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THE QUESTION OF TIME IN SCIENCE FICTION FILMS: AN INVESTIGATION ON MODERNISM, POSTMODERNISM AND POST-POSTMODERNISM(?)

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Coorientador: Dr. Robert Burgoyne

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Esta tese foi julgada adequada para obtenção do título de Doutora e aprovada em sua forma final pelo Programa de Pós-Graduação em Inglês: Estudos Linguísticos e Literários.

Florianópolis, 01 de Fevereiro de 2016.

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A minha Batian,
O que a gente precisa lembrar,
A gente não vai esquecer.

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ABSTRACT

Time is a hard-to-define concept in its most fundamental aspects. Different from space, to which it is commonly associated, time cannot be physically grasped, although we do try to measure it. What does not stop it from being simply ubiquitous, since we cannot escape or ignore it. The representation of time in fiction reflects its own social period. Having this in mind, this research understands that time has assumed different meanings in distinct contexts, since it reveals itself as a product of its historical times. Within this, the objective of this dissertation is to investigate time in times of change, understanding how the transitions and intersections of the Modern, Post-Modern and yet without a proper name Post-Postmodern periods affect the concept of time in film production, specifically in science fiction films. This dissertation analyzes science fiction films, since they seem to present a more conflicting and marked tendency in relation to time. *Metropolis* marks the modernist period with its notion of linear and futuristic time, strongly attached to an idea of industrial capitalism, in which the rhythm of the production conditions the workers. *Blade Runner* and *Twelve Monkeys* present a post-modern nostalgic vision of the future with a fragmented time, constructed through the character's search of a past and identity. Lastly, *Source Code* and *Interstellar* seem to join a notion of digital cinema and time, proposing a more flexible temporality. In this last idea, space and time also influence one's existence, that changes his/her ontology and starts existing in other realities and dimensions.

Key-words: Time. Science Fiction Film. Digital Film. Modernism. Postmodernism.

RESUMO

Tempo é um conceito difícil em seus aspectos mais fundamentais. Diferente do conceito de espaço, ao qual ele é comumente associado, o tempo não pode ser fisicamente apanhado, apesar de tentarmos medi-lo. O que não impede que ele seja simplesmente ubíquo, pois não podemos escapar dele ou ignorá-lo. A representação do tempo em ficção reflete seu tempo social. Com isso em mente, essa pesquisa entende que o tempo tem assumido significados diferentes em contextos distintos, uma vez que se revela como um produto de seu tempo histórico. Em vista disso, o objetivo principal dessa tese é investigar o tempo em tempos de mudança, ao entender como as transições e intersecções dos períodos Moderno, Pós-moderno e o ainda sem nome definitivo Pós-Pósmoderno afetam o conceito de tempo na produção fílmica, especificamente em filmes de ficção científica. Essa dissertação analisa filmes de ficção científica, uma vez que eles parecem apresentar uma tendência mais conflituosa e marcante em relação ao tempo. *Metropolis* marca o período modernista com sua noção de tempo linear e futurista, fortemente atrelado a uma ideia de capitalismo industrial, em que o ritmo da produção condiciona os trabalhadores. *Blade Runner* e *Twelve Monkeys* apresentam uma visão pós-moderna nostálgica do futuro com um tempo fragmentado construído pela busca de passado e identidade dos personagens. Por último, *Source Code* e *Interstellar* parecem unir a noção de cinema digital e de tempo, ao propor uma temporalidade mais flexível. Nesta última ideia, espaço e tempo também influenciam na existência do ser, que muda sua ontologia e passa a existir em outras realidades e dimensões.

Palavras-chave: Tempo. Filme de Ficção Científica. Cinema Digital. Modernismo. Pós-Modernismo.

LIST OF FIGURES

Table of Contents

INTRODUCTION

Time is a challenging idea and a concept hard to define. This notion seems to be self-evident at first, but one should ask oneself how to answer the simple question: What is time? Doctor Who,[1] who is a time lord alien and time travels across the universe, also has difficulties, defining time as "A big ball of wibbly wobbly timey-wimey… stuff."[2] The reasons to such difficulty in finding a definition, or even in fully understanding time, vary. One of the explanations might be because it cannot be physically grasped. Nonetheless, we do try to measure it. Another reason might be time's close relation to space; for example, clocks, pendulums and calendars may be tricky aspects, since they depend on space to be realized – a day is the movement of the Earth around itself, while a year is the movement of the Earth around the Sun.

Most of all, time seems to be subjective, oscillating according to our experiences. Arthur Prior's classic article – "Thank Goodness That's Over" (1959) – for instance, explains that our notion of time may vary drastically depending on our emotional grounds. Literature has long understood this difficulty, as Marcel Proust demonstrates in his main character's constant loops of memory in *In Search of Lost Time* (1922). More recently, the Turkish novelist Orhan Pamuk has consciously alerted us about its implications, defining that time is indeed an illusion: "I would like to say a few words about the illusion that is time, as there is one sort of time we can call our own, and another – shall we call it 'official' time? – that we share with others" (489). Despite being difficult to define, time is ubiquitous, and as a referential instrument we cannot escape, or even ignore it.

Science fiction has displayed a particular interest in the convoluted world of time. The filmic and literary references are vast and known, some examples include H. G. Wells's *The Time Machine* (1895), Isaac Asimov's *The End of Eternity* (1955), Stanley Kubrick's film *2001: A space odyssey* (1968), Robert Zemeckis's film *Back to the Future* (1985), Harold Ramis's film *Groundhog Day* (1993), and Stephen King's *11/22/63* (2011). This genre's scientific pretensions have strong interest on the experience of time and its manipulations more than other genres, as horror or fantasy. Bearing this in mind, this

[1] *Doctor Who* is a British science fiction television series first aired in 1963, and it is still being aired.

[2] In the episode 3 "Blink" from season 10 with David Tenant as Doctor Who.

dissertation concentrates on science fiction narratives because the subject of time forms much of its imaginative ground.

The Question of Time in Science Fiction Films also chooses film, because, as David Rodowick suggests, "what most powerfully affects us in film is an ethics of time." The latter defends that more than representation film's most powerful analogy is duration and explains that "what we have valued in film are our confrontations with time and time's passing" (*Virtual* 73). Film as music unfolds in time. Thus, this dissertation focuses on time in science fiction films, and on how the representation of time has changed in this artistic narrative form. The hypothesis is that images of time from early films as Georges Méliès's *A Trip to the Moon* (1902) are different from that of contemporary fiction as Christopher Nolan's *Inception* (2010). In this sense, this research investigates how time has mutated from modernist to contemporary films, placing this inquire in the critical frameworks of modernism, postmodernism and post-postmodernism; conscious that the transition moments are never clear and always leave blurred areas of intersection.

Modernism and postmodernism have been widely discussed. Both present layers of complexities and contradictions, which I shall further discuss in their respective chapters. For this initial discussion, I consider modernism that aesthetic movement that began around the mid-19th century with early writers as Flaubert[3] and Baudelaire[4] (Huyssen, *After* vii). Later, in the early 20th century, the emergence of the avant-gardes incited the *l'art pour l'art* movements, such as cubism, Dadaism, futurism, expressionism. Each movement, searching for their own unique aesthetic view, was marked by elitism, modernization, rationality, socio-technological progress, and art as transcendence and autonomous (Huyssen, *After* x).

To briefly define postmodernism, I use Fredric Jameson's much contested and discussed description in "Postmodernism or the Cultural Logic of Late Capitalism." Because even if too pessimistic or making sweeping assumptions, it still provides a significant and forehand view on postmodernism. He observes a new aesthetic tendency that is "chaotic and heterogeneous" (54) around the 60s. A crisis in the grand narratives caused "some radical break or *coupure*" with the hundred-

[3] Some of his early works are *Rêve d'Enfer* (1837), *Memoirs of a Madman* (1838) and *Madame Bovary* (1857).

[4] Some of his early works are *Salon* (1845), *La Fanfarlo* (1847) and *Les Fleurs du Mal* (1857).

year-old modern movement (53). Some of its traits are aesthetic populism, a waning of affect, and a predominance of nostalgia.

The modernist and postmodernist frameworks help us understanding how a representation of time can be inserted in its own historical period, thus bearing a social value. An overall understanding is that modernism grew in light of and in opposition to[5] the Industrial Revolution and the development of science, which "would reveal the hidden laws of nature," leading the humankind to a perfect society (Baguer, 246). Utopic narratives grew out of this enthusiasm with technology. Mary Ann Doane describes the relevance of time to this period stating that "Time was indeed *felt* – as a weight, as a source of anxiety, and as an accurately pressing problem of representation. Modernity was perceived as a temporal demand" (4).

To further develop this topic, the first chapter "The Modernist" begins discussing time and modernism, their relation to technology and cinema. *Metropolis* (1927) by Fritz Lang exemplifies a modernist aesthetic rendering of time through the subject of a changing society, helped by a technological drive. In this film, visions of the future reinforce ideas of development and progress, in which the past and future are stead points of a chronological line. Time reprimands the workers and is power to the factory owner Frederson. *Metropolis* works as a prototype to the other science fiction films discussed in the following chapters; its residual memory enduring throughout the history of science fiction cinematography.

By its turn, postmodern fiction does not appear to bother much about time as a concept to be experienced. Some postmodern critics, such as Jameson, argue that postmodernism focuses on space. His argument is that an empty market-orientation leads postmodern fiction to a recycling nostalgic drive, which actually lacks a historical perspective ("Postmodernism" 64). The consequence is that postmodern texts are stuck in a reiterative present, and are dominated by the spatial experience. Jameson cites the Bonaventura Hotel in Los Angeles as an example of a space that is so disorienting that affects the individual's spatial perception as a hall mark of postmodernism ("Postmodernism" 80). In addition, postmodern skepticism towards technology (and anything in general) leads to a dystopic orientation, and changes, thus, focusing on nostalgia.

[5] A major issue to some modernist artists is the separation from mass culture and industrialized society. See Theodor Adorno's *Aesthetic Theory*.

The second chapter "The Postmodernists" ponders on what postmodernism means, its relation to neo-capitalism and its alleged death. It continues with an analysis of two different perspectives on postmodern films, *Blade Runner* (1982) by Ridley Scott and *Twelve Monkeys* (1995) by Terry Gilliam. These films highlight two major temporal tendencies: the dystopian future and the postmodern nostalgia. These notions are complementary, since both emerge from the same disillusion with technology and the future. Time becomes a more ambiguous and evasive concept. *Blade Runner*'s futuristic Los Angeles is full of nostalgic references, merging the past into the future; while Cole's future death has already happened in *Twelve Monkeys*'s past.

This research main inquire is that recent films do not seem to fit into these postmodern characteristics of nostalgia and space orientation. Time appears to become a more flexible concept, not a linear idea as in Modernism, nor nostalgia as in Jameson's Postmodernism. Indeed, late theoretical proposals have been flooded with new terms: the post-postmodern (Linda Hutcheon), the post-cinematic (Steven Shaviro), the post-filmic (Garret Stewart), the new new Hollywood (Thomas Elsaesser), and the supercinema (Wiliam Brown). They all point to the death of postmodernism and the emergence of a new cinematic aesthetic, which has incorporated digitalization, media, internet and video-games into their narratives. What is this new cinema is still hard to define, but a recurrent argument is the strong influence of the digital.

The third chapter "The Post-Postmodernists" discusses time in light of these emerging theoretical proposals and attempts to demonstrate a new ontology of time, by analyzing *Source Code* (2011) by Duncan Jones and *Interstellar* (2014) by Christopher Nolan. A possible relation between new technologies and ontological positions is examined, questioning our understanding of reality and time. The hypothesis is that the integration of digitalization changes cinematic time. The digital possibilities affect not only the film's format, used as a tool, but also its narrative and concept of time. If postmodernism already constructed ambivalent temporalities, in which the past and future mix, then post-postmodern searches to deconstruct it by proposing new possibilities to how the characters relate to time.

In these last mentioned films, time appears to question its chronological nature, which leads to films that are bolder in their time-travelling tricks. The consequences of time travel loops – if McFly (Michael J. Fox) from *Back to the Future* crosses his father with his mother, will he exist in the future? – are no longer the problems, but time in itself implies new challenges to the time traveler – if Cooper's

(Matthew McConaughey) time from *Interstellar* is faster than his daughter's, will she be alive when they meet again? The possibilities of computer graphics and the theme of the digital world merge into films like the latter, radicalizing our perception of time, space, and reality.

Hence, this dissertation's main objective is to discuss how the representation time has changed from modernism, to postmodernism and to post-postmodernism in science fiction films. By analyzing time, I expect to discuss the cultural changes associated with it, such as conceptions of space and technology. I understand how this analytical organization conveys a generalizing proposition in relation to these aesthetic periods. Nonetheless, my own postmodern disillusioned expectation is far from trying to find a "grand theory," but rather to point to a few tendencies in some films, suggest explanations, and maybe show "what films can do" as in Brown's argument: "one talking pig is needed to prove that pigs can talk, then similarly only one example is needed to show what film can do […] whether or not all films do the same thing" (7).

In the last chapter, the dissertation's arguments are retraced and compared. "Final Remarks" also encompasses last comments about the research, and observations for further investigation in the area. In the following sections, I shall introduce some theoretical aspects of time, its relation to cinema, and some considerations on science fiction, utopia, dystopia and nostalgia, which shall be relevant to the following chapters.

TIME'S HISTORY

One of the ways to understand time is through its cultural history. Although time is an independent phenomenon–it does not need clocks, calendar or astronomy to exist–it has a history that relates to how humans started manipulating it. Therefore, time is also a constructed concept, which means that our understanding of time can change. The concept of time is, thus, not stable and supports my further reading that it might be changing again with the most recent cultural productions and the many other areas of knowledge nowadays.

At first, man used natural elements, such as the Sun, the Moon, water, and sand, to measure time; if the tide was high or low, or if the sun was rising or setting. This method implies a connection between man, nature and time, and conceptualizes time with solid references, the movement of the tide or the sun. So if one could go back in time and ask

these people "what is time?," they would most probably answer: time is when the tide, sun or water moves from here to there. Simple as that.

Russell West-Pavlov explains that as time passed people[6] started developing new and more precise ways to measure time (16). The mechanical clock, the GMT (Greenwich Mean Time, or UT–Universal Time) and the digital watch gradually substituted the natural elements. By doing so, mechanical developments integrated a new logic of time into social life, which have affected people's understanding of temporality. For instance, the cyclical phases of the Moon infer a repeated temporality, which still exists in an analog clock, but which totally vanishes in a digital watch. Time is disembodied from its concrete references, and becomes an abstraction. It becomes a human invention and works through an agreement of never stopping, a ubiquity.

Economic interest also sponsored this universal time. A precise and universal measurement of time contributes to the whole organization of the economic system. West-Pavlov acknowledges this connection between money and time: "two important aspects of modern time consciousness (accuracy of calibration and the global reach of a single time scheme) […] were from the outset intimately bound up with expanding imperial capitalism" (15). To which, he provides two examples, the first is how latitude and longitude improved navigation, and the discovery of new territories, and the second is how North-American train companies were the first to propose a universal time throughout the country, so that their trains could be properly scheduled (10). Similarly, a cyclical system was used to base economy with plantations and seasons, but as we move to a capitalist economy, we have no connection with products, their process of manufacturing and their producer. The image of time changes from a circle to a progressive linear arrow. Not to mention that mechanical developments actually change the way we experience time. For instance, the invention of

[6] It is important to note that such idea might not apply to all communities and that this notion of a single time was initially more widely accepted in Europe. Even the western world does not seem to have completely assimilated such idea, since some Latin American communities have not been affected by this new temporality. The Amondawa people from the Amazonian forest exemplify how the idea of time is not the same and has not changed for all. According to Sinha et al., this tribe does not use a linguistic organization that structures time through movement and space. For more information see "When Time is not Space" in *Language and Cognition*, vol. 3, issue 1 (March 2011): 137-169.

artificial light extended the working-hours; new modes of transportations accelerated our accessibility; new forms communications, as the analogue telephone, implies presence, and the digital format of the internet changed simultaneity in a way never imagined before. Stephen Kern writes that "instantaneous electronic communication, which made simultaneity a reality, affected the sense of the present, speed, form and distance" (6). For him "simultaneity was more directly influenced by technology, because electronic communication made it possible for the first time to be in a sense in two places at once" (88). Simultaneity exposes how the subject of time can be more complex than images of circles or arrows. In addition, Kern indicates cinema as the greatest influence to simultaneity:

> Perhaps the most far-reaching impact of the new simultaneity was due to the cinema, which was able to bring together an unprecedented variety of visual images and arrange them coherently in a unified whole […] the cinema also thickened the present. Any moment could be pried open and expanded at will, giving the audience seemingly at once a vision of the motives for an action, its appearance from any number of perspectives, and a multitude of response. (Kern 88)

What Kern describes is a relation between cinema and time, in which the former compresses time and space, as it combines action into instances, or shots. Parallel montage is an example of how action and scenarios are multiplied in a single sequence, to convey a single idea. Events can happen in different places, but be experienced at the same time. Time joins the different actions, and thickens the present though simultaneously. In the following subsection, I will present more specific discussion on the intertwinement between time and cinema, an idea that is particularly relevant to this research.

CINEMA'S TIME

Henry Bergson and Gilles Deleuze play a particularly relevant role concerning the discussion of cinema's time. They provide key concepts to this research, respectively: pure duration and time-image. The first was the leading theorist to inspire modernist writers and thinkers, and, most importantly, he provided the philosophical grounds

where Deleuze would propose his ideas on how image, movement and time construct cinema.

In *Time and Free Will,* Bergson begins defining duration by what it is not. Time as duration is not a homogeneous medium, as the universal time described above, and "it is not a quantity, and as soon as we try to measure it, we unwittingly replace it by space" (*Time* 106). His explanation is that "we are compelled to borrow from space the images by which we describe what the reflective consciousness feels about time, and even about succession" (*Time* 91). What he means is that we use space to measure time. As mentioned, a day is when the Earth turns around itself, or a year is when Earth circles around the Sun.

To Bergson, pure duration is something to be *felt* or perceived through consciousness. A metaphor, that helps explaining duration and its subjectiveness as something personal and processed through conscience, appears in the image of waiting "until the sugar melts", as described by Bergson:

> […] If I want to mix a glass of sugar and water, I must, willy-nilly, wait until the sugar melts. This little fact is big with meaning. For here the time I have to wait is not that mathematical time which would apply equally well to the entire history of the material world, even if that history were spread out instantaneously in space. It coincides with my impatience, that is to say, with a certain portion of my own duration, which I cannot protract or contract as I like. It is no longer something *thought*, it is something *lived*. It is no longer a relation, it is an absolute. What else can this mean than that the glass of water, the sugar, and the process of the sugar's melting in the water are abstractions, and that the Whole within which they have been cut out by my senses and understanding progresses, it may be in the manner of a consciousness? (*Creative Evolution* 12-3)

In this quote, Bergson beautifully explains how the universal and mathematical time is not the same as that of duration, because the latter carries our feelings, our anxieties in waiting. The consequence is that rationalization would not work, but only the individual's experience. The time that we deal with daily is an impersonal and imposed one. In fact, Bergson acknowledges that the days, hours, months, among others

can only be measured because they are artificial (*Creative Evolution* 27).

Another aspect of duration is its sense of wholeness, everything already and still exists, past and future are happening now, as part of the present. Bergson defines that "duration is the continuous progress of the past which gnaws into the future and which swells as it advances" (*Creative Evolution* 7). In discussing intuition, Bergson provides a useful metaphor to time by comparing it to a melody. The idea is that a melody is composed of notes, but we do not hear distinct notes; rather we experience the melody fully as sequenced notes (*Creative Mind* 173). Such position conveys time as a flow, a continuity, a fluid stream, an organic whole. Past and future are divisions that we need to rationalize time, notes in the melody. But what allows us to understand duration is intuition (*Creative Mind* 82).

Despite this affirmation for a whole time, the past plays a relevant role in Bergson's theory, mainly because duration exhibits itself mostly in memory. Elisabeth Grosz's reading of Bergson describes that "[m]emory is the present's mode of access to the past" (178), meaning that we use memory to recollect the past. In doing so, we revive the past in the present. In adding, Bergson explains that even if the memory brings the past into the present, the former is still a virtuality:

> Wherever we are trying to recover a recollection, to call up some period of our history, we become conscious of an act *sui generis* by which we detach ourselves from the present in order to replace ourselves, first, in the past in general, then, in a certain region of the past–a work of adjustment, something like the focusing of a camera. But our recollection still remains virtual. (*Creative Mind* 133-4)

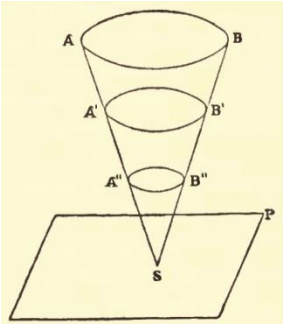

Figure A

Bergson's famous SAB cone (see Figure A) helps us understand how the past weights on the present. He explains that "the base AB, situated in the past, remains motionless, while the summit S, which indicates at all times my present, moves forward unceasingly, and unceasingly also touches the moving plane P of my actual

representation of the universe" (*Matter* 152). The present (S) is, then, a continuation of the past (AB, A'B', A"B"). The variations of the past into AB, A'B', A"B" expose their closeness and distance to the present, which does not relate to how long something happened, but rather to the event's relevance to the present. P is where our present touches the universe, "my direct contact with objects" (Grosz 181). In reading Bergson, Deleuze goes further and affirms that "the past is pure ontology; pure recollection has only ontological significance" (*Bergsonism* 56). Grosz adds that "the future, too, remains virtual, uncontained by the present but prefigured, rendered potential, through and by the past" (184). This proposition of the past and future as virtual or ontological dimensions will show its significance in my analysis of some more recent films.

Deleuze's philosophy of cinema is also a philosophy of time. He correlates time with the emergence of a new cinema after the World War II (*Cinema 2* xi), as cinema produces time (Rodowick, *Gilles* xiv). To explain this emerging cinema, Deleuze defines two classifications: movement-image and time-image, which he developed in two of his most well-known works *Cinema 1: The Movement-Image* and *Cinema 2: The Time-Image*.

Movement-image describes a classic cinema and its name evinces the relevance of movement. The main idea is that this cinema produces images that move, as we all know, by showing us sequenced still images (generally 24-frames per second). Or rather, the moving images produce images that move, which leads to Deleuze's statement that "[c]inema […] gives us false movement" (*Cinema 1* 1). This basic premise of movies relates to how spectators understand films. The moving images produce images as perception, and images produce movement as involuntary action. Cinema misleads people to believe that still images are moving when they produce the perception of movement, of action. The viewer no longer sees the image, but the perception of it, the literal movement of the frames. The idea is that the moving images on the screen produce in the viewer a perception of action: "[a]s a result, cinematographic movement is both condemned as unfaithful to the conditions of perception and also exalted as the new story capable of 'drawing close to' the perceived and the perceiver, the world and perception" (Deleuze, *Cinema 1* 57).

As Alessandra Brandão explains, this idea of natural perception originates in Bergson's, but Deleuze considers it problematic. This notion reduces cinema to a projection, "suggesting that the conditions of perception conveyed by cinema were similar to that of natural

perception, Bergson overlooks the specificities of the medium in its relation to movement" (Brandão 48). To Deleuze, movement is the condition of a film, "cinema does not give us an image to which movement is added, it immediately gives us a movement-image" (*Cinema 1* 2).

In such filmic productions, the movement of the characters is identified with the action in a logical space, and produces a rational continuity in montage, which is called an action-image. For instance, if we want to show character A walking (moving), each frames has to be slightly different from the previous one in action, as well as space, and the sequence of these frames has to be continuous. David Rodowick explains that "this identification is the subordination of time to movement. Time is measured only dynamically, as a process of action and reaction rebounding across contiguous spaces through match-cutting" (*Gilles* 3). Time and space are strictly dependent.

Deleuze comprehends that the image of time is revealed in montage, since the latter is "the determination of the whole […] by means of continuities, cutting and false continuities" (*Cinema 1* 29). The classic construction of images that move conveys an indirect image of time, "Montage is composition, the assemblage [*agencement*] of movement-images as constituting an indirect image of time" (*Cinema 1* 30). The image is indirect because it depends on movement and space, as this cinema demands a rational and continuous organization. Deleuze refers to this cinema as an organic regime, with which he associates four main schools: the American mainly with Griffith, the Soviet, pre-war French, and German Expressionism–the last three differ from and are variants of the first organic composition of Griffith's cinema (*Cinema 1* 30). This kind of montage presupposes a truth, since it conveys a linear action and logical organization. Digressions, flashblacks or flashforwards only contribute to this single narrative. Rodowick clarifies that "[t]he integration of parts into ensembles, and ensembles into wholes, culminates in a totality where image, world, and spectator are identified through a grand image of Truth" (*Gilles* 12). The result is a globalizing narrative in which situations will always presuppose action and a further resolution–SAS (*Cinema 1* 141-2).[7] This position is the

[7] Deleuze describes that "The milieu and its forces incurve on themselves, they act on the character, throw him a challenge, and constitute a situation in which he is caught. The character reacts in his turn (action properly speaking) so as to respond to the situation, to modify the milieu, or his relation with the milieu, with the situation, with other characters. He must acquire a new mode of being

same to small situations–for instance if a glass falls, the viewer expects it to break–and to the whole of the film–if the girl is captured, the hero will have to rescue her. Nonetheless, this rational organic totalizing and classic organization would not last long.

The paradigm above described goes through a crisis, which emerges mainly after WWII. As Deleuze proposes, many factors promoted such a change:

> [S]ome of which were social, economic, political, moral and others more internal to art, to literature and to the cinema in particular. We might mention, in no particular order, the war and its consequences, the unsteadiness of the "American Dream" in all its aspects, the new consciousness of minorities, the rise and inflation of images both in the external world and in people's minds, the influence on the cinema of new modes of narrative with which literature had experimented, the crisis of Hollywood and its ode genres… (*Cinema 1* 206).

This crisis indicates a change of thinking that culminated in the destabilization of a constructed truth. As Deleuze claims, WWII seems to be the main cause for a new arising perspective, which will affect content and form in filmic production. The change began with Italian neo-realism and the French new wave, where the films started surpassing the movement-image, and changing the way cinema relates to time and movement, thus creating the direct image of time, what he refers to as time-images.

One of the impulses of a direct image of time is the substitution of action for gaze. If action-image presupposes a sensory-motor situation by action, Italian neo-realism presupposes a pure optical and sound situation,[8] which through the portrait of ordinary situations give rise to *gaze* instead of action, "a cinema of the seer and no longer of the

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(habitus) or raise his mode of being to the demands of the milieu and of the situation. Out of this emerges a restored of modified situation, a new situation" (*Cinema 1* 141-2).

[8] "It is no longer time that depends on movement; it is aberrant movement that depends on time. The relation sensory-motor situation → indirect image of time is replaced by a non-localizable relation, pure optical and sound situation → direct time-image" (Deleuze, *Cinema 2* 41).

agent" (Deleuze, *Cinema 2* 2). For example, objects and settings are necessarily functional to a particular situation, presupposing an action, a prop, in movement-image. On the other hand, for Deleuze, in Italian neo-realism films objects and settings become autonomous, acquiring meaning in themselves, while "spaces are now neither co-ordinated nor filled" (*Cinema 2* 40-1), becoming empty references. The characters and viewers gaze the autonomous objects or empty settings, which appeal to their senses and create pure optical and sound situations.[9] They reveal "a visual and sound nakedness, crudeness and brutality" (*Cinema 2* 3) of the ordinary life. The situation-action chain is lost, as the situation is followed by gaze and not action.

The moving images of the screen no longer presuppose action, thus challenging the viewer's perception. Such lack of action creates an aberrant movement, which leads to Deleuze's conclusion that "the aberration of movement specific to the cinematographic image sets time free from any linkage" (*Cinema 2* 37). Time stops depending on movement, and as well as on action, which results in a direct image of time. The gaze into objects relates to how time appears in the framing, but time also relates to the whole of the movie, that is montage. In fact, Deleuze states "it is montage itself which constitutes the whole, and thus gives us the image *of* time" (*Cinema 2* 34).

Montage in time-image films also changes after WWII. Deleuze builds on montage, as portraying the main concept of a film, which is similar to Eisenstein's notion of the *Idea* (with a capital letter) of the film, "montage is the whole of the film, the Idea" (*Cinema 1* 29). As I mentioned, movement-image conveys a sense of unity in its continuous organic narrative, a truth and rational organization, because its montage rely on "the whole that changes" (*Cinema 2* 35), or rather on movement, as time depends on movement. On the other hand, time-image breaks with the unity of action as it emphasizes the gaze; seeing predominates over acting. Michelangelo Antonioni's *L'Avventura* is an example of how powerful the gaze becomes over action, of how instances of contemplation mark the search for Anna (Léa Massari). The

[9] Yasujirô Ozu provides a further example when Deleuze acknowledges that "The bicycle [from A Story of Floating Weeds], the vase [from Late Spring] and the still lifes [from That Night's Wife and Passing Fancy] are the pure and direct images of time. Each is time, on each occasion, under various conditions of that which changes in time. Time is full, that is, the unalterable form filled by change" (*Cinema 2* 17).

consequence is a rupture with linear action and continuous montage. Deleuze summarizes that:

> If normal movement subordinates the time of which it gives us an indirect representation, aberrant movement speaks us for an anteriority of time that it presents to us directly, on the basis of the disproportion of scales, the dissipation of centres and the false continuity of the images themselves (Cinema 2 37).

This aberrant movement and direct image of time claim for a new regime, which Deleuze refers to as the crystalline regime. Rodowick clarifies that the latter differs from the organic regime in four aspects: "description, distinguishing between the real and the imaginary, narration, and the question of judgment or truth" (*Gilles* 86). The first aspect features how the crystalline regime bears the real and the imaginary indistinguishable (*Cinema 2* 126). According to Deleuze, "what we will call a crystalline description stands for its object, replaces it, both creates and erases it" (*Cinema 2* 126). At this point, the object is the description, while an organic description infers that the object exists despite and independently of the description.

The second aspect, distinguishing between the real and the imaginary, relates to the first, description. The former appeals to how the crystalline description, the reflection, also becomes the object, and we cannot distinguish which one is real or reflection. In fact, both exist. The organic system does have images of "the unreal, the recollection, the dream and the imaginary but as contrast", a meaning that it is always clear in the film when discontinuity appears. In the crystalline, "the real and the imaginary, the actual and the virtual, chase after each other, exchange their roles and become indiscernible". The crystal-image is then defined as "the coalescence of an actual and *its* virtual image" (*Cinema 2* 127).

The third aspect concerns narration. It is revealed when the moments of contemplation gain meaning over the story of the film, when "the story" loses a truth to rely on. Deleuze notices how "crystalline narration will extend crystalline descriptions, their repetitions and variations, through a crisis of action" (*Cinema 2* 129). The cinema of the seer and of pure optical and sound situations.

What emerges from this new type of narrative is the fourth aspect: the power of false, "a new status of narration follows from this

[crisis]: narration ceases to be truthful, that is, to claim to be true, and becomes fundamentally falsifying" (Deleuze, *Cinema 2* 131). A sound example is *Hiroshima Mon Amour*'s[10] discontinuous association of shot, a diegesis exists–a Japanese architect (Eiji Okada) and a French actress (Emmanuelle Riva) fall in love in Japan–but the film is constructed through a non-linear narrative of flashbacks, in which the spectator is never sure if they were true or part of an illusion; while Elle do not stop remembering, Lui says "You are not endowed with memory." What the film provides is then an association of ideas between shots, which replaces continuation from movement-image films with an uncertainty, or at least the possibility of a doubt. A narration that presupposes a truth demands rational connection of spaces and an organic chronological time (*Cinema 2* 133), which is just not the case in these post-war films.

Furthermore, to Deleuze, time-image was not exactly new. Aberrant movement and false continuity shots were already part of cinema, they were only not realized as such. He explains: "The direct time-image is the phantom which has always haunted the cinema, but it took modern cinema to give a body to this phantom" (*Cinema 2* 41). Such notion could suggest how contemporary cinema, what I refer to as post-postmodern, also proposes a similar direct image of time, a questioning of certainties. This 60s tendency might still be present in cinema, although the causes and context seem to be different. This section explored the concept of time, its history and relation to cinema. The following section presents a definition of science fiction film and its relation to time and technology, in which I also expect to justify my choice of corpora.

SCIENCE FICTION GENRE

This dissertation investigates science fiction films with the belief that this genre best expresses experiments with time. Science fiction seems to question reality through time more than other genres. To define genre is particularly tricky, since the variation between films are greater than most definitions can handle. Therefore, this research employs Steve Neale's concept of genre as a hybrid, a shifting mode of cultural production. Neale reestablishes the relevance of the public to film genre, when analyzing the influence of the industry in the formation of genres (163). His argument relays on Tzvetan Todorov's Russian Formalist

[10] From 1959, by Alain Resnais. *Last Year at Marienbad* (1961) from the same director infers a similar effect.

position (161), which favors the system of expectation, or the role of the spectator. To Neale, the system of expectation depends on verisimilitude, which does not mean a resemblance to reality, but a likelihood or probability to happen in a certain genre (161). Similar to Neale's notion of verisimilitude, Kuhn acknowledges that science fiction films tend to use codes of visibility that are different from classical cinema, but are plausible to that story and genre.[11] For instance, the public expects sound in outer space sequences, even if sound does not propagate in space. The advertisement industry and newspaper reviews feed these expectations by emphasizing them, they promote an image of the film. Industry and journalism influence the construction of film genres, and they compose what she refers to as intertextual relay (*Alien Zone* 163).

Through this perspective, we should also consider a historical account of genres, as Neale states "genres are inherently temporal: hence, their inherent mutability on the one hand and their inherent historicity on the other" (169). In this way, genre is a process, a hybrid, which can be pushed by technology, market demand, popularity or canonization of the genre, to mention a few. Bearing this in mind, science fiction might have changed through the technological, economic and political upheavals of the transition from the modernist to the postmodern cultural backgrounds. Further relevant is that because genres are "always historically relative and therefore historically specific, they can be determined only empirically, not theoretically" (Neale 173). An up-down theory cannot encompass the complexity of a genre formation, which justifies a close analysis to specific films and genres. In this sense this research expects to contribute to the genre's definition by pointing out a possible new argument: that contemporary science fiction films have a different impulse towards time, and this relates to modern technology.

This research also considers Robin Wood's understanding that genres are not discrete, nor autonomous (63). His argument is that aspects from different genres appear in most films. By doing so, he challenges the notion that each genre carries a main ideology. A science

[11] Annete Kuhn refers to this same process as *codes of visibility*, which relates to the visual construction of the films, its iconographies. *Star Trek*, for instance, creates a world of space trips, spaceships, friendly aliens, and technologies such as teleport or light speed travelling, which could not agree with our reality or with current physics, but which is acceptable and understandable to the viewer, as it is part of the genre's iconographic conventions (Kuhn, *Alien Zone* 7).

fiction can be loaded with drama and comedy, since the genres also intermingle. Similarly, Kuhn agrees with the hybridization of genre, when she states that one of the reasons for the difficulty in defining science fiction is how "it overlaps with other types of films, notably horror and fantasy" (*Alien Zone* 1). She proposes that a definition of science fiction should consider its "cultural instrumentality," reflecting not on what it *is*, but rather on what it *does* culturally. As this definition is of a filmic genre, it should encompass not only narrative themes and viewpoints–the conflicts between science, technology and human nature, spatial and temporal displacement, and points of view and modes of narration, (*Alien Zone* 5)–but also the cinematic language, which includes *mise-en-scène*, editing and proxemics.

Having clarified these points, this dissertation relies on Darko Suvin's definition of science fiction: "*SF is, then, a literary genre whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author's empirical environment*" (7-8). His focus is literature, but the traits he determines to science fiction are easily found in film as well. Suvin points two main aspects: estrangement and cognition. The first "differentiates SF from the 'realistic' literary mainstream", as he explains (8); it is the element that introduces the new, the something different and strange to our reality, such as the outer space, aliens, spaceships and time-travel. The second is cognition, which "differentiates it [SF] not only from myth, but also from the folk (fairy) tale and the fantasy" (Suvin 8); this aspect respects, or attempts to respect, the empirical laws of physics. Suvin's example is how a folktale can have a magic flying carpet, in which there will be no questions to why the carpet flies; while science fiction has to propose answers to its "magic," even if they do not always comply with our scientific or physical reality.

Science Fiction, Time and Technology

In *Metamorphoses of Science Fiction*, Suvin acknowledges that around 1800, the genre science fiction went through a watershed, when "space loses its monopoly upon the location of estrangement and the alternative horizons shift from space to time" (89). The reason is not simply the lack of places to explore in the globe. Suvin points two factors. The first is that a space-based narrative "stunted within strict positivist ideology" (73), while a time-based narrative "setting the tale in the future immediately dispensed with any need for empirical

plausibility" (72). For Suvin, tales that focused on space limited themselves to empiricism, a logical expectation. On the opposite, future driven tales would allow a more creative and autonomous construction.

Suvin's second reason reveals a more interesting and convoluted parameter. He states that "the strong tendency toward temporal extrapolation inherent in life based on a capitalist economy, with its salaries, profits, and progressive ideals always expected in a future clock-time" (73). For Suvin, the capital way of life impelled a time tendency through a future based economy. He further explains that "a triumphant bourgeoisie introduces an epoch-making epistemological break into human imagination, by which linear or clock-time becomes the space of human development because it is the space of capitalist industrial production" (73). The notion of progress aligns a concept of time forward, of expectancy, and not of new spaces and exploration as previous 18th century propensities. The feature of estrangement starts appearing not in places to be explored, but rather in futures to come. Utopia predominates, bringing the future as the source of hope. Such statements will complement with my discussion on the relation between modernist fiction and time.

It seems that science fiction's special drive towards technology emerges from this future tendency, and because of its obvious cognitive characteristic. New technologies challenge the spectator's knowledge and bring the element of estrangement to the film. Special effects play a particular relevant role in science fiction films. Kuhn states that the use technology to convey spectacle is a particular feature of this genre (*Alien Zone* 7). Peter Ruppert understands that, in fact, the power of science fiction is not only on the narrative, but in its visual realization, that science fiction is indeed "a cinema of attractions and exhibitionism" ("Fritz" 26). The latter brings an example of *Metropolis's* ambiguity in how the narrative downgrades technology, while the visual aesthetic of the film praises technological advancement. The scene in which the mad scientist creates the robot is visually quite impressive. The visual technology displayed in the transformation of the robot from steel to the figure of Maria enchants the spectator, but such transformation shall only lead to the film's conflict.[12]

In the sequence, this theoretical framework discusses tendencies of time: utopia, dystopia and nostalgia. These affective inclinations relate to the historical moment–modernism or postmodernism–and to

[12] This argument is further discussed in the first chapter "The Modernist".

the genre, in which they emerged. Their relevance lies as guiding tools to understanding these periods.

UTOPIA, DYSTOPIA, NOSTALGIA

Utopia, dystopia and nostalgia are important concepts in this dissertation since they implicate one's perception of time and space (future, present, past). These topics have been extensively researched,[13] but in this dissertation I will focus on utopian and dystopian views as they help to define the scientific genre in film, as associated with construction of time. The construction of a better future, or a bad one in dystopia, easily relates to themes of technology, temporal and spatial displacements, and natural disasters. Modernism and postmodernism present major tendencies of time, which relates to their ways of perceiving their economic and technological contexts. Nonetheless, this research attempts not consider these aspects as rigid concepts only applicable to specific periods, rather as fluid ideas that pervade differently in each text. These notions become tools to better understand time and their social contexts.

Although utopia is a genre, its effect is not exclusive of the genre. In this sense, Suvin defines that utopia "is not a genre, but the socio-political subgenre of science fiction" (61). Instead of an escapist fiction, utopia is a deeply engaged reflection on the author's own period. Its resource is the idealization of realities' political, social and economic flaws. In addition, Suvin recognizes that there are few "perfect" utopias, which indicate the connection between utopia and dystopia.

Bernadete Pasold describes that "*[u]topia is to be considered that literary piece which describes a perfectly organized and happy world from the point of view of the author, in an imaginary place and/or time*" (18-9). Nonetheless, the present proposal considers utopia a positive representation or perception of technology and/or the future, and not necessarily in a specific imaginary place and time. The justification for such definition arises with the hypothesis that some fictions have constructed utopic spaces in contemporary scenarios, and not in new and imaginary worlds, but in new realities to this world.

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[13] See Raffaella Baccolini and Tom Moylan's *Dark Horizons: Science fiction and the dystopian imagination*, Linda Hutcheon and Mario L. Valdés's "Irony, Nostalgia, and the Postmodern" and Bernadete *Pasold's Utopia x Satire in English Literature*.

Some modernist films, such as *Metropolis*, also tend to portray a negative perception of futuristic technology, which we can call dystopia. M.H. Abrams has defined it as "a very unpleasant imaginary world in which ominous tendencies of our present social, political, and technological order are projected in some disastrous future culmination" (328). This dystopic attitude seems to indicate a transitory and intersecting moment between modern and postmodern periods, in which George Orwell's *1984* (1948) is the best example. In relation to this, Steven Pinker already proposes *1984* as a postmodern novel, although it was published in the modernist period. His main argument is that O'Brian's, the main character, worries are thoroughly postmodern (425).

Lastly, nostalgia is a kind of utopia, but one which is turned to the past, to remembrance instead of creative projection. Linda Hutcheon and Mario Valdés define postmodern nostalgia as an intermingling between emotional longing and ironic distancing (22). The issue with postmodern nostalgia is that it idealizes the past, but this idealization cannot be returned to, as it never really existed. Furthermore, postmodern nostalgia carries an ironic twist, which demonstrates its consciousness of representing the past in the present. In Hutcheon and Valdés's words:

> If our culture really is obsessed with remembering [. . .] then perhaps irony is one (though only one) of the means by which to create the necessary distance and perspective on that anti-amnesiac drive. The knowingness of irony may be not so much a defense against the power of nostalgia as the way in which nostalgia is made palatable today: invoked but, at the same time, undercut, put into perspective, seen for exactly what it is—a comment on the present as much as on the past. (23)

Andreas Huyssen provides a significant explanation to historical representations in the postmodern period. He states that memory is always connected with the present, and not necessarily with the past: "the temporal status of any act of memory is always the present and not, as some naïve epistemology might have it, the past itself, even though all memory in some ineradicable sense is dependent on some past event or experience" (*Twilight* 3). A similar notion can be applied to utopic/dystopic fictions. The temporal status of an idealization of the future can be the present, and not the future in itself. The futuristic

construction mirrors the film's society, its contemporary fears and anxieties.

The present exists, as Prior argues, as an immediate reflection of our current emotions, desires, afflictions. Turning into the future or even the past might be analyzed as a way to escape the present, as utopia or nostalgia, but it might also be a subversive way to look into the present. The title of George Orwell's novel *Nineteen Eighty-Four* is an inversion of its year of publication 1948, and because of this it can be interpreted as a criticism to the post-war period in which Orwell lived. If as Huyssen observes memory has its temporal status in the present, so does utopia. This is the reality of science fiction films: to create imaginary scenarios in order to discuss the present.

The next chapter begins exploring science fiction with Modernism, its history, its time and its cinema.

THE MODERNIST

This chapter discusses the modernist movement and its relation to time and technology; more specifically the process of modernization vis a vis cinema as a new technology. Modernism has been defined as a complex and long lasting aesthetic period, comprising approximately one hundred years (Jameson,"Postmodernism" 53). A myriad of well-known and distinct aesthetic movements comprised it, including cubism, impressionism, fauvism, expressionism, dadaism, surrealism, futurism, to mention a few. In spite of the alleged position of modernism as belonging to an elitist view of the arts, films produced in the 1920s and 30s put into question such perception. In the analysis of *Metropolis* (1927) by Fritz Lang, we will investigate how different modernist aesthetic traits can be combined and situated along Mirian Hansen's definition of vernacular modernism, a conceptual venue further developed in this chapter.

TIME, MACHINES AND MODERNISM

The subject of time was of particular interest to modernism. The social, economic and historical perspectives associated with this period add a level of complexity and materialism to the investigation of time within a modernist context. As David Harvey asserts in his well know study of modernism, "neither time nor space can be assigned objective meanings independently of material processes" (204). In this way, a conceptualization of time in modernism is here presented followed by an analysis of its various representations within cultural productions of the period.

The theoretical approaches to time vary, but they all converge in its relevance to modernism. Erich Auerbach observes that "there is something peculiar about the treatment of time in modern narrative literature" (537), while Jameson describes the predominance of "the great high-modernist thematics of time and temporality, the elegiac mysteries of *durée* and of memory" (64). Jürgen Habermas summarizes that this special attention to time relates to the vanguard's and avant-garde's propositions of newness, of fresh and original ideas, of a future to come and the innovations it would bring:

> Aesthetic modernity is characterized by attitudes which find a common focus in a changed consciousness of time. This time consciousness

> expresses itself through metaphors of the vanguard and the avant-garde. The avant-garde understands itself as invading unknown territory, exposing itself to the dangers of sudden, of shocking encounters, conquering an as yet unoccupied future. The avant-garde must find a direction in a landscape into which no one seems to have yet ventured. (Habermas 4)

This avant-garde's desire for newness created fictional notions of time never seen before. Paul Ricouer provides a revealing analysis to comprehend the fictional experimentation with temporality, when studying modernist novels. He resorts to literary theorist A. A. Mendilow division of "tales of time" and "tales about time". The former concerns every fictional narrative, since they all occur in time. The latter are not as common, and deal with those tales that put time into evidence "the very experience of time that is at stake in these structural transformations" (101). Novels like Virginia Woolf's *Mrs. Dalloway*, Thomas Mann's *The Magic Mountain*, and Marcel Proust's *In Search of Lost Time* exemplify the construction of "tales about time." These narratives convey different temporal experiences, through flashbacks, ellipses, the collision between monumental and personal times, the converging perspectives on time, involuntary memory, accelerations and decelerations, remembrance and loss. All these demonstrate how modernist writing shed a significant attention to temporal construction, which emphasized the personal temporality of the characters and ultimately altered the way the reader experiences time through the reading process.

In the centre of this new time consciousness is Henri Bergson's concept of duration, which strongly influenced these "tales about time." Stephen Kern explains that "Bergson's philosophy forms the theoretical core of the argument for private time" (8). As mentioned, his concept is a return to the individuals' consciousness, searching for a time that flows independently of public arrangements of future, present and past. These novels' time interest also relates to a search for a private time, which generates multiples times through multiple consciousness.

Such personal time, which generates multiple perspectives of time, seems to be a reaction against a growing globalism in the first half of the 20th century. Auerbach explains that this "peculiar treatment of time" emerged during and after the World War decades, but that the war conflicts were not the sole reason (549). Harvey points that, besides the

world wars, global capitalism and world exhibitions are also causes for this experimentation with time (264), as globalism is at the core of a search for a single and universal time (GMT). As a reaction to this standardization, modernist artists looked for different possibilities in the individuality of each one's time.

Ricouer points out that in contrast to the image of the Big Ben, which in *Mrs. Dalloway* constructs the idea of a universal time (105), Clarissa's reflection on time intertwines the latter and her own emotions, thus foregrounding an inner time as opposed to external time: "an indescribable pause; a suspense (but that might be her heart, affected, they said, by influenza) before Big Ben strikes. There! Out it boomed. First a warning, musical; then the hour, irrevocable," and soon after she thinks about Peter and is "pulled back by memory" to her internal time (177). In cinema, the closest idea to "tales about time" is Gilles Deleuze's description of time-image. As discussed in this dissertation's "Introduction," time-image films create time as duration. Deleuze's main examples, Italian neo-realism and French New Wave, came later than the above mentioned novels.

Nevertheless, early avant-garde films also experimented with time as Luis Buñuel and Salvador Dalí's Surrealist short film *Un Chien Andalou* (1929). Scholar Malcolm Turvey mentions how objects appear and disappear, a cyclist occupies two places at the same time, random jumps in space from the apartment to a forest, to a beach occur, and how "intertitles point to gaps in time that are not verified by the image" (126). He further explains that "in *Un Chien Andalou* they [Buñuel and Dalí also] make strategic use of many of the standard continuity techniques employed in entertainment films from the 1910s onward" (119). His example is how an establishing shot begins the sequence in which the woman is reading, positioning her in the apartment, a dissolve transitions to a medium shot of her face sensing the cyclist's approach, which cuts to him cycling outside. Other continuity aspects, lighting, costume and music, are also respected, emphasizing their intentions to follow film's conventions. But as Linda Williams argues the pattern of surrealism is to first use standard modes and break with them. Such pattern creates expectations of conventionalities that are then transgressed (28). Turvey exemplifies how when the cyclist is arriving at the woman's apartment, the viewer expects that he will run and go upstairs to see her, but instead he falls motionless; his behaviour changes suddenly, being discontinuous with previous actions.

Another factor to the rising importance of time in modernist fiction is the consolidation of a money driven society, capitalism.

Harvey proposes that the cultural upheaval of modernism originates through an economic change, Fordism (141), which begins around 1914. Although its organization was not new, Fordism innovated because it understood that a new way to think mass production also meant a new way to think about mass consumption. This notion led to a new social organization, in which workers had money and time to spend money. Time is, thus, valued as a commodity in statements like "time is money." Anthony Giddens refers to this process as commodification of time, "the clock, rather than power-machine as such, is the prime element in modern mechanical culture" (14-5). An example is how a worker receives for how long he works, and not for how many products he makes. On the other hand, space, which was the main geopolitical and economic interest in the Renaissance voyages of discovery, for instance (Harvey 242-4), loses its value to time. In this sense, time is not multiple and personal but singular and rationalized according to a new globalist notion of the world.

The idea of change in modernist fiction is also influenced by notions of progress through technological advancements. Harvey explains that "[s]ince modernity is about the experience of progress through modernization, writings on that theme have tended to emphasize temporality, the process of *becoming*, rather than *being* in space and place" (205). Modernist time relates to how the subject experienced shifts in a new global world, and felt the instabilities of this ever progressing society. In view of this, I focus mainly on new technologies to explain time in modernist science fiction film, although I do not argue that technology is the single reason to understand notions of time, but it may be the strongest one in science fiction.

Technological advancement is also a strong influence to the "peculiar treatment of time" because technological innovations allowed this new growing globalism and its modernization. "Telephone, wireless telegraph, x-ray, cinema, bicycle, automobile and airplane" (Kern 1) were some of the machines that deeply changed individual's daily life. The notions of duration and private time originate from how some of these new technologies lead to a different perception of time and space. Harvey exemplifies how the sense of time and space changed radically through "[t]he expansion of the railway network, accompanied by the advent of the telegraph, the growth of steam shipping, and the building of the Suez Canal, the beginnings of radio communication and bicycle and automobile travel at the end of the [19th] century" (264).

This influence of technologies over the experiences of time and space is not explicit in most of the avant-garde works. The artists were

rather explicitly reacting against this modernization, which includes globalism, capitalism and machines. A simple overview of these movements shows how Dadaism was an expression against logic and rationalism. Dadaist art embraced chaos and randomness because it rejected interpretations. Their own logic was that an excessive rationalism lead to the outbreak of WWI (Short 164). But as Sara Danius argues even though they so actively antagonized new technologies, they could not fully extract it from their art, since "technology can be shown to inform the founding myth of modernism" (9).

The utmost technology of the beginning of the 20th century appears to be cinema. Laura Marcus's extensive study on the influence of cinema on early modernist writings demonstrates how even though not explicitly referring to cinema, if not rejecting it, modernist literature absorbed much of its techniques and ideas. Marcus focuses on Virginia Woolf's relation to cinema, stating that "Woolf undoubtedly saw or found in film a relationship to reality that gave visible form to her own world-view, and her fascination with 'the thing that exists when we aren't there'" (Marcus 115). This idea relates to an invisible presence of watching without being there, as a film spectator.

Marcus understands that some of Woolf's novels had a photographic or cinematographic technique. *Jacob's Room* conveys a sense of simultaneity through cross-cutting (139), *Orlando* exposes "the relationships between modernism, urban experience and cinema" (142), *To the Lighthouse* "overt concern is with pictorial representation, but its exploration of the ways in which images of the past function in the present bears a much closer relationship to theories of photography and cinematography" (147). *The Years* shows how sight gives way to sound in the way the character Maggie hears before seeing, which points to the period in which sound film was being established (162). *To the Lighthouse* and *The Years* also recall serialized and locomotion images as they construct time "as a series of passing objects, events and 'scenes' [that] has a filmic dimension" (165). Danius extends this analysis by observing how James Joyce resources to an object-centred narrative, which appeals to close-up and framing (68), and Proust's use of modes of representing speed and movement are cinematographic (75).

The repercussion of cinema on avant-garde art is relevant because it highlights early cinema as an event to modernism. Even though not all films were part of the avant-garde movements, cinema as a genre was. Art genres were communicating. This chapter's last subsection will

discuss *Metropolis* as a modernist film because of its traits of an avant-garde aesthetic with a radical experience of time. Nonetheless Lang's film is not a full example of the time-images defined by Deleuze since his mapping of modernist time-image films (around the 60s) comes after *Metropolis* (1927). My analysis shall then also rely on how cinema was already influencing the avant-gardes, since the medium of cinema in itself was modern and challenged time by radicalizing its importance and rendering of it.

This brief theoretical framework tackled the convoluted relation between modernization, time and cinema in the period of modernism. It addressed an aesthetic of time experimentations that was influenced by a series of changes in the western society, including technologies, globalism, capitalism and world wars. The next subsection will discuss the Futurism movement which positioned differently from the ones explored so far.

Futurism

World wars, economic and technological changes stimulated a different artistic inclination in the modernist period, Futurism. This modernist movement foregrounds the notions of ephemerality and change, which relate to a discourse of future investment through progress and innovation. Machines, speed, trains, steam machines, urbanism were recurrent themes in the modernist narratives (Kern 2). As Filippo Tommaso Marinetti writes in the first Futurist manifesto, "The Founding and Manifesto of Futurism" (Le Figaro, Paris, 20 February, 1909):[14]

> We shall sing the great masses shaken with work, pleasure, or rebellion: we shall sing the multicolored and polyphonic tidal waves of revolution in the modern metropolis; shall sing the vibrating nocturnal fervor of factories and shipyards burning under violent electrical moons; bloated railroad stations that devour smoking serpents; factories hanging from the sky by the twisting threads of spiralling smoke; bridges like gigantic gymnasts who span rivers, flashing at the

[14] Source for translation Rainey, Lawrence; Christine Poggi, Laura Wittman eds. *Futurism: an anthology*. New Haven & London: Yale University Press, 2009. 49-53.

> sun with the gleam of a knife; adventurous steamships that scent the horizon, locomotives with their swollen chest, pawing the tracks like massive steel horses bridled with pipes, and the oscillating flight of airplanes, whose propeller flaps at the wind like a flag and seems to applaud like a delirious crowd. (51-2)

Marinetti was the founder of the Futurism movement and is still considered the preeminent futurist. This manifesto inaugurated the movement, which became a paradigm for other early 20th century modernist currents, as Surrealism, Dadaism and Vorticism. Although not a prominent artist, he was a poet, his manifestos constituted a sound part of the Futurism movement. As the above quote shows, technological investment is a central issue in the mention of factories, shipyards, railroads, steamships, locomotives and airplanes. This subject was already part of 19th century poets such as Walt Whitman and Emily Dickinson, but to Futurism, technology is not only the main theme to art, but the utmost solution to society. These machines lead to images of dynamism, speed, velocity and change in art. Time becomes an acceleration, an always-forward movement, an utopia in fiction.

Figure 1.1 – Giulio Bragaglia, *The Typist/Il dattilografo* (1911)

Futurism was also quite aware of how technology affects humans. An example is Giacomo Balla's futuristic painting "Dynamism of a dog on a leash" (1912, see Figure 1.2), which shows a clear perception of speed in an animal and a human, and not only in a machine, suggesting that speed is demanded from all. The urban citizen does not have time to walk the dog calmly, but have to accelerate and follow the new social

scenario. The feet, leash, and tail become multiple; as if existing simultaneously. Still the image does not reject speed, but accepts it as a new condition of the modern man, and animal.

Figure 1.2 – Giacomo Balla,
Dynamism of a Dog on a Leash (1912)

This futuristic drive comes mainly from the optimistic scenario of the industrial revolution and the development of new technologies, which impelled the utopias of many artists, who fantasized about the future as a solution for their contemporary problems. In this context, science fiction literature appropriates this imagined future with the promises of technology, and as Kern acknowledges:

> Science-fiction writers reached out for the future as if it were a piece of overripe fruit. Their stories came into vogue on a grand scale, indicating that the future was becoming as real to this generation as the past had been for readers of the Gothic novel and historical romance. There had been utopian writings before, but they generally meant to identify current problems rather than delineate a world to come and the processes by which it would evolve. (94)

Futurism and its science fiction were reflecting enthusiastically about what was to come and change in society. They bet on technology as a savior, and they were hopeful. But Habermas complexifies this issue, defending that much of the future impulse was indeed a reflection on the present, that the fast changes in society were not raising hopes for tomorrow, but rather creating anxieties in and about today. The future as a metaphor for the present.

> But these forward groupings, this anticipation of an undefined future and the cult of the new, mean in fact the exaltation of the present. The new time consciousness, which enters philosophy in the writings of Bergson, does more than express the experience of mobility in society, acceleration in history, of discontinuity in everyday life. The new value placed on the transitory, the elusive, and the ephemeral, the very celebration of dynamism, discloses the longing for an undefiled, an immaculate and stable present. (Habermas 5)

Futurism also had one darker side that cannot be ignored. Their ideas of liberation from tradition, technological innovation and mass mobilization made them sympathetic to politics that praised war as society's cleanser. Item nine of Marinetti's first manifesto states that: "We intend to glorify war—the only hygiene of the world—militarism, patriotism, the destructive gesture of anarchists, beautiful ideas worth dying for, and contempt for woman" (in Rainey, 51). Marinetti was also not a feminist. In fact, Futurism's war politics found an alliance with Mussolini's Fascist vision (Miller 170). An aggressive militarism combined with nationalism were dangerously part of their political agenda. In such radicalism, an opposition to the economics and development of capitalism also grew. Historian Emilio Gentile explains that a liberal democracy contradicted modern life "because the very process of the development of mass democracy, both in socialism and the expanding economy of capitalism led to an affirmation of 'the primacy of force and the necessity of an ever vaster and deeper domination'" (57).

Walter Benjamin in "The Work of Art in the Age of Mechanical Reproduction" asserts how this combination of Fascism and Futurism beautified war as an aesthetic pleasure. He further explains that they justify war through the idea that "The destructiveness of war furnishes

proof that society has not been sufficiently developed to cope with the elemental forces of society" (15). Benjamin's argument is that Futurism finally reached *l'art pour l'art* when humankind's elimination becomes an element of art: "Mankind, which in Homer's time was an object of contemplation for the Olympian gods, now is one for itself. Its self-alienation has reached such a degree that it can experience its own destruction as an aesthetic pleasure for the first order" (15). Their use of art as war propaganda cannot be denied, but their artistic significance should not be dismissed. The investigation of this movement should work as a reminder of the dangers of its political position.

Modernist Time and Cinema, or Vernacular Modernism

In the previous section, I presented two variants of modernist time, which Mary Ann Doane refers to as "abstraction/rationalization" (10). The first is Ricouer's "tales about time", relating to the multiple and personal times of the avant-garde, in which the experience of time is radicalized in literary fictions as *Ulysses* (1922) or *Mrs. Dalloway* (1925). In film, Deleuze finds examples that were produced later, as *Hiroshima Mon Amour* (1959) or *Last Year in Marienbad* (1961), but earlier examples can be found as *Un Chien Andalou* (1929). The second variant is "the rationalization of time characterizing industrialization and the expansion of capitalism" (Doane 11), which relates more specifically to Futurism's acceleration, forward and utopic thinking. A simplified understanding is that both variants reacted to the same aspects of modern life, industrialism, globalism, wars, but the first rejecting and the later expanding them.

Metropolis bears both of these variants, an experimental and a rational side. This subsection attempts to deepen this issue, as it positions *Metropolis* within the film context of its period, resorting to Hansen's concept of vernacular modernism.

Cinema was the modern device of art because it provided a new way of perception, according to Benjamin (4). Similarly, Francesco Casetti states that "Film was the medium of choice in a profoundly 'mediated' era" (11), being the eye of the twentieth century. Hansen's reading of vernacular modernism also associates modernism and cinema, but she argues for the rise of classical Hollywood cinema[15] as an aspect of modernity, as it fitted into the expansive capitalism mode of

[15] David Bordwell classifies classical Hollywood cinema from 1920s to the 1960s (17), a period that corresponds to the modernism period.

Fordism. She writes that "American movies of the classical period offered something like the first global vernacular" (340), which could only be possible through the capital system and because these films were received and accepted differently in each location. To Peter Wollen, the consolidation of modernism came with Americanism, "[i]f, in the early years of the century, Orientalism was crucial to the emergence of modern art (fashion, ballet, decorative art), the period of consolidation was marked by Americanism (cinema, architecture, applied art)" (35). The issue is not that economy was guiding the cultural production, but rather that both are somehow integrated. Thus, "even the most ordinary commercial films were involved in producing a new sensory culture" (Miriam 344), the modernist culture.

The science fiction film analyzed in this chapter can be considered in terms of Hansen's concept of vernacular modernism, as a popular film of the modernist movement:

> [M]odernism as "vernacular" (and avoiding the ideologically overdetermined term 'popular') because the term vernacular combine[s] the dimension of the quotidian, of everyday usage, with connotations of discourse, idiom, and dialect, with circulation, promiscuity, and translatability (60).

Metropolis is not a Hollywood film and it is commonly associated to the Expressionist avant-garde movement, but as Thomas Elsaesser explains UFA[16] was economically and institutionally similar to the Hollywood industry. According to him, *Metropolis* tends more to an Americanized and commercialized market with special effects and futuristic visions than an innovative Expressionist position.

> The German cinema of the Weimar Republic is often, but wrongly identified with Expressionism. If one locates Fritz Lang, Ernst Lubitsch and F. W. Murnau on the mental map of Berlin in the twenties, home of some of Modernism's most vital avant-garde directors, then Expressionist cinema connotes a rebellious artistic intervention. If one sees their films grow from the studio floors of the Universum Film Aktiengesellschaft (UFA),

[16] *Metropolis*'s production company.

> the only film company ever to think it could compete with Hollywood, this golden age of silent cinema takes its cue more from commerce and industry than art. (Weimar 1)

Tom Gunning also notes that Lang attempted to make *Metropolis* into a statement of how German's cinematic production could be as great as Hollywood's. Nevertheless, "*Metropolis* so overspent its budget that it drove Ufa into the red" and because no original print was preserved, "the print most commonly circulated is based, ironically, on cuts made for the American distribution" (*The Films* 53). At the same time, the long theoretical tradition that considers *Metropolis*'s expressionist characteristics cannot be denied.[17] But in the following analysis, I consider *Metropolis* through Hansen's vernacular modernism, because of this film's proximity to a Hollywood idea of global market and popular audience, focusing more on the characteristics of vernacular and rationalization than on the expressionist.

METROPOLIS

This section discusses *Metropolis* in the light of modernist aspects to understand it as an emblem of modernity. My argument is that *Metropolis* builds a complex idea of modernism, in which both experimental and rational modernist tendencies are present. *Metropolis* tells the story of how Freder (Gustav Fröhlich), a rich young man and son of the city's owner Joh Fredersen (Alfred Abel), manages to conciliate hands and head, or rather workers and boss, through a literal hand shake. When the workers rise against Fredersen's harsh working conditions, his son becomes the Mediator. Maria (Brigitte Helm), who preaches change among the workers, shows Freder that he should be the heart because "HEAD and HANDS require a Mediator. The Mediator between head and hands must be the heart" (00:55:37). In the middle of this utopia, human like robots, demon like machines, mad scientists, upward cityscapes and deliriums construct the modernist use of time and the film's futuristic and technological drive.

[17] See Lotte H. Eisner's chapter "The Handling of Crowds: *Metropolis;* the influence of the Expressionist choruses and Piscator" in *The Haunted Screen*.

Metropolis's Metropolis

The spaces in *Metropolis* illustrate the combination between a vernacular modernism that constructs a futuristic idea and an avant-garde modernism that tends to an expressionist aesthetic. Peter Ruppert describes Lang's film as an "aesthetic of ambivalences" ("Fritz" 22). The city of Metropolis indicates the modern look, while Rotwang's (Rudolf Klein-Rogge)–the film's mad scientist–house exposes a baroque construction, an archaism in the middle of the urban city.

Figure 1.3 – The city of Metropolis – 01:59:11

In the opening sequence, the futuristic tendency of the film emerges in the image of the city as a bright and upward utopia. The modern city of Metropolis is revealed in its glamorous illumination and high skyscraper buildings with elegant if not ostensible design (see Figure 1.3). To Anna Notaro, it reminds much of the New York's urban space with its "skyscrapers and its image as the paradigmatic modern metropolis" (162). Other frames show suspended highways and planes flying through the buildings, thus, signalling a prosperous city.

The cityscape's modern appeal reveals Metropolis's utopic and futuristic tendencies. A comparison between Figure 1.3 and Figure 1.4 – Fortunato Depero's futuristic painting Skyscrapers and Tunnels (1930) – exposes their similarities. Both emphasize the grandeur of the skyscrapers and how the buildings interpolate and superimpose one another. The first has one main skyscraper, where Frederson's sole

power lies; while in the second, the buildings seem to bend towards and over each other, as if competing for space or forming one pyramidal shape. Both construct the same ideas of power and prosperity in the buildings' centrality and vertical lines. In both, the lights, which focus on and come from the buildings, highlight the urban feeling of cities that never sleep.

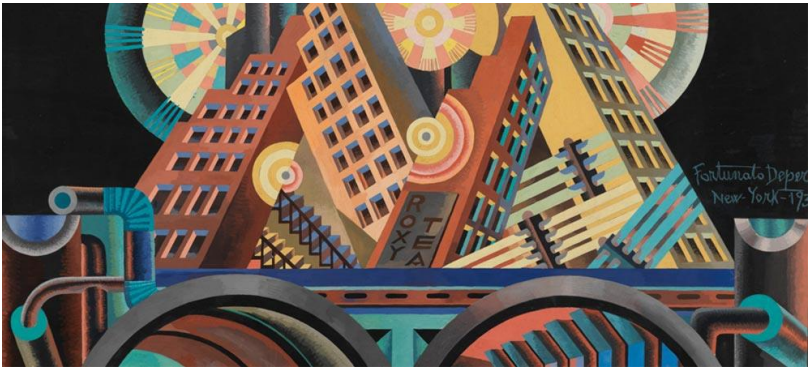

Figure 1.4 – Fortunato Depero's *Skyscrapers and Tunnels* (1930)

Tubes comes out of the lower part of Depero's painting, suggesting an underground and different aspect of the modern city. Sewers or machines that sustain the upper city. Similarly, Lang's film also shows a contrast between its upward city and underground world. The latter is where the workers inhabit squared and monotonous buildings (see Figure 1.5). This space is a metaphor of what should be hidden, where the sunlight does not reach, where society excludes the unfortunate ones. The city can only sustain itself on top, literally and metaphorically, of the underground, exploiting other people's lives.

Lighting is a relevant aspect to this film's ambivalent criticism, which has a striking chiaroscuro lighting scheme. In the upper part of the city, the contrast between light and dark areas create flattening shadows, which combine into complex and detailed patterns. The beams of light suggest the city as a spectacle. The show is the city in itself, and where a beam light focus: the main extravagant building called New Tower of Babel. This tower accommodates the Son's club complex "with its lecture halls and libraries, its theaters and stadiums" (00:06:53), and Joh Fredersen's office, from where he commands the whole city. In the lower part of the city, lighting reveals nonuniform patterns from unknown sources, which rather highlight the uniformity of the buildings, all alike as the workers themselves. The workers' uniform

march suggests how their plight and life conditions are similar, not allowing for individual identity. The low camera angle in the first figure enlarges or magnifies the cityscape, while the frontal angle on the worker's buildings provides a more neutral image. Despite this criticism, different scholars[18] have pointed to the film's problematic resolution, in which Fredersen acquires even more power through his son's mediation. He makes peace with the workers offering no solution to their plight.

Figure 1.5 – *Metropolis*'s underground – 00:06:37

Peter Ruppert observes three different spaces in *Metropolis.* The first is the surface of the city, which exposes the utopian effects of a highly developed city with its skyscrapers, aerial highways, stadiums, gardens, airplanes. The second is the underground world that shows a contrasting image with workers enslaved by machines through a mechanical rhythm, the dark scenario, the crowded elevator, the devouring Moloch machine. The third space represents the escape from technology, where the eternal and sublime emerge: the catacombs. There, Maria preaches to the workers, whose utopia detaches from technology, and implies a bond to nature, to a feminine space, the womb (Ruppert, "Fritz" 21). These three spaces construct a layered view of the futuristic city. The catacombs allow the nourishment of new ideas, which will lead to the revolt; they are deeper than the factories and the

[18] For more information, see the research of Tom *Gunning's The Films of Fritz Lang: Allegories of vision and modernity*, Peter Brooker's *Metropolis*, or Thomas Elsaesser's *Metropolis*.

workers' buildings. The factories are dark scenarios of exploitation, and the uptown is where a few people delight on pleasure and happiness.

In this layered and divided city, nature is a positive element in both the underground vaults and in the uptown gardens. The vaults are a religious place, where Maria preaches her sermons, where Freder understands his mediator role, and where the workers decide to raise a revolution. The catacombs' caves seem ancient and hand sculptured, they are carved in stone in a labyrinth construction, even maps are necessary. The uptown gardens are called Eternal Gardens, where Freder can choose among the most beautiful girls to play with and have fun. Although Freder's gardens look artificial and too scenic with their water fountains, exotic plants and animals, they definitely imply happiness. These gardens come from the benefits of a mechanical production, as the narration describes "Fathers, for whom every revolution of a mechanical wheel meant gold, had bestowed upon their sons the wonder of the Eternal Gardens" (00:07:35).

Metropolis has one intriguing space, Rotwang's baroque house. The latter works as a mirrors and an extension of its owner. Rotwang is the main villain of the story; a mad, but ingenious scientist, who wants revenge against Joh Fredersen because of an old love affair. His main issue is that, despite his intelligence, he cannot forget, as Fredersen says: "A mind like yours, Rotwang, should be able to forget" (00:40:22). Searching for revenge, Rotwang uses robot-Maria to create a disagreement between son and father, using Freder's love for Maria.

Figure 1.6 – Rotwang's house – 00:38:10

By its turn, the house is also something from the past (see Figure 1.6). An old house in the middle of a cosmopolitan and modern city, which should have been forgotten. As the description goes: "In the middle of Metropolis, there stands a strange house that the centuries had overlooked" (00:38:05). Its curvy shape is obsolete compared to the other squared and pointy buildings, reminding us of an old cabin in the woods. A small single door stands in its front, and quite different from the tall buildings from both the city and the underground, it has no windows. What is inside cannot be revealed to the outside, bad illuminated and filled with evil intentions. It seems to be constructed out of clay, implying a more organic and older power than the Babel Tower.

Fredersen and Rotwang can also be compared. If both are the villains of this story, the former has a capital, rational and progressive impulse, while the latter is moved by his old and organic rancor towards Fredersen. Rotwang's attachment to the past, his nostalgia and baroque mind, strangely leads to futuristic innovations. He creates the robot Futura, because of his desire to reproduce his gone love, Hel. But his attachment to the past leads to his unhappy ending, dying, mad, believing that Maria is Hel; while Fredersen has a most happy ending, reconciling with the workers without ever attending their initial demands.

A supernatural force also emanates from Rotwang's house. Like Felix's magic bag or Doctor Who's TARDIS, it looks small from the outside, but it is big in the inside. Secret vaults lie underneath the house, connected to the catacombs, where Maria preaches, attaching the future to an even older past. It is the only house in a story full of apartments and tall buildings. But its uncanny force emerges mostly from how Rotwang's technologies emit a magical aura.

Futura

The theme of technology in *Metropolis* is associated with sentimental, mystical and supernatural forces. For instance, Rotwang's house is not surprising only because it is a kind of medieval cathedral in the middle of a futuristic city, as Alan Williams observes (24); it is because inside this peculiar place inhabits the most advanced technologies. Why would a genius scientist conduct his experiments and create his inventions in such a peculiar space? Because, as already mentioned, this house represents an attachment to the past. Futura or robot-Maria, despite its name, is an intention to recuperate the past in the image of Hel, and not to progress into the future. This scientist is not

driven by rationalism, but by a sentimental fantasy of recuperating a long lost love.

Peter Wollen observes that previous to the film Metropolis, in science fiction "[e]arlier versions of robots were […] semi-magical beings" (44), as they had a personal relation to their makers. Similarly, Robot-Maria is an extension of Rotwang's love for Hel. In this sense, the transformation of the robot into a replica of Maria also carries a magical aura, as if Rotwang were casting a spell. Nonetheless, this sequence does rely on strong technological elements: it is full of machines and devices, Rotwang walks around turning gears and wheels, pulling levers, pushing buttons, checking cables and measuring instruments.

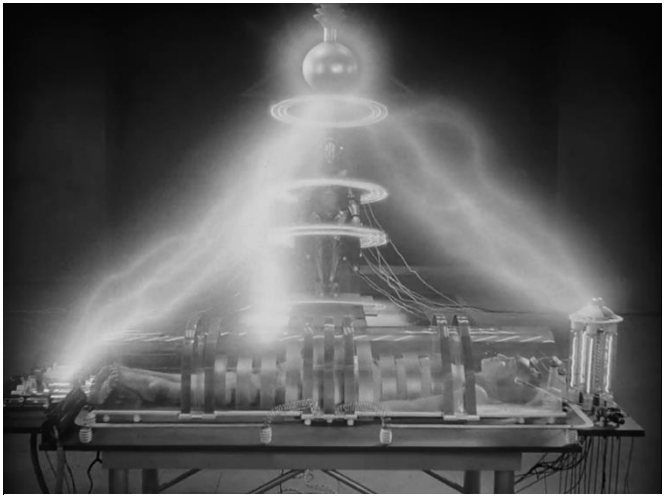

Figure 1.7 – Robot's Transformation – 01:24:51

When the transformation of the robot initiates a supernatural atmosphere floods the sequence through the cinematic effects of dissolves and fast cutting. The camera focuses on the robot, that is sitting on a high chair, like a throne; on top of its head lies an inverted pentagram,[19] beams of cycled lights surround it, going up and down.

[19] A reverse pentagram, as the pentagram in itself, has a number of different meanings, which I do not consider relevant to this discuss, but a wide-known interpretation is its association with evilness and black magic, as an opposition to the pentagram, which symbolizes the human being and its five points (head, arms and legs).

Intense lighting is hitting Maria, who is lying inside a glass chamber (see Figure 1.7). The pace of the cuts increases, Rotwang's speed in adjusting buttons and turning gears also intensifies, followed by extreme close-ups of the bubbling tubes, flashing lights, the potions changing tones, and the shots dissolve one into another. Then a beating heart appears on the robot's chest, followed by luminous veins, and finally, a close on the robot's face gradually fades into Maria's features. The robot opens her eyes, and it is alive. The shot cuts to real Maria, who lets her head fall, as if dead. Rotwang's sorcery and necromancy is done; he is a scientist magician, as Peter Wollen refers to him (46). The robot will now be used as a dangerous tool, enhancing the bewitched force around this technology.

The Moloch is also a dangerous machine, emanating a supernatural power. In the first time Freder sees this machine, it breaks, the explosion throws him to a wall, and he hallucinates. What he sees is a demon that eats humans as sacrifice. At a certain point of his hallucination, the machine resembles an Egyptian statue, similar to the Great Sphinx of Giza. The first humans to climb the stars towards the Sphinx are clearly slaves. They are bold, squalid and tied up by ropes; a reference to the construction of the Egyptian pyramids, and other monuments (see Figure 1.8). The demon's mouth swallows the slaves, who are pushed by the Guards.

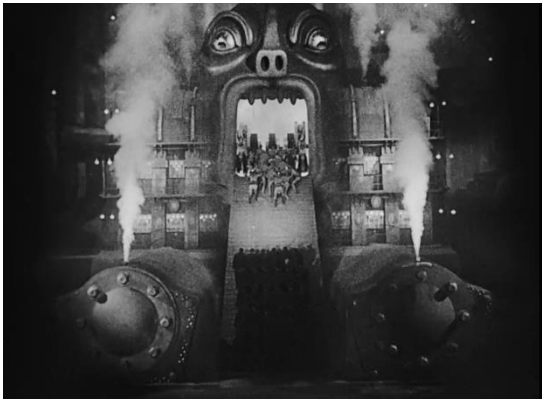

Figure 1.8 – Moloch Machine – 00:15:45

This sequence implies that modernity is even worse with its workers. Following the slaves, the workers go up the stairs, but differently from the slaves, they do not seem to contest their sacrifice; they do not need guards to push them inside the monster's mouth. They march up in an organized pace, complacent with their own death. These modern slaves or laborers are rather too tired to contest or have just given up fighting. Andreas Huyssen summarizes that this sequence "presents technology as an autonomous deified force demanding worship, surrender, and ritual sacrifice" ("The Vamp" 222-3).

Besides this supernatural aura, dystopia also emerges in the film's rendering of the ways in which technology can be used to evil intentions. The Moloch machine swallows the workers as an incarnation of evilness. This is not only part of Freder's hallucination but a metaphor to how the machine enslaves and exhausts the workers. The robot-Maria was also a sorrowful substitute for Rotwang's long lost lover, Hel. However, he changes his mind, and decides to use the robot as a revengeful tool. Such view inverts the human-machine logic, in which the human uses the machine as tool. The inversion is that the human body, the feminine, is used as a tool by the machine.

Another inversion is that while robot-Maria actively incites the workers into an aggressive strike, the workers passively follow the manufacturing machines and the robot. The human is reduced into an object, while the objects gain life. Both indicate the distortions caused by this technological society. Nonetheless, evilness does not arise from the robot, but rather from the patriarchal and revengeful intentions of the scientist Rotwang and the businessman Fredersen (Ruppert, "Fritz" 31) intentionally manipulate the female body and the machine as objects to reach their goals.

The film's imagery of technology is also ambiguous, bearing both utopic and dystopic tendencies. Siegfried Kracauer writes that three of Lang's films, *Metropolis*, *The Spy* (1928) and *The Girl in the Moon* (1929), "dealt with thrilling adventures and technological fantasies symptomatic of the then current machine cult" (149). What Kracauer argues is that despite the negative implication these machines suggest, Lang's reliance on a "pompous ornamentation" of technological icons implies his own fascination with technology. The creation of the robot is the utmost example (see Figures 1.9-1.12). In this sequence, the transformation of the robot becomes a kind of spectacle, which is certainly, if far from realistic, fascinating.

The Heart-Machine also conveys an ambiguous perspective towards technology. When the workers rebel and destroy it, their houses are flooded, putting their children in danger. This machine was preventing the flooding. But Mary K. Leigh argues that the structure of the city "is a calculated move by the masters to make the continued existence of the proletariat dependent upon their enslavement to the machine" (20). The Heart-Machine is actually Fredersen's conscious move to keep the workers enslaved to his system, sustaining the aboveground luxury and preventing the underground flooding.

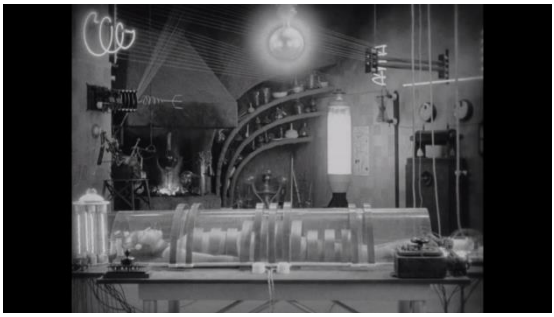

Figure 1.9 – Robot's Transformation

Figure 1.10 – Robot's Transformation

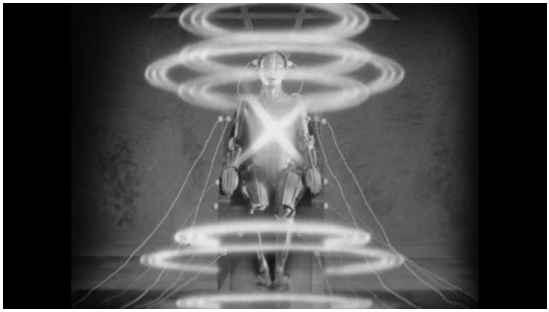

Figure 1.11 – Robot's Transformation

Figure 1.12 – Robot's Transformation

Robot-Maria is also an interesting machine, being destructive in two aspects: as a machine and as a woman, as Wollen explains "[t]echnology and sexuality are condensed in the figure of the robot Maria" (46). The robot would not be able to deceive if it were not a copy of Maria's body. The machine has a harmful end; while the woman body leads to a lustful sin. Huyssen correlates how the idea of a robot out-of-control is extended to the woman out-of-control (*After* 74). Compared to Robot-Maria, Human-Maria represents the other side of womanhood, the motherly figure, who protects instead of harms. Maria as a woman represents redemption; she preaches the workers, she brings them hope, she saves the children from the flood. Huyssen proposes a quite revealing argument[20], that the film's dual position toward technology is similar to the image of the woman ("The Vamp" 224). Maria and her bad cyborg version represent male projections of the virgin and the vamp. Her maternal and solicitous side comes out when she preaches and takes care of the children, while her robot version reflects the rebellions and sexual destructive side, as she leads the workers to an insurgence and men into madness.

Figure 1.13 – Maria as Mother – 00:10:31

Figure 1.14 – Maria as Vamp – 01:41:08

In these oppositional roles, we can see how great an actress Brigitte Helm was. When Robotic Maria dances in such a lustful and provocative way, I cannot but agree with Tom Gunning, who mentions that either Helm "has ball bearings in her joints, some sort of special effect was used, or, alternatively, that there are more mysteries in creation than [we] have yet experienced" (*Films* 72). Figures 1.13 and 1.14 show the two versions of Maria. In the first image, she is shown as being the protective mother, as she holds the defenseless children. In this frame, a hallowed fog focuses her, giving her an angelical aura. The

[20] In his article "The Vamp and the Machine: Technology and Sexuality in Fritz Lang's Metropolis."

second picture shows Maria in the same clothes, looking fantastically perverse, which is more than her eye shadows, but her gestures, her kink smile and her twitching eye.

Within these roles, Patricia Mellencamp states that "the equation of the female body with technology, including sex, represents the female body as special effect" (66). Robot women, like Maria, are literally objects of fascination and spectacle. Annette Michelson has already described a complex relationship between the female body and mechanical reproduction, in which "[T]he female body then comes into focus as the very site of cinema's invention" (20). Michelson's intricate argument is that since the Renaissance the female body has been mapped, fragmented and fetishized; and mechanical reproduction was born within this mode of representation that came out of fetishizing female bodies. The camera's obsession with the women's body is more than a cinematic iconography of repression and desire, as Laura Mulvey describes ("Visual" 843), but the very "fantasmatic ground of cinema" (19). Cinema was born out of the same Renaissance desire to (re)create the perfect woman, as Rotwang trying to recreate Hel in Robot-Maria.

A Tale about Time and Power

To understand *Metropolis*'s modernist interest in time, this subsection analyzes the sequences in which Freder, the main character, hallucinates. This brief sequence is close to the idea of "tales about time" of the modernist narratives. First, he sees the lustful robot-Maria with his father, Fredersen, and thinks she is the real Maria, which affects him so violently that he loses his balance and has hallucinatory visions. This scene begins with Freder losing his sight as he sees exploding lights, then a fog gradually blurs his father and Maria (see Figure 1.15), and what follows is a fast cutting editing composed of fade-ins, fade-outs, superimpositions of faces (see Figure 1.16) and angular lights, which indicate Freder's delusional moment. He then seems to be falling in a never-ending space (see Figure 1.17), and after a cut, he is lying in his bed with his father besides him.

The superimpositions, juxtapositions, and unexpected cross-cuttings destabilize the spectator's coordination of Freder. A metaphorical interpretation enhances the artistic inclination of the film, implying that he is not literally falling, but that his expectations are, and that he is falling to his ruin. The multiple images of Maria and his father infer Freder's new and disappointed perspective over them; as if they had being hiding their malevolent personalities from him. By its turn,

the exploding lights indicate the shock he suffers by this revelation, which has a bombastic effect in his emotions, as he literally struggles to remain standing.

Figure 1.15 – 01:28:43

Figure 1.16 – 01:28:54

The editing of this sequence distorts the spectator's perception of the film. Freder is the focalizer, and as he loses control of himself and his senses the spectator also loses the capacity to coordinate the character in time-space. For instance, the sequence begins in his father's office, he is suddenly falling in a surreal void, and in the next scene, he is lying in his bed. Such composition compresses time, because similar to Freder, the spectator cannot precisely follow the jump cuts. Richard

Figure 1.17 – Freder's Fall – 01;28:59

Murphy describes this uncertainty as a modernist rejection of a classic realistic aesthetic, arguing this aspect as an anti-representational mode of German expressionism (106). In this sense, these hallucination sequences would tend to an avant-garde modernist construction. Despite this dislocation, the spectator does not lose the consciousness of the hallucinatory instance. Therefore the second scene of delusion is what really intrigues me.

The following sequence portrays a similar instance of hallucination. Freder seems to be ill in his bed, when he starts entering in another void of hallucinations and sees robot-Maria dancing in a brothel. The problem is that he again confuses the robot with the real woman. The dislocation and confusion are enhanced since in this delusion, he is not alone. Other men, including his father and Rotwang are also admiring her dance. Later, a friend of Freder confirms the show, implying that the lustful dance actually happened, and that he somehow witnessed it, although he was never there. He was always in his bed. If this collision is a memory of Freder, he is experiencing two temporalities at once. If his mind is in the brothel and his body in bed, then he is in two places at the same time.

Although referring to a later period of films, Deleuze provides a useful analytical tool, referring to this collision of times as incompossible presents. His argument is that the possibility of different presents at the same time separates narration from successive action (*Cinema 2* 101). The movement-image cinema, which comprises time's dependency on action, was replaced by the time-image cinema, in which time can be detached from space and actions can become autonomous. In the latter, narration can be composed of distinct presents and actions. These multiple presents do not compose a parallel universe, rather they comprise different presents happening to different characters, as

mentioned. But these different presents together are "incompossible." Deleuze's example is Robbe-Grillet's work, in which "there is never a succession of passing presents, but a simultaneity of a present of past, a present of present and a present of future, which make time frightening and inexplicable" in films like *Last Year in Marienbad* and *L'Immortelle*. In his words, different presents existing at the same time:

> Abstracts it [narration] from all successive action, as far as it replaces the movement-image with a genuine time-image. Thus, narration will consist of the distribution of different presents to different characters, so that each forms a combination that is plausible and possible in itself, but where all of them together are 'incomposible', and where the inexplicable is thereby maintained and created. (Cinema 2 101)

Freder momentarily presences an incompossible present. When he lives two presents at the same time, being in bed and watching the show, these two moments could not be happening to the same person. Still he feels both. Although, it is true that he is not there, at the cabaret show, he only sees it. Therefore, could Freder be only dreaming or having a vision? The two interpretations are not exclusive, rather, they are both possible: there is a supernatural element in Freder's vision and also a narrative dislocation. Both possibilities emerge in how time and space do not correspond.

Murphy argues that this incompossible present is a narrative dislocation. He understands that classic realist films or classic Hollywood narration provide a reliable narrative authority (109). Nonetheless, *Metropolis*, as a modernist film, lacks a narrative source, "a narrative agent" (Murphy, 106), since its narration is not single and fixed. The spectator cannot distinguish if the perspective over Maria's dance is from Freder's hallucination or from other people. The superimpositions, cross-cutting, and fades enhance this lack of orientation. In fact, the shot that shows many eyes superimposed (see Figure 1.18) gives the clue that both answers are correct, which actually encumbers our capacity to distinguish the narrative source. These eyes seem to come from robot-Maria's dazzled audience, which implies that their different perspectives compose this scene. Moreover, the synecdoche image suggests the fragmentation of the being, which could contribute to madness (see Figure 1.19).

Figure 1.18 - 01:32:34

Figure 1.19 – 01:32:31

Freder is not the only one affected by a hallucination. Robot-Maria's audience is so mesmerized by her sexuality that they are also in trance. The same way she is able to move the workers into a riot later in the film, she now moves these men into madness (see Figure 1.19). The parallel montage shows that while the audience is seeing the show, Freder is hallucinating in bed. In his illusion, he even sees a picture of a demon in the Bible, which is exactly the same as robot-Maria. In the sequence, a statue of death starts moving and playing a flute, which awakes other statues, each representing one of the seven deadly sins. Robot-Maria is the double of the death's statue, as she provokes people to sin. Similar to the statues, she awakes Freder's and the audience's sins. One of the members of the audience even says "all Seven Deadly Sins, on her behalf!" (01:33:22). The supernatural element, that I have noted, also arise from this evilness in robot-Maria, which confuses the characters, distorts the narration and editing, and leads to the spectator's displacement.

The analysis of *Metropolis* demonstrates Neale's argument in "Questions of Genre" that the audience also contributes to the formation of the genre. *Metropolis*'s editing and narration distorts continuity through a time and space displacement. Such distortions generate ambiguities in the spectator, who is not always able to coordinate time and space. In order words, they affect the viewer's consciousness to relate a time to a space. By doing so, the public embodies the characters'

displacement. Similarly to what Ricouer describes in relation to the modernist novels of Woolf, Joyce and Mann, and differently from what the spectator experienced in a realistic aesthetic. In this sense, Murphy concludes that:

> Through the text the audience is confronted with its own lack of knowledge and lack of mastery in the face of a terrifying, technologically-driven and irrational form of modern reality. And the shock produced in the audience is a challenge that not only undermines this traditional expectation of mastering the text but more importantly forces it to confront a psychological reality that upsets the sensible, sheltered, bourgeois construction of the world that the audience inhabits (Murphy 118).

Lastly, *Metropolis* bears a certain fascination with time. Symbols of time appear throughout the film and they are mostly related to power. An example is the double clocks on Fredersen's office (see Figure 1.20). These are peculiar, because none of them are regular clocks. The smaller has 24 marks, while the bigger one has only 10. These clocks appear in the opening sequence, in-between shots of the machines. When the bigger one reaches the 10 o'clock, the factory whistle blows, signing the workers change of shift. They march orderly, their heads down, their clothes worn out, all looking the same. Similar to the GMT, which was created to impose a uniform time, Fredersen's time stripes the workers' individuality. Time is the power to control these men, which cyclically makes him richer, which increases his power. Peter Wollen refers to this as the fordist time, a rationalized and goal oriented time (35). This perspective on time differs from the previous one – which is more experimental and avant-garde – as it tends Futurism's ideas of progress and rational orientation.

A more explicit sequence of time as control is when Freder decides to help one of the workers and takes his place controlling the machine. This machine looks like a clock, and needs to be constantly regulated. When Freder is too tired, bright clock numbers dissolve within the machine (see Figure 1.21), making an explicit reference to time and to Fredersen's office clock. Worker Georgy 11811 (Erwin Biswanger) and Freder's work is to move the machine's pointers as its lights turn up. The operation seems quite random, but the whole idea is that they need to follow up with the machine's rhythm. Elsaesser reminds us that Freder's postures in this sequence recalls Atlas

supporting the Globe or a half-suspended Christ at the cross (*Metropolis* 64). Freder's attempt to follow this machine is a massive effort. In this unhuman sacrifice, men are stripped of their identity and submit to the power of time in Fredersen's greed hands.

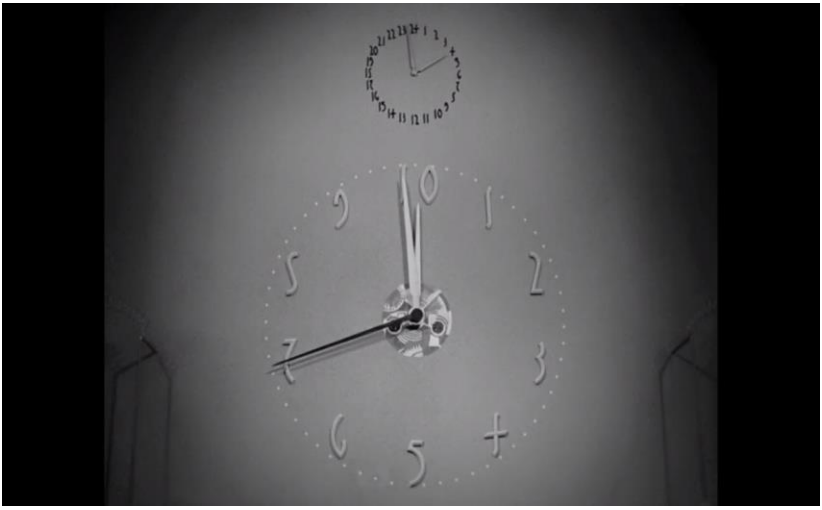

Figure 1.20 – Frederson's Clocks – 00:03:38

Figure 1.21 – Factory's Machine – 00:47:23

These 10-hour clocks that appear throughout the film show that the city of Metropolis has its own time, regulating its own pace. Elsaesser observes the irony and self-referential gesture when Fredersen waiting for Rotwang looks at his 12-hour Swiss watch, showing that

"the master of Metropolis and watchmaker of its universe declares himself both part of his world and standing apart from it" (*Metropolis* 65). *Metropolis* shows that its boundaries are more than space, but time. It is not only the underground or the modern city that separates workers and their employers, but how time is different for them.

Metropolis can be seen as a convoluted example of modernist film, which intricately combines an avant-garde and a Futuristic tendencies. Researcher Anton Kaes takes a different view, but also argues that the machines, woman's emancipation and sexual liberation (in the robot-Maria) and the Fordism critic makes *Metropolis* a modernist film. Kaes concludes that utopian Expressionism is undoubtly part of this film, but that it can be historically explained as a modernist tendency to fight cruel and dehumanizing tendencies of modernity (10). Maybe because of or despite of this ambiguity, Lang's film is an example of popular, or vernacular, modernist science fiction, that becomes a prototype to further science fiction films, to ideas of modern cities, automatized machines, and complex times.

THE POSTMODERNISTS

This chapter analyzes postmodern science fiction films, specifically in its relation to modernism, considering aesthetics and epistemological continuities between modernism and postmodernism rather than its alleged cultural ruptures. The following dialogical discussion of these two periods highlights their similarities and differences, considering their nuances and intertwinements. The postmodern films present a dystopic view of the future, bearing rather nostalgic plots, which is reflected in the films' structural and aesthetic constructions. Two films illustrate these characteristics: *Blade Runner* (1982) by Ridley Scott and *Twelve Monkeys* (1995) by Terry Gilliam. Before analyzing these films, this chapter discusses theoretical frameworks regarding time and postmodernism.

TIME AND THE POSTMODERN PERIOD

Postmodern theorists tend to point out space as a more relevant subject than time. Fredric Jameson, for instance, argues that "it is at least empirically arguable that our daily life, our psychic experience, our cultural languages, are today dominated by categories of space rather than by categories of time, as in the preceding period of high modernism proper" ("Postmodernism" 64). This chapter is an attempt not to dissent from such argument, but rather to add a different dimension to it, to include the importance of time within a discussion on postmodernism.

Despite the emphasis on space, time in postmodernism is seen as accounted in memory and its nostalgic rendering of the past. Jameson himself asserts that "the products of culture have nowhere to turn but to the past: the imitation of dead styles, speech through all the masks and voices stored up in the imaginary museum of a now global cultural" ("Postmodernism" 65). In *Twilight Memories*, Andreas Huyssen proposes a similar idea; he investigates issues of time and memory, because "discussions about postmodernism focused on issues of space, relegat[e] the thematics of time and temporality to an earlier cultural moment of high modernism" (2). Additionally, Linda Hutcheon comes up with the term "historiographical metafiction", which is illustrated by "those well-known and popular novels which are both intensely self-reflexive and yet paradoxically also lay claim to historical events and personages" (*Poetics* 5). But while these theorists focus on the past, this research probes into other aspects of time, its relevance within a

postmodernist context, comprehending its theoretical and cultural aspects.

Firstly, the caesura between modernism and postmodernism is hard to mark. Their intersection is visible in the latter's name. Postmodernism evinces a transition but also a connection, its existence and much of its understanding depends upon its predecessor, since many of postmodernism's qualities relate and respond to modernism's anxieties. Most theorists, as Jameson, Huyssen and David Harvey, are inclined to describe postmodernism from an economic perspective. Their argument is the occurrence of a simultaneous change in capital organization and aesthetic production. For instance, Harvey refers to the economic change from Fordism to flexible accumulation (147), while Jameson mentions the transition from early to late capitalism (55). To Harvey, the economic change is a result of Fordism's rigidity, which he sees as Fordism's most problematic aspect (142). Its system of accumulation and growth reached its apogee in the 60s, the same period in which counter-cultural critics and minority movements started growing (Harvey 139), culminating with "the strike waves and labor disruptions of the period 1968-72" (Harvey 142). Therefore, the 70s and the 80s were a period of economic restructuring and political adjustment, when flexible accumulation emerged (Harvey 145). Harvey explains that "it [flexible accumulation] rests on flexibility with respect to labour processes [flexible hours, sub-contracting, self-employment, temporary and part-time jobs], labour markets [dynamism that allows gigantic corporate power and also small specialized production], products, and patterns of consumption [the exchange of products between different regions increases; the corporations are no longer national but transnational]" (147). Labour and money exchange became more autonomous from governmental or national policies, which led to a growth in the service-sector, to new highly specialized markets and sectors of production, and to a compression in time-space (Harvey 147).

This time-space compression is what interests me in this research project. Harvey's words are that "we have been experiencing, these last two decades, an intense phase of time-space compression that has had a disorienting and disruptive impact upon political-economic practices, the balance of class power, as well as cultural and social life" (284). The main idea is that different social practices bear different time and space notions. Time is compressed because people need to be, to learn, to produce, to arrive, to follow technological improvements faster; space is compressed because of the virtual space and how technology allows us to go to places faster. These social practices arise from emerging

material processes, which, for Harvey, include the creation of new technologies, such as the mobile telephone, the internet, easier access to fast means of transportation–such as cars, subways, airplanes (285).

Corporate industry and global market demand the creation of these new technologies, which end up affecting social relations. In Harvey's words: "Through such mechanisms […] individuals were forced to cope with disposability, novelty, and the prospects for instant obsolescence" (286). Money changes technologies, which alter social relations, which comprise time-space. How this differs from early capitalism is that the mode of production was not so dynamic, and in this way, the changes did not occur as fast as we are witnessing nowadays. The postmodern economic context establishes ephemerality, as a steady change and affects cultural production. Whereas "Fordism […] build upon and contributed to the aesthetic of modernism–particularly the latter's penchant for functionality and efficiency–in very explicit ways" (Harvey 136), in postmodernism, "[w]hat has happened is that aesthetic production today has become integrated into commodity production generally" (Jameson, "Postmodernism" 56). Art becomes a product, and starts being produced as such.

The problematic according to this perspective is that mass production eliminates the cult in art. In the early 20th century, Walter Benjamin already proposed that man-made reproductions hold a sense of uniqueness and aura, while mechanical reproductions lose the same connection with the original and authentic (*Illuminations* 2).[21] A few decades later, Jameson also delivers a sound explanation. His argument is that as mechanical reproduction depletes affect from objects, it also blurs our temporal relation with things ("Postmodernism" 64). In other words, reproduction eliminates the sense of unique, and such uniqueness is dependent on time; repetition trivializes time. Because of this lack of cult value due to a repetitive and mechanical production, postmodern attention deviates from a focus on temporality, since the individual no longer has an affective relation with time.

Time and Future

The waning of affect observed by Jameson leads to a dismissal of time in Postmodernism. The general understanding is that modernism

[21] On the other hand, reproduction enhances economic value; the more Leonardo da Vinci's *Mona Lisa* is copied, the more expensive the original becomes. See Frederic Jameson's "Reification and Utopia in mass culture."

emphasized time, since becoming and the future were relevant issues, Futurism being the model example. Postmodernism seems to lose ground with this perspective, because of its disenchantment towards change and the future. For Harvey, postmodernist loss of faith in the future is due to an emergency of minority discourses that generated an awareness towards injustices and prejudice and a general disillusion towards technology that is seen as no longer being capable of saving humanity (305). Rather, it has contributed to further corruption (Huyssen, *Twilight* 2). Huyssen enumerates some of the catastrophic reasons for such pessimism:

> For this twentieth century was simultaneously a century of indescribable catastrophes and of ferocious hopes, and often enough the hopes themselves ended up legitimizing some dictatorship of the future (the pure race, the classless society, the pacified consumer paradise), turning a blind eye to persecution and mass destruction, voracious exploitation of resources and environment, migrations and dislocations of whole populations to an extent the world had never witnessed before. (*Twilight* 2)

Some science fiction films illustrate this tendency as *Total Recall* (1990) by Paul Verhoeven and *Johnny Mnemonic* (1995) by Robert Longo. Both portray a dystopic future in which technology confuses rather than solves problems, and memories appear to have answers. In the former, Quaid/Hauser (Arnold Schwarzenegger) decides to pay for a vacation memory implant to Mars, because he has constant dreams about this planet. During the experience, he discovers that none of his memories are true; they were erased along with his true identity, and without true memories he is completely lost. In the second film, Johnny (Keanu Reeves) is a data courier, who transports information that is literally uploaded to his brain. He erases his personal memories to protect his family, but is caught in such a dangerous situation that his entire mind could be erased.

This dystopic inclination makes postmodernism a little bit too ironic, too sarcastic, it bears "a strange quasi-Sartrean irony a 'winner loses' logic" (Jameson, "Postmodernism" 57). Therefore, if modernism proposed functionality and efficiency because of a tendency to productivity that was future oriented, than postmodernism cannot cope with this notion anymore. The latter favors a hopeless future, since we

do not seem capable to imagine alternative futures (Huyssen, *Present* 2). Moreover, according to Jameson, an image addicted society– Baudrillard's simulacrum society– based on advertisement, television, film, infinite and undistinguishable copies hinders any future imagination:

> [T]here cannot be but be much that is deplorable and reprehensible in a cultural form of image addiction which, by transforming the past visual mirages, stereotypes or texts, effectively abolishes any practical sense of the future and of the collective project, thereby abandoning the thinking of future change to fantasies of sheer catastrophe and inexplicable cataclysm. ("Postmodernism" 85)

Jameson's explanation on how the future is left behind leads us to the next topic, because as Huyssen states "the future seems to fold itself back into the past" (*Twilight* 8).

Time and Past

If the postmodernist's fictional texts obliterate the future, than a new position towards the past emerges, which, for Huyssen, expresses a fundamental crisis in our imagination: the absence of alternative futures lead to a current memory and history debate (*Present* 2). Jameson refers to this event as pastiche ("Postmodernism" 64) and nostalgia mode ("Postmodernism" 66), in what he observes as "the random cannibalization of all the styles of the past, the play of random stylistic allusion" ("Postmodernism" 66). His argument is that industrial demand of art recycles history into kitsch copies ("Postmodernism" 55), as George Lucas's *American Graffiti* (1973), implying a lack of creativity due to excessive demand and financial interest. This appeal to history substitutes the modernist utopian drive for a postmodern nostalgia.

Jameson's negative perspective on postmodernism can be counter balanced by Hutcheon's perspective. For Hutcheon, postmodern culture is reflexive through subversion, as it criticizes dominant ideas by highlighting multiplicity and border discourses. She writes "The postmodern attempts to negotiate the space between centers and margins in ways that acknowledge difference and its challenge to any supposedly monolithic culture" (*Poetics* 198). This inclusive and multicultural

position questions imperial notions through a revision of history. Hutcheon recalls how postmodern architecture rejects the "ahistorical purism of the modernism of the International Style" (*Politics* 12). She recognizes, however, that postmodern culture is highly concerned with temporality, as it rethinks history. Her proposition of historiographic metafiction de-naturalizes temporality, since it revisits the past through a conscious contemporary perspective. The return of the past exists, but it bears an awareness that can only be accomplished through a contemporary perspective.

Similarly, Huyssen proposes memory as a key issue in the postmodern context, as a central cultural and political concern in Western societies since the 80s, in his words: "the world is being musealized" (*Present* 25). For Huyssen, contemporary society suffers from a hypertrophy of memory, because the faster products improve and become obsolete, the more computer and public memory has to expand (*Present* 22). The products are musealized due to the market's fast innovation. This way, the present is reduced, increasing our hunger for remembering. The speed of change raised by technology, which by its turn was raised by economic demand, has called for memory and musealization.

Huyssen reinstates that it is difficult to elucidate historically if the excess of memory, allowed by technology, leads to forgetting (*Present* 3). One of his hypotheses is that public and private strategies of memorization come from fear of forgetting, due to the massive commodities and instabilities in time, in the very questioning of history. Notwithstanding, he acknowledges that the issue is not simply to criticize cultural industry and point to market commodification as the unique cause of amnesia (*Present* 28). For Huyssen, the threshold between memory and media lies on media as it also creates auratic art–such as photography–and also shapes structures and forms of memory. Such complex and oscillating threshold recalls Benjamin's reading, for whom aura can exist in some situations of mechanical reproduction–those should be carefully and individually analyzed.[22]

Space, Postmodernism and Temporalities

The dystopic postmodern future has led us to a nostalgic empty remembrance. Nonetheless, the past becomes a mixture of our

[22] For further discussion, see Walter Benjamin's article "The work of art in the age of mechanical reproduction".

contemporary anxieties and a recycled and repetitive memory, implying a breakdown of the temporal order. History becomes the result of the present memory and continuity loses relevance. In such a context, Bruno Latour inquires that "[w]e cannot return to the past, to tradition, to repetition, because these great immobile domains are the inverted image of the earth that is no longer promised to us today: progress, permanent revolution, modernization, forward flight. What are we to do, if we can move neither forward nor backward?" (76).

When both future and past are doomed in postmodern art, what seems to remain is a skepticism in relation to time, which results in an iterative present, "a series of pure and unrelated presents" (Jameson, "Postmodernism" 72). Harvey writes that "Eschewing the idea of progress, postmodernism abandons all sense of historical continuity and memory, while simultaneously developing an incredible ability to plunder history and absorb whatever it finds there as some aspect of the present" (54). Everything becomes a somehow distorted reflection of the contemporary. This present orientation conveys a "search for instantaneous impact" (Harvey 59), through the repetition and the simulacrum media guided society, which, for Jameson, culminates in a loss of depth ("Postmodernism"76) and a prevalence of surface or multiple surfaces, often called intertextuality ("Postmodernism"62). We live in "unrelated presents in time" (Jameson, "Postmodernism" 72).

Space gains meaning as time loses ground. The former becomes a way to express the postmodern feelings of fragmentation, pragmatism, schizophrenia, confusion, nostalgia, to mention a few (Jameson, "Postmodernism" 64). Architecture starts offering "some very striking lessons about the originality of postmodern space" (Jameson, "Postmodernism" 80), and exemplifying postmodern main characteristics, as it incorporates the maze feeling of being lost through a media simulacrum and the recycling of the past through a contemporary perspective.

Jameson refers to this postmodern space as a hyperspace ("Postmodernism" 80). This space mutated and transcended "the capacities of the individual human body to locate itself, to organize its immediate surroundings perceptually, and cognitively to map its position in a mappable external world" (Jameson, "Postmodernism" 83). Postmodern hyperspace creates such convoluted and complex environment, that the individual gets lost, similar to how s/he was once confused in high-modernist's loops of time.

BLADE RUNNER

Blade Runner seems to be the postmodern film *par excellence*. Different scholars have already analyzed the postmodern features of multiculturalism, simulacrum, nostalgia, dystopian urbanism, pastiche in Scott's films, such as Giuliana Bruno, Scott Bukatman, Annette Kuhn, Vivian Sobchack and Peter Ruppert. Kuhn curiously informs us that a 1997 survey revealed that *Blade Runner* was "far and away the most widely assigned film" in North American universities and colleges, followed by *2001: A Space Odyssey* and *Metropolis* (*Alien II* 1). In addition, it is an adaptation of *Do Androids Dream of Electronic Sheep?* (1968) by renowned science fiction author Philip K. Dick.

As the exemplary science fiction and postmodern film, *Blade Runner* could not be left out of this research. Nonetheless, this film's popularity among scholars and public opinion hampers its study, since not much can be added to a subject that was so thoroughly and extensively discussed. This chapter attempts to propose new relations and commences a dialogue with other theoretical perspectives about *Blade Runner*.

In its story, Rick Deckard (Harrison Ford) is a blade runner, whose job is to hunt and kill replicants. These are robots, which are so human like, it is utterly hard to distinguish them from humans. They became a problem because Dr. Eldon Tyrell (Joe Turkel), their creator, implanted human emotions, so they would be more stable beings, but this also gave them wishes for autonomy. They are so dangerous that they are not allowed on the planet Earth anymore, used as heavy labor work in other planets. But four of them escape and when Deckard goes after them, he falls in love with Rachael (Sean Young), who is the latest replicant model, and is faced with the question of his own humanity.

Urban Cities

Blade Runner's first shot shows a 2019 Los Angeles. The city is wide, tall, dark, and in flames. It is night and the city is all alight; it does not seem prepared to sleep and shines as the sky. A flying vehicle comes in the direction of the aerial shot, yellow like a New York cab, and a thunder light strikes in the horizon. A cut approximates the camera to the flames, which bursts dominating the frame. This city is not a peaceful place, rather, it is loaded with energy, bursting in every direction. More flying cars pass by and the sequence cuts to an extreme

close shot of an eye, looking at the city, reflecting its dotted lights and flames, and cuts again to the Tyrell pyramidal towers.

Figure 2.1 – Los Angeles in 2019 – 00:03:18

Figure 2.2 – Tyrell's pyramid – 00:03:49

Figure 2.3 – Inside the pyramid building – 00:17:03

Dr. Eldon Tyrell lives and controls his business in these towers, as Fredersen in *Metropolis*. Their pyramidal shape refers to the Egyptian pyramids and the power they express through their size, the amount of money, time and lives spent to build them. But the Egyptian pyramids were not dwelled in, they are like the Taj Mahal, a big mausoleum. The pyramidal shape might also be a foreshadow of Tyrell's doomed and Oedipal destiny, to be killed by his creation, the replicant Roy Batty (Rutger Hauer), in his own bed.

Other Egyptian references also appear evident from the interior of the buildings (see Figure 2.2). When Deckard meets Tyrell and Rachael (Sean Young), who is one of the latest replicant models, in the Tyrell building, the sun is shown at the center of the composition. Its hard light creates shadows on the pillars and reflections on the floor. This frame emphasizes the strong aesthetic appeal of *Blade Runner*, in which Deckard is just another yellowish figure. The composition is valuable in itself, since it is quite different from the commercial emptiness proclaimed by Jameson ("Postmodernism" 60). The sun seems trapped by the composition. Indeed, we hardly see natural lighting during the film, as if it were a luxury item afforded by few. As Deckard says "its too bright in here" (00:18:52).

This opening sequence evinces how these pyramidal towers keep the power of the city, as the New Tower of Babel does in *Metropolis*. These buildings stand out in the city with no comparing authority or power. Both Tyrell's and Joh Fredersen's companies do not emanate a political but an economic and industrial power. This information is relevant to a postmodern reading, since these industrial and commercial powers start regulating society in postmodernism. As Jameson clarifies "every position on postmodernism in culture […] is also at one and the same time, and *necessarily*, an implicitly or explicitly political stance on the nature of multinational capitalism" ("Postmodernism" 55).

Blade Runner's space also evokes a collision of cultures. A bonsai tree lies on Tyrell's desk in his Egyptian like room, Japanese ads interchange with Coca-Cola adds, Deckard has communication problems with his Japanese cook, Roman and Greek columns appear in the city, Atari advertisements share space with Chinese signs, and Deckard's apartment has a Mayan style (Bruno 67). Bruno refers to this combination as "a synthesis of mental architectures," and argues that this is Jameson's spatial pastiche "as an aesthetic of quotation, [it]

incorporates dead styles; it attempts a recollection of the past, of memory, and of history" (67). This research does not focus on the negativity of pastiche, but rather on how this collection of styles could also invite us to rethink alleged notions of postmodernism.

Bruno explains that this synthesis of mental architectures in "the metropolis of *Blade Runner* quotes not only from different spatial structures but from temporal ones as well" (66). Thus, this coalition of cultural references also means a merging of times. This society merges the Mayan with the Egyptian and the high-tech; different periods and cultures with a noir aesthetic, (Staiger, *Alien Zone II* 112). Such diversity leads to Bruno's idea that even if the city is professedly Los Angeles, it could be anywhere else, since "*Blade Runner*'s space of narration bears, superimposed, different and previous orders of time and space" (66).

Similar to *Metropolis*, the city is the main space in *Blade Runner*. Bukatman provides a historical overview of the city's portrayal. He argues that films from the 20s started portraying the city as utopian, but in earlier pictures "utopian aspirations were focused on agrarianism, the city was pictured as a negative space" (*Blade* 42), as F. W. Murnau's *Sunrise* (1921). But then "the alienation and disease of American culture in the 50s, coupled with the postwar white flight from urban centres, yielded science fiction cities that were claustrophobic and isolating, outsized monadic structures sealed off from their surroundings" (Bukatman *Blade* 43), as *Blade Runner*'s dark LA.

An absence of nature reveals a dystopia in relation to the city, where even the humans are replicants. Even the animals that appear–an owl and a snake–are robots. *Blade Runner* has different versions; their most prominent difference is the ending. Nature does emerge as a positive aspect in the "happy ending" version, in which Deckard and Rachael manage to escape the other blade runners as they drive through green landscapes, while his narration informs us that Rachael has no termination date. In the "ambiguous ending" version, the story ends earlier. They are still trying to run away, when he finds an origami unicorn and remembers detective Gaff's line "too bad she won't live, but then again who does?" (01:52:15), the elevator doors close, and the spectator never knows if they managed to run, if she dies, or even if Deckard himself is not a replicant.

Thus, the city is the ultimate landscape of *Blade Runner*, and it is a convoluted one. Bruno argues that "The city of *Blade Runner* is not the ultramodern, rather it is the postmodern city. It is not an orderly layout of skyscrapers and ultracomfortable, hypermechanized interiors.

Rather, it creates an aesthetic of decay, exposing the dark side of technology, the process of disintegration" (66). Similarly, Ruppert acknowledges that "*Blade Runner* evokes in vivid images contemporary anxieties about life in a postindustrial city–images of urban decay, waste, pollution, racism; images that leave us with a sense of the despair and the alienation associated with contemporary American urban life" ("Blade" 8). The crowded and dirt streets of multicultural people create the decay atmosphere. The neon signs, the international ads, and skyscrapers aided by the noir aesthetic (Staiger, *Alien Zone II* 112) construct the urban look to the city, with the constant rain and night time, along with the detective theme story, the hard lighting, dark scenarios, and again Rachael's 40s outfit. Bukatman concludes that "*Blade Runner* is, in many ways, the quintessential city film: it presents urbanism as a lived heterogeneity, an ambiguous environment of fluid spaces and identities" (*Blade* 12).

Bukatman reveals that "[t]he dominant strategy in designing *Blade Runner*'s future was 'retrofitting', which, according to Mead [the film's designer], 'simply means upgrading old machinery or structures by slapping new add-ons to them,'" a steam-punk design. Such an aesthetic enhances the relation between the dystopic future and the present. The latter is somehow responsible for the former's tragedy, which leads to Bukatman's conclusion that "the future[…] is a combination of the new and the very, very used, just like the present: the utopian fantasies of *Things to Come* (1936), with its gleaming new Everytown, are no longer economically, ecologically or politically supportable, even in dreams and fictions" (*Blade* 21).

Lastly, the flat occupied by J. F. Sebastian's (William Sanderson), the replicants' genetic designer, can be compared to Rotwang's house in *Metropolis*. If the latter's laboratory was inside an old-fashioned house to the rest of the film's aesthetic, the former's apartment would work in a similar way. He lives in an old and abandoned building, fully ornamented, but dirty, flooded and not illuminated. Such contrast demonstrates the decaying characteristic described above. As Rotwang, Sebastian is also a scientist, who could not leave Earth–planet Earth seems to be inhabited only by unfortunate ones, poor and deceased–because of his disease, Methuselah syndrome, which makes him looks like sixty, when he is only twenty-five years old. He could not pass the medical exams, and just like the building he was also abandoned.

Replicants

Technology is an ambiguous theme in *Blade Runner*. The previous chapter demonstrated how this theme was charged with a supernatural aura in *Metropolis*, which was also dubious but mostly because of its relation to this mystical aura. *Blade Runner*'s ambiguity is due to a humanization of the cyborg, called the replicant. A comparative analysis between *Metropolis*'s Futura and *Blade Runner*'s replicants shall evince a layer of complexity that postmodern reproduction brought to technology. The analysis of the replicants shall suggest that the future is dystopic and the replicants are nostalgic for a past they never had. Time comes up as a desire, never to be achieved. This postmodern film appears to mourn the loss of time through the replicants.

In terms of technological display, *Blade Runner* can be quite dull. Mainly if compared to *Metropolis*, in which the images of machines, steam, pumps, gears and movement is so important. Even the flying cars, or the small planes that appear along the film are not as impressive as for instance *Back to the Future*'s (1985) DeLorean or the Time Machine in George Pal's classic *The Time Machine* (1960) inspired in H.G. Wells's homonymous novel. There is no propensity to machineries in *Blade Runner*. In opposition, there is a blend in which technology looks organic in the replicants, and not mechanical as robots. Such nomenclature is relevant because robot does recall the ideas of equipment, parts, engine and mechanics. Whereas replicant refers to replication, reverberation, echo, reproduction. Thus, robot in *Blade Runner* is not simply a machine, but it is also a reproduction of a human. As Bruno states the replicants are "a literalization of Baudrillard's theory of postmodernism as the age of simulacra and simulation" (67).

Futura is also a reproduction of a person, Maria. What differentiates her from the replicants is her lack of will. She is simply a vessel to Rotwang and Joh Frederson's malicious intentions. She has no personal goal. The replicants, on the other hand, not only have their own desires, but they also rebel against their masters. As the replicant Pris says "I think Sebastian, therefore I am" (01:17:50). The message throughout the films is that replicants are perfect humans, and if so, they are humans (Ruppert, "Blade" 12). But are there perfect humans? Tyrell's company motto suggests that the answer is no, because replicants are "more human than human" (00:22:03).

The Oedipal relationship between Roy and Tyrell, even if without a mother, for example, shows the conflict between creation and creator

that does not happen in *Metropolis*. Roy searches for his maker to increase his life span. He refers to Tyrell as father, "I want more life, father", and then the latter says "You are the prodigal son" (01:23:52). When the replicant discovers his god's limitations, he kills Tyrell by crushing his skull and poking his eyes. In this Oedipal relation, no guilt hunts the son who killed his own father.

This search for more life and defiant position highlights Roy's human dimension. Not to mention that he also shows sensitivity and empathy towards his hunter. Deckard has just shot Pris dead, but the replicant saves the blade runner from falling the roof top. On the brink of death, Roy ponders about his memories and dies. Saving Deckard signifies that the replicant is more than the machine, that he is not only driven by cruelty and revenge, as we might have thought when he killed Tyrell. His memories also humanize him. After saving Deckard he says "I have seen things you people wouldn't believe. Attack ships on fire off the shoulder of Orion. I watched C-beams glitter in the dark near the Tannhäuser Gate. All those moments will be lost in time like tears in rain. Time to die" (01:47:05). It seems like he prevented Deckard's death to narrate these collection of memories, to show that he feels and understands their beauty, that these lost moments made him sensible, that his fight for more life proves his humanity. The inversion is that the blade runner becomes the cold inhuman, hunting and killing the sensible machines. Another insensible human is Tyrell, who creates replicants with feelings but does not care how they feel; as when he stops talking to Rachael after she discovers what she is.

Another symbolic simile between Roy and Deckard is that both have their right hands injured in this sequence. The replicant's right hand starts hardening because his time is ending. He takes a nail and pierces it to prevent it from closing, a reference to Jesus's crucifixion and sacrifice. Later this same hand lifts Deckard from the edge of the building. Deckard almost falls from the building, because Roy broke his right-hand fingers. Both twisted hands expose their fragility rather as replicant or human.

Another humanized replicant is Zhora. She is running from Deckard among the crowded city of people and cars in a rainy night. He dangerously shoots her among the pedestrians, but he misses. His second attempt hits her and she breaks through glasses of window shops. In this moment, the sequence enters into a slow motion and saxophone music sets the mood. Zhora falls but soon stands up on the broken glass, and starts running. She is hit again, and once more she breaks into other layers of glasses. Her breaking the glasses symbolizes

her breaking invisible walls that separate replicants from humans. They are transparent because utterly they are meaningless. She dies breaking these, because she dies bleeding and suffering, as a human would.

Animals are also reproduction in *Blade Runner*, as Zhora's snake and Tyrell's owl. It is revealing that when Deckard affirms that the owl must be expensive, Rachael answers "very" (00:17:22), and later when he asks if the snake is real, Zhora answers "Of course, it's not real. Think I would be working in a place like this if I could afford a real snake?" (00:54:24). If the reproductions are expensive, the real ones are even more, and apparently rarer as well. Human beings in the sense of *humanized* are also rare in the film.

Other revealing machines are Sebastian's dolls. When Sebastian and Pris enter in his empty apartment, a teddy-bear and a soldier come to greet him, "home again, home again, jiggidy-jig. Good evening J.F" (00:40:53). These little and comic doll robots enhance the critic of the replicants by reminding us their insignificance. To Tyrell, Rachael is as silly a companion as the dolls. Sebastian himself says "I make friends, they are toys. My friends are toys. I make them" (00:40:25). Hence, it is easy to Tyrell to dispose of Rachael, when she realizes her replicant nature, she is not a fun doll anymore. If the replicants are human robots, then these dolls are vintage robots. So similar is Pris to Sebastian's dolls and mannequins that when Deckard is hunting her, she manages to hide among them (see Figure 2.4).

Figure 2.4 – Sebastian's dolls – 01:32:03

The last aspect I analyze in relation to the machines in *Blade Runner* is the Voight-Kampff test. I find intriguing how the method to find a replicant is psychological rather than mechanical. In this test, the interviewer asks questions and evaluates the interviewee's reactions: an empathy test. Tyrell describes that the expected reactions are: "Capillary dilation of the so-called blush response, fluctuation of the pupil, involuntary dilation of the iris" (00:18:17), if the interviewee does not

match these, he or she is most probably a replicant. The implication is that if she or he does not show emotions, she or he does not feel as a human. Nevertheless, it is contradictory how Deckard takes "more than a hundred" to discover that Rachael is a replicant. Does that mean that if he keeps asking a human, he or she will eventually get bored and be spotted as a replicant as well? At the same time, the test cannot select those who are robots, but those who are not humans. This test does not define or have a premise of what a robot should be, which leads to the argument that if the replicants are too similar to humans then they must be humans, because there is no definition of what a replicant is, there is no concept to distinguish a replicant from a human. Again, the film constructs this technological and futuristic world, but without an impulse to machines. The replicants' psychology is more revealing to *Blade Runner* than their mechanical parts, which they do not have. When Zhora and Pris die they bleed because they are biological machines. These replicated humans want more time, future and past, that is lost in reproduction, in repetition, replicants.

Nostalgic Future

The analysis of space in *Blade Runner* exposed a conflation of cultures, Roman, Greek, Egyptian; while technology showed a humanization of machines. This subsection investigates how *Blade Runner*'s time relates to both these aspects space and technology, emphasizing the construction of a future that looks backward, nostalgic (Bukatman 17). Time is again problematized in the search for past and the difficult to envision a future, which does not indicate an emphasis on the present and presentness, rather a loss of time that is translated as a loss of identity.

Blade Runner's nostalgia is unquestionable. Riddley Scott himself commented that "*Blade Runner* is a film set forty years hence, made in the style of forty years ago" (in Bukatman, *Blade* 17), it is a futuristic film, but using a nostalgic aesthetic. Some examples are how Rachael's clothes and hair are a 40's reference, while Pris and Roy have punk styles. It not only recalls the past, but blends different pasts. The future emerges as a convoluted image of previous styles.

More than nostalgia *Blade Runner* also seems to problematize history and memory. The past is then manifested as a difficulty, almost a social pathology, in which the characters are constantly struggling to understand. For instance, in the film's first sequence a blade runner is interviewing a possible replicant, Leon Kowalski (Brion Jones), through

a Voight-Kampff test. In the second question, Leon is asked to "Describe in single words only the good things that come into your mind about your mother." His response is at first doubt: "my mother?," then he says "let me tell you about my mother" and shoots the interviewer (00:07:10). Such violent reaction shows how Leon does not have a good "emotional response" to remembering. A mother implies a past, and as a replicant he does not have one. The figure of a mother represents history, which is denied to replicants. Indeed, Tyrell explains that he has added memories to the new models as Rachael:

> We began to recognize in them a strange obsession, after all they are emotionally inexperienced, with only a few years in which to store up the experiences which you and I take for granted. If we gift them with a past, we create a cushion or a pillow for their emotions, then consequently we can control them better. (00:22:30)

What Tyrell informs us is that without a history replicants are unstable. They cannot cope with their emotions, which explains Leon's reaction to such a simple question. Similarly, Rachael suspects she is a replicant, she goes to Deckard and shows him photos of her mother in a desperate attempt to confirm that which she cannot, her own existence. Deckard then repeats two of her most intimate and old memories, when she played doctor with her brother and a spider she saw as a kid. These stories turn out to be implanted memories of Tyrell's niece. Even the past that she regards as hers is somebody else's. Rachael cries, because maybe she is as human as a human can be. When both Leon and Rachael are faced with their lack of history they suffer as humans do, turning the Pinocchio machines into real people.

Photographs are also used in the film for a reliance on the past. They are reproductions of reality as the replicants are. When Rachael brings her mother's pictures to Deckard, they should be a proof of her childhood, however, they are not. They can be as fake as she is. These pictures do not hold the past but they are rather projections of her desire to have a past, a pure nostalgic feeling. Within this perspective, the photos at Deckard's apartment increase our suspicion about the possibility of him being a replicant. On the other hand, neither Tyrell nor Sebastian have pictures in their homes. Instead they have robots. In this reading, the machines would search for identity in memories as

Roy, and the past as Rachael, while humans lose theirs while making machines that are more human than themselves.

Another interesting photo appears when Deckard is hunting for Leon. The blade runner looks for clues on a picture that he zooms and moves in a screen. This sequence clearly quotes Michelangelo Antonioni's *Blow-up* sequence, in which the photographer Thomas discovers a crime through enlarging and revealing the same picture. When Deckard examines this picture, he finds a little mirror, in which through an enhancing process he finds a woman replicant. This questionable discovery, rather than contradicting technological possibilities, reveals that photos can also correspond to reality, and lead to facts, even if it is a deep hidden true.

Time is also problematized in Sebastian's disease. He has Methuselah syndrome, which makes him look like a sixty years old man, even though he is only twenty-five. Such disease approximates Sebastian to the replicants, as Roy says "We have got a lot in common" and Pris finishes "accelerated decrepitude" (01:18:20). They all need more time, which also mean that some of the humans are very alike the replicants.

Time is the replicants' major problem. Roy is not only trying to escape and live his four-year life in peace. He is trying to expand his life. Roy wants a future, while Rachael is searching for her past. In this context, Ruppert acknowledges that "Paradoxically, then, it is their desire for a meaningful past and for an unlimited future that replicants invoke the only utopian potential of this degraded, indeed fallen, world" ("Blade" 12). *Blade Runner* is mostly dystopic, and that the possibility of utopia emerges from the hopes and expectations of these machines, which are in fact already quite doomed. Ruppert acknowledges this search for time as a critic to a system that could bring so much utopian possibilities through such technology, but that only functions to strengthen dystopian failures ("Blade" 12).

Blade Runner represents the future, but it is a tomorrow strongly linked to the past in the replicants' need for history and the city's retrofitting aesthetic. The future in itself is doomed, there is no way out of the dystopia. What remains are lost characters in search for identity. In this sense, Bruno considers that "The replicant affirms a new form of temporality, that of schizophrenic vertigo. This is the temporality of postmodernism's new age of the machine" (69), meaning that this lack of time, future and past, causes a schizophrenic identity, which as Jameson argues is characteristic of the postmodern period

("Postmodernism" 72), which will be further discussed in the next subsection with *Twelve Monkeys.*

TWELVE MONKEYS

Before introducing *Twelve Monkeys*, let us acknowledge its inspiration Chris Marker's *La Jetée* (1962). The latter is a remarkable short film (28 minutes) about time traveling. The context is a post-apocalyptic World War III, where the Man (Davos Hanich) is sent to the future and the past to save the world. *La Jetée*'s most striking characteristic is its still images, since they highlight time rather than movement in film. The characters do not move because of the "static quality of the images" (Del Rio 383) and what constructs continuity is voice over narration. This short film is an example of Gilles Deleuze's idea of a classic modernist time dislocation, a time-image, and of how the 60s European avant-garde focused on the thematic of time and the forms of temporality. This modernist science fiction inspired Terry Gilliam's postmodern anomaly.

Twelve Monkeys (1995) tells the story of James Cole (Bruce Willis), who is sent back to the past in an attempt to save the future. He lives in a post-apocalyptic future in 2035, in which the few remaining people live in the underground due to a plague that devastated the Earth's population. His time travel objective is to collect information about the virus spread, and not exactly to prevent it from happening as it already had. Cole's conflict begins when he realizes that the past may be a better place to inhabit than his future. To breath the fresh air and walk free on the streets are small pleasures he never felt before; he opts for this past even though, he knows the tragic future is coming.

Underground/Past City?

Twelve Monkeys's space is dystopic and nostalgic at the same time. An analysis of cities' landscapes can reveal much about time in science fiction as this dissertation has previously demonstrated. Different postmodern theorists, such as Jameson ("Postmodernism" 64) and Huyssen (*Present* 2), point to space as the main motif in postmodern fiction. In addition, Staiger already attested to the importance of the cityscape to the science fiction genre. She states that "One of the most immediate signifiers of the genre of science fiction is the representation of a known city," (in *Alien II* 20) whose identity is revealed through its cityscape, but presented with a different atmosphere. *Twelve Monkeys*'s

city illustrates her argument quite well, showing a future and desolated version of Philadelphia with empty buildings, shattered windows, abandoned parks and streets (see Figure 2.5).

Figure 2.5 – Philadelphia in 2035 – 00: 05:54

Figure 2.6 – Philadelphia in 1996 – 01:51:11

This 2035 Philadelphia is a deserted and destroyed city. The initial sequence shows this dystopic feeling in how dead branches occupy the inside of the buildings, animals run free in the city, a lion appears on a rooftop, a bear roars at Cole and an owl is watching him, no humans inhabit this space. This devastated city echoes Huyssen's concept that in the postmodern period the future is no longer a space for illusions, it rather becomes a time for desolation (*Present* 6). Such description contrasts heavily with the modern, illuminated and utopic city of Metropolis. Modernism also tended to imagine utopic cities, while *Twelve Monkeys*'s dystopic Philadelphia and *Blade Runner*'s Los Angeles are specific references of our contemporary world. The modernist dreams appear not to fit into our world, but the catastrophies of postmodernism are actually too close to our history and need to be

transversed into futuristic tales not to become historical reproductions.[23] Utopia constructs a broad and generalized future, as if optimism cannot be too specific. Otherwise, it will fail.

Cole's plastic suit also reminds us of other futuristic suits–as Cabal's in *Things to Come*. The difference is that the former's suit is for protection against the plague, while the latter's expresses his modernity. Cole's transparent suit reflects his dystopic future; it should be a protection against the outside germs, but it is made of plastic and looks quite fragile. Ultimately, the abandoned Philadelphia and Cole's delicate suit do not only point to the decay of the space, but also the decline of society in itself. They represent what it used to be, a prosperous city, and what it has become, a plastic suit in a disposable person.

Such decaying and dystopic society is also evident in how the surface city was abandoned and substituted by a subterranean city. Not only was the city devastated, but people were forced to live underground. This belowground city is dark, rusted and dirty, prisoners, including Cole, live in prison cells that resemble animal cages. Ian Christie cleverly argues that the "subterranean connotes the subhuman" (168) in *Twelve Monkeys.* Even if both below and ground level cities are dystopic. The former is worse; because if the latter is empty and dominated by nature, the other one is claustrophobic and metallic. The close shots intensify this feeling of being imprisoned, and the grey and brown rusted colors pervade in the screen. This Philadelphia confirms Hutcheon's statement that postmodern architecture "has called into question the messianic faith of modernism, the faith that technical innovation and purity of form can assure social order" (*Politics* 12). The metallic, electronic and future city do not recall progress but imprisonment.

The cityscape of Philadelphia also seems to emphasize an auratic atmosphere in both its contemporary and future images, which raises the film's nostalgia. When Cole time travels to the past, he is soon put in a hospice, because he says he is from the future and a virus will end humanity. There, he meets Jeffrey Goines (Brad Pitt), who is a bit crazy,

[23] Jerry Herron provides a useful example of how Detroit and other American metropolis decayed since the late 60s, when they were abandoned by the middle class due to the riots at that point. For a detailed reading see Jerry Herron's *Afterculture: Detroit and the Humiliation of History* and "The Forgetting Machine: Notes Toward a History of Detroit," *Places Journal*, January 2012. Accessed 19 Nov 2015. <https://placesjournal.org/article/the-forgetting-machine-notes-toward-a-history-of-detroit/>.

but takes animal rights as a serious business. By the end of the film, the latter frees the zoo animals and locks his father, a scientist who experiments on animals in one of the zoo cages. This explains why animals run lose in the future city. The images of the giraffes and elephants running in the highways (see Figure 2.6) and the birds flying through the skyscrapers compose quite lyrical frames. The animals, somehow, do not seem lost or confused, but they are harmonically part of the composition. An aesthetic attractiveness emerges from this subversive mix of animals and civilization in both the 2035 and 1996 Philadelphia's. Such positive emotional charge shows that *Twelve Monkeys*'s nostalgia appears not only in the plot's time travelling to the past, but also in its frames.

In addition, both Philadelphia's are in the winter time, and their snow contributes to the nostalgic feeling. Its whiteness illuminates the frames, which strongly contrast with the subterranean dark shots. Other colors are also revealing. The future city has a blue color filter, enhancing the loneliness and emptiness (see Figure 2.5). While the contemporary one has a red and purple color, which by contrast implies the city's movement and warmth (see Figure 2.6).

Twelve Monkeys's 90s Philadelphia also presents dangerous, dirty and unpleasant spaces, which can be as dystopic as *Brazil* or *Dark City*. For example, the hospice does not favor its patients; it rather looks quite confining and pent-up with its rounded walls and low ceiling. Furthermore, when Cole escapes the hospice and takes his psychiatrist, Dr. Kathryn Railly (Madeleine Stowe), as hostage, they go through a Philadelphia with dirty alleys, graphite walls, homeless people and abandoned buildings. They even hide in the Globe Hotel, where one pays "Thirty-five bucks an hour" (01:35:20), as the desk man informs.

Figure 2.7 – Decadent hotel – 01:36:29

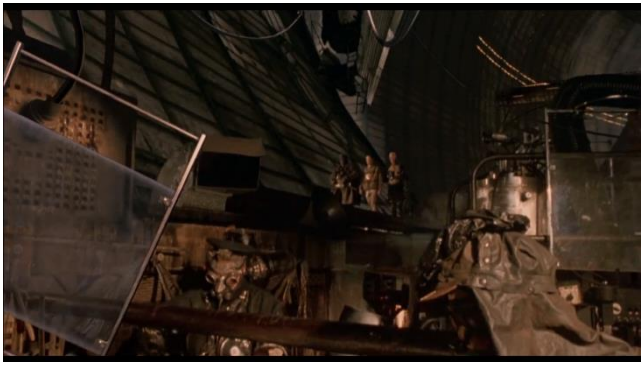

Figure 2.8 – Underground future world – 00:08:56

This hotel also reveals a decadent nostalgia, as the building seems to belong to a more glamorous and heavily ornamented period, maybe the 1920s and 1930s. The walls are dirty and stained but are also tall and stylized, the furniture is an antique not preserved, the place needs to be dusted. Ironically, Cole reveals that he wants to stay in this shabby past, which, because of its lack of upkeep, reminds much of the future's hopelessness. This hotel suggests nostalgia, but apparently one that cannot be recovered, one that is lost among the prostitutes and pimps. Coles's attitude informs that even this decadent past is better than his time.

As a matter of curiosity, the Globe Hotel is a real reference, as well as the Ridgeway library building (now Philadelphia High school for creative and Performing Art). In the film, the latter is also covered in graffiti, surrounded by trash, clothes hanging, thus implying that homeless people are living under its shelter as kids play on rotten mattress on the grass. These buildings foreshadow Earth's doomed destiny and evince Gilliam's critic of a decaying present. As Staiger argues "the mise-en-scène of cities in sf [science fiction] might be understood as utopian commentaries about the hopes and failures of today or, inversely, dystopian propositions, implicit criticisms of modern urban life and the economic system that produces it" (in *Alien Zone II* 22).

While the city figures as nostalgia, nature emerges as a positive element. When Cole and Kathryn are in the forest, he demonstrates this optimism towards nature, saying "I love seeing the sun" (01:09:25) and "I could live right here, you got water, air, stars, debris […] I love the frogs, the spiders" (01:18:10). Ironically, when he wakes up in the future, he is looking at a beautiful landscape with a river in-between rock cliffs, deers on the bottom, trees along the river bank, and a blue

and yellow sky indicates that the sun is rising. But this idyllic landscape forged in a painting hanging on the ceiling that only enhances the dystopic feeling towards what the future can offer him. Cole has just discovered where the virus comes from–although the information is wrong–and all he can get is a reproduction of nature, a group of scientists singing because he told them he likes music, and a pardon for previous crimes that looks like a diploma. This lack of nature also indicates the strong eco-activism discourse of the film, that is also present in Jeffrey's Army of the Twelve Monkeys act of freeing the zoo animals.

Like *Metropolis, Twelve Monkeys* also has a mad scientist and a laboratory where he can exercise his madness. The film's irony is how Cole and Jeffrey are considered crazy and locked in the hospice, while the true mad man is in a laboratory. Such inversion demonstrates a disbelief in science, or in knowledge as Western society understands it, a stable, undeniable and proved information, which resonates Horkheimer and Adorno's denial of positivism and science in *The Dialectic of Enlightenment*. Adding to this, Peter Marks also observed that "*Twelve Monkeys* generally questions the certainties and motivations of science and scientists" (167). Cole exhibits schizophrenic behavior, which is enhanced by camera movements. When he is trying to convince his psychiatrists that he is from the future, he is hysterical. The camera twists and extreme close-ups of his face intensify as his behavior becomes more and more aggressive.

Other moments also point to Jeffrey as the spokesperson of the film. In several moments, he says thought provoking and relevant arguments, which agrees with the disbelief in an all-governing knowledge and reduces information to points of view. Such perspective deconstructs certainties, creates space for a sureness in doubt and an understanding that truth is constructed and consequently relative. Such idea relates to a poststructuralism thinking. Theorist Catherine Belsey explains that "common sense itself is ideologically and discursively constructed, rooted in a specific historical situation, and operating in conjunction with a particular social formation" (2), and Hutcheon clarifies that "for Lyotard postmodernity is characterized by no grand totalizing narrative, but by smaller and multiple narratives which seek no universalizing stabilization or legitimation" (*Politics* 24). As Jeffrey summarizes "there is no right. There is no wrong. There is only popular opinion" (00:27:40). *Twelve Monkeys* foregrounds fragmented views of reality, destabilization of reason, science and teleological certainties.

Surveillance Machines

Like humans, machines also play a revealing role in the construction, or rather disorientation, of space in *Twelve Monkeys*. When the future scientists interview Cole, a machine that looks like a big eye intermediates their dialogue. Many small screens showing different scenes compose this technology (see Figure 2.9), it also moves as a rotating eye or a crane camera. Undoubtedly, this is the most interesting technological device represented in this film. Elana del Rio argues that "[b]y holding in a simultaneous, multiple image events that belong to different spatiotemporal contexts, the rotating eye collapses the irreducible difference of these events under its commanding gaze" (391). The small screens in this big eye condense different vision on the same space, which infers surveillance. The main character is followed no matter where or in what time he is. The camera movement in this sequence highlights the voyeurism feeling as its move accompanies the eye move in speed and direction, which reminds the spectator that he or she is also gazing. These eyes on the television screen are similar to the famous *Nineteen Eighty-Four*'s Big Brother and the Alpha-60 computer in *Alphaville*, who watch everything. The screen emphasizes the feeling of being watched.

Del Rio also explains that this rotating eye "exemplifies the persistent attempt of Western metaphysics to coerce temporality – the unmanageable force of difference, mystery, death – into a manageable and stable picture" (391). The many screens indeed converge time and space into one and reduce multiple times into a disturbing single temporality; the machine is almost a Frankenstein monster, showing different and shattered parts of people. Ironically, the scientists that are projected in the small screens are not far from Cole, they are right behind the eye (see Figure 2.10). But they merge into the machines, which contributes to the distant and cold relation towards Cole. This apparatus functions as an extension of the scientists, who, in a way, become androids.

This Western attempt to rationalize time into an understandable and steady force is rather unfortunate, because this eye is clearly imperfect, "an improvised piece that registers the surveillance-determined world of the future" (Marks 169), build out of scraps, and as all the rest of the future equipment in this film. This idea recalls the notion of a Frankenstein, joining different and mismatching parts of people and technology. Another example of improvised technology is the time travel machine, which looks fragile and is also made of plastic,

as Cole's suit in the opening sequence. This machine does not resemble H.G. Wells's glamorous time machine, or any complex full of buttons and handles space ship, as Doctor Who's Tardis, it is more like a plastic disposal bag. These recycled machines rather than implying an environmental consciousness suggest dystopia and the prevalence of the old in the future, as if the past cannot be overcame. *Twelve Monkeys*'s underground world is made of remains, garbage, left overs, and so does the future, which explains why they have to travel backwards in time: it is hard to forget the past if the characters still live among its debris.

Figure 2.9 – 00:40:33

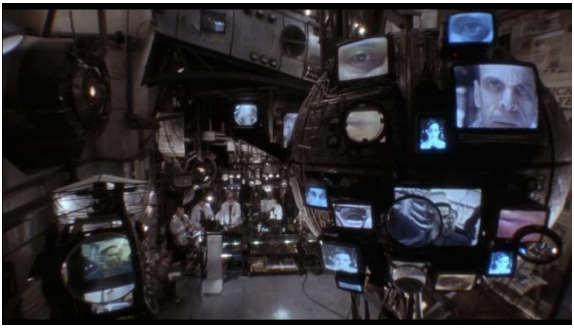

Figure 2.10 – 00:41:53

Media is another significant issue in *Twelve Monkeys*. The news and television are everywhere in this film and the characters pay attention to them constantly. But they are deceitful. The radio, for instance, informs that a boy disappeared, but the spectator later discovers it was just a prank. Another sequence shows Cole and Kathryn fighting, then cuts to a newsman in a television set announcing that

Kathryn's probable body was found, but the next shot shows she is locked in a car trunk. This misleading trait is metareferential, because the film's plot also deceives us to believe the Army of the Twelve Monkeys spread the virus, but by the end we discover they did not. As the characters believe on television, we believe on the film screen and we are all fooled.

Figure 2.11 – 00:40:22

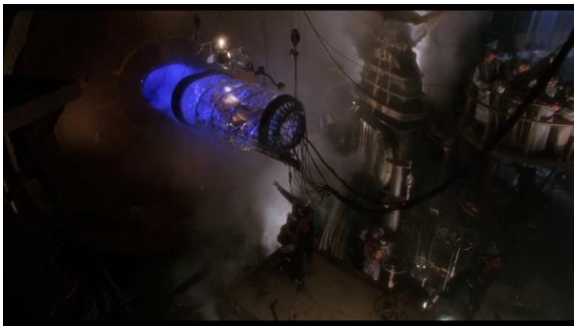

Figure 2.12 – 00:43:19

Information abounds but mostly misleading ones. For example, a homeless man seems to be right when describing people watching and following Cole and Kathryn but he turns out to be just another crazy person. Christie proposes that "the film is very much about the twentieth century's inundation of information and about deciphering what among all the noise and imagery is useful and important in our life" (228). The prologue lines are also distrustful, as Marks notices (162). The message is slowly typed in green letters accompanied by a typing machine sound: "…5 million people will die from a deadly virus in 1997… the survivors will abandon the surface of the planet… once again the animals will rule the world…" Then a white phrase appears, as a reference source and

disavows the previous one: "Excerpts from interview with clinically diagnosed paranoid schizophrenic, April 12, 1990 – Baltimore County Hospital." From the beginning the prologue tells the spectators not to trust in first impressions.

Although technology plays a major role in science fiction films– Kuhn states the hand in hand of science fiction as the familiar icons of "spaceship, robots and aliens" (*Alien Zone II* 4)–*Twelve Monkeys* does not focus on these icons. Such characteristic appears to relate to its nostalgic view, which rather emphasizes disbelief in the future and a longing for the past. Within this understanding, human psychology is more revealing to this story than the possibilities of new technologies. Identity is in crisis, schizophrenic as Jameson argues ("Postmodernism" 71), because it lacks a historical reference, or it suffers from an excess of information, which is deceitful and confusing.

Twelve Monkeys's plot reveals a disbelief in science, which relates to how the plot highlights human perception rather than technological issues. *Twelve Monkeys*'s scientists are somehow worse than Rotwang. The latter might be mad because of a past love affair, but he is still a genius. The 2035 group of scientists have no real clue about what they are doing. They get caught into loops of wrong information, they are portrayed as caricature characters, and the last sequence shows that Jones, who is the leader of the group, was an insurance person before the virus. She actually greets and holds the hand of the other mad scientist who releases the disease. The "insurance" title is at least ironic, in how she is far from insuring a better future to society. Thus, the film questions the authorial figure, and the science behind it. Kathryn doubts the legitimacy of her own profession, saying "What we say is the truth is what everybody accepts right? Psychiatry, it is the latest religion, we decide what is right and wrong, we decide who is crazy or not. I am in trouble here, I am losing my faith" (01:23:41).

This exaggerated data is the apocalyptic plague that causes psychological breaks as Cole's schizophrenia. In this context, Cole is a monkey experiment (see Figures 2.13 and 2.14), who is washed, caged, drugged, experimented on, and is involuntary volunteered. This plague of misinformation leads to an inversion of how people and animals are treated. The humans have to inhabit the underground, the animals reign sovereign on the surface, untouched by the virus, or when Jeffrey's political act locks his father in a zoo cage and frees the animals. The latter says in his extreme and sometimes crazy but always assertive statements: "We are all monkeys" (00:29:47).

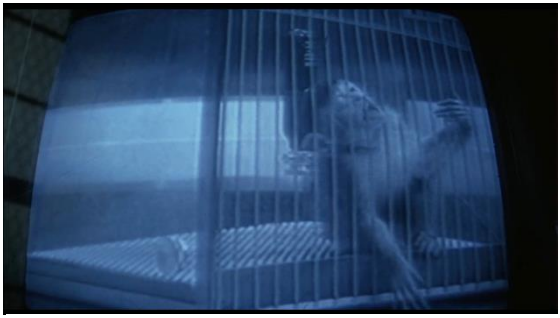

Figure 2.13 – 00:29:28

Figure 2.14 – 00:13:16

Hopelessness Past

Time confusion and atmosphere of insanity contributes to a feeling of displacement and misunderstanding that pervades in *Twelve Monkeys*. This feeling creates an affect relation with the viewer, who follows Cole's point of view and is as tricked as the character.

Time travelling is not a quite precise science in *Twelve Monkeys*. The very "efficient" group of scientist sends Cole to the wrong period twice. First he is sent to 1990, which is too early for his mission and he ends up in the hospice and taken as crazy. In the second time he is sent to 1917 in the middle of World War I, and is shot – completely random time. In the third time he is finally sent to 1996, before the contamination of the virus. A dialogue between Cole and his psychiatrists in the asylum exemplifies this time confusion:

> Psychiatrist 1: "We are not in the present now Mr. Cole?"
> Cole: "No, 1990 is the past, this already happened"

> Psychiatrist 2: "Mr. Cole, you believe 1996 is the present then, is that it?"
> Cole: "No, 1996 is the past too…"

This dialogue reveals how the concept of time is a forward direction. Although, Cole can time travel, he cannot affect or change time and history, as Marty McFly and Dr. Emmett in *Back to the Future* or the robot Terminator in *The Terminator*. Such understanding shows a strong sense of a doomed future, which cannot be fixed, the dystopia feeling is stronger if there is no reversal or change. This one direction time is a succession of inevitable events, and it contributes to the cyclical narrative of the film.

Cole has difficulties in locating time. The film's cyclical story is that when he was a child, he saw a murder in an airport, and he repeatedly dreams about it. As an adult he time travels and realizes he saw his own death, which is happening again, but from this adult point of view. The past becomes part of the present, as his memory happens again. On the other hand, the future is such a picturesque scenario, the characters are so stereotyped that he might be dreaming about the future in as much as he dreams about the airport scene.

Such difficulty in locating oneself temporally contributes to the characters' schizophrenia. Jameson argues that schizophrenia is part of the postmodern syndrome, while hysteria relates to a modernist sickness.[24] Schizophrenia emerges from the postmodern instability or/and lack of references. Jameson borrows Lacan's idea on how meaning is constructed through the interaction between signifier and signified, when this chain breaks, "we have schizophrenia in the form of a rubble or distinct and unrelated signifiers" ("Postmodernism" 72). Jameson concludes that:

> The connection between this kind of linguistic malfunction and the psyche of the schizophrenic may then be grasped by way of a two-fold proposition: first, that personal identity is itself the effect of a certain temporal unification of past and

[24] "The great Warhol figures—Marilyn herself, or Edie Sedgewick—the notorious burn-out and self-destruction cases of the ending 1960s, and the great dominant experiences of drugs and schizophrenia—these would seem to have little enough in common anymore, either with the hysterics and neurotics of Freud's own day, or with those canonical experiences of radical isolation and solitude, anomie, private revolt, Van Gogh-type madness, which dominated the period of high modernism" ("Postmodernism" 63).

> future with the present before me; and second, that such active temporal unification is itself a function of language, or better still of the sentence, as it moves along its hermeneutic circle through time. If we are unable to unify the past, present and future of the sentence, then we are similarly unable to unify the past, present and future of our own biographical experience or psychic life. ("Postmodernism" 72)

Thus, the individual's identity depends on an understanding of time as past, present and future. In its turn, this temporal unification, chain, emerges from language, from how we arrange it. Consequently, language helps us organize time, and as such, our own temporality. But when the sequence of time breaks, when the chain of signifiers snaps or when the signifiers and signified do not match, our identity is bound to a state of schizophrenia, as we lose a stable temporal sense.

This time confusion is Cole's exact problem. When he travels to the past and does not want to come back is his attempt to recuperate the past and his own identity. His time travelling leads him to confusion. When he returns to the past a second time, and when Kathryn starts believing him, he stops believing in himself and thinks he is mad. Losing a stable temporality affects his identity, leading to a schizophrenic state.

Despite of this schizophrenic perspective, Del Rio argues that *Twelve Monkeys* resources to a spatial-time (385), or, to use Deleuze's term, a movement-image. Meaning that the film follows a Hollywood tradition in which time is spatialized, it is reduced to a stable and fixed narrative. The film's plot can be arranged in a well-organized sequence, in which actions lead to responses. Time becomes a set of sequenced actions and attached to its specific space. In this respect, Del Rio criticizes the film:

> Such containment of time in the interests of linearity and closure is accepted as the norm in the majority of Hollywood films. Yet for a narrative of time travel such as Twelve Monkeys to engage in a similar spatial conversion of time speaks loudly and clearly to the fact that main stream cinema is uniformly and unconsciously colonized by a metaphysical world-view that coerces all

> imaginative possibilities into a single and homogeneous product (385).

La Jetée presents a linear and closed narrative, although it does emphasize non-spatialized time with its still images. Del Rio provides an insightful explanation comparing these two films. While Cole's claim that he is from the future is interpreted as insanity; in *La Jetée* "the psychic reality is no less effective and productive than the measurable, external world" (386). In other words, *Twelve Monkeys* reasons the time disruption as madness, while the photoroman – Chris Marker's own term according to Paul Coates (310) – does not attempt to rationalize the difference between these past and future realities, psychological and physical experiences, or to consider "presence and absence as a distinction between two ontological categories" (Del Rio 387); they are their own ontological realities. If The Man from the photoroman time travels in his mind it does not mean it is less physical or real.

Therefore, the circular narrative contributes to *Twelve Monkeys*'s epistemological representation. As Cole explains to the psychiatrists the past cannot be changed, it already happened. But he attempts to escape with Kathryn in a hope that he might be crazy or that the tragic future will not come. What he accomplishes is nothing more than expected. His recurrent dream is a memory, which returns in this schizophrenic life. Such looped plot confirms that time cannot be changed, since it is logical. One event leads to the next, they are concatenated into a sequence that is time, bound to space that describes time's path. Even if Cole tries, he will always be walking towards his destiny. This mind-game plot, to use Elsaesser's term, which deceives the viewers and looks for clues, is the sensibility that Del Rio might not grasp in her expectance of a time disruption.

Within this loop narrative, Lashmet interprets that Cole might be the carrier of the cure (70). When he was a child he saw the virus being spread, but he somehow survived. His final death dismisses a hopeful end. Such interpretation leads to the reading of his time-traveling, and his possible schizophrenia as a consequence of that childhood memory. This temporal disruption allows him to have two temporal experiences of the same incident, which shows how a chronological time can be bound to experience and perception. Cole's repeated dreams about a memory evince a longing for the past, but this memory is his death, a trauma from the future, an anticipation of the past. An iterative existence that cannot be changed.

Twelve Monkeys's problematization of time relates to the contemporary context of its production. When I refer to the "past" in *Twelve Monkeys*, I am actually referring to the film's contemporary period; the film was released in 1995 and Cole returns to 1996. Thus, a twist of this film is that the hopes are not necessarily in the past as Huyssen argues, but rather in the present, in the contemporary moment of the film production. The scenario in which the main character finds shelter and comfort is the present. The film's social uneasiness also highlights animal experimentation, which became popular in the 90s (*About Animal Testing*). Dolly, the cloned sheep, for instance was born in 1996, a year after the film release. The infectious diseases and its media attention were also heated issues. New York's Central Park was closed in 2000 because of a mosquito carrying the West Nile virus, SARS appeared in Hong Kong as a pandemic from 2002 to 2003, the avian flu (H5N1) reached Europe in 2005, and the swine flu (H1N1) spread in spring 2009. I do not defend that the number of infectious diseases increased, but that the western consciousness in relation to them has increased. This consciousness raises a state of alert and discomfort, which reflects much of the film's concerns.

This chapter demonstrated how time in postmodern film tends to nostalgia, which relates to a disposable invested society. The next chapter shall examine how time in contemporary films is an immersion in the virtual world.

THE POST-POSTMODERNISTS?

This chapter analyses how recent science fiction films have been shaped by a different theoretical concept in what critical theory has called post-cinematic (Steven Shaviro), pseudo-postmodern (Alan Kirby) or even post-postmodern films (Linda Hutcheon). Contemporary science fiction films appear to have a distinct approach to postmodern aspects as nostalgia, dystopia and emphasis on space. Frederic Jameson's, Linda Hutcheon's and Andreas Huyssen's arguments that postmodern fiction is concerned with nostalgic and/or space oriented narratives do not seem to fit into films like *Source Code* (2013) by Duncan Jones and *Interstellar* (2014) by Christopher Nolan. These later science fiction films focus on a notion of the present period, and emphasize concepts of time in their narrative construction and cinematic resources. New digital possibilities appear to be its main cause. This chapter begins discussing the issues that have put postmodernism into question, followed by three subchapters: a theoretical overview of contemporary cinema, a discussion of *Source Code* and another of *Interstellar*.

POSTMODERNISM?

This research hypothesizes that contemporary science fiction time might be a prolongation and an effect of the postmodern condition. Therefore, it does assimilate the term postmodernism, but it also considers its implications. Along the last chapter, I have given preference to the adjective "postmodern" instead of the noun "postmodernism", because apparently theoretical discussion is still far from achieving an agreement. The noun would infer a finished discussion or a term that has a settled meaning. As a matter of fact, some theorists, such as Russell West-Pavlov, do not even observe a real break between modernism and postmodernism. He states for instance that technologies such as the internet, mobile phones, and Skype, "are not genuinely postmodern to the extent that they merely evince the intensification of trends present in modernity from the outset" (140), which implies postmodernism as "an accelerated, intensified form" (West-Pavlov 151) of modernism, and not as an autonomous movement.

In the same direction, Bruno Latour states that we have never even been modern when emphatically declaring that "no one has ever been modern. Modernity has never begun. There has never been a modern world" (47). Such statement is explained with the argument that

modernity is grounded on a contradiction: the distinction between nature and man. Nevertheless, this dichotomy creates *hybrids*, which demonstrates that science, politics, nature, among others compose a delicate and intertwined complex of touching subjects. An example is the ozone hole, which is not only about how nature is being destroyed, but also how capital production has contributed to this destruction. The contradiction is that the more we try to separate, the more hybrids are created, since they dependent on each other. Thus, if modernity does not exist, neither does postmodernism, "the hint of ludicrous that always accompanies postmodern thinkers; they claim to come after a time that has not even started!" (Latour 47).

Despite these arguments, this dissertation corroborates with theorists who agree with the postmodern time and whose observance of an effective break between the modernist and postmodernist periods helps distinguishing conceptual tendencies from one movement into another. In fact, postmodernism not only existed but Linda Hutcheon officially declares its death in the 2002 article "Postmodern Afterthoughts." The upheaval of pastiche, nostalgia, and consumerism is now *démodé*. As she writes "The postmodern moment has passed, even if some of its discursive strategies and most of its ideological critique continue to live on – as do those of modernism – in our contemporary twenty-first century world" ("Postmodern" 11). Among the most striking reasons to this alleged death is "its pragmatic limitations in actual interventionist arenas" ("Postmodern" 6), losing space to theories as queer, postcolonial and feminism. Other issues is that Postmodernism was always accused of its American-ness, maleness and whiteness ("Postmodern" 7-8), even if we can find examples of Latin American and European postmodern writers (Gabriel García Márquez and Umberto Eco), woman postmodern writers (Angela Carter and Margaret Atwood) and postmodern Native American writers (Leslie Marmon Silko). Nonetheless, the postmodern death does not devalue its discussion, since there is still "space for debate" (Malpas 1). But some obvious questions emerge as what has been happening in the beginning of twenty-first century; how it differs from postmodernism; what has caused such changes. This dissertation has presented a chronological discussion from modernism to postmodernism in an attempt not to answers but to pose these questions. In this way, the following subsection introduces recent theoretical discussions about the "descendants" of postmodernism.

POST-POSTMODERNISM?

By the end of Hutcheon's article on the death of postmodernism, she proclaims "Post-postmodernism needs its own label" ("Postmodern" 11). In search of this label, Alan Kirby proposes the emergence of Pseudo-modernism, Garrett Stewart refers to a Postfilmic moment in cinema studies, while Steven Shaviro names a Post-Continuity film. Although these approaches are different, they offer significant aspects to this research. Because they point to the emergence of digital technologies as a main cause for this cultural break, since digitalization offers new possibilities of engagement with the world. I observe, for instance, a clear distinction between analogue and digital technologies, in how they affect our understanding of time differently. Take for instance how big companies like Apple do not demand a fixed schedule from its employees anymore, who can work from home or go to work whenever he/she can, and how you can go to 24-hour supermarkets, gyms, restaurants, hospitals. In such context, the individual no longer bounds to time, as the 9-to-5 worker once did, this contemporary person does not suffer from the imposed universal time as Clarissa did in *Mrs. Dalloway*, but he/she is lost or challenges the value of a chronological time as the character Pierre Menard from Jorge Luis Borges's short story "Pierre Menard, Autor del Quijote". Thus, this study engages in a careful analysis of the mentioned propositions, more interested in their content than in their nomenclature.

Kirby's proposition–pseudomodernism–agrees with Hutcheon's argument, stating that we have already outgrown the postmodern age, and we are now in the *pseudo-modernism*.[25] He explains that "Pseudo-modernism includes all television or radio programmes or parts of programmes, all 'texts', *whose content and dynamics are invented or directed by the participating viewer or listener*" (32). In other words, the participation of the audience, reader or public allowed by new technologies characterizes the pseudo-modernism. For instance, when watching a movie I like to have my I-pad with me and check the actors, the soundtrack, the scenarios, I pause, go forward and backwards in the movie, in doing so I have a personal interaction with the movie, which is reconfigured through my experience. Kirby exemplifies his thesis with

[25] Later, Kirby reformulated his thesis, and renamed it the digimodernism period in his book *Digimodernism: How new technologies dismantle the Postmodern and reconfigure our culture*.

contemporary programs, which are built upon the audience's participation directly or through emails and text messages. Such relation is not just interactivity, but the viewer or listener is understood as a segment of the program. Kirby's theory of pseudo-modernism leads to a further point: the representation of reality. We are really entering the digital world, when the audience composes the shows.

Kirby's observation about this new participatory audience, which changes the public's point of view from outsiders to insiders, also relate to other media. For instance, the video-games' virtual world have improved considerably, providing an even more emerging reality to its players, while the internet has allowed and demanded a more engaging participation. 4Chan, Reddit, Twitter, Facebook, Youtube and blogs changed the way information is spread. The big news companies still exist and still dominate information and its propagation, but these new websites have opened space to the common citizen, who is integrated into media. I would suggest that even phenomena like the 2014 *selfies* relate to immediacy (Bolter and Grusin 315), in which the media is so immersive, that the consumer starts seeing himself or herself as part of it. One of the consequences is a blurring of boundaries between the real and the virtual, raising questions about our ontological realities.[26] Before continuing the discussion of this new cultural tendency, I present a brief explanation on ontology, since it provides a possible alternative to contemporary science fiction films.

AN ONTOLOGICAL REALITY

This research has attempted to point further alternatives to how contemporary film has been dealing with time, which would be more than postmodernism's lack of interest in time and focus on space. For instance, Mitchum Huehls proposes that recent literature also focuses on temporality, and it does so by creating new temporal experiences, "ambivalent temporalities" (8). This research's particular position is that recent films have not only deconstructed time and space, but also disallowed any possibility of coordination, thus, presenting a radical experience in which one's concept of ontology (one's very notion of being) is also shattered. Although David Harvey (339) and Brian

[26] Jean Baudrillard's idea on simulacrum (see *Simulacra and Simulation*, 1981) does relate to this ontological perspective, but I understand the latter as beyond simulation. The copy is no longer the issue, as in Philip K. Dick's *A Scanner Darkly* (1977), but rather if anything real to copy exists.

McHale (180) have already observed that postmodernism presents a concern for ontology, the radical experience provided by recent films question the very notion of ontology. Therefore, this brief section discusses an ontology that, although it is still linked to postmodernism, it is a radicalization and eradication of such notion.

Postmodernist perspectives of ontology react against the modernist belief that an individual can reach the "truth" about the world if he/she observes it carefully, as in an epistemological discovery. This position holds that a real world exists, and we can trust our perception to comprehend it. In this sense one can understand the very notion of epiphany, so dear to modernist writers such as James Joyce and Virginia Woolf. Will Moore describes that "Postmodern thinkers are bothered by the implication of modern ontology that since there is one world out there, and observation is not problematic, then there is only one reasonable interpretation of the world" (4). The postmodern position is that humans comprehend the world, and that each one, or each group, comprehends it differently; the predominant views are those formulated by more powerful or skilled people, who are able to impose their position over less fortunate ones. A universal time, for example, was implemented into the entire world because it was an interest of the market, of industry owners, of countries (West-Pavlov 16), but it may not work for farmers and fishermen who live a different kind of time, a cyclical time, for instance.

Annemarie Mol clarifies postmodern ontology as a practice, performed by the individual. In a political ontology, reality does not precede practice, but reality is molded through these practices (Mol 1). In other words, the way people act and think construct reality, as it is not something fixed, or even real. The consequence is that reality is *made*, and can be localized historically, culturally and materially. Since we *perform* reality, as we act upon it, it becomes reali*ties* that can collide and complement one another (Mol 4).

To Kirby, postmodernism only questions "reality", and that what he refers to as *pseudo-modernism* constructs reality through the audience: "Whereas postmodernism called 'reality' into question, pseudo-modernism defines the real implicitly as myself, now, 'interacting' with its texts" (33). I do not fully embrace Kirby's pseudo-modernism, but his differentiation is relevant. If reality is once again constructed by the self in its interaction with the text, then we have the recuperation of the personal time, and space.

I hypothesize that this personal time does not collide with the universal one, as in the modernist period; when Clarissa internal time

from *Mrs. Dalloway* could never fit into the social demands around her. Now, personal time is accepted and integrated into the social digital and virtual world. Modernism showed the problem, Postmodernism questioned and tried to escape it in nostalgia, and post-postmodernism embraced the problem/confusion. If this personal time generates multiple times, then it also constructs undistinguishable spaces and realities. Therefore, the issue does not seem to be if reality proper was dissolved, but rather that it has been constructed through the individual's perspective on time and space.

POST-CONTINUITY, POSTFILMIC CINEMA(?)

The questioning of postmodernism, confirming its end or denying its existence, has overlapped with a change in cinema. In this section, I discuss theoretical perspectives on the relation between digitalization and film, which does not aim at how this medium can evolve or hybridize, but rather on how this relationship affects time on film. Shaviro states a new tendency in Hollywood cinema in which digitalization plays a major role in the twentieth first century (*Postcinematic* 2). He argues that the transition from analogue to digitalization transformed the film media, which has become post-cinematic (*Postcinematic* 2). Such transformation does not mean the end of cinema but a change in focus; if before film was a cultural dominant over television, now the digital, computer, video-game world dominates cinema. Similarly, David Rodowick notices how digital worlds and computer gaming is at the core of narratives such as *The Matrix, Thirteenth Floor* and *eXistenZ* (*Virtual* 4). The intertwinement of different media emerges as a key feature of this digital cinema.

One of the main changes observed by Shaviro is editing continuity (*Postcinematic* 77). David Bordwell already theorized such tendency as "intensified continuity," in which the classic Hollywood rules of editing continuity are intensified. Although his perspective is not the most innovative thinking, his pragmatic readings are useful. To Bordwell, the Hollywood system of editing has not changed, only some of its devices slightly differ (*Way* 119), such as faster editing, exceeding the 180° degree line, less establishing shots, and more close-up shots. The viewer is not expected to fully comprehend the space of the sequence, but to experience the strong and fast intensity of the action scenes (Bordwell, *Way* 188).

Shaviro has a more radical stand, as he observes these changes as key parts of the post-cinematic. The intensified continuity is "a radical

aesthetic 'regime change.' The New Hollywood of the 1970s may just have 'intensified' the conventions of continuity editing; but the Hollywood of today has exploded them, and reached the point of what I will call a stylistic of *post-continuity*" (Shaviro, *Postcinematic* 123). Such explosion relates to how trailers fast editing predominate in every action sequence. Further explaining post-continuity, Shaviro writes:

> [I]t's not that we don't read anymore, but rather that reading itself has been recontextualized, and subsumed within a broader multimedia/audiovisual environment. In the same way, it is not that continuity rules are always being violated or ignored; nor are the films made in their absence simply chaotic. Rather, we are in a "post-continuity" situation when continuity has ceased to be important — or at least has ceased to be as important as it used to be. (Shaviro, "Post-Continuity")

Soundtrack seems to be the guiding element in these disorienting sequences. In traditional analogue cinema, sound works as "a support for the images, giving them emotional resonance and a guarantee of (seeming) naturalism" (Shaviro, *Postcinematic* 80). But in post-continuity cinema, soundtrack provides the continuity effect, while the image illustrates the sound, "sound now operates overtly instead of covertly" (Shaviro, *Postcinematic* 80). Nonetheless, these post-continuity moments do not prevail, and contemporary films still present many moments in which the Hollywood continuity editing patterns are carefully obeyed.

Pursuing the same topic, Stewart tries to understand time in this digital cinema. He compares recent films' manipulation of time, especially American science fiction, to European humanistic films. His main idea is that what Christopher Nolan's *Memento* (2000) does in relation to time and special effects is not quite distinct than what the French Nouvelle Vague did in the 60s. In doing so, Stewart relays on Gilles Deleuze's theory of time-image, since this concept focuses on European avant-garde, proposing a time that predominates over space, that is not spatialized, nor manipulated by movement, his pure time: duration.

Stewart refers to this last decade films as postfilmic, because they do not relay on the materiality of the filmstrip. Recent cinema's digitalization invalidates the moving frames that once constructed the

idea of cinema. These films do not use the movement criticized by Deleuze, the movement of the frames or the images that move, which generates moving images. The consequence is a "framed time", instead of time framed, as Deleuze would explain movement-image films. In Stewart words:

> Increasingly, the temporal transit (mechanical) of the image, frame by frame, gives way to its temporal transformation (electronic) within the frame. This is obvious enough. What isn't, or not without some further reflection, is the frequency with which the latter phenomenon is not only facilitated but inscribed by certain film plots of fantastic time travel. […] Framed time is a narrative inflection as well as a psychic topography operating across various genres. Its effect draws on the new cultural dispensation of virtual space and time as much as on any specific digital instrumentation. (Framed 2)

What Stewart proposes is that digital cinema constructs a different cinematography, through a narratography,[27] instead of narratology, as he prefers. The possibility of new special effects affects not only the form of cinema, the technical way it is constructed, but also its narrative. Therefore, fantasy narratives have paid a special relation to temporal twists. Stewart also argues how supernatural narratives, such as *Donnie Darko* (2001) or *The Others* (2001), resort to time subverting through special effects, but do not use technology as theme, "virtual as a psychological rather than a technological issue" (*Framed* 173). To demonstrate this tendency, he analyzes moments in which plot and special effects converge, that is when narratography prevails over narratology. An example is when Donnie Darko, who has psychological breaks, time travels, *temportation*,[28] in a zoomed tunnel. The psychology and fantasy of the character combines with zoom special effects. In doing so, he connects narrative to form, and technology to story.

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[27] Stewart explains that "[i]n this book, then, it is the writing on narrative's graphic effects, either lexical or filmic or now electronic, their category of study (rather than the writing in and by them of screen effects), that the term narratography is meant to help focus" (*Framed* 22). Narratology maps as in 2D, narratography charts as in 3D, which means that the latter is more sociological and culturally driven, considering technological and formals aspects as well.

[28] Garrett Stewart's term to time travel (*Framed* 205).

Stewart explains that his time-image is a version of Deleuze's, although not exactly the same. The digital cinema constructs a "timespace-image," a spatialized time, but not in the movement sense attached to Deleuze's idea (Stewart, *Framed* 205). It enables time to differ or detach from movement, since it does not depend on frames that move. In such new movement-image, or rather timespace-image, temporal categories such as past, present and future are looser in the sense that they do not demand a chronological order. Their independence allows the inborn to know his future as in *The Butterfly Effect* (2004). In other words, this digital technology, in which the action of the characters does not depend on the movement of the frames, configures a time and space autonomous of movement, and enables non-chronological narratives. Stewart's explanation is that:

> In the maturation of the cinematic medium, movement first implied time, then figured it as the troped import of the framed image. Now time often defers to movement. Temportation [to time travel] throws over the virtual time-image for that new movement-image I have been identifying as the (com)mutable figure of timespace, where past and future are willed into a motility and plasticity all their own. And where temporality, once having been spatialized, can itself be morphed. (*Framed* 205)

Such distinction between time-image and timespace-image helps elucidate the difference between European film's and American science fiction's experimentations with time. The first conveys Deleuze's time-image, the *durée* of a time that does not emerge from movement or space. The second explores Stewart's timespace-image, in which time and *space* are independent of movement, the frames' movement. The issue is not simply that American science fiction stretches Deleuze's time-image. They are, for example, drastically culturally different. Stewart points that Deleuze's time-image relates to "modernism's unique way of giving fictive form to a cultural understanding of consciousness" (*Framed* 209). In this way, modernism's time-image connects to memory, projection, mind, and consciousness; it is strongly bound to the subject, and to his or her perception, as when Freder confuses robot-Maria and hallucinates in *Metropolis*. When postmodern thinking emerged, it questioned not only the individual's consciousness,

but also his or her own existence, as the replicants' and humans' ontological differences in *Blade Runner*.

To Thomas Elsaesser, the difference between the American contemporary cinema and the humanistic European is basically their context of production, since "cinematic storytelling has in general become more intricate, complex, unsettling, and this not only in the traditionally difficult categories of European auteur and art films, but right across the spectrum of mainstream cinema, event-movies/blockbusters, indie-films, not forgetting (HBO-financed) television" ("Mind-Game" 19). Shaviro also compares such violation of continuity with the 60s European cinematography, especially the Nouvelle Vague, and finds unmistaken similarities. The difference is that violations "were at the center of a film like Godard's *Breathless* more than half a century ago. Today, neither the use of continuity rules nor their violation is at the center of the audience's experience any longer" (Shaviro, *Postcinematic* 2008).

Thus, modernist time-image is epistemological and the time instabilities are mental related, subjective. While Hollywood fantasies do "so within circumscribed stories that, again and again, surprise us with a revelation before dismissing it from all urgency within the mechanisms of the unreal: the fact that all is artifice or delusion, posthumous or electronic" (Stewart, *Framed* 209). Contemporary Hollywood films, especially science fiction, tends to an ontological proposition, rather than an epistemological view, in which no reality is real, or all realities are real. Chris Marker's *La Jetée* never questions if the future is real or not, if the time-travel is possible, or if the past is virtual. After ten days of experiments with time travelling, the voice-over narration describes "a real room, real children, real birds, real cats, real tombs." This French short film from the early 60s built in photomontage does not problematize the possibility of reality; it epistemologically takes it for granted. Even if its technological resource inquires on the movement of the image, even if its photo roman technique emphasizes how time in conventional cinema may depend on movement, and how in this particular case time is literally freed from movement, since the images do not move in the photomontage. The spectator does not see a "man walking", but rather a still man, in a position of walking.

Following this perspective, Rodowick observes a "strange effect of the curious ontology of digital worlds": the loss of *durée* (*Virtual* 171). Similary, the cinematographer Babette Mangolte wonders "why is it so difficult for a digital image to communicate duration?" (263).

Rodowick explains that since "nothing [physically] *moves*" in the digital world, "the sense of time as *la durée* gives way to simple duration or to the 'real time' of a continuous present" (*Virtual* 171). A perpetual present seems to substitute *durée*, as a time that lingers, instead of a time that lasts. Such substitution appears to wave the emotional possibilities of time.[29]

Mangolte acknowledges that digital has no sense of time because there is no 24 frames per second, as analog cinema, time is then in the layers of digital image. She describes that "[t]ime is not transformation anymore, [it] is inscribed in layers on a set screen with bit-size slots. When you dig into these bit-size shots to see what is there, you find bits of time memory one on top of the other without chronology. You travel through time now by traveling through layers of pixels" (264). But it is precisely these layers of the digital that allow the intricate and complex constructions of time, since the "silver-based film is structured by time as entropy, therefore unrepeatable" (264) in the passing time from one frame to the next.

Shaviro explains that such loss of emotional time, or *durée*, aligns with Mark Fisher's idea of *capitalist realism*, in which capitalism becomes the ultimate social constraint, being easier to imagine the end of the world than of capitalism. In such world, the future cannot escape dystopia, since it cannot avoid the repetitive empty commodity relations. The result is that "[i]n capitalist realism, duration implodes; it shrinks down to a dimensionless, infinitesimal point. Time is emptied out, or whittled away" (Shaviro, *Postcinematic* 88). But this empty time of capitalism in digital cinema is not necessarily negative. As Shaviro proposes "if we have lost a certain humanist pathos of lived duration, in return we have gained the sheer profusion and density of 'real-time' innovation and invention" (*Postcinematic* 87). As mentioned, this real time condenses into a continuous present.

Elsaesser reinforces Stewart's and Shaviro's arguments in favor of a post-continuity or post-cinematic cinema and points that even themes seem to become more intricate ("Mind-Game" 19). To Elsaesser, some recent films construct mind-game stories. They present "a delight in disorienting or misleading spectators" ("Mind-Game" 15), proposing "new forms of spectator-engagement and new forms of audience-address" ("Mind-Game" 16), due to an apparently crisis in the

[29] Maria Pramaggiore argues that aesthetics of time can contribute to the production of emotions, and critical thinking. See *Making Time in Stanley Kubrick`s Barry Lyndon*, 2014.

voyeuristic relation, in which the audience expects more than simply watching, but participating at some level as in Kirby's argument. Once more, "the changes brought by digitalization" (Elsaesser, "Mind-Game" 17) are in the core of the possible explanations. These films address diverse issues, including "epistemological problems (how do we know what we know) and ontological doubts (about other worlds, other minds) that are in the mainstream of the kinds of philosophical inquiry focused on human consciousness, the mind and the brain, multiple realities or possible worlds" (Elsaesser, "Mind-Game" 15). Christopher Nolan's *Inception* (2010), for example, plays with the characters' ontological world in the possibility of living in one's dream and also plays with the viewers' narrative expectations of finding the truth of the story.

Shaviro's explanation of the relation between space and time in continuity further contributes to Elsaesser's: to the former, continuity structures "work to provide a certain sense of spatial orientation, and to regularize the flow of time." He explains that "[i]n classical continuity styles, space is a fixed and rigid container, which remains the same no matter what goes on in the narrative; and time flows linearly, and at a uniform rate" ("Post-Continuity"). *Things to Come*'s (William Cameron Menzies, 1936) narrative, for example, unrolls in the city of Everytown. This city transforms and evolves through a period of one hundred years, becoming more relevant than the characters or a character in itself, and being an example of a fixed space where narrative is constructed upon through the layers of time. On the other hand, in post-cinematic films, "plot is no longer stabilized by temporal progression […] the 'new cinema'—as innovative as it is involuntarily caught up in historical change—has arrived at a point of temporal crisis where 'chronos is sickness itself'" (*Postcinematic* 166-7). In other words, chronology becomes the disease. This sick chronos transverses into the mind-game stories, and reiterate Stewart's idea that the digital form changes the narrative content. In investigating *Source Code* and *Interstellar*, I hope to illustrate the flexibility of space and a non-linear or not-fixed time, and how these forms relate to the assimilation of the digital into the film's narrative and structure. Before investigating the films, the following subsection presents one last aspect that contributes to this new cinema and its framed time.

THE INDEX ISSUE

A recurrent theme in critical views of digital image is the loss of the index (Mulvey 18). The photographic index is the referent, the real objective that is projected through light into a virtual image; indexical signs "are causally or existentially connected to their referents" (Prince 28) or "an index […] is a sign produced by the 'thing' it represents" (Mulvey 9). Lev Manovich defines that "Cinema emerged out of the same impulse which engendered naturalism, court stenography and wax museums. Cinema is the art of the index; it is an attempt to make art out of a footprint" (250). Such idea is strongly bound to André Bazin's notion of a realistic cinema, which defends film as a way to preserve the time and space of an event, to put "faith in reality" (43) and to not manipulate the image.

But computer graphics have achieved a sound ability to simulate reality without any sort of indexical relation, which led some to question if this is really cinema. Tom Gunning counter-argues and explains that the index does not differentiate analogue from digital cinema, as "the indexical and digital need not to be opposed" ("What's" 44). Analogue photo does not mean transparency and lack of mediation or manipulation, in as much as, digital recording does not mean a lack of referent (Gunning, "What's" 40). For Gunning, the difference lies on storage, on how the digital transforms images into numerical data, but the ultimate results of both are similar. His argument is hard to deny in relation to a realistic aesthetic cinema, which is only trying to copy the world. But other genres, which are trying to create new worlds, appear to benefit greatly from the digital.

Similarly, Rodowick finds a useful solution to the issue of index. His focus is not on the strict relation between the object and its image, their indexical relation, but on how computer processing transforms images into number. The result is that "the process of quantification or numerization is irreversible, which is another way of saying that inputs and outputs are discontinuous in digital information" (*Virtual* 119). Digital technology changed picture into information.

Intriguingly, Rodowick notices that despite its many aesthetic possibilities most digital processes are channeled into realistic images (*Virtual* 11), thus appealing for an indexical quality of the image. Indeed, in the article "Realism and the Digital Image," W.J.T. Mitchell argues that digital is used mostly to optimize instead of challenge or subvert ideas of credible images. Mulvey remembers that this might be a transitional moment, "in which both technologies coexist, in which the

aesthetic of the digital still thinks with the idea of the index" (21). But this realistic expectation does not apply to science fiction and fantasy films, which attempt to extrapolate realism into imaginary spaces. In such narratives, the detachment from a realistic aesthetic allows digital cinema to be "less indexical and more iconic" (Rodowick, *Virtual* 123).[30]

The discontinuity between the input, what is registered, and output, what is processed and results, displaces the indexical value of the image onto the symbolic. Following this perspective, the possibility of a change in narrative because of the digital would emphasize the iconicity of the graphic images rather than realism. Stephen Prince's concept of perceptual realism enhances science fiction's iconic tendency. He explains that the notion of a realistic image is a matter of perception instead of a referent (28). Think for instance of *Jurassic Park*'s dinosaurs that look impressively real, although we have no visual register of dinosaurs, they might as well have been purple instead of green.

This ability to create incredible perceptual realistic films leads Mulvey to recognize the lyricism behind the digital image: "In the 1990s digital technology brought back the human element and man-made illusions" (19). Adding to this, Manovich compares digital composition to painting. Digital as an animation cinema, as a return to a hand-made craft instead of simply mechanic. This return to cinema as a manual art traverses Walter Benjamin's[31] argument of film as a mechanical art, which might have lost an aura, bringing new theoretical perspectives to the study of cinema. It also explains science fiction film's capacity to seduce its audience through the special effects (Kuhn *Alien* 7), rather than the narrative twists, reiterating the value of the image in itself. In Manovich words:

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[30] In here, Rodowick refers to philosopher C.S. Peirce's theory of signs in which the latter differentiates icon, index and symbol. Stam, Burgoyne and Flitterman-Lewis explain that "The iconic sign represents its object by means of similarity or resemblance; the relation between sign and interpretant is mainly one of likeness, as in the case of portraits, diagrams, statues, and on an aural level, onomatopoeic words […] An indexical sign involves a causal, existential link between sign and interpretant, as in the case of a weather cock, or of a barometer or of smoke as signifying the existence of fire […] A symbolic sign, finally, involves an entirely conventional link between sign and interpretant, as is the case in the majority of the words forming part of 'natural languages'" (5-6).

[31] "The work of art in the age of mechanical reproduction."

> The manual construction of images in digital cinema represents a return to nineteenth century pre-cinematic practices, when images were hand-painted and hand-animated. At the turn of the twentieth century, cinema was to delegate these manual techniques to animation and define itself as a recording medium. As cinema enters the digital age, these techniques are again becoming the commonplace in the filmmaking process. Consequently, cinema can no longer be clearly distinguished from animation. It is no longer an indexical media technology but, rather, a sub-genre of painting. (Manovich 250)

Mulvey presents a further relevant argument, in which she revises Raymond Bellour's concept of the pensive spectator. The latter proposes that the stillness within the moving image creates a "pensive spectator," who reflects on cinema, since he/she becomes conscious of his/her role as a viewer. Mulvey suggests that "with the spread of digital technologies this kind of fragmentation of film [such as delay, repetition, return, mostly observed in experimental avant-garde cinematographers as Kiarostami] has become easier to put into practice" (144). Consequently, digital cinema can contribute to the delay cinema, which inspires the pensive spectator (Mulvey 186). I want to further stretch this idea, proposing that the fascination generated by the special effects and its narrative pause in science fiction films can also generate pensive spectators. They are not only dazed by the image, but can also brood on the visual implications of the computer graphic images.

In sum, Deleuze's pure time is reconfigured in the post-postmodern American science fiction. If before it was an uncommon aesthetic value to Hollywood cinema, now it becomes a recurrent practice, morphing into Stewart's timespace-image, detached from the literal movement of the filmstrip. Although this time perpetuates in a different cultural context, it still maintains similar aesthetic purposes of creating pensive spectators. The special effects call attention to the cinematic device and experience, causing what Paul Willemen refers to as an inflated narrator (11). The time of this post-cinema relates to digitalization, culturally and technologically, because although a sense of duration, *durée,* implodes, the layers of the digital allows a framed time that, as I hope to demonstrate next, creates Huels's "ambivalent temporalities" (8) in science fiction films.

SOURCE CODE

In analyzing *Source Code*, I expect to demonstrate how its representation of time reflects on the ontological relation between reality and digital reality, as it constructs a different concept of time within science fiction genre. Such duality is possible through the elaboration of a virtual world, which allows existence beyond one's own body, time and space. Captain Stevens, the main character, confronts his disabled condition and dystopic world, reconfiguring the digital, and not the future, into a utopic possibility. Chronos sickness emerges in an iterative present, which is hunted by the past and defies the future, while a malleable and multiple space predominates. As before, I begin discussing space, then I move to the portrayal of technology and how it relates to our contemporary digital world, and finish with the subject of time.

Source Code tells the tale of the American soldier Captain Colter Stevens (Jake Gyllenhaal), who is trapped in what seems to be a spaceship cabin or a training room. Within this room, he talks to his instructor Captain Colleen Goodwin (Vera Farmiga) through a video chat; she puts him in a virtual simulation (sim). His mission is to discover the bomber of a train before it explodes. Every time he fails, the bomb explodes, and Goodwin sends him back to the beginning of the simulation. But Captain Stevens is not comfortable in this apparent training section, he wants to leave it, and soon discovers that, despite being virtual, its consequences can still be real.

Data Worlds

Different layers of virtuality compose space in *Source Code*. The narrative reveals three main layers of existence, which superimpose and fold into each; they correspond to the different realities Captain Stevens finds along the film. The first is Captain Goodwin's control room. The second is where Captain Stevens is locked in what looks like a spaceship cabin, the capsule. The third is the simulation where the latter travels to, the train. This convoluted space tricks our understanding of what is real in this film. The virtual worlds of the simulations challenge the characters' and the viewers' mapping of reality.

The control room is where "reality" seems to be manifested, since this is the supposed real world. Captain Goodwin is part of a USA military program that invented a kind of time travel machine, the Source Code. This device is further discussed in the next section. Captain

Goodwin's space looks more like a surveillance room than a scientist's laboratory, as the many screens behind her shows (see Figure 3.1). The idea of surveillance pervades throughout the film as she is constantly watching and monitoring Captain Stevens, applying memory tests and exercises on him.

Interestingly, Captain Stevens's perspective predominates in the beginning of the film, which means that we only see Captain Goodwin through the small screen on the capsule (see Figure 3.2). We are watching her, instead of the other way around. This inversion is the first foreshadow of this film's mind-game construction. More interesting is that the capsule, where Captain Stevens is trapped, is not real, being a virtual reality created by the program Source Code. Another inversion is that the real world where Captain Goodwin is located appears only on the virtual image of the screen in the virtual reality of the capsule.

The story is that Captain Stevens is actually in a coma. His body is incubated in a machine, while his mind is projected into the capsule by the Source Code, and then again in the train. A virtual simulation inside a virtual simulation. In this third space, he has to discover the bomb and the bomber. But as he says "This looks so real" (00:12:05), that it is hard for him not to get involved with the characters and events of the train simulation. This notion of reality is relevant because the fact that the capsule is also virtual is only revealed much later in the story. The viewer and the main character believe that the capsule is real while the train is virtual.

Comparing these two simulations leads us to a different understanding, another inversion in which the train looks real, while the capsule looks odd. The train's aesthetic is very realistic. The only uncanny feeling is the repetitions, since Captain Stevens always awakes in the same situations, as Phil (Bill Murray) in *Groundhog Day* (1993). Christina Warren (Michelle Monaghan) is talking to the Captain, the ticket collector comes and a woman spills coffee on his shoe. He is also a different person, as he embodies a man named Sean Fentress (Frédérick De Grandpré). In the train sequences, Bordwell's classic Hollywood editing concepts predominates, lighting is realistic, shots follow the main character's perspective, and stablishing shots orient us, some cuts are fast but they are recognizable within the space (see Figure 3.3). The characters are on a moving train.

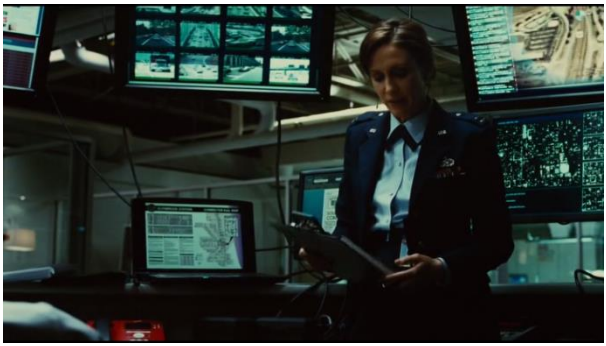

Figure 3.1 – Goodwin's room – 00:08:15

Figure 3.2 – Captain Steven's POV – 00:19:08

Figure 3.3 – Train – 00:03:02

On the other hand, the capsule is surreal. He wakes up upside down with Captain Goodwin's voice already giving him instructions. A lack of medium or stablishing shots contributes to the viewers' disorientation, while a close-up on his face and a dark lighting does not

allow us to discover the surroundings. We receive as little information as he does about this second space (See Figure 3.4). A filter makes the colors paler and bluish, because the main light source is Goodwin's screen. As the sequence proceeds the camera itself seems to be entrapped in this capsule, and cannot find the distance to open its lens and reveal more.

Figure 3.4 – Capsule – 00:07:05

This difficulty in distinguishing the virtual and the real complicates space. As the main character, we are cheated into believing that the capsule is real, even though it looks odd, and that the train is a simulation that looks too real. But ultimately, both are not real. The twist of this mind-game film is to transform the ontology of these two virtual worlds into possible realities, as when Captain Stevens dies in the control room but survives in the train world by the end of the film.

The capsule goes under a transformation that relates to the instabilities of Captain Stevens's mind. The director Duncan Jones explains that at first "we designed the pod to resemble a helicopter cockpit. It's a small, intimate environment where he has this bright white screen in front of him that he can't really see through" (in Fordham, 54). In this first instance, he is belted to a chair as a pilot. As he starts suspecting the nature of this cockpit, it starts collapsing as well, a lot of fluid is leaking and the heating stops working. When Captain Stevens discovers that the capsule is a virtual projection of his mind, it expands around him into a big and restrictive space.

Duncan highlights that "at that point, the pod environment is supposed to resemble a medieval prison cell with a window up at the top throwing light on him, like something out of an old Errol Flynn movie. Colter [Captain Colter Stevens] ends up thinking of himself as being in a kind of virtual prison" (in Fordham, 59). In this scene, the camera

begins with a close-up on his face, and opens the frame going upwards as the cell grows, enhancing the mentioned prison feeling (see Figure 3.5). A single light beam focuses part of his body, which works as a foreshadowing, since later we discover that he is disabled in the control room world, and the light emphasizes exactly what remains of his real body. The capsule always looks unstable and unsafe, with exposed wires, rusts, and dirty, as would his disabled body and comatose state. This transformation of the space exposes its connection to the character and his body, being as malleable as his understanding of reality.

Figure 3.5 – Foreshadowing Light Beam – 00:49:32

When Captain Stevens discovers that he is trapped in these layers of simulations, he asks Captain Goodwin to disengage him from the Source Code. He wants to die, so that he would not be manipulated again. As he says "Any soldier I have served with could say that one death is service enough" (00:51:32). Touched by his appeal, she confronts her superior, Dr. Rutledge (Jeffrey Wright) and disengages Captain Stevens from the machine. But she does this while the latter's mind is attached to the train reality because he wants to have a last 8-minutes with Christina, with whom he felt in love with. When he dies in the control room, his mind survives in the train in Sean's body.

After his immigration from real to virtual, the train is no longer a virtual world but a parallel reality, with another Captain Goodwin and another version of his own body. He actualizes the virtual reality. As a consequence, the control room world becomes just another layer in a complex chain of existence. Similar to the replicants in *Blade Runner*, if the copy is as real as that which is copied, then they are all real. To make virtual into real, space becomes malleable, because it cannot constrain as *Things to Come*'s Everytown, it rather has to allow changes.

At first, the virtual scenarios, the capsule and the train are addendums to a stable reality and its hidden layers. Finally, these layers become foldable sheets of space and existence for the characters.

Crucially, this space is not the fragmented postmodern space; as *Blade Runner*'s "a synthesis of mental architectures" (Bruno 67) that evokes a collision of cultures. Instead it is malleable, and such trait originates in the digital possibilities. A symbolical frame is when Captain Stevens and Christina are already safe in the alternative train reality. They stand in front of the Cloud Gate, popular known as the Bean sculpture, in Chicago. This city does not look different, only distorted (see Figure 3.6). The sculpture is a giant globe shaped metal structure with a bean format, which, through its mirrored view, folds the city image, thus making space malleable. And if we look carefully, we can see that the reflection of Captain Steve's shows another man, because this is more than another version of the city, it is also a different body.

Figure 3.6 – Chicago from the Bean – 01:24:28

Invisible Machines

The Source Code is in the core of the film's narrative, but we never actually see this machine, only its tricks. Such invisibility complies with the digital configurations of recent technologies, which attempt to look as natural as possible–think about I-pad devices and their interfaces. In the control room, there are plenty of computer screens that monitor Captain Steven, and there is the incubator machine where he is kept alive, but no exceptional visual device stands out. *Souce Code* no longer focuses on the machines, as the female robot in *Metropolis*, the surveillance eye in *12 Monkeys* and the replicants in *Blade Runner*, rather it focuses on its illusions.

Although not markedly visible, the Source Code still impacts the film's narrative. This technology allows the discussed malleability of space, creating two levels of simulation, first is the capsule, which englobes the second, the train. Its illusions interfere with the main character's identity. Captain Stevens's body becomes as malleable as space. In the capsule, it is not his real body, but a mind projection. Confused he asks "What about the rest of my body? I can see my hands and my feet. They still move" but Captain Goodwin reports that "They are just a manifestation. They are just a way of making sense of all this" (00:48:45). In the train, he embodies Sean's body, as a ghost. To Stewart, Captain Stevens's body is "a remote control cyberpresence" (*Framed* 124). He looks at himself in the mirror and sees the passenger (see Figure 3.7). The layers of virtual worlds confuse, and the character cannot recognize or find himself anymore. Captain Stevens is not simply a time traveler, he travels into a different body–almost as a spirit he uncannily possesses somebody.

Figure 3.7 – 00:06:09

Such uncanny aspect agrees with Stewart´s argument that recent films have appealed to time travel narratives with a fantastic twist (173). This change constructs the digital more as a supernatural form than as a technology, as if this technology is still uncanny for us. Similar to the tales in which photographs would trap the souls of the humans. Although this does not seem to be exactly the case in *Source Code*, there is an uncanniness in the lack of explanation to how we can create a parallel reality and survive in someone's else body. New technologies is indeed science fiction's utmost marvelous and threat; robot-Maria in *Metropolis*, the replicants in *Blade Runner*, the digital/virtual world in *Source Code*. Furthermore, this desire of projecting oneself and believing the virtual to be real reflects the very contemporary technology of role-playing games.

Role-playing games (RPG) as *World of Warcraft* (WOW) or *God of War* function by projecting the players into an avatar, a character in the game. The players are physically in a different reality (in their rooms in front of their computers), and they project themselves through the character they create into a different world. The immediacy in these games lies in their first-person perspective. Thus, despite the necessary mediation of the computer or video game, the individual is able to have a virtual experience that is quite immediate. As Bolter and Grusin argue "the viewer should forget that she is in fact wearing a computer interface and accept the graphic image that it offers as her own visual world" (316). The media needs to be immersive "which means that it is a technology of mediation whose purpose is to disappear" (Bolter and Grusin 315).

Technology is in fact a strong point in the film's hypermediacy. Bolter and Grusin explains that hypermediacy is the heterogeneous characteristic of digital media, the screen within a screen, and the combination of different and random media (315). An example is how Captain Goodwin appears through a screen to Captain Stevens (see Figure 3.2), creating the illusion that she is in the virtual reality and not him. And behind her, other screens, that open minor windows, and these screens within the framed screen pose the question of how many more virtual realities can be unfolded in theses frames.

Shaviro explains that this relation between video game–also television, video, and digital–and film convey the "structure feeling" of the post-cinematic affect. *Source Code* strongly appeals to the role-playing experience. The players, as is the case with Captain Stevens, become someone else in this different reality; in the case of World of Warcraft, you can be a wizard, an orc, a dwarf, an elf, a female or male; in God of War, you are Kratos, a Spartan demigod warrior looking for revenge. In both, the gamers have some freedom to choose his/her actions; missions and objectives exist but they can be skipped, delayed, or even ignored. The former is called a massively multiplayer online role-playing game (MMORPG), due to its massive quantity of players, whose interactions with other players may have different motivations from accomplishing missions to simply making friends.

The popularity of these games unveils their power in relation to the consuming public. The Guinness World Record gave the record to World of Warcraft as the most popular subscription-based MMORPG in

2010 for having over 12 million subscribers around the world.[32] God of War is not as popular as WOW, but its long saga confirms its popularity–God of War II, God of War III, God of War: Chains in Olympus, and God of War: Ghost in Sparta. Many other names can be mentioned here, as contributors to the popularity of games in which the player assumes a first-person role in a virtual reality, Doom, Counter Strike, Diablo, Battlefield, Fallout, to mention a few.

Besides the relation to the video game mode, *Source Code* is also a mind-game film, as Elsaesser defines it. The spectator within Captain Stevens is immersed in the layers of virtuality, or reality and has to unveil the secret behind the bomb. Every time Captain Stevens dies, he is revived in the capsule chamber, which is a striking remind of games like *Counter Strike* or *Half Life*, in which every time the players die, they are back to the base, where they can refuel, recharge and go back killing. This repetitive mode illustrates Elsaesser's explanation of "new forms of spectator-engagement and new forms of audience-address" ("Mind-Game" 16). According to Elsaesser, the old forms of voyeurism, in which in classic cinema the spectator only watches passively, are not appealing anymore. Recent films engage the spectator in more than voyeurism since they immerse into a corporeal cinema.

Through a social critical perspective, *Source Code* portrays the scenario of terrorism fear, which recalls 9/11, as the main character is a soldier who died in Afghanistan. On the other hand, more than terrorism, I suggest that fear arises from the loss of reality, as the main character is unable to distinguish which reality is real, as Stewart writes "That's the real paranoia now: that there's never been anything really there" (*Framed* 145).

Source Code's problematization of the Afghanistan War does not relate to space, but to the body. Captain Stevens is kept alive in an incubation room. He only has half of his body, and his body perception is part of the simulation incited by the computer program. He is in a state of a semi-consciousness or coma, which is maintained by this technology from the Source Code. This character is the contemporary hero, soldier, and time travel man (see Figure 3.8). Quite differently from Cabal in *Things to Come* and Cole in *Twelve Monkeys*, Stevens does not have an astronaut suit; he does not even have a complete body,

[32] See the website: <http://www.guinnessworldrecords.com/records-6000/most-popular-subscription-based-massively-multiplayer-online-role-player-game-(mmorpg)/> Accessed in 20/11/2012.

only the fair simulation in a computer projection, which is only part of his own brain.

Claudia Springer describes a kind of new sci-fi hero: "rampaging muscle-bound cyborgs were replaced by slim young men and women jacked into cyberspace, inspired by 'console cowboys' in cyberpunk fiction of the 1980s" (in *Alien Zone II* 204). But Captain Stevens is more than a geek specialist, he becomes a virtual ghost. In *Source Code*, it is not the city that is degraded and hopeless but the person in itself. When the film's perspective changes from Captain Stevens to Captain Goodwin, the spectator realizes how mistaken the main character is about his own being and condition. Even his voice is only green letters on Goodwin's computer, he never really spoke in the story. Stevens is a ghost, a shadow of his own past; his consciousness existing in the virtuality of Goodwin's computer.

Figure 3.8 – Captain Steven – 01:22:27

In this utter video game, digital world, the human transcends the body and transforms the mind into data, which can be transferred and uploaded, as Dr. Rutledge says "let's clear his memory and reinitialize Source Code" (01:12:45). The body, which was copied in *Metropolis* and replicated in *Blade Runner*, loses meaning, in as much as space. What remains is the numeral data of Captain Stevens's memory in the digital world.

Chronos Sickness

Source Code's narrative exemplifies how Chronos is sick of its own chronological nature, as Shaviro explains: "plot is no longer stabilized by temporal progression […] the 'new cinema'—as innovative as it is involuntarily caught up in historical change—has arrived at a point of temporal crisis where 'chronos is sickness itself'" (*Postcinematic* 166-7). Time becomes multiple, the past hunts the present, the latter is an annoying iteration and the future can finally be confronted. The digital as a theme and a technology plays a major role in this multifaced time.

That the past can haunt the present is no news. Captain Stevens, for instance, hears sounds of war–bomb explosions, missiles, helicopters and radio transmissions (00:02:31)–when awaking for the first time in the train simulation. But *Source Code* complicates this statement. To Stewart, this film's postwar trauma is resolved through a multiple time in a postmortem environment ("War" 124). The past experience of the Afghanistan war lingers in his present as post-war trauma, one that apparently cannot be forgotten. But the film complexifies the idea of past, since the Source Code allows Captain Stevens to travel through a victim's last 8 minutes of memories. Memories work as time travel tickets. In inhabiting Sean's body and interacting with his memories, Captain Stevens makes someone's past into his present, to reconstruct his future. Once more, we can compare him to a ghost possessing Sean's past as his present.

Time is also reconfigured from a linear doomed plot, into a utopian alternative reality. The train that Captain Stevens saves in the end of the film has already exploded. Captain Goodwin repeatedly tells Captain Stevens that he cannot change the bomb explosion, because it has already happened and it is a memory. She explains that "what you experienced was a shadow, an after image of a victim on a train. This is real life. Here […] the program was not designed to alter the past, it was designed to affect the future" (01:07:15). Nonetheless, he manages to realize this virtual past into a parallel reality, transforming past and virtual into a new dimension, bifurcating time, and creating Stewart's multiple time (*Framed* 124).

He also gives the past a new ontology. He saves the past, so it seems he changed the past, but this is actually a different reality. As he explains "you thought you were creating eight minutes in a past event, but you were not, you've created a whole new world" (01:26:21). In fact, the past is not only not simply virtual, not an image of what had

happened, and it is much more than nostalgia; it is *somewhen*, we cannot only alter, but ultimately inhabit, a reality in itself.

Captains Stevens's present is a continuous repetition, as a video game resettling. Trapped in the Source Code, he is repeatedly sent back to Sean's last 8 minutes of memory. Until, he realizes that "it's the same train but it's different" (00:11:42). In this difference, he finds the possibility to change Chronos linear course, to make things different. Through his iterative present, he saves Christina, discovers about his death in the Afghanistan war, makes amends with his father, and saves the train.

This repetition may initially imply the cyclical boredom of the suburban life in the train that is always late and crowded. Christina describes "they [the passengers] are all so utterly… normal. That's what's so terrifying about them" (00:22:45), and when the also incredible ordinary looking bomber is asked why, he can only answer "because the world is hell" (01:01:13). Terror is in the repetition of this prosaic existence, an iteration that explodes and can only be utopic if, as Captain Stevens and Christina–she has just changed her life by quitting a job and boyfriend–one finds a different track to the same train. Because this might also be a parallel to the Afghanistan war that has no significant explanation or justification. In this sense, terrorism is inscribed in the ordinary commuters' everyday life from the suburban to Chicago.

When the present repeats itself, the past collides with the future. Captain Stevens travels into Sean's memories, confronts the future bomber, who has not yet detonated the bomb. The hero of the past is combating the enemy of the future (Stewart "War" 124). The latter trespasses its unreachable characteristic. In the end of every 8-minute memory cycle, for example, Captain Stevens and the train explodes, and in transitioning from the train back to the capsule, flash mixed images appear. One of these images is the Bean sculpture, which only appears by the end of the story, a foreshadowing and an anachronism.

The future is no longer a distant one-hundred-years from now, as in *Things to Come*. It is already contained in the past and the present with no meaning attached to them, as in a computer game. Layers of time equal the digitalized images. As space in the digital world, time is meaningless–what really matter is the sheer sensation of the game, to start over again.

Future also happens soon, if not now. The images of contemporary Chicago already construct an idea of future, progress, and even utopia, with its skyscrapers, highways, and modern designed

building (see Figures 3.9 and 3.10). Similar to *Blade Runner* or *12 Monkeys*, the city is an existing reference, which increases the appeal for a contemporary audience. At the same time, the future is hopeless in a scenario in which postwar becomes postmortem. Stewart believes that "this dystopian fantasy can certainly not be alleviated by its anodyne resolution in a prevented civilian threat" (124), because of the illusions of the Source Code, in which Captain Stevens's own voice and body are only projections of his mind. His future can be better only because he changes his own body, space and time.

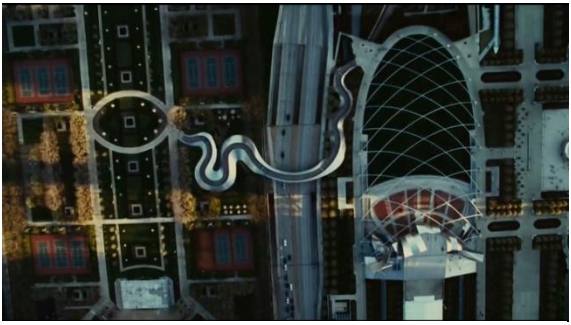

Figure 3.9 – 00:02:03

Figure 3.10 – 00:00:37

In the last train simulation, Captain Stevens quickly saves the train, calls his father, and kisses Christina in their last minute. When his time is over, Captain Goodwin turns off his incubator, and when the bomb usually explodes, it does not. But time seems to stop. The image is frozen and the tracking camera slowly passes through the still passengers. This delay scene stops narrative and invites Mulvey's pensive spectator, who reflects not only on the story but on the film's technological resource, the digital immersion. This scene is also closer

to Gunning's cinema of attractions, in which the image has no narrative function, but it is simply exhibitionist. In addition, Brown argues that this kind of construction recalls for the camera's time, since "the camera makes visible its own temporality" (98). This narrative break enforces extra-diegetic elements, because this freeze moment is when Captain Stevens transcends a technology into an unexplainable parallel world, and when the spectator dismisses the story to immerse into the digital technology.

In *Source Code*, narrative follows a logical organization, the hero is in trouble, he finds a solution, he changes his future. To find his happy end, time is complicated, since chronology is more malleable. The parallel worlds create alternative timelines and multiply space, present is iterative, past is relived and future is changed. As Dr. Rutledge says "Source code is not time travel, rather Source Code is time reassignment, it gives us access to a parallel reality" (00:34:36). Stewart summarizes that in recent war films: "[w]e're asked to believe that computer science can overcome the laws of duration itself and recuperate lost time in a parallel universe, turning digital surveillance into electronic transcendence" ("War" 122-3).[33]

INTERSTELLAR

Interstellar (2014) is a Nolan brothers' film, script by Jonathan Nolan and directed by Christopher Nolan. This big budget Hollywood film received varied reviews, but most critics recognize that the Nolan brothers aimed high. Mark Kermode in *The Guardian* wrote: *"Interstellar* is the work of someone who dreams with their eyes wide open. There is no one working in cinema today who has as much faith in the overwhelming power of the image as Nolan and who trusts their audience to be similarly awestruck." Geoffrey Macnab from *The Independent* compared the director to Georges Méliès: "Nolan shares

[33] *Source Code*'s title was translated as *Contra o Tempo* in Portuguese, which in English would translate as "against the time." This mistranslation dismisses time as digital or multiple, and only focuses on the train reality, where Captain Stevens fights against time. At the same time, it highlights the video-game intensity of repetition and time constrains. The original title advances a view of reality that can be changed; source code allows a great number of options to be constructed and, if needed, to reconstruct certain software. In this sense, the original title reinforces the idea of a possibility of rewriting one's history, of starting again, of reconfiguring, and in doing so, tailoring new possibilities.

the desire of early movie pioneers such as Georges Méliès or DW Griffith to astound and entrance audiences," while Peter Travers from *Rolling Stone* compared to Stanley Kubrick's *2001: A Space Odyssey*: "In *2001*, Kubrick saw a future that was out of our hands. For Nolan, our reliance on one another is all we've got." Such grandeur emerges from a fearlessness in presenting a digital cinema that does not think as analogue, but immerses into the virtual.

The main character, Cooper (Matthew McConaughey), is a farmer and widower. His father-in-law Donald (John Lithgow) helps him raise his two teenage children, Murph (Mackenzie Foy) and Tom (Timothée Chalamet). They live in a farm in an end-of-the-world scenario; a disease is killing plantations throughout the Earth and dust pervades in the air, causing lung problems. A strange phenomenon in Murph's bookshelf leads her father to a hidden NASA station, which is planning to save the human race by moving everybody into another planet. An unexplainable worm hole was opened near Saturn that can transport them into another galaxy. Cooper, who is also an ex-Nasa pilot, and a team of astronauts are send to investigate and possibly colonize this new planet.

Farms

Figure 3.11 – Cooper's farm 00:14:02

Interstellar has no big city, no Metropolis, Everytown, Chicago, Los Angeles or Philadelphia. Instead, it has a small village, that is being

abandoned and that we have a glimpse while the characters drive through, and farms. Unnamed, common agricultural fields are the main landscape in the planet Earth. Cooper plants corn, since this is the last crop that resists the blight disease, but he hates being a farmer. He gave up his career as an astronaut because of the hunger problems, when planting food was more important than exploring the universe. One afternoon, Cooper has to go to his children's school and their principal summarizes that "right now, we don't need more engineers, we didn't run out of television screens or planes; we ran out of food! The world need farmers. Good farmers like you, and Tom" (00:11:11).

The image of the farm does not imply bucolic notions of nature, but rather a dystopic future. If the clean, vertical and modern curves of contemporary Chicago imply utopia in *Source Code*, the farm lands construct the idea of a paralysis or retrogression in *Interstellar*. Cooper's farm, for instance, looks like an ordinary North American ranch, but the film's story is in the future, and at a first glance, there is nothing futuristic about it (see Figure 3.11). This ordinariness contrasts with the idea of the future time and makes the farm a symbol of decay. The human kind is not evolving or inventing anymore, but barely surviving. Farming is an obligation to Cooper, and worse because it is an utterly hopelessly one, as he describes "We farmers, we sit here every year when the rains fail, and we say: next year. Well next year ain't gonna save us, nor the one after that" (00:36:49).

Unexplainable events write coordinates in binary code on the floor of Murph's bedroom, which direct Cooper and his clever daughter to a hidden NASA station. One of its members Professor Brand (Michael Caine) explains that NASA is kept in secret "because public opinion wouldn't allow spending on space exploration. Not when you're struggling to put food on the table" (00:28:35). The overt irony is that NASA is a show-off program, far from being a secret. Around the 60s, it represented glory and fame during the Cold War, emphasizing the nation's accomplishments, boldness and investment in progression, exploring the vast universe and sending the first men to the moon.

Earth in itself also carries a similar decay value as the farms and NASA. The dust bowl that engulfs people from time to time conveys an aged feeling to the planet (see Figure 3.12). Earth is an old home full of dust. In a farther future, elderly individuals explain how Earth was to those who never saw it in video. The first lady says "we had acres of corn, but mostly we had dust," the second lady describes that "it was just constant, just that, steady blow of dirt," and a third senior narrates

that “when we set the table we always set the plate upside down. Glasses or cups, whatever it was, upside down” (00:03:25).

Figure 3.12 – The dust bowl – 00:18:17

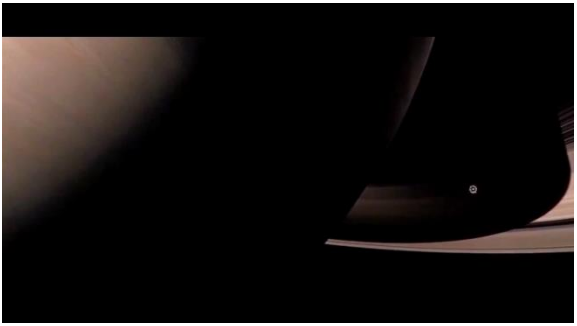

Figure 3.13 – Endurance spaceship near Saturn – 1:35:40

Figure 3.14 – Dr. Mann’s planet – 00: 42:39

Blade Runner and *12 Monkeys* construct an idea of nature as a utopic space, but the individual is quite far from it, trapped in the big cities. Nature in *Interstellar* infers an almighty power, which humans

cannot confront or tame. Dr Brand's, (Anne Hathaway, Professor's Brand daughter) description of nature fits with the story's perspective. When Cooper asks him if she believes nature is evil, she answers "no, formidable, frightening, but, no, not evil" and compares "is a lion evil because it rips a gazelle to shreds?" (00:52:09). Formidable and frightening are the images of dust bowls swallowing the horizon, the outer space (see Figure 3.13), the wormhole, the black hole and the planets (see Figure 3.14). But the humans have no power over nature, they contemplate and fear, none of their technological advancements is good enough to fight it. These spectacular visions contrast the monumental universe and the smallness of the humans, their old spaceship, their little understanding and power.

At the same time, Earth also implies a certain nostalgia among the characters. When Cooper and Dr. Brand are in the Endurance spaceship, going into the wormhole, he cannot avoid looking into the planet, and nostalgically says "It's a perfect planet and we are not gonna find another one like it" (00:50:47). Earth is a home, which although not habitable, they do not want to leave.

The images of outer space, Saturn and its rings, the wormhole, the Earth spinning on the spaceship's window, the black hole emitting light, the grandiose of the darkness, emanate awe and fascination. These latter feelings are affects, as defined by Shaviro: "affect is primary, non-conscious, asubjective or presubjective, asignifying, unqualified, and intensive" (*Postcinematic* 3). Affect as an intensity, allowed by digital technology, that overwhelms the viewers. Special effects have always been at the core of the science fiction genre, but they have been upgraded into computer graphics, which intensified this affective relation.

These images of space are affective because they generate an emotion. That is awe, which is primary to consciousness. This idea can be parallel to Dr. Brand's explanation of love as purposeful. She wants to go to Edmunds's planet, but Cooper believes she is biased by her love for Edmunds. But she explains:

> Maybe we have spent too long trying to figure all this out with theory […] when I say that love isn't something we invented, it's observable, powerful. It has to mean something […] something we can't yet understand. Maybe it's some evidence, some artefact of a higher dimension that we can't consciously perceive (01:28:12).

Maybe this drive to technological awe is still to be explained. Maybe it is an artefact of the early cinema in which films were mainly a spectacle and not a narrative, as Gunning argues ("Cinema" 64). This awe instance is when science fiction stops its own rational oriented world and sides with the fantasy genre, in how it contemplates nature as a magical power.

Old Technologies

At a first glance, *Interstellar*'s technology looks different, but not much. This story's futurism is not immediately understood, as *Metropolis* or *Blade Runner*. The first Earth sequences have the old and dust look already mentioned, and the farms, the school or the baseball camp are just ordinary. In general, the film's machines do not seem quite advanced. They rather infer a sense of stagnation; the hunger caused by the blight retards the development of new technologies. Cooper deeply feels this paralysis when saying to his father-in-law Donald, "It's like we have forgotten who we are, Donald. Explorers, pioneers, not caretakers" (00:15:58).

Some items are the same as the ones we use nowadays, even older. Cooper, for example, has an old truck that his son inherits and continues using 20 years after his father has left Earth. In the principal's office at the children's school, there is a box television, that I dare affirm looks outdated even nowadays. When Cooper is preparing to investigate the coordinates pointed by Murph's ghost, he tells her "Grandpa will be home in a while, tell him I'll call him on the radio" (00:22:29), suggesting that internet and cell phones are at least not popular anymore. This society does not nurture a compulsion for newness and the modern technology anymore, which can also be observed in the *mise-en-scène* as a whole, in the characters' common clothes, and in the house's simple decoration. They are only trying to survive.

Most of the technological advancements of the film seem already possible nowadays. The combine harvesters on Cooper's fields look very much like any contemporary crop machine, but they are automatous, working without man's direct operation. They orient

through a compass clock and a GPS, both common contemporary technologies.[34]

Another modern contemporary technology but old or anachronist to *Interstellar*'s story is the surveillance drone. In an initial sequence, Cooper and his two children are driving to school when he spots it. They chase and put it down. Tom asks how long it has been flying by itself, and Cooper answer "Delhi Mission Control went down same as ours, 10 years ago" (00:08:47). Apparently, they used the drone to reduce population when the hunger problem spread. Drones are not new, they are already vastly used by the US military forces in middle-east confronts. Interestingly, Cooper removes some of its parts to reuse in his combines. This recycling complies with the visual decay of this futuristic film, in which people become scavengers.

As it is common in science fictions, the machines also seem to tell something about the humans. Robot-Maria reflects Frederson's and Rotwang's ambitions, while the replicants shows that time is what humans should really value in life. In *Interstellar*, Cooper explains the role of the drone to Murph: "this thing needs to learn how to adapt Murph, like the rest of us" (00:09:30). Adapting is what the human race will do to survive. The wormhole was mysteriously open by "they," who want to help humanity. By the end of the film, Cooper discovers that "they" are in fact humans, who evolved into a fifth dimension existence.

Nostalgia also lingers on the image of *Interstellar*'s machines, as if the future as represented in this story was strongly bound to our contemporary lives or to our immediate problems. Paul Franklin, visual effects supervisor, admits that the launching sequence in which Cooper and his expedition are send to the wormhole was planned to look like old space mission footages, "we studied a lot of archival footage of real Apollo launches, and we also looked at the launch sequence in *Apollo 13*" (In Duncan, 17). The computer graphic group even "rusted" the footage a bit, to look more like the old mission images, to how we received these images. Recalling these footages and making them look as rusted as the real ones produce an effective appeal to people's imaginary memory of space travels.

This emotional sequence begins with Cooper saying goodbye to his family, crying as he drives to NASA, while TARS's voice, a robot, already starts the launching "go for main engines" and announcing the famous countdown "Start T minus 10, 9, 8," Murph runs trying to catch

[34] We are already have cars that can park by themselves. I speculate that we only do not have auto-driving cars because some of us still like to drive.

her father and all we see is dust from his truck, TARS continues “7, 6, 5, main engines start, 4, 3, 2, 1, booster ignition, and” (00:42:16), cut to a shot of fire from the ignition explosion, ice particles cascading down from the rising rocket, cut to close-ups of the shaking astronauts and a camera outside the rocket shows it distancing from the Earth’s surface (see Figure 3.15), in very familiar angles.

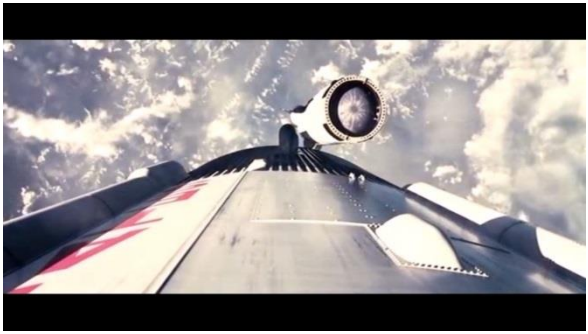

Figure 3.15 – Rocket leaving Earth – 00: 25:08

Figure 3.16 – Tars and Cooper – 00: 39:28

Figure 3.17 – Ranger Spacecraft – 02:22:47

TARS and CASE are robots with an artificial intelligence. NASA used these two most outstanding machines of the film in its expedition missions. Although they look the same, squared and robust robots (see Figure 3.16), their artificial intelligence impresses on how TARS understands before Cooper the story's mystery. The robot discovers that the unknown "they" created a three-dimensional space to save humanity. This machine actually has to explain what this astronaut, who lacks a lot of physics knowledge, has to do to save humanity. In a way, the hero is not Cooper, the space cowboy, or his scientist daughter, who solves the equation, but the robot and its insight. And TARS can even joke: "Everybody good? Plenty of slaves for my robot colony?" (00:42:45).

Nevertheless, TARS and CASE are obsolete. Cooper tells us, they are ex-military security, and that the militaries do not exist anymore, "they are old and their control units are unpredictable," which Dr. Brand clarifies that "[i]t's what the government could space" (00:25:47). They are leftovers. In this sense, these robots emphasize the dystopia future, which relies on old technology to save humanity. The new machines presented to the audience are already old to the characters.

Although TARS becomes a captivating character with its humour and cleverness–Cooper affectionately reconstitutes him when they are saved from the blackhole–the robot is not humanoid like Futura from *Metropolis* or the replicants in *Blade Runner*, and do not pose any threat. Technology in *Interstellar* does not infer any problem to the human race, as in the previous discussed films. There is no substantial suspicions about these robots. They may make inappropriate jokes but are not a real threat to the humans. In fact, Cooper believes that the lack of technological investment and advancement hinders humanity. Technology and its capacity to reproduce are no longer feared or questioned but taken for granted, not a problem or solution, just another piece of future's life.

Nature or time seems to put an end on humanity's days, technology is too obsolete to save the human race from nature's force, and a supernatural, or external force comes to help the humans. In this mysterious force, the uncanniness of mental hallucination in *Metropolis* and the paranoia in *Twelve Monkeys* acquires a scientific twist in *Interstellar*.

Time as Space, Worm Holes, Black Holes

Interstellar is a time travel film. To save the human race, Cooper has to find a new habitable planet, but he also has to do it in time, before the blight kills all the crops on Earth, starving and suffocating the world population. A wormhole enigmatically appeared near Saturn 48 years ago, it is a door to another galaxy, a fold and a shortcut in space. Twelve brave explorers are send to twelve possible habitable planets. Their mission is to explore these planets observing life possibilities and send data back to Earth. Three planets on the same solar system show potential, where Cooper and his mission are going. They are named after their explorers: Millers, Dr. Mann, and Edmunds. If the story stopped here, we would have a film about space exploration, as the *Star Trek* series. But when their mission crosses the wormhole and they face a black hole, named Gargantua, time becomes the problem.

Miller's and Dr. Mann's planets are too close to the black hole, which, as one of the astronauts, Romily (David Gyasi), explains, "a black hole that huge has a huge gravitational pull" (01:02:51), and Dr. Brand finishes by saying that "the gravity on that planet will slow our clock compared to Earth's, drastically" (01:03:02). Every hour on Miller's planet is seven years back on Earth, and the humans already have little time. Dr. Brand summarizes their problem "Cooper's right, we have to think about time as a resource just like oxygen and food" (01:03: 49), when exploring Miller's planet they lose more than 20 years on Earth. To save the humans, Cooper becomes the time traveller, entering into the Gargantua, which creates time as a forth dimension, a sort of spatializing time. This way, he is able to send information back to young Murph, and be her ghost, communicating through her bookshelf. Time is also the solution.

Figure 3.18 – 00:39:49

A symbol of time as the main issue of the story is the watch that Cooper gives Murph before leaving Earth. He explains to her how their timelines will run differently, how she might be the same age as him, when he comes back. Inside the

Gargantua, Cooper encodes the data of the black hole into the movement of the watch's hand. The answer to save the human race is travelling through time, thus, merging Cooper's future with his daughter's past.

If compared to *Metropolis*'s clock, it is easy to understand how the idea of a single and major time, one that prevails over the workers and the entire city, changes to a relative time, to the multiple watches in *Interstellar*. The latter's time varies according to the space where the characters are, in a different planet, in a black hole, or in a different galaxy. Such change points to an awareness of the personal time, which does not necessarily falls into the subjective temporality of the modernists, because it resources to scientific explanations,[35] even if they were not always proper science. This sense of time challenges the notions of a single chronological time and a singular existence by opening the possibilities of alternative paths, or ambivalent temporalities. Although thematically the story appeals to Einstein's timespace, to time and space relativity, structurally it constructs something else.

As the problem and the solution, *Interstellar* stretches and folds time. Similar to *Source Code*, a single chronological time morphs into ambivalent times, detached from their stagnant positions. Such rearrangement questions the characters' construction of time, history, future, and their very ontological existence as humans. The past, for example, has no strong value as an enduring and stable historical ground. In fact, it is rewritten. Murph's teacher, Miss Hanley (Collette Wolfe), complains that Cooper's daughter brought an old book to school, which was replaced by a new version "explaining how the Apollo missions were faked to bankrupt the Soviet Union" (00:11:58). In *Interstellar*, man has never been to the moon, it was an international tale used as a war weapon. If they actually went is not the issue, but rather that history is revised to fit better into the political interest of the moment. Humanity is struggling to survive, and the political position is to encourage basic labour work and not adventures, inventive professions. If the USA of the 60s used the Apollos missions as a boost to power, the future USA downgrades it to their immediate needs. What real history is does not matter anymore, what matters is to convince people into their current strategies.

[35] Theoretical physicist Kip Thorne from Caltech University was an active consultant and executive producer of Interstellar. He recently published *The Science of Interstellar* (2014).

Ghosts are generally tokens of the past, as the soul that is left behind and forgotten, but not in this story. Murph's ghost inverts Chronos' logic, since this supernatural force is not from the past, but from the future. It is her father who is trapped inside the Gargantua in the fourth dimension, which "they" created. Indeed, he somehow foreshadows his future, when he is saying goodbye to her: "once you are a parent, you are the ghost of your children's future" (00:38:05). He means that when one has children, being a parent becomes more important, which turns parents into shadows of their children. This is precisely what happens. Cooper sends Murph the data from the black hole, and she solves the equation saving the world, because as he realizes "I thought they choose me, but they didn't choose me, they chose her" (02:29:53).

Another constant symbol of a challenged chronology is the story of Lazarus. The twelve scientists sent to twelve possible habitable planets were all part of the Lazarus mission. The issue is that they do not have enough resources to rescue these brave scientists, if their planet is not good enough to be inhabited they will die. But Lazarus's story is that he "came back from the dead" (00:30:18), as Professor Brand clarifies. Laura Mulvey explains how the ideas of death and time are close (*Death* 9), the latter existing because we die. It puts an end into our existence, and highlights the importance of time, of that period in which we are living. But if Lazarus overcomes death, and finds a postmortem existence, as Captain Steven does in *Source Code*, then time is confronted. Death no longer means the end of time, and the latter becomes something else, a transformation, rather than an end.

The characters find hope in time, their future is utopic. Murph manages to finish the equation with Cooper's data, sending the last of the humans on a space station to Edmunds's planet. The film ends with Dr. Brand removing her helmet and breathing the air in this new planet. But there is a further future implied in the story, in which humans transform into something else. Something that survives in the fifth dimension, that is not bound to time or space. Because a wormhole is not a naturally occurring phenomenon, the obvious conclusion is that "Someone place[d] it there" (Dr. Brand 00:32:10). Inside the Gargantua, Cooper realizes that "they" is actually us, he explains to TARS: "they have access to infinite time and space but they are not bound by anything" and continues "a civilization that's evolved past the four dimensions that we know" (02:34:02). When people are no longer bound to time and space, our ontology changes, we find new ways of existence, in which death and time no longer relate. The uber humans of

the future can save humanity by sending a man from the present into his daughter's past.

Figure 3.19 – Inside the Gargantua – 02:28:20

Figure 3.20 – Murph's past mingles with Cooper's future – 02:24:22

When Cooper enters into the Gargantua, time is presented as space. Specifically, Murph's room is multiplied into its many moments, as a filmstrip (see Figure 3.19). TARS explains to Cooper that "they constructed this three-dimension space inside their five dimension reality to allow you to understand it […] You've seen that time is

represented here as a physical dimension" (02:27:20). Cooper, and humans, can only understand time like this, shattered and bounded to space. Each specific moment represented into a slice of Murph's room. This is the spatialized time that Deleuze considered constrictive, the movement-image. But there are other possibilities to this, because Gargantua joins past and future in the same screen (see Figure 3.20). Or rather the CGI, that Stewart endorses, allows this three dimension reality, in which time and space are together, as timespace, but are also free from Chronos limited combinations. Thus, when Cooper travels into the Gargantua, he travels in time, into the spatial time of Murph's room, but he also travels into the digital world, into the digital possibilities.

Moreover, space is not as distorting and confusing as in *Source Code*, because this film is really not about space, but time. The story's problem is not about how far, since the wormhole allows them to shorten distances, but how long. In this sense, time becomes malleable, multiple and ambivalent. The past is a ghost from the future, or a history that can be rewritten. The story is in a non-futuristic, if not nostalgic future, as space and technology showed us. The characters' present looks old and wasted, but their future is a challenge. It is beyond their own comprehension. It lies on a mode of existence that, as *Source Code*, transcends the human body. Such transcendence is the immersion into the digital, the denial of a fixed space and the possibility of a malleable time.

The revelation that "they" are humans from the future does not diminish the heavy uncanny feeling of these super humans, "they" who inhabit a five dimension reality, and who become godlike creatures. An aura and almost religious sense surround these people along the film. They choose Cooper and Murph, as saviours. They send messages to the characters, which are promptly followed. They are trying to help the humans on Earth, but it is so hard for them to understand. Because the latter's comprehension and master of the known realities is still so limited. How far can we travel into space? How much do we understand of time?

As mentioned, Stewart observes that much of the digital possibilities is translated as supernatural in contemporary films. The uncanny of Murph's ghost comes from the time distortion, from Cooper's time travelling, from the father who is the same age as his daughter. This science fiction film concentrates on this fascination with the time subversions. Technology is no longer interesting, it is rather old and granted. What fascinates is this supernatural force, which emanates

from computer graphics and the new plot possibilities. A father and daughter with the same age. A ghost from the future. An ambivalent time. A Chromos sick of chronology.

FINAL REMARKS

> [T]ime is not merely the attribute of a subject, imposed by us on the world: it is a condition of what is living, of matter, of the real, of the universe itself. It is what the universe imposes on us rather than we on it; it is what we find ourselves immersed in, given, as impinging and as enabling as our spatiality. We will not be able to understand its experiential nature unless we link subjectivity and the body more directly to temporal immersion, to the coexistence of life with other forms of life, and of life with things, that is, until we consider time as an ontological element. (Grosz 5)

This investigation attempted to describe a change in science fiction films' construction of time. The modernist and postmodernist periods provided guiding lines to the demonstration of main differences. But when watching and comparing recent films, I felt that something had changed, which was not only caused by the postmodern space orientation proclaimed by Fredric Jameson ("Postmodernism" 64), but also a whole new technological and conceptual frame of thinking. The emergence of a new theoretical aesthetic, which still lacks a proper nomenclature–the post-postmodern, the post-cinematic, the post-filmic, the new new cinema, the supercinema, or just the digital cinema–helped me understand time in more contemporaneous films.

As discussed in this dissertation, the analyzed modernist film, *Metropolis*, constructs a linear and forward oriented time. Time's concepts prevail as utopia and power, in which future along with technology will bring society to progress, if not exactly to peace. The futuristic theme predominates in this narrative, while the past is actually dangerous, as Rotwang's revengeful feelings. In *Metropolis*, three layers compose space: the futuristic and utopic city of Metropolis, the underground buildings of the workers, criticizing the living and working conditions in this up-to-down society, where a mass mode of production predominates, and the catacombs, deeper into the ground, where hope still emerges.

The postmodern films, *Blade Runner* and *Twelve Monkeys*, present nostalgia, in addition to the expected futuristic look of science fictions. But that is maybe because they are utterly dystopic, given that, in these movies, the past emerges as a resource to claim a failed hope, which always fails. Since the past is gone, no pictures or time-travelling can change the characters' doomed future. Time is also ambiguous since past and future mix, thus creating an ambivalent time to how the characters attempt to make sense of themselves. Surprisingly, these science fiction films do not focus on machines, but on the human and their weak boundaries with the replicants or on Cole's quasi madness.

Blade Runner's Los Angeles demonstrates Frederic Jameson's idea of a postmodern pastiche (67), a scenario composed of styles from different periods and cultures. This collision of styles indicates time's schizophrenia, in the randomness of its nostalgia. *Twelve Monkeys*'s space is a future and a contemporary Philadelphia. As in *Metropolis*, the former version of the city has an underground world that is utterly dystopic; pointing to a sub-human. The latter Philadelphia finds some hope in nature, because the city in itself already seems doomed. A relevant aspect is how both postmodern films appeal to real cities to construct their dystopic futures, as if it is easier to associate tragedy than happiness to specific locations.

Source Code's story is located in Chicago, and *Interstellar*'s begins on Earth. Nonetheless, what comes to light in relation to space in these films is an assimilation of the digital notion, in which space becomes more malleable. The parallel universe of *Source Code* and the black hole of *Intertellar* challenge notions of rigid space construction in cinema, which corroborates with Steven Shaviro's post-cinema, in that continuity rules have exploded and their violations are no longer a surprise.

Metropolis showed how modernist science fiction's time is mainly objective and causal, one event leading to the next in a reacting chain. Time is also associated to power as in Frederson's big and dominating clocks. In this sense, technology is fascinating, creating sequences of pure spectacle, in which the films' narratives halt to admire Futura's transformation, but also threatening since it can be manipulated to follow Frederson's and Rotwang's desires. Technology, as time, becomes part of monetary power.

In the postmodern films, technological issues intermingles with human ones. In *Blade Runner*, the fear of replicants is also a fright of humanity's banalization. *Twelve Monkeys*, in turn, discusses surveillance in how observing and finding clues may actually lead to the

wrong information, and suggests how uncertain and random science can be. This turn into the human instead of the machine is magnified in *Source Code* and *Interstellar*, since human ontology transforms itself into data and fifth dimensions. The postmodern films start wondering about the human boundaries within time–replicants are humans if they have a past, Cole will always exist in his death's loop of time. In these narratives, human ontology is still only a question. But the post-postmodern films easily transcend the human body, its transformed ontology becomes as granted as technology. The physical body does not define the human anymore.

In the post-postmodern films, technology is still essential, although not as a main issue rather as a granted part of society. New machines are not items to be feared as Robot-Maria, replicants or time-travel machines, instead they integrate life and their resolution is not bad or good, only consequential. This position towards technology also relates to the scientific fascination with technology and an investment in special effects, which culminate in the digital form changing the narrative content. In such context, time is virtual and detached from chronological constrains, offering new narrative possibilities. Time is no longer singular and all-governing, it is transformed into multiple times, the time of the many realities created by the Source Code or the collapse between Cooper's time and the many times in his daughter room.

Source Code and *Interstellar* demonstrate their profound assimilation of the virtual idea, in which even the physical body is abandoned and the humans migrate to different forms of existence in distinct times and spaces. These films' utopia is digital, because their final realization is due to an immersion into the virtual world, and not due to an advancing into the future or a recuperation of something lost in the past. Our drive to fantasize may not be enchanted in relation to the future as in the modernist period, and may be too aware of its impossibilities in the past as with the postmodernists, but it may have found direction in others unexpected spaces.

I understand that this dissertation has strengths and limitations. A main strength is the acknowledgment of a new aesthetic tendency, the post-postmodernism. I expect that my analysis suggested how the digital affects the narrative, as the former is absorbed into the plot, not only as a structural tool but also as content. This proposition follows Brown's useful observation that post-postmodernism should be seen as a tendency that is an intensity and an acceleration of postmodernism (96), and not a full differentiating aesthetic. A similar idea works for the modernist-postmodernist transition, in which Brian McHale proposed

that postmodernism is also an intensification of modernism (*Postmodernist* 4).

A limitation in this dissertation is the number of films discussed here, due to space constrictions. However I favored a deep analysis of three main aspects–space, technology, time–instead of presenting a panoramic view. As I mentioned in the *Introduction*, I am interested in "what films can do" since "one talking pig is needed to prove that pigs can talk, then similarly only one example is needed to show what film can do […] whether or not all films do the same thing" (Brown 7). Once again, this research does not attempt to propose a grand theory, but rather suggest a possibility within this new digital cinema. Another limitation is a lack of cultural density, as the focus was on vernacular or Hollywood cinema.

My analysis might be criticized for underlining the digital period to quite recent films, while different scholars such as Lev Manovich indicate the beginning of digital cinema as early as the 1970s. The explanation is that these recent films construct a much striking difference than previous ones. They really assimilate the virtual notion into their narratives. I suggest that, following Laura Mulvey who wrote that maybe digital was still thinking as analogue (21), contemporary films have finally started thinking as digital. I also want to point to Brown's argument that all films show different temporalities, but the digital enhances this idea (96). The presence of digitalization as theme and form radicalizes the possibility of multiple times.

Other limitation is that I might have analyzed more technical tools, since my analysis focused more on narrative aspects of the films. David Bordwell, for instance, uses ASL (average shot length) to discuss intensified continuity (in *The Way*). This approach gives him an exact average time of the films, if their editing has accelerated or prolonged the shots. This might be a suggestion for further research. I would also be interested on research about other genres, as science fiction appears to be the most obvious genre to analyze time and technology, but this change can also be observed in other genres, such as suspense and fantasy. Further research on the role of the spectator in this digital cinema might also generate interesting debates. Thomas Elsaesser already proposed a new role in the mind-game films, but there seems to be more in the fandom films or in the 3D films.

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