



## Animated cinema as a way to sensitize society towards tragedy: the reality and perception of forestall wildfires

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### Abstract

Animation (the cinematic genre and filmmaking process) is a cinematic art that can provide the spectator an aesthetic experience capable of promoting the construction of thought by witnessing presented moving images. It can be an important medium to prevent, inform or sensitize society in the face of environmental catastrophes, and creating a broad ecologic conscience. With this study, we aimed to study and use animation as an audiovisual as a process of providing information, start discussion and enable a better comprehension of wildfire tragedies. These ideas were transported with a narrative approach to the practical project, Faúlha, an animated short developed in the context of IPCA's Master's degree of Illustration and Animation at the Polytechnic Institute of Cávado and Ave.

### 1. Society and Tragedy

Society (from the latin term *societas*, which means “friendly association with others”) is an assortment of beings that coexist in an organized way by sharing common interests and mutual concerns directed at a common goal. According to Max Weber, society as a whole constitutes a system of power, not only in the dynamics between classes, or among leaders, but also equally in the day-to-day relationships in family, at work, etc. In this manner one sees society as the various agents, from social communication to institutions, who disseminate images/ideas concerning the world around us, and the audience, those who receive and interpret the vehiculated messages. The kind of messages that we are focusing in this paper are the Tragic ones.

*Tragedy is the imitation of a serious and complete action of a certain magnitude in a language embellished in different manners in each of its parts, which draws from the action, not narration and, by the means of compassion, (eleos) and fear (phobos), provokes the purification (catharsis) of such passions.<sup>4</sup> [1].*

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Just as tragedy (term derived from the greek tragodía, meaning catastrophe or disgrace), *drama* (greek term, dráma) *means action*.<sup>5</sup> [2]. According to the Aristotelian definition of tragedy, it is necessary that the spectator identifies with the narrated human actions (these are consequences of flaws, which are human or not), in such a way they understand that the same tragedies that are being portrayed can also be suffered by him. They become more involved by stimulating feelings of terror and compassion through the mediation of art (it can be through music, dance or even from spectacle).

Nowadays people tend to react less in front of a tragedy, they are anesthetized when a series of accidents and unfortunate events occur, and can remain paralyzed in front of a reality that involves them. *Tragedy is placed between that flooding of life, suffering and pleasure; in sublime ecstasy, it listens to a distant melancholic singing (...)*.<sup>6</sup> [3].

*His conscience was effectively tranquil when he saw the zeal and commitment with which the “good society” of everywhere reacted to what he did. He didn’t need to “shut his ears to the voice of conscience”, as the convention says, not because he was without conscience, but because his conscience spoke with the “respectable voice”, the voice of the respectable society that surrounded him.*<sup>7</sup> [4].

One of the problems with society when dealing with tragedy can be the fact that its lack of awareness can result in complicit relation with the totalitarian alienation of the State or other systems, and in the refuse to examine the veracity of facts. (...) *it wasn’t a matter of stupidity, but of a curious and quite authentic inability to think*.<sup>8</sup> [5]. In this regard, and by thinking through the consensus of others, people can commit atrocities without bad intentions, motives or explanations. People tend act accordingly to what they believe to be their duty following the orders of superiors and respecting the bureaucratic system. The common ability to think individually is therefore suspended. This arendtian concept of evil’s banality can help us understand the way society deals with the tragedy of day-to-day life. That’s why general Population can miss to perceive the malign acts that are caused by certain behaviors showing an absence of critical thought and a lack of awareness. But how is it possible for a people to let itself be blinded to a certain tragedy, and to follow orders and commands blindly, or to become part of an absolute order? How can people allow evil to become ordinary without revolting?

*Nowadays, in Portugal, we live a nearly undefinable moment in the political climate. A moment “between” a society on the brink of a precipice and a future whose contours can’t be foreseen; it’s placed between the resistance to change and the (often brutal) imperative of change, between the demand*

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*of consented sacrifice and the fear of losing everything permanently; between trusting a government that says it wants to save the country and the defensive, distrustful retreat, (with historical reasons for it), to individualistic and corporative positions of social groups.<sup>9</sup> [6].*

*Fear is inherited. It ends up becoming part of «the Portuguese's character» because it is interiorized and more unconscious than conscious.<sup>7</sup> [7].* People are afraid to act, take decisions, love, create, live and take risks. People are fearful for considering themselves inferior when facing power (political, judicious, constabulary, social, familial, cultural). Impotence is increased by the lack of courage, audacity, and the ability to recognize who we are and to invest in our vocation. *Social fear is becoming political: Government is feared (...).<sup>8</sup> [6].* Fear is not letting society protest, speak up and express itself.

*(...) I figured that these men, these women, these young people don't feel what is going on, and in this regard, they feel they don't belong in this society; they are confined to an area (commercial, industrial, or of several «dispositions», if not rural, etc.) that is no longer a world because it's aesthetically detached. These people are in a situation of great symbolic misery, execrating the becoming of modern society and from early, its aesthetic – when it is no longer industrial. Because the aesthetic conditioning is what constitutes the essential closing of the areas, and ends up replacing the aesthetic experience to make it impossible.<sup>10</sup> [8].*

Taking a risk and stepping out of the defined frontiers is necessary. Potent forces of life must be created in dynamic, productive and innovative ways. But how can evil be stopped from becoming a commonplace?

In this context, anesthesia (of the ancient greek term *aisthesis*, which means “absence of sensations”) is an appropriated term to characterize contemporary society. This anesthesia is a suspension and absence of perception<sup>11</sup> in which our senses become immune, and such happens because of the saturation of information that is constantly bombarded in the several communication's channels. Images seem to have become trivial in such a way that we no longer perceive them as shocking, wrong or something that can be damaging to any society. This is the reason why society can be blinder when facing reality. (...) *Do the Portuguese have no other model of behavior in the face of power than passive obedience, submission and fear?<sup>12</sup> [6].*

Evil becomes ordinary when we become incapable of reflecting, acting fairly, or understanding the extend of our responsibility in fighting it. Contemporary society lives anesthetized by its primordial rules, and

<sup>9</sup> Translated loosely by the author.

<sup>10</sup> Translated loosely by the author.

<sup>11</sup> Perception (term derived from the latin word *perceptio*) signifies an act or effect of understanding and taking sensory knowledge of exterior objects or events, knowing that there are several kinds of perception such as visual, auditory, olfactory, gustatory, tactile, temporal, spatial and kinesthesia.

<sup>12</sup> Translated loosely by the author.

*clichés*<sup>13</sup>. There is an accommodation towards the defined standards of behavior and social conduct.

It's necessary to reestablish our ability to think and reflect about what has been happening, because the essence of the human being is in the ability to think. *There is a desire to change Portugal which opens space for action.*<sup>13</sup> [6]. It's necessary to open a space for a social action capable of promoting dialogue through intersubjective communication, allowing the sharing of meanings/senses, experiences and knowledge among the various subjects, helping them to relate with the surrounding reality.

## 2. The importance of sensitizing society towards the tragedy of wildfires

Wildfires are one of the most serious natural catastrophes in Portugal, not only because of the frequent occurrence, but also because of how extensive and destructive they can become. It's a yearly drama that affects all people, both directly and indirectly. The problem of wildfires in forests has worsened in the last few years, affecting gradually the totality of the national territory. In Portugal, *a specific wildfire can be a drama, but two or three tens of thousands just end up representing a number in the balance at the end of the year.*<sup>14</sup> [9]. By trusting in the kind of information constantly bombarded to us, we end up believing and being convinced about the inevitability of this wildfire paradigm conditioning our perception about reality.

It is necessary to sensitize, bring awareness and educate about this matter since it involves all society. We must arrive to conclusions that stop us from repeating the same mistakes again and change the way we face wild fires prevention.

*It's not about preaching moral lessons but asking what are the mechanisms through which we become blinded from what should be benefitting us.*<sup>15</sup> [10]. Animated cinema is one of the several media that is used to raise questions and enable reflection about the world we live in. It shows a different vision from what is real without losing its essence in the various techniques and particular languages.

*(...) it is necessary to rip the spectator from the brutishness of the fascinated moron conquered by the empathy that makes identify with characters in the scene. Therefore, it will be shown to him a strange, unusual spectacle, an enigma for which he must find a meaning. In this way we will be forcing him to change from the position of a passive spectator to the position of someone who conducts an investigation or a scientific experiment, of someone that observes phenoms and their respective causes. (...) It will make him sharpen his own sense of evaluation concerning the reasons of the respective discussion and of the radical choice.*<sup>16</sup> [2].

<sup>13</sup> *Cliché* (from the french *cliché*), is an idiomatic expression that describes what becomes predictable, spent and bereft of meaning after becoming very repetitive.

<sup>14</sup> Translated loosely by the author.

<sup>15</sup> Translated loosely by the author.

<sup>16</sup> Translated loosely by the author.

*How do we do it so that we stop seeing what should be evident when we look?*<sup>17</sup>[10]. It's necessary to stop, reflect, and try to capture the essence of the message that the artists intend to transmit. It should become hard to stay indifferent to their works or not questioning the predominant tragedies in our current society.

(...) *"We should always have these topics in mind: what is the nature of everything and what is my nature; what is the relation that lives between both; what part of the Universe I am and what the Universe is; and may nobody stop you from always acting and presenting your opinion according to the nature of what you're a part of"; (...).*<sup>17</sup> [11].

Cinema is an art field, that through a series of images (in this case moving ones), transmits a visual message through the aesthetic function (from the greek term *aisth  sis*, meaning perception, sensation and sensitiveness) of the image to the spectator, generating on him specific sensations. Cinema serves as an instrument of expression and communication within society.

In this way, *cinema is intended to be capable of transforming (...) the sensitive ways of human experience.*<sup>18</sup> [2]. Used as an educational and pedagogical instrument, cinema is *currently the most important object of that perception science that the Greeks called esthetics*<sup>20</sup>[12]. It is capable of communicating thoughts, carrying ideas and expressing feelings that can help to convince the spectator to reflect about the world around him. It engages him with subjective interpretations of what he percepts. *I defend that it's necessary to submit the aesthetic matter to new examinations in its relation to the political question, in order to invite the artistic world to rescue a political comprehension of its role.*<sup>19</sup>

(...) *cinema is not an anonymous machine that automatically registers the existent and reconstitute it as such: cinema enacts entirely personal universes, and asks from the spectator is individual accession. Cinema is about subjectivity, and it is from that subjectivity that the imaginary is born.*<sup>20</sup> [2].

This notion of cinema leads to the domination of the *sensitive, conscience, free will and action*<sup>21</sup> according to the ethical positioning of each individual. [11].

Understanding that the responsibility is on our hands is the main subject of the developed short film: showing us the devastating side of the phenom without providing immediate answers, leaving only small clues and not trying to solve the problems in the plot, avoiding the 'happy ending' strategy.

<sup>17</sup> Translated loosely by the author.

<sup>18</sup> Translated loosely by the author.

<sup>19</sup> Translated loosely by the author.

<sup>20</sup> Translated loosely by the author.

<sup>21</sup> Translated loosely by the author.

Sensitization and the sense of awareness can reach the spectator through the social symbolic communication of the tragedy and a mix of strong imagery that can grab him both perceptively and emotionally. The contribution of animated cinema will become a more effective method by functioning both as an aesthetic and plastic language, in a more expressive and artistic non-verbal form of communicating to show in a raw way that tragedy exists.

### **3. *Faúlha*, the short film: The project's process of development**

The main issue meant to be addressed by the project is the contribution of the animated film to communicate and create the sense of awareness about tragedies in general and forest wild fires in particular. Beyond the theoretical and critical nature of the investigation, there is also an empirical dimension of it, focused in developing an animated short film that applied the studied concepts in the working methodology and contextualized the readings by putting them in practice.

The theoretical part started first by collecting general examples of animated cinema that portrayed tragedies, catalog and analyze them and their specific characteristics concerning the filmic language as a cathartic and prevention tool; and secondly by collecting examples about the theme of the wildfires itself as dramatic and symbolic elements in filmic narratives.

In this second moment of the project it was possible to understand where the wildfires and fire itself appears as an image, how they are portrait expressively and what is their purpose in the filmic objects they appear, how they can be used in the specific case of *Faúlha*'s film concerning the *pathos* and *logos* in the rhythm of the narrative, and how to build the characters and the sets. Concerning all this characteristics of the medium the screenplay was created so that the short film would have several divided segments that form micro-episodes as a main characteristic, creating visual and narrative connections in itself, in a way that they can work individually or interconnected in a common more complex narrative.

#### **3.1. Pre-production**

In order to build a screenplay, there was a constant liberty to modify the order of the several perspectives of the involved actors, and the possibility to discover new analogies and routes of thinking by creating map and chronogram shaped schemes. These schemes were used for the construction of the crossed narratives, so that it was possible to chain these narratives in a single one. Each conscience possesses a unique energetic charge and the order in which all the events come up is essential so that the narrative works as a whole, and at the same time, the consciences work in an isolated manner in each of their perspectives. In this case, the construction of main lines around the same subject where built as different points of view intercrossed in the same plot as different consciences: the human conscience of an eight-year-old child who lives with her grandfather in a house in the forest; the environmental awareness of an apple tree at the child's house; the animal's

conscience of a flock of sheep, in particular of the baby sheep that meet child; the human conscience of one of the involved fireman; and, finally, the conscience of fire itself, a force of nature that lies *beyond good and evil*.<sup>22</sup> [3]. After all of the decisions necessary to build the screenplay and determinate de consciences' route, the storyboard was created.

The storyboard is an instrument that can be used as a model for any audiovisual project: films, 2D/ 3D animations, videogames, television series, soap operas, advertisement, videoclips, political propaganda and also in theatre allowing any director to better understand the set and plan the actors stage position. A smooth flux is the main goal of any film, specially concerning animation, what makes the storyboard one of the crucial tools for a consistent final product. Regardless of the chosen way to design a storyboard, what matters is being able to stay faithful and objective to the narrated scene in the argument; planning continually and coherently the variations and the unroll of the plot as the characters actions and behaviors, the visual effects, dialogs, choreographies, scene's changes, camera movements, and many others. [13]

The storyboard became an essential element to develop the animation project. It's an important method to transmit ideas through the representation of sequences before moving on to production, and to see how these sequences communicate with the audience. [14] The storyboard, is a clear and effective method, that can anticipate specific situations of animation projects, and simplifies the materialization and construction of visual narratives, the dimension of time expression and the capacity to translate emotions. It's a process where all the creative maneuvering space is limitless; it's where all ideology, and space design, lens filters, shot angles, creation of characters, visual language and symbols help to develop a more diversified and expressive storyboard.

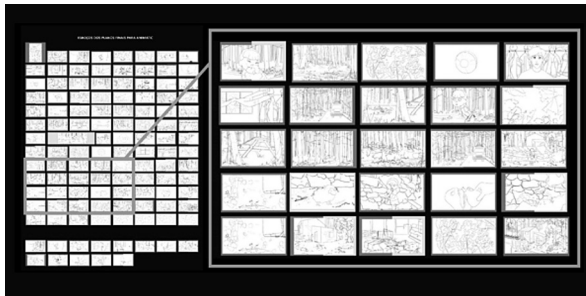
*The template for classical animation was set by Disney during its 'golden era', which established all the techniques for fully rendered 2D animated forms that survive into the present day. [15]*

**Fig. 1** – Final digital Storyboard of the short film *Faúlha*, where the five consciences are chained as a whole.

The process of conception that was utilized to make the storyboard was traditional representation. It started from the concretization of several ap-

proaches until arriving at a more consistent and synthesized storyboard of what was intended to be developed. The last developed version of the storyboard, for example, served to prepare final key shots for the animatic (fig.1).

Beyond the general storyboard, in which we intend to order all the consciences in a single short film, it was necessary

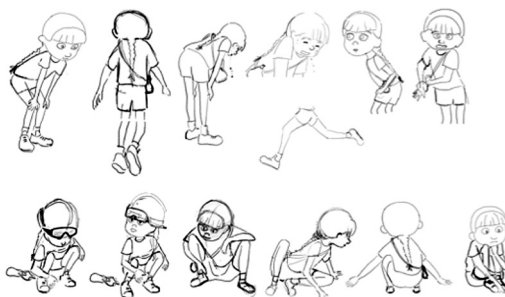
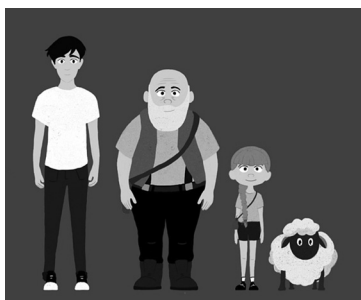




**Fig. 2** – Example of the final planes that were sequenced in human consciousness I, the girl's consciousness.

to create an individual specific storyboard for each of the consciousnesses so they could be worked isolated using the final shots that were sketched digitally, as one can observe in the following example of the girl's human conscience (fig. 2).

*For some presumptuous reason, man feels the need to create something of his own that appears to be living, that has inner strength, a vitality, a separate identity – something that speaks out with authority – a creation that gives the illusion of life.<sup>23</sup> [14]*



In the study and development of the characters for the animation there was freedom of choice to define each of them. It was important to have a representation that could define certain personalities, poses, and behaviors in mind. Additionally, that could potentialize the action stress characters' characteristics and help to determine the development of the created narrative (fig. 3 and 4). In this way, it's possible to develop expression, emotion and communication in the animation for the spectator.

**Fig. 3** – Final characters of the short film. (from left to right is Pedro, António, Maria, Matilde and the bird).

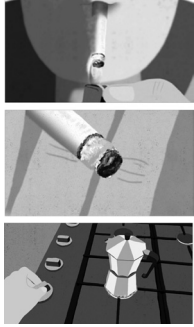
**Fig. 4** – Example of a study of Maria, the human character I.

<sup>23</sup> Translated loosely by the author.



*Beginners know that each character needs a “personality” but often that means a list of behavioral traits without a specific ORIGIN or unifying PURPOSE. By going deeper into characters’ minds, we can look for those factors that give them a reason for everything they do and say... and help us PREDICT what they’ll do in any given situation to such an extent that they virtually write themselves! A good place to start is with your character LIFE HISTORY”.* [16]

For the location of the narrative, several distinct places were chosen. The forest is the main outdoor space where the narrative was centered. Then there is a neighborhood, where the house that contains a yard with an apple tree (this tree is a fixed conscience that perceives all that unfolds from where it is to what it can observe; this perspective culminates when the fire spreads, comes close, and the tree is consumed by the flames) and where the flock of sheep remains in most of the narrative. After that, there is the house of the fireman, where the indoor space is given more importance to describe the character and to show his more intimate side, depicting his relationship with his father and his friendship with Maria (the eight-year-old child). Beyond these locations there is a fire department, a picnic park by the side of a road that crosses the forest, and a small creek near that same park where Maria usually plays.



**Fig. 5** – Example of the frames of the animation showing a specific, non destructive perspective.

*The cinematographic camera does not remain in its vision line invariably parallel to the ground. Instead it presents us with various views, moving the gravitational axis freely, filling not only the inferior area of shot but playing constantly with the height of the composition.*<sup>24</sup> [17]

Fire symbolizes life, illumination, passion and spirit. In the short film, fire is created to represent a wildfire that erupts from a poorly put out cigarette that was dragged by the wind, and ends up growing in to a large dimension catastrophe. This sort of catastrophe affects climate negatively, contributing to global warming, and also brings problems to the health of the population (by harming the respiratory, circulatory and nervous systems, or causing intoxications, etc.) due to smoke and ash. There is also the death in large scale of plants and animals that live in the forests (thus causing a loss in biodiversity), soil is degraded, and there is the destruction of material goods and the loss of timber. All of this results in a scenic depreciation of the landscape. Forestall wildfires are responsible for leaving a huge visible trail of damage wherever they go.



**Fig. 6** – Example of the planes in the animation that show the fire after it grew to large proportions .

Fire represents one of the five consciences. It was introduced in a specific nondestructive perspective. For example, the flames of a lighter are shown setting a cigarette alight, and the flame of a stove is shown being put out. Plus, there is another moment like these when the spectator’s attention is captured by the grandfather when he pulls out a cigarette to smoke (fig. 5). After that the representation changes as the short develops and the small hints that will provoke and make the fire huge appear. The

<sup>24</sup> Translated loosely by the author.

first flames are portrayed in a blue and yellow color palette. As the story becomes more complex, they are increasingly represented by yellows, reds and oranges, which confer greater expression to the flames.

*Because the biggest grace and life of a painting depends on the expression of movement, what the painters would call the spirit of the painting. So, there is no other form as adequate to express this movement than the flame of fire that, according to Aristotle and other philosophers, is the most active element of all, because the shape of the flame is the best one to capture movement. (...) <sup>25</sup> [17]*

To animate the fire, it was firstly necessary to draw the sequenced forms in line in their intended movements. After determining their base, these were turned into basic orange shapes. Later, a layered method was used, and three lighter tones were applied inside the orange and yellow range to turn the flat shape into flames and add depth and movement to them. Thus, were used four different hues within oranges and yellows to make the fire pop in the animation (fig. 6).

All of the storyboard sequence that was formerly executed was transformed into a timed version by the animatic. The animatic is capable of helping visualize timed movement and the rhythm of the film with all of the dialogue information inserted there, plus music and sound effects directly included in the sequence. As previously mentioned, after making the last storyboard, the shots were remade after studying character development and environment exhaustively. After that, they were worked with more detail and prepared digitally so that the base movements were assembled with the right timing and rhythm in the short film. The animatic was put together in the Adobe After Effects software program to add camera movements, travelling shots and insert effects that were defined initially.

To transpose the energetic charge throughout the evolution of the narrative, a specific color palette that could transmit emotions was attempted so that it would transform as the characters' tension rises, thus differentiating the various consciousnesses through specific chromatics in certain elements.

*The observation of a person or place is inevitably coloured by the way it is perceived. The artist's perception is defined by his or her background, knowledge and context, and the particular way in which the subject is imagined or remembered to be. <sup>26</sup> [15]*

First a base technique was defined to be able to progress to colorization, then animation. 2D in a digital medium was the chosen technique, complemented by little textures to add more expressiveness to the final product. When the characters were first developed, it was defined that these would look simpler in terms of painting. They would be filled in flat

<sup>25</sup> Translated loosely by the author.

<sup>26</sup> Translated loosely by the author.

colors, and textures would only be applied when closer shots were used. Since the characters would have a more stylized look with a reduced color palette to simplify the animation process, the sets would be worked with greater detail, more open to a richer expression and diverse color palette would be used with the application of gradients, complementing likewise with little textures common to all the shots.

Chronologically, this action occurs on a summer afternoon and the sun is gradually setting, without ever showing a shot at nightfall. However, with the tension of the used chromatics and the insertion of wildfire smoke in all of the following shots, the environment gets dark, thereby showing a more dramatic atmosphere and the lights of the fire grow, even though the light of day is still present because summer days end at a later hour.

**Fig. 7** – Example of the key poses developed from reference videos in 3D, and respective shot inserted in the set



### 3.2. Production and Post-production

There were several processes used in the development of this short film. These depended on the scene and the elements that were being animated at the time.

After the study and development of characters in 2D, 3D models were used. These were made by José Miguel Pilar, in order to prepare the most consistent key poses of each character, therefore making the execution of movements more fluid

when directing the animation (fig. 7).

Rotoscopy, also known as live-action reference, was another animation technique used in parts of this project. It was invented in 1917 by Max Fleischer, one of the pioneers in Animation. It consists in utilizing real images as a reference for animating. This technique has the purpose of allowing animators to have a certain movement of a character represented by an actor.

**Fig. 8** – Other examples using the real image for the animation



It's a frame-by-frame copying process from the real reference images, which facilitates animation and makes movements more fluid and realistic [13] [18]. Other than the 3D models of the characters that were created in a way to define more consistent key poses, various shots of the animation were filmed to better understand the duration of each scene, as well as bring more fluidity and realism to the characters' movements. After all of these processes, animation began. Frame-by-frame animation was made digitally in the Adobe Photoshop software. Initially it was drawn in line, then colorized, and after that, characters were inserted in their respective set (fig. 8 and 9).

The animation and editing process were simultaneous. Post-production was about the defining chromatic changes throughout the short film and its tension and attributing the respective sounds.



**Fig. 9** – Example of a reference video with key poses drawn in lines

All of the setting of the shots was made as characters and their respective elements were animated. Each shot was assembled in Adobe After Effects, including all of the initially defined camera movements, and special effects (for example smoke effects, heat effects with the use of distortion, Turbulent Displace), corrections in timing, chromatic corrections, among other aspects that enriched the animation.

*All the classic montage, resulting from what we sometimes call esthetic of transparency, supposes that the spectator is capable of “gluing the film pieces”, in other words, capable of reestablish mentally the diegetic (so temporal) relations between the successive blocks. (...) The shot changing represents a temporal discontinuity in the filming — the camera that registered the scene didn’t abruptly moved to another point in space but, between the shot filming and its projection, another operation existed that is the montage.<sup>27</sup> [19]*

It’s important to have in mind that in this short film setting essential. It suggests the reading of five consciousnesses to the spectator (and therefore five micro stories about the same tragedy). The final short film was assembled with cuts of each of the perspectives in a way in which they made sense.

After animating all of the shots and setting them up, it was necessary to proceed to a general analysis of the short film to understand what moments would be accompanied by a change in the color palette by selecting them according to the story and moments of tension to cause a desired impact in the spectator. In this manner, this tension begins to be felt when the grandfather throws the cigarette to the ground and fails to put it out. Then color filter starts appearing and progressively intensifying its influence as it was previously explained. This was a determining phase for the short before moving on to the making of audio, seeing that it was needed to make key moments more evident, not only just through chromatic changes, but also by the sound that would complement them.

*(...) The creator of drawn animation quickly understood the importance of sound and music to reinforce the power of image – most of all because sound and image come from behind the screen and are projected directly towards the viewer. (...). Animated films function effectively in a more flagrant way than live action by using exaggerated movements and traits; thus, sound should manage this different, frequently unrealistic form of representing the world.<sup>28</sup> [20].*

<sup>27</sup> Translated loosely by the author.

<sup>28</sup> Translated loosely by the author.

The soundtrack was essential to underline the emotions and feelings that are expressed throughout each segment. It adds informative values and materializes the animated pictures, and by also adding sound effects through environmental sounds (diegetic sounds) and special effects (non-diegetic sounds) that reinforce each idea and situation through which characters go through in the animation. The soundtrack was essential to accentuate the emotion in each scene, so that the tension would be intensified as the short film evolved. After defining the timing in the short film, we moved on to producing sounds and music to strengthen the idea in image. We defined a more contemporary and modern soundtrack for it to be better inserted in today's society and so that the spectator lives the experience that is being transmitted through the intensity of the music and the contrasts that are being felt.

Lastly, the title was the last element to be defined in the short film. The choosing of the title was essential to contextualize the short film and awaken the spectator's interest. This is the first impression on the animation when it's presented. However, the decision to select the right words was discussed at the end of this project.

It was intended to make the title adequate to bring attention to the theme of wildfires and work verbally. So the short film was named *Faúlha* (*Spark*) (fig. 10). This was entirely thought according to the concept that was intended to be brought to the project. *Faúlha*, or other variants of this word with the same meaning of flicker or sparkle, is a particle from an incandescent body that may originate fire; it's a spark that frees itself from combusting matter. In this form, the title is directly associated to the wildfire that appears from a poorly put out cigarette that was dragged by the wind, and spread sparks through the air. Throughout the wildfire in the short film, clicks that represent the sparks (incandescent flickers) that jump off burning wood are heard constantly.

The word *faúlha*, beyond its meaning in the context of fire, also refers to a restless person whose business is everything and little evades their attention. A relation to Maria, the character represented by the human conscience, is also established. The title is also connected to the consciousness of the little sheep because she has a restless and agitated personality too. The filters that appear as tension evolves in the animation are also related to the symbols connected to this word.

This simple title seeks to carry a heavy expressive charge that makes the animation richer in concepts and aims for the spectator to also create a line of thought similar to the one that is also created along the short film.

#### 4. Final considerations

It was necessary to have a position of observation and analysis in face of the ideas that came up as the work progressed throughout all phases of its development, mainly in the narrative's creation phase – because it was the main moment of this practical project – where all the conductive strings of the animation would be born. Even though there is a variety of ways to approach the theme, it was necessary to focus on the main goals to not stray away from what was essential. So, a stable base narrative was created to



**Fig. 10** – Poster for the short film *Faúlha*.

start the aforementioned practical process of a short film.

The present narrative model allows multiple readings, proposing the linear narrative and, in alternative, points of view that are independent from the conventional reading as secondary ‘actors’ (the sheep, the fire, the forest) are placed at the same level as main actors (the humans). In other words, the proposal of a linear narrative arc is offered as a base to read the visual object but other windows are opened to observe the action. This narrative arc grows in emotional intensity until the main tragic moment. It becomes serene at the end in order to provide a space for reflection on the impact of the tragedy. In an alternative way a fragmented reading of the five participant consciousnesses is permitted, embodying the possible multiple interpretation of the spectators, and sharing the double responsibility with them that encases a tragedy such as this, and allows them to isolate events from the perspective of those who intervene. On one side, there is its complex nature and vast reach to victims and damage that it entails (sensitization); on another side there is a certain didactic incline that interrogates who sees it (to raise awareness).

In the first proposed (linear) narrative model, action takes advantage of its own rhythm and of the dramatic tension that thickens throughout the short film, associating characters and drawn sets in a graphic recording that looks for the spectators’ empathy and identification, and mirrors models of common day-to-day life. Here is a clear gradation in the tone of the artistic object that begins in an innocent and lethargic registry, searching for the viewer’s affective connection to discharge a tragic, realistic, unexpected ending in a traditional narrative of animated cinema. This is particular in works of cinema related to raising awareness towards tragedy.

The second model (fragmentary model, with videos and other filmic and media objects that make consciences become independent elements among themselves) in this specific project ends up being in the background, because of its hybrid nature within the works of this genre, it mostly approaches the issue of sensorial sensitization to tragedy.

Even though both hold the presence of two emotional and informative purposes, this second model intends to create a rupture with a gradational emotional interpolative rhythm to arrive at a point of awareness by “thickening the plot”, unlike the first model with a manipulative side that seeks a specific effect (to raise awareness through emotional sensitization) in the spectator. The second model invites the reader in a more pronounced way to additional interpretations and understanding – beyond the one that is predicted in the first solution.

Taking into account all of the initial planning, not just in the creation of the narrative, as well as in all of the pre-production, plus pointing out all of the versions of the storyboard, and beyond the creation of characters and sets and the animatic color script, one can conclude that, even though the process took a long time, all of the utilized methodologies were crucial for the checked progression in the scope of the parameters until finishing the decisive material to get to the next much awaited phase of production and to start animating.

Beyond the storyboard, out of the vast selection of possibilities of shots to alternate in the animation, creating characters was one of the most demanding processes to make. The character design and planning were an essential part of the emotional connection the spectator would establish with the short film. All of the characters' physical attributes had to be conceived in a way to represent their role in the story fairly and make them symptomatic and exemplary.

During the animation process, it was very positive both for the investigator and creative process (this manifested in the material expressiveness in the practical component of the work), and for the development of the work itself by attempting different forms of animation; not just through the use of 3D models, but also by the crossed utilization of diverse techniques, such as rotoscoping through footage created specifically for the short film's moments and frame-by-frame traditional animation.

Rotoscoping brought probability, both in characters and sets, to work a more objective and realist approach, thus creating a greater impact in the spectator and emphasizing the narrative dramatically – setting aside a subjective and abstract approach of the theme through the exploration of the universe of fantasy and imagination, just like some of the previously analyzed animated examples. The diverse use of techniques allowed to optimize the times of production without harming the visual consistency of the final product.

Another important conclusion was the importance of crafting a detailed color script, which was conceived and tested before the animation phase. As the film involves great transformation of light, scenarios and narrative drama, the color script allowed to have a glimpse on how the narrative would flow, maybe even in a clearer way than the storyboard did. The transformation of color and light accentuated the dramatic moments throughout the film.

All of the sets were firstly developed with the same tones throughout all shots so that they only be changed in the ending with the control of the general chromatic harmony, and a narrative rigor that results from the global reading of the tones through the effective use of these same filters.

We believe the main goal of this project was accomplished with the making of a film (and as a complement a format open to adaptations and multiple readings), that on one hand hints a response to the initial questions of the project, and on the other aims to achieve the two essential objectives of a project of polytechnic nature: an animation with a focus in its critical, theoretical and pedagogical role (it functions as an alert) and, at the same time, a sensory work that has space open for individual interpretation.

Though it wasn't yet tested, here stands a testimony of the will to bring this second fragmented layout of *Faúlha* to fruition in the future. For example, it could be in a televised context, separating the consciences in episodes; or in an exhibition context, separating them out of convenience for students in classrooms, or lectures, or tables of discussion in events dedicated to this theme – or even as an art installation assembled in a panoptic form where the five consciousnesses are in the same plane. Or by separating them in rooms and complementing them with new sculptured



elements that allude to the theme of tragedy and wildfires, thus creating a dialogue between previously (the origin/causes of tragedy), during (the tragedy itself in its emotional state, or even instructive in the point of view of the agents of civilian protection) and after (the solutions for tragedy, the memories, mourning and hope).

For the future there is a clear will to continue producing and enhancing the content that was studied in the investigation, and to develop other kinds of projects that also aim to sensitize towards tragedy, and to create new contents that approach catastrophes and calamities (such as global warming, water shortage, sea pollution floods) both informatively and emotionally, regardless of them being a product of human negligence or not.

## References

1. ARISTÓTELES. (2008). Poética. In A Poética de Aristóteles: Tradução e notas de Ana Maria Valente. Prefácio de Maria Helena da Rocha Pereira. Lisboa: Fundação Calouste Gulbenkian.
2. RANCIÈRE, J. (2010). O espectador emancipado. Tradução: José Miranda Justo. Lisboa: Orfeu Negro.
3. NIETZSCHE, F. (1992). O nascimento da tragédia. [Trad. de J. Guinsburg] São Paulo, Companhia das Letras.
4. ARENDT, H. (1999). Eichmann em Jerusalém: um relato sobre a banalidade do mal. São Paulo: Companhia das Letras.
5. SOUKI, N. (2006). Hannah Arendt e a Banalidade do Mal. Belo Horizonte.
6. GIL, J. (2014). Pulsões. Lisboa: Relógios D'Água Editores.
7. GIL, J. (2004). Portugal, Hoje: O Medo de Existir. Lisboa: Relógios D'Água Editores.
8. STIEGLER, B. (2018). Da miséria simbólica: A Era Hiperindustrial. Tradução: Luís Lima. Lisboa: Orfeu Negro.
9. VIEIRA, P.A. (2006). Portugal: o Vermelho e o Negro, a verdade amarga e dolorosa realidade dos incêndios florestais. 1ª Edição. Publicações Dom Quixote.
10. FERRO, M. (2017). A cegueira: uma história do nosso mundo. Lisboa: Cavalo de Ferro.
11. CASTRO, I. (2015). Eu animal – Cinema e Ecologia, Argumentos para um Novo Paradigma – Manuel de Orientação Ecológica. Lisboa: Zéfiro.
12. BENJAMIN, W. (1955). A obra de arte na época de sua reprodutibilidade técnica.
13. FURNESS, M. (2008). The animation Bible: A Practical Guide to the Art of Animation, from Flipbook to Flash. North America: Harry N. Abrams.
14. THOMAS, F., JOHNSTON, O. (1997). The Illusion of Life: Disney Animation. New York: Hyperion Press.
15. WELLS, P., Quinn, J., Mills L. (2009). Drawing for Animation. London. AVA Publishing.
16. MCCLOUD, S. (2006). Making comics: Storytelling secrets of comics, manga and graphic novels. USA: Harpercollins publishers inc.
17. RUDOLF, A. (1998). Arte e Percepção Visual: Uma psicologia da visão criadora. Brasil: Pioneira.
18. FINCH, C. (1973). A Arte de Walt Disney. Abrams.
19. AUMONT, J. (2009). *A imagem*. Lisboa: Edições texto e grafia.
20. DENIS, S. (2010). O Cinema de Animação. Lisboa: Edições Texto & Grafia.