



CATÓLICA  
ESCOLA DAS ARTES

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PORTO

## AI IN AUDIO

Internship Report submitted to Universidade Católica Portuguesa  
to obtain a Master's Degree in Sound and Image

*Ana Bárbara Alves Ribeiro*

Porto, September 2024



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– Specialization in –  
Sound Design

*Ana Bárbara Alves Ribeiro*

Report done under the orientation of  
José Vasco Carvalho

Porto, September 2024



*To my family and friends both at home and abroad*

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## Abstract

This report highlights the tasks and functions conducted during the internship in the audiovisual production company FilmesDaMente, under the Master's of Sound and Image, with a specialization in Sound Design. During this internship, and through the numerous projects, various skills were developed alongside those learned during the Master's degree regarding pre-production, production and post-production of audio.

In the first chapter, the host company is introduced, and the second chapter discusses an investigation on the use of Artificial Intelligence in Art. The third chapter introduces the schedule and activity plan during the internship. Lastly, the projects done during the internship are described, which is followed by the final thoughts of the internship, and a concluding discussion on the use of Artificial intelligence in Sound Design.

**Keywords:** Artificial Intelligence, FilmesDaMente, Internship, Sound Design

## Resumo

O presente relatório tem como objetivo expor as tarefas e funções realizadas ao longo do estágio curricular na produtora audiovisual FilmesDaMente, no âmbito do Mestrado de Som e Imagem, na especialização de Design de Som. Durante este estágio, e através dos inúmeros projetos, foram desenvolvidas diversas competências adquiridas ao longo do Mestrado, relativamente a pré-produção, produção e pós-produção de áudio.

No primeiro capítulo é apresentada a empresa de acolhimento e o segundo capítulo aborda uma investigação sobre a utilização de Inteligência Artificial em Arte. O terceiro capítulo apresenta o cronograma e plano de atividades durante o estágio. Por fim, são descritos os projetos realizados durante o estágio, seguindo-se as reflexões finais do estágio, e uma discussão final sobre a utilização da Inteligência Artificial em Design de Som

**Palavras-Chave:** Design de Som, Estágio Curricular, FilmesDaMente, Inteligência Artificial

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## Glossary

**Artificial Intelligence (AI)** – simulation of human intelligence processes such as learning, understanding, problem resolution, decision making, and creativity done by machines

**Boom Pole** – long pole with a microphone attached which allows the operator to stay out of the camera shot

**Boom Operator** – person who operates the boom pole

**Camera Shot** – what can be seen on camera during filming

**Class-action Lawsuit** – lawsuit where an accuser is a group of people rather than a single person

**Cyclorama** – large curtain or wall, often curved, used as a background

**Deep Learning Artificial Intelligence** – method in which Artificial Intelligence learns from considerable amounts of data to predict or categorise something

**Digital Audio Workstation (DAW)** – software used for editing and producing audio

**Extras** – background actors with no dialogue

**Featurette** – short-length documentary film with bonus material about the making of a feature film

**Foley** – sound effect recorded after the shooting of a film added in post-production to enhance audio quality

**Gaffer** – chief electrician in a film or television production

**Generative Artificial Intelligence** – Artificial Intelligence that creates original content from text to visual media based on a user's prompt

**Lavalier Microphone** – small microphone placed on a person's body

**Loudness** – scale measured in LUFs where a sound can be ordered from quiet to loud

**Loudness Unit Full Scale (LUFs)** – measurement used to quantify an audio's perceived loudness

**Machine Learning AI** – process where Artificial Intelligence is improved by algorithms to continuously advance their performance by helping them analyse and understand data

**Mixing** – process where multiple sounds are blended

**Motion Graphics** – graphics animated into video

**Musical Instrument Digital Interface (MIDI)** – process of communication between electronic devices, such as a synthesiser and a computer

**Plugin** – software that adds a specific functionality to an already existing platform

**Reverberation** – reflection of a sound in an area

**Sound Effect (SFX)** – sound added to a video to enhance it

**Shotgun Microphone** – directional microphone that picks up the sound that is directly in front of it while reducing noise from other directions

**Software** – program used by a computer

**Sound Design** – art of creating a soundtrack through recording, gathering and manipulating audio

**Sound Recordist** – person who operates the audio equipment on a TV or film set

**Storyboard** – sequence of drawings that allows a preview of a video

**Supporting Actors** – actor with at least one line of dialogue

**Take** – single continuous recording of a specific scene

**Voiceover (VO)** – narration of a video done by someone not on screen

# I – Introduction

As part of the Master's in Sound and Image at the School of Arts of the Universidade Católica Portuguesa (UCP), we were given the option to do a dissertation, a project or an internship during our second year in order to complete our studies. Due to the artistic nature of the study program, I believed it was in my best interest to do an internship, as it would help me put into practice the skills that I had acquired during the previous school year, as well as develop new ones not only in terms of the area of Sound Design as a whole but also regarding the employment market.

Upon sending out applications myself and talking with my advisor, one music studio and two production companies were interested in having me as an intern. Even though my interest is in pursuing music production after my studies, I wanted to try something different and get out of my comfort zone, and as a result, accepted the offer to work at the film production studio FilmesDaMente.

This report is a product of said internship, along with my research and opinion on how some AI-based tools can be useful and beneficial in sound production while others can be prejudicial and non-ethical, not only in terms of the quality of the sound itself but also regarding the creative aspect involved in sound production. Taking into account several examples related to sound in music and cinema, both through my own experience during the internship and through further research I will also be presenting and comparing other situations in which AI was used across different fields of the Arts, ranging from Visual Arts, Literary Arts and Performing Arts in the process.

## **1.1 - FilmesDaMente**

Founded in 2010, FilmesDaMente is a production company based in Porto that works in several different aspects related to cinema and music. In their own words, their services include everything “From script writing to production planning, travel and transport, accommodation, crewing, casting, catering, equipment rentals, location

scouting, permits, studio rentals, SFX/Consultants, post-production, sound stages, colour grading and motion-graphics 2D/3D.” (FilmesDaMente, n.d.). Although most of their work consists of institutional videos and TV advertising, their primary goal is to work in feature and short films, whether through co-productions or by financing their projects when possible.

The company’s facilities are comprised of a main office space (Fig. 1), a sound studio with a 5.1 surround sound system (Fig. 2), a viewing room (Fig. 3), a studio with a cyclorama (Fig. 4), a small meeting area (Fig. 5), and an equipment and storage room (Fig. 6).



Figure 1 - Main office Space (Ribeiro, 2024)

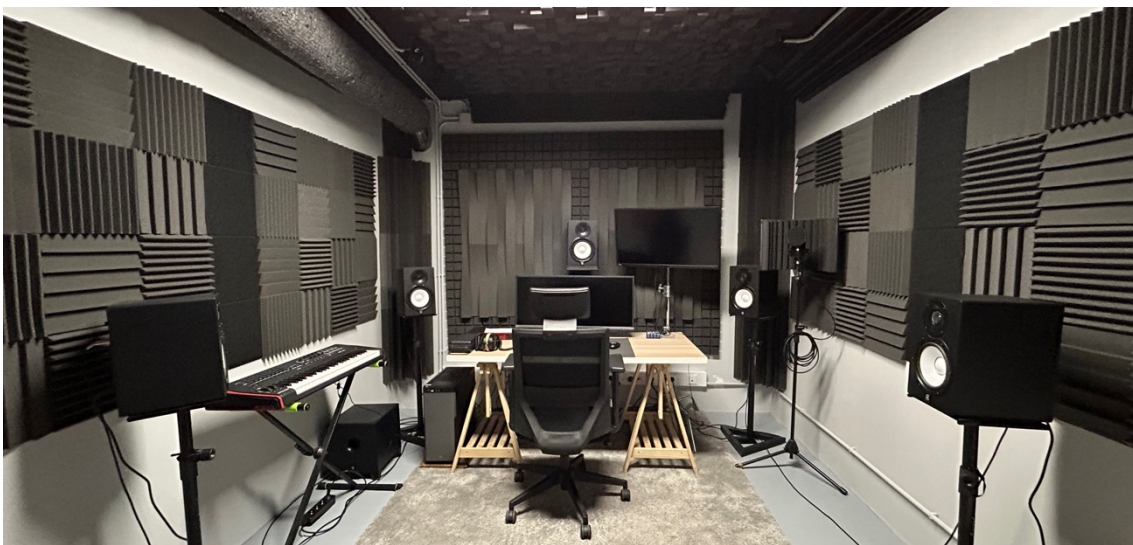


Figure 2 - Sound studio with 5.1 surround sound system (Ribeiro, 2024)



Figure 3 - Viewing room (Ribeiro, 2024)



Figure 4 - Studio with cyclorama (Ribeiro, 2024)



Figure 5 - Meeting Area (Ribeiro, 2024)



Figure 6 - Equipment and storage room (Ribeiro, 2024)

Concerning the equipment the company has on hand, they offer a wide variety of camera, audio and lighting equipment, which is used both in-house and rented for outside use. For audio equipment, it is important to mention that though limited, it is adequate for in-house productions and when needed the company may resort to freelance professionals and their equipment. The microphones and audio recorders available can be seen in the table below (Table 1). The sound studio itself is equipped with a Clarett 8 Pre audio interface, Yamaha Speakers in a 5.1 surround setting and an Impulse MIDI keyboard, with the individual workstations in the main office area having either a Behringer UMC22 or a Behringer UMC202HD as audio interfaces and some Beyerdynamic DT-990 Pro headphones (Fig. 7). There is also two different Rode boom poles and one Ambient boom pole along with one Cinela and one Rode blimp with wind protectors when needed for outside shoots and several microphones stands for both indoors and outdoors use. In terms of software, the company uses DaVinci Resolve for video editing, so it was decided that I would use the built-in DAW Fairlight to make it easier to navigate between the alterations the video editors would make on the projects and my own audio edits.

Table I - FilmesDaMente sound equipment

Type	Name
Shotgun Microphone	Sennheiser MKH 8060
Shotgun Microphone	Rode NTG2
Shotgun Microphone	Rode NTG3
Condenser Microphone	Oktava MK-012 pair
Condenser Microphone	Lewitt LCT 040 Match Pair
Condenser Microphone	Lewitt LCT 440 Pure
Condenser Microphone	Boya MI
Condenser Microphone	SE Electronics X1S
Dynamic Microphone	Shure SM 58
Dynamic Microphone	AKG WMS 40 Mini Dual Set
Lavalier Microphone	Sennheiser ew 100 G3
Lavalier Microphone	Sennheiser ew 512 G4
Lavalier Microphone	Sennheiser ew 500 G4 Boom Set
Lavalier Microphone	Rode Wireless GO II
Audio Recorder	MixPre-6
Audio Recorder	Zoom H4N
Audio Recorder	Tentacle Sync-E TEI MKII



Figure 7 - Individual workstation (Ribeiro, 2024)

Personnel-wise, the Porto office consists of founder Victor Santos and partners Roberto Santos and Nuno Rocha, two video editors, two graphic designers and one gaffer, the latter of whom was also responsible for the equipment's rental, cleaning and organisation. There were also four other interns working there during my own internship with whom I collaborated on various projects as they joined at different times.

## **1.2 – General Internship Objectives, Roles and Projects**

With the starting date of the 15<sup>th</sup> of January, the internship lasted 20 weeks, finishing on the 1st of June, during which there were several different projects that I was a part of. With FilmesDaMente not having a designated audio department or even an audio specialist, I took on the audio part of whatever projects the company was working on, whether that required pre-production, production or post-production of audio. As such, my responsibilities ranged from helping with studio and foley recordings, assisting other sound recordists as a boom operator during a movie production, and mixing different projects such as short films, advertisements and other institutional videos, all while doing other tasks as needed – for example subtitling, helping with the transportation and assembly of gear, both related and not to sound, among others.

My internship supervisor within the company was company partner Nuno Rocha, and so I communicated the most with him on the various tasks and requirements of

projects I was working on, although this changed depending on the various assignments throughout my time there. As an example, Victor Santos was the coordinator of all Siemens projects, so all the work I did when it came to those projects would go through him. For the CITAB and RePlace videos, however, since they were animated videos, I mostly worked with the motion graphics specialist João Pedro, though these would at the end also go through Nuno.

Outside of the projects done within the confines of the FilmesDaMente headquarters, it is also imperative to mention that during the filming of the movie *A Vida Fantástica de Sofia*, even though all three of the partners were a part of the film's production, I operated under the sound recordist Sérgio Silva where I worked as a boom operator alongside Artur Pires.

### **1.3 – Report Structure**

This report is divided into five chapters. It will begin with an introduction chapter, followed by a second more research-based chapter about how AI is currently used in the arts, namely in audio. The third chapter specifies the internship plan and activity schedule, and the fourth chapter will be about the internship development and a more in-depth analysis of everything that was done. Lastly, the fifth chapter will consist of an overall analysis of the internship along with a contrast of how AI can be used beneficially in the artistic space taking into account the experience acquired during the internship.

## 2 – AI in Audio

Before I began my internship, I sought to develop my knowledge of the influence Artificial Intelligence has had in Art, namely in Audio. To help me prepare for my work at FilmesDaMente and during the internship itself, I researched this topic and the tools available to the public. This research then helped me both during my work and also in understanding the repercussions these tools might have in the future of sound design. Simultaneously, my work in the field helped me understand how these tools worked and put into practice what I had researched, helping me develop a more informed opinion on Artificial Intelligence in the artistic field.

In the past few years, there has been a big discourse around the use of Artificial Intelligence in Art, particularly in the music and film industries. Many in these industries argue that there should be no place for AI in Art and the debate around its use and the ethics behind it have only increased.

### 2.1 – What is AI

The concept of Artificial Intelligence is generally considered as “(...) technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity and autonomy.” (Stryker & Kavlakoglu, 2024). Though there are several types of AI, I will be focusing on Generative AI which “(...) refers to deep learning models that can create complex original content—such as long-form text, high-quality images, realistic video or audio and more—in response to a user’s prompt or request.” (Stryker & Kavlakoglu, 2024).

Generative AI has been the main focus of the debate concerning AI, as in the past few years there has been a surge of these websites and softwares that are easily accessible by the general audience. OpenAI’s ChatGPT and DALL-E, Midjourney, Soundraw, and Writesonic’s Audiosonic, just to name a few, are examples of this kind of AI that can generate text, image, video, sound and voices completely artificially.

Though Generative AI has made its way to many industries, the film and music industries have been the most outspoken about how they have been affected by AI's use.

## 2.2 – AI in Art

In visual art, one of the main issues raised by AI's use is the ethics behind how these machines were trained to achieve the level they are at when it comes to what they generate. This issue has even been the target of several lawsuits, one of which had three artists join a class-action lawsuit against Midjourney and two other generative AI tools (Chayka, 2023). The alleged transgressions were regarding the consent to use the copyrighted images to train these programs and the lack of compensation and credit to the artists.

In the case of the Performing Arts, the use of AI was one of the main topics behind the Screen Actors Guild – American Federation of Television and Radio Artists (SAG-AFTRA) and the Writers Guild of America (WGA) strikes in 2023. According to the Guardian, “One of the most closely watched aspects of negotiations was the use of artificial intelligence, amid concerns from both writers and actors that unchecked AI could dramatically reshape Hollywood and undermine their roles, pitting artists against robots in a battle over human creativity.” (Anguiano & Beckett, 2023), and according to CNN Business the American Federation of Musicians (AFM) and the International Alliance of Theatrical Stage Employees (IATSE) could have also organised a strike this year for the same reasons (Wagmeister, 2024). In the case of IATSE, however, its members chose to “(...) ratify their contracts with the major studios, calming fears of another industry shutdown (...) despite fears in some quarters that they did not do enough to protect members from artificial intelligence.” (Giardina & Maddaus, 2024). Just like in the case of the class-action lawsuit referred to above, actors fear that their likeness and voice are being used to train these AIs, which may result in a loss of jobs due to studios using AI to cut costs and avoid paying them (Spangler, 2023).

On the other hand, Disney CEO Bob Iger refers to AI as a tool that will “create efficiencies and ways for us to basically provide better services to customers,” (Spangler,

2023). This difference in opinion shows a disparity between the artists and the executives, explaining why the aforementioned strikes were so important to create safeguards for the artists while also building a middle ground between both parties. In a study conducted among over 500 workers in the film, TV, and music industries (whose jobs ranged from directors, actors, production assistants, and so on), opinions changed on whether certain tasks could be performed effectively by AI, having had a drop in all positive answers in just the mere span of three months. (Guttman, 2024). Nevertheless, it is important to note that in this study, out of the given options, the belief that AI could create realistic sound for various mediums is more widespread compared to the other categories.

## 2.3 – AI in Audio

In terms of audio, AI-based tools have long been part of a sound designer's kit with plugins such as iZotope's RX10 series and Neutron 4 along with Sonible's EQ3. Even when it comes to creating foleys, Krotos Studio is one of the biggest softwares to use AI. However, as said by Rich Martin (2023) "A machine can only learn from the data it's being fed, it can't take inspiration from conversations, books or films, and it is unable to make moral or ethical decisions", so, even though some of these softwares are used by both professionals and amateurs alike, they still require someone to control what the software does in order to achieve the result we are looking for. It is worth mentioning that Martin is also of the opinion that "The role of the sound designer is going to shift (...)", and that, in the future, sound designers will use these softwares to avoid doing the boring parts of the job themselves and will instead have a "(...) new position more akin to a creative director, orchestrating a suite of tools."

In the case of the softwares mentioned above, it is important to note that they are labelled as Machine Learning AI or Deep Learning AI, rather than the Generative AI mentioned in the previous sections. The key difference between these types of AI is that Machine Learning AI uses "(...) algorithms to improve artificial intelligence tools by helping them analyse and comprehend data, letting them "learn" from that data to continuously improve their performance" (Timonera, 2024) and Deep Learning AI "(...) focuses on learning from large amounts of data in order to predict or classify something."

(Ticong, 2024). These types of AI then eliminate the ethical problem created by Generative AI when saying the latter creates original content.

However, there have also been cases of the use of Generative AI in audio, and the music industry was one of the first to deal with the problem of mimicking artist's voices and styles. In 2023, “Universal Music Group filed copyright-infringement claims to remove an AI-generated song called ‘Heart on My Sleeve’ that sounded very much like a collab between Drake and The Weeknd, neither of whom was involved with the song.” (Spangler, 2023).

The opinion of those in the field varies, with some embracing the new technology and others having a more sceptical approach. Theatre Sound Designer and Sound Engineer Rob Summers has an enthusiastic outlook on the use of AI in sound. In his blog post, he views AI as a tool that increases and supplements human creativity rather than suppressing it and believes it will introduce new opportunities for creators and artists. Despite his positive attitude, Summers also addresses the ethical issues these tools raise and notes that “(...) it is crucial to address the ethical and legal concerns surrounding its use and ensure a responsible and ethical approach to the development of AI-powered tools and technologies.” (Summers, n.d.). Moreover, he argues “With the right balance between innovation and responsibility, the future of AI and sound design promises to be an exciting and transformative journey.” (Summers, n.d.). On the contrary, Director of Sound Design, Supervising Sound Designer and Re-Recording Mixer Randy Thom has a more cynical view of AI and writes “(...) if I could make AI go away, I would.” (Thom, 2024) (Thom, 2024).

## **2.4 – Sunflower and AI**

During my internship, I used Adobe’s new AI-powered software in the project *Sunflower*. This software can be defined as a Deep Learning AI, and therefore does not create new content but rather modifies what it is being given based on the previous large amount of data it analysed.

In this project, the audio recordings I was provided with regarding the voiceovers captured a lot of the room’s reverberations, and after my initial efforts to clean them

up, I came across Adobe Podcast. However, the software made it so voices were robotic even with as little as 40% strength on the effects. In an attempt to minimize this problem and the artefacts the program created, I first used the iZotope RX10 and the DaVinci Resolve built-in plugins.

In his blog post, Rob Summers mentions Adobe Podcast's Enhance Speech function, citing it as a tool that "(...) demonstrated the efficiency improvements AI can bring to the sound design process." (Summers, n.d.).

My experience with Adobe Podcast is then in agreement with Rich Martin's opinion that, at this point, AI in Audio can be used as a tool rather than as a substitute for sound designers. When it comes to Generative AI, not only does it have the ethical problems I mentioned previously, but it may also make some jobs obsolete, which in Art I believe is not something that we should aspire to.

Although Adobe Podcast was the AI tool that proved to be the most useful for my project, it is important to note that the plugins iZotope RX10 are also powered by AI. These plugins are capable of recognizing and isolating the parts on a recording that are useful and discarding those that are not desired. Using Deep Learning AI as it was previously trained "(...) these algorithms make 'choices' in complete autonomy and are similar to the choices that the human operator uses constantly during the work." (Perri, n.d.).

### 3 – Internship Plan and Activity Schedule

At FilmesDaMente the work is project-based, and, therefore, there was no pre-arranged timetable or plan regarding what I would be doing specifically throughout the months of my internship. As such, when a project was completed, I would ask either my internship supervisor or my colleagues if they had a project they would like me to take on at that moment. Most of the projects had a specific delivery date which had been agreed on between FilmesDaMente and the entity for which the project was made, which would require better time management on my behalf to meet said deadlines. On the other hand, others would be more flexible with the time, allowing for more time to experiment with the tools at my disposal to achieve the necessary results. That being said, the project timeline during the internship can be seen in Table I (Appendix A).

Upon reviewing the internship timeline, it is possible to note that most projects are listed as taking place for one month or consecutive months when necessary, such as the movies *A Vida Fantástica de Sofia* and *Revolução Sem Sangue*, the videos for CITAB and RePlace, the Art Patrons Video and the short film *Sinfonia*. In the case of the CITAB and RePlace videos, this was due to the strict deadlines imposed by the contracting companies, which made it so that when the visual part of the videos was complete, I only had a few days to complete the audio part. Only one workday was allocated to the Art Patrons Video and the short film *Sinfonia* each, as respectively they only required setting up and recording an interview with Lavalier microphones or recording a couple of simple foleys. For *A Vida Fantástica de Sofia*, the only part of the process that I was a part of was the last days of shooting, which took part at the end of January and the beginning of February. I was also asked to sync the audio files with the video files of those shooting days which only took a few days to complete. On the other hand, for *Revolução Sem Sangue*, I was tasked with recording some last-minute background voices for the actual film, along with some voiceovers (VOs) for TV Spots and the mixing and subtitling of said videos, all of which had to be done before the date of the movie premiere in April.

However, it is important to note that the short film *Sunflower* and the Siemens projects took place over several non-consecutive months. In the case of the Siemens

Projects, this can be justified by the fact that several different small projects took place in different months due to the ongoing partnership that FilmesDaMente has with Siemens, even though the tasks themselves only took a few days to complete. On the other hand, *Sunflower* was a short film that was made by the director to convey her mother's personal story, and due to the personal nature of the film, FilmesDaMente and the director were still looking to receive funding from outside sources. Since this is a process that required some time to complete, the film did not have a set deadline, which made other projects overtake it when it came to priority to complete. However, this also allowed a more experimental approach when solving problems that might have arisen, explaining the scattered timeline of when I worked on the project throughout the internship.

Lastly, it is worth mentioning that during the last month of the internship, FilmesDaMente was going through a slower period in terms of work and new projects, decreasing my own workload as a result. After receiving permission from the proper channels, I was allowed to do research for and write this report during office hours, as well as work on some personal projects.

## 4 – Projects

This chapter is divided into eight sections, one reserved for each project I was a part of during the internship. Everything I did during these projects was also documented in my internship logs (Appendix B).

As mentioned in section 1.1, every project I worked on that required a Digital Audio Workstation (DAW) was done using Fairlight, DaVinci Resolve's built-in DAW. Since I had never worked with this software before, it is important to note that the first three days of the internship were spent watching the Fairlight tutorial videos provided on YouTube by DaVinci Resolve's manufacturer Blackmagic Design.

### 4.1 – *Sunflower*, by Isa Cancela

Written and directed by Isa Cancela, *Sunflower* is a short documentary film which tells the story of Augusta Cancela, the director's mother, and her battle with breast cancer. The project started being developed in 2020 and due to the COVID pandemic, it was unable to be made for a school project as it was originally intended, which led the director to ask FilmesDaMente for help in carrying it out.

*Sunflower* was presented to me right after I finished the Fairlight tutorial and I was instructed to work on mainly three aspects of the audio: adding some sound effects, cleaning up the voiceovers, and mixing. The task of adding the sound effects proved to be quite simple, as there were only four SFXs necessary, the sound of an old movie projector, dirt falling out of hands, water falling off a table and a paint brush being used. The old movie projector audio ended up being found by one of my colleagues also working on this project and for the other three SFXs I searched the company's extensive audio library where I was able to find adequate matches for what was needed.

On the other hand, the most complicated and most time-consuming task was cleaning up the voiceovers. The voiceovers had been recorded during filming by another sound recordist, and due to time and money constraints, the recordings had been in a

room that had not received any sound treatment and were recorded using a shotgun microphone attached to a boom pole. Since the shooting of the film had also taken place during the pandemic, the sound recordist set up the microphone quite far away from both people who did the Vos, Augusta and Isa Cancela. This generated problems with the voice recordings as they had a lot of the room's reverberations present, causing them to have deficient quality.

As soon as I tackled this project, I knew it was going to be a difficult task to clean up the recordings with the tools available to make them sound like they were recorded in a studio, and after a few days of working exclusively on this, the results still did not meet my standards. As such, I talked with both my other colleague who was working on this project and the director about the possibility of rerecording the VOs, this time in the company's studio. However, it was quickly agreed that this would not be a viable solution. Due to the nature of the documentary, the VO consisted of Augusta simply telling her story with no script, resulting in a very lengthy audio track which had then been cut and edited by my colleagues when they had previously been editing the video to achieve a coherent storyline that fitted the director's vision for the projects. As such, if we were to write up a script and had the director's mother read from it, we would lose the authenticity of how she had told her story and if we had asked her to tell her story again, we might have lost some key points that had been used for the narrative that had been built. Therefore, we reached a compromise to lose out a bit on the quality of the audio rather than the authenticity of the story itself.

After my initial attempts to clean up the audio recordings, I came across Adobe Podcast. This new AI-powered tool removes noise and echo from previously recorded audio files to make them sound like they were recorded in a studio setting. Upon experimenting with the software, I concluded that it would be better first to use the plugins that I had readily available, namely the iZotope RX10 and the DaVinci Resolve built-in plugins, to clean the recordings up as much as I could, before running them through the software to minimize the number of artefacts that it created. Lastly, I mixed the whole project and ensured the loudness levels met the standards. This last step was repeated multiple times throughout the internship due to the constant changes the film was going through.

After the final edit was complete, I was also asked to subtitle the whole film both in Portuguese and English.

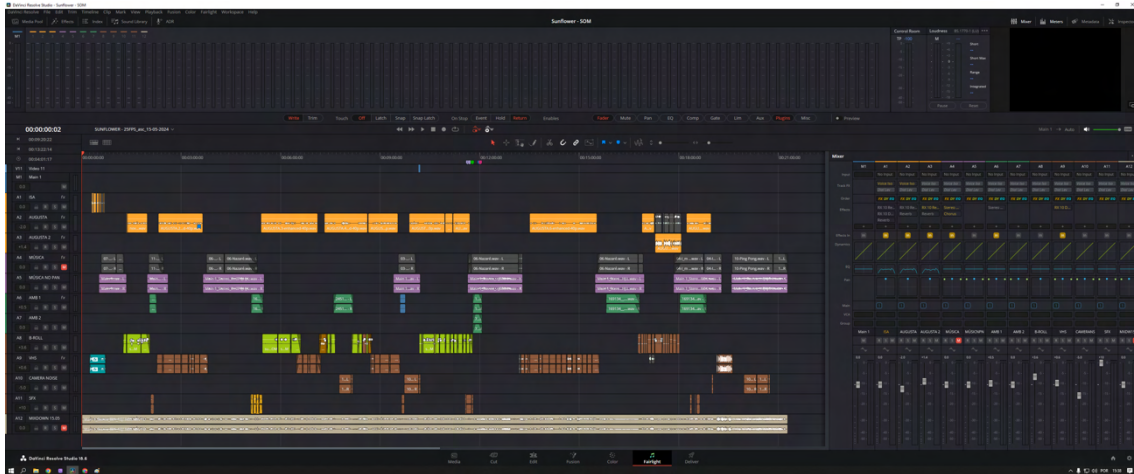


Figure 8 - Sunflower project timeline (Ribeiro, 2024)

## 4.2 – *A Vida Fantástica de Sofia*, by José Alberto Pinheiro

The feature film *A Vida Fantástica de Sofia* was brought up during my first meeting with Nuno Rocha. Filming began in early 2020, but had its production interrupted because of various reasons such as the COVID pandemic, and the cast and crew's prioritisation of other projects. The project had not been resumed since then. After years of scheduling conflicts, it was finally able to set up the last seven shooting days necessary to complete the film, the 20<sup>th</sup>, 21<sup>st</sup>, 24<sup>th</sup> and 31<sup>st</sup> of January and the first three days of February. Even though the first shooting day fell on my first weekend at FilmesDaMente, Nuno invited me to participate and since this was a unique opportunity I wholeheartedly accepted. All of the scenes were filmed in Porto and the shooting days had an arrival time of around 2 to 4pm and an end time of around 12am to 2am, except for the last day which went from 9am to 6pm. Since most of the scenes left to film were set at night, during the first few hours of the day the crew set up all the necessary equipment as the cast went through the wardrobe and makeup departments.

For the first weekend of the 20<sup>th</sup> and 21<sup>st</sup> of January, the filming took place in a house in Paredes, with all the scenes taking place in an indoor kitchen. Seeing as FilmesDaMente does not have an audio department, they hired a freelance sound recordist Sérgio Silva, who brought his own audio equipment, and it was him who became my supervisor during filming. Alongside him, the audio department also consisted of Artur Pires, a former FilmesDaMente intern who had completed his

Master's in Sound Design at UCP a few years prior. Since it was my first time on a film set, on the first day I helped set up the audio equipment according to Sérgio's instructions, but when it came to recording, I stood back and observed while Artur handled the boom pole. However, from the second day onwards I joined Artur as a boom operator, seeing as there were multiple characters for most of the scenes.



Figure 9 - Day 1 behind the scenes (Ribeiro, 2024)

On the third day of shooting, the 24<sup>th</sup> of January, the production moved from Paredes to Fafe and some of the scenes were set inside the Theatre Cinema of Fafe while others were set on the streets surrounding the theatre. Since the scene set inside the theatre did not require the actors to speak, there was not much need for a boom operator, so we mostly only set up a microphone next to the actors and one somewhere in the theatre to capture the room tone. The exception to this was when there was a tighter camera shot where Sérgio thought it would be best to have a microphone above

the actors as if they had lines to capture a tighter ambience around the talent. In the outdoor scenes there were quite a few lines but due to space constrictions, we only had one boom operator that catered to both actors. Seeing as I was still very inexperienced and most of the scenes required a considerable amount of walking, in most cases at a very fast pace, Artur ended up doing a lot of the boom operating work this particular day and I was instead assigned to hold a microphone closer to the camera to get the audio from that point of view. Beforehand I also walked around the area we would be filming to record some ambience sounds.



Figure 10 - Day 3 behind the scenes (Ribeiro, 2024)

The last four days of filming took place at the Fernando Pessoa University in Porto. The first day was undeniably the most complicated, seeing as it was a scene that required a lot of extras and supporting actors, which made it harder for the director to position everyone for the takes. The need to not have the same people in the background depending on the shots and the nature of the scene also made the process very long and arduous. In terms of audio, the openness of the location and the number of people present in the scene made it difficult to find a good position to stand where the microphone was a good distance from the actors without hindering the shot. The recordings were quite simple for the last three days of the shoot, as most of the scenes were recorded in the same house. Although most of these house scenes were recorded in an entryway with one actor outdoors and the other inside the house, the camera angles and layout of the location made it easy to set up the microphones in a way that did not obstruct the shot. The one scene that was not set in the house required a bit of walking which once again Sérgio had Artur do by himself with only one microphone, which changed when the characters had a shot where they were sitting on a bench, where I joined in a boom operator.

The equipment brought by Sérgio for the shoot can be seen in the table below. (Table 2).

Table 2 – *A Vida Fantástica de Sofia* Sound Equipment

Type	Name
Wireless Microphone Receiver	Wisycom MCR54
Wireless Microphone Transmitter	Wisycom MTP6 I
Lavalier Microphone	DPA 606 I
Shotgun Microphone	Sanken CS-MI
Shotgun Microphone	Schoeps MK 4 I
Headphone Amplifier	Superlux HA3D
Audio Recorder	Sound Devices 788T-SSD
Audio Mixer	Sound Devices CL9

When it came to audio, there were luckily very few problems we encountered during filming. Those we did have were easily fixable, for example having to wait for cars to go by when doing outdoor scenes, sectioning off big rooms with rugs and curtains to get better acoustics or standing on top of boxes to get better height when dealing with wider shots. However, due to Sérgio's experience and resourcefulness, every obstacle we encountered was effortlessly surpassed, which, occasionally, included using Lavalier microphones alongside the boom microphones to get clearer recordings.

After the shooting days were finalised, I was also asked to sync the video recordings we had to the audio recordings Sérgio had sent over. For this, I used DaVinci Resolve's automatic syncing tool, and, when this method led to errors, I would do the process manually.

### **4.3 – The Siemens' projects**

With Siemens being a longstanding partner of FilmesDaMente, a few projects were developed for Siemens throughout my internship. While there, I participated in three projects, one as a sound recordist and two as a sound designer.

#### **4.3.1 – Tribute Video**

For this video, I was asked to record a series of people talking while they walked a small distance from the back of the cyclorama toward the camera. Since this required movement and it was multiple people, I opted to use Oktava MK-012 attached to a boom pole instead of setting up individual Lavalier microphones to avoid taking too long. As requested by Victor Santos, one of my employers and the company partner that handles all Siemens business, I connected the microphone directly to the camera to record simultaneously with the video. It is important to note that the cyclorama room was sound-treated beforehand by closing it off as much as possible using drapes to avoid echo and reverb and by putting a carpet where the subjects would be walking to prevent steps from being picked up in the recording.

### **4.3.2 – Diversity Video**

The first time this project was presented to me, the video itself was not completed, so my first task was to search for the required sound in the sound library. After the video was finalised, I then edited the previously recorded VO as well as added all the SFXs I had gathered so that everything matched what was happening in the video. Lastly, I mixed the entire video and ensured the loudness levels met the standards.

### **4.3.3 – Congress Video**

Similarly to the Diversity Video, I was tasked with gathering the necessary SFXs as well as editing the VO. Afterwards, I also mixed the video and ensured the loudness levels met the standards.

## **4.4 – *Revolução Sem Sangue*, by Rui Pedro Sousa**

Directed by Rui Pedro Sousa and written by him alongside Amp Rodriguez, *Revolução Sem Sangue* is a film that depicts the events leading up to, during and after the military coup of the 25<sup>th</sup> of April 1974 and is based on the lives of the five people that died during the revolution. Produced by FilmesDaMente, the film was released on the 11<sup>th</sup> of April 2024, and, as such, during the first few months of my internship, there were a few details that were ironed out in preparation for its release.

### **4.4.1 – Recordings**

During the final edits, I found that there were some more background noises necessary during the shootout scene, and as the audio specialist at FilmesDaMente, I was tasked with handling the recordings. For this, and at the request of the director, every

employee at FilmesDaMente went to the studio and acted out several small phrases and screams as if they were at the shootout. The director also brought his dog and had him bark at the microphone to be used as more background noise. All of these clips were then sent to the sound designers who were working on the film. For the recordings I used the Lewitt LCT 440 Pure that was already set up in the studio and connected it to the MixPre-6.

#### **4.4.2 – Interview**

When releasing a film, it is also important to promote it beforehand. One of the ways this was achieved in *Revolução Sem Sangue* was by releasing different teasers and featurettes. One of the elements present in the featurettes was an interview with the director, which was recorded at FilmesDaMente. I was asked to set a microphone using a boom pole for this. For this, I used an Oktava MK-12 connected directly to the camera and set the boom pole on a stand at the request of Victor Santos, seeing as the interview would take some time and he wanted to be alone with the director to do it.

#### **4.4.3 – TV Spot and ComiCon Teaser**

Aside from the featurettes, other small promotional videos were created, which included a TV spot and a teaser for the cast's ComiCon panel. For both of these videos, I was asked to record a voiceover with one of my colleagues and mix and ensure the videos met the loudness standards. For the recordings I used the Lewitt LCT 440 Pure that was already set up in the studio and connected it to the MixPre-6.

#### **4.4.4 – Premiere Video**

The last project I was involved in surrounding *Revolução Sem Sangue* was the film's premiere video, which consisted of footage taken during the event, such as red-carpet

interviews, and other clips from the film itself. After the final video was edited and mixed by another intern, I was tasked with subtitling the video both in Portuguese and English.

## **4.5 – CITAB**

As I mentioned in section 1.1, FilmesDaMente's work is mostly based on institutional videos, some of which use motion graphics. This was the case with the CITAB project, where I was tasked to do the sound design and mixing of a video made by my colleague who specialised in motion graphics. The Centre for the Research and Technology of Agro-Environmental and Biological Sciences, or CITAB, is "(...) focused on the agro-food and forestry systems using the production-chain approach as a whole." (CITAB, n.d.) and, as such, the video contained many nature sounds, both in terms of ambience and animal sounds. Additionally, a background song was also necessary along with other miscellaneous sound effects, such as "woosh" and "ding".

When I was first brought on to the project, the video was still being made, thus my colleague first gave me the storyboard that had been agreed on so that I could look at the images and get a sense of the sounds necessary. My first task was to go through the company's sound library and other free online sound libraries to gather the sounds I deemed appropriate. Due to the deadline, as sections of the video were being completed, my colleague would export his progress so that I could start putting the sound I had into the Fairlight DAW. Seeing as the video was initially quite extensive, the sound design aspect took a couple of weeks to complete, and a few days to mix the first draft, which was then sent to CITAB. After their feedback, the length of the video was shortened, and I changed the sound design and mixing accordingly. Lastly, I mixed the video and ensured the loudness levels met the standards. The video can also be seen in full on the homepage of CITAB's website.

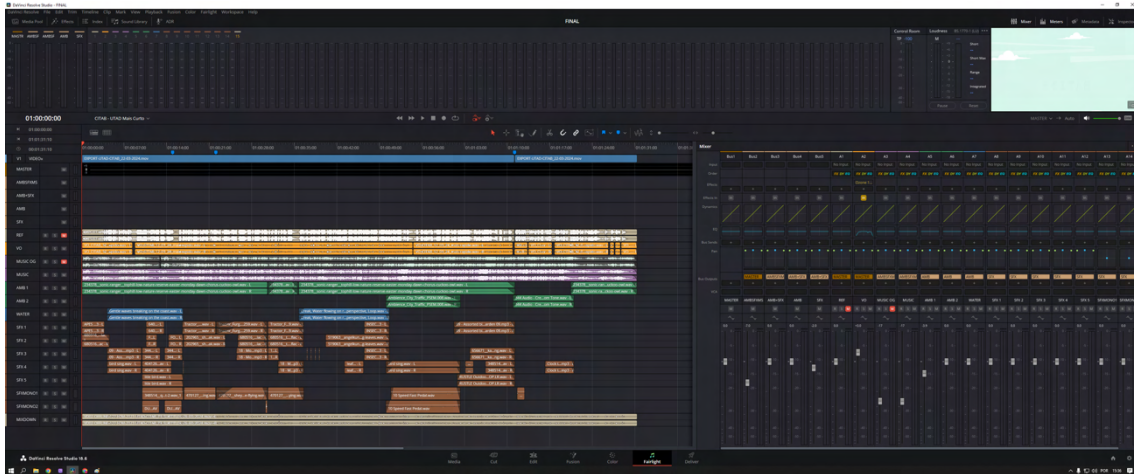


Figure 11 - CITAB project timeline (Ribeiro, 2024)

## 4.6 – Art Patrons Video

For this video, I was asked to put a Lavalier microphone on two people who would be sitting down while being recorded. After having done different tests with the Lavalier microphones available during the previous week, I opted to use the Sennheiser ew 100 G3 and, as requested by Victor Santos who was handling the camera, the receiver was connected directly to the camera.

## 4.7 – RePlace

Similarly to the CITAB project, RePlace was an animated video made by my motion graphics colleague which I was tasked to do the sound design and mixing. The RePlace project studies “(...) the drivers and impacts of mobility in peripheral places seen as being left-behind (...)” and draws “(...) on local knowledge to understand its potential to harness alternative modes of local development.” (IGOT, n.d.). Akin to the CITAB video, this project required many ambience sounds, though instead of focusing on nature, this video was more centred on metropolitan areas. Additionally, a background song was also necessary along with other miscellaneous sound effects, such as “woosh” and “ding”.

After being proven successful, I once again started to look for sounds based on the previously approved storyboard, searching both in the company's sound library and other free online sound libraries. As my colleague would export the sections of the video he completed, I started to add and edit the sound into the Fairlight DAW. Even though I already had experience with the CITAB video, this project took around the same time as the previous one due to being longer. After the first mix, the project was sent to the client and after the feedback, I changed the sound design and mixing accordingly. Lastly, I mixed the video and ensured the loudness levels met the standards.

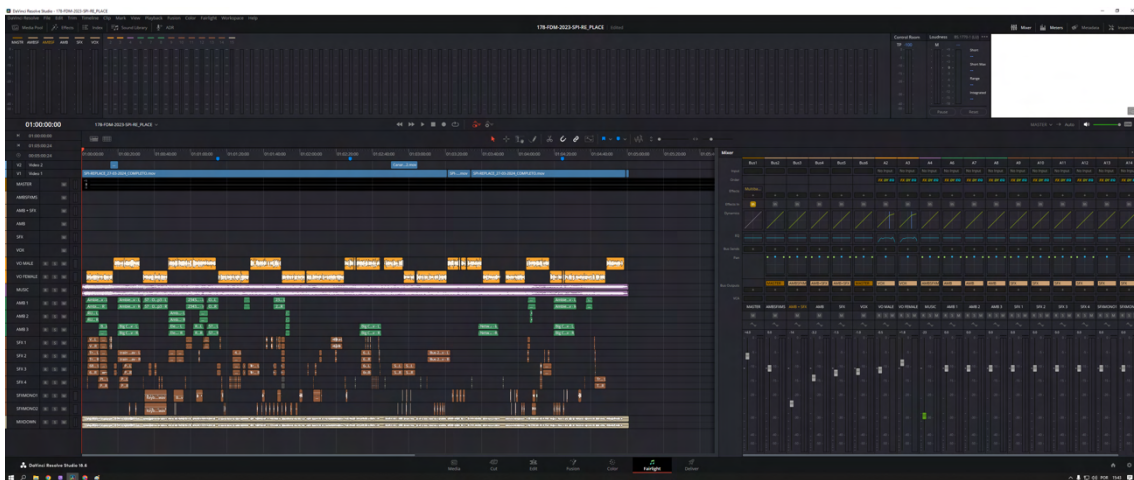


Figure 12 - RePlace project timeline (Ribeiro, 2024)

## 4.8 – *Sinfonia*, by Nuno Rocha

*Sinfonia* is a short film written and directed by Nuno Rocha, one of FilmesDaMente's partners. For this project, I was asked to record two simple foleys, which I achieved with the help of one of my coworkers. We used the Lewitt LCT 040 Match Pair connected to the MixPre-6 for both foleys. The first foley necessary was clapping outdoors. For that, we went to an open space near the FilmesDaMente headquarters which had a similar environment as the original filming location and set up the microphones in an AB stereo setup (Figure 13) and my colleague clapped according to the footage while I recorded.



Figure 13 - AB Setup (DPA Microphones, 2019)

Lastly, we moved to the hallway outside the FilmesDaMente equipment room which had a similar reverberation to the hallway in which the necessary voice line to rerecord was originally filmed. Here we only used one of the microphones connected to the MixPre-6 and my colleague recorded whilst I stood in front of the microphone and said the name “Lara Fernandes” at different distances from the microphone.

## 5 – Final Reflexions

After the 20 weeks spent at FilmesDaMente, I can say that I was able to put into practice what I learned during my Master's Degree, namely regarding sound design, editing and mixing in a short film and animations. It is also important to mention that during this time I also acquired some important skills, especially regarding how to act professionally when shooting a film and in a workplace environment. Though it is my belief I met the objectives I set out for myself before the start of my internship, it is worth noting that one of my biggest challenges was the struggle to work without specific direction, that is, what to do when there were no projects that needed my input. However, I believe I was able to circumvent this by getting acquainted with the audio equipment available while also making sure it was functioning properly and also by starting to write this report during those downtimes.

Regarding AI use, I believe the position I had about its use has changed a bit after my research and my use of Adobe Podcast in *Sunflower*. Initially, I viewed the use of AI in Art as something that should not be done, and I now believe that AI can be valuable when used as a tool. However, it is still my stance that this use should be limited to Machine Learning and Deep Learning AI and not Generative AI. This is due to my belief that Generative AI is highly unethical considering the proof of how these programs were trained. Moreover, my perspective is that Art is something that should be done by humans, as it is first and foremost a way for people to express themselves and it is that meaning that makes the artwork special and unique, whether that is a book, a movie, a song, and so forth. One example of the lack of this factor by Generative AI is the painting *Unfinished Painting* by Keith Haring. This painting was made by Haring in a way that only the top left corner is filled while the rest sits empty save from some drips, representing “(...) the vacuum left by the HIV epidemic, which cut short millions of lives around the world.” (Artnet, 2024). Regardless, a user on the social network X, formerly known as Twitter, used a Generative AI program to try to ‘complete’ the painting (Annex A). At first glance, the AI portion appears similar to the original painting, however, the AI program failed to realize that Haring's lines were shaped like human figures, so the final AI product is simply random and meaningless lines.

This is simply one of many examples where Generative AI's products are hollow when compared to something made by humans. In music, for example, it is difficult to comprehend how a Generative AI could compose something as complex as Queen's *Bohemian Rhapsody*, not only in terms of lyricism and its meaning but also the intricacies that this particular song has musically, by combining a ballad, with hard rock, and even an operatic section.

Following my internship, I believe the experience I had of working directly on a film production and many other creative processes made me even more appreciative of Art and ultimately hardened my stance on how important it is to not use Generative AI in Art, but rather enjoy the process of how it is created, from its wonders to its hardships.

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## Appendix A

### Internship Timeline

Projects	Tasks	Months From January to September								
		J	F	M	A	M	J	J	A	S
“Sunflower”	Sound design and mixing									
“A Vida Fantástica de Sofia”	On-set recording and audio syncing									
Siemens Projects	On set recording, sound design and mixing									
“Revolução Sem Sangue”	Mixing, subtitling and setting up recording equipment									
CITAB	Sound design and mixing									
Art Patrons Video	Setting up recording equipment									
RePlace	Sound design and mixing									
“Sinfonia”	Foley recording									
Internship Logs	Taking notes									
Study State of the Art	Research									
Report	Writing									
Delivery										

# Appendix B

## Internship Logs

INTERNSHIP  
 FilmesDaMente → January 15<sup>th</sup> - March 31<sup>st</sup>

**1<sup>st</sup> Week** (15.01-21.01) → MEETING THE TEAM (Monday)  
 → SEEING THE EQUIPMENT (Monday)  
 → FARRAGHT TUTORIAL (Monday, Tuesday, Wednesday)  
 → "SUNFLOWER" MEETING (Thursday, Friday)  
 → SHOOTING FOR "A Vida Fantástica de Sofia" (Saturday, Sunday)

**EQUIPMENT** → DaVinci Resolve Studio 18.6  
 → STUDIO WITH 5.1 YAMAHA SPEAKERS  
 → IMPULSE HEDZ  
 → FOCUSRITE CURIE 37RE  
 → AUDIO RECORDERS → MIX PRE G  
 → BOOM H4U  
 → TENTACLE SYNC-E TEL H4U  
 → MICROPHONES → SENNHEISER MKH 8060  
 → RODE NT63  
 → RODE NT62  
 → CINEMA MK-012  
 → ALGOTT LCT 640 MATCH PAIR  
 → BONA H1  
 → ALGOTT LCT 440 PURE  
 → SE ELECTRONICS K15 STUDIO BUNDLE  
 → SHURE SM 58  
 → AKG WMS 40 MINI DUM. VOCAL SET  
 → SENNHEISER EW 100 G3  
 → SENNHEISER EW 512 G4  
 → SENNHEISER EW 500 G4 BOOM SET  
 → RODE WIRELESS GO II

**SUNFLOWER** → CLEAN UP VOICES → ISA  
 BY ISA CAIXACA → AUGUSTA  
 → MUSIC → AREVALS  
 → DRAWING  
 → SOUND EFFECTS → PROJECTOR  
 → DIRT  
 → WATER  
 → PAINT BRUSH  
 → AMBIENCES  
 → OVERALL ACCENTNESS

"A Vida Fantástica de Sofia"  
 BY JOSÉ ALBERTO PEREIRA

→ ASSISTING WITH SOUND RECORDING (BOOM OPERATOR)  
 → SÉRGIO SOUZA → SOUND RECORDING  
 → ARTUR PERES → BOOM OPERATOR  
 → GEAR → WISYCOH HCR 54  
 → WISYCOH HTP 61  
 → DPA 6061  
 → SANKEN CS-11  
 → TWO BOOMS

**SOUND RECORDING / BOOM OPERATOR** → ALWAYS BE IN REVERSAAS  
 → BE ATTENTIVE TO SOUNDS (HATERS, BARS, SHOES, ETC)  
 → RUGS FOR ACTOR'S STEPS (HAVE THEM TAKE THEIR SHOES OFF IF NEEDED)  
 → TREAT THE ROOM'S ACOUSTIC AS MUCH AS POSSIBLE (RUGS, CURTAINS TO SECTION OFF BIG ROOMS, ETC)  
 → MIC SHOULD BE A BIT IN FRONT OF THE VOICE AND NOT DIRECTLY ON TOP OF THE HEAD  
 → ALWAYS BE ATTENTIVE OF THE CAMERA AND THE FRAMING OF THE SHOT SO THE BOOM DOESN'T GET IN IT

— u —  
**2<sup>nd</sup> Week** → Monday, Thursday and Friday off because of weekend shooting (22.01-28.01)  
 → "A Vida Fantástica de Sofia"  
 → "SUNFLOWER" MEETING (Tuesday)  
 → "SHOOTING FOR "A Vida Fantástica de Sofia" (Wednesday)

— u —  
**3<sup>rd</sup> Week** → "SUNFLOWER" MEETING (Monday) (29.01-4.02)  
 → SHOOTING FOR "A Vida Fantástica de Sofia" (Tuesday, Wednesday, Thursday, Friday) AND SATURDAY  
 → SYNCING AUDIO AND VIDEO FROM THE FIRST WEEKEND'S SHOOT OF "A Vida Fantástica de Sofia" (Tuesday)

"A Vida Fantástica de Sofia" → 20<sup>th</sup> JANUARY → SCENE 8  
 → SCENE 20  
 → SCENE 22  
 → 21<sup>st</sup> JANUARY → SCENE 44  
 → SCENE 36  
 → SCENE 65  
 → 22<sup>nd</sup> JANUARY → SCENE 47  
 → SCENE 48  
 → 23<sup>rd</sup> JANUARY → SCENE 46  
 → 1<sup>st</sup> FEBRUARY → SCENE 34  
 → SCENE 40  
 → 2<sup>nd</sup> FEBRUARY → SCENE 19A  
 → SCENE 25  
 → SCENE 38 B  
 → SCENE 30 A  
 → SCENE 65 B  
 → SCENE 62  
 → SCENE 64  
 → 3<sup>rd</sup> FEBRUARY → SCENE 16 B  
 → SCENE 17  
 → SCENE 18 B  
 → SCENE 23 B  
 → SCENE 31 B  
 → SCENE 35 B  
 → SCENE 41  
 → SCENE 54 A  
 → SCENE 60  
 → SCENE 61

— u —  
**4<sup>th</sup> Week** → Monday off because of Saturday shooting for "A Vida Fantástica de Sofia" (5.02-11.02)  
 → RECORDING SOUND FOR SIEMENS TRIBUTE VIDEO (Tuesday)  
 → SYNCING AUDIO AND VIDEO FROM THE REST OF THE SHOOTING DAYS OF "A Vida Fantástica de Sofia" (Friday and Wednesday)  
 → "SUNFLOWER" SCREENING IN THE COVENA ROOM WITH THE DIRECTOR ISA CAIXACA (Wednesday)  
 → GATHERING SOUNDS FOR THE SIEMENS DIVERSITY KAUÇU VIDEO (Thursday)  
 → CHANGING MEETING ON "SUNFLOWER" BASED ON THE FEEDBACK FROM THE DIRECTOR AND MY COLLEAGUES (Friday)

**SIEMENS TRIBUTE VIDEO** → BOOM OPERATOR  
 → EQUIPMENT → CINEMA MK-012  
 → RODE BOOM T06  
 → MICROPHONE CONNECTED DIRECTLY TO THE GEAR

"SUNFLOWER" FEEDBACK → VOICES NEED TO BE CLEARER  
 → REMOVE "TA" FROM THE PRETRING SHOT  
 → BIG DIFFERENCE BETWEEN THE TWO DIFFERENT AUDIO AUDIO TAKES  
 → CREDITS SOUND A BIT TOO LOUD

**SIEMENS DIVERSITY VIDEO** → GOING THROUGH THE SOUND LIBRARY AND CHANGING KEYBOARD TYPING AND VOICE SOUND EFFECTS  
 → THE VIDEO ISN'T SOUND TYPED TO THE SOUND DESIGN ON THE FINAL VIDEO WILL BE DONE LATER

— u —  
**5<sup>th</sup> Week** → Monday and Tuesday off (CARNIVAL) (12.02-18.02)  
 → EDITING VO REFERENCE FOR SIEMENS DIVERSITY VIDEO (Wednesday)  
 → TESTING MIX PRE G WITH SHURE SM 58 (Wednesday)  
 → SOUND DESIGN FOR SIEMENS DIVERSITY VIDEO (Thursday)  
 → THERE WAS NOTHING FOR ME TO DO ON FRIDAY SO I WENT HOME EARLIER

— u —  
**6<sup>th</sup> Week** → TESTING MIX PRE G WITH SHURE SM 58 (Monday) (19.02-25.02)  
 → TESTING UP BOOM FOR INTERVIEW (Monday)  
 → TESTING RODE WIRELESS GO II (Tuesday)  
 → TESTING SENNHEISER EW 100 G3 WIRELESS (Wednesday)  
 → TESTING SENNHEISER EW 512 G4 WIRELESS (Wednesday)  
 → THURSDAY AND FRIDAY OFF FOR FEBRUAL BIRTHDAY

**INTERVIEW** → RAU PEDRO SOUZA DIRECTOR OF "REVALUÇÃO SEM SINGELA"  
 → EQUIPMENT → CINEMA MK-012  
 → RODE BOOM T06  
 → MICROPHONE CONNECTED DIRECTLY TO THE CAMERA  
 → BOOM T06 STAYED ON A BOOM POLE BEHIND THE INTERVIEWEES WAS BEING → "GIVE A GOOD TALK"

— u —  
**7<sup>th</sup> Week** → TESTING SENNHEISER EW 500 G4 WIRELESS BOOM SET (Monday) (26.02-3.03)  
 → GATHERING SOUNDS FOR CITAB VIDEO (Monday, Tuesday)  
 → EDITING VIDEO FOR CITAB VIDEO (Tuesday)  
 → MEETING FOR A VIDEO ABOUT AIR PATRONS IN JERUSALEM (Tuesday)  
 → HEARING TV SET FOR "REVALUÇÃO SEM SINGELA" (Wednesday)  
 → RECORDING AND EDITING RAU PEDRO SOUZA TV SET FOR "REVALUÇÃO SEM SINGELA" (Wednesday)  
 → SOUND DESIGN FOR CITAB VIDEO (Thursday, Friday)

**CITAB VIDEO** → AMBIENCE SOUNDS FOR BOOM INTERVIEWS AND OUTDOORS  
 → WIND SOUNDS  
 → AIRPLANE SOUNDS  
 → AIRTRAINS SOUNDS  
 → OTHER MISCELLANEOUS SOUND EFFECTS  
 → BACKGROUND MUSIC

ARR TRACKS VIDEO → SEANNHEISER EW 100 GO WIRELESS (LAUREN VERONIQUE)  
→ CONNECTED DIRECTLY TO THE CAMERA

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8<sup>th</sup> WEEK → SOUND DESIGN FOR CITAB VIDEO (MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY) (4.05-10.05)

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9<sup>th</sup> WEEK → MIXING FOR CITAB VIDEO (MONDAY, TUESDAY, WEDNESDAY) (11.05-11.05)  
→ RECORDING BACKGROUND VOICES FOR SHORTEST SCENE IN "RECUZADO SEM SANGUE" (WEDNESDAY)  
→ SOUND DESIGN FOR REFACE VIDEO (THURSDAY, FRIDAY)  
→ RECORDING PEDRO JO FOR COCIC COU TEACHER FOR "RECUZADO SEM SANGUE" (FRIDAY)  
→ MIXING COCIC COU TEACHER FOR "RECUZADO SEM SANGUE" (FRIDAY)

ReFace VIDEO → AMBIENCE SOUNDS FOR BOTH INTERIORS AND OUTDOORS  
→ CITY SOUNDS  
→ OFFICE SOUNDS  
→ OTHER MISCELLANEOUS SOUND EFFECTS  
→ BACKGROUND MUSIC

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10<sup>th</sup> WEEK → SOUND DESIGN FOR REFACE VIDEO (MONDAY, TUESDAY, FRIDAY) (18.05-24.05)  
→ MIXING FOR CITAB VIDEO (WEDNESDAY, THURSDAY)

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11<sup>th</sup> WEEK → MONDAY OFF FOR PERSONAL REASONS (25.05-31.05)  
→ CHANGING SOUND DESIGN FOR CITAB VIDEO BASED ON THE FEEDBACK FROM THE COMPANY (TUESDAY)  
→ SOUND DESIGN FOR REFACE VIDEO (WEDNESDAY, THURSDAY)  
→ THURSDAY AND FRIDAY OFF (EASTER)

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12<sup>th</sup> WEEK → MONDAY OFF (EASTER) (1.06-4.06)  
→ SOUND DESIGN FOR REFACE VIDEO (TUESDAY, WEDNESDAY, FRIDAY)  
→ MIXING REFACE VIDEO (THURSDAY, FRIDAY)

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13<sup>th</sup> WEEK → MIXING "SUNFLOWER" (MONDAY, FRIDAY) (8.06-14.06)  
→ TUESDAY OFF FOR PERSONAL REASONS  
→ SETTING UP 5.1 SPEAKERS IN THE STUDIO (WEDNESDAY, THURSDAY)

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14<sup>th</sup> WEEK → MIXING "SUNFLOWER" (MONDAY, FRIDAY) (15.06-21.06)  
→ MIXING SEBASTIÃO SANGUE VIDEOS (TUESDAY, WEDNESDAY, THURSDAY)  
→ SUBTITLES FOR "SUNFLOWER" (THURSDAY, FRIDAY)

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15<sup>th</sup> WEEK → SUBTITLES FOR "SUNFLOWER" (MONDAY, TUESDAY, FRIDAY) (22.06-28.06)  
→ MIXING FOR "SUNFLOWER" (WEDNESDAY, FRIDAY)  
→ THURSDAY OFF (APRIL 25<sup>th</sup>)

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16<sup>th</sup> WEEK → MONDAY MORNING OFF FOR PERSONAL REASONS (29.06-5.07)  
→ MIXING AND EXPORTING "SUNFLOWER" (MONDAY)  
→ SUBTITLES FOR PREMIERE VIDEO OF "RECUZADO SEM SANGUE" (TUESDAY)  
→ WEDNESDAY OFF (LABOUR DAY)  
→ WRITING INTERNSHIP REPORT (THURSDAY, FRIDAY)

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17<sup>th</sup> WEEK → WRITING INTERNSHIP REPORT (MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY) (6.07-12.07)  
→ SOUND DESIGN FOR SEBASTIÃO SANGUE VIDEO (TUESDAY)  
→ WEDNESDAY MORNING OFF FOR PERSONAL REASONS  
→ MIXING "SUNFLOWER" (FRIDAY)

SEBASTIÃO SANGUE VIDEO → LASERS  
→ WOOD  
→ HORSE COGS  
→ MIXING

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18<sup>th</sup> WEEK → MIXING AND EXPORTING "SUNFLOWER" (MONDAY) (13.07-19.07)  
→ WRITING INTERNSHIP REPORT (TUESDAY, WEDNESDAY, FRIDAY)  
→ THURSDAY OFF FOR PERSONAL REASONS

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19<sup>th</sup> WEEK → WRITING INTERNSHIP REPORT (MONDAY, TUESDAY, FRIDAY) (20.07-26.07)  
→ RECORDING VOICES FOR "SANTOUSA" (TUESDAY)  
→ GETTING UP AUDIO FOR A FUTURE COASTLINE EVENT (WEDNESDAY)

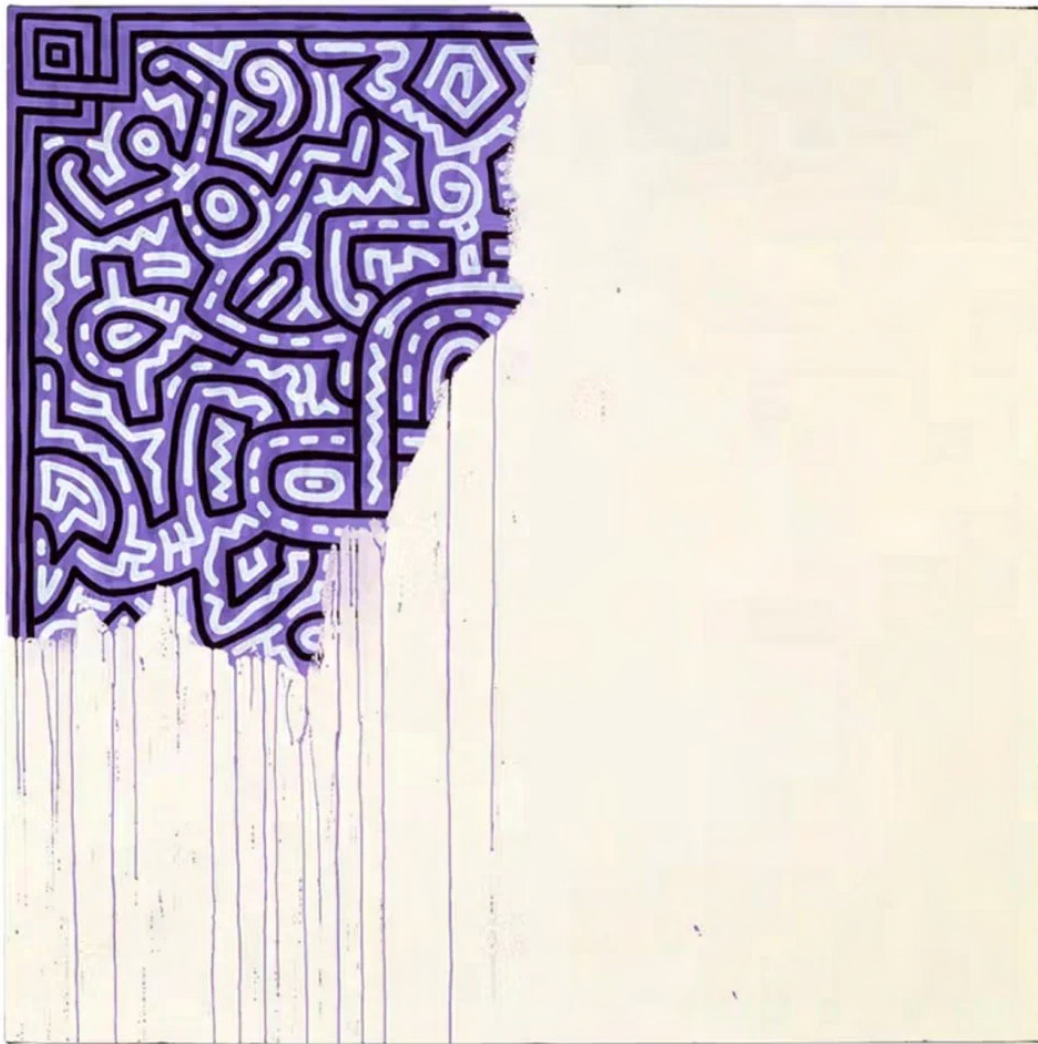
SANTOUSA → CLIPPING OUTSIDE  
BY NINA BOVA → SENTENCE "LARA FERREIRAS"  
→ EQUIPMENT → KELETTI ACT 040 WATCH THEM  
→ MIX PRE 6

20<sup>th</sup> WEEK → MONDAY MORNING OFF FOR PERSONAL REASONS (27.07-31.07)  
→ WATCHING MUSIC PRODUCING VIDEOS (MONDAY, TUESDAY, WEDNESDAY, FRIDAY)  
→ THURSDAY OFF (CORPUS CHRISTI)  
→ GATHERING EQUIPMENT FOR NEXT WEEK'S SHOOT

EQUIPMENT → BUCHS ROLE  
→ MIX PRE 6  
→ CRTANA MK-012  
→ SEANNHEISER EW 512 64  
→ SEANNHEISER EW 800 64 ROOM SET

## Annex A

**Keith Haring's *Unfinished Painting* (1989) and its AI completion (Artnet, 2024)**





**Donnel**

@DonnelVillager



The story behind this painting is so sad! 😞

Now using AI we can complete what he couldn't finish! ❤️

