to humanize official and impersonal history in order to allow the spectator to identify with it and, therefore, more empathy. We could even perceive a desire to dignify the 'little ones' by showing the physical and emotional value of their acts and experiences, which have come to be normalized and even ignored. Finally, in the specific case of *Souvenir Souvenir*, the aim is to make visible the impact of war on the heart of the family when secrets, feelings of guilt and traumas are mixed together.

3.2. Narrative elements

Themes We can observe that all the works make reference to some war - be it the Vietnam War (*Saïgon-sur-Marne*), the two World Wars (*C'était pas du Bourgogne* and *No Dogs or Italians Allowed*), the Italo-Turkish war (*No Dogs or Italians Allowed*) or the Algerian War of Independence (*Souvenir Souvenir*) - without actually delving into them but rather integrating them as part of life. In other words, war is present in the films, but instead of trying to dismantle its causes and consequences, it is taken for granted that

the spectator is aware of what it is and what a social context marked by war implies. The war itself does not occupy a predominant place in the stories but is the setting for other issues that have more to do with the subjective, the human and the familial; even more than the war, each of these grandparents’ stories has more to do with uprooting, either by exile (civilians) or by doing military service in one of them (soldiers). Following on from this, we can identify other themes that are direct consequences of the war, such as the clash of cultures due to exile to a foreign country (Saïgon-sur-Marne; No Dogs or Italians Allowed) or taboo (Souvenir Souvenir).

Apart from the uprooting induced by the war(s), we find another point of union in the representation of everyday life on a very small scale, that of the family and above all of the grandparents, both recreated (in the past) and anchored in the present. This is how Alain Ughetto puts it: ‘I thought it would be good to tell this story focusing on things that made their day-to-day life.’ [14] or Aude Ha Leplège: ‘As they tell the story of their lives, they are busy with trivial, everyday tasks [...]’ [16]. They explore the war from today and now, as well as its repercussions in the particular; this is what Souvenir Souvenir is all about, where the director confronts the lack of family communication at the time of the film’s making due to the Algerian War of Independence, leading everyone to maintain a taboo on the subject. Likewise, the very skeleton of C’était pas du Bourgogne is to show the contrast between the anecdotal - even humorous - tone of the grandfather and the story of how he almost died from a gunshot and the abandonment of his comrades in the Second World War, making evident the action of time on memory and the intensity of feelings.

Film	Themes	Tone	Voice	Temporality	Self-representation
Saïgon-sur-Marne	Marriage; Everyday Life; Immigration; Exile; Clash of cultures; Vietnam War	Affection Tenderness Love Humour	Grandparents’ real voice Own voice	Story told from the present Reversed montage (past/present)	Self-character protagonist of the story (entire body)
C’était pas du Bourgogne	World War II; Everyday Life	Anecdotal Humour Affection Confessional	Grandparents’ real voice Own voice	Story told from the present. Reenactment of scenes from the past but the central character speaks to the camera to his grandson.	Self-character protagonist of the story (hands) Subjective plane
Souvenir	Algerian War; Family taboo; Creative process; Everyday life; Psychological therapy	Taboo Guilt Shame Secret Frustration Insistence	Grandmother and fathers’ real voices Own voice	Story told from the present	Self-character as main protagonist of the story (entire body, different ages)
No Dogs or Italians Allowed	Exile; Everyday Life; Village life; Culture; Culture clash; Immigration; Italo-Turkish War; World War II; Epidemic; Identity; Xenophobia; Fame	Honey Tenderness Affection Epic Stories around the fire	Own voice	Narrator speaks directly to the character from the present (imagined conversation)	Hands in live-action Self-character as a protagonist of the story (hands)

Table 1. Comparative table of the sample based on narrative elements.

Tone Three of the films are made with tenderness and affection, with a confessional and rather informal character. The existence of a good relationship between the director and his grandparents is evident, and the discourse is very natural. In Saïgon-sur-Marne, the relationship between the protagonists is even the central axis of the narrative: an important aspect of the film had to be ‘the relationship with the everyday’ [14] - echoing the previous item - without losing sight of the fact that ‘the common thread would be their love story and not the chronology of the history of Vietnam.’ [15]

In Souvenir Souvenir, on the other hand, there is a lot of tension

and frustration on the part of the director in the face of the taboo of his grandfather's participation in the Algerian War as a colonist, and even a difficult relationship with his grandfather in general: 'I knew him as someone quite coarse, rude, racist' [17]. She tries to deal with the dilemma of not knowing what his role as a soldier really was, but at the same time she fears the answer and rejects the 'official' version her grandfather told the family, which creates even more distance between them. Without being affectionate, the relationship with his grandmother is more cordial and provides a minimum of family communication.

Voice In this parameter, it is worth noting that all the films use the recorded voices of the directors and, where possible, the recorded voices of grandparents and relatives - except in the case of *No Dogs or Italians Allowed*, where the grandparents died long before the film was made. In *Saïgon-sur-Marne* and *C'était pas du Bourgogne*, the script is constructed on the basis of the recordings, giving the feeling of a spontaneous conversation. Recording and using the real voices of the protagonists is a way of capturing their personalities and reinforcing the viewer's sense of authenticity: as Aude Ha Leplège tells us, 'the sound sometimes didn't sound right. We thought about having him dubbed by people of Vietnamese origin who would have the same accent as him and with whom we could have achieved good quality recordings. But my grandfather speaks very lightly, he laughs a lot, he has a very peculiar laugh and in the end it all contributed to the charm of the film. I think people get much more attached to the character this way.' [15]

This result makes sense in terms of the construction of authenticity within the footage since, as Honess Roe points out, the use of voice acts as a 'bearer of truth and meaning in documentary.' [12, p.28]. Thus, the use of the voice of the directors and family members themselves seems to be a recurrent resource - or strategy - in these productions.

Temporality In all the films, the stories are told from the present time, that of the making of the film. With the exception of *Souvenir* *Souvenir*, the authors include small moments of the interview - and voice recording - that make it more authentic, more anchored to a specific moment: a phone call in *C'était pas du Bourgogne*, everyday activities and anecdotal comments of 'small talk' in *Saïgon-sur-Marne*, even a conversation while grandma is repairing a sock in *No Dogs or Italians Allowed*.

Self-representation All the directors position themselves as the main protagonists in the story. The questions they have and their research are the driving force of the film, it is what sets the pace. They appear either as whole characters with an external point of view (*Saïgon-sur-Marne* and *Souvenir* *Souvenir*), or only their hands (*C'était pas du Bourgogne*) and/or feet (*No Dogs or Italians Allowed*). The fact that two of the four directors represented themselves through their own hands is no mere coincidence. In *C'était pas du Bourgogne* the camera is placed with a subjective point of view; we see what the director sees, so we can only see his hands. In the case of *No Dogs or Italians Allowed* it is a symbolic act: 'I needed to integrate myself into this story, whatever the cost. In tracing the genealogy of my family, the question of the transmission of a manual

**From left to right:**

Fig. 1. Screenshot from the short film *Saïgon-sur-Marne* (Aude Ha Leplège, 2019). We can see her hand as she tests the microphone for the interview. © Novanima.

Fig. 2. Screenshot from the short film *Souvenir Souvenir* (Bastien Dubois, 2020). His hand while drawing an image from the film itself. Eldorado Production (ex-Blast Production).

Fig. 3. Screenshot from the film *No Dogs or Italians Allowed* (Alain Ughetto, 2022). The hand picks a flower from the ground and places it in the hair of the grandmother character. © Les Films du Tambour de Soie.

Fig. 4. Screenshot from the short film *C'était pas du Bourgogne* (Mathias de Panafieu, 2020). His hand is next to some sketchbooks from the film. © XBO Films.

know-how imposed itself on me [...] Luigi made his own tools, and this know-how [...] he passed it on to his son, my father'. [13] Through the image of the hand, Ughetto not only speaks of craftsmanship as an inheritance and a nexus of family union, but also makes its presence evident, as well as its dialogue with the reconstruction of the family past.

The role and presence of the hands goes even beyond the directors' desire to be present in the footage: they also constitute a powerful tool to make evident the process of constructing it, turning it into a meta-narrative or a meta-narrative where they allude, within the documentary, to the process of making the documentary itself. This is clearly seen in three of the films: in *Saïgon-sur-Marne*, one hand is holding a microphone in the foreground and the other is testing the sound with small taps [Fig. 1]; in *Souvenir Souvenir*, the hand is holding a pencil while drawing a character from the film [Fig. 2]; in *No Dogs or Marne*, the hand is holding a microphone while drawing a character from the film [Fig. 3. 2]; in *No Dogs or Italians Allowed* the director's hand picks a flower from the ground and places it in the hair of his grandmother's character [Fig. 3] and in *C'était pas du Bourgogne* the hand appears next to a sketchbook of preparatory sketches for the film [Fig. 4].

3.3. Graphic elements

Archival material By this term, we refer to what Paul Wells calls 'primary materials - testimony, photographic and institutionally archived evidence, pertinent journalism, personal memories and moments.' [27, pp. 12-13]. Three of the films show actual period photographs: in the case of *Saïgon-sur-Marne* they appear in the end credits, in *Souvenir Souvenir* and *No Dogs or Italians Allowed* we can see them during the film. In the latter we can also see a real footage of his grandparents' house in ruins today; objects and earth collected from the site and the director reads us some letters written by his grandfather while he was in the Italo-Turkish war. But the use of archival material in these cases goes beyond what is seen directly in the footage or end credits; Wells stresses that it 'function both as possible materials to be included in the film, but crucially in the instance of animation, as visual inspiration for the film. [27, p.13]

In this sense, we can affirm with the support of the documentation consulted that all of them have made use of existing archive material for the making of their films. [13--21]. As with the use of one's own voice analysed above, evidencing the presence of archive material allows for an anchorage with reality, acts as proof of authenticity in the eyes of the spectator, and therefore appears as a recurrent resource - strategy - in these films.

Techniques As an introduction to this section, the sentence 'Animation is the hard copy of the psychological memory' [28, p.24] is ideal. [28, p.24] as it expresses perfectly the results found. We note that the differ-

ences are more marked than in any other section: each director has his own graphic style and takes an artistic direction according to what he wants to tell, as if it were his own handwriting. In *Souvenir* *Souvenir* we can appreciate two different visual styles, both in full colour. The one that is mostly used corresponds to the director's reality at the time of making the film; it is built up from patches of colour without contouring, multiple overlapping textures and somewhat soft colours. All this in order to convey the message of 'transmission, filiation, memory'. All this by means of drawings like scratches, almost abstract and made up of layers and veils that hide things and memories'. The second, on the other hand, is used to illustrate the director's mental image of events in which he was not present and which he presents as 'the worst' [19]: it has closed, thick contours, a more cartoonish, exaggerated and caricatural aspect. In *Saïgon-sur-Marne*, on the other hand, there is less secrecy: we see a more direct, delicate technique: black and white brush strokes and watercolour washes that convey tranquillity and refer to a hybrid style between Asian and European codes. In *C'était pas du Bourgogne* something similar happens: 'the simplicity of the animation refers to the spontaneity of the discourse: a drawing with sketched strokes, on the edge of the sketch' [20]. In *No Dogs or Italians Allowed*, the technique of stop-motion with dolls and objects makes sense because the film is constructed on the basis of memories and sensations from when the grandmother was still alive; by deciding to give all the characters the same face - with some variations in hair or clothing - Ughetto speaks of the plasticity of the mind and the malleability of memories. He makes evident the process of physical construction of the film set, just as he dialogues and constructs the story of his grandparents.

Film	Archival material	Technique/Style	Visual Metaphors
<i>Saïgon-sur-Marne</i>	Real photographs in the credits	2D Black and white Brush strokes and watercolour washes Stylized human characters Expressiveness	Headphones turn into her grandparents' tiny faces [0:03:41] The boat and the river find themselves enclosed in a glass cup [0:04:16]
<i>C'était pas du Bourgogne</i>	Not directly included in the short film, but similarity between drawings and real places/grandfather	2D Black and white Rotoscopy Clean pencil strokes, handwritten texts Stylized human characters	The protagonist hides in a cemetery to escape enemy fire.
<i>Souvenir</i>	Real photographs during the film	3D with 2D aspect 2D Coloured textures Overlapping layers Stylized human characters	The character visually breaks into pieces when he hears some of the truth [0:07:23]
<i>No Dogs or Italians Allowed</i>	Real photographs during the film Actual image of grandparents' house in ruins Elements of their place of origin: land, objects Letters from grandfather to grandmother read	Stop-motion with real puppets and objects Live-action image Stylized human characters	Presence of the real hands of director making the sets and puppets Use of real objects to be part of the set

Such differences in graphic styles can be easily explained, since each director - even every human on this planet- has his or her own unique handwriting or way of drawing. But, in spite of being disparate styles, there is one aspect in common to all of them, which lies in the simplification and stylisation of the characters, all anthropomorphic, which move away from photorealism: we detect here a creative resource as well as a strategy to allow the spectator to identify with them and, consequently, to universalise the story. Honness Roe, in this respect, brings the world of comics closer to the world of animation and quotes

Table 2. Comparative table of the sample based on graphic elements.

Scott McCloud in these terms: ‘when you look at a photo or realistic drawing of a face you see it as the face of another. But when you enter the world of the cartoon you see yourself’. [12, p.111].

Visual metaphors We find visual metaphors in all the footage studied. In *Saïgon-sur-Marne*, the pads of the audio helmets become little faces of her grandparents as they talk and she smiles, conveying a sense of well-being and a good relationship between the three of them (0:03:41) [Fig.5]. In another moment in which the boat in which the grandparents ride is enclosed in a glass cup, causing them to become unsettled and restless (0:04:16), her grandfather comments that his father-in-law only knew Vietnamese people as waiters in coffee shops, implying how prejudices can lock people into boxes. In *Souvenir Souvenir*, the character visually breaks into pieces when he hears some of the truth he wanted but also feared to know (0:07:23). In *No Dogs or Italians Allowed*, the presence of the live-action real hands of director making the sets and puppets at a smallest scale reminds us of the collective imagery of the Creator, the one who builds and decides how to organise this small world. The use of real elements to make parts of the set (ex. broccoli for trees) [Fig.6.] is a way to visually pay homage to the everyday by giving prominence to certain objects that were part of his grandparents’ culture.

In view of these results, it is worth noting what Honess Roe quotes, ‘Bill Nichols (2010:108) suggests that documentary topics that do not lend themselves to “straightforward description”, such as love, war and family, are better communicated via metaphor.’ [12, p.111]. These are precisely the three themes that are most often touched upon in the short films: love - either between grandparents and/or between director and grandparents; family or family reconstruction; personal experience and the impact of war, so it seems that this type of footage tends to embrace visual metaphor as a mode of expression.

Fig. 5. Screenshot of the shortfilm *Saïgon-sur-Marne* (Aude Ha Leplège, 2019). Visual metaphor of the headphones and grandparents. © Novanima. Fig. 6. Screenshot of the film *No Dogs or Italians Allowed* (Alain Ughetto, 2022). Broccoli as trees. © Les Films du Tambour de Soie



4. Conclusions

The versatile character and the multiplicity of graphic and narrative resources that authorial animation allows for, seem to make it an ideal medium for animation seems to make it an ideal medium to host the biographical stories of the eldest members of the family, exploring human biographical stories of the elders of the family, exploring human concepts such as cultural identity, family cultural identity, family memory, memories, taboos, the beauty of the everyday, etc. beauty of the everyday, etc. Through a comparative analysis of the four films in the sample, we have been able to identify characteristics of this type of film. we have been able to identify characteristics typical of this type of productions.

Firstly, we identified that within the taxonomy proposed by Honess Roe; non-mimetic substitution and evocative substitution feed back on each other, practically merging into one and the same line. A detailed analysis allows us to highlight key elements in these films, based on three categories: the focus or motivation, the narrative elements and the motivation, narrative elements and graphic elements.

Starting with the approach of the authors when making their films, we first detect a desire to pay homage to their grandparents in order to reconstruct their family history and question their own identity with the aim of sharing these particular experiences with an audience that can identify with them, thus achieving a universalization of the story.

In terms of narrative elements, we find uniqueness in addressing the theme of uprooting by the war and, above all, the repercussions that this entails: exile, military experience as a soldier, the clash of cultures resulting from immigration or taboo. In addition, we identified the importance of the representation of everyday life, of showing the grandparents through the 'little things' of everyday life, which humanize the story and allow the spectator to identify with them.

Another identifying feature of these productions is the use of the original recorded voice of the directors - and that of the family members when possible, as it allows for the construction of a sense of authenticity and closeness in the viewer. Regarding temporality, the directors place the narration in the present, although they make jumps to the past to illustrate memories.

Finally, it is worth noting that all the directors represent themselves within their own film and are active protagonists of the story. A particularly interesting feature is the role and presence of the hands in the footage: apart from being witnesses of the director's presence, they constitute a powerful tool to evidence the very process of construction of the documentary, thus turning it into a meta-narrative or even a meta-documentary.

As for the graphic elements, we have found that all the films make use of so-called 'primary material' [27] or archive material to construct landscapes and sets as well as characters, most of them in the same footage, so we can consider it a relevant feature. The animation techniques, however, are presented as the feature with the least uniqueness in the analysis, which is understandable considering the versatility of contemporary animation, although we do consider relevant the anthropomorphic and far from photorealistic aspect of the characters in all the films. Finally, the last unifying key element is the use of visual metaphors to express feelings and concepts that are difficult to describe in this type of film.

To conclude, we confirm that the analysis of the sample has revealed specific keys that allow us to affirm that there is a certain uniqueness - perhaps it is too early to call it a pattern - in terms of conceptual, graphic and narrative parameters to understand this nascent sub-genre within the animated documentary genre: the stories of grandparents. With the desire to open up this research in the future, the study of new productions in this line is pending in order to enrich and contrast the conclusions drawn from the article and to continue defining the identity traits of the footage of animated grandparents' stories.

5. References

1. Persépolis. Directed by Marjane Satrapi, Vincent Parronau. France: 2.4.7. Films (2007)
2. Waltz with Bashir. Directed by Ari Folman. Israel, France, Germany: Bridgit Folman Film Gang, Les Films d'ici, Razor Film Produktion GmbH, Arte (2008)
3. Flee. Directed by Jonas Poher Rasmussen. Dinamarca: Monica Hellstrøm, Signe Byrge Sørensen, Charlotte de La Gourmerie (2021)
4. Alsina Thevenet, H., Romera I Ramió, J.: El documental y sus modalidades. In: Fuentes y documentos del cine, Gustavo Gili (eds.). Barcelona (1980).
5. Ehrlich, N.: Animating Truth Documentary and Visual Culture in the 21st Century. Edinburgh University Press Ltd [Online] (2021)
6. Formenti, C.: Private Truths and Inner Realities. In: Formenti, C.: The Classical Animated Documentary and Its Contemporary Evolution. Bloomsbury Academic, Film & Media Studies Collection, pp. 227–245. London (2022)
7. Skoller, J.: Introduction to the Special Issue Making It (Un)real: Contemporary Theories and Practices in Documentary Animation. Animation-an Interdisciplinary Journal, vol 6 No 3, pp. 207-214 (2011)
8. Saïgon-sur-Marne. Directed by Aude Ha Leplège. France: Novanima (2019)
9. Souvenir Souvenir. Directed by Bastien Dubois. France: Arte France, Pictanovo (2020)
10. C'était pas du Bourgogne. Directed by Mathias de Panafieu. France: XBO Films (2020)
11. No Dogs or Italians Allowed. Directed by Alain Ughetto. France, Italy, Switzerland: Les Films du Tambour de Soie, Vivement Lundi! (2022)
12. Honess Roe, A.: Animated Documentary. Palgrave Macmillan, Basingstoke, Hampshire and New York (2013)
13. Rencontre avec Alain Ughetto, <https://www.critikat.com/panorama/entretien/rencontre-avec-alain-ughetto/>
14. Alain Ughetto on NO DOGS OR ITALIAN ALLOWED | MyFrenchFilmFestival, <https://www.youtube.com/watch?v=hIXlmBuboc>
15. Ici Vietnam : Entretien avec Aude Ha Leplège pour Saïgon-sur-Marne, <https://eastasia.fr/2019/08/31/ici-vietnam-entretien-avec-aude-ha-leplege-pour-saigon-sur-marne/>
16. Dossier de presse de Saïgon-sur-Marne de Aude Ha Leplège, https://novanima.eu/saigon_sur_marne/
17. Souvenir Souvenir » : guerre d'Algérie, la mémoire refoulée, <https://film-animation.blogs.la-croix.com/souvenir-souvenir-guerre-dalgerie-la-memoire-refoulee/2021/02/05/>
18. Dossier artistique de Souvenirs Souvenirs de Bastien Dubois, https://www.cnc.fr/professionnels/jeunes-professionnels/scenaritheque/souvenirs-souvenirs_1482930
19. MAKING OF - Souvenir Souvenir - Animated short film, <https://www.youtube.com/watch?v=BKkSX98iWII>
20. Le Pennuicic, D.: C'était pas du Bourgogne, Mathias de Panafieu, 2018 : les documents à la source du court-métrage. Genèses de films : une collection d'études consacrées à la fabrication de films liés au territoire régional. Occitanie Films, pp. 1-5 (2022).
21. Dossier de presse C'était pas du Bourgogne de Mathias de Panafieu, <https://www.unifrance.org/film/53279/c-etait-pas-du-bourgogne>
22. Wells, P., Quinn, J., Mills, L.: Dibujo para animación. Libros Blume, Barcelona (2010)
23. Danta, S.: Animated Documentary, by Annabelle Honess Roe. Alphaville: Journal of Film and Screen Media, vol. 8. (2014)
24. Segalen, M.: Memorias y recomposiciones familiares. Revista de Antropología Social, vol. 18, pp. 171-185 (2009)
25. Otero, S.: Naftalina. Salamandra Graphic, Barcelona (2020)
26. Penyas, A.: Estamos todas bien. Salamandra Graphic, Barcelona (2017)
27. Wells, P.: Writing Animated Documentary: A Theory of Practice. International Journal Of Film And Media Arts, vol 1, no.1, pp. 6–18. (2016).
28. Wells, P.: Understanding Animation. Routledge. Psychology Press, London & New York (1998)

Memórias da Emigração: O contributo do desenho no resgate e interpretação de memórias intergeracionais



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Abstract

During the 41 years of the dictatorial political regime known as “Estado Novo” (1933-1974), many Portuguese people chose to leave their own country, as they perceived emigration as a quicker and more effective solution to deal with the poverty and oppression that existed in Portugal at the time. This is also the case of the group of people involved in the study presented here, who saw themselves cornered by the obligations that the dictatorship imposed on the Portuguese people, and heavily heartedly decided to emigrate to France to start a new life in 1968. In this article, we propose a study of how drawing and graphic narrative can be used to interpret 2nd and 3rd generation memories, using oral testimony, photography and other archival objects. In order to do so, we will not only study illustrated and animated narratives about emigration, but also present a master’s project consisting in the creation of a graphic narrative that explores the experience of emigration of the grandparents of the author of the project.

Keywords

Drawing; Memory; Emigration; Reportage; Visual Narrative

1. Introdução

“Memórias da Emigração” surge no âmbito de um projeto de Mestrado em Ilustração e Animação no Instituto Politécnico do Cávado e do Ave, tendo como ponto de partida a vontade de resgatar histórias relativas à experiência de emigração de familiares próximos, no período do Estado Novo, dando-lhes corpo através dos processos do desenho, da ilustração e da narrativa visual. A partir de uma relação de intimidade entre familiares de diferentes gerações (avós, pais e netos), procura-se aqui entender e explorar o modo como estes processos permitem dar voz a pessoas e comunidades que, por diversas razões, se viram distantes dos processos de produção da “memória coletiva”, dos discursos acerca das suas próprias experiências transformadoras. Do mesmo modo, o projeto encontra afinidades com um conjunto de outras experiências narrativas (no âmbito do cinema, da bd e da ilustração) em que a geração de jovens adultos nascida no final do século XX procura refletir acerca do passado familiar, como uma forma de entender o presente (e o futuro) e a situação político-social vivida 50 anos após a revolução dos cravos.

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Entre 1933 e 1974, vigorou em Portugal um regime político ditatorial, conhecido como Estado Novo, implementado em pilares assentes na Igreja, no poder do exército e na polícia política. Num país regido pelo medo e pela pobreza, com uma elevada taxa de mortalidade infantil e de analfabetismo, cultivou-se em muitos sectores da sociedade uma atitude conservadora, de resistência à mudança, de submissão às leis e ao poder hierárquico. No entanto, milhares de portugueses viajaram além-fronteiras, arriscando *o futuro num lance de moeda ao ar* [1], pela procura de trabalho e melhores oportunidades de vida. A maior parte dos emigrantes portugueses eram oriundos de zonas rurais e periféricas, do norte e do interior do país [2, p. 55], pelo que esta viagem determinava uma mudança extrema entre a vida à qual estavam acostumados dentro de uma pequena comunidade, e a nova realidade, em muitos casos, em grandes centros urbanos ou em periferias de grandes cidades. Entre 1957 e 1974, houve uma onda de emigração portuguesa para vários países, denominada como *o salto*, numa alusão à travessia das fronteiras a salto [2, p. 74]. Como consequência do empobrecimento do país e da ausência de oportunidades de trabalho ou mobilidade social, milhares de portugueses abandonaram o seu país de origem com “a casa às costas”, sendo França um dos destinos mais comuns. Subjugados pela miséria e incerteza perante o futuro, realizavam uma travessia por montes e fronteiras para procurarem uma estabilidade que não tinham em Portugal. Emigrar significava abandonar as rotinas, os lugares e as pessoas familiares, mas também fundar um novo espaço de *produção de imaginário*: um *encontro* entre as imagens, os mitos e referências do país de origem e os de uma nova cultura, com diferentes linguagens, espaços e quotidianos.

Mas que repercussões teve essa experiência nas gerações de familiares que se seguiram? O que sobreviveu dessa realidade para as gerações que, entretanto, voltaram para Portugal ou aqui nasceram anos após o 25 de Abril? Para muitos netos de emigrantes, a emigração deste período constitui um manto de retalhos de histórias dispersas e imagens escassas, de vagas memórias e *pós-memórias*³ [3], de uma *mitologia familiar* íntima, mas também silenciosa ou mesmo oculta. Revisitar, resgatar ou interpretar essas memórias através da ilustração e da narrativa gráfica, implica um trabalho de pesquisa e investigação, mas também de especulação e invenção que encontra no desenho e nos seus processos de criação um terreno propício ao estabelecimento de elos entre fontes, documentos e imagens dispersas.

2. A emigração portuguesa em França na Ilustração e no Cinema de Animação

Enquanto tema, a Emigração tem sido abordada em diversos meios e géneros narrativos que recorrem ao desenho como forma de representação e comunicação, mas também como processo de investigação em torno do imaginário e da narrativa. Na ilustração, banda desenhada ou cinema de animação, são vários os exemplos de obras onde a experiência

³ Conceito desenvolvido pela autora Marianne Hirsch, acerca do modo como as histórias familiares que nos antecedem marcam e modelam a nossa identidade.

da emigração se assume como centro de uma reflexão sobre a identidade, sobre a relação entre o passado, o presente e o futuro.



Figura 1: Página da obra *Maria e Salazar* de Robin Walter, 2019.

Maria e Salazar (2019) de Robin Walter (Fig. 1) é outra narrativa gráfica que descreve a realidade da emigração portuguesa em França nessa altura. A obra conta a história de Maria, emigrante portuguesa, que trabalha como empregada doméstica na casa do autor e dos seus pais. A partir das suas memórias, Walter retrata essas vivências, mais especificamente, a venda da casa dos seus pais e o consequente momento de despedida da empregada Maria, à luz de uma relação de afetividade desta com a família. Ao longo da história, o autor retrata o fascismo que se viveu em Portugal nos anos

60, ilustrando o contexto e os motivos pelos quais Maria emigrou para França. Apesar da premissa pessoal e autobiográfica, esta obra cria um retrato coletivo dos emigrantes portugueses, “que espelha uma realidade que se repete ao longo dos séculos com outros povos. Maria serve como motivo para tratar do tema e a partir dela o autor investiga e desenvolve vários elementos associados à migração” [4].



Figura 2: Página da obra *Os/Les Portugais* de Olivier Afonso, 2022.

Olivier Afonso, em colaboração com o ilustrador Aurélien Ottenwaelter (de pseudónimo Chico), criaram a obra *Os/Les Portugais* (2022) (Fig. 2), que conta a história de Mário, emigrante que foge de Portugal rumo a França. Nessa viagem, Mário conhece Nel e os dois desco-

brem os bairros de lata e a dura realidade em que viviam os emigrantes portugueses nos anos 60. O autor, filho de pais emigrados – e que afirma

não ser português nem francês – conta a história dos seus pais, articulando-a com elementos de ficção de modo a abranger mais realidades de outros emigrantes portugueses, resultando num tributo à sua história, à dos seus pais e dos portugueses emigrados em França. [5]

No campo da animação, a curta-metragem *O Homem do Lixo* (2022) de Laura Gonçalves (Fig. 3), explora os testemunhos e memórias de familiares sobre o tio Botão, emigrado em França durante o período do Estado Novo, onde trabalhou como *homem do lixo*. Construído em torno da gravação áudio



Figura 3: Frame do filme *O Homem do Lixo* (2022) de Laura Gonçalves.

de várias conversas, as imagens do filme acompanham os testemunhos, promovendo um diálogo entre os momentos de reunião da família à volta da mesa, e a recriação de momentos relativos à experiência de emigração do tio. A realizadora parte assim de um trabalho documental e etnográfico, sustentado na tradição oral, utilizando o desenho como um elemento agregador e cúmplice da intimidade entre familiares, que participa como uma *forma artesanal de comunicação* [6], como mediação entre os relatos dos familiares e a interpretação desse universo num imaginário visual.

A mesa, à volta da qual a família se reúne, funciona como objeto simbólico, representando as ideias de comunhão e encontro. Esse lugar de reunião torna-se um espaço cénico, um palco, mas também uma espécie de tela onde as memórias são convocadas numa coreografia de movimentos e transformações. Na mesa, brinca-se com as escalas (e a importância) dos objetos e dos espaços, com o modo como as memórias ganham uma *outra vida* quando trazidas para esse espaço de representação: uma vida onde o real e o imaginado se fundem, tornada possível pela *celebração* do desenho e da narração. Os momentos de encontro à volta da mesa representam a possibilidade de manutenção das histórias familiares, lugar *performativo* onde o passado se atualiza, onde a memória *se cumpre* - no sentido em que se mantém viva, aberta à transformação e à *modelação*. Como propôs Maurice Halbwachs acerca do conceito de *memória cultural* [8], as nossas memórias individuais são, em muitos aspetos, espoletadas e modeladas por estímulos exteriores, pelo contexto familiar e social, por aquilo que somos convocados a recordar a partir de representações externas (fotografias, conversas, lembranças de outros). Ao contrário de uma reconstrução fiel e rigorosa de uma história familiar, *O Homem do Lixo* participa numa constelação de obras cuja relação com a memória se manifesta no caráter performativo da oralidade, da multiplicidade de representações da memória.

3. O desenho como Meio de Resgate e Interpretação de Memórias

“Vim aqui como alguém que anda atrás das suas recordações de infância, e que imagina que é talvez procurando a nossa história na dos outros que encontramos uma memória coletiva.” [1]

No campo da banda desenhada, existem vários exemplos de obras que se baseiam na interpretação de memórias de outrem, em que o desenho se assume como meio de resgate de histórias marginais ou ocultas. *Maus* (1986), a célebre obra de Art Spiegelman inspirada no relato de sobrevivência do pai aos campos de concentração da 2ª guerra mundial, mas também a vasta obra de banda desenhada documental de Joe Sacco, são exemplos de trabalhos construídos com o auxílio de diferentes fontes de informação. Ambos recorrem a entrevistas e testemunhos orais, imagens de arquivo, assim como ao potencial especulativo e inventivo do desenho.

Um exemplo que nos interessa abordar é a série de livros de Emmanuel Guibert sobre o seu amigo Alan Ingram Cope, um soldado norte-americano na 2ª guerra mundial, cujas histórias servem de base a três livros: *A Guerra de Alan* (2018), *A Infância de Alan* (2013) e *Martha e*

Alan (2018). Guibert parte das histórias narradas pelo amigo (gravadas em áudio de forma a respeitar a qualidade da sua narração), ilustrando diversos momentos das suas memórias autobiográficas: as histórias banais vividas como soldado em França durante a 2ª grande guerra, a infância suburbana nos Estados Unidos e a relação com a amiga Martha. Fascinado pelo carácter cativante das histórias narradas por Alan, Guibert explora algo que desenvolverá noutros livros, como em *O Fotógrafo* (2009) e em *Un Voyage entre Gitanos* (2012), a possibilidade de, como refere Pedro Moura (2008), “(...) beber das memórias de uma outra pessoa para depois as estruturar ele mesmo, como se as tornasse suas, transformando essa matéria - que julgaríamos inalienável - na sua própria expressão”. [8] Da mesma forma que a memória se manifesta em sensações e imagens fragmentadas, também a vida de Alan Cope é retratada em episódios e sequências não lineares, relatando eventos banais e comuns.

De certo modo, podemos intuir que, para o autor, o apelo à criação das imagens surge do carácter impreciso e fragmentário das próprias memórias autobiográficas de Alan. No olhar retrospectivo sobre a sua própria infância e juventude, o narrador mistura ficção e realidade, recordação e esquecimento, imagens nítidas e memórias difusas. Entre as *imagens vívidas que se geram na mente quando se está perante um bom contador de histórias* [9] e as lacunas e elipses presentes na narrativa, cria-se um espaço fértil para a imaginação e para os processos do desenho.



Nas estratégias gráficas utilizadas, Guibert alterna entre momentos onde o espaço é trabalhado de forma naturalista - recorrendo a fotografias e imagens de arquivo, propondo uma dimensão contemplativa, situando-nos enquanto leitores num tempo particular (com a sua luz local, com riqueza e diversidade icónica) - e outros em que os personagens são destacados do fundo, através da manutenção de uma representação gráfica sintética e coerente. Essa alternância entre o carácter tangível e descritivo de algumas memórias (porque ancoradas a lugares, espaços, imagens que pertencem ao imaginário coletivo - o subúrbio, a paisagem, as vestes características da época) e momentos onde os personagens parecem gravitar suspensos numa tela branca, parecem traduzir, de certo modo, a experiência de recordar e esquecer - ou, no caso de Guibert, o processo de *tornar visível* através do desenho, de especular, imaginar, jogar e negociar com os dados disponíveis ao autor.

Figura 4: Páginas da obra *La Guerre* de Alan Guibert (2008), de Emmanuel Guibert. Exemplos de duas estratégias de composição gráfica: à esquerda, a densidade de informação icónica situa-nos num tempo e lugar específico; à direita, o personagem aparece isolado num fundo branco.

“Desenhar é um processo no qual, geralmente, não tens êxito ao tentar reproduzir sobre o papel as imagens que tens no cérebro. O mais comum é que o resultado seja uma coisa diferente devido à intervenção da tua própria mão, tua incapacidade, teu estado anímico e mental e inclusive a sorte”. [9]

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A representação de memórias narradas por outros pode também ser abordada com a inclusão do desenhador na narrativa, documentando o momento da narração.

Numa banda desenhada presente no livro *Diário Rasgado* (2012), Marco Mendes explora o carácter documental da banda desenhada, narrando uma história contada pelo avô, sobre os seus tempos como jovem trabalhador nos campos do Alentejo. Partindo de uma filmagem realizada num encontro de família, o autor constrói uma pequena narrativa de duas páginas, onde o avô fala sobre as agruras da vida rural da época.

As imagens são sequenciadas numa abordagem próxima do *storyboard* cinematográfico, aproveitando a espacialização do tempo potenciada pelos dispositivos gráficos da banda desenhada: numa sequência de 4 imagens numa mesma página (Fig. 5), seguimos o movimento de rotação da câmara, que se aproxima progressivamente do avô, dirigindo a atenção para a mão que mexe o café, enquanto a voz se mantém presente pelo balão de fala. A imagem seguinte transporta-nos para o tempo relatado pelo avô, ilustrando uma possível memória interpretada à luz do imaginário poético e visual de Marco Mendes. Esta alternância entre a reportagem do *agora* e a representação de memórias longínquas, entre o visível e o imaginado, coloca a ênfase da narrativa no encontro entre gerações, no ato da escuta e da partilha - o avô conta a história em torno da lareira, como nas histórias que se contam à volta da fogueira (ou à volta da mesa, como no caso do *Homem do Lixo* de Laura Gonçalves).

Figura 5: Ratinhos, Marco Mendes, *Diário Rasgado* (2012)



Neste caso, a abordagem à interpretação de memórias de outros apresenta a possibilidade de conjugar dois tempos distintos: o do momento em que as recordações são acionadas em conversa e as memórias propriamente ditas. Ao representar os momentos de encontro, Marco Mendes situa-se na história, apesar de não se representar a si próprio: ele é o olhar de um corpo que está presente na sala onde as memórias se convocam, mas também é a mão que dá forma à evocação do tempo passado. A reportagem da cena familiar permite também olhar as personagens presentes como documentos de vivências anteriores - pelos gestos e expressões, mas também por aquilo que o espaço e os objetos contêm de herança cultural, de manifestação silenciosa de memórias individuais e coletivas.

4. Memórias da Emigração - Projeto Prático

“Memórias de Emigração” é um projeto de mestrado em Ilustração e Animação, cuja componente prática consiste na realização de uma narrativa gráfica baseada em testemunhos de familiares, sendo o trabalho de pesquisa e representação sustentado em diferentes processos do desenho. Pretende-se construir uma reflexão que parte das memórias da emigração em França de familiares próximos (entre o final dos anos 60 e o início da década de 80), conjugando a representação de memórias com uma reportagem do processo de pesquisa e interação com os intervenientes. Interessa-nos explorar e analisar as diferentes estratégias e processos utilizados no âmbito do projeto, tendo o desenho como centro de uma reflexão sobre a memória e as suas representações. O desenho desempenha aqui um papel fundamental na estruturação da pesquisa e da narrativa, estando presente em distintas fases do processo.

O carácter documental do trabalho, mais do que estar constrangido a uma ideia de verdade historiográfica, manifesta-se na intenção de documentar o próprio processo de pesquisa e investigação, articulando desenhos de observação e imaginação, apontamentos, esboços, mapas e diagramas, ensaios de composição e estrutura narrativa. Trata-se de um projeto onde a vertente metodológica e processual se assume como centro a partir do qual se pensa a memória cultural e os processos de representação.

Como primeiro passo do processo de pesquisa, a autora do projeto prático realizou uma residência em casa dos avós, período no qual foram feitos os primeiros desenhos e pesquisas. Ainda sem ideias definidas para além da vontade de investigar sobre o passado destes em França, realizaram-se conversas em torno desse assunto que resultaram na partilha de pequenas histórias, muitas vezes dispersas e interrompidas por afazeres que surgissem como prioridade na altura, como a preparação de refeições, idas ao quintal, etc. Para além disso, foram realizados desenhos de observação dos avós e da casa, de forma a estudar rotinas, gestos e expressões, dedicando um olhar atento ao modo como o espaço e os objetos que o compõem podem revelar, silenciosamente, memórias e heranças culturais (Fig. 6 e 7).



Figura 6: (à esquerda) desenhos de observação realizados durante o acompanhamento de tarefas domésticas; (à direita) representação de diferentes ações e movimentos dos personagens conjugados num único ponto de vista.

Num primeiro momento do processo de pesquisa, o desenho foi utilizado como forma de registar aquilo que estava ao alcance do olhar, como modo de *atenção e escuta*. Perante a dificuldade inicial em imaginar e representar os relatos das memórias dos avós, optou-se por *confiar* ao desenho de observação a tarefa de recolher informação visual sobre o processo de pesquisa. Os primeiros testemunhos sobre a experiência da

emigração resultaram em histórias simples e banais, incidindo em breves descrições da viagem de ida para França, observações sobre os padrões e os colegas de trabalho, o primeiro contacto com a neve - relatos episódicos e sem *conflito* aparente. Em resposta a essa dificuldade, optou-se pela inclusão da autora na história, direcionando a atenção do projeto para a narrativa do próprio processo de investigação.

Figura 7: Desenhos de observação e reportagem realizados durante a preparação de um almoço.

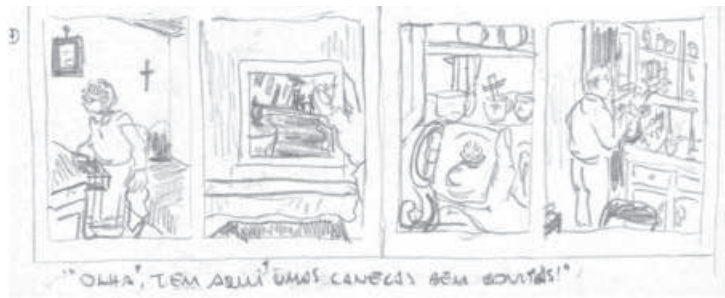


No decorrer do processo, a autora do projeto acompanhou os avós numa última visita à casa da bisavó materna, que pouco tempo depois seria vendida e, posteriormente, demolida. Nesse início de tarde, foi recolhido aquilo que faltava dos pertences que os meus avós quiseram guardar: entre canecas, - algumas delas alusivas à revolução dos cravos - fotografias e roupas antigas. A casa constitui uma constante para os seus avós: esta foi a sua casa antes da emigração para França e após o retorno a Portugal durante uns tempos. Por este motivo, esta experiência revelou-se uma motivação para contextualizar a história que se pretende contar. As Fig. 8 e 9 ilustram as últimas imagens da casa:

Figura 8: Conjunto de desenhos de estudo da casa da bisavó, entretanto demolida (visão geral, divisões e objetos).



Figura 9: Esboço de um momento de transição do tempo atual para a representação da memória. A fotografia e a caneca alusiva à revolução dos cravos que os avós da autora encontram na casa da bisavó, são elementos que remetem para as memórias do passado, mais especificamente, para o dia 26 de abril de 1974, quando souberam da notícia da revolução.



Para além de desenhos de observação, a elaboração de diferentes *storyboards* respondeu à necessidade de pensar a estrutura narrativa, de modo a articular os diferentes momentos históricos que a compõem. Ou seja, o *storyboard*, para além de funcionar como uma planificação da narrativa e

do livro, assume-se como uma forma de pensar e especular diferentes possibilidades e sentidos poéticos: como uma forma de reflexão e investigação.

Durante o processo da recolha e tratamento da informação, descobriu-se e desenhou-se uma fotografia antiga do avô da autora em França. Considerou-se que esta imagem se distinguia das outras pelo seu cenário: onde se vê o seu avô, de braços cruzados, em frente ao que parece ser um ambiente de obras.

Quando questionado sobre ela, o avô da autora não soube esclarecer o seu contexto. Assim, sem saber as condições da fotografia, apercebemo-nos da possibilidade de interpretação e de reinvenção do seu contexto. Este assunto foi discutido numa das reuniões de orientação no âmbito deste projeto, e foi lançada a ideia de *desdobrar* imagens: de dar continuidade às imagens de arquivo que foram recolhidas do passado dos avós da autora. Em resposta, procedeu-se ao exercício do desdobramento dessa imagem (Fig. 10).



Figura 10: À esquerda, apresenta-se o desenho realizado a partir de uma fotografia do avô da autora em França. Os restantes desenhos são os exercícios de desdobramento dessa fotografia.



Figura 11: Exemplos de páginas finais do livro onde se recorreu ao desdobramento de fotografias de arquivo.

Este exercício serviu de base para a construção de um conjunto de narrativas gráficas que ilustrassem as memórias relatadas pelos avós da autora. Verificou-se que o *desdobramento* das fotografias de arquivo promoveu um maior envolvimento da autora na história, através da apropriação, expansão e recriação dos cenários e experiências dos avós em França. A Fig. 11 ilustra duas das páginas finais do livro, onde se confere o uso desse exercício.

5. Considerações Finais

Fruto da natureza de investigação e de resgate de memórias, este trabalho permitiu uma reaproximação ao passado das gerações que antecederam a autora, criando uma familiaridade com um período da vida deles que não presenciou. Como tal, se a posição assumida nas conversas se limitava à de ouvinte das histórias que os seus avós contavam, a fase do desenho - por requerer uma apropriação e interpretação dos sentidos - potenciou a participação na história, quer enquanto personagem, desempenhando um papel ativo na narrativa, quer enquanto narrador observador, represen-

tando os factos a partir de um olhar externo. O desenho como meio de representação e reflexão revelou-se útil, como resposta à dificuldade sentida pela autora na representação do passado dos seus familiares.

Contudo, há que referir a existência de dificuldades associadas à proximidade com os protagonistas da história, que se revelaram um obstáculo na imersão inicial nas histórias do seu passado. Por outro lado, face a ausência de grandes *conflitos* nas suas vivências, também se sentiu dificuldade na representação das coisas banais do quotidiano de forma cativante, tornando-as apelativas para o leitor comum. Neste sentido, a consulta das diferentes narrativas visuais que referimos foi fundamental, na medida em que possibilitou respostas às limitações referidas.

Ainda numa fase de desenvolvimento, consideramos que o trabalho realizado até à data tem-se revelado uma experiência enriquecedora. Um percurso repleto de desafios e da superação dos mesmos, que permitiu um novo olhar e entendimento do presente e do passado da história familiar da autora.

Ambicionamos a inclusão de mais histórias que retratam as memórias de emigração dos seus avós, de olhos postos na sua conclusão e publicação, de modo a devolver aos seus familiares este período das suas vidas.

6. Referências

1. Vieira, J. Fotografia Rasgada. Animais AVPL. La Huit. (2002).
2. Dias Lopes, M. Memórias do salto: memórias da emigração ilegal para França, entre 1954 e 1974. (2016)
3. Hirsch, M. Family Frames – Photography, Narrative and PostMemory. Cambridge: Harvard University Press (1997)
4. Alves, C. Maria e Salazar - Robin Walter. Rascunhos. (2018). Disponível em: <https://os-rascunhos.com/2018/12/20/maria-e-salazar-robin-walter/> consultado em março de 2024.
5. Rosendo, J. M., Guilherme, J. *Les Portugais*. BD em francês retrata vida dos emigrantes. RTP Notícias. (2022). Disponível em: https://www.rtp.pt/noticias/cultura/les-portugais-bd-em-frances-retrata-vida-dos-emigrantes_v1384166 consultado em março de 2024.
6. Benjamin, W. Sobre Arte, Técnica, Linguagem e Política. Lisboa: Relógio D'Água. (1992)
7. Halbwachs, M. *On Collective Memory*. Chicago: The University of Chicago Press. (1992)
8. Moura, P. *La Guerre d'Alan. Emmanuel Guibert (L'Association). Ler BD*. (2008, Junho 26). Disponível em: <http://lerbd.blogspot.com/2008/06/la-guerre-dalan-emmanuel-guibert.html> consultado em janeiro de 2023.
9. Guibert, E. *El Hombre Tranquilo Y las Pequeñas Cosas* - Entrevista com Alberto Garcia Marcos, in GARCIA, Santiago. *Supercómic, Mutaciones de la Novela Gráfica Contemporánea*. Madrid: Errata Naturne (2013)

The Language of Culture: Semiotic and Semantic Graphical Perspectives on Palestinian Traditional Costume Motifs and Patterns



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Abstract

This article details key exploratory components of a study that focuses on the semiotic, semantic, and graphical dimensions of *Tatreez*, a traditional Palestinian embroidery. The craft embodies culturally specific meanings, often employing symbolic or expressive abstraction to convey their significance within the garment's form and function. Across generations, Palestinian women have skillfully embroidered symbols and patterns onto their dresses, expressing their creativity and cultural identity, laden with social and intellectual awareness.

In view of *Tatreez*'s ongoing improvidence in Palestine Design and the recent state of conflict, the craft faces a critically uncertain future. The study accordingly argues that design-led interventions are pivotal in reviving and reinstating these motifs within contemporary creative and cultural discourses.

The research correspondingly explores the symbolic language embedded in Palestinian motifs from a design perspective, with the aim of offering new insights and opportunities for the sustainment of the craft and its surrounding visual and material culture. The global objective is to inspire designers and artisans to further extend their creative capacities by reclaiming cultural narratives and emphasising Palestine's visual legacy. In this regard, the study posits that the patterns reveal a sophisticated graphic system that provides a wide range of design possibilities.

1. Introduction

This paper addresses the renewal of Palestinian motifs found in traditional *Tatreez* embroidery within modern contexts of visual communication. The aim of the underlying research is to investigate how these motifs can be incorporated into daily design practices while maintaining their authenticity. The study uses several methodologies that combine reflective practice, visual analysis, creative experimentation, and practical design. The research explores how symbolic patterns specific to ethnic communities can function as ways of recording history and narrating cultural heritage.[1] Haifan et al. (2023) respectively consider that “this can give designers a larger palette of patterns, facilitating greater creativity and

Keywords

Visual Representations;
Design Research; Visual
Culture; Palestinian
Tatreez; Cultural Semiotics

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precision when incorporating the associated visual elements within both traditional and contemporary application scenarios”.

Traditionally, *Tatreez* is an embroidery craft exclusively practised by women. The pattern, content, and sequencing of designs and motifs are usually handed down from mother to daughter within a family. *Tatreez* is usually practised in groups, resulting in a wide repertoire of motifs alongside polishing individual skills.

Embroidery stitches, motifs, colours, and arrangements have varied across space and time, with regional variations and period fashions impacting the look and style of the dresses and the embroidery patterns. The embroidery is placed on the surface of the garment. Embroidery within a square on the front is called *quba* or the dome. On the sleeves, it is called *akmam*. On the sides, they are called “*banayq*”; embroidery is also done on the lower back area of the dress[2].

Fabrics for embroidery were traditionally handcrafted through handlooms. They were typically thick and distinguished by the intersection of warp and weft threads. Notable fabrics include monastic, *Magdalawi*, *Hurmozi*, and vegetable cloth. In addition, materials employed include *Docupet*, *carmanda*, *velvet*, *ink*, and *muslin* cloth.

In addition to performing a primary role in showcasing skill and elegance, the traditional dress also has underlying cultural indicators, including a measure of personal wealth [3] and an indicator of marital status and village. These motifs and patterns reflect elements and aspects of religion and society. Therefore, these indicators play complementary, aesthetic, historical, social, and communicative roles [4] in *tatreez* designs.

Until 1948, Palestinian embroidery was mainly used to decorate the clothing of rural and Bedouin women, including the dress, *abaya*, headdress, and pants, in varying styles according to geographical regions. Embroidery decorated the dress's front chest, shoulders, sides, and sleeves, in addition to floral vines and veins that decorated the front, back, sides, and hem of the skirt. later than 1948, it became a symbol of an ongoing Palestinian struggle and resist-



Fig. 1. Thobe abyad (white dress) from Beit Dajan, Linn with couching and cross stitch with amulet pattern on both sides of the skirt (circa 1920), from Palestinian Embroidery (p.48), by Widad Kiwar and Tania Nasir, 2021

ance [5] “Women began to embroider Palestinian national symbols and icons onto their gowns to protest Israeli repression and encourage women’s participation in the resistance [6] In 1987, the first Palestinian Intifada erupted, leading to intense confrontation. As a result of the repeated Israeli violations, Israel banned the display of the Palestinian flag. Then, women invented a way of resistance by embroidering the flag on their garments, and thus, embroidery gained new strength as a new means of resistance.

Political upheavals and ensuing social and economic changes of the second half of the twentieth century impacted the style and dress

of Palestinians and village women in particular, ultimately leading to an intense commodification of embroidery with radical shifts in its use and meaning [7]. As a cultural marker, the embroidered dress carries a deep symbolic meaning. The research deconstructs Tarteez's symbolic language form to situate the connotation and implication of its symbology from a graphic design perspective.



Red is one of the most frequently used colours in Palestinian embroidery. Violet is also commonly used to embroider garment veins in its various shades. Additional colours such as pink, blue, green, brown, black, and white adorn the veins, each varying in intensity. In embroidery, elements are fundamental shapes for crafting decorative units, akin to letters forming words and words forming sentences. These elements,

composed of units, contribute to the overall embroidery design. Since elements create decorations on fabric through intersecting horizontal and vertical threads, they play a crucial role in shaping these decorative motifs. Palestinian embroidery encompasses seven key components: dot, line, rectangle, cuboid, rhombus, squares, and triangles[8].

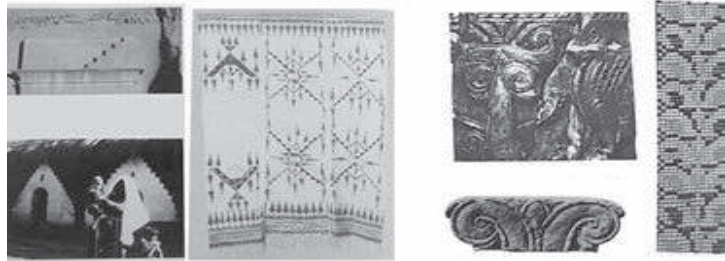
Interpretations of these symbols and motifs are relatively uncommon in Palestinian societies. While some well-known symbols exist, the interpretations of all these motifs require in-depth research. These decorations may have been familiar and had precise meanings for rural women in the early twentieth century; however, they faded due to factors such as commission and new fashion trends. Understanding these meanings is crucial, and the research will show some examples of the origins of some of these motifs found in the Palestinian dress.

In Figure 3, we find a drawing of the palm tree. We see embroidered stitches of the palm tree drawing in both the Ramallah dress and the rag, as it resembles an eighteenth-century drawing embroidered in the city of Marrakesh, and the drawing of the stairs is one of the drawings that were embroidered on dresses and veils in the city of Ashdod and other cities in Gaza. This drawing resembles decorations on mud houses in Ashdod and the Gaza region at the beginning of the twentieth century. These decorations date back to ancient history and resemble the drawings carved on the walls of the Nabataean city of Petra in Jordan.[9]

Another example is the Acanthus leaf and the cup. The Acanthus drawing is repeatedly embroidered on Palestinian dress, especially in Hebron and the Negev regions. This drawing was copied from old drawings of the Acanthus leaves and the cup in ancient excavations in several regions of the Middle East. relief carving on ivory in Syria. In the year 727, the cup symbolised prosperity.[9]

Fig. 2. Traditional Dress from Ramallah with Head Shawl, from *The Queens of Silk* (p.52), by Osama Silwadi, 2012

Fig. 3. A picture showing the Palestinian palm tree drawing. On the side are pictures showing the origins of that drawing: a palm tree engraved on ivory from Nimrod from the eighth century BC and a Proto-Aeolic from Hazor with a drawing engraved on stone from the tenth century BC., On the left are drawings of the veil of Ashdod, with drawings of a staircase on it, similar to the drawings of houses in the area, as in the pictures showing the home of the city of Ashdod. from the book *Traditional Palestinian Dresses Origins and Development* (p.28-29), by Hanan Munayyer, 2020



2. Section 2: The uniqueness of “Tatreez” and the need for its safeguarding

Nasir et al.[10] despite the strong presence of embroidery in modern Palestine, what is seen today in embroidery works represents only a fraction of what once was a vibrant heritage. Today, the cross stitch (X) embroidery style on handicraft products is prominent and important. In contrast, other more complex embroidery methods are rarely used. The passing of previous generations of women embroiderers who mastered such stitches has aggravated the issue significantly, and at the moment, the number of active practitioners has drastically reduced.

Cultural appropriation and geopolitical threats have exposed the remaining culture to imminent dissipation. In this regard, the research notes that ongoing attempts at displacement and the overwhelming challenges faced by Palestinians have accentuated the urgency of preserving such key aspects of Palestinian identity. Highlighting its unique features and details is, therefore, pivotal. Preservation actions may not just remain a cultural act but become an extended form of resistance.

Recent interventions have highlighted the necessity of registering and documenting heritage to preserve Palestinian visual identity. These practices fall within a broader framework of sustaining the local community’s heritage, identity and existence. In this regard, many parties, led by the Palestinian Ministry of Culture, have supported and strengthened Palestinian communities to protect their cultural identity.

The visual representation process has been advanced by contemporary fashion designers who have modernised the application of Palestinian motifs and patterns, incorporating them into modern discourses. Fashion designer Omar Khoury, for instance, has historicised and politicised embroidery through “anti-fashion” design to “resist systematic attempts to erase Palestinian culture.” Similarly, Nathalie Tahan has modernised cross-stitch production by printing digital pixels of *tatreez* motifs on gowns and dresses, thereby digitalising their visuality. The Naqsh Group, an interior design foundation, has etched Tatreez decorations in wood, stone, brass, and marble furnishings, reinterpreting their aesthetics in parallel categories. [11]. These examples demonstrate the flexibility and adaptability of embroidery motifs and patterns in modern design contexts. They support the research’s argument for its applicability in more graphic contexts.

There is a growing global interest in preserving Palestinian heritage, and national heritage is now becoming a priority for governments and world organisations [11]. Cultural identity requires conservation, preservation, presentation, and transmission to future generations. In this context, sustainable heritage is the identification, conservation, preservation, presentation, and transmission of the natural and cultural environment to future generations. [12], wherein design can be employed strategically to produce a sustainable environment that provides suitable conditions for heritage knowledge management, progress and innovation.

3. Section 3: Overall doctoral research objectives and methodologies.

One of the project's main objectives is to enhance and disseminate the sense of Palestinian visual identity in daily life by reinventing and representing traditional Palestinian motifs. The research argues that the visual design approach facilitates the representation of conventional visual cultural symbols and their innovative employment in various design areas.

The project's methodological approach used so far can be summarised in the acronym "3D," which stands for Documentation, Dissemination, and Design. This approach is a comprehensive framework for study, sharing, and creative interaction pertaining to the intervention context.

The first pillar of the methodological approach includes documentation of various aspects related to Palestinian embroidery craft:

Data, articles, and books have been collected, producing an image bank of traditional motifs and patterns. The corresponding source material archive of motifs is being examined to serve as a basis for further research and analysis.

Fieldwork has included visits to embroidery hubs, workshops, museums, schools, and galleries. During these visits, artisans and experts in the field were interviewed in structured and semi-structured interviews to gather oral histories and technical and historical information.

The second aspect of the approach focuses on dissemination, which involves sharing documented information with craft practitioners, designers and a community of those interested in embroidery and design. This has been undertaken in various forms, including meetings, interviews, group workshops, exhibitions, and presentations, and published on social media platforms and online sites. The central idea has been to raise awareness, promote dialogue, and involve diverse groups in the study. Publishing has also played a crucial role in ensuring that Tarteez-related knowledge and information is available to a significantly greater number of current and future designers, scholars, and practitioners of the craft.

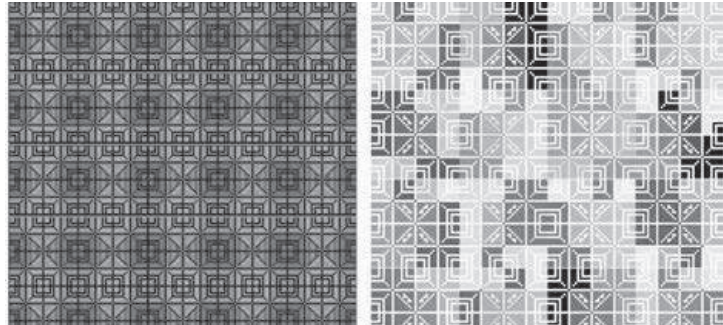
The third component of the methodology, design, emphasises the importance of employing design principles to facilitate interpretation. The visual design process has included aesthetic explorations through manual and digital rendering. It has also comprised the implementation of practical graphic applications to analyse the process of applying new motifs; these will be tested across multiple design areas, including graphic design, packaging, interior design, textile design, jewellery, and tile design.

4. Section 4: Visual Research and Exploration

Cultural symbols are images that have a special meaning to a group or society [13]. They include symbols within an artwork (in this case, a garment) that are expected to express profound messages and evoke emotional responses. Deciphering the meaning and appreciating the artistic merit of Palestinian embroideries requires understanding their cultural significance. Therefore, using visual semiotics to analyse symbols and the basic conventions within Palestinian embroidery can uncover layers of meaning that may otherwise go unnoticed.

Defining these codes requires articulating insights from art history, cultural anthropology, and graphic design. The process involves examining the artwork's historical context, understanding the significance of individual symbols within this framework, and considering how they contribute to broader narratives or themes. Analysing symbols, signs, and images through semiotic analysis allows a better understanding of their basic meanings.

Fig. 4. A Traditional Palestinian motif is explored through experimentation using digital tools to derive new pattern variations.:
Artwork created by the Author.



The research has also involved visual analysis and a breakdown of the motifs into individual units. One of our primary data sources of motifs has been the Tirazain Digital Archive[14] an online resource that includes more than 1,000 traditional motifs collected and digitalised from Palestinian dresses. The motifs include a comprehensive collection of visual elements representing plants, animals, birds, everyday objects, and abstract patterns. Accordingly, the research has added the archive to its image bank and categorised the images based on regional provenance, stylistic attributes and typology of authorship (organisation/individual artist).

Driven by this potential, the research now focuses on documenting and visualising traditional motifs, offering Palestinian designers an accessible digital library of contemporary new motifs and pattern variations across multiple formats so they can employ them in a wide range of applications.

Through visual experiments and explorations, the research studies the connotations and adaptivity of Palestinian dress motifs, analysing their geometric and artistic composition for cues to new implementation possibilities for enhancing the presence of Palestinian symbolism in modern creative contexts.

The methodology has also involved a comprehensive review of visual resources, including books, museum collections, and online exhibi-



Fig. 5. A Traditional Palestinian motif is explored through experimentation using digital tools to derive new pattern variations.: Artwork created by the Author.

tions. It focuses on fashion designers, painters, and abstract artists who incorporate traditional motifs into their artworks. In the recent past, the research has also looked at works by members of the Palestinian diaspora, who have taken to Tarteer embroidery as a form of support towards the Palestinian cause. This has offered a fresh perspective for the research.

The research considers deconstructing Tarteer's visual grammar as a means for situating the connotation and implication of its symbology from a graphic design perspective, including identifying repeated colours, shapes, and images, which combine to form a network of signs that convey messages to viewers. For example, red is one of the most frequently used colours in Palestinian embroidery and is often complemented by various shades of violet. Additional colours such as pink, blue, green, brown, black, and white are also employed with various levels of intensity, often signifying the origin of the artwork [8]

In embroidery, elements are fundamental shapes for creating decorative units, akin to letters forming words and words forming sentences. Palestinian embroidery encompasses seven key elements: dot, line, rectangle, cuboid, rhombus, squares, and triangles. , which are decorated on fabric through intersecting horizontal and vertical threads.

Many techniques have been applied during the visual exploration and design process, including being guided by the rules of Islamic decorations, which rely on mathematical and geometrical aspects. Pattern creation tools in contemporary design programs such as Repper, Adobe Illustrator, and Rhino have also been used to generate new and, in some cases, unexpected formations. The grid system has been relied upon in exploring new patterns, offering a structure and rhythm to arrange the placement and size of motifs and patterns. Alongside principles like symmetry, they have been meticulously examined. In this regard, studying various modern and postmodern design movements, especially Memphis postmodernism, has further broadened the spectrum of pattern development options.

The incipient phase of visual deconstruction was the selection of motifs with geometric shapes, which is conducive to repetitions across diverse patterns, creating an infinite continuum of visual motifs. Additionally, segmentation was achieved through colour, ranging from monochromatic to two or more hues. This study examined these motifs'

interconnectivity, compositional arrangement and compatibility with contemporary visual compositions.

The patterns of Palestinian motifs were designed and created using various methods, including hand sketches, digital tools, pattern design platforms, and stitch software. The visual exploration process continues until a new pattern shares the same soul and theme as the original; the narrative is the same on both a historical and visual level.

The primary outputs of research and visual analysis are a mixture of motifs and repeated patterns, which form a contemporary visual element extracted from traditional Palestinian dress. Thus, a modern visual composition is created that may offer new possibilities for designers from various fields.

The new visuals were created by mixing traditional motifs and modern graphic design styles and trends, representing both styles without losing the motif's authenticity. This research marks a pioneering effort to contemporise traditional motifs in modern graphic design practices. While designers have included these motifs in their artwork in the past, such efforts are limited. In contrast, the motifs' adaptivity can add value to the pattern design.

Fig. 6. A Traditional Palestinian motif is explored through experimentation using digital tools to derive new pattern variations.
Source: Artwork created by Author.



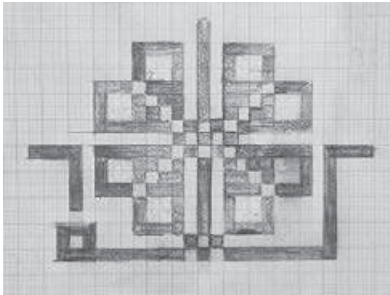
When modern interpretation is embedded in creative practices, which are destined primarily for graphic designers, interior designers, artisans, and those working in the field of design to use them as a basis for building designs that reflect the values and heritage of Palestinian culture.

This, in turn, will enhance the presence and dissemination of these symbols, whether in packaging, branding, decoration, or even advertisements. This will gain a greater understanding of the formation of traditional motifs and symbols, enhancing the presence of these motifs in the contemporary lifestyle and preserving them from fading away.

Various approaches were employed during the visual exploration and design process, including abiding by the rules of Islamic decorations, which rely on mathematical and geometrical components. Pattern creation characteristics were also used. In some design programs, pattern-creator applications were employed.

The grid system was frequently relied upon while applying new patterns, symmetry, and other design principles. The motifs were unpacked to reach the main design elements, an attempt was made

to rearrange them visually. Various modern and postmodern design schools were also analysed and studied.



The primary outputs of research and visual analysis are a mixture of motifs and patterns. These elements form a contemporary visual element based on their elemental composition of a motif or group of motifs extracted from traditional Palestinian dress. The research is also acutely aware of the alignment of its thematic premise and intention

Fig. 7. Traditional Palestinian motifs representation using graph grid paper. created by Autor.

with global discourses of solidarity with Palestine. A reinterpretation of Palestine's material and visual heritage beyond those considered iconic may well become an innovative pathway for expressing Palestinian identity.

The research intends to survey ordinary people, embroidery artisans, and designers interested in this field to examine the extent to which the new decorations and patterns preserve the originality and colours of the original decorations.

The research will seek, through new visual contributions, to preserve the general form of the decoration, even if manipulations or colour changes are made, and of the contributions of modernisation to these patterns and decorations is that preserving the visual heritage is very important without losing the cultural message that these decorations carry.

5. Conclusion

Palestinian rural women have excelled in embroidering these decorations for centuries, combining meticulous craftsmanship with cultural and social meanings and reflections. These designs represent artistic creativity and are effectively a spoken language created by women that tells the history of an entire society over time. They are, therefore, a physical manifestation of lived experiences that are uniquely individual as they are simultaneously shared. The onus is on the present generation to inscribe this discourse in contemporary discourse through multilateral intervention, which can sustain and activate the craft's intrinsic values.

The research expects that through continued mediation in this space, opportunities for advancing research and design practices can emerge. Art and design, in particular, can translate the craft and its specificities into a generative resource contextualised for the digital era, which can have direct consequences on safeguarding tradition, visual and craft heritage, and localised values and identity.

The research plans to develop and organise workshops that bring together artisans, design students, and practitioners to foster interdisciplinary collaboration with the respective communities of practice. These strategic workshops will further explore complementarities between craft and design in terms of mutual learning and innovation.

Reviving Palestinian heritage motifs is an artistic and creative endeavour and a vital and practical step in preserving the Palestinian visual identity and resisting erasure and cultural replacement by opening horizons of cooperation between multidisciplinary approaches. This provides a promising path to ensuring the continuation of the craft heritage and inspiring generations.

This research is part of an ongoing doctoral study at the University of Porto.

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6. .References

1. Haifan S., Ramli M.F., and Hajianfard R. (2023) Fabric Icons:The Impact of Traditional Costume Patterns on Ethnic Identity of the Sichuan Qiang Community, *Global Journal of Arts, Humanities and Social Sciences*, Vol.11, No.8, pp.42-51
2. Wafa. (nd). Palestinian Folk Embroidery Art. Wafa. https://info.wafa.ps/ar_page.aspx?id=9516
3. Akinbileje, T.Y. (2014), "Symbolic values of clothing and textiles art in traditional and contemporary Africa", *International Journal of Development and Sustainability*, Vol. 3 No. 4, pp. 626-641.
4. Oladoyin J. Braide O.O. (2019): Symbol, Pattern and Design as Visual Representations in Yoruba Cultural Art in Southwest Nigeria. *Grasport Journal of Art and Technology*, Department of Fine and Industrial Art, University of Uyo, Vol. 1 (2) ISSN 2705-1633
5. Ulloa, S. (2020). *Tatreez Online The Transformation of a Palestinian Tradition* [MA Thesis]. Stockholms University.
6. Abu-Ayyash, S. (2024). Representations of Palestinian culture in the digital Public sphere: A Semiotic Analysis of the Thobe and the Keffiyeh. *Social Media + Society*, 10(1). <https://doi.org/10.1177/20563051231224274>
7. Abouali, D. (n.d.). Palestinian embroidery. Interactive Encyclopedia of the Palestine Question- Palquest. <https://www.palquest.org/en/highlight/14497/palestinian-embroidery>
8. Anani, N., & Mansour, S. (2011). *Guide to the Art of Palestinian Embroidery* (4th ed.). Al-Ahlia For Publishing & Distribution.
9. Munayyer, H. (2020). *Traditional Palestinian dresses: Origins and development* (1st ed.). Arab Institute for Research & Publishing.
10. Tamari Nasir, T., Nasser-Koury, O. J., Yamada, S., & Kawar, W. (2019). *Seventeen embroidery techniques from Palestine* (1st ed.). Sunbula.
11. Farah, R. (2021, January 26). Heritage is to art as the medium is to the message: the responsibility to Palestinian Tatreez. <http://thirdtext.org/>. <http://www.thirdtext.org/farah-tatreez1>
12. Laroche, F., Bernard, A., & Cotte., M. (2006). A new approach for preserving the technical heritage. In *VRIC* (Vol. 1). Hal.
13. Khalid, A. A. (2021). Conservation Challenges and Emerging Trends of Digital Preservation for UNESCO Architectural Heritage, Pakistan. *Conservation*, 2(1), 26-37. <https://doi.org/10.3390/conservation2010003>
14. Reynolds, A. (n.d.). Semiotics in Art and Design: Understanding the Power of Symbols and Signs. <https://adrianreynolds.ie/>. Retrieved October 14, 2023, from <https://adrianreynolds.ie/semiotics-in-art-and-design/>
15. Masri, Z. (n.d.). Tirazain. <https://tirazain.com>; Zain Masri. <https://tirazain.com/>

Ilustrações hápticas - Leitura Multimodal para Crianças com Deficiência Visual



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Abstract

The children's book market has been growing in recent years, and the quantitative and qualitative diversity of its offer, as well as the narrative preponderance of its visuality, are noteworthy. However, for children who are blind or have low vision, the Portuguese market doesn't have the same offer. For a child with some kind of visual impairment, the visual perception of the illustration is greatly compromised. We can say that illustrations make a second reading possible, boosting the words through the image and strengthening the reader's imagination. However, this article aims to identify situations in which lack of sight or visual impairment is a difficulty in interpreting the illustration, when the latter has no tactile relevance. When it is impossible to see, touch is the most active sense in a visually impaired child, as it is through touch that the reader is able to perceive their surroundings. Therefore, the tactile book is a multisensory object, providing stimuli through different senses, opening up the opportunity for new exploration and tactile perception, which can also arouse the curiosity of the normal sighted reader. This article is part of a master's project entitled "The book-object and multimodal reading for blind children" (IPCA- Master's Degree in Illustration and Animation) and the research will focus on collecting and analyzing objects aimed at this target audience, as well as reflecting on the concept of haptic illustrations and characterizing tactile illustrated books for blind and low-vision children, in which a qualitative analysis will be carried out that will represent two distinct experiences. The first will cover the interpretation of inclusive books available on the market and the second will analyze entities that create books for this audience, in order to understand the Portuguese state of publishing for these consumers. These studies will focus on the national context and, in addition, will include an analysis of activities developed with a visually impaired audience and international case studies. In this way, the aim is to understand the possibilities a blind child has to be more autonomous in interpreting the elements represented in children's books, as well as in understanding and studying the illustrations applied to these media.

Keywords

Haptic Illustration; Visual Impairment; Multimodal Reading; Blind Children; Illustration

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1. Introdução

A leitura é um processo sensorial que descodifica palavras e imagens. No caso das crianças cegas ou com baixa visão, o tato é o sentido usado pelos dois públicos como canal de substituto e/ou complemento da visão, pois ocupa um papel importante no conhecimento do que o rodeia e na sua aprendizagem [1].

Na maioria dos casos, o primeiro contato com livros é feito durante a infância, quando um adulto age como intermediário entre o leitor e o texto [2]. Esta prática costuma ser iniciada com histórias infantis, sendo estas lidas em voz alta e vistas como “a maneira ideal, quase perfeita, de estabelecer uma relação amigável com a leitura e os livros, e, consequentemente, de ter acesso ao conhecimento” [2 p.113].

Vygotsky (1983), defende que esta prática ao ser realizada por um adulto, ajuda as crianças a prepararem-se para realizar tarefas sozinhas. Deste modo, a leitura e o acesso ao livro mostram-se como possíveis uniões entre elas e o universo literário.

O livro infantil, ao longo dos anos, tem sofrido alterações: as narrativas mudaram, estas passaram a ser pensadas especialmente para cada faixa etária. Mas esta prática não é acessível a todas as crianças, nomeadamente as cegas e de baixa visão.

Esta investigação tenta demonstrar que, apesar de todos os avanços tecnológicos e das inovações na área de acessibilidade para crianças com deficiência visual, o livro continua a ter um papel importante e insubstituível. No caso dos livros especialmente pensados para crianças com deficiência visual, importa dizer que estes apresentam características próprias, como ilustrações com materiais e texturas variadas, textos escritos em braile ou texto ampliado [3].

Stockmanns (2019) explica que mesmo com novos métodos de leitura dos livros escritos em braile, como a escrita ampliada, imagens táteis e narrações em áudio, o livro convencional com texto e imagem continua a ter a sua relevância. Pois este permite que não caiam em desuso, o que acaba por impulsionar um maior número de leituras a um número maior de crianças, se tornem novos leitores, com ou sem deficiência [4].

A deficiência visual pode ser dividida em duas categorias, cegueira e baixa visão. A cegueira implica uma perda total da visão, sendo o braile, nestes casos, a forma de leitura e de escrita; já a baixa visão é caracterizada pela dificuldade do funcionamento visual, mesmo sendo a pessoa capaz de usar a própria visão para executar tarefas, esta pode sofrer de uma diminuição ou da perda total da sensibilidade dos contrastes, de uma anomalia na perceção das cores, da sensibilidade à luz, um campo visual diminuído e até ter dificuldade para ler, conduzir, entre outros, tendo a necessidade de usar recursos ópticos [5].

A leitura através das mãos é dada pelo processo da percepção háptica, que se pode definir como a perceção da informação obtida exclusivamente através do uso ativo das mãos e dos dedos. Neste processo, a receptividade passiva de outros sentidos não é tida em consideração. Complementar ao conceito da percepção háptica, existem as nomenclaturas de tato em movimento, tato dinâmico e tato proposicional, que se

referem ao ato de conhecer através da mão, numa primeira fase, e posteriormente com a utilização dos dedos [6].

A necessidade de estudos académicos centrados no domínio da ilustração pensada para este público-alvo motiva-nos na realização da análise sucinta que se segue e que tem como objetivo uma análise qualitativa e de conteúdo teórico de diferentes estudos centrados nos livros ilustrados hápticos. De um modo complementar, procurar-se-á entrar em contacto com associações responsáveis pela criação de artigos acerca deste género de livros, assim como das próprias publicações e caracterização das mesmas. Através de reuniões presenciais, pretende-se descrever uma atividade previamente realizada, a fim de oferecer insights sobre estas práticas e experiências de leitura tátil. Nesta atividade estiveram envolvidas duas crianças cegas, na qual lhes foram colocadas questões acerca das suas rotinas e dificuldades, mas acima de tudo atinentes à exploração de livros em pontilhado, sem qualquer tipo de apoio, a fim de perceber quais eram as suas perceções.

Deste modo podemos concluir que as metodologias usadas neste estudo consistem na revisão sistemática da literatura, estudo de campo a partir de análise empírico e entrevistas.

2. A evolução dos Livros Ilustrados com Imagens Hápticas

À luz da psicologia do desenvolvimento percebemos que, na primeira infância, os conhecimentos são obtidos maioritariamente por via da ação lúdica, através de experiências diretas providas dos sentidos. As informações sensoriais fomentam, portanto, o desenvolvimento humano, a nível cognitivo, emocional e social. A aprendizagem depende da integração do processo sensorial, ou seja, da capacidade de recebermos informações sensoriais de como as processamos e integramos (movimentos, cheiros, toques, sons, entre outros) [7].

Este é o processo comum de aprendizagem dos normovisuais. Quando existe a ausência de um dos sentidos, neste caso a visão, é essencial a realização de adaptações para auxiliar o processo de aprendizagem [8].

Os livros ilustrados táteis são obras criadas para crianças com deficiência visual, expondo características específicas, como ilustrações feitas com diversos materiais e texturas, textos impressos tanto em braille, como com tinta com letra mais ampliada [3]. Uma das primeiras obras adaptadas com produção tátil foi *Pat the Bunny* (1940) por Dorothy Kunhardt, o livro dispunha do toque do pêlo de um coelho. A obra *Goodnight Moon to Touch* - National Braille Press por Irma Goldberg, onde as técnicas utilizadas envolviam sobretudo estampagem em papel e o uso de linhas pontilhadas em relevo nas ilustrações, tratando-se, assim, das primeiras tentativas de criação de “imagens táteis”.

Apenas em 1970, no Instituto dei Ciechi em Milão, Itália, surgiram os primeiros livros, com uma real preocupação e destinados às necessidades educacionais das crianças com deficiência visual [3].

Todavia, no final da década de 1980, apesar da necessidade urgente de livros, e mesmo com as declarações internacionais e os esforços de entidades como a ONU, muitas crianças, especialmente aquelas que eram portadoras de deficiência visual, continuavam sem

acesso à leitura devido à negligência das minorias pelas maiorias [9]. Foi também, nesta década, que surgiram as primeiras tentativas para tornar possível a interpretação de imagens táteis em livros. De modo a auxiliar o ensino por parte dos docentes, foram criadas obras para colmatar as necessidades destes alunos, muitas vezes existindo apenas um único exemplar. Para enriquecer estas produções e com a evolução tecnológica, ao longo dos anos surgiram mais técnicas de produção de relevo, como é o caso da impressão 3D, trazendo, assim, novas experiências para este campo [10].

Dentro desta lógica, países como o Brasil propõem cada vez mais adaptações táteis de projetos, tanto para normovisuais, como para pessoas com deficiência visual, especialmente para o público mais jovem, através de livros ilustrados infantis e juvenis [11]. Na visão de Vecchiarelli (2009) [12], existem elementos importantes quando se pensa em livros ilustrados táteis, como o texto escrito em braile, que permite que as crianças, cegas ou não, possam desfrutar da obra. Sobre o braile, o autor destaca a importância dos pontos serem bem marcados para que haja uma maior compreensão e uma maior resistência ao uso prolongado, uma vez que ao longo das utilizações e com o passar do tempo começam a perder o seu relevo. Já para a capa, explica a importância de ser rígida e sólida para proteger as imagens, o texto e permitir uma melhor utilização. Refere também que o título, o nome do autor e o nome do editor devem estar presentes na capa e escritos em braile. Vecchiarelli [12] propõe, ainda, que para haver um melhor manuseamento do livro é importante uma abertura na sua totalidade (ou seja, uma espinha flexível), de modo que as duas mãos explorem cada dupla página.

Outros autores, como Valente [13], definem os livros ilustrados táteis como aqueles que dispõem de texto, com letras grandes, e de escrita em braile com ilustrações táteis. Defendem que a inclusão das ilustrações táteis é bastante benéfica para o desenvolvimento da linguagem e da alfabetização de crianças cegas e de baixa visão, como demonstra o estudo de Carney & Levin (2002) e Statton & Wright (1991) [13]. Este tipo de ilustração tem um papel essencial na capacidade das crianças entenderem e memorizarem as histórias (Bara *et al.* 2018; Gentaz *et al.* 2003; Heller & Gentaz, 2013) [13] e são cruciais para uma criança com deficiência visual, pois despoletam interesse tátil pelo braile e pela leitura, desempenhando, assim, um papel ativo nesta prática. Por sua vez, Piccardi [3] propõe alguns pontos a ter em consideração na criação de livros ilustrados táteis para oferecer uma melhor experiência de leitura multisensorial. Estes livros são criados para serem tocados, ouvidos, manipulados e vistos, e são também considerados uma valiosa fonte de desenvolvimento cognitivo, tanto linguístico como emocional, social e imaginativo. Para isso, elenca algumas considerações de natureza estético-formal, veja-se a Tabela 1, recuperada diretamente do estudo Livros ilustrados táteis e o processo de letramento de crianças com deficiência visual, correspondente a uma adaptação de Lemmas, Propositions, and Theorems) [4].

Critérios	Descrição
FORMA	As figuras que compõem a ilustração devem ser simplificadas, eliminando detalhes desnecessários; elas devem ser facilmente reconhecíveis na sua totalidade; elas não devem ser sobrepostas, mas alinhadas e suficientemente espaçadas;
TECELAGEM	Devem ser utilizadas diferentes texturas e materiais que sejam agradáveis ao toque;
ESPESSURA	O limiar mínimo de percepção da linha elevada é de ½ mm de altura e ½ mm de largura;
POSIÇÃO	Os elementos devem ser colocados de acordo com um critério de ordem espacial que permita ao leitor uma leitura geral da imagem;
TAMANHO	É necessário respeitar a proporção entre as diferentes partes do objeto e entre os diferentes elementos da imagem, de acordo com as habilidades exploratórias da criança;
COR	É aconselhável usar cores primárias com forte contraste na escolha de diferentes texturas e materiais;
CONGRUÊNCIA	É essencial manter uma correspondência precisa entre a imagem tátil e as informações escritas em braile e em caracteres ampliados.

Tabela 1. Critérios a ter em consideração para a elaboração de livros para facilitar a compreensão de crianças cegas ou com baixa visão

Adaptação de Lemmas, Propositions, and Theorems.[4]

Os critérios acima apresentados visam garantir que estes livros sejam mais acessíveis e proporcionem uma experiência enriquecedora de leitura projetada propositadamente para este público. No entanto, estes livros também podem ser lidos por qualquer criança, respondendo assim ao princípio da acessibilidade [3].

O livro infantil destinado à partida para um público “não autónomo” é, geralmente, um objeto híbrido e multimodal, no qual a componente verbal (quando existe) interage, em diferentes graus de autonomia semiótica, com linguagens não verbais. Para o público mais jovem, os livros infantis convocam uma experiência sensorial vasta, incluindo diferentes materialidades e modalidades, de cariz visual, acústico, tátil, olfativo e cinético. Anthony Browne (1946), ilustrador premiado de livros infantis, afirma que o meio visual é o mais dominante nesta questão sensorial, mesmo existindo

livros com cheiros, sons, texturas e combinações polifônicas com diferentes registos semióticos. Essa abordagem proporciona ao leitor uma dimensão interativa e lúdica, adicionando vários estímulos e sentidos às histórias e incentivando os leitores a imergir nos livros através de uma lógica sensorial, indo além da compreensão puramente racional ou intelectual [14].

3. Estudos e publicações sobre/para o público com deficiência visual

O mercado de livros ilustrados em pontilhado (formas elaboradas através de um caminho de pontos com relevo no papel) é o dominante na oferta para o público com deficiência visual. Esta foi considerada, por vários anos, a solução mais eficaz para responder às necessidades deste público, pelas características físicas que oferece, tais como: a proximidade da sensação tátil em relação ao braille e, naturalmente, o menor custo e tempo despendido na sua produção, como explica Carina Ferreira (2024), da ACAPO. Segundo este membro da associação dos cegos e amblíopes de Portugal, uma ilustração háptica deverá ter imagens simplificadas e texturas diferenciadas, a fim de proporcionar uma experiência multissensorial e de contemplar referências sensoriais e motores. No entanto, vários estudos começam a comprovar que a técnica do pontilhado, mesmo sendo uma ótima iniciativa, não é clara para a percepção das crianças cegas [15].

Um estudo feito por Cardeal [15] sobre a leitura e interpretação de imagens táteis direcionada para crianças cegas, procurou esclarecer os diferentes métodos de conhecimento das imagens táteis e como elas eram projetadas, mas o principal foco era a sua funcionalidade e qual o seu nível de importância como instrumento de inclusão. Para a execução desta análise, a autora contou com a presença de 15 crianças cegas, juntamente com os autores e ilustradores de algumas obras do estudo. Esta experiência teve como intuito compreender até que ponto as ilustrações são compreendidas e eficazes como ferramenta de inclusão, já que são também direcionadas simultaneamente a portadores de baixa visão e a normovisuais. Explica também que se não forem levadas em consideração as diferenças na forma como as pessoas cegas/baixa visão percebem o mundo, o livro pode não ser compreendido. No seu estudo, relata a experiência que teve: enquanto que a criança cega consegue facilmente ler os pontos em relevo, o mesmo não acontece nos desenhos em pontilhado, isto pelo facto de que não percebiam qual a direção que deviam seguir através das linhas que os delimitam.

“Quando ela insiste, percorrendo as linhas, tentando obter do papel a resposta e me diz decepcionada que não sabe que forma é aquela, o silêncio é meu.” [15, pág. 3565]

Reforça, ainda, a diferença na percepção entre a leitura tátil de uma criança cega e a do leitor visual, pois os dois tipos de leitura percorrem caminhos diferentes, no nosso cérebro. Tentar decifrar este código tátil através da visão pode não ser eficaz, pois as suas combinações e relações entre os pontos só são percebidos, na totalidade, através do tato. Sugere, ainda, que aprender a “pensar tatilmente” é quase tão importante como aprender a “pensar visualmente” pois a experiência de tocar em braille com os olhos fechados e perceber a diferença entre ver e perceber o

mesmo código são fulcrais na criação destas edições. A percepção visual é instantânea, já a percepção tátil é adquirida ao longo do tempo, o que torna o reconhecimento tátil um processo mais demorado [15].

Por sua vez, um grupo de estudantes da Universidade Estadual Paulista e da Universidade Federal do Maranhão estudaram a eficácia das ilustrações táteis feitas com a técnica de pontilhado. O estudo foi feito com os livros ilustrados pela Fundação Dorina Nowill - FDN, que produz e adapta textos, livros, entre outros materiais em braile. Esta investigação concluiu que as várias ilustrações táteis adaptadas no livro *A Viagem de Azevedo e Filho* com ilustrações de Bruno Santana (2014) não eram compreendidas pelo leitor com deficiência visual. A partir dessa informação, desenvolveram uma atividade que tinha como objetivo a leitura háptica das imagens táteis. Na atividade participaram 15 estudantes universitários, dos quais 4 eram portadores de deficiência visual (2 cegos e 2 com baixa visão). Nos restantes, os olhos foram vendados para realizarem uma leitura “às cegas”. Apesar desta faixa etária ser diferente da procurada para a realização do nosso projeto do MIA os resultados, deste estudo, permitiram alcançar conclusões relevantes para o projeto. Concretamente, através da observação do exercício, percebeu-se que a interpretação e adaptação direta da imagem para leitores normovisuais, através de pontos em relevo delimitadores da ilustração, tais como para a leitura e interpretação tátil não é clara para os leitores. Os resultados não foram muito positivos, pois os participantes não conseguiram identificar corretamente as principais personagens da história, por exemplo, 75% dos participantes consideraram o “menino” como sendo o “animal” [16].

Um outro estudo desenvolvido por Cardeal [15] reforça estes aspectos sobre a interpretação de imagens táteis. Argumenta que a função tátil não integra informações especiais da mesma forma que a visão. Tornando, assim, mais difícil para as crianças com deficiência visual compreender, com detalhe, as imagens adaptadas a fim de serem percebidas visualmente. Adaptar estas imagens em relevo, sem considerar a percepção tátil, apenas eterniza a imposição de padrões visuais, em vez de promover uma verdadeira inclusão.

Já no contexto português, estudos deste género são mais parcos. Algumas associações, editoras e entidades encontram-se a trabalhar no sentido de procurarem a melhor solução para combater as lacunas causadas pela técnica do pontilhado.

A Santa Casa da Misericórdia do Porto tem como objetivo produzir livros, revistas e outros materiais em braile. Em 1996, a produção em braile começou a ser feita por processos informáticos, o que permitiu aumentar a produção anual. Esta associação dedica-se à produção de manuais escolares, utilizando a imagem em relevo e o pontilhado [17], tal como os objetos do estudo desenvolvidos pela Universidade Estadual Paulista e da Universidade Federal do Maranhão, abordados anteriormente.

Uma outra entidade que se destaca neste panorama é a CAIPDV - Centro de Apoio à Intervenção Precoce na Deficiência Visual e a ANIP - Associação Nacional de Intervenção Precoce. Trata-se de uma associação nacional de intervenção precoce, junto de pessoas portadoras de deficiência visual, que tem como objetivo ajudar famílias com bebés e crianças

portadores de deficiência visual até à entrada no 1º ciclo (cerca dos 6 anos de idade), introduzindo o braille através dos seus livros [18].

Algumas editoras nacionais que se dedicam à edição especializada de livros para crianças, criam projetos editoriais especialmente atrativos e didáticos, como é o caso da editora Planeta Tangerina e da Triciclo Editora, sendo que a primeira tem como lema “não cair em fórmulas e desafiar os leitores” [18] defendendo que os conteúdos para os mais novos devem ser bem estruturados, simples, rigorosos, bonitos e, acima de tudo, divertidos [18].

Em 2022, a Trienal de Arquitetura de Lisboa, uma associação portuguesa sem fins lucrativos, conseguiu desenvolver um livro ilustrado acessível ao público com ou sem deficiências visuais, em parceria com a editora Planeta Tangerina, mencionada anteriormente, e a agência Locus Acesso.

“Uma casa é uma montanha é um chapéu” (ver. Fig.01.), com ilustrações e projeto editorial de Yara Kono, é um livro com cores e com ilustrações em relevo, com letras grandes e com texto em Braille para que possa ser interpretado por crianças cegas ou com baixa visão e normovisuais. Foi criado com



Fig. 01 - Uma casa é uma montanha é um chapéu (2022)

o ideal de um público entre os 6 e os 10 anos, em início da aprendizagem de leitura, da comunicação visual e do estudo sistemático do meio físico e cultural. Esta iniciativa teve como finalidade a elaboração de um livro que pudesse estar disponível nas mãos de todas as crianças, seja em escolas, bibliotecas ou numa livraria. Contudo, a sua produção ainda não está finalizada.

A já anteriormente referida ANIP, em 2016, em parceria com a associação francesa Les Doigts Qui Révent, lançaram em Portugal aquele que foi o primeiro livro multissensorial para crianças com deficiência visual “O que vês, o que vejo...”. Esta publicação insere-se na categoria de livros multissensoriais, que, tal como abordado anteriormente, se focam no uso de estímulos sensoriais diversificados que vão para além da apreensão visual. [19] “O que vês, o que vejo...” é um livro que retrata uma conversa entre duas crianças sobre um dia comum. No interior são apresentadas ilustrações de personagens com braços móveis que saem da folha e que se mexem, um sol que se empurra da esquerda para a direita, um girassol que gira, um mar

com relevo e em que se sente o frio, o toque quente de uma camisola de lã, a forma de umas mãos com textura áspera, entre outras. Um livro que tem presente ilustrações manipuláveis, mas também palavras em braille para que as crianças, mesmo não



Fig. 02 - O que vês, o que vejo...(2016)

sabendo ler, entendam que são algum tipo de código. Assim, mais tarde, quando aprenderem o braile em contexto de aprendizagem, no primeiro ciclo, este já poderá ser reconhecido.

Este é “(...) um livro que promove a partilha, o encontro de perspectivas da criança que vê e da criança com cegueira tal como o texto sugere” [20]. O que vê, o que vejo destacou-se por impulsionar a inclusão e proporcionar a partilha, de um encontro com a perspectiva da criança que vê e da criança invisível [20]. A organização francesa anteriormente referida, Le doigts Qui Rêvent, tem como a missão garantir que qualquer criança com deficiência visual tenha acesso à leitura e que a possa partilhar com outros quando lê, sendo a principal produtora de livros com ilustrações táteis para crianças, em idade pré-escolar:



“For more than 25 years, Les Doigts Qui Rêvent (Dreaming Fingers) has been offering the widest choice of tactile illustrated books in the world.” [21]

A editora francesa é pioneira no que toca a este tipo de livros táteis. Philippe Claudet, diretor da editora, numa entrevista a Valente [22] evidenciou o sucesso do livro *Le Petit chaperon Rouge*, de Warja Lavater, publicado em 1965 uma obra que originalmente não era tátil, mas na qual a ilustradora recorria

Fig. 03 - Catálogo de coleções de álbuns táteis ilustrados - via Le doigts Qui Rêvent, (2024).

a formas simples e abstratas para contar as histórias. Claudet, destacou a popularidade da obra em instituições e escolas especializadas em ensino de crianças com deficiência visual e explicou que a simplicidade do desenho e a atualização de formas e texturas acessíveis proporciona ao leitor cego ou com baixa visão a interação e a compreensão com/da narrativa de forma tátil. Deste modo, o livro acaba por ser o exemplo perfeito da possível e necessária adaptação de materiais visuais para formatos táteis. Esta obra prova também que pode ser bem aceite e interpretada por este público, demonstrando, assim, a importância da acessibilidade na produção de materiais educativos [23].

Em 2018, Myriam Colin foi convidada a criar uma segunda edição deste livro (ver Fig. 04). Ela define-se como “artista tátil”, que tem como objetivo desenvolver livros táteis para os dois tipos de público - cegos e normovisuais - na esperança de criar conexões entre estes dois grupos. O gosto por esta área começou num estágio que fez na editora e que dá nome ao projeto Colin Maillard, apoiado pelo sistema Défi Jeune Alsace, onde desenvolvem pastas pedagógicas táteis com o intuito de superar a falta de materiais adaptados à deficiência visual, no campo das artes e da ilustração. A autora pretende, ainda, criar experiências enriquecedoras através de imagens táteis projetadas com sensibilidade, permitindo que as crianças cegas e normovisuais explorem as histórias, os objetos e as sensações táteis [24].

O objetivo desta segunda edição foi atribuir uma dimensão háptica. O

Fig. 04 - “Le Petit chaperon Rouge” (Myriam Colin, 2018)

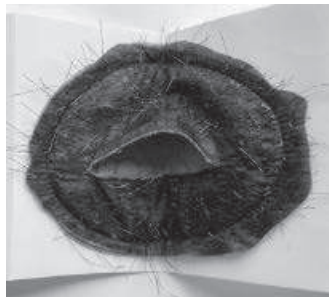


livro original já tinha as condições para essa adaptação, que Warja Lavator teria imaginado e que o diretor da editora tanto ansiava realizar. As duas versões têm entre si algumas semelhanças: ambas são compostas por uma capa dura, encadernação em harmónica, um índice onde se explica ao leitor as personagens e os cenários. De modo sucinto, este índice acaba por ser um glossário visual. Contudo, as suas diferenças revelam-se nos aspetos técnicos, como no papel: na versão original é usado um papel cartonado, cheio de circunferências em tons verdes para retratar uma floresta; na versão tátil, o papel foi substituído por papel sulfite e a floresta adaptada com relevo [16].

Myriam Colin explorou a técnica de relevo para representar os elementos decorativos. As casas, e principalmente a floresta, remetem para a escrita no código braille; na representação das personagens e da cama da avó utilizou tecidos e papéis colados, visualmente próximos das cores da obra original, mas também tatilmente distinguíveis pelo público normovisual.

Na cena em que o caçador vem libertar o Capuchinho e a avó, Colin reinterpreta a versão de Lavator, pois a explosão de cores inicialmente retratada é impossível de se transcrever no modo tátil. A forma que, de algum modo, se aproxima da obra original convida os leitores a abrir a barriga do lobo, representado por duas camadas de tecidos sobrepostos, a fim de encontrar o Capuchinho Vermelho e a avó no seu interior (ver. Fig. 05.).

Fig. 05 - Dupla-página de “Le Petit chaperon Rouge” (Myriam Colin, 2018)



Esta representação é eficaz e realça a exploração, através do toque, porém não compromete também a visão pela qualidade dos materiais e disposição dos mesmos. A combinação dos tecidos coloridos e do relevo foram pensados para pessoas com a visão comprometida, mas ainda mantém a percepção visual do contraste. A cena final é bastante visual, o que acaba por encantar o leitor normovisual. Mesmo sendo um livro

adaptado, este reúne todas as experiências para ser partilhado, tanto na emoção da leitura como na descoberta sensível de um objeto de arte (*Le Petit Chaperon rouge, un livre d'artiste tactile* (2008) [25]).

A Living Paintings (Reino Unido) é uma instituição que tem como objetivo ajudar pessoas cegas através de produtos que apostam na audio-

descrição, mas também de imagens táteis. Dispõem de livros ilustrados, como *A Cultivated Wolf* de Becky, *Ready Steady Mo*, *The Burpee Bears*, *Oi Frog*, entre outros, recorrendo a formas em baixo e alto relevo, acessíveis para crianças cegas e de deficiência visual, proporcionando uma experiência sensorial mais rica, por meio do toque e do som [26].

Nos Estados Unidos da América, a American Printing House (APH) juntamente com a Braille Authority North America, elaboram livros e materiais didático-pedagógicos, fazem recomendações e disponibilizam cursos para a produção artesanal de livros com ilustrações táteis. Dispõem de obras como *All of baby nose to toes*, *Five little speckled frogs*, *A story for small bear*, entre outros. A APH oferece livros impressos e em braile a crianças cegas ou com baixa visão a residentes dos EUA. Fez também parceria com a biblioteca Dolly Parton's Imagination, oferecendo livros às crianças até aos cinco anos. Através desta colaboração, todos os anos, os livros da biblioteca são selecionados e transformados em *Braille Tales*.

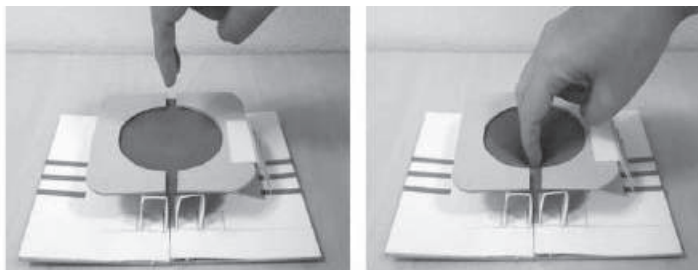
No Brasil, o Instituto Benjamin Constant e a Fundação Dorina Nowill dispõem da produção de livros em braile, desde os anos 50, mas só em 2008 é que começaram a produzir livros de literatura infantil com imagens táteis em relevo e em pontilhado [27]. Guimarães, Moura e Domiciano, [16] explicam que, no Brasil, tal como noutros países, incentivam a produção artesanal de livros com ilustrações táteis, pois pretendem responder às necessidades de educação destas crianças com deficiência visual. Deste modo, pais e professores devem conceber estes livros de acordo com as necessidades específicas. Estes autores também defendem que estes livros devem ser desenvolvidos com materiais e cores que estejam associados às experiências vividas e ao modo de vida da criança. Os livros comerciais, principalmente os importados, podem não corresponder a estas expectativas e os investigadores afirmam também que o elevado custo de produção, muitas vezes, impede a produção em grande escala ou encarece o preço final dos produtos, tornando-os, por vezes, inacessíveis. Como tal, a produção artesanal tornou-se uma possibilidade mais económica [28].

Um conjunto de investigadores da Universidade de Genebra (UNIGE, Suíça), num estudo em parceria com a Universidade de Lumière Lyon 2 (França), explicam que as crianças cegas têm dificuldade em identificar os objetos representados em ilustrações táteis tradicionais que são produzidas com técnicas com linhas elevadas, termoformagem ou gravação. Deste modo, desenvolveram pequenos cenários em 3D onde as crianças podiam explorar com dois dedos, facilitando a identificação de um objeto. O projeto consistiu em criar um novo tipo de ilustração que explora a simulação das experiências do corpo com a interação do objeto. O livro permite que a criança, à medida que vira as páginas, passe por cada cenário com dois dedos como se tratasse das suas pernas. Os autores simularam ações como subir escadas, correr ou saltar num trampolim [29].

Concordando com Edouard Gentaz (professor da Seção de Psicologia da Faculdade de Psicologia e Ciências da Educação - FPSE - da Universidade de Geneve), todas as crianças, independentemente da sua deficiência, têm direito a um acesso equitativo à educação e à cultura. Assim, é necessário garantir que isso acontece e, no seguimento deste público-alvo em

específico, é crucial adaptar materiais educativos e livros infantis para edições que estas possam desfrutar já que. “crianças cegas não têm os mesmos códigos de representação visual que outras crianças”. O mesmo professor defende também que “...eles não interpretam linhas pontilhadas ao redor de um círculo como o sol, e um retângulo com pequenos círculos abaixo pode não ser nada parecido com a representação de um ônibus.” [30].

Fig. 06 - Protótipos testados de ilustrações envolvendo simulações de ação. © UNIGE (2021)



O projeto foi produzido em parceria com a editora francesa Les Doigts Qui Révent, já referido anteriormente com o apoio da Swiss National Science Foundation (SNSF), conclui ainda Valente, Dannyelle.

“Tactile books that use gestures and body simulations have a high potential for sharing since the sensory experiences are the same for sighted children and blind children”. (2021)

Desde modo, é possível concluir que é importante reconhecer que as ilustrações hápticas não se limitam a uma representação visual em relevo. Pois, para uma criança cega, a percepção e a compreensão do mundo são diferentes das de uma criança com visão, e isso é possível de se perceber quando as ouvimos a falar. Philippe Claudet, explica isso com, “Qual é a cor do vento?” (uma frase proferida por uma criança) [9]. Podemos perceber através desta pergunta que a ideia de cor é desconhecida, o que evidencia a compreensão multisensorial da realidade, onde conceitos como a cor, por exemplo, são interpretados de maneira diferente. Assim, é essencial considerar não só a técnica utilizada nas criações, mas também a como a criança interage e interpreta as informações táteis para proporcionar uma melhor compreensão de forma significativa e inclusiva do ambiente que a rodeia. A fim de proporcionar uma melhor experiência, é importante considerar as experiências das crianças cegas ao desenvolvermos materiais educativos e recursos de acessibilidade [9].

4. Atividade em Sala de Aula

Em Portugal, foi criada uma rede de escolas de referência para a inclusão de alunos cegos e com baixa visão, com o intuito de concentrar meios humanos e materiais que pudessem oferecer uma melhor resposta educativa e de qualidade a estes alunos.

Existem 33 escolas espalhadas pelo país que reúnem estas condições para receber alunos com deficiência visual [31]. Mediante a informação acima referida, contactou-se com escolas do Pré-escolar e Ensino Básico para desenvolver um teste de observação de um objeto prático (livro tátil)

que permite levar este estudo mais a fundo em função do público-alvo.

Até ao momento da redação deste artigo apenas três escolas responderam ao nosso contacto e autorizaram a visita às suas instalações: AE Maximinos (Braga), a AE Joaquim Araújo (Guilhufe -Penafiel) e a AE Diogo Cão (Vila Real). Os encontros são marcados com muita antecedência pois é necessário ter aprovação e autorização, tanto da parte da escola como dos pais das crianças, existindo também uma preparação e explicação para que a criança entenda o motivo do encontro.

Após passar por todas as burocracias, os encontros são feitos de forma muito tranquila. O encontro é sempre feito num espaço com o qual a criança esteja familiarizada, normalmente em sala de aula onde tem todos os seus materiais, para que não fiquem nervosas e ansiosas. Tal como nas mais diversas áreas, existe a necessidade de desenvolver estratégias que ajudem a colmatar essas dificuldades de interação, acabando por ser um trabalho moroso porque exige que seja captada a atenção, a segurança e o à vontade delas, ainda mais neste público-alvo em que as inseguranças são certamente mais evidentes.

O objetivo destas reuniões é instaurar um contacto de amizade e de confiança com as crianças para que, de forma livre e espontânea, consigam manipular e explorar um objeto de estudo desenvolvido por nós, mas para isso são apresentadas numa fase inicial manuais/ livros realizados por professores para que as crianças não se sintam tão nervosas com a presença de estranhos.

Apesar de terem respondido três escolas, apenas duas tinham crianças cegas, na última, crianças com baixa visão. A atividade contou com a participação de duas crianças cegas desde nascença, uma com 8 anos que está no terceiro ano e outra com 12 anos que está no quinto ano. De modo a ficarem mais confortáveis e a se sentirem mais à vontade perante a atividade, a professora esclarecia sempre o motivo da minha presença. Só depois é que começa um discurso sem limitação, dando assim total liberdade à criança para interagir.

Nestas visitas, pode-se presenciar a realidade destas crianças, o peso dos livros que carregam nas mochilas devido aos livros em braille ocuparem mais espaço, as dificuldades que os docentes encontram com o atraso dos manuais escolares e livros de fichas que muitas vezes, chegam tarde o que dificulta e atrasa a aprendizagem destes alunos em relação aos colegas.

Através das interações estabelecidas com estas duas crianças, foi possível chegar às mesmas conclusões de outros autores já mencionados anteriormente. Foram apresentados às alunas manuais escolares de matérias avançadas através de ilustrações em relevo e em pontilhado e estas não foram capazes de perceber do que se tratava. Foi necessário recorrer ao braille para entenderem a ilustração. Para que haja interesse e percepção pela criança com deficiência visual, a imagem deve possibilitar ao leitor compreender, na sua totalidade, a imagem. Numa situação ideal, deve ainda apresentar aspectos que não tenham necessariamente sido narrados, mas que complementam e ampliam a história, permitindo que a criança abstraia de um mesmo livro muitas formas de interpretação. Dado esta recolha de informação, existem associações, editoras e entidades que procuram a melhor solução para combater estas lacunas causadas pela técnica do pontilhado.

Durante as sessões, foi questionado se as crianças gostavam de desenhar e de pintar nos seus tempos livres, tendo-se obtido respostas distintas. A mais nova gostava de pintar e de desenhar, mas julgava que não o fazia muito bem, devido à sua condição visual. Neste caso, esta experiência sensorial tinha um resultado positivo, muito graças à ajuda e orientação da professora, pois esta contornava os desenhos com uma tinta que os delimitava, dando assim uma orientação do espaço. Já a outra aluna, apenas referiu que não gostava porque “não conseguia ver”. Deste modo, foi possível concluir que existia uma diferença no tipo de acompanhamento e na abordagem por parte dos educadores/professores. O acompanhamento multidisciplinar que envolva pais, educadores, professores (e outros) permite que sejam trabalhadas estratégias que ajudam estas crianças a terem a mesma experiência e as mesmas oportunidades que outras crianças têm. Aprender demora, mas acabam por superar as suas dificuldades, atingindo assim os seus objetivos individuais.

Depois desta experiência, e em conversa com a Associação Bengalas Mágica, foi possível partilhar estas mesmas conclusões. Tendo-se reconhecido da parte desta tratar-se de falha muito frequente, pois muitos dos livros disponíveis são bonitos para quem vê, mas não são funcionais para quem precisa realmente deles, o que acaba por limitar, em última instância, as experiências sensoriais do leitor.

5. Resultados e Considerações Finais

O presente artigo procurou analisar a evolução dos livros ilustrados táteis, o que permitiu concluir que o avanço é significativo na inclusão educativa e cultural das crianças com deficiência visual. Apesar de todos os esforços, ao longo das décadas, no que se refere às diversas técnicas utilizadas para a produção destes livros, a tecnologia moderna foi também um grande incentivo no que toca a experiências neste campo. Contudo, existem desafios que permanecem, especialmente na compreensão e na eficácia das ilustrações táteis, como aqui analisado em vários estudos. As ilustrações táteis em livros táteis representam frequentemente os aspectos e formas de objetos baseados na realidade de quem vê, por exemplo, através das texturas de partes de uma imagem ou do relevo em contornos e formas. Mas como foi possível analisar, existem vários estudos que demonstram que adultos e crianças cegos têm dificuldade em identificar os objetos representados em duas dimensões (2D) cujos aspectos e formas são realçados (Lederman *et al.*, 1990; Theurel *et al.*, 2013; Thompson *et al.*, 2003).

Existe, portanto, uma necessidade de adaptar as técnicas de produção e de design para responder às imposições sensoriais deste público-alvo. Para a concretização do projeto em desenvolvimento e atendendo à revisão de literatura empreendida até à data, é importante ter em mente que os livros para invisuais devem ter determinados aspetos gráficos e estéticos cuidadosamente salvaguardados, tais como as considerações apontadas por Carney & Levin (2002) e Statton & Wright (1991), Cardeal (2009), Piccardi (2011), pelas associações e editoras como é o caso da Le Doigts Qui Rêvent e todas os estudos realizados em universidades aqui mencionados.

As associações têm um papel importante e ativo nas criações e na oferta de materiais acessíveis e enriquecedores. Colorações com editoras, universidades e organizações sem fins lucrativos são cruciais para impulsionar a mudança e aprimorar a acessibilidade desses mesmos recursos. E, para isso, é cada vez mais importante que os livros sensoriais estejam disponíveis nos mesmos locais onde crianças com visão podem encontrar livros ilustrados, ou seja, em bibliotecas públicas, escolas, livrarias e, acima de tudo, em casa. Contudo, ainda assim, é importante determinar que a acessibilidade não se limita apenas à produção de materiais, mas também à disponibilidade e aos custos, garantindo, deste modo, que todas as crianças, independentemente das suas limitações, tenham acesso, de igual forma, à educação e à cultura. Assim, o apoio às crianças com dificuldades visuais é crucial para garantir que tenham igual acesso à educação e que desenvolvam todo o seu potencial. Os pais desempenham um papel fundamental, fornecendo suporte emocional, mas também facilitando o acesso a recursos educacionais adequados, como livros em braille ou outros suportes. As escolas e os professores assumem alguma responsabilidade, implementando práticas inclusivas que tenham em consideração as necessidades individuais de cada aluno. Isso inclui a adaptação a materiais didáticos, a organização de espaços de aprendizagem acessíveis e o treino de professores para técnicas de ensino adaptadas. Além disso, profissionais de saúde podem também fornecer *insights* valiosos e estratégias adicionais para apoiar o progresso educacional das crianças com dificuldades visuais. Ao trabalharmos juntos como uma comunidade - entidades, como associações, editoras, bem como pais, escolas, professores e profissionais de saúde - podemos criar um ambiente inclusivo que capacita essas crianças a alcançarem todo o seu potencial acadêmico e pessoal.

6. Referências

1. Torres, B.: Um livro, várias leituras - Livro tátil adaptado à deficiência visual. (Mestrado em design de comunicação, ESAD) (2021).
2. Giardinelli, M. Voltar a Ler: Propostas para ser uma nação de leitores. São Paulo: Ed. Nacional, 2010.
3. Piccardi, F.: I libri tattili illustrati nel processo di educazione all'immagine. Del bambino con deficit visivo. Disponível. <https://libritattili.prociechi.it/%20approfondimenti/francesca-piccardi/> (2011).
4. Stockmanns, R.: livros ilustrados táteis e o processo de letramento de crianças com deficiência visual. (Dissertação apresentada ao Programa de Pós- Graduação em Educação da Universidade Federal do Rio Grande do Sul) (2019).
5. Paiva, Brenda.:A Deficiência Visual e a Singularidade de cada Criança (Terapeuta Ocupacional da APAE de Belo Horizonte) (2020)
6. Silva, M.:Imagen táctil: una representación del mundo.(Dissertação de doutoramento, Universitat de Barcelona). (2008).
7. Almeida, J.: Aplicação do Lúdico na Educação Infantil: Uma ênfase na educação do campo. (Trabalho de Licenciatura, Centro de Educação da Universidade Federal da Paraíba) Repositório Institucional da Universidade Federal da Paraíba. Repositorio: <https://repositorio.ufpb.br/jspui/handle/123456789/13891> (2018).
8. Kastrup, V.:Revista Trágica: estudos de filosofia da imanência - 3o quadrimestre de 2015 - Vol. 8 - no 3 (2015).

9. Lighthouse Guild. Tactile Illustrated Books: Did You Say, “A Little Miracle?” <https://lighthouse-guild.org/tactile-illustrated-books-did-you-say-a-little-miracle/> (2024).
10. Valente, D.: Novas ilustrações hápticas em livros táteis para crianças cegas. In C. Mangas, C. Freire & M. Francisco (Orgs.), *Inclusão e Acessibilidade em Ação - Diferentes percursos, um rumo*. Leiria: IACT/IPLeiria, Artigo 8. [Online, disponível em <http://iact.ipleiria.pt/>] (2015).
11. Stockmanns, R. Rodrigues de Freitas, C.: *Livros ilustrados táteis para crianças com baixa visão*. Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre/RS - Brasil (2021).
12. Vecchiarelli, P.: *Il libro tattile illustrato: tecniche e materiali* (2009).
13. Valente, D. Chennaz.: *Comprehension of a multimodal book by children with visual impairments*. (Laboratory of Sensory-motor Affective and Social Development (SMAS), Faculty of Psychology and Educational Sciences (FAPSE), University of Geneva) (2023).
14. Ribeiro, E.: *Objetos para os sentidos O livro infantil: contar histórias doutra maneira*. (Universidade do Minho). (2023).
15. Cardeal, M.: *Imagem e invisibilidade: a leitura tátil de ilustrações em relevo*. (Mestranda em Artes Visuais Universidade do Estado de Santa Catarina - CEART - UDESC) (2009).
16. Guimarães, M. J. S. Moura, M. Domiciano, C. L. C.: *Ver pelo tato: contribuição do Design Inclusivo na formação de imagens mentais* (Estudos em Design | Revista (online). Rio de Janeiro) (2021).
17. Ferreira, A. M.: *Atividades de inclusão para alunos cegos e com baixa visão em aulas regulares de língua estrangeira*. (Faculdade de Letras Universidade do Porto) (2014).
18. Planeta Tangerina - <https://www.planetatangerina.com/pt-pt/quem-somos/> (2024).
19. CAIPDV - Associação Nacional de Intervenção Precoce, <https://www.anip.pt/estruturas/caipdv/>
20. Ferreira, V.: *Era uma vez... um livro para as crianças que não vêem*- (Publico) <https://www.publico.pt/2016/12/03/sociedade/noticia/era-uma-vez-um-livro-para-as-criancas-que-nao-veem-1753462> (2016).
21. Les Doigts Qui Rêvent - International publishing house of tactile illustrated books for all children since 1994. https://ldqr.org/wp-content/uploads/2021/01/210119_COMM_catalogueexport_ENG-1.pdf (2019)
22. Valente, D. *Os diferentes dispositivos de imagens e ilustrações táteis e as possibilidades de produção de sentido no contexto perceptivo dos cegos*. (Revista Educação, Arte e Inclusão). (Florianópolis, V. 02, dez. 2009).
23. Guimarães, M.: *Diretrizes ao desenvolvimento de materiais didáticos acessíveis a crianças cegas e com baixa visão*. (Pós-Graduação em Design da Faculdade de Arquitetura, Artes e Comunicação, da Universidade Estadual Paulista) (2020).
24. Colin, M.: *Entrevista a Myriam Colin*. <https://www.ricochet-jeunes.org/articles/myriam-colin> (2007).
25. *Réalisation de l'adaptation tactile du livre “Le Petit Chaperon Rouge” de Warja Lavater*. <http://myriamcolin.blogspot.com/2012/05/le-petit-chaperon-rouge-adaptation.html> (2009).
26. Living Paintings: <https://livingpaintings.org/> (2024).
27. American Printing House: <https://www.aph.org/> (2024).
28. Instituto Benjamin Constant e a Fundação Dorina Nowill: <https://fundacaodorina.org.br/>
29. *An immersive tactile book for blind children*. https://www.unige.ch/medias/application/files/8416/8597/1306/An_immersive_tactile_book_for_blind_children.pdf (2023).
30. *Tactile books adapted for blind children*. <https://www.unige.ch/medias/en/2021/des-livres-tactiles-adaptes-aux-enfants-aveugles> (2021).
31. *Escolas de Referência para a Educação de Alunos Cegos e com Baixa Visão*. <https://www.dge.mec.pt/escolas-de-referencia-para-educacao-de-alunos-cegos-e-com-baixa-visao> (2024).

Cultura de Raízes no Cinema de Animação Documental Português



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Abstract

This article aims to analyze portuguese documentary animation cinema, giving priority to pieces where portuguese roots and culture stand out. In this way, three case studies were selected: *The Lagoon, the Water, the Man...* (2010) by Manuel Matos Barbosa; *September* (2020), by Ricardo Mata; and *The Garbage Man* (2022), by Laura Gonçalves, due to the fact that the directors are from different generations and regions, and because of their diversity in terms of language and characterization. Through this sample, it's possible to find different reflexes of Portugal, not just in space and time, but also as a people.

Resumo

O presente artigo tem como intuito analisar o cinema de animação documental português, dando primazia a obras cujas raízes e cultura portuguesas se destaquem. Deste modo, foram seleccionados três casos de estudo: *A Ria, a Água, o Homem...* (2010), de Manuel Matos Barbosa; *Setembro* (2020), de Ricardo Mata; e *O Homem do Lixo* (2022), de Laura Gonçalves, pelo facto dos realizadores serem de diferentes gerações e regiões, e pela sua diversidade em termos de linguagem e caracterização. Através desta amostra, é possível encontrar vários reflexos de Portugal, não só em espaço e tempo, mas também enquanto povo.

1. Introdução

No ano em que Portugal comemora 50 anos da libertação de uma ditadura, em que a animação portuguesa celebra 101 anos e é mote para festivais internacionais, tais como o "Festival international du film d'animation d'Annecy", "Animalusa" em Barcelona ou "Bergamo Film Meeting", é importante reflectir a respeito da forma como nos vemos e nos damos a ver através da animação documental.

Iniciamos o estudo com uma breve contextualização do cinema de animação documental, e o seu potencial enquanto ferramenta de expressão cultural. Partindo da análise de três casos de estudo: *A Ria*,

Keywords

Roots, Culture, Portugal, Portuguese Documentary Animation

Palavras-Chave

Raízes, Cultura, Portugal, Animação Documental Portuguesa

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a Água, o Homem (2010) de Manuel Matos Barbosa; *Setembro* (2020) de Ricardo Mata, e *O Homem do Lixo* (2022) de Laura Gonçalves, estabelecemos a ponte entre os retratos dos três realizadores, de diferentes gerações, histórias e zonas geográficas, procurando compreender através da sua relação com o real, testemunhos e raízes, como expressam a essência do país e do que somos enquanto povo.

2. Cinema de Animação Documental

Como Paul Word afirmou "Às vezes não é possível representar a realidade com o real." No início, quando o real não conseguia ser traduzido pela captação da imagem, a animação era usada como ponte estratégica ao documentário para melhor se compreender a mensagem. Filmes como *La bataille d'Austerlitz* (1910) de Émile Cohl (1857-1938), *Fight for the Dardanelles* (1915), realizado por Percy Smith (1880-1945), e *The Sinking of the Lusitania* (1918) de Winsor McCay (1869-1934) são exemplos de como os desenhos animados foram o recurso necessário para narrar visualmente eventos históricos. Hoje em dia, podemos ver que esta simbiose é tão válida como a imagem real enquanto prova, testemunho ou documento.

Tendo como intenção compreender a animação documental, faz sentido entender a gênese do documentário: "O termo documentário é geralmente usado para designar um filme com carácter de documento. Usado assim como adjectivo, o termo qualificaria todo o filme que, de modo verdadeiro, autêntico e com indiscutível evidência, desse a conhecer um qualquer aspecto do passado." [1]

Há muito que a relação entre a animação e o documentário é alvo de debate, na medida em que se põe em causa a sua veracidade, pela forma como a animação serve como meio de tradução de uma realidade, sendo esta produto de uma sequência de imagens criadas pelo ser humano e não a captação directa do mundo real. Não obstante, seria produtivo compreender que a imagem real e a imagem animada não são concorrentes e que ambas têm um lugar próprio no cinema documental, porque há espaço para as suas complementaridade ou distinção, dependendo da forma como se pretende abordar e transmitir as diferentes temáticas não ficcionais.

A imagem filmada faz parte da tradição do cinema documental. Associada a conceitos como objectividade e realismo, segundo Fernão Pessoa Ramos "a imagem produzida pela câmara tem como singularidade a dimensão da tomada, o poder de nos remeter à circunstância de mundo que a originou, e de trazer em si a presença latente do sujeito-da-câmara como uma entidade que testemunha essa circunstância de mundo". [2]

Enquanto que a animação expande o documentário no campo emocional e subjectivo, fazendo com que este vá para além da realidade, tocando em temas como a memória, o trauma, o espaço virtual e o mundo sensível. Paul Ward afirma: "It is often the case that difficult concepts or unusual codes of existence can only be expressed through the vocabulary available to the animator because they are in many senses inarticulable in words but intrinsically communicated through the visual and pictorial." [3]

Tendo em conta a oposição ficção/documentário, segunda a pers-

pectiva de Noël Carroll, em termos de narrativa a distinção que se faz entre a animação documental e animação ficcional, é que a primeira visa informar e/ou dar asserções do mundo real, a segunda constrói um mundo sonhado e entretém o espectador. Formalmente, o documentário animado pode ser feito na íntegra por imagens animadas ou ser combinado até 50% de imagens filmadas (em *live action*), sendo impreterível que a compreensão da sua narrativa seja documental. [2]

Para Annabelle Honess Roe existem três formas para distinguir a animação documental: a substituição mimética, a substituição não mimética e a evocativa. A substituição mimética procura comutar ou imitar aquilo que não é possível ou é extremamente difícil captar através de *live action*, como por exemplo o passado que não tivemos acesso ou mesmo elementos da ciência cujo olho humano não consegue captar directamente ou não tem recursos para tal. A série *Walking with Dinosaurs* (1999) da BBC, retomada posteriormente através de *Planet Dinosaur* (2011), permite ao espectador aceder ao panorama pré-histórico. Em *Chicago 10* (2007), de Brett Morgen, a captura de movimento e a animação tradicional são usadas para recriar o julgamento de Abbie Hoffman e de outros membros do movimento anti-guerra acusados de incitar motins na preparação para a Convenção Nacional Democrata de 1968, em Chicago. Dados constrangimentos legais, não existem filmagens e por tal as sequências animadas baseiam-se nas transcrições dos processos judiciais. [4]

Ao contrário da anterior, ainda que muitas vezes tenha como base testemunhos reais, na tipologia de substituição não-mimética as imagens animadas protegem a identidade dos intervenientes e potenciam-se criativamente, pois não procuram imitar a realidade, mas ser expressivas e significativas. No panorama nacional, como referência temos o filme *O Teu Nome É* (2021), de Paulo Patrício, que dá a conhecer testemunhos sobre a tortura e o assassinato de Gisberta Salce Jr., em 2006, por um grupo de 14 jovens no Porto. Contamos também com *Pronto Era Assim* (2015) de Joana Nogueira e Patrícia Rodrigues, fruto de uma série de entrevistas a seniores, visualmente personificados por objectos que nos contam as suas histórias, do presente e do passado, sendo esta curta-metragem um contributo para a memória colectiva da realidade de vários portugueses. A nível internacional, similarmente gerados por entrevistas, temos *Ryan e Survivors. Ryan* (2004), de Chris Landreth, retrata a história de vida do animador Ryan Larkin (1947-2007), da sua carreira na animação e decadência proveniente dos vícios de drogas e álcool. A fisionomia das personagens expressa os seus aspetos psicológicos e dá ênfase à atmosfera que se vive no decorrer da ação, sendo esta estética cunhada pelo autor de psicorealismo. *Survivors* (1997) de Sheila Sofian confronta-nos com o tema da violência doméstica, através do relato de vítimas expresso em imagens abstratas e representativas.

Ainda que consideremos que os últimos filmes se encaixem na substituição não-mimética, em parte, estes também podem enquadrar-se na função evocativa, pois esta consegue abrir-se às emoções, estados de espírito e ideias, e representar a multiplicidade e complexidade de realidades. Como referência evocativa nomeamos *Carne* (2019), de Camila Kater, que

explora as diferentes fases da vida das mulheres, através de várias técnicas de animação trabalhadas por diferentes autoras e correlaciona metaforicamente o corpo feminino ao estado de cozedura da carne. *Is The Man Who Is Tall Happy?* (2013), de Michel Gondry, é um documentário de animação tradicional cuja expressão plástica procura dar-nos a compreender uma série de conceitos provenientes das entrevistas ao linguista, filósofo e activista Noam Chomsky. Em Portugal, o filme *Surpresa* (2017) de Paulo Patrício, surge a partir de conversa entre mãe e filha, enquanto a menina de 3 anos desenha e fala sobre o cancro que viveu. *Purpleboy* (2019), de Alexandre Siqueira, é uma alegoria em torno das questões da natureza de género.

“Nea Elrich determina que o documentário em animação pode representar o «autêntico» de coisas que são em si invisíveis, impalpáveis ou omissas na realidade, e desta forma libertar o documentário animado para novas possibilidades criativas, válidas em autenticidade, sem estarem exclusivamente relacionadas com a sua indexação direta com o referente.”

[5] Por ser um híbrido, o cinema de animação documental não é menos verdadeiro por se expressar através de uma linguagem plástica e criativa distintas, apenas fala e comunica numa língua diferente da imagem real.

3. Raízes e cultura portuguesas na animação documental

Segundo Manuela Penafria, a partir do momento em que se indaga a existência do ser humano, seja esta através da acção, do pensamento, do comportamento, ou até mesmo da sua presença, as suas procura e resposta derivam de provas, vestígios, e é a partir daqui que se define o conceito de documento. Este abarca fontes escritas, visuais, sonoras, numismáticas, filatélicas, e todas aquelas que sejam passíveis do historiador concluir algo sobre o passado. [1] Posto isto, podemos então indagar a conclusão de que qualquer obra de cinema de animação documental é vista como artefacto, ou mesmo documento, na medida em que a humanidade patente no seu registo apresenta-nos a época do autor, por mais que este procure reproduzir outros tempos, e serve como meio de comunicação do presente para com o futuro.

"O cinema português que temos (...) representa e conta a história e a vida de um país imaginado e colectivamente recriado." [6] A análise dos três casos de estudo que se seguem dá-nos uma perspectiva plural, autenticada pela construção de retratos distintos da cultura portuguesa a três olhares diferentes, e ajuda-nos a entender a possibilidade que o cinema de animação documental confere na representação do que é ser-se português.

3.1. Análise de filmes de animação documental portuguesa

A Ria, a Água, o Homem... É um filme de contemplação, ritmo pausado, em desenho animado, que nos remonta ao passado, através do preto e branco. Esta monocromia em desenho realista expresso em 2D tradicional e digital, apenas ganha movimento após uma exposição que Manuel Matos Barbosa (1935) "filho de Oliveira de Azeméis, cidade situada no distrito de Aveiro, precursor do cinema de animação amador em Portugal e autor de vastas obras documentais e de banda desenhada" exibir e alu-

dir a vida daqueles que dependiam da ria de Aveiro, através da faina nos moliceiros, da exploração do sal, da pesca e da agricultura.

Assim, desafiado por António Costa Valente, o autor volta a animar após um interregno de 29 anos e dá vida aos seus desenhos de 1999 em 2010. Em 6 minutos e 3 segundos o público faz uma viagem no tempo de, aproximadamente, 50 anos, acompanhado pela narração de textos integrados na obra *Os Pescadores* de Raul Brandão, pela voz do actor Joaquim de Almeida, e embalado pelo som de Debussy.

Mais do que as personagens, esta curta-metragem de animação



Figs. 1 e 2. Fotogramas do filme *A Ria, a Água, o Homem...* (Manuel Matos Barbosa, 2010)

documental é protagonizada e vivida pelas paisagens. “É a Ria de Aveiro — dando mote à aparente imobilidade perceptível, quase forçada pela representação gráfica dos grandes espaços de conjunto. “Paisagem” poderia ser o nome de quase todos os desenhos que integram o filme.” [7] Matos Barbosa espelha-se não só através do seu traço, mas sobretudo pela forma como a geografia da região aveirense impela na sua obra. Em conjunto, estes dois pontos permitem ver o entrelaçar do olhar de menino com o de ancião e, ao mesmo tempo, conhecer a época de que faz parte. “O cinema de Matos Barbosa é obra do sítio dele”. [7] Há nele o ADN do seu bairrismo que tanto o orgulha em expor nas suas obras a sua terra.

Nos seus planos/telas podemos cartografar com o olhar a ria e as tradi-



ções culturais que dela surgem. Conseguimos ver a portugalidade através da forma como representa os moliceiros (Fig.3), com os seus dizeres e ilustrações tão tradicionais desta zona, num tom satírico ou cómico. Geralmente, estas recorrem a temáticas da

Fig. 3. Fotograma do filme *A Ria, a Água, o Homem...* (Manuel Matos Barbosa, 2010)

vida quotidiana, abordando conteúdos históricos, religiosos, políticos e lúdicos, num sentido festivo e fantasista, tendo como particularidade que nenhum desenho se repete a bombordo e estibordo.

Caracteriza ainda a forma como a população vivia na época, como a ria de Aveiro era a fonte de riqueza da região, como se faziam os diferentes trabalhos na zona, em torno do sal, do moliço, da agricultura e da pesca, mostra os costumes, a tradição alimentar e a indumentária da faina.

Manuel Matos Barbosa é um exemplo, não só pelas suas criações, mas também por ter feito este filme com aproximadamente 75 anos. Esta obra poé-

tica documental foi produzida pelo "Filmógrafo", contou com o apoio do ICA - Instituto do Cinema e do Audiovisual e da RTP - Rádio e Televisão Portuguesa.

Setembro. Passando do preto e branco para a cor, do passado para o presente e da beira litoral para a capital, Ricardo Mata (1971), leva-nos a vaguear pela Lisboa dos últimos anos. É como se a cidade sofresse de uma doença autoimune e não soubesse identificar os portugueses, que dela sempre fizeram parte, e os purgasse como corpos estranhos, devido à gentrificação de novos organismos. Este filme de animação documental é um protesto pelas portas fechadas do comércio tradicional e pelo aumento das rendas que não permitem habitar a cidade.

Em 2019, o autor de *Setembro* começa a embrioná-lo e fazê-lo nascer a partir do projecto de mestrado em Artes de Animação da Universidade Lusófona. Porém, como todos os filhos, este cresce ao ganhar o apoio do ICA e segue para estúdio na produtora "EASYPAB", chegando à sua conclusão em 2020 para o público.

Neste filme de animação documental, Lisboa é a personagem principal, é um corpo vivo em transformação e metáfora em crítica. A Lisboa de Ricardo Mata está a ser-lhe roubada, assim como aos seus concidadãos lisboetas. É como se a cidade fosse uma extensão do Eu, um espaço íntimo em que se alicerça a sua história pessoal, um pedaço da sua infância cuja geografia foi invadida. Segundo o realizador "O lugar conta só por si, grande parte do que nós somos, ainda antes de qualquer outra resposta." [8] Lisboa faz parte da memória colectiva dos portugueses e é um dos semblantes de como Portugal é visto interna e externamente.



Fig. 4. Fotografia do filme *Setembro* (Ricardo Mata, 2020)

No que diz respeito às técnicas de animação, apesar do objectivo inicial do realizador ser um produto totalmente em stop-motion, pela sua experiência na área, este acabou por ter um rumo diferente devido à complexidade de movimentos e planos que as ideias lhe pediam. Deste modo, o autor libertou-se de preconceitos, ao se permitir explorar a liberdade do movimento da linha que os seus conceitos precisavam, para que estes se assemelhassem à naturalidade e espontaneidade que as pessoas que entrevistou lhe transmitiram. [8]

Assim, o estilo esboçado que caracteriza as escolhas gráficas desta curta-metragem socorre-se de vários estilos de animação. Por exemplo, elementos como o gato, objectos projectados que voam, as pombas do final, são todos animados em 2D tradicional; objectos que giram tridimensionalmente como as casas, a cadeira, o manjerico, o barco de papel, foram criados em materiais como cartolina e poliestireno, para depois serem fotografados e animados em stop-motion, e posteriormente traçados em rotoscopia. Esta última técnica foi também utilizada nas figuras humanas que representam os turistas no filme. Quanto à animação da translação, esta é resolvida pelo

autor através do manuseamento do programa *After Effects*. [8]

A história do filme é também contada através da cor. Lisboa é uma cidade luminosa, e por tal a sua paleta de cores é composta por tons suaves e quentes. O branco é uma das cores dominantes, mas também encontram-se patentes nos edifícios cores como o amarelo, que dança nas paredes das casas como o sol a passar por elas e as contorna no início. No final, na paisagem do Miradouro Santa Luzia, vê-se o preto e o caqui a ladeá-las, o laranja nos telhados, o bege nos monumentos e os azuis no rio Tejo e no céu.



Contudo, quando a cidade é tomada pelo turismo massivo, o roxo surge como o elemento diegético de invasão. Os barcos de papel transportam a cor pela primeira vez no filme, pois são estes que trazem os turistas à cidade e irrompem-na quando a atravessam por

Fig. 5. Fotograma do filme *Setembro* (Ricardo Mata, 2020)

entre as caixas de fruta (que representam o comércio tradicional). É também um barco roxo do topo do carrossel das casas, quase como um manejador e uma marioneta rodopiante no seu eixo. A dada altura, os edifícios roxeiam-se, desmontam-se e montam-se como um cubo de papel, e as falsas fachadas erguem-se a roxo e desvirtuam e tampam Lisboa.

No que toca ao som, da mesma forma que a técnica de animação ganhou um caminho diferente, o som foi pensado, primeiramente, como narração. Todavia, após o dia em que o realizador conheceu o Sr. Hermínio e da D. Natividade e os gravou, apercebeu-se que os seus textos não tinham o mesmo impacto que as partilhas na primeira pessoa dos entrevistados. Deste modo, começou a triar o que achou mais relevante e reorganizou, não por cronologia, mas de forma a dar a sensação de continuidade ao filme. Assim, este filme surge a partir da narrativa sonora e com esta segue-se a fluidez da metáfora visual.

No entanto, apesar da versão académica ser povoada pelas vozes das pessoas na mercearia do Sr. Hermínio, devido à imperceptibilidade de partes do discurso e à qualidade possível na captação do momento não poder ser editada de forma a ser salva, o realizador teve que abdicar destas quando o filme se profissionalizou. A narrativa visual foi sonhada através daquele momento, mas agora é contada pelos sons das ruas de Lisboa, através dos ruídos ambiente, como o eléctrico, o barco, os pássaros, e vozes de fundo, quer portuguesas, quer estrangeiras, dando espaço ao espectador para uma reflexão mais introspectiva. Há ainda que mencionar que este filme conta com a presença de uma música criada pelo próprio Ricardo Mata, que posteriormente é melhorada em estúdio quando a equipa “EASYLAB” colabora no projecto.

Ainda que as vozes da D. Natividade e do Sr. Hermínio não sejam escutadas por nós, o título deste filme surge a partir da conversa e da importância que este mês tem para o casal. Em Setembro de 2019, fazia 49 anos que Lisboa se cumpria enquanto casa para estas pessoas. *Setembro* é

Lisboa das sardinhas, do grelhador, do manjerico dos Santos Populares, das casas e monumentos portugueses, da paisagem do Miradouro Santa Luzia, do Tejo, do sotaque “alfacinha” e da gentrificação.

O Homem do Lixo. Ao partilhar a sua família connosco, através deste filme de animação documental, a belmontense Laura Gonçalves (1988) retrata “uma casa portuguesa, com certeza”. “Etimologicamente, a palavra «retrato» está em latim associada ao *participar do passado*, a *fazer voltar atrás*, o que em muito se relaciona com esta ideia de tentar descrever uma memória, um episódio, um acontecimento, ou refletir sobre algo que se passou e de que de alguma forma apenas possuímos memórias, fragmentos, ideias, ecos.” [4]

Fig. 6. Fotograma do filme *O Homem do Lixo* (Laura Gonçalves, 2022)



Esta curta-metragem de animação 2D, produzida por "BAP Animation Studio" e "BANDO À PARTE", é desenhada e pintada digitalmente, e é criada em torno da partilha à mesa tão característica da cultura portuguesa, onde nela são contadas histórias das me-

mórias da família de Laura a respeito do seu tio Manuel Botão, que faleceu quando a autora tinha 15 anos, mas que é sempre lembrado com alegria.

Como muitos portugueses, o tio da realizadora viveu na primeira pessoa a Guerra do Ultramar. Depois, quando regressa a Portugal, devido à escassez da época da ditadura, emigra para França "a salto", ou seja, ilegalmente com a família e exerce a profissão de homem do lixo. Por meio deste ofício, acaba por recolher uma série de objectos como eletrodomésticos, bicicletas, relógios, entre outros, muito modernos para a realidade portuguesa da época, conserta-os e trá-los para Belmonte para presentear os seus.

A narrativa deste filme é criada em torno dos testemunhos sonoros da família da realizadora, captados pela própria em entrevistas individuais e gravações de convívios familiares. Inicialmente, as trocas de narrador dão-se em função da passagem do vinho, pois este elemento serve como fonte de desinibição, e faz com a partilha da história se vá expandindo, assim como a imagem de Botão transborda para além do porta-retratos.

Talvez por isso o filme seja tão verdadeiro, pois a gênese do som é feita a partir da intimidade e confiança estabelecidas no processo e por se tratar de uma experiência pessoal, mas ao mesmo tempo social, transposta na história de uma família que representa uma memória colectiva do povo português.

O facto destes registos serem captados por um gravador e não por uma câmara de filmar, faz com que haja uma maior naturalidade no discurso por parte dos intervenientes e seja possível a liberdade do animato. Ainda assim, as personagens são reais, porque Laura Gonçalves quando as retrata personaliza-as com as suas características pessoais, ainda que o seu estilo seja expresso através da linha, e a sua estética seja figurativa e grotesca. “O termo grotesco está ligado à cultura popular no sentido em que trata da expressão do irracionalismo sensual, pela distor-

ção, estranheza, fantasia, incongruência e feiura”. [9] Ao atentarmos nas especialidades sonoras e visuais das personagens conseguimos identificar a tia, os primos, os pais de Laura, os tios, os sobrinhos e a própria, que se destaca por ser a única com o cabelo escuro e um coque.

Enquanto meio, a animação permitiu a Laura navegar entre espaço temporal e espaço geográfico. O passado é expresso na memória da imagem do tio Botão, do macaco, da partilha da sardinha, no percurso do caminho da fuga para Paris (Fig. 7), nos ambientes da capital francesa, nos terrenos agrícolas e na aventura da vindima, sendo este, maioritariamente, pintado a cor.

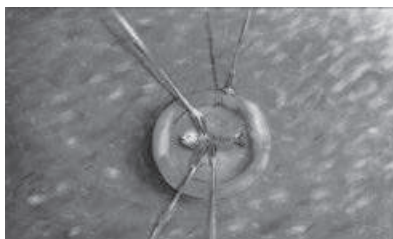


Figs. 7 e 8. Fotogramas do filme *O Homem do Lixo* (Laura Gonçalves, 2022)

O presente é sobretudo monocromático e é vivido no almoço em família em Agosto, altura em que os emigrantes voltam às terras de origem, neste caso Belmonte. O espectador situa-se neste espaço geográfico não só através da paisagem campestre ladeada pelos montes do primeiro plano do filme, mas também pelo sotaque da região da beira baixa.

A nível temporal, destaca-se também o facto dos personagens a tia e os primos de Laura Gonçalves apresentarem diferenças entre o passado e o presente. No passado, quando este núcleo da família Botão emigra ilegalmente para França ou quando é narrada a situação de miséria que se vivia na ditadura em Portugal, as primas gémeas são bebés, com apenas um mês de vida, e os irmãos delas ainda crianças, enquanto que no presente já são retratados em idade adulta. A tia quando começa a contar as histórias do marido rejuvenesce, mas depois mantém sempre a imagem actual e o primo volta a ser criança de 5/6 anos quando recorda o momento em que recebeu a bicicleta branca do tio Botão.

Uma das vantagens que a animação permite à autora é a liberdade de explorar conceitos através metáforas visuais sem limites, explorar diferentes campos de abstracção e exprimir sentimentos e emoções através da expressão plástica, sem que nenhum outro meio a possa igualar. Desta forma, a mesa torna-se palco para as alegorias das memórias desta família,



como quando surge o macaco de Angola, a partilha dos abacaxis, a fuga de Belmonte a Paris, e a tão típica metáfora portuguesa de uma sardinha a ser dividida por uma família.

(Fig. 9) Assim como o conceito da incerteza na memória, os desenhos tremelicam durante o decorrer do filme.

Fig. 9. Fotograma do filme *O Homem do Lixo* (Laura Gonçalves, 2022)

Ainda que o homem do lixo já não esteja fisicamente presente, a mesa continua com um lugar para ele e sua presença povoa o espaço de memórias da história familiar da realizadora. "Quando Gonçalves começou a conceptualizar o filme, em 2019, não conseguia mais imaginar com clareza o rosto do tio. Desenhá-lo a partir de fotografias parecia falso, então cortou a cabeça dele para fora do ecrã durante a maior parte do filme, esperando que o anonimato resultante permitisse que os espectadores vissem mais facilmente suas próprias vidas refletidas na narrativa. - Esta é, claro, uma história pessoal", disse ela. Mas, acrescentou ela, "quanto mais abstratas essas coisas forem, mais as pessoas poderão se sentir representadas". [10]

4. Conclusão

Após a análise dos filmes de animação documental *A Ria, a Água, o Homem* (2010) de Manuel Matos Barbosa, *Setembro* (2020) de Ricardo Mata, e *O Homem do Lixo* (2022) de Laura Gonçalves, podemos compreender que a cultura portuguesa não é estagna. Portugal não se espelha num padrão, mas na pluralidade da construção destes três retratos distintos, de épocas e geografias diferentes, histórias de vida desiguais, e que tudo isto se traduz em diversas técnicas e linguagens, que ainda assim conseguem aglutinar as raízes do povo português.

Se por um lado Matos Barbosa transporta-nos para a zona litoral da ria de Aveiro de outrora, através da tradição a preto e branco, que é tão comum na linguagem cromática dos filmes de animação portuguesa, Ricardo Mata apresenta-nos a Lisboa luminosa e colorida dos dias de hoje, tomada pela gentrificação. Ao passo que Laura Gonçalves leva-nos para a beira baixa, e com ela entramos numa máquina de memórias, balançamos entre a cor e o preto e branco, que nos conduzem entre passado e presente.

Visto que Portugal é um país rural, mas também marítimo, a água é um elemento integral da nossa cultura e da relação que temos com o mundo enquanto portugueses. Por tal, o primeiro filme representa o estilo de vida à beira ria, da dependência do Homem para com a água. Nesta curta-metragem de animação documental, a portugalidade denota-se em artefactos como os moliceiros e os trajes das pessoas, nos costumes, na paisagem da ria de Aveiro. Há nele impresso um retrato humanizado entre o homem e o barco, e a realidade socioeconómica da época é representada pelo lado do trabalho braçal, da labuta da terra e do sal, e da pesca.

Ao contrário do Portugal pitoresco do passado d' *A Ria, a Água, o Homem*, *Setembro*

reporta-nos o contexto actual e urbano, numa denúncia político-social em metáfora visual, criticando a falta de habitação, o turismo excessivo, a mudança do estilo de vida, levando o espectador a uma reflexão sobre a Lisboa de hoje. Portugal vê-se em momentos de representatividade geográfica, em elementos característicos como o manjerico, as sardinhas, a arquitectura das casas portuguesas, a luz transposta na cor, para além da sonoridade das ruas da capital.

Por fim, *O Homem do Lixo* leva-nos em diferentes tempos ao Portugal rural de Belmonte e é fruto do testemunho autobiográfico da realizadora. Este é feito através da animação de um diário gráfico, tendo

como base a narrativa dos testemunhos dos familiares da mesma, em torno das histórias do Tio Botão, que assim como muitos portugueses viveu a guerra do Ultramar e teve que emigrar para França. Temas como a escassez, a pobreza, a ruralidade, a emigração, o conceito de família, o medo, a coragem, o contrabando e o contexto político-social são explorados no estilo grotesco e figurativo da autora.

Em suma, verifica-se que nas três obras os espaços geográficos da origem dos seus realizadores têm uma influência preponderante na forma como as narrativas são desenvolvidas. As raízes são expostas pela memória sentimental de cada autor e em todas elas conseguimos ver retratos diferentes de Portugal, através dos auto-retratos dos criadores. Portugal é a raiz de ligação e as suas casas o veículo que melhor entendem e traduzem plasticamente as respectivas interpretações desta cultura.

A animação portuguesa expressa-se muitas vezes por meio da tradicional bidimensionalidade, em retratos e/ou metáforas poéticas, e a narrativa é sempre um factor de destaque na produção da mesma. O cinema de animação documental português é veículo, é prova, é forma de expressão de tradições, artes, costumes, regionalismos e hábitos do povo português, e o modo como este comunica é também alvo de interpretação histórica na sua criação para as gerações vindouras.

5. Referências

1. Penafria, M. (1999). O Filme Documentário História, Identidade, Tecnologia. Edições Cosmos
2. Serra, J.J.: Revisando o documentário animado: um olhar sobre a formação de um gênero híbrido e paradoxal.8. 5--22 (2021)
3. Wells, P.. Once upon a time: Narrative strategies. In Understanding Animation. Routledge, Londres e Nova Iorque. (2003)
4. Roe, A.H.: Animated Documentary. Palgrave Macmillan (2013)
5. Peres, C., Sá, G. & Graça, M.: Olhares sobre a Animação Portuguesa - Alexandra Ramirez e Laura Gonçalves. Cinanima, Espinho (2024)
6. Costa, C.A. (2021). Cinema e Povo. Representações da Cultura Portuguesa no Cinema Português. Edições 70.
7. Valente, A.C.: O cinema e o desenho de Manuel Matos Barbosa 210--216 (2014)
8. Mata, A. (2019). Setembro. [Master's thesis] Universidade Lusófona de Humanidades e Tecnologias
9. Pelayo, R. O Desenho Como Grotesco: Paula Rego e a Cultura Visual. 8.1-10 (2014).
10. The New Yorker, <https://www.newyorker.com/culture/screening-room/the-power-of-family-memory-in-the-garbage-man>



Illustrating With Text, not Illustrating Text: Physicalisation of Deconstruction

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Text, illustration,
deconstruction,
physicalisation

Abstract

Deconstruction is about uncovering hidden assumptions, intentions and power relations. It is a highly-intellectual process. We wondered what it might be like to partially see it happening--visualise it, so to speak. We decided to present one form of physicalisation.

1. Introduction

One of our common practices as humans is that we try to optimize on conditions that are presented to us. For instance, a person presented with a book that she ends up enjoying might go out and procure more books by the same author. A person shown a crafting skill might pick up a hobby based on that newly-earned skill. A person provided with an office might personalize the space. A person given an opportunity to visit a place might invite a friend along.

So is the case with a person who looks at text she has found and attempts to deconstruct it. She extends her relationship with the text. The purpose of deconstructing might be political--in order to right some injustices. The purpose could be purely academic. The individual might be interested in learning about underlying structures of text. It could also be the case that the individual has found that she can give room to her creativity in the process and, somehow, might even derive some pleasure in the process.

In this paper, we embarked on a combined purpose of exploration and pursuit of creativity. We discovered a few things. In particular, we found/learnt that the process of making deconstructing *physical* can have imminent power. First, being able to see deconstruction as a deteriorative process which visibly shreds extant logic and coherence was charged and thought-provoking. Being able to juxtapose both original and deconstructed text reified the hidden power of an idea whose fury one could miss/lose by treating it simply intellectually--like an atomic bomb whose extremely destructive consequences cannot be imagined until the damage has been done--and the impact has become only too sobering. Third, the dynamic nature of the process--made physical and watching it as it evolved--lent some life and energy to such an idea as disruption--which could otherwise be an abstract idea. Finally, in a way, it could be said that we found that the process and output of the deconstruction process can sometimes be visually enjoyable, depending on the case (as in the micro-examples we reproduce at end of the paper).

2. Foundational and Theoretical Explorations

We begin by exploring a few ideas which make a rendezvous in this paper.

Art. Here, we provide a brief framework of art.

2.1.1. Defining art

What is art--the art object, we mean, for it is another way to ask the question about art as object, process or doing? The question of how art might be defined has been debated for so long and has generated so much written narrative record that we cannot begin to address it here. It is not our goal and neither are we qualified enough to attempt to do it. Nevertheless, we would like to bring to attention of the reader a few ideas which accord with our task in this paper.

Gunther [1] reflected on a proposal that two (not yet all) of the properties that art must possess are content and embodiment (proposed by Arthur Danto). Content speaks to the fact that a piece of art is not aimless. It is "necessarily about something" (p. 128); it is intentional. Embodiment requires that it must be "manifested physically" (p. 218). Its self holds/guards its content. It is not a symbol for something else (as in, for example, the Hegelian idea of symbolic art, where content is external to the object) [1]. In Gunther's view, the properties of content and embodiment are critical, but not sufficient. They are not enough, he argued, to exclude other things that are not art--for instance, a street sign or a soup recipe, he suggested. Gunther proposed a third condition: aesthetic force. The artwork slips what might appear to be its normative conditions. The street sign, for instance, stands as an order. The soup recipe presents a directive or suggestion. "Once an object, event or state of affairs becomes an artwork," however, "its previous linguistic and non-linguistic functions are superseded...by their aesthetic force" (p. 138).

2.1.2. Some characteristics

For a practical list, Dutton [2] provided a list of characteristics that he argued could be used to describe what is considered art--whether artifact or performance. We reproduce a few of them here. Although he termed them "recognition criteria" (p. 368), our intention is to present them as intentional guiding criteria that were roused/called forth in production of our project (later).

Below, we have used Dutton's named terms.

Direct pleasure: The work is to be experienced as a thing that can be enjoyed in itself. In our project below, among other things, the pleasure of , for instance, movement and that derived in coloration are incited.

Skill or virtuosity: Some form of skill is brought into play in process of creation of the work. In our case, we drew upon control of some form of technology in order to be able to generate the work.

Novelty and creativity: This involves capacity to present something new or a new way of doing it, but also a capacity to explore a phenomenon in just a different way than usual. We re-materialized the complexity of a book by unscrambling the text of a systematically-laid-out, well-known text. That

complexity is further revealed in the practically-endless way it could be presented through a visual narrative that changes its composition every time it is instigated. Although writing about illustrating for young audiences, it can be said that the submission by Male [3] is applicable in many cases of illustrating that “innovation and creativity becomes an important aspect of the conceptual and practical process” (p. 93) of creating illustration.

Representation: The work of art involves a depiction--real or imagined--of its subject in the world. Ours is a physical recreation of an original object.

Intellectual challenge: Experiencing a work of art draws on perceptual and intellectual capacities of the viewer. In our model, shifting elements and, when letters are involved, the irresistible pull to make sense of words provoke the viewer.

Deconstruction and deconstructing text. Post-structuralism is an approach that pushes focus of our inquiries beyond knowable structures. It “seeks to interrogate the forms of knowledge, the logics, and the assumptions that underlie our actions and...our interventions” [4]. Post-structuralism is a system which helps us take a critical look at the past/history. Hopefully, in the process, we discover value of the present, given the argument for “relativism and becoming” which poststructuralism allows [5]. This can be useful for, among other things, artistic invention. This case is as much made when Dillet pointed to art critic Boris Groys’ assertion that artists “create...values that contemporary societies lack by diagnosing our modes of aesthetic...production” (p. 522).

Post-structuralism, of which deconstruction is a variant [6], “disrupts the assumed one-to-one relationship between sign and signified” (p. 127) [7]. Core to deconstruction is the idea that text does not have fixed meaning. One obvious way to make that case is to point out multiple meanings that a word might hold. Another is to rearrange words in order to generate a different message.

We propose that the one-to-one relationship can be explored further in terms of letters which make up words that proffer themselves for meaning. Within an understood language, every letter of the alphabet has a finite number of ways it can be combined with another letter (or a pair of letters around it, or three, or four, or more, depending on need of the examiner). The number might be quite large, but we suspect that the arrangement might be exhaustible. Let us call each of those possible relationships between a letter and another letter a *link*.

Now take, for example, the word, *home*. Then, let us consider the letter, “m,” in the word. We can make the following link claims:

“M” is between “o” and “e.”

“M” is situated to right of “o.”

“M” is situated to left of “e.”

These asserted relationships are fixed in the word, *home*, and they help fix meaning of the word, *home*.

As in the example of *home* above, one of the ways we make meaning of text is by reading words that we recognize from experience as coherent and to which we assign meaning through experience (which includes normative understanding). In a disruptive move, our model tears apart both those words and the meaning(s) in them, which is(are) now lost in

absence of familiarity. This disruption is physicalised. in the model to create a visual (or illustrated) effect of the disruption.

Deconstruction also mines the idea of in-built priorities [6]. In our model, we invert priorities by re-assigning power to the subverted text which, by tradition, would be inferior to the coherent text. We embolden (and thus make more captivating) the subverted text through such things as movement, colored text and colour of fields.

Conceptual art and illustration. According to Male [3], one form of illustration is described as conceptual art. Conceptual art presents as “visual descriptions of ideas or theories” (p. 51). Practice of conceptual illustration can involve thinking abstractly, using a narrative device, using two-dimensional design principles and using *media* [8]. Conceptual art locates the work at the level of ideas--because it is about intellectual inquiry--rather than objects [9]. Representation can be seen more as semantic rather than illustrative, tending to “convey a specific meaning rather than to depict a scene, person or event” [9].

2.3.1. Text-based art

One type of conceptual art is text-based art. In this type of art, the viewer might engage the artwork “through the active process of reading rather than through any particular form of visual contemplation” (p. 61) [10]. Strategies employed in the work might include style of writing, specific textual arrangements and page layout. Some text-based art are created to exist within mainstream publishing. A page for a magazine, for instance, might be designed by the artist. So, there is in that case, according to Blacksell, a shift away from the autonomous art object into an activity within mainstream publishing. Another strategy for this genre of conceptual art involves “potential for words to operate as a form of sculptural unit” (p. 678) [10]. Here words are arranged to form a particular shape or a set of shapes on the page. This might actively include presence of empty spaces on the page. The art work does not have to appear in a page alone. It could be on a piece of canvas. It could also, for instance, be stenciled or painted onto a wall. It is also possible to integrate text with images.

2.3.2. Mathematical art

Another form of conceptual art is mathematical art. According to Joseph Malkevitch’s [11] feature for the American Mathematical Society, there is “rich association between mathematics and each of the arts.” He continued, “One mathematical connection with art is that some individuals... have needed to develop or use mathematical thinking to carry out their artistic vision.” Mathematical art, said conceptual artist, John Sims, is art that “embraces the spirit, language and process of mathematics” [12].

The American Mathematical Society [13] holds a recurring mathematical art exhibition. It was begun in 2008 with a goal of acknowledging individuals “whose works demonstrate the beauty and elegance of mathematics expressed in a visual art form” [14].

Transgression in art. Before concluding this section on art and representation, it is useful to reflect on the value of transgressions in the

discipline. Stanowski [15] directed attention at the following comment by art critic, Boris Groys: “Everything may function as art, because art has liberated itself of all constraints, including constraints of its own definition.” Groys continued that, in that sense, art has become absolute because it has made even anti-art “a fully legitimate part of itself” (p. 487). As non-experts, we are cautious and careful about fully embracing such an intense position--especially given our earlier discussion of some definition given to art by some characteristics upon which scholars and practitioners have reflected over time. Nonetheless, the nature of conceptual art is that it calls for broad thinking and does benefit from experimentation.

Graves [16], argued roundly for a valuable role of transgression in art. “The practice of repudiating and subverting past art practices,” the author wrote, “plays an underappreciated meta-function in maintaining the ongoing ability of the artworld to produce new works” (p. 40). It thereby serves a “crucial role in the creation of future works of art” (p. 41). Art transgression is relatively common in the history of art, the author asserted. We embrace the point of view that going beyond boundaries and experimenting is at the heart of producing art.

Artificial intelligence. One of the mainstream discourses today surrounds artificial intelligence, its capabilities and its implications. New technologies generate new implements, observed Carter [17], writing about contemporary practices in art. Among these is to be considered artificial intelligence as a tool for generating artwork. In addition to that is the ease by which artwork using these tools can be generated. Tools that we can use for creating, among other things, computer-assisted illustration “have become increasingly user-friendly and versatile” (n.p.) [17].

Artificial intelligence arrived, not unusually for some new inventions, with some controversy in the field of illustration. When a Rembrandt imitation titled “The next Rembrandt” was produced by artificial intelligence in 2016, art critic Jonathan Jones reportedly deemed it “a horrible, tasteless, insensitive and soulless travesty of all that is creative in human nature” and deemed that use of the invention “a new way to mock art” (in Carter, 2019, n.p.) [17]. In the years since, we have seen a growing embrace of artificial intelligence as a generator of illustration--as well as its use for other things in human life.

It could be said that the type of project we have created could be very easily produced using artificial intelligence and that would be an accurate observation. What a critic who raises that point might not be considering fully, however, is the deeper question of agency.

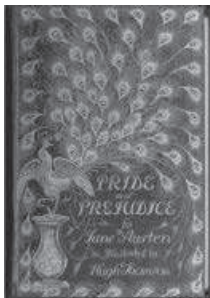
Agency. In conceptual art, agency of the artist is preeminent. “The notion of *agency* in art-making is...particularly emphasised” [9]. In many cases, this observation continues, “the ‘art-making’ and the ‘artwork’ come together, because what is sought is an identification of the notion of the work of art with the conceptual activity of the artist” [9]. A critic could argue that training artificial intelligence to do an artist’s bidding is, in itself, an exercise of agency. Once again, that could be considered a logical assertion. The “agency to engage in how much agency,” however, is also relevant. Some creators will seek a greater range (and depth) of

agency than others in order for them to be able to value their creation more highly. This is the case with us, as doing by our greater involvement in the process of construction is more meaningful to us.

3. Current Project

Male [3], in a discussion of technological subjects in illustration, observed that a chief concern is to “elucidate structure, function and mechanics” (p. 114). Although our current project is not direct representation of a technical object, what is eminently provocative is that these representation goals can themselves be embraced as organic drivers or systematic elements that can be employed as processes used to generate an illustration. These lend themselves particularly to illustration which is generated by some form of technology. In a whimsical, non-direct sort of way, it seems like an illustration autopoiesis. In our project, repeated motifs and mechanical regularity combine to generate an output that is playful. Male added that, done right, technical illustration can be both “evocative and exciting” (p. 114) [3]. That is the kind of energy which we hoped would be roused by the dynamic nature of our project.

“An image without a context is not illustration, wrote Male (p. 52) [3]. Following our discussion earlier in this paper, our project has intentional content. It has evolved as an attempt to deconstruct text.



Model actions. To mobilise for our foundation--a text to deconstruct--we considered a well-known piece: *Pride and Prejudice* by Jane Austen [18]. We manually imported the first and part of the second chapters into a model [19]. We created an agent to move through the text and “subvert” the coherent text by selecting and randomly reassigning elements of the text. Variations of “deconstructed” text are provided in the figures that follow.

Fig. 1. *Pride and Prejudice*. Jane Austen (1984). [The Project Gutenberg eBook. Courtesy of open-access Project Gutenberg License]



Figs. 2 & 3. *Pride and Prejudice*. Lower panel: Original, coherent text. Upper panel: Matching deconstructed text. Fig. 3 (Right image): Detail.

Model outputs. Text and deconstructed text panels are presented below. For brief dynamic visualisation of “scribe” (pen/brush) moving across text and translation from coherent text (lower panel) to deconstructed text (upper panel), see: <https://vimeo.com/923915794?share=copy>

Fig. 4. Pride and Prejudice. Lower panel: Original, coherent text. Upper panel: Deconstruction of text as a series of coloured plates.



Fig. 5. Pride and Prejudice. Lower panel: Original, coherent text. Upper panel: Deconstruction of text as a series of coloured plates: Full panel.



Figs. 6 & 7. Pride and Prejudice. Details of text and coloured plates

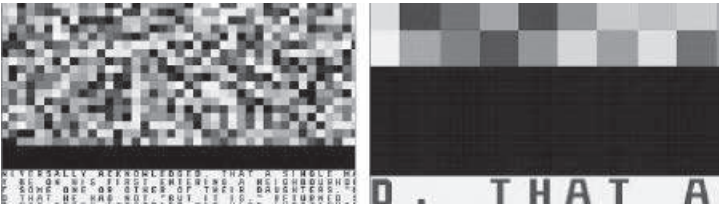


Fig. 8. Pride and Prejudice. A quote. Micro-model: Deconstructed text.



For deconstructing text into coloured plates, see: <https://vimeo.com/user73823492/deconstruct-1?share=copy>

We created a micro-model for either pithy or playful deconstruction of text (Fig. 8). For brief dynamic visualisation, see: <https://vimeo.com/923902772?share=copy>

4. Conclusion

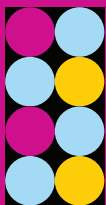
In the current paper, we have considered the notion of physicalising deconstruction by illustrating the process and outcome through a visual medium. Deconstruction can be an aggressive (not necessarily in a bad sense) intellectual engagement. For some people, it is possible some of its potency might be lost when it is veiled behind its intellectual front alone. We thought that energizing it through a medium which interprets its physicality might be a worthwhile endeavor. In a way, however, it became instructive for us as well. Sensing the power of what it can accomplish by ripping apart stands juxtaposed with the playfulness it can elicit by its gentler transgressions.

For us, agency of the creator matters. Nature of the type of tool we have employed is that it can be used in its advanced forms to construct this form of illustration in a more efficient way. But then, where are souls of fun and challenge and anticipation and wrestling failure and so on? Where does the inner spark of inspiration light when the mind itself is not engaged because a machine has done all the engaging? Doing art in probably all of its forms (and learning through the process) is, at least as we still know it, not truly possible without the germinal as well as meta-presence of the creator. The range is “better.”

5. References

1. Gunther, Y. H. (2016). What art could be: Tracing the later steps of Danto's search for a definition. *Literature and Aesthetics: The Journal of the Sydney Society of Literature and Aesthetics*, 26, 127-138.
2. Dutton, D. (2006). A naturalist definition of art. *Journal of Aesthetics and Art Criticism*, 64(30), 367-377.
3. Male, Alan. (2007). *Illustration: A theoretical and contextual perspective*. Ava Publishing. <https://ebookcentral.proquest.com>
4. Macleod, T., & Palmer, M. (2014). Post-structuralism. In T. Teo. (Ed.) *Encyclopedia of critical psychology*. Springer. https://doi.org/10.1007/978-1-4614-5583-7_511
5. Dillet, B. (2017). What is poststructuralism? *Political Studies Review*, 15(4), 516-527. <https://doi.org/10.1177/1478929917712931>
6. Caplan, J. (1989). Postmodernism, poststructuralism, and deconstruction: Notes for historians. *Central European History*, 22(3/4), 260-278. <https://www.jstor.org/stable/4546152>
7. Handsfield, L. J. (2011). Disruptive comprehension instruction: Deconstructing, resituating, and rewriting texts. *Theory Into Practice*, 50, 125-132.
8. Heavner, Rebecca. (2019). Conceptual illustration: Framework and methodologies. In A. Male (Ed.), *A companion to illustration: Contemporary and post-contemporary practice* (pp. 47-58). John Wiley. <https://doi.org/10.1002/9781119185574.ch2>
9. Stanford University. (2022). Conceptual art. In *Stanford Encyclopedia of Philosophy*. <https://plato.stanford.edu/entries/conceptual-art/>

10. Blacksell, R. (2014). From looking to reading: Text-based conceptual art and typographic discourse. *Design Issues*, 29(2), 60-81.
11. Malkevitch, J. (2023). *Mathematics and art*. <http://www.ams.org/publicoutreach/feature-column/fcarc-art1>
12. Hoffman, J. (2010). Q&A: John Sims on mathematical art. *Nature*, 464, 983. DOI: 10.1038/464983a
13. American Mathematical Society. (2023). *The 2023 mathematical art exhibition*. <https://www.ams.org/publicoutreach/math-imagery/2023-exhibition>
14. American Mathematical Society. (2013). *Mathematical art exhibition awards--2014*. <http://www.ams.org/about-us/governance/committees/mathart-charge.pdf>
15. Stanowski, M. (2020). Conceptual art and abstraction: Deconstructed painting. *Leonardo*, 53(5), 485-491.
16. Graves, L. (1998). Transgressive traditions and art definitions. *Journal of Aesthetics and Art Criticism*, 56(1), 39-48.
17. Carter, Alice A. (2019). The polymath principle in the twenty-first century. In Alan Male (Ed.), *A companion to illustration: Contemporary and post-contemporary practice* (pp. 554-569). John Wiley. <https://doi.org/10.1002/9781119185574.ch23>
18. Austen, J. (1894). *Pride and prejudice*." George Allen. https://www.gutenberg.org/files/1342/1342-h/1342-h.htm#page_1
19. Netlogo (2020). *Netlogo 6.2.0*. <https://ccl.northwestern.edu/netlogo/6.2.0/>
20. National Center for Biotechnology Information, <http://www.ncbi.nlm.nih.gov>



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