

INSTITUTO POLITÉCNICO DE LISBOA
ESCOLA SUPERIOR DE TEATRO E CINEMA



COLOR GRADING: INFLUENCES AND DIFFERENCES BETWEEN CINEMA AND ADVERTISEMENT

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Abstract

Cinema depends on many areas of work, the academic studies I took led to an interest in the final process of a movie assembly line, namely, color correction.

Many are the companies that in the last 30 years developed around this area of work. Cinema and Advertisement became dependent on this creative practice which role accompanied by the direction of photography and the art direction create the aesthetic of a product.

Two different worlds are lumped together by one creative process; commercials and movies became aesthetically more appealing but at the same time more indiscernible, what are the relations? What are the differences?

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Management summary

This specific internship report is to be read with the consideration that the experience has been made in Lisbon, therefore all the data analyzed refers to this specific cinema world. Although the Portuguese cinema production can be described as small compared to other European countries productions (77 national products produced; 372 feature films released)¹ Lisbon has the luck of being the central hub of the Portuguese most important production houses; there is hence a good concentration of projects going on annually. Around these ventures many are the post-production companies that have been developed. Film scanning, sound designing, compositing, color correction and many others could be part of this list.

BIKINI is the post-production venture specialized in compositing and color correction whom accepted me as intern. Inside this company with the help of the senior color grader Paulo Américo, a study of the Portuguese color correction tendencies has been made. Since both advertisement and cinema are part of the clientele of BIKINI a little study over the differences and relations between these two big groups could be made. The relations between the grader and these two different types of audiovisuals productions are, in effect, quite different and can be observed, for example, from the hours of work dedicated to each project, the relation between the grader and his other colleagues (the DOP, the director...) and the different tools utilized.

Although it is really hard to define a common aesthetic between the works who passed through the hands of BIKINI during that time shared characteristics could be noticed. I consider that the three months I worked in BIKINI were a really short period compared to my subject of study.

Film support became a center of study not for the way a grader could work on its scans but better on the different ways digital cinema tries to emulate it. Contrast, details, color palette and grains are just few of the characteristics digital cinema and television production try to copy from the film *look*. Some of the initial goals of my research in fact had to be put aside due to the lack of opportunity to get near information. An example could be the examination of some projects where color grading was applied to scanned films files. Although this is still an often used practice², I did not have the opportunity to see any work realized through this particular process. the *look* and the quality of 35mm film are still really

¹ See the 2018 catalog of ICA (instituto do cinema e do audiovisual) for portuguese cinema productions statistics http://ica-ip.pt/fotos/downloads/ica_catalogodigital2018_36405ae32e0ab0bf5.pdf

appreciated throughout the cinema community but the high cost of it eliminated it from small productions which moved to digital and less expensive processes..

It was interesting for me to notice that although cinema and advertisement are two completely different forms of audiovisual content, the latter started having a more cinematic approach (both visually and narratively). There is no need to stay in a post-production company to notice this tendency, but thanks to the various projects I worked on, I could analyze the techniques and the tools that are often utilized in its process. Despite that, the limitation in time planning of the internship period made it difficult for me to keep my starting ideas as a central topic during my study. Color grading is technical but it is also far from being a scientific laboratory: it is still part of a creative process where chaos rules and many decisions are made for lasts.

Although creating a methodology was a hard goal to reach, I tried to create some routine questions which could help me understand the way some projects were idealized and realized. To name a few, I took the task of defining in which category the project was; who the producer, the director and the DOP were and understand which kind of technical workflow was used inside Davinci. In this process, I came to the conclusion that many directors, producers and DOP had a certain coherency throughout their works thanks also to the use of same or similar camera equipment. Although I had the possibility to observe the development of many projects, there were relatively few short and feature movies compared to the commercials I could work on, which resulted in some extent in a lack of information related to the first category. It has been hard therefore to outline a common tendency or omnipresent differences.

Nonetheless, it was important trying to understand the space of freedom the grader had in the two categories to understand how far colorists can push themselves inside commercials and movie grading. In order to have better understanding of grading in advertisement and cinema, after having presented all the projects I managed to observe, as extra examples some productions outside the Portuguese world of cinema and television will be exposed at the end of this report.

2 Cineric and Anim are two examples of Lisbon based companies where film scanning are made for digital intermediate processes. www.cineric.pt – www.cinematca.pt/Servicos/Acesso-Arquivo-Filmico/Laboratorio.aspx

Introduction

Color correction/grading is at the moment one of the most important parts of a movie production. The grader is a recently born technical figure in movie-making which is gaining more and more creative power in the production of audiovisual content. The colorist is strictly related both in phase of pre-production, production and post-production with the DOP and the director of art. During my academic path inside *ESTC (Escola Superior de Teatro e Cinema)* specifically in the master degree course of *Desenvolvimento de projeto cinematográfico*, I developed an interest in post-production practices theoretically and practically speaking. In fact it would be impossible to pre-produce a movie without knowing how to end it. After some months since the start of the course a workshop with the professional Color Grader *Paulo Américo* was organized by the professor *Iana Ferreira*. Since then, I have decided to get to know better this post-production process, and since I had the possibility to do it through an internship experience to end my academic course, I have chosen many post-production houses to ask for the possibility to be an intern. Lisbon offers several production houses specialized and furnished with professional equipment for digital grading such as Walla Collective, Lightfilm and Bikini. My first choice was Bikini and after some rejections from other houses I ended up being chosen beside Paulo Américo. The main goal of this paper consist in trying to expose an analysis made during this internship experience occurred between February and May of 2018 inside Bikini. Bikini is a Lisbon based company specialized in post production who works with the freelancer color grader Paulo Américo known for works such as *Cartas da Guerra* (2016), *Ama-san* (2017), *Raiva* (2018), *Maríphasa* (2017). In my specific case, as I wrote before, I wanted to examine two different worlds of audiovisual: cinema and advertisement. Bikini luckily works with these two production environments and it was possible for me to see the way both of them were treated during the color correction phase.

The Aesthetic of a movie/ commercial is not only a choice of the grader but it is indeed, besides the director, the result of a collaboration triangle formed by: Color grader, DOP, and the director of art. The relation between these figures that differs from time to time will be exposed later on.

Even though most of the visual choices are not made by the colorist, the final look is made in the grading room. The real goal of my experience, beside increasing my skills and knowledge in color-correction, was to analyze and define some relations and differences in

cinema and advertisement world from the point of view of the methodology and of the *look*. Of course, proving the existence of similar tendencies and exchange of aesthetic characteristic would be the main obstacle of the paper, yet It has to be said that all the analysis I have made refers to the Portuguese cinema/advertisement situation and were made during a period of only three months.

This report will initiate with the description of the company who hosted me, the particular role I had and the professional that taught me inside, moving forward and passing through some concept that need to be explained in order to understand color grading such as Color spaces, LUTs, film emulation, saturation, brightness etc. Later on the projects we worked on will be listed chronologically and then analyzed in order to mark differences or common points. Finally, After having analyzed the projects from the point of view of the methodology, workflows utilized and the results reached, some ideas will be exposed about a possible influence commercials and cinema had on each other. Although as I said, this case of study has to be referred to Portuguese cinema, a more general examination will be made using non Portuguese audio visual products as example and also an American production focused bibliography will be used to defend some of this ideas.

The strict relation there is between the creative roles of a movie production leads mostly the grader to work in different sessions with the director of photography or the director. In my case this has been interesting in order to see how each of them idealized and realized the product, but due to the importance of some works I had no an active role in the making of the projects . Moreover, color grading in a professional ambit has to be made in a specific room prepared specifically for this practice. A digital cinema projector is used as well as a cinema screen with specific reflectance capacity, even the walls color and the ambient lights have to respect some standards which are decided by the SMPTE (*Society of Motion Pictures and Television Engineers*) and DCI (*Digital Cinema Initiative*) in order to create the most coherent area of work possible. In this viewing and working room usually also a special grading control surface is used.

Due to this methodology we can already assert that, at least for the experience I had, color grading is an individual task. Hence it was really hard for me to be an active figure in the works that were given to Paulo Américo, it has to be said that this consisted in better possibilities to observe and examine similarities and differences between the projects we graded, but also it resulted in a lack of practical information that could help me understand

some difficulties that might be encountered during a grading experience. In such a creative ambient of work it is really hard to define if something follows a fashion or not, in fact due to the global over presence of products every study will always result limited to a specific area and historic moment. Some academic articles and books on media theories like the one written by Jay David Bolter and Richard Grusin will be used to prove some ideas about influences between media.

To summarize, this paper will try to analyze and define some relation and some differences that affect a specific area in cinema and advertisements from the point of view of color grading. Does there exist a contemporary aesthetic? Did television influence Cinema? Did it happen the other way around?

The techniques and the tools utilized to achieve these similar style will be exposed passing through the basic concepts of color space, gamma curves and some new technical improvements that will change color grading in the next years such as ACES encoding system.

To better understand the methodology we used, it would be useful for the reader to name the software we used all along my period of internship namely: Davinci Resolve 14 and Davinci Resolve 15

1. Theory and methodology- Color science and workflows

Even though the aim of this paper is not explaining what color correction is and how it works, a brief introduction to its developing and to some color science concepts has to be made.

Color management, the controlled conversion between color representation on different devices, is based on color science and it is really important to understand the processes that the grader has to pass through to work on different displays and to master and export projects for different exhibition supports such as TV monitors or movie theater screens. Due to the complexity of the topic, just few concepts and terms will be exposed and some guide texts will be proposed for the comprehension of some topics.

Color correction always got along with the moving pictures industries since colored 35mm film was created. In the very first period the grader, or “film timer” as it was called,

changing the lights used in film-printing and the printing times used to be utilized in order to obtain the best reproduction of the colors and exposure filmed on set. Years later still working on film processing, film looks were starting to be created using hybrid analog/digital/optical systems such as the Hazeltine color-analyzer to understand which modification in printing times were to be done. With this technology no control over highlights, midtones and shadows of the images could be done. The control over these aspects entered in the game with the introduction of analog video color correction systems and after they got included in the actual digital video, digital intermediate and digital cinema workflows.

With the start of video technology film began to be scanned in order to be broadcast or to be transposed on other formats such as VHS, DVD to be seen on other supports. With the purpose of obtaining the same results or the most similar color representation of film, the roll was firstly scanned and then transposed in video signal, or to be more accurate, three different video signals, one for each primary color: Red, Blue, Green. These levels could be manipulated in order to change saturation, brightness and hue of the images. This technology was called Telecine and set the actual methodology that is still in use in many color suites. RGB additive system is indeed the most used system to represent visual products, at the base, every digital screen is made out of three main components (sometimes four); in the case of PC monitor, every pixel that composes the image is formed by three subpixels that increase or decrease each primary color intensity.

With the arrival of Digital cinema and the expansion of its functions, color grading became an even more important process and many companies started creating their color software and controls. Sometimes these were just used to work on the digital intermediate to then reprint the film with a graded look. An example of this process could be *Pleasantville* (1998) and *O brother where art thou?* (2002); here the footage was analogically filmed, digitally scanned, digitally graded and then reprinted on 35mm film using a Film recorder. With *O brother where art thou?*³ There has been a big turn in digital color grading. Thanks to this revolution into digital cinema, color correction/grading became an evident necessity for many other products.

3 SHARF, Zack - *The Coen Brothers and George Clooney Uncover the Magic of 'O Brother, Where Art Thou?' at 15th Anniversary Reunion*, <https://www.indiewire.com/2015/09/the-coen-brothers-and-george-clooney-uncover-the-magic-of-o-brother-where-art-thou-at-15th-anniversary-reunion-57292/> (accessed on 24.09.18)

To better understand how color grading works, it would be helpful to explain briefly the functioning of some digital camera. With the first digital camera recording in video, color grading became an optimizing process with basic tools. Later on a new wave of camera recording in RAW or in Log color grading became a standard process to normalize the footage and give it a *look*. Most of the actual camera can record in RAW (ARRI Alexa, Canon C500, Sony F3, Black Magic Ursa) or in digital Video (Sony a7s MkII/MkIII, Canon 5d MkIII, Canon 6d MkII, Lumix GH5s). The ones recording in video, or better Quicktime or MXF (Material eXchange Format) files, can shoot either Log- encoded media or Rec.709. Log-encoded media and RAW files in my case of study have been both used in serious cinema productions, but RAW recording is preferred by bigger budget productions because it involves an investment of time and memory collecting. Rec.709 recorded media results simple to reproduce cause it is based on display standards, compared to the others it can be seen immediately with no correction, of course this involves a lack of image information the grader could use to correct the footage. This recording option is mostly used by amateur and not in serious productions, however one of the projects I will expose later was filmed using Rec. 709 specifics. Recording in RAW means using the information extrapolated from the sensor while with normal video recording you get data with pre-made settings baked in it, such as white balance and gamma curve, resulting in a compression and clipping of some sensor information. Yet, RAW footage cannot be seen on a monitor without being processed. Log footage on the other hand is pretty common in independent cinema productions and during my experience many were the projects recorded using this characteristic. Log footage as the RAW format tries to get the better from the camera sensor, but as said before RAW is not in video, Log is. Usually in Log as in all the video footage each pixel present color and brightness information but it appears to be de-saturated and less contrasted, this is caused by a compression of the information actuated through a logarithmic gamma curve that permits to maximize the tonal range of the camera. To be seen correctly a 1-D L.U.T⁴ that redistribute the values of brightness and color has to be applied. All along my internship most of the projects were Log recorded, even the ones that used cameras able to record in RAW

4 L.U.T stays for look up table. LUTs are basically conversion matrices, of different complexities, with the two main options being 1D LUTs or 3D LUTs. A LUT takes an input value, and outputs a new value, based on the data within the LUT. 1D LUTs can only re-map individual input values to new output values, based on the LUT data - a simple one input to one output process, regardless of the actual RGB pixel value. 3D LUTs can re-map individual input values to any number of output values, based on the LUT data, and the other associated input RGB pixel data. *What is a LUT?*(www.lightillusion.com)

opted for video Log recording due to the extreme weight of the RAW data. Only Raiva (2018), that had on his back a bigger production, manage to work in RAW.⁵

Many are the companies that since the 90's developed specialized softwares for color grading, some were born in the period of Telecine some developed during the digital revolution. Today the main softwares professionally used are Baselight, Lustre, Davinci Resolve and Magic Bullet. Other plugins for editing softwares like Adobe Premiere and Final cut have been created but they do not present all the functions the softwares above have. In my specific case I had the possibility to work within a color suite where Blackmagic Davinci Resolve was installed. Davinci Resolve became a standard in the contemporary digital color correction thanks to its cheap price and intuitive interface, it was born with the Telecine technology during the 80s' and therefore develop around the RGB and Lift, Gamma, Gain curves control. To describe briefly how this software works we could say that the grader observes the project through a calibrated viewing monitor, but uses at the same time a monitor or more where some functions are (*Figure 1*). Lift, Gamma, Gain, Offset are the controls to modify specific parts of the brightness information and originates from the time of video, other controls recently have been added such as Shadow, Midtone and Highlight which are based on Log technology. Each of this controls act on specific areas of the image. They can be controlled through three wheels on the monitor or physically through the console, and to these specific areas of the image different color can be added. Shadows can be blue and highlights can be tinted red for example. Many are the other functions of course, curves exclusively for luminance, saturation and hue are often utilized. To better comprehend the real aspect of the images or the data of the images, some virtual instruments are utilized called scopes, these are mostly composed by a vectorscope, a waveform, a RGB parade and a histogram (*Figure 2*). The vectorscope uses an overlaid circular reference display, or graticule for visualizing chrominance signals and it is used to better understand the saturation and hue of some sequences. The waverform permits to see brightness or luma of a shot while the RGB parade is used to see the density and brightness for each primary color. The histogram which is similar to the RGB parade represents accurately the presence of bright or dark pixel for each channel and can be used to evaluate contrast. Most of these instruments I referred are mostly used to do the primary color correction, like white balancing and correcting contrast and brightness.

5 This example of course refers to the serie of projects that were graded in Bikini, many lowbudget productions still use RAW workflows

Most of the grading softwares are based on the way humans perceive: colors, luminance and tonality are processed separately. In a software such as Davinci resolve *luma* information is separated from the *chroma* one. Contrast for example can be treated without modifying the chromatic characteristic of the footage. Contrast is a word that will always get along with color correction, it is the relative difference between the light and dark portions of an image. It can be strong or soft depending on the genre or the mood of a visual product. Also another difference is to be marked between the terms luminance and luma. Luminance is “a measurement of the eye's perception of light intensity”⁶, Luma “is the non-linearity weighted measurement of light intensity used in video”⁷. To let luminance appear correctly on video, due to its non-linear nature, a gamma curve has to be applied. What results is what is called Luma. This two are often used terms in the grading world, knowing how to discern them helps the understanding of some processes.

1.1 Color science and human perception

Before introducing color management I would like to give a brief summary of color science and its relation to the audiovisual world. Without color science that managed to create some unifying theories no monitor or camera could ever work.

At the very base of the color perception there is the *spectrum*, which is just a representation of light energy in wavelengths. We as human have sensitivity between 380-780 nm (nanometers), all that stays in between these two numbers is perceivable as a color. Infrared and Ultraviolet can be neither distinguished nor perceived because their wavelengths are outside human perception. Colors as we know, are in fact a human subjective concepts, many animals indeed can perceive Ultraviolet and Infrared cause their spectrum is much larger than ours. All these difference in the spectrum make color differentiation possible, for each color a different wavelength. Unfortunately our eyes are not sensible to all kind of wavelength but mainly to three different zones, due to the presence of cone cells with different sensibility to wavelengths (Long, Medium and Short) we are

6 VAN HURKMAN, Alexis (2013) - *Color Correction Handbook: Professional Techniques for Video and Cinema (2nd Edition)*. (Peachpit Pr, 2013), 84

7 VAN HURKMAN - *Color Correction Handbook* (Peachpit Pr, 2013), 84

sensible to the red, green and blue areas of the spectrum. This can be called the tri-stimulus response and could be represented by the LMS color space (*Figure 3*). Different spectral distributions could stimulate the cone cells in the same way, therefore different mixings of wavelengths could appear to the human eyes as equal. This phenomenon, called *metamerism*, will not be important for this paper in specific, but it has been important for the standardization of human color perception.

In order to have a proper standardization of the human perception of colors in relation with the distribution of wavelengths a color space was created, this last would include all the possible human perceivable colors inside an Euclidean space. The CIE XYZ 1931 color system (*Figure 4*) was made by the *Commission Internationale de l'Éclairage* using data from a 2° degree field of view of standard observers (in this particular field of view humans have the stronger sensibility to colors, later on, in 1964, more data based on wider field of view were used) and the tristimulus values exposed before. The CIE XYZ is not a model for color appearance but it *“tells us how to numerically specify a measured color, and then later accurately reproduce that measured color (e.g. in print or digital displays)”*⁸ or better *“It’s a mathematical generalization of human color vision, that allows us to define, and accurately reproduce colors in most situations”*⁹. Upon this color system that is strictly related to our vision functions, many color spaces have been created. During this paper two main color spaces will be present: sRGB (standard Red Green Blue) and DCI-P3 (Digital Cinema Initiatives) (*Figure 5*). These two are strictly related to the two different worlds subjects of this paper: Cinema and Advertisement. The first color space is probably the most used color space globally talking, it became the standard for PC monitors and TV screen. Therefore most of the time I sat in front of the PC during the internship I was actually working in that specific color space. Most of these times the projects were commercials and so were intended to be transmitted on TV or on the internet. On the other hand, when working on cinema projects, we used to work in DCI-P3 color space displayed through a Digital cinema specific projector. These two spaces differ for the width of their *gamut* (displayable color of a specific color space), sRGB is much narrower compared to DCI-P3; during this paper some

8 CHANDLER, Abraham - *A beginner's introduction to (CIE) colorimetry* – <https://medium.com/hipster-color-science/a-beginners-guide-to-colorimetry-401f1830b65a>, september 2016

9 CHANDLER - *A beginner's introduction to (CIE) colorimetry*

basic color management between the two would be described to better understand the way a professional grader works the same product for different media.

To better comprehend some process we have passed through, it is better to categorize color spaces depending on the relationship with real world quantities (image state). Color spaces defined in relation to display characteristics are *display referred*, color spaces defined by the input devices are *scene referred*. Most of scene referred color spaces are wider than the display referred ones. Another important Color space I will use to expose some method Paulo Américo Used during some projects is the CIE LAB color appearance model (*Figure 6*), created in 1976 by the *Comission Internationale de l'Éclairage* in order to obtain a perceptually uniform color space that takes in consideration the adaptation humans have to color.¹⁰

Also the latest technology in fact of color storing and managing will be part of this paper: ACES (Academy Color Encoding System). This system is described by the Academy of Motion Pictures Arts and Science (AMPAS) as

“an industry standard for managing color throughout the life cycle of theatrical motion picture, television, video game, and immersive storytelling projects. From image capture through editing, VFX, mastering, public presentation, archiving and future remastering, ACES ensures a consistent color experience that preserves the creator’s vision”¹¹.

. To make it easier, this is an entire system formed by various functions and tools based on ultra-wide *gamut* color space that encompass all the possible color visible by humans (ACES2065-01) (*Figure 5*), it can be used in all the different phase of a movie production. This ultra wide color space permits to storage all the color and high dynamic range information actual cameras are recording. Indeed most of them are able to record more information than the one that is possible to reproduce. ACES system is thought for the

10 CIELAB, actually CIE L*a*b* is a color model+space combo in which L is brightness and a and b are chrominance components, with the difference that the color values are far more than the human gamut. This color space, also called Lab color space, also has imaginary colors that cannot be reproduced in the physical world. Since L*a*b* color space includes all perceivable colors its gamut exceeds those of the RGB and CMYK color models. Lab is neither RGB or CMYK, but a totally different color model. It is has a gamut that is greater than human vision. The unique goal of the L*a*b* model is to be 'device-independent'. The colors should not be dependent on the device they are displayed on. It is a purely theoretical color space that is used sometimes as an absolute . WOLFCROW - *What is the difference between CIE LAB, CIE RGB, CIE xyY and CIE XYZ?*. <https://wolfcrow.com/blog/what-is-the-difference-between-cie-lab-cie-rgb-cie-xyy-and-cie-xyz/>

11 ACES primer - <https://acescentral.com/t/aces-primer-glossary-and-quick-start-guides-get-up-and-running-with-aces/1433> (retrieved 09.18)

future where display-referred color space will get wider and more close to human sight. Once this will be done, all the projects worked within the ACES system will just be readapted to these new color spaces. As written on the *ACES primer guide*: “*ACES provides a set of mathematical concepts and best practices that enable reliable, high-quality interchange of color content between cameras, digital processing systems, software applications and displays*”¹², ACES transforms a camera information through an ICD (Input Capture Device) into the ACES2065-01 to then re-transform it through an Output Device Transform and adapt this information to the limited display referred color space gamut. Of course, “*ACES knows how to convert every camera scene referred imagery and colorimetry to this wider space. Using specs given from the producers of the camera to make the results closer and closer between different cameras*”¹³. ACES technology in fact, works only thanks to the interest of other companies in this project that developed technologies which adapt ACES functions to their devices and softwares. Since a few years ago, Davinci Resolve developed functions that include ACES system to their tools. During my experience ACES was tried as option many times but only once it was chosen as grading workflow

To carry out my task, during the internship period I had to read many books and blogs; *Color Correction Handbook: Professional Techniques for Video and Cinema (2nd Edition)* and *Color Correction Look Book: Creative Grading Techniques for Film and Video* by Alexis von Hurkman, *A cor* by Edgar Moura and *Digital Color Correction* by Steve Hullfish have been really important for the understanding of grading process.

The Elite of people who professionally deal with color grading can be seen as the smallest sub-community inside the post-production area. Therefore not so many books beside the ones proposed have been written, fortunately big online communities living on blogs and sites such as: *Liftgammagain.com*, *Mixinglight.com* and *Creativecow.com* managed to spread color correction technical knowledge. However, many books on color science were written but result more close to scientific studies rather than humanistic or artistic ones.

12 ACES primer - <https://acescentral.com/t/aces-primer-glossary-and-quick-start-guides-get-up-and-running-with-aces/1433> (retrieved 09.18)

13 ACES primer - <https://acescentral.com/t/aces-primer-glossary-and-quick-start-guides-get-up-and-running-with-aces/1433> (retrieved 09.18)

Most of color grading knowledge has to be taken from video tutorials, articles, blog, and practice. Specifically talking about my theoretical area of interest, I could not find a similar study focused on color grading practice, however there exist a number of books that analyze the use of some color palette or some specific *looks*. For example *Color Correction Look Book: Creative Grading Techniques for Film and Video* by Alexis Von Hurkman represents a guide on how to achieve some particular color grading *looks*, such as: bleach bypass process; day for night; orange and teal look; undertoning and many others. Despite that, it does not talk about the interrelation commercials and movies have.

Looks tendencies changed during the years and could be spotted in the everyday relation people have with audiovisual content such as music videos and commercials. Relations between different medias and products can be noticed as well: the world of photography guides fashion advertisements and some of the styles utilized can be also seen in some color corrected project. Different media started influencing one with the other to the point where physical limitation of one medium became the look of another. An example could be also seen in the low-quality of super 8mm film and the typical aspect of VHS and MiniDV cassette with their chromatic aberration and noisy images often utilized in recent music video-clip¹⁴

Even though it was quite impossible during the internship to manage a global analysis, my focus centered on the cinematic aesthetic influencing visually and narratively advertisement and also the use of 35mm or 16mm film emulation in both cinema and advertisement. Even if film emulation was not used all over the projects but mainly in short or feature movies we worked with, it was probably the more present aspect of Américo's aesthetic. Even some commercial we worked on presented usually cinema related characteristics, such as the *s-curve* contrast and a de-saturated color palette. Later on, the methodology used to reach this result will be briefly presented.

Considering the poor bibliography on the subject and the almost inexistent written knowledge to support my investigation, the only possible way for me to make an analysis was to observe Paulo Américo working and then comparing the results with some extra internship projects. Also many discussions about previous works he had done have been helpful to understand the existence of certain tendencies, influences and differences.

14 Watch *fromdatom\$* - Joey Bada\$\$ (feat. Chuck Strangers) music video for a more concrete example

2. Description of the company and Tutor

Bikini is a Lisbon based post-production company specialized in visual effects and animation, it was founded by Eugenio Marques in 2000. It works with many important productions both in cinema and commercials. SuperBock, Sommersby, Compal, Coca Cola, Mtv, Olx and many others have been collaborating with Bikini. Many are the production houses that in cinema chose Bikini as collaborator such as *O Som e a Furia*, *Terratreme*, *Faux* and *Le Film de Ici*.

They are provided with a room dedicated for VFX and animation and one color-suite managed by Paulo Americo. Also another additional room dedicated to smaller projects is present in Bikini, usually used by producers or editors to finalize some works.

Paulo Américo, my internship tutor, is a freelancer colorist working inside Bikini Company. He started his career after the studies he made in audiovisuals. Beginning inside small cinema productions, he later focused on projections, ending up in the world of theater. He worked for many years as technicians for projections of different plays in different countries, including Italy. Being in contact with projectors, he developed an interest in the new technologies related to digital cinema hence color grading. He also had the possibility to enter in Bikini which just started its relation with this post-production process. He was not a freelancer and used to work for smaller productions, despite that, after developing his technique and style he decided to become a freelancer co-working with Bikini. During his career he managed to work for really important productions. More recently he has worked with Claudia Varejão for her masterpiece *Ama-san* (2016), he also worked in many movies of Ivo Ferreira such as *Cartas da guerra* (2018) which was presented at the 66th Berlin international Film festival in 2016 to compete for the Golden Bear, it was also selected as the Portuguese entry for foreign language films at the 89th academy awards. Américo also worked with Sergio Trefaut in *Treblinka*(2016) and *Raiva* (2018), the latter, was also presented at Indielisboa film festival. Paulo Américo is a recognized figure inside the national film production and the Portuguese small color correction community.

The period of internship lasted from February to the first week of May, all weeks from Monday to Friday. However the periods of creative grading process depended on the presence of projects, many days were passed re-mastering, exporting and fixing some old projects for new supports. Also, few old projects were rechecked to explain some of the techniques used. Many were the kinds of contents we worked on; music video, video art,

short movies, commercials and documentaries. Although my starting idea was more focused on a simple differentiation of commercials and shorts/long movies, I entered in contact with many projects escaping these two categories. Also the documentary category that I wanted to compare aesthetically with feature film could not really be explored as I wished due to a lack of similar projects.

All along this paper, all the projects that passed through Bikini will be shown and a brief analysis and methodology used for each one will be explained. Using all the data I managed to collect I will try to expose some theories on the visual tendencies that these projects displayed.

The projects I have worked on are, in chronological order:

- *Jonathan I can't tell you*, LIIMA – Director, Catarina Neves Ricci – Producer, Alibi Films – DOP, Rui Poças – (Musicvideo)
- *Esgotaram-se os Nomes Para as Tempestades* – Director, Tatiana Macedo – DOP, Rui Xavier – (Video art)
- *Negativa, Aki* – Director, Bruno Pinhal – DOP, Luis Branquinho - (commercial)
- *Boné, Aki* – Director, Bruno Pinhal – DOP, Luis Branquinho - (commercial)
- *Love story*, Pilar Paiva de Sousa -Director, Nuno Rocha - (commercial)
- *Minipreço* – (commercial)
- *Sara F.* - Director, Miguel Fonseca – Producer, Som e a furia – DOP, Mario Castanheira - (Short movie)
- *Macdonald's Macdrive* (4 chapters) – (commercial)
- *Macdonald: Novo rustico* - (commercial)
- *Il sogno mio d'amore*, Nathalie Mansoux & Miguel Moraes Cabral (feature documentary)

3. Description of my activities

During this chapter each project exposed before will be presented and the methodology described. The technical specifications as I wrote in the previous chapter are really important to understand the techniques utilized during the grading process, therefore I will start presenting the projects describing the genre and the tools used to record them. Also, the relationship between the director of photography and director (depending on the type of production) have been really important to understand the real role and creative freedom the grader has inside this post-process area. To better comprehend the exact amount of time we have worked on the projects, also depending on the type of production, a calendar will be put in the attachment (*Table 1*).

Having to deal with a creative area of work led to an impossibility in creating a proper plan of study. Even Paulo Américo didn't know the kind of projects that were coming in. It happened that some projects arrived with just a week of advance notice. Of course it was impossible for me to be sure about the ideas I wanted to analyze during the internship and most of them changed during this period. This evolved in excluding the possibility of arguing differences in the aesthetic between documentaries and feature films, almost abandoning the idea of discussing the potentiality of ACES encoding system, and having a lack of information to better understand the possible existence of the global influence between commercial and movies.

Grading, commonly misunderstood as simply applying LUTs to the footage is, in fact, formed by many steps every professional grader has to pass through. Everything starts with the often complex phase of *Conforming*, which consists in making the translation of a project from the editing software to the grading one possible. Here, most of the times, problems arised due to timecode echoes or just for software different architectures. The important thing is to have the project flowing as the editors intended it to be, without cutting out the editing transition. Grading has in fact the duty of making consecutive shots feel similar in an effort to create fluidity in the footage. It is for this reason that grading is the last process before mastering and no-one seriously starts the color correction before the end of a finished work.

After this often problematic practice the steps the grader has to do are as described by Alexis Von Hurkman¹⁵:

¹⁵ See *Color Correction Handbook: Professional Techniques for Video and Cinema (2nd Edition)* (2013) for an expanded explanation of these tasks

- Correcting colors and exposure problems

Almost none of all the actual footage recorded with digital cameras does ever present perfect exposure or white balancing, this could be caused by wrong camera setting during the phase of recording or by changing in lightning (usually happening in exterior shooting). In documentary making, often, fast action have to be captured and camera settings can not be adjusted on time. Fixing the contrast, brightness and white balancing are the first steps into grading, this is often named by the community as primary color correction where sequence are set neutral to be prepared for the creation of a *look*.

- Making key elements looks right

The subjects of documentaries, feature movies or commercial has to pop out the rest of shot. The role of the grader here is to normalize this subject throughout the all whole work and let it stand out from the rest of the shot. A bag in a commercial can not change aspect from shot to shot and In feature film a certain attention is given to skin tones. This is a risky category of color (memory colors)¹⁶to work with cause human being are very sensible to it.

- Balancing scene shots in a scene to match

Similar to the first pass that consist in a preliminary correction of the shots this phase take shots made in different situations, with different lights and at a different time and tries to erase the big differences. This process would be important in an advertisement of MacDonald we worked with, four different commercials were filmed in the same spot at the same time. Here the goal of Paulo Américo was to let the spectator believe those where different time of the day

- Creating style

This would probably be the most important pass for this paper. After having matched all the shots the grader has the aim of creating a style that suites the project mood. Cooler or warmer, lighter or darker (high-key and low-key), saturated or subdued; many are the choices that could be made. The color palette chosen for movies and commercials are really important for a good response of the audience. Often some color dynamics are used, monochromatic palette, contrast colors palette, triadic colors palette and discordant color are

¹⁶ See chapter 8 of *Color Correction Handbook: Professional Techniques for Video and Cinema (2nd Edition)* (2013) for an explanation of memory colors.

usually the most used. The book *If it's purple someone is gonna die* by Patti Bellantoni could help understand some psychology of color used in many movies.

- Creating Depth

This step consist in making the narration fluid using light and chromatic contrast. Letting the eye of the spectator follow what the director meant to be followed

- Adhering to quality controls standards

Since standards made possible the distribution of audiovisual contents such as movies and commercials on different media the grade has to pass through a phase where the content is prepared for the exhibition support that is going to receive it . Video levels or Data levels¹⁷ are just few of the characteristic that the grader has to deal with when preparing products for different target. Color spaces and gamma curves as well has to be taken in consideration. The importance of this process stays in the consistency of contrast and chromatic choices that even when technologically limited by the support have to be the most similar to the real intention of the grader.

4. The internship projects

During my internship, the projects were worked through three different main methodologies: Filmconvert, ACEScct system, and custom tone creation through Gamut Mapping. Both commercials and movies (shorts or feature) were developed using these methodologies. Filmconvert however was mainly used in cinema products.

All of this were used to reach the final look of the projects that were worked upon, Filmconvert, as the name says, is a plug-in software which thanks to a series of tests and analysis made on real 16mm film or 35mm film through a spectrometer is able to emulate the curve, the density, the grain and the chromaticity of the now surpassed analog support. Of course it can also be used to reach a proper contrast or proper color palette without looking so “vintage”, while also the grain can be avoided. The ACEScct function is part of the ACES family. Made specifically for color grading, ACEScct is a *Log* encoding of ACES2065-1 files

¹⁷ These are options that come from TV broadcasting time, where the chroma subsampling had to be made in order to to keep space for other information. In 8 bit 0-255 is full date range, in 10 bit is 0-1023. I video levels 8 bit would be 16-235 and 10 bit 64-940. See www.lightillusion.com/data_tv_levels.html for a deeper explanation about data and video levels (TV legal levels)

that uses a different set of primaries and somewhat smaller color gamut, it also brings the characteristic Cineon shadow details. It is a conversion made towards a version of the ACES2065-01 explained before, prepared to respond better to colorsuite software such as Davinci. For custom tone is meant the readapting of the input device data to the working space specific color, the research of the right curve of contrast for example is not given by a pre-made LUT neither by a film emulator. It is here that the full power of the briefly presented controls of Davinci like *lift-gamma-gain* are fully used. However this technique (that can be made with every kind of footage) results more complex and needs practice to be controlled. For this reason Américo used this technique along with the Gamut Mapping one. By Gamut mapping it is meant the adaptation of a gamut to another, of course this is made through mathematical formulas and matrix and is usually managed by a plug-in or a specific function of a software.

For what I could notice all this techniques could encompass all the possible *looks*, or in other words they are not only related to the creation of a cinematic style (however ACES is mostly made for it).

4.1 *Jonathan I can't tell you*

This project represents the start of my experience in Bikini; it was directed by Catarina Neves Ricci and filmed by Rui Poças, the notorious DOP who worked in *Tabu* (2012) e *O ornitologo* (2016). The period of work (including conforming and mastering) lasted just for a week. During this time I only had one occasion to be in contact with Catarina Ricci and therefore all the information we had about the direction of photography came from her (or is just personal supposition). The project was intended to be a music video to be put on web platforms.

The days before the meeting with the director, Paulo conformed the footage as it was meant to be in editing and normalized the images to start working. This project was recorded with a high quality camera, namely Arri Alexa, in video Log-C (ARRI personal Log curve). As explained before the Log recording gave us more possibilities than a normal video recording. After a brief analysis it came out however that the vision of the director could not be fulfilled with the footage we had. Even though logarithmic recording permits to keep more details in

the shadows and in the highlights the contrast was still too strong due to a lack of added light. Some chromatic problems also appeared, caused by recording the video clip in just one day during different times of the day. Besides the strong and differentiated contrast, an important characteristic of the footage that was obstructing our workflow, was the lack of color contrast to let the subjects stand out as meant by the director. The main subjects of the video clip were a few young women in intimate spaces and the aim of the director was to pop them out of the location where she set them. The problem started arising when the subjects wore clothes of the same color palette of the room that was in between red and orange which are also the colors of skin tones¹⁸.

Before the real grading started, Américo prepared some *looks* to be proposed to the director. As already referred, the different options were three: one was based on the ACES encoding system; one on Filmconverter film emulation plugin and the last using custom tone and gamut mapping. The aces system, due to its film based nature, creates often an aggressive contrast if the photography is not treated properly. The Filmconvert version did not find the best color representation for the director and, therefore, the third option was chosen.

After having passed through the first step of conforming and normalization of the image and adaptation of the footage to our color suite (the project was set in Rec. 709 but it was projected on the cinema screen in order to have a bigger view, an output monitor LUT to transform the input data in Rec. 709 in DCI-p3 was used) we started looking for a style. As said before the director had an idea in mind that was hardly realizable, due to the chromatic settings of some scenes. What she was seeking for was a look characterized by few contrast and soft pastel colors, in this case pink/orange tones would be important in the creation of the color palette. Due to too many similarities between colors of objects it was really hard for Américo to select only a specific part of the shot. This is usually done using a tool called *qualifier* that analyzes the image through different quality keys. Luminance, Hue and saturation are the three main keys used to apply this process, however if in the image too many pixels presents the same qualities the selection will not work.

Not all the shots presented this problem. However, since the main scenes were supposed to be worked in this way, the director abandoned this idealized look. Yet, some

18 See chapter 8 of *Color Correction Handbook: Professional Techniques for Video and Cinema (2nd Edition)* (2012) for demonstrations of same hues but different saturation and brightness in human skin tones.

work of this kind could have been done in longer period of time, but in professional grading such a long period is dedicated to feature film.

The creative role the grader had in this project was strictly limited to the director choices and the ones made by the art and photography director. The color palette was supposed to be focused on orange and pink; the subject of the videoclip - feminine intimacy - is commonly related to this color palette¹⁹. Due to a lack of chromatic contrast and persistent strong luma contrast it was impossible to reach this goal.

It is really hard to understand the creative contribution Paulo Américo had during this project, even though he was the one proposing *looks*, these were just an adaptation to the problems made in the production phase. During some feature films he worked in, he had the possibility to project and realize tests in phase of pre-production to better design the aesthetic for the movie with the director of photography. This happened for example in one of his last work *Mariphasa (2018)*.

To start creating a *look* in grading you have to decide which white balancing to use and most of the time a neutral white is chosen. After having worked on color saturation and luma contrast, white can be re-balanced to create a different mood (for example, it is impossible to think about a white neutral sunset). The methodology of Américo mostly consisted in Lifting up the blacks, setting the middle gray and adjusting the Highlights. Later through the LAB color space he divides Brightness from the axis Green-Magenta, Yellow-blue and he fixed the white balance of the image.

This kind of methodology was used by him in all the projects, later on this process will be signed as balancing or simply primary color correction. Once this footage is neutralized (extreme whites and extreme blacks cannot be saturated) the contrast is adjusted in order to create a certain consistency and a start for a certain *look*. Smoother contrast or a harsher one is chosen and usually the cinematic contrast can be described through a *s-curve* where highlights and black are a bit crushed and grays result smoothly distributed. This can only be done in footage that presents enough information to be modulated in this form, otherwise banding and loss of detail would occur. In this first project, I could not find any specific style ascribable to other music video clip.

19 See *If it's purple, someones's gonna die (2005)* for more examples of color psychology

The visual aspect of the video of course has its roots also in the Equipment utilized: Arri Alexa has a discernible look given by the digital grain and the chromatic reception. This camera is indeed very used in cinema productions and therefore, the music video has some intrinsic characteristics that relate it to this medium. The first idea of the director however if done could have been understood as a common style with a “milky look”, soft contrast and limited light color palette. The original idea however could be related to the color tones usually film has due to its subtractive functioning²⁰. Also, a film grain effect was applied to improve the already existing grain that Alexa presents and to bring the style closer to a cinematic one.

4.2 *Esgotaram-se os Nomes Para as Tempestades*

The second project I had the possibility to work with was realized by Tatiana Macedo with the direction of photography of Rui Xavier. Macedo has directed in her past many projects related to video-art. Works such as *1989* (2015), *Seems so long ago*, *Nancy* (2012), *Foreign gray* (2014) could work as examples.

Paulo Américo already had the possibility to work with her and the director of photography and therefore less obstacles were encountered during this project. The way of working of Rui Xavier is really coherent whether it concerns contrast or the brightness of the scenes. This could be noticed in one of his last works (where Américo worked as well) namely *Mariphasa* (2018). His way of filming is made in function of grading: Xavier knows the limits of the camera he uses and thanks to a longtime collaboration with Américo and a great interest in grading his material, they always result easy to process.

Through all Tatiana Macedo's work the brightness of the scenes and the contrast had always been coherent and the camera was exposed in order to maintain the best light volume throughout the shot and the best details definition. The camera used in this project was a Sony A7s MkII which became a standard in independent and low budget production. A *Log* curve was used, specifically Sony Slog-2. The video was recorded in a few spots in

²⁰ Film is subtractive color and digital is additive color. Those are fundamentally different ways of creating color... 'subtractive' means you start with white light - and subtract out red, green or blue to get cyan, magenta or yellow (and all the of other colors are combinations of these three basic colors). Additive means we start with blackness - and add red, green or blue (and all of the other colors are combinations of these three basic colors). *On color* – (<https://www.kodak.com/motion/hub/itp/oncolor/default.htm>)

Porto. The main scenes were recorded in a vintage style restaurant characterized by a limited and consistent color palette of different shades of red, yellow and beige.

Rui Xavier is used to work with Filmconvert and the ways it distributes light and re-map colors. Also Filmconvert has many default profiles prepared for camera recording in Log, included the Sony used during this project. The grain is also part of the aesthetic of Xavier: it helps making more dynamic still shots.

After the phase of conform, a first meeting with Xavier was made and Filmconvert was chosen instead of a LUT or custom tone. In order to obtain the best fidelity of the imagery and have the best representation in the color suite it was important to understand which final target was chosen for this work of video-art. The project was commissioned by Culturgest where it was also projected through a professional digital cinema projector with standard specifics in a non-compliant environment. Therefore the project on Davinci Resolve was set for a cinema environment in data levels and an output LUT to adapt the camera *Log* color space to the cinema screen projection was used (knowing however that the results in the color suite would not be the same as the projected ones). Some supposition on the environment lights were made and in function of this shadows and highlights, they were fixed to have the minimum details loss. After the project was set for the conditions of the place where it would be exposed, Américo started primary correcting the sequences. A technique often utilized by the duo Américo-Xavier is to set the highlights around 80% on the scale that goes from 0% to 100% to obtain the best response in cinema projection contrast. The more the highlights are set up, the less you get details in the shadows because the human pupil closes in response to high lights stimulus. Also Hurkman regarding contrast writes that *“because of the way our eyes work, the audience's perception of your highlights are always going to be relative to the depth of the shadows in the image. Sometimes, you'll get better results from lowering the shadows and leaving the highlights alone than you will from raising the highlights”*²¹. Therefore to obtain a better reading of details it is better to reduce the contrast during grading. Although this does not make part of a general tendency it is a gimmick I saw being utilized during my experience as assistant. In *Esgotaram-se os nomes para as tempestades* it was really hard to understand the development of the story, indeed if for a grader it is important to see the evolution of scene after scene, in hurried situations it is hard for him to watch all the given footage. This project indeed was composed by four parts,

21 VAN HURKMAN (2013) - *Color Correction Handbook* (Peachpit Pr, 2013)

meant as 4 screens projections mostly representing same scenes with a length of 10 minutes each. It was hard for Paulo Américo to understand the narrative and the concepts due to the preparation of the project and the continuous re-conforming he had to do. Also, editing was repeatedly adjusted during our grading, making the consecutive reading of the scenes constantly wrong.

Anyway, no particular contrast, lighting or color palette were noticed by me during the grading even though the direction of art and direction of photography were well curated. An important aspect was the way the footage recorded in *S-Log* (logarithmic curve of sony) was worked through Filmconvert giving a less saturated color palette. Also a minimal film grain effect was used.

The grain and the color set up of film given by Filmconvert was a trait I had the occasion to notice in some other works during the period of internship. Of the same importance was to analyze the freedom the grader has in working, depending of the kind of client he is working with. Here he had the possibility to try reading the project and to give his own interpretation of the mood under the sight of the DOP (who as I said before already had a plan) and the sight of the director who had of course the last word on the aesthetic of the shorts.

4.3 AKI - *Negativa/Boné*

AKI is one of the Portuguese colossus of bricolage and the commercials we worked for were made just to publicize some general products. Most of the advertisements we worked with were made in series, or in other words, composed by several short commercials. In this case there were two - one called *Negativa* and the other *Boné* - both directed by Bruno Pinhal and filmed by Luis Branquinho. Pinhal worked seriously in advertisement for many years and made several collaborations: MTV, Dr.oetke, Revista Sábado, etc. Also, Luis Branquinho as well has a long career both in feature film and commercials. We can then understand that these commercials we worked with had a serious production on their back.

Indeed both were recorded with an ARRI Alexa in Log-C (Arri Log curve) like the first project presented in this paper. The time we had to work the footage was extremely reduced and it lasted only two days. It is rare to see projects lasting more in advertisement productions. On the First day of work the DOP, the director and the executive producer were

present to discuss the *look* for the footage recorded. Before this as in some previous works, Paulo Américo made the conform in order to save some time for the grading, and made some tests to propose as starting bases. The footage that was meant to be broadcast was adapted in Davinci Resolve through and output LUT to re-convert the signal to DCI-P3 color space. This footage should have been worked on the LCD screen but due to a massive presence of collaborator the cinema screen was a better choice. As before the three main options were Filmconvert, LUTs or custom tone, and ACES encoding system. This time Gamut mapping was used and the contrast curve was found independently and then used all over the footage. The gamut mapping in Davinci Resolve has functions specific for the ARRI ALEXA camera that allows to have balanced and coherent results. The sequences were normalized in the matter of contrast, shadows and highlights. Since the commercials had not a dramatic mood the imagery was set to be pretty bright. After the sequences were normalized one with the other, the white was balanced to have more neutral shots to work colors in. After the scenes were fluid and coherent (or, in other words, after the primary color correction was made) the creation of a *look* started. Starting from the results of the applied gamut mapping we tried to understand with the director the moment of the day in which he wanted to set the commercials.

In *Negativa* we tried to give a late afternoon lightning, therefore more yellowish. In *Boné* the white tended more to a bluish shade. In both the commercials saturation and contrast have always been kept low and only a few details could be noticed as more saturated, this is usually more noticeable in the products that are advertised. In our case saturation and Hue were used to create a coherent color palette that would be present all over the commercials. Also the *qualifier*, as explained before, was used to better select some specific part of the shot and increase or decrease the saturation or brightness.

In General these AKI commercials do not present a particular style but a simple desaturated, high key and low contrast look. Of course since the production equipment was close to movie production standard, the results still resemble cinematic products. The aspect ratio, the camera utilized, the imagery quality and the minimal presence of a story can relate commercial to cinema production. This argument will be better discussed later to understand the relation between equipment and grading. Besides my case of study that resulted in a failure in this particular project because it was impossible to notice a recognizable style, working on this content was important to understand the role grading and the grader have in commercials production.

4.4 Pilar Paiva De Sousa – *Love story*

As written before one of the problems I encountered during my trainee-ship experience was the unbalanced presence of commercials compared to the feature/shorts film. Here indeed I had to deal with another commercial. What was interesting this time was to notice that besides the visual aspect of the work the Aesthetic and narrative was completely attributable to the movie-making world. The length and the equipment gives to this work the aspect of a short movie. The commercial was commissioned by Pilar Paiva de Sousa which is an architect and has an interior design company settled in Porto, the commercial was produced by *Filmesdamente* and realized by Nuno Rocha. To realize the commercial (2 minutes and a half long) a Blackmagic URSA 4.6k mini camera was used. Not that many information on the production of this project arrived to me, but it is important to say that since the commissioning company produces furniture and project interiors it was easy for the direction of art to organize the location. Indeed the commercial is settled in a hotel where PPS products were installed. This had also a positive aspect in the grading because the color palette of the interiors resulted coherent. Many other problems were encounter both in phase of conforming and grading.

In the first part, problems with exportation and codecs did not made the process easier. In grading many problems were encountered starting from the primary correction where some shots resulted overexposed or underexposed presenting too much incoherence in light designing. Also some problems related to the art direction and more specifically to the chromatic choice of the wardrobe of the main characters of the commercial arose. As it happened in the videoclip previously exposed, popping out the subject from the settings was impossible without spending a lot of effort.

Filmconvert, Aces, LUTs and Gamut mapping custom tone were taken in consideration as options but after all, Filmconvert again was chosen. Once the project was set up on the big screen and the film stock in film convert was chosen, the overexposed and underexposed shots were normalized and a fluidity was created also through the white balancing. The contrast in the commercial is lame and not harsh even though the footage was tended more to that direction due to few artificial lights use. Also the color palette used was a less saturated one, with pastel colors tending to beige, brown, cream and bordeaux typical of some film stock. Beside this few characteristic the commercial did not present any particular color palette exposed before. Chromatic contrast can be found only in a sequence but it is

not consistent throughout the entire commercial. Also here a feeble film grain of Filmconvert was used.

During the week of work, Paul Américo gave me the possibility to create my own version of the commercial. While comparing them, I noticed that mine resulted too saturated and too harsh concerning the contrast and sharpness. My approach due to a lack of experience did not tend in masking some imperfections but to improve them. A strong difference that can be noticed between projects related to advertisement and the ones related to cinema is that many things are hidden in commercials. An example could be the skins of this commercial and the one of AKI that were graded in order to let some impreciseness disappear. The features film projects showed to me by Américo (such as *Raiva* (2018) and *Hotel imperio* (2017)) did not presented any of this characteristics but, in fact, impreciseness in skins are an important trait of some movie Aesthetic.

4.5 Minipreço

Minipreço is one of the most important supermarket chains of Portugal.

They commissioned to Bikini to grade three different commercials which were broadcast on tv and on the net. These three commercials were realized by the production company Alibi settled in Lisbon, which has a long history in commercials making. Here the length of each commercial, 30 seconds circa, led to a lack of narration that could be noticed in the commercial analyzed before. Therefore the starting point is already further away from cinema making, however some aspect are still attributable to cinema. Also here in fact ARRI Alexa was used as part of the equipment and the footage was filmed In Log-C. The Director of photography and the art director planned the project, there was coherence between the scenes and the different commercials in fact of lightning and color saturation. Chromatically talking in fact each of the commercials presented different color palettes but the levels of saturation were similar. The process of conforming this time did not present many errors and was made with no effort, thanks to a proper light coherence also the primary color correction with the highlights and shadows setting was made easily after the method of conversion of the scene referred color space was chosen. In this case Gamut mapping functions of Davinci suited better the goal of the production. The contrast distribution had its consistence all along the commercials, the things left to do were working on saturation, hue, and fixing some

specific part of the shots. Since the commercial's aim was to publicize some products, some shot present pretty strong saturated colors in order to get the attention of the viewers. This is a common trait in many commercials. Also some colors were worked in order to obtain a perfect color contrast palette through opposite colors. Each commercial is different from the other aesthetically speaking, one presents an opposite color palette and the other displays feeble pastel colors. A common visual aspect is reached when the interior of the supermarket is shown and the products result in extra-saturated creating a mixture of colors and a loss of specific color palette. Even though here a cinematic aspect can not really be noticed, the aspect ratio, the camera used and some pastel colors present in one of the commercials can still be related to film emulation and some movie-making productions. The lack of a cinema story telling involved also the lack of a need of a cinematic aesthetic with a dramatic contrast. However one of these commercials differs from the others for the use of contrasting colors that is a choice often used in cinema and also the way of treating pastel colors is really similar to the previous commercial analyzed and this could in a certain way characterize a tendency in advertisement. Although the presence of these pastel tones in advertisements it is still recognizable that levels of saturation are higher in commercials than in movie-making, the attention of the spectator it is probably more achievable exploiting these aspects.

4.6 Sara F.

Sara f. was the first short film I have worked on since the start of my internship. It was produced by *O som e a furia* which has a long-time collaboration with Bikini. Realized by Miguel Fonseca known for other shorts such as *As ondas* (2012) and *Alpha* (2008), *Sara .f* consists in the story of a girl called Rute who besides her normal life has a strange relation with the online world. In this case, not as *Esgotaram-se os nomes para as tempestades*, it was possible for me to see several times the entire work once finished, therefore understanding some creative choices has been easier once understood the mood of the short film.

This short was filmed using a Sony A7s MkII using a Log recording curve. The ACES encoding system was not proposed this time and Filmconvert again was chosen as a resolution to re-interpret the input data. Again Américo passed through the conform process and right after choice of a film stock to emulate the primary color correction was made. Data levels this time were used since the product would end up in the film festival circuit. Indeed

also the color suite cinema screen was used to work instead of the Lcd screen. The first aesthetic choice in this case was made in phase of pre-production, the short is indeed a *black and white* product, this does not mean that the grader had not importance in this project but just that the look he had created was only based on brightness and contrast. So the Film convert was used just to obtain a good starting point in fact of curve of contrast without losing details and obtain that grain effect that gives dynamism to the image.

The role of Américo in this project consisted in modulating the brightness of the various images ,correct the exposition, creating power windows to light up or darken some specific part of the images and make the sequences coherent. But deciding if making them darker or brighter has been a creative choice of the director Miguel Fonseca and the Producer Sandro Aguilar. A low key style was chosen also to help increase the dark mood of the short, such a style is not common in commercial but when this happens it is mostly used in commercial which presents a minimal narrative, later on a Calvin Klein commercial will be exposed to justify this assertion.

4.7 Mac Donald- *Mac Drive/Novo rustico*

During my internship I also had the possibility to see how a big brand develop its commercials, MacDonald is in fact one of the most known brand worldwide. In this collaboration we had, two were the project we had to work on, the first was to publicize the MacDrive service the other was to advertise a new product. To better understand the project I will start making few clarifications on the production of these commercials. For the first one it is important to say that it is divided in four chapters representing different times of the day, and depicting different scenes but in the same exact spot which is the MacDrive booth. The second one was composed by two different commercials of 30 second circa each, for the new product only a small part of the footage was recorded in Portugal and the rest of it was filmed in UK by an agency specialized in food filming.

The time we worked on this commercial actually has been longer than what it was supposed to be due to some little details we had to fix at ended projects. For both the commercials ARRI Alexa with Log-C was used, for the first commercial just few hours were used to film all four the chapters, for the other more time was needed also due to the complexity of some sequences.

In the MacDrive commercials four different time of the day are represented, the ones depicting day scene were filmed in a single moment of the day independently from the moment of the day they were going to represent, therefore they had to be harshly graded in order to obtain different appearances. This was probably the most difficult aspect of this series of commercials. For the other commercial that was still recorded in a day, due to its different length and complexity of the scenes, it has been hard to make the sandwich footage (filmed in UK) look as the MacDonald wanted it to let it appear to the customers.

Davinci Resolve gives the possibility to work on different videos in the same projects, this was perfect to let us compare between each other the different moment of day of the MacDrive commercials. Of course as every project described before we passed through the conform process and primary color correction following the same methodology proposed earlier. The interpretation of the camera data was made through the Gamut mapping tool of Davinci Resolve, that gave us a nice starting point in fact of chromaticity and contrast. The project was worked on the LCD screen and therefore set to Rec. 709 specific in video levels. During some session with the director and DOP, the footage was moved to the cinema screen and the signal adapted to the DCI-P3 color space in data levels. Of course the final version was visioned on a LCD, unfortunately not the calibrated one of Américo's color suite, this was probably one of the reason few details had to be fixed after been visioned.

Once Américo had the four different sequences neutralized and a chosen way to work the Log footage, the shots were analyzed to better understand how to convince the spectator in thinking those were really four different moments of the day. One problem encountered was the distribution of the shadows that, due to the still sun, did not change all along the day-scenes. A good gimmick utilized was to adjust the brightness in order to have the maximum one in the commercial depicting lunch time when the sun hits more, and have it lower for the other two. Another basic technique used was to re-balance white or better move the white point on the axis yellow-blue more to the blue in the morning and more to the yellowish in the late afternoon. After this some secondary color correction was made, fixing some sky saturation and brightness, increase the brightness of some details that due to exposure problem had not the right visibility.

This first commercial I exposed was easier to work, just three shots for each sequence, where not that many details were included helping the fluidity and velocity of the workflow.

Anyway not a particular color palette was chosen and particular style did not appear to me. High saturation was however noticeable in details defining the look of MacDonald shop.

For the second commercial beside the problem of including a different production footage, more complex was the narrative and therefore many more shots were filmed to realize it. A big amount of details was filmed but a nice almost triadic color palette was used in phase of production thanks to a professional direction of art. The colors mostly present where shades of red, yellow, light blue and green. This is a color palette (*Figure 7*) similar to some already used in movie making, an example could be *The Master* (2012) (*Figure 8*) and *Where the wild things are* (2009) (*Figure 9*). However in MacDonald's commercial more red and green are present due to some food characteristics.

The phase of conform and primary color correction was not very hard thanks to a proper exportation and thanks to a coherent direction of photography. ACES encoding system was tried, but resulted too aggressive for the taste of the production, here gamut mapping was used again. Here as well, after having neutralized footage, the research for a correct *look* started. Contrast was fixed in order to do not create too dark images and to keep details and the subject of the story visible. Also here the modulation of the yellow-blue axis was made in order to be in line with the choices of the production, after this was found, the rest of the colors that wanted to be saved were increased or decreased in saturation. A particular attention was given of course to the sandwich sequences where many masks to divide different colors were used to increase or decrease brightness and saturation to reach the planned aspect of the product. Another particular adjustment was the face of the subject which passed through the research of the perfect skintone and smoothness, these was then recreated in all the scenes. In the second commercial perhaps due to an increased level of details and due to a more curated palette and contrast, the aspect seems closer to cinema, but it still cannot be completely ascribable to it.

4.8 *Il sogno mio d'amore*

this project consists in a documentary describing the life inside Lisbon music conservatory and the relation between students and teachers, it was realized by Nathalie Mansoux & Miguel Moraes Cabral and produced by *O Som e a furia*.

This project was filmed with a low budget camera recording in video Rec. 709 and therefore the grading we applied, compared to the other projects described so far recorded in Log, was more limited and not many improvements could be made. Even though the camera utilized was not recording in Log, Filmconvert could be used. This smart plugin has also some functions that make DSLR cameras compatible. Readjusting the value of the input light Filmconvert manages to re-distribute lights and create a good starting point for contrast adjusting. After the conforming process, contrast was in fact fixed throughout the whole short, many where the shots later on that presented clipped zone (both in highlights and shadows) but not many corrections could be made due to the lack of information. A Log encoded or Raw video would have permitted to manipulate more the image, but this lack of production quality led to a less detailed product. The movie itself tends to a documentary aesthetic, scenes are not completely prepared, the interiors and the wardrobe cannot be changed; the role of the director of art did not exist. There is not therefore a specific color palette reproducible during the whole work, however some colors often appear due to the presence of similar environment inside the conservatory. A more natural aspect has been kept for this work, the role of Paulo Americo was to fix and improve contrast, white balancing and increase or decrease some color saturation to try letting appear a uniform color palette. A particular trait here was still the use of film emulation which re-interpreted the camera data with an interesting contrast and also the grain that as said before gives dynamicity to still images often present in documentaries.

5. The extra internship project.

Most of the projects I had the possibility to see, where related to the advertisement world, few in fact where the works related to movie-making. *Sara F.* and *Il sogno mio d'amore* are the examples, but both of these unfortunately did not take advantage of all the possibilities Davinci Resolve could offer. To let this paper be more consistent I asked my internship tutor to show and explain to me some projects he worked on before I arrived in

Bikini. *Amasan* (2016), *Raiva* (2018) and *Hotel Imperio* (2018) are all feature movies, the first being a documentary, the others fiction films.

Not having the possibility to observe from the start the methodology applied to each of these films led to it being impossible for me to have a complete analysis of the grading developed for these projects. Unfortunately, as already written in the introduction, a problem encountered during the internship was the lack of feature film grading projects so that the only possibility for me was to analyze some previously made projects, but here, the analysis results completely unreliable. In fact no relation with DOP or director was observed, the complete methodology utilized by Américo could only be resumed by him but not be observed throughout the entire process. Of course the final products present similar characteristics and therefore they can be used to reinforce some theories about film emulation looks and to differentiate film-making from advertisement production.

5.1 *Amasan*

Amasan is an independent documentary movie realized by Claudia Varejão, a known Portuguese director who had already collaborated with Paulo Américo during her career. The movie talks about a small community of women fishing Abalone in the open sea of Japan without no technical equipment. Since the movie had already come out at the time of my internship, I had the possibility to watch it before the project was shown to me, this unfortunately could not be done for the rest of the movies.

This film was recorded using low-budget equipment and a really reduced team, a Canon 5D Mk II (a well-known DSLR in independent movie making) was used to film. This camera was so used in small productions that many softwares had some functions specific for it, an example could be that Filmconvert has a specific profile for the color space and gamma curve of this camera recording in Rec.709. This, in fact, was used for this project and can be noticed in the evident grain and for the pastel colors present all over the film.

Of course due to the entry level of this equipment, not much could be saved in post-production but Claudia Varejão, who had made on her own the direction of photography, had been coherent and not many problems related to exposition appeared. Hard was the creation of a color palette due also to the documentary nature of this project and therefore the

unpredictability of some scenes. The hardest thing was in fact rotating the Hue and saturation of specific color to make them be consistent throughout the whole movie for almost 2 hours. Even though this work stands out in fact of style it does not present many similarities with the other works if not for the pastel tones, high key and low contrast aspect. Film emulation however can be defined as the main sustaining aspect of this look.

5.2 *Hotel imperio*

The latest project of Ivo Ferreira, director of *Cartas da guerra* where Paulo Américo collaborated, during my period of trainee-ship was still on production. It was produced by *O Som e a Fúria* which has, as already explained, a long-time relation with bikini and Paulo Américo. During the internship period the movie had not come out yet and I had no way to watch it. The movie is settled in Macao, although a brief version of the work was made, the plot still resulted incomplete to me and therefore understanding the genre or the mood was impossible. Most of the scenes indeed were not shown to me.

The movie however presents many dark scenes and can be described as a Low-key light product. Also this movie was recorded with a Sony mirrorless camera, using a Log encoding curve. This is the only project during my experience in Bikini which was graded with the ACEScct system. It is a pity that I did not have the possibility to watch the project once it was finished. In any case many characteristics of this system could be analyzed.

Paulo Américo, under my request, managed to show me some part of the footage with no grading applied. It has been important to understand the potentialities of the workflow he used. The starting point was in most cases exposed to the right, which means in Digital photography and in videomaking to minimally overexpose the scene to let the sensor have the best quality and less details loss. A High-key product could be done, but the plot of the movie was not fitting in that kind of aesthetic. Using ACEScct that works aggressively on the image, created a nice dramatically contrasted and darker images. From what I saw, I could say that in this case, Film-emulation was not attempted. In fact, in the color palette, dark red and dark green are present which is something film cannot reproduce. Also the grain here is absent, the only thing ascribable to the cinematic *Look* is the *s-curved* contrast given by the ACES system and the Lightning design, a characteristic that, as shown before, can only

rarely be found in commercials. However exceptions exist, some which will be shown later on.

5.3 *Raiva*

Sergio Trufaut, known for his previous work *Treblinka* (2016) (also graded by Paulo Américo), presented his new movie at the Indielisboa film festival 2018. The movie is the result of a co-production between *FAUX (portugal)*, *Les film d'ici (France)*, *Refinaria filmes (Brazil)*. The movie is a Black and white feature film settled in Alentejo during the 50's, the plot turns around a wave of violence exploding in the country side. Its lightning designed and filmed by Acácio de Almeida resembled the *noir* genre with the characteristic of being set in the country side. An ARRI Alexa recording in RAW was used to film.

Discussing with Américo the direction of photography and his relation with Acácio de Almeida, who has worked and collaborated for 50 years with many famous director such as Manuel De Oliveira and João Cesar Monteiro, it transpired that his approach based on the use of film even in digital workflows resulted extremely defined and coherent. The knowledge De Almeida had in fact of exposition, contrast and light designing itself made the work of Américo extremely easy. Even when they met in the colorsuite it could be easily noticed that some sequences, perfect already in spite of light volume, were filmed to permit the maximum possibilities during grading. In saying this, I am just trying to mark the importance knowledge based on an analog support has when we talk about consistency and coherence and when the aim is to reach that cinematic digital aesthetic typical of the 35mm film support

Here as well, it was impossible for me to observe all the process Paulo Américo passed through, but the way he worked the input footage was still shown to me and it turned out to be the Gamut Mapping transform. As said previously, not many enhancements were made during the grading process thanks to the extreme definition of the final footage. All the same, many masks (applied to some zones of the shot) were made in order to improve the mood of the movie and to pop out the subjects of the scene, creating a more 3D aspect.

Contrary to the commercial I have written about in this paper, *Raiva* (2018) like some other works such as *Sara F.* (2018) and *Hotel imperio* (2017) presented really dark scenes and could be understood as a low-key light product. Also, the already seen process of imperfections correction did not happen during the finalization of this movie. It is interesting

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to think however, that in many major productions skin tones and skin imperfections adjustment, due to some social aesthetic standards, has become a process many movies have to pass through. This could be an influence advertisement brought to cinema.

6. Analysis

At the very base of this paper stays the always present link between television and cinema. Indeed, no matter how much the advertisement world changed, the official circuit of commercials is television as the official circuit of cinema is the movie-theater.

Many are the studies that tried analyzing this particular relation, many are the influences one had on the other. Unfortunately for my case, most of these studies are strictly related to the content and the editing and not on the color grading world. However, books and articles regarding this argument could help understand how important it is to always keep researching in this universe of study, and how this could help understand why and how some fashion concerned style and aesthetic exists in this particular moment in audiovisual production.

Marco Calavita, in an article written for the Journal of video named "*MTV Aesthetics at the Movies: Interrogating a Film Criticism Fallacy*" argues about the possibility of MTV influencing late 80's and 90's movie making. He asserts:

*"Recent Hollywood films, it is said, fly by their audiences at a breakneck pace and with jittery rhythms, apparently trying to mimic MTV videos, which do the same thing three or four minutes at a time. Part of that pace and rhythm is achieved in a particularly conspicuous way—via manic editing that often features flash-cuts, jump-cuts, and the stirring together of varied film stocks, colors, and speeds"*²²

As an example there is Oliver Stone's masterpiece *Natural born killer* (1994), but many other could work for this purpose, like *Lola rennt* (1998). Of course it has to be said that not all of these aesthetic choices were an innovation introduced by MTV, most of them were already introduced by the new wave French cinema with their fast and jump-cut filled editing. Calavita also marks the relation some known directors had with TV production to justify some trend followed by these last, as he writes:

"these critics are to some extent correct when they call attention to certain Hollywood trends and trace some similarities to music videos; for example, in the simplest connect-the-dots approach, it is of course true that several high-profile directors working in Hollywood

22 CALAVITA, Marco (2007) - *MTV Aesthetics at the Movies: Interrogating a Film Criticism Fallacy*. (Journal of Film and Video, 2007) 16.

*today got their start, or close to it, making music videos, including Michael Bay, David Fincher, Michel Gondry, Spike Jonze, and Dominic Sena*²³.

With different media influencing each other, the medium specificity of each of them disappeared after a while. If cinema at the start of his life was *medium specific*, because no other important moving images medium was created back then, we cannot assert the same for television. It can in fact be taken as a medium which reformats the previously existing medium of cinema, as cinema itself made with theater (movies were in fact called *photoplays*). It is impossible after this assertion not to admit that media are dependent one from the other, as Calavita continues “*it would be wrong to argue that music videos—along with comics, video games, and other media forms—have had no influence on filmmaking since the 1980s*”²⁴. However, there is no doubt that the editing techniques utilized by this new wave of TV influenced cinema was possible thanks to the technological change that has taken place in the industry during the 70s' and afterwards.

“To be sure, like all of the other developments discussed here, these changes are inextricably linked with other factors and cannot be understood in isolation from economics, aesthetics, and demographics. But it is nevertheless important to consider how the technological innovations of the period not only responded to and developed alongside the supposed MTV aesthetics but also facilitated them”²⁵,

Non linear editing is just one of the few examples usable. The technological improvements are in fact very important in my case of study. Screen Resolution represents an important aspect in distinguishing between the imagery produced for TV and the one produced for cinema. The resolution of cinema has always been superior to the television, it is enough to think that since the start of cinema, medium format film such as 65 mm and 70 mm were used, mostly after the 60s'. It is interesting however to notice that this difference, that was enormous due to technology improvements, got narrower with time. Right now, due to the digital turn in cinema, most of movie theaters digital projectors work at 2K resolution and the most advanced to 4K. Television screens as well have reached these levels of resolution, which were inconceivable a few years ago. However, the most common resolution

23 CALAVITA (2007) - *MTV Aesthetics at the Movies*, (Journal of Film and Video,2007) 16.

24 CALAVITA (2007) - *MTV Aesthetics at the Movies*, (Journal of Film and Video,2007) 17.

25 CALAVITA (2007) - *MTV Aesthetics at the Movies*, (Journal of Film and Video,2007) 19.

for now is 1920x1080. This change in the resolution of television brought also a change in the aspect ratio used in TV production. The classic 4:3 format used for commercials changed for large ones such as 16:9, a fact that helped television develop a style more easily recognizable as cinematic. It is also true that many movies recently went back to the television standard of 4:3 (this aspect-ratio was originally created for cinema by the Academy of Motion Pictures Arts and Sciences), some examples of this could be *Elephant* (2003) by Gus Van Sant, *Lawrence Anyway* (2012) by Xavier Dolan, *The Grand Budapest Hotel* (2014) by Wes Anderson and a few Portuguese productions have used it as well, such as *Tabu* (2012) by Miguel Gomes. The actual cinema preferred aspect ratios are 1.85:1 in US and 1.66:1 in EU (Figure 10). As Calavita adds

*“[to]have fueled the so-called MTV aesthetics of Hollywood film, is television (other than MTV)—specifically commercials, cable television, video cassette recorders, and the remote control. Television commercials’ glossiness and fast rhythms have often been cited as pernicious influences on Hollywood film aesthetics, and much of that story predates MTV, including the transition, during the 1970s, to thirty second spots and shorter and shorter shot duration.”*²⁶

A certain importance to advertisement is given in the creation of the cinematic new aesthetic, the interrelation between media being noticeable everywhere. The theory sustained by Jay David Bolter and Richard Grusin in their book *Remediation- Understanding new media*, is formulated:

*“No medium today, and certainly no single media event, seems to do its cultural work in isolation from other media, any more than it works in isolation from other social and economic forces. What is new about new media comes from the particular ways in which they refashion older media and the ways in which older media refashion themselves to answer the challenges of new media”*²⁷.

The two main media that deal with moving pictures, TV and cinema, evolve with each other, influencing each other on many levels: narration, editing, cinematography and grading.

26 CALAVITA (2007) - *MTV Aesthetics at the Movie*, (Journal of Film and Video,2007) 23.

27 BOLTER, Jay David & GRUSIN, Richard (1999) -*Remediation- Understanding new media*. (The MIT Press, 1999) 15.

It is more plausible then, to have noticed a tendency in using the film analog properties and *look* in digital supports such as TV screens and digital projection, in both advertisement and the cinema world. As Jay David and Richard Grusin continue "*The contemporary entertainment industry calls such borrowing "repurposing": to take a "property" from one medium and reuse it in another*"²⁸. This concept stays at the base of what they call *Remediation*, "*Finally, the new medium can remediate by trying to absorb the older medium entirely, so that the discontinuities between the two are minimized*"²⁹ which is probably what is happening right now. As shown before, there is decreasing differentiation in the technical qualities of commercials, movies and related screens: aspect ratio, resolution, contrast curves and colorimetry are slowly disappearing. Also the content of course is being passed from one to the other as explained before with MTV examples of Calavita.

*"However, like their precursors, digital media can never reach this state of transcendence, but will instead function in a constant dialectic with earlier media, precisely as each earlier medium functioned when it was introduced"*³⁰.

After introducing to some theories who worked in a more abstract way this strict relation between Cinema and Advertisement and tv/movietheater, I would like to use some examples and my particular experience to remark upon some relationships and differences that can be noticed recently in these two media. During the history of cinema many were the directors who tried to "borrow" (in a minimal way) some aesthetical aspect of TV. One of the most famous is probably Lars Von Trier whom, with his *Idioterne* (1998), the second movie of the Dogma movement, used handheld video-camera and recorded in the 4:3 aspect ratio known in television production. The movie was meant to be projected in movie theaters, and it was not in fact a television movie production. When it comes to image quality Von Trier with *Breaking the waves* (1996), instead of completely using the qualities of the film support with which he filmed the movie, he decided to pass it through a video-scanning to then reprint it on the same support (film) with a "noisy" and "ruined" video quality to bring in some characteristics of television aesthetic.

28 BOLTER & GRUSIN (1999) -*Remediation- Understanding new media*. (The MIT Press, 1999), 45.

29 BOLTER & GRUSIN (1999) -*Remediation- Understanding new media*. (The MIT Press, 1999), 47.

30 BOLTER & GRUSIN (1999) -*Remediation- Understanding new media*. (The MIT Press, 1999), 50.

Concerning technologies, it has to be noted that in Commercials larger sums of money were spent when compared to cinema. The latest technologies have always been in the hand of the advertising world. In my particular case, it can be noticed that in all the commercials graded, every time a top of the line camera was used. On the other hand, for shorts and feature films there was also the use of digital photography mirror-less camera, such as the Sony A7s MKII, not specifically built for movie-making. The fact that some style characteristics are worse looking when compared to the cinema imagery, is caused by the streaming nature of television which always has a limited quality of information sent. With time this limits decreased, but they are still present. The example of the narrow colorimetry of TV or PC screen compared to the digital projectors or to the camera capabilities of course let us understand that some improvements still have to be made. (Figure 5)

Commercials influenced the aesthetic of cinema but how much did Cinema influence commercials aesthetic?. During this paper I tried to show the presence of some of the influence cinema and cinematic style had on commercials and to notice the differences that were still recognizable in these two different production worlds. Pastel tone color palette, s-curved contrast and film grain could be examples, but as exposed before, many commercials when they have the possibility, try to extend the content with a narrative borrowed from cinema. This of course can happen thanks to the increasing length of commercials being shown on the web. An example I wanted to take into consideration is a commercial commissioned by Calvin Klein called *Encounter* (2012) and realized by Fabien Baron and Filmed by Philippe Le Sourd. The grading of this commercial was made by a known grader called Damien Van Der Cruysen. In an article written by him about the color correction made for this commercial he asserts "*From the beginning, Fabien's vision was to make a scene that could have been taken from a movie. A visual treat more than a commercial*"³¹. The nature of this commercial is in fact ascribable to cinema world both for its narration and for the look, similar to the one of a Horror or Thriller movie. Also the use of a known cinema actor such as Alexander Skarsgård can mislead the viewer in thinking: that is not a commercial.

The hyper saturation used for the Minipreço commercial I analyzed before is not even taken in consideration in this case, the product to be sold is not in the sequences and there is no need to grab the attention of the spectator through high saturation levels, the global mood

31 VAN DER CRUYSSSEN, Damien – *Calvin Klein "Encounter"*. <https://lowepost.com/casestudies/calvin-klein-encounter-r33/> (retrieved 23.06.18)

and look of the commercial already inspire curiosity in the spectator. Desaturated, dark and high contrast are characteristics of this production, that strongly differs from the ones I have analyzed before, where, even though there are minimalistic cinematic influences present, they do not fully borrow a cinematic *Look*. Of course this particular Calvin Klein's commercial pops out from the standard advertisement productions. However, many are the commercials that lately have become part of this aesthetic exchanges, a good example could be *Kenzo world (2016)* by Spike Jonze.

As shown during this chapter, many are the influences cinema had on the style of some commercials and the same happened the other way around. However, during my period of internship it was hard to find commercial characteristics in the movies analyzed. But the cinematic approach was noticeable in many commercials, in the one commissioned by Pilar Paiva de Sousa, for example, some aspects in narration and in the aesthetic could be strongly ascribable to the short movie-making.

Also an important fact to be noted is the narrowing of the gap that was technologically dividing commercials from cinema. The appearance of these two kind of products, movies and commercials, has been easy to separate, thanks to the different kinds of production equipment used. Just thinking that commercials pass through the same professional color suite used for movie production, as happened in my case, can help understand how they are treated at the same level.

Something that of course has to be said is that in the imitation of one media from the other, cinema 35mm film style still rules over the others. If, in fact, it is not hard to think that digital cinema wants to emulate the old beloved effect, it is harder however not to defend that commercials have instead evolved into a more saturated and hyper colored imagery.

7. Conclusion

Commercials and Movies come from different worlds, and yet, they have the same roots. Moving pictures have always moved along from movie theaters to televisions screens and lately in the internet revolution, to pc screens. This has led to a change in the contents of these products and also in the looks of each of them. One influencing the other, characteristics of a support being borrowed by another, the latest evolutions of grading technologies, such as grading software and specific control surfaces to operate, made new options possible.

During my brief experience as an intern I was able to analyze the wide world of grading from the point of view of commercials and movie making. My initial goal of encompassing differences and relations in these two worlds encountered of course many obstacles, but still gave some results. The main problems I encountered were not to have had enough time to make a more complete study of the Portuguese audiovisual production world, and the fact that the lack of more feature movies moved the central focus of the work onto commercials, rather than onto movie making. Other obstacles found were the impossibility of working on my own on some projects, but the responsibilities involved in a grading project are really high and need professionalism. The lack of academic articles and specific books on the topic: influences and relations between cinema and advertisement aesthetic, did not help in the development of more concrete ideas. Anyway, some results could be noticeable and this should push towards more research on this topic.

There were different ways commercials and movies were treated in the phase of grading, starting from the time dedicated to each of them. For movies, weeks are sometimes dedicated, and some of the choices are made in pre-production, resulting in a more malleable product to work on. Commercials, in the cases I saw, sometimes had been worked in for a shorter period of time, and most of these times no pre-production decisions were made with the grader.

During the process of the creation of a look, it is easier for the grader to make some personal choices and to be hazardous in feature or short movies, in order to obtain some endearing style. In commercials, even though, sometimes, exceptions are made (as the example of Calvin Klein *Encounter*) grading is more standard and less risky. During my experience in particular, what I could notice in commercials was a strong imitation of the cinematic effect accompanied by a more complex narration. This influence, as explained

before, has also happened the other way around, commercials influencing cinema in editing but also in style, over saturation (typical of TV aesthetic) having been used recently in some movies: *Springbreakers* (2012) directed by Harmony Korine and *Smetto quando voglio* (2015) directed by Sydney Sibilia are examples of this tendency.

The world of grading is really wide and many tendencies are taking control of various products: hyper saturated, creamy look, pastel tones, VHS bad quality looks and many others are part of the contemporary aesthetics of both productions. What could be noticed during my internship was a strong emulation by both sides of the old film look. Many were the workflows used to achieve this results, Filmconvert, ACES system and custom toning being the main ones presented during this paper.

What should be said is that with more time and more information, some of these theories will be able to be studied in depth. Doing so would help expand the world of grading and it could also expand some theories about the exchanging characteristics of media and cinematic aesthetic.

Nonetheless, my first goal of getting into professional color grading universe was fulfilled and getting in contact with some serious productions by the side of a professional grader showed me how things are done in real moviemaking. Also, the opportunity to practice inside the color suite on my own, on some footage of old projects, allowed me develop some practical skills, that without this experience, I would have never had. Even comparing my ideas with the ones of the experienced grader Paulo Americo allowed me to grow when it comes to my knowledge of color grading and also concerning movie-making in general.

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Figures

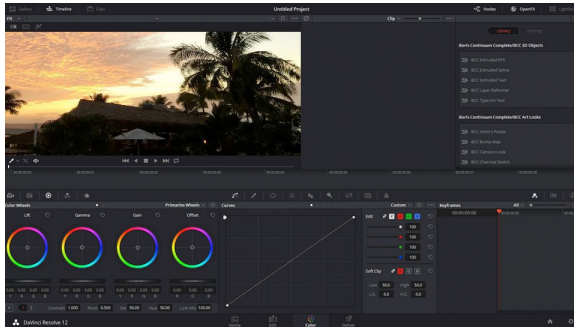


Figure 1: Davinci Resolve 14 interface, <https://www.bhphotovideo.com/explora/video/tips-and-solutions/introduction-color-grading>

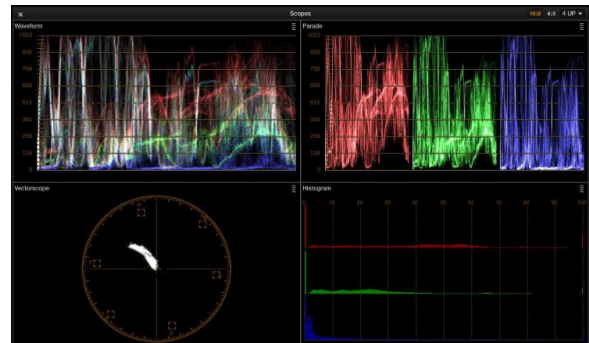


Figure 2: Davinci Resolve scopes, <https://nofilmschool.com/2016/01/3-practical-tips-using-scopes-now>

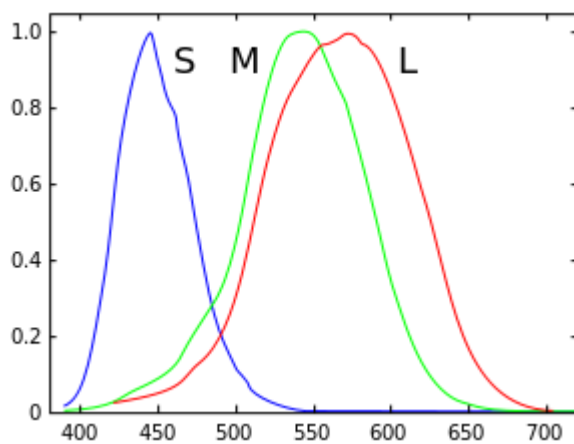


Figure 3: LMS color space example, https://en.wikipedia.org/wiki/LMS_color_space

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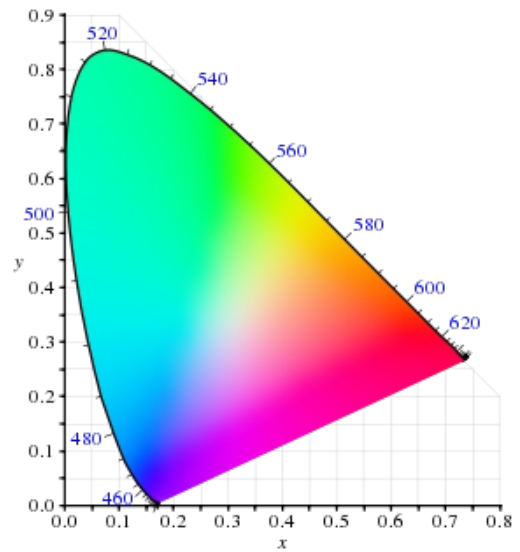


Figure 4 :CIE 1931 XYZ,
https://en.wikipedia.org/wiki/CIE_1931_color_space

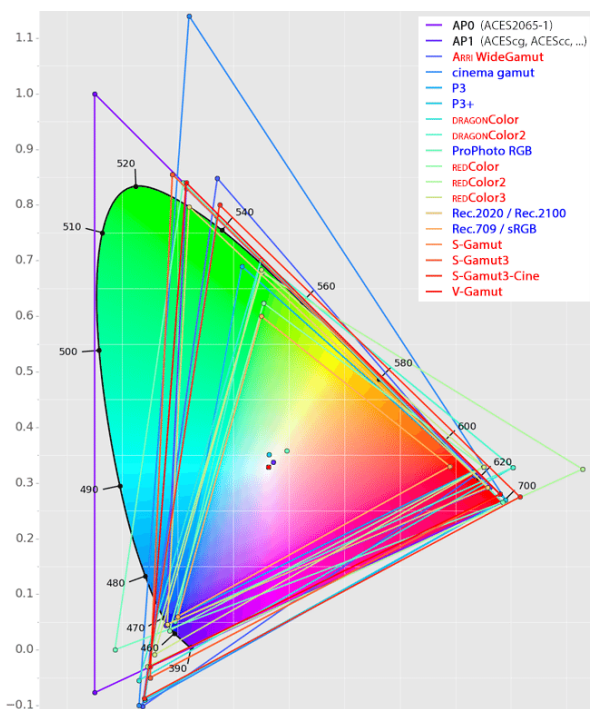


Figure 5: Comparison between color spaces,
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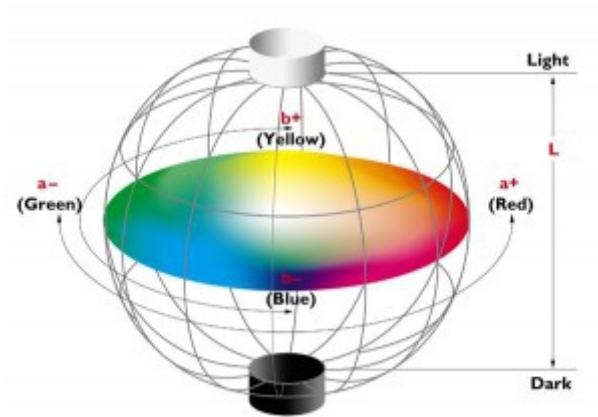


Figure 6: Lab color space/model,
<http://nativigital.co.uk/site/2011/09/color-models/>



Figure 7: Color palette of MacDonalld Novo Rustico commercial



Figure 8: Color palette of "The master" by Paul Thomas Anderson

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Figure 9: Color palette of "Where the wild things are?" by Spike

Jonze, <http://moviesincolor.com/post/79685885824/spike-jonze-week-where-the-wild-things-are-2009>



Figure 10: Different Aspect ratios, [https://en.wikipedia.org/wiki/Aspect_ratio_\(image\)#36:10_\(3.6:1\)](https://en.wikipedia.org/wiki/Aspect_ratio_(image)#36:10_(3.6:1))

Attachment

Table 1

				CODEC	WORKFLOW	TEXTURE PASS
11 Dec 17	Hotel Império	O Som e a Fúria	Ficção	Sony SLog3 Sgamut3	ACEScct	Filmconvert Grain
16 jan	As Fotografias	João Nisa produções	Ficção	Sony SLog2 Gamut2	ACEScct	-
31 Jan 18	Lima - Jonathan	Alibi	Video Musical	ARRI LogC	custom tone mapping	Resolve OFX film grain
06/02/18	...Tempestades	Culturgest	Video Arte	Sony SLog2 Gamut	Filmconvert	Filmconvert Grain
8 Feb 18	AKI	Mercúrio	Publicidade	ARRI LogC	custom tone / gamut mapping	-
8 Mar 18	Raiva deliverables	Faux	Ficção	ARRI Raw	custom tone mapping	Filmconvert Grain
8 Mar 18	PPS - Interior design	FilmesdaMente	Publicidade	BlackMagic ProRes Film	Filmconvert	Filmconvert Grain
18 Mar 18	Minipreço	Alibi	Publicidade	ARRI LogC	custom tone / gamut mapping	-
22 Mar 18	Sara F	O Som e a Fúria	Ficção	Sony SLog2 Gamut	Filmconvert	Filmconvert Grain
11 April 18	McDonalds Sábio	Major West	Publicidade	ARRI LogC	custom tone / gamut mapping	-
17 April 18	McDonalds Rustico 2018	Major West	Publicidade	ARRI LogC	custom tone / gamut mapping	-
23 April	Il Sogno Mio D'Amore	O Som e a Fúria	Documentário	Rec709 H264	Filmconvert	Filmconvert Grain
4 May 18	McDonalds McDrive	Major West	Publicidade	ARRI LogC	custom tone / gamut mapping	-