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碩士論文

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Master's Degree Thesis

克里斯多福·諾蘭《記憶拼圖》(2000)之心智圖與分鏡圖敘事元素

Mind Mapping and Storyboarding in Christopher Nolan's *Memento* (2000)

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Abstract

The subject of this thesis focuses on the movie *Memento* (2000) directed by the British film director, Christopher Nolan, one of the most influential film directors in the twenty-first century. Nolan became known and acclaimed in the film industry since his debut feature *Following* released in 1998. But it is with *Memento* and its ambiguous narrative that his fame increased durably. He showcases the ability to create ambiguous narratives which further prompt the spectators to question and to investigate into his works. Inspired and influenced by his contribution and influences I would like to shed more light on his œuvre. “Memento” is a term that refers to “something that is kept as a reminder of a person, place or thing.” It originates from Latin, and literally means “to remember.”¹ “Memento” illustrates the act of “remembering,” and additionally represents a device or an object used to remember something, such as a memo. The term embodies the central concept of the film, in which Leonard Shelby, the main protagonist suffers from the loss of his short-term memory. In order to remember to avenge from the loss of his wife, he uses Polaroid photographs and inscribes tattoos on his body to assist him in his investigation. Since, photography and tattoo play significant roles in the film, it will be necessary to analyze their functioning in the structure of the movie. This thesis will discuss these two issues, and further relate them to other perspectives introduced as follows.

Chapter one discusses how Nolan exploits photography as a means to construct a story. We will first demonstrate that the way the protagonist is constructing his thinking and reconstructing his loss of memories through the display of photos on a map is analogous to the thinking method – of “mind mapping.” The narrative

¹ According to the Merriam-Webster Online Dictionary:
<http://www.merriam-webster.com/dictionary/memento> (accessed 5th April, 2015).

structure of *Memento* has two different time lines. Nolan provides the audience with the same chaotic experience as that lived by the main protagonist. Another narrative structure is delicately presented in the protagonist's way of mapping his investigation through photographs pinned on the wall of his motel room, a technique, as we will show, that is not that far from the principles of storyboarding. Since the whole movie plays on narrative and visual ambiguities, it will be necessary to analyze how the filmmaker exploits specific common places such as those related to the reliability of pictures on which the protagonist relies to lead his investigation.

Another mnemonic device the protagonist mainly uses is the tattoos inscribed on his body. In the second chapter, I will discuss how the protagonist's tattoos are exploited in the film. Inscribed all over his upper body and thighs, Leonard uses them as personal memos to help his memory problem and as an aid in the assault case investigation. Ironically, the tattoos' disorganized and multifaceted nature makes them complex to understand. I will first examine the two significant inscriptions Nolan uses to create ambiguous narratives based on their meanings. When further examining Leonard's tattoos, we realize that each of them tells different stories of the bearer. It showcases that tattoos have a narrative quality, and so does the photography as discussed in the first chapter. In the second part of the chapter, I will then draw the attention to the tattooing status in history. When speaking to the notion of tattooing, it often showcases the behavior of deviance, or its ornamental quality in the history, tribal culture and pop culture. The categorization of tattooing thus bears a veiled status and is fraught with obscurity. Beyond historical and cultural contexts, the overall ambiguity of tattoos can be identified in the character of Nolan and the movie *Memento* as a whole.

Keywords: Christopher Nolan, *Memento*, Mind Map, Storyboard, Photograph, Polaroid, Tattoo, *Mnemosyne Atlas*



摘要

本文主要探討英國導演克里斯多福·諾蘭(Christopher Nolan)執導的電影作品《記憶拼圖》(Memento)〈2000〉。諾蘭是現今公認深具影響力的電影導演之一，其首部執導作品《跟蹤》(Following)〈1998〉推出即受到多方矚目和推崇。由於諾蘭擅長營造「非線性」的敘事形式，推翻觀眾習以為常的視覺經驗，使觀者產生疑問和好奇，驅使觀者探究其作品內容。

《記憶拼圖》被歸類為「新黑色電影」(neo-noir)，以復仇為故事主軸。主角藍納·薛比 (Leonard Shelby)〈蓋·皮爾斯主演〉(Guy Pearce)失去儲存短暫性記憶的能力，因此利用拍立得「相片」和「紋身」調查妻子的謀殺案，並成為影響故事發展的重要關鍵。本文將深入探討上述兩大主題，分析導演如何以這兩種媒介敘述本故事。

本文第一章以導演諾蘭利用「相片」敘述故事為研究主軸。本部電影的敘述結構以兩條時間軸發展，觀者彷彿身入其境，體驗主角因記憶問題造成的混亂感。除此之外，導演利用相片引導觀眾挖掘故事的不同面向，遂成為另一條敘述主軸。主角利用拼貼相片的方式，協助他調查妻子的謀殺案，其過程類似「心智圖」的記憶方式，及「分鏡圖」的敘事元素將於本章深入探討。本章最後對於相片本質的真偽提出疑問，相片雖協助主角揭發謀殺「真相」，卻也令故事發展陷入膠著。

第二章探討導演如何利用另一種媒介——「紋身」敘述本故事。主角身上的「紋身」除了輔助其記憶問題與調查案情，也成為主角編織故事的方式之一。首先藉由分析主角身上最顯著的兩個紋身，探討導演諾蘭藉此營造故事的不明確感。綜觀來說，「紋身」一詞常被賦予離經叛道之特性，或在歷史、部落、大眾文化中，視為裝飾性的圖紋，因此「紋身」的本質是模糊且不明確的。這樣的特性也反應在主角自身，每個「紋身」敘述不同的故事及意義，因此無法明確瞭解主角「真正」

的目的和動機。導演諾蘭利用「相片」和「紋身」兩種媒介，以及非線性的敘事方式，創造《記憶拼圖》不同以往的觀看方式。

關鍵字：克里斯多福・諾蘭、記憶拼圖、心智圖、分鏡圖、相片、拍立得、紋身、刺青



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Introduction

The thesis focuses on the movie *Memento* (2000) directed by British film director and writer, Christopher Nolan. Without doubt, Christopher Nolan is one of the most acclaimed and influential film directors of the recent years. In his nine movies that were released during two decades, he has developed diverse styles¹, which nevertheless partake a common denominator in terms of ambiguous narratives. As Todd McGowan puts, the viewer often cannot be certain whether what he/she sees is true or not in Nolan's films.²

In *Memento*, Nolan deals with some stereotypes of film noirs in a fashionable way. He reopens the elements of vengeance and detection proper to the genre, but expresses them in a non-linear narrative by breaking the chronological order through the intertwining of sequences. Moreover, he integrates in the storyline the mediums of photography and tattoo to reflect and question, through their fragmentary aspects, the arcanum of filmic construction. *Memento* is in this respect a film which not only talks about memory and vengeance, but also epitomizes the process of filmmaking in the uses of photographs and tattoos. In a conversation on a short video clip, Nolan personally described *Memento* “[as] an extrapolation of the way I look my life, [I] often write notes on my hand, I take pictures of things, I have objects around in my apartment to remind me of things.”³ Nolan adopts the personal experience from his mnemonic behavior in his filmmaking. Furthermore, the title *Memento*⁴ embodies and encapsulates the central concept of the film which represents the main

¹ For Christopher Nolan's filmography, see Appendix 1.

² Todd McGowan, *The Fictional Christopher Nolan*, University of Texas Press 2012, p. 1.

³ See the video clip of “Christopher Nolan on Character & Perceptual Distortion In *Memento*” at Eyes on Cinema: <https://www.youtube.com/watch?v=nQqZNZE9ByE> (accessed 7 July, 2015).

⁴ “Memento” is a term that refers to “something that is kept as a reminder of a person, place or thing.” The origin is from Latin, literally “remember.” According to the Merriam-Webster Online Dictionary: <http://www.merriam-webster.com/dictionary/memento> (accessed 5th April, 2015).

protagonist's loss of short-term memory and his attempts at recovering or perpetually reconstructing it by using Polaroid photographs and tattoos. These elements play a significant role in both the fabrication of his memories and that of the film. Therefore, this thesis seeks to discuss how Christopher Nolan deals with these two elements when they relate to mnemonic function, and how Nolan elevates the function of photographs and tattoos as a means to construct a story.

In the first chapter, I will tackle the issue of photography and memory, since Leonard, the main protagonist, takes photos of significant events or people as mementos. In order to be more efficient and organized, he maps and pins the photographs on a large sheet of paper which looks like an illustrated map, creating a device to assist him with his memory problem. This map helps Leonard to orient himself in his life, giving him a sense of order to outline his chaotic life. The map can be seen as Leonard's mnemonic device and as an archive of his short-term memory, helping him to deal with his fragmentary memory, and to reflect his thoughts through a visual display. In this context, this process is very much similar to Tony Buzan's revolutionary thinking technique called "Mind Mapping" which was developed in the 1960s, but published later in *The Mind Map Book* in 1995.⁵ I will introduce the principle of mind mapping, and examine its possible connections with *Memento*. I will then draw some analogies with other types of tabular devices such as Aby Warburg's *Mnemosyne Atlas* (1924-1929), or the photographer's storyboard in Michelangelo Antonioni's *Blow-Up* (1966) which both exploit the principles of visual thinking. In other words, we will see how the map helps Leonard to understand his own story, which in a sense, is the story of *Memento*. It will be shown that the narrative function of the map is similar to

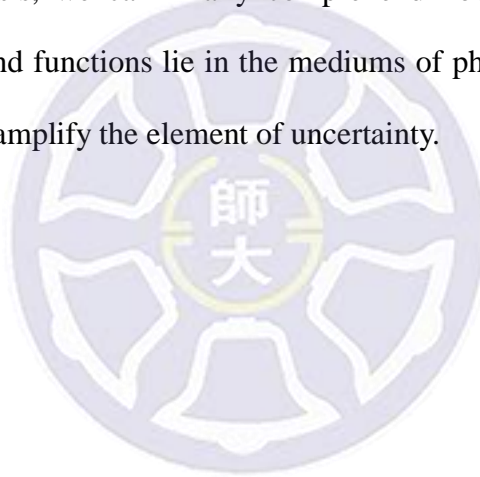
⁵ Tony Buzan and Barry Buzan, *The Mind Map Book: Unlock Your Creativity, Boost Your Memory, Change Your Life*, Hampshire 2010, the Introduction. And see the official website of Tony Buzan: <http://www.tonybuzan.com/about/mind-mapping/> (accessed 7 July, 2015).

the technique of storyboarding often used before the actual film production. Like a comic book panel tacked on a bulletin board, the storyboard develops the continuity of the movie, the plot, the rough staging, and the acting of the characters with the dialogues written underneath each pictures. I will try to examine the narrative continuity shared in these two approaches, and compare them with other examples that punctuate the history of art and the history of cinema.

Another mnemonic device Leonard mainly uses is the tattoos inscribed on his body, which will be discussed in the second chapter to examine how Nolan exploits tattoos as a means to create ambiguous narratives. Tattoo often associates with memory. In *Memento*, Leonard's body is covered with 26 tattoos that are giving him confidential information and to aid his short-term memory loss. For his own purpose, he utilizes them to survive, recall, investigate and avenge. His tattooed body becomes a "map of memory"⁶ and a mind-mapping method that helps orient him in life, where he literally records his short-term memory in the same manner that he pins photographs on the map. These tattoos are partial and fragmentary, while carrying a narrative quality. Every inscription tells a different story, giving them multiple meanings that create ambiguity. I will examine the two significant tattoos represented in the movie – "remember Sammy Jankis" and "JOHN G. RAPED AND MURDERED MY WIFE." Their meanings can be read literally, and at the same time each of them has its own story hidden by the bearer which obscures the story. The second part of this chapter will first discuss the ambiguous status of tattooing in the history, and to examine the way Nolan may have exploited this ambiguity to blur Leonard's identity. Tattooing practices range from religious, punitive, decorative and identity demonstration

⁶ Atte Oksanen and Jussi Turtiainen, "A Life Told in Ink: Tattoo Narratives and the Problem of the Self in Late Modern Society", in *Auto/Biography*, Vol.13, 2005, pp. 111-130, p. 120.

functions in the history⁷, and often showcases the behavior of deviance in the pop culture. The categorization of tattooing thus bears a veiled status. The multifaceted characteristics associated with tattoos, thus, reflect Leonard's capricious inner self and his ambiguous identity. In order to gain a broader understanding, I will then draw some comparisons with other filmic works, such as Charles Laughton's *The Night of the Hunter* (1955), or the serial drama television series *Prison Break* (2005-2009) which also exploits in their narratives the intrinsic ambiguities of the tattoos. This process can help us to understand the tradition of tattooing practice in the history of cinema, and to see how its influence may be appropriated in *Memento* and its followings. In this thesis, we can finally comprehend how Nolan plays with the ambiguous meanings and functions lie in the mediums of photography and tattoos in *Memento* to create and amplify the element of uncertainty.



⁷ Mark Gustafson, "The Tattoo in the Later Roman Empire and Beyond", in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 17-31, p. 17.

Chapter One: Photographic Display as Mind Mapping and Storyboarding

1-1 About *Memento*

Research Background and State of Research

Memento, Nolan's first commercial film, has totally won 51 awards and received 46 nominations since its release in 2000.⁸ Garnered by numerous awards, various scholars also have shown their approvals or interests in articles or books.⁹ Thanks to his in depth analysis of the whole process of making *Memento*¹⁰, James Mottram's book has constituted an important resource to help me understand Nolan's point of view toward this film. Additionally, Rob Content gave an in-depth review of the narration,¹¹ and its labyrinthine narrative structure led some scholars, such as Stefano Ghislotti, to provide diagrams to help readers grasp more easily the complex structure of the film as presented in the first chapter.¹² On the other hand, Rosalind Sibielski showcases how the postmodern discourse is represented in the narration.¹³ *Memento*'s uniqueness also raises questions about time and memory. This is the case for example of Melissa Clarke's 2002 study, which under the scope of philosophy, explores the relation between memory and time-space relation by introducing Bergson's idea of the ontological status of the past in contrast to the becoming of the present.¹⁴ Peter Thomas and William G. Little on their side respectively discuss Leonard Shelby's condition, and make a connection with trauma theory and psychoanalysis.¹⁵ While

⁸ *Memento* won 51 awards and received 46 nominations since its release, please see Appendix 2 for the awards.

⁹ See the reference list in details afterword.

¹⁰ James Mottram, *The Making of Memento*, New York 2002.

¹¹ Rob Content, "Memento", in: *Film Quarterly*, Vol. 56, No. 4, 2003, pp. 36-41.

¹² Stefano Ghislotti, "Narrative Comprehension Made Difficult: Film Form and Mnemonic Devices in *Memento*", in Warren Buckland (ed.), *Puzzle Films: Complex Storytelling in Contemporary Cinema*, Oxford 2009, pp. 97-106.

¹³ Rosalind Sibielski, "Postmodern Narrative or Narrative of the Postmodern? History, Identity and the Failure of Rationality as an Ordering Principle in *Memento*", in *Literature and Psychology*, Vol. 49, No.4, 2004, pp. 82-100.

¹⁴ Melissa Clarke, "The Space-Time Image: the Case of Bergson, Deleuze, and *Memento*," in *The Journal of Speculative Philosophy*, New Series, Vol. 16, No. 3, 2002, pp. 167-181.

¹⁵ Peter Thomas, "Victimage and Violence: *Memento* and Trauma Theory", in *Screen*, Vol. 44, No. 2,

the whole volume of essays published in “*Memento: Philosophers on Film*,” discusses more specifically the issues related to personal identity, memory and free will.¹⁶ In 2012, Todd McGowan examined Nolan’s works from *Following* to *Inception*, with a specific focus on the antagonism between lie and truth that permeate all of his films, and analyzed it with the help of Hegel’s philosophy.¹⁷ The debatable relationship between photography and memory is emphasized in my text. While Lutz Koepnick argues that the photographs fail to resuscitate the experience of the past in *Memento*,¹⁸ Damian Sutton defends that they are overwriting the past in order to fit the present.¹⁹ Joachim Paech refers to the connection between Polaroid photographs and the cinematic medium,²⁰ while Winfried Pauleit confirms the idea that photography is a representation of filmmaking.²¹ Besides these aspects, the issue of tattoos also received an in-depth analysis which will be discussed in the second chapter. For example, Steven Pile discusses the memory formation and storage as shown in Leonard’s tattooed body.²² Catalina Botez discusses how the protagonist’s trauma is reflected in his skin writing.²³ Many scholars have cast diverse perspectives on *Memento*, however, there are still some aspects that left room to re-explore the film, more specifically with regards to the issues of photography and tattoo.

2003, pp. 200-207; and William G. Little, “Surviving *Memento*”, in *Narrative*, Vol. 13, No. 1, 2005, pp. 67-83.

¹⁶ Andrew Kania (ed.), *Memento: Philosophers on Film*, New York 2009.

¹⁷ Todd McGowan, *The Fictional Christopher Nolan*, University of Texas Press 2012.

¹⁸ Lutz Koepnick, “Photographs and Memories”, in *South Central Review*, Vol. 21, No. 1, 2004, pp. 94-129.

¹⁹ Damian Sutton, “The New Uses of Photography”, in *Photography, Cinema, Memory: the Crystal Image of Time*, Minnesota 2009, pp. 201-235.

²⁰ Joachim Paech, “Erinnerungsbilder – *Memento* von Christopher Nolan und der postmoderne Film”, in Anna Zika (Hg.), *The moving image – Beiträge zu einer Medientheorie des bewegten Bildes*, Weimar: VDG 2004, S. 152-165.

²¹ Winfried Pauleit, Christopher Nolan’s Film ‘*Memento*’ als Fragment eines post-kinematografischen Möglichkeitsraums, in Barbara Lauterbach, Meike Kröncke, Rolf F. Nohr, *Polaroid als Geste*, Braunschweig 2005, pp. 66-73.

²² Steve Pile, “Topographies of the Body-and Mind: Skin, Ego, Body Ego, and the film ‘*Memento*’”, in *Subjectivity*, Vol. 27, 2009, pp. 134-154.

²³ Catalina Botez, “Skin-Deep Memos as Prosthetic Memory in Christopher Nolan’s *Memento* (2000)”, in Caroline Rosenthal and Dirk Vanderbeke (eds.), *Probing the Skin: Cultural Representations of Our Contact Zone*, Newcastle 2015, pp. 312-334.

Memento garnered strong praises, and the reviewers were impressed by its creative representation. For example, Chris Darke from the monthly film magazine *Sight and Sound* published by the British Film Institute, qualified Nolan's work as "a remarkable psychological puzzle film, a crime conundrum that explores the narrative possibilities of noir."²⁴ For Joe Morgenstern from the *Wall Street Journal*, *Memento* is the first movie he has seen so far that is so clever and at the same time so entertaining.²⁵ In the *New York Daily News*, Jack Mathews declared that "Writer-director Christopher Nolan's second film is one of the most original and ultimately confounding mind games to reach the screen since *The Usual Suspects*."²⁶ The majority of audience unanimously agree that the success of the movie is essentially owed to the way it unreservedly makes the chaotic mental state of the main protagonist believable, convincing the spectators to experience what Leonard is experiencing himself. Most admits having had the same chaotic experience he has, which results in the movie's success and overwhelming response.²⁷

Synopsis

Memento, a story about memory itself, comprises noirish elements, such as revenge, the presence of a femme fatale and betrayal. It tells the quest undertaken by the main protagonist, Leonard Shelby, to uncover the murderer who brutally raped and killed his wife. On this journey he meets a former cop and an attractive bartender, who without clear motives help him in the search for the murderer. At the end of the story, he faces questions about who he really is as he eventually kills the murderer to fulfill

²⁴ James Mottram, *The Making of Memento*, New York 2002, p. 24.

²⁵ "Hero With No Memory Turns 'Memento' Into Unforgettable Trip" in the *Wall Street Journal*: <http://www.wsj.com/articles/SB9846986937127287> (accessed 23 March, 2015).

²⁶ "Forget about Grasping 'Memento'" in the *New York Daily News*: <http://www.nydailynews.com/archives/nydn-features/forget-grasping-memento-article-1.904321> (accessed 23 March, 2015).

²⁷ See the Internet Movie Database: <http://www.imdb.com/title/tt0209144/reviews> (accessed 10 July, 2015).

his revenge.²⁸

The film revolves around Leonard Shelby, who suffers from anterograde amnesia; and who tries, with the aid of a Polaroid camera and the tattooing on his body, to organize his life and investigate the assault case of which he and his wife have been the victims. He uses photographs as memos to visually record the significant events or people he met, annotating them on the back in order not to lose their meanings. Challenged by his mental impairment, he relies profoundly on the visual and textual evidence shown on the photographs and the inscriptions branded on his body.²⁹ The photographs and tattoos not only preserve Leonard's short-term memory, but also further assist him in investigating the murder as the story unfolds.

Narrative Structure

Two versions of *Memento* exist to correspond to two different narrative structures.³⁰ Released in theaters, the original version provides a more complicated narration; while the DVD special edition (particularly the American version) unfolds the story according to the chronological timeline. My analysis will mainly focus on the original edition released in theaters.

Memento has been widely discussed for its unusual timeline of storytelling. The structure is divided into two different plots that are formally differentiated alternatively with the use of color and black-and-white sequences. They are

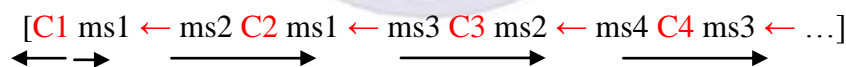
²⁸ The whole story of *Memento* and its background information, please see Appendix 3.

²⁹ Leonard treats tattoo as a mnemonic device that is more "reliable" and "trustworthy", of which the inscriptions are the instruction of his daily routine in order to make his life workable. This issue will be discussed in the second chapter.

³⁰ Stefano Ghislotti, "Narrative Comprehension Made Difficult: Film Form and Mnemonic Devices in *Memento*", in Warren Buckland (ed.), *Puzzle Films: Complex Storytelling in Contemporary Cinema*, Oxford 2009, p. 101.

intertwined with each other, beginning with the opening scene shot in color and followed by a black-and-white scene. This alternation between color and black-and-white sequences continues in a systematic way. Within this intricate and problematic disposition, we have to ask which kind of narrative Nolan tries to present. To be more specific, we have to first examine the plot structure in the color-projected scenes.

The color sequence is set in a reverse chronological order, ascending time from the end to the beginning. Yet each color sequence proceeds as the film goes on, and it ends where the previous sequence begins in a repetitive manner. As Stefano Ghislotti explains in detail, the repetition in the beginning and the end of each sequence, functions as the matching shots (ms), to create the connection between the related color sequences that flow retrogressively and are interrupted by black-and-white sequences.³¹ It would be clearer to understand the structure of the color sequence in the following scheme³²:



The color sequence (C) is arranged backwardly as the red arrow points, yet in each sequence proceeds forwardly as the black arrow points. We have thus a causal relationship where ms2 is the cause and ms1 is the result in C2. When we proceed to the end of C3 (ms2), we would have a better understanding of what had happened and

³¹ Stefano Ghislotti, "Narrative Comprehension Made Difficult: Film Form and Mnemonic Devices in *Memento*", in Warren Buckland (ed.), *Puzzle Films: Complex Storytelling in Contemporary Cinema*, Oxford 2009, pp. 97-106, pp. 95-96.

³² C represents color sequence, and ms as the matching shot in the scheme. Here the scheme is altered from Stefano Ghislotti, "Narrative Comprehension Made Difficult: Film Form and Mnemonic Devices in *Memento*", in Warren Buckland (ed.), *Puzzle Films: Complex Storytelling in Contemporary Cinema*, Oxford 2009, pp. 97-106, p. 96. Ghislotti's scheme: [C1.ms1 + BW1 + ms2.C2.ms1 + BW2 + ms3.C3.ms2 + ...→

why it became the cause at the beginning of C2. In this light, the matching shot as Ghislotti suggests functions as the mnemonic device for the viewer to better comprehend the story.³³ Nevertheless, it is still a complex challenge to understand the narration. We experience a backward storytelling with fragmentary timeline, which in each individual division proceeds forwardly. The timeline becomes a loop in each color sequence. It rotates in regression and progression, in an unstable and unfamiliar motion, and makes the viewer experience a sense of vertigo and uncanniness. The loop in each sequence implies Leonard's short-term memory. Such a repetitive behavior corresponds, as William G. Little notes, to "his repeated failure of short-term memory; his repeated tattooing; his repeated killing; his repeated attempts to narrativize his experience."³⁴ Leonard is thus in a cycle of chaos, a loop he keeps circling in.³⁵

The uncertainty about time lying in the color sequence has already been introduced in the opening scene, with both backward and forward process as the arrows points in C1. The scene begins with a Polaroid photograph showing a head (Teddy) facing down on the ground, flapped by a hand, with the image fading gradually to nothing (Fig. 1). Leonard with blood stains on his face, places the picture on a Polaroid camera which slides back to a blank picture. Next we witness a stream of blood on the wall moving upward, the gun lying on the ground flying back into the chamber of Leonard's gun, along with the cartridge and glasses moving back to their original position. All of a sudden, Leonard pulls the trigger and shoots Teddy down. This sequence unveils the story with a backward narration, the actions being literally

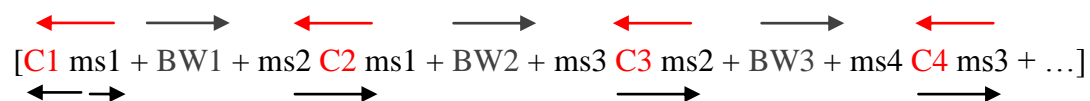
³³ Stefano Ghislotti, "Narrative Comprehension Made Difficult: Film Form and Mnemonic Devices in *Memento*", in Warren Buckland (ed.), *Puzzle Films: Complex Storytelling in Contemporary Cinema*, Oxford 2009, pp. 97-106, p. 96.

³⁴ William G. Little, "Surviving *Memento*", in *Narrative*, Vol. 13, No. 1, 2005, pp. 67-83, p. 68.

³⁵ James Mottram, *The Making of Memento*, New York 2002, p. 34.

regressive, rewinding. With a quick transition, the narrative process goes forward, as Leonard pulls the trigger. In this perspective, the audience is directly confronted to the forthcoming unusual narration, a backward storytelling.

Nolan enhances the level of difficulty regarding the events presented in color with the insertion of the black-and-white sequences. The structure is thus shown below³⁶:



In the black-and-white sequence, the story is proceeding forwardly where the grey arrows point, interlacing with the color sequence moving backwardly. The fragmentation thus produces 23 color sequences interlacing with 22 black-and-white sequences. As Ghislotti mentions “the average length of the black-and-white sequence is less than a minute (except for the last two), while color sequences are from one to six minutes long (except for the last one).”³⁷ Each sequence is short, fragmentary and temporal, edited into sequences which interlace with another. The viewer thus experiences the difficulty to remember the previous plot in the color sequence. This is not only due to the interruption of the black-and-white sequence, but also because of the difference of content with the color sequences. We are thus confronted with two different plots. Indeed, the black-and-white sequences correspond to the story of Sammy Jankis. Shot in a third-person point of view, they reveal some apparently objective and distinct points of view of the protagonist and the story, shedding light on Leonard’s life before the incident and his long-term memory. It is a common

³⁶ BW represents the black-and-white sequence.

³⁷ Stefano Ghislotti, “Narrative Comprehension Made Difficult: Film Form and Mnemonic Devices in *Memento*”, in Warren Buckland (ed.), *Puzzle Films: Complex Storytelling in Contemporary Cinema*, Oxford 2009, pp. 97-106, p. 95.

strategy to depict past events or memories by a flashback shot in black and white. Therefore, in *Memento*, the audience can easily connect the black-and-white sequences with Leonard's past memory. Moreover, Nolan deliberately shot with different textures to distinguish the motel scenes from Sammy Jankis scenes in the black-and-white sequences. Nolan creates therefore a directional light to give great contrast in the motel room scenes, offering a sense of "noir-ish shadowy style"³⁸ of mystery and thriller. On the other hand, in the Sammy Jankis' scenes, the lighting is brighter and flatter in order to make a distinction between the two scenes in the same black-and-white sequences.³⁹

Near the end of the story, the 22nd black-and-white sequence develops longer than its usual tempo. When Leonard goes to the derelict building, hunting Jimmy down, and taking a photo of Jimmy's dead body, the photographic image begins to turn to color. This turning point is what Nolan describes in his own analysis of *Memento* as a "hairpin turn" (Fig. 2): "if you order the material chronologically, the black-and-white material moves forwards, and in the last scene switches around and goes backwards to the color scene. So there is the hairpin turn."⁴⁰ It is this turning point that makes us understand that the event in black-and-white sequences happened before the color sequences. It is the 23rd color sequence which is the beginning of the color sequences as displayed in a chronological order.

With this interlacing of sequences in color and other in black and white, Nolan successfully creates some chaos, forcing the audience to experience Leonard's ephemeral memory by breaking the chronological order of the sequences and setting

³⁸ James Mottram, *The Making of Memento*, New York 2002, p. 123.

³⁹ Ibid, p. 124.

⁴⁰ Ibid, p. 33.

deliberately the assault in unspecified time in order to intrigue us and make us question how long Leonard has been lost in this repetitive cycle. The viewer is thus put in a labyrinth where there is no clear way out.

1-2 Photography and Memory

The protagonist Leonard uses photographs as his mnemonic device to help him record significant people, places or objects. The usage of photography is not uncommon, since photography is often associated with memory. We often reconnect our memory through photos. The family album plays for instance this role in collecting and recording significant events and moments in one's life. As Roland Barthes notes, photography is the "photographic referent."⁴¹ It tells that things shot in photographs have existed and been there. *Memento* is indeed a film about memory through the representation of photography. In the opening scene, the "fading" Polaroid photograph which Leonard holds in his hand implies the central core of the story: the protagonist's "failing to recall his memories." It is not by chance that Nolan chose the Polaroid photographs to illustrate the process of a memory that fades out through time. The fragility of Polaroid photographs, which makes them last shorter than other photographs through their propensity to blur and discolor gradually, reflects Leonard's mnemonic condition, since he is losing his short-term memory gradually.

Photography indeed has the ability to preserve the past moment which connects to the viewer's memory when confronted to it, but this is not the case of Leonard, as he cannot remember what happened according to what is represented in the picture. His capricious character makes him easily alter the referent of the photographs. For

⁴¹ Roland Barthes, "THAT-HAS-BEEN", in *Camera Lucida: Reflections on Photography*, Richard Howard (trans.), New York 2000, pp. 76-77.

instance, after Leonard kills Jimmy Grants, he considers Jimmy's fancy Jaguar his own. When Teddy tries to fool him by pointing another car, Leonard holds the photo of the Jaguar by asserting this is his car, telling Teddy that "You're in a playful mood. Shouldn't make fun of somebody's handicap." The photography ostensibly functions as a tool of cognition when he encounters new people, places and events, yet what is hidden underneath is his determination to avenge. His compulsive drive to take revenge makes him alter the events and referents recorded in the photographs. As the story processes at the end, we are finally surprised to learn that Leonard sets himself up to kill Teddy by identifying him as "John G." It would suggest that Leonard repeatedly remembers his trauma and vengeance by using the photographs as a means to connect new people and events with his assault experience.⁴² Leonard fabricates his short-term memory at will, if we consider the discussion he has with Teddy. As he puts it: "Memory's unreliable. No, really. Memory's not perfect. It's not even that good. [...] Memory can change the shape of a room or the color of a car. Memories can be changed or distorted [...]." In some way, the photographs thus serve as a purpose for Leonard "remembering" his vengeance, and further assist him to investigate the murder case.

Leonard not only records significant events with photographs, he further stores them as a visual archive of his short-term memory. In this photographic archive, he displays the photos in a manner they may acquire a certain relevance when put in a larger context. He pins them on a large sheet of paper which basically looks like a drawing map, and connects the picture with its referent in doodling drawing line. It seems this map gives Leonard a sense of order and direction, and helps him hopefully to

⁴² Damian Sutton, "The New Uses of Photography", in *Photography, Cinema, Memory: the Crystal Image of Time*, Minnesota 2009, pp. 201-235, p. 215.

reconstruct or reorganize his short-term memory. This “graceful solution to the memory problem” so Leonard says, is governed by discipline: “I’ve got a more graceful solution to the memory problem. I’m disciplined and organized. I use habit and routine to make my life possible.” Following his own guidance, Leonard literally recollects his short-term memory with photographs as his mind takes pictures of most significant things relative to him, and (re)organizes them on a plane surface. Therefore, the map becomes his thinking and mnemonic tool. It helps him to deal with his fragmentary memory, to orient him, to reflect his thinking through a visual display. In this context, this process is very much similar to the thinking technique called “mind mapping.”

“Mind Mapping”

Tony Buzan invented an approach of “mind mapping” in the 1960s but published it eventually in 1995 in the first edition of *The Mind Map Book*.⁴³ This approach later becomes a popular knowledge as he promotes it world widely.⁴⁴ The goal is to enhance the memory and inspire creative thinking, in constructing and visualizing the process of our thinking through the principle of a drawing map (Fig. 3). According to Buzan, the structure he called “Mind Map” mimics the pattern of our brain cell, each of which having a central body and thousands of tentacles. In Buzan’s description it is like a “super-octopus.”⁴⁵ By appropriating the biological structure of the brain cells into the thinking method, Buzan suggests that the central body is the main subject of our thinking, and the tentacles that connect to it are different categories related to this

⁴³ Tony Buzan and Barry Buzan, *The Mind Map Book: Unlock Your Creativity, Boost Your Memory, Change Your Life*, Hampshire 2010, introduction. See also the official website of Tony Buzan: <http://www.tonybuzan.com/about/mind-mapping/> (accessed 7 July, 2015).

⁴⁴ The first “Mind Mapping” teaching course in Taiwan took place in 1998. The founder Mr. Yi-Hsin Sun proclaims that he followed Buzan’s training course in 1997 “. See <http://www.mindmapping.com.tw/index.php?do=show&page=1-2> (accessed 7 July, 2015).

⁴⁵ Tony Buzan and Barry Buzan, *The Mind Map Book: Unlock Your Creativity, Boost Your Memory, Change Your Life* Hampshire 2010, p. 5.

subject in terms of mind mapping.⁴⁶ As Buzan suggests, our brain thinks organically like the branches of a tree, radiating from the center. It is organic, dynamic, and non-linear, and responds better to images and colors.⁴⁷ The thinking process called Radiant Thinking of which the mind map is a graphic representation.⁴⁸ Thus it is with the aid of mind mapping that one is able to create an external mirror to present a visual transcript of the thinking process. The mind map is also related to memory storage. As Buzan asserts, when creating a mind map, the process is in a state of relaxation and creation (through the use of different colors, images and words), and can thus empower our brain to think and remember.⁴⁹ Therefore, the mind map is a visual embodiment of one's thinking, and it is also an archive of one's memory.

According to the principle of mind mapping, we can also find similarities in Leonard's "memory map" (Fig. 4). Without short-term memory, Leonard's life is constantly changing, and his thought is thus capricious. As Buzan suggests our brain responds to "colors and images" better, therefore, it seems logical that Leonard's survival instinct is triggered by the visualization of his thinking process through photographs (colorful images) and helps him to orient and reorder his life. In this respect, I would like to suggest that Leonard's thinking process may be considered as a method of "photo mapping." We follow the doodling lines linking to the referent photographs⁵⁰, and the photographs all connect to his central obsession: investigating the murder of his wife and fulfill his vengeance. Therefore, with the help of "photo mapping," he records his ever-changing thinking process and short-term memory

⁴⁶ Tony Buzan and Barry Buzan, *The Mind Map Book: Unlock Your Creativity, Boost Your Memory, Change Your Life* Hampshire 2010, p. 5.

⁴⁷ Ibid, pp. 23-32.

⁴⁸ Ibid, p. 31.

⁴⁹ Ibid, p. 88.

⁵⁰ According to Buzan the tentacles (doodling lines) are radiant from a central subject, each tentacle connects to different categories (photographs).

through the visual display of photos and texts underneath each picture. In this sense, Leonard's map does not only help him to locate the situation and surroundings, but also assists him with his thinking process and memorization, and above all to find the murderer and "kill him."⁵¹

Warburg and *Mnemosyne Atlas*

The approach to transform the invisible thinking process into a visual creation has not been invented by Tony Buzan. When we trace back to the history to examine precedent examples, we can find similar "devices" such as for example Aby Warburg's *Mnemosyne Atlas* (1924-1929) in which the visualization of the thinking process is at work, given the role played by diagrams in the mapping of Warburg's ideas. The German art historian and cultural scientist⁵² Aby Warburg (1866-1929) devoted his last few years to the project which he called *Mnemosyne*⁵³, a large collection of images in the form of a "picture atlas" (Fig. 5). As a biographer of Warburg's life, Gombrich describes this audacious project recapitulating Warburg's life-long study in antiquity, Florentine Renaissance art and beyond.⁵⁴ Christopher D. Johnson believes that Warburg redefined the patterns and connections in images of symbolic, intellectual and emotional elements to logically outline and reason the reappearance and revival of Western antiquity in the art and cosmology of later periods and places.⁵⁵ In this audacious project, Warburg juxtaposed and pinned

⁵¹ Steve Pile, "Topographies of the Body-and Mind: Skin, Ego, Body Ego, and the film 'Memento'", in *Subjectivity*, Vol. 27, 2009, pp. 134-154, p. 150.

⁵² See Cornell University Library of Mnemosyne Research: <http://warburg.library.cornell.edu/> (accessed 4 July, 2015).

⁵³ Mnemosyne means memory, according to the Encyclopedia Britannica Online: "Mnemosyne, in Greek mythology, the goddess of memory. A Titaness, she was the daughter of Uranus (Heaven) and Gaea (Earth), and, according to Hesiod, the mother (by Zeus) of the nine Muses. She gave birth to the Muses after Zeus went to Pieria and stayed with her nine consecutive nights." <http://global.britannica.com/EBchecked/topic/386638/Mnemosyne> (accessed 11 January, 2015).

⁵⁴ Ernst Hans Gombrich, *Aby Warburg: An Intellectual Biography*, 2nd. Edition, Chicago 1986, p. 283.

⁵⁵ See Cornell University Library of Mnemosyne Research: <http://warburg.library.cornell.edu/about> (accessed 4 July 2015), the introduction is written by Christopher D. Johnson.

anachronistically relevant photographs – reproductive photographs of art historical or cosmographical images – on large wooden panels⁵⁶ covered with black cloth which he called “atlas.”⁵⁷ As Gombrich puts it “[...] Warburg had been fond of mapping out the complex relationships in diagrammatic form in which the work he was studying was represented as an outcomes of various forces.”⁵⁸ In the same manner, Michaud points out that “Warburg repeatedly used schematic transcription of works of art, which he arranged on sheets as on storyboards, organizing their interrelationships with colored lines.”⁵⁹ In one of the latest contributions on Warburg, Johnson asserts that the German art historian tended to visualize his thinking process through a diagrammatic form in his notebooks.⁶⁰ Taken these perspectives into account, Warburg’s tendency of using diagrams to assimilate his thoughts found later its didactical and theoretical expression in the techniques of mind mapping diffused in Tony Buzan’s writings. As we have discussed previously, the principles of mind mapping can help develop one’s own memory. More than to inspire its spectators, *Mnemosyne* was not merely an experimental project attempting to establish connections among heterogeneous photographic reproduction of artifacts, but was also an archive of Warburg’s own recollection of his exhaustive decades-long studies

⁵⁶ “The *Atlas* measures approximately 150 x 200 cm.” See Christopher D. Johnson, “*Mnemosyne* – Its Origins, Motives, and Scope”, in *Memory, Metaphor, and Aby Warburg’s Atlas of Images*, New York 2012, pp. 1-42, p. 9.

⁵⁷ According to the definition on Encyclopedia Britannica Online: “Atlas, a collection of maps or charts, usually bound together. The name derives from a custom—initiated by Gerardus Mercator in the 16th century—of using the figure of the Titan Atlas, holding the globe on his shoulders, as a frontispiece for books of maps. In addition to maps and charts, atlases often contain pictures, tabular data, facts about areas, and indexes of place-names keyed to coordinates of latitude and longitude or to a locational grid with numbers and letters along the sides of maps.” See <http://global.britannica.com/topic/atlas-maps> (accessed 11 January, 2015).

⁵⁸ Ernst Hans Gombrich, *Aby Warburg: An Intellectual Biography*, 2nd. edition, Chicago 1986, p. 284.

⁵⁹ After Philippe-Alain Michaud, *Aby Warburg and the Image in Motion*, Sophie Hawkes (trans.), New York 2004, p. 257. Peter van Huisstede, “Der Mnemosyne-Atlas: Ein Laboratorium der Bildgeschichte”, in Robert Galitz and Brita Reimers (eds.), *Aby M. Warburg: “Ekstatische Nympe — trauernder Flussgott”: Portrait eines Gelehrten*, Hamburg 1995, p. 130.

⁶⁰ Christopher D. Johnson, “Exemplary Figures and Diagrammatic Thought”, in *Memory, Metaphor, and Aby Warburg’s Atlas of Images*, New York 2012, pp. 170-193, p. 182.

on the European cultural history.⁶¹ Unlike typical mind mapping, the black-and-white photographs of *Mnemosyne Atlas* are displayed in a tabular order, different from the center-based mind mapping extending from the core with colorful images or texts. It needs a central subject in order to create relative associations in a mind map, where the central concept is juxtaposed by the images in *Mnemosyne Atlas*. Although there are various ways to visualize one's thoughts and how they are interconnected, one common denominator resides in the visual and textual data pinned on a board or notebook. On the other hand, Leonard's hand-made map is his archive of short-term memory which he lives fragmentally with his mnemonic condition. Both the plates of the *Mnemosyne Atlas* and Leonard's "investigation map" are visual tools to help the reconstruction of events and the reconfiguration of memory. They both use the montage of photographs to make it.

Cinematic Representation of Mind Mapping

The technique of mind mapping in the history of cinema has precedents. The discussion here is not to identify whether Nolan has appropriated certain pertinent cinematic examples, but to elaborate a broader perspective to demonstrate the interconnection of mind mapping in the history of cinema. The visualization of the thinking process can be found for example in Michelangelo Antonioni's *Blow-Up* (1966). *Memento* shares the same spirit of investigation through the display of images, as it represents in *Blow-Up*. Antonioni's movie shows a fashion photographer (David Hemmings) who, after shooting photographs of a couple in a park, discovers accidentally that the pictures hide a murder case.⁶² At first, Thomas, the main

⁶¹ Matthew Rampley, "Archives of Memory: Walter Benjamin's *Arcades Project* and Aby Warburg's *Mnemosyne Atlas*", in Alex Coles (ed.), *The Optic of Walter Benjamin*, London 1999, pp. 94-117, pp.99-100.

⁶² See Appendix 5 for the detailed story of *Blow-Up*.

protagonist, is reconstructing the event he shot in the park by juxtaposing the photos in a specific order (Fig. 6). When noticing in one of the photos that the female sitter looks into the distance with a horrified expression, he tries to find out what may have caused this, and rearranges the photos. Following his thought and hypothesis, Thomas macro-zooms and rearranges the order of the photos, until he finally digs out a murder case. Indeed, in *Blow-Up*, we recognize that one's thinking process can be represented in visual display. Still, there are various other principles of mind mapping. The black-and-white photos in *Blow-Up* are displayed in order horizontally, and not originated from the center or represented in colors according to Buzan's mind-mapping principle. The central subject in the series of photos changes from "a lovely couple meeting in the park" to "a suspected murder case under Thomas' speculation." The "real" motive is discreetly suggested in Thomas' juxtaposing and macro-zooming the photographs. Whereas the process of the investigation is led only with photos in *Blow-Up*, other examples such as in *A Beautiful Mind* (2001) combine textual and visual documents. Directed by Ron Howard and partially based on John Nash's life, the film shows the American mathematician (Russell Crowe) who suffers from schizophrenia, obsessively dedicating his time trying to decipher codes and patterns among newspapers and magazines in order to defeat a Soviet plot (Fig. 7). He believes that this secret mission was assigned by a supervisor of the nation (Ed Harris). Nash tacks an enormous amount of data on the wall, linking them with strings or threads. All the data, codes or patterns found in the magazines and newspapers are actually the products of Nash's mind. The complex yet organized pattern of his thought corresponds to a spider's web interlacing with one another (Fig. 8). Another example is the adaption of the famous fictional detective Sherlock Holmes by Guy Ritchie. The movie (*A Game of Shadows*, 2011) shows Holmes (Robert Downey Jr.) trying to solve a complicated case by piecing diverse information together on the wall,

using strings to connect different data. His device is what he calls a “spider’s web” (Fig. 9). The most significant clues are leading along with strings to the central figure of Professor James Moriarty (Jared Harris). The aforementioned examples show a visual display on which the characters are organizing and visualizing their thought. They offer the same pattern of the “tentacles” intertwining with one another like a spider’s web, and leading them to the core of a subject as that suggested by Tony Buzan’s techniques of mind mapping.

1-3 Storyboard Structure

Not only his basic mnemonic tool, Leonard’s display of photographs is also used to construct the story of *Memento*, which is the point I will be arguing next. The same chaotic and fragmentary experience lived by the main protagonist, not only is illustrated by Nolan through the two different timelines narratives, but also is expressed through the usage Leonard makes of photographs. He collects the photographs at each step of his investigation, and arranges them on a map he pinned on the wall of his motel room. Leonard’s display of photographs may constitute the attempt of sequencing a narrative continuity – that means, when Leonard returns to his room, mapping and pinning the photographs on a large sheet of paper which looks like a drawing map, creating a device to assist him with his memory problem, he is developing a story throughout the display of his photographs (Fig. 9). The mapping of the photographs helps Leonard to regain a sense of order in his life, to understand his own story – which in a sense, is the story of *Memento*. This is similar to the technique of storyboarding often used before the actual film production.

The storyboard is a method and tool to allow filmmakers to see the blueprint of a movie before its actual production. According to Fionnuala Halligan, the storyboard

as we now know was developed at the Walt Disney studios during the early 1930s.⁶³ According to Diane Disney Miller's biography on her father, the storyboard came to full use in 1933, while Walt Disney was preparing *Three Little Pigs*.⁶⁴ The storyboard is like a comic book panel tacked on the bulletin board. It forms the continuity of the movie, indicates the plot, camera position, rough staging, and the acting of the characters with the dialogues written underneath each pictures (Fig. 10). Moreover, depending on the needs, each panel can be changed, deleted or rearranged. The development of the film layout through the storyboard permits to visualize the scenes and settings more easily before shooting it. This tool which has been used by many directors since its development, might have been adopted and transformed by Nolan into a metaphysical visual expression, although he personally feels discontent with this process as Mottram mentioned.⁶⁵

It is clear that the medium between *Memento* and the traditional storyboard for a movie production is different: photographs are put on a map in *Memento* without respecting any tabular order, while on the other hand, the ideal storyboard is made of drawings displayed in order on a panel. Unlike a traditional storyboard the visual cells (the photographs) in the case of Leonard's map are not arranged in a tabular manner from left to right and from top to bottom, but scattered topologically on a map, according to the places visited by Leonard. Contrary to the coherence of a traditional storyboard, the sporadic mapping of the fragmentary photographs offers no clear timeline of the events they may represent. In this sense, there is no indication of a

⁶³ Fionnuala Halligan, *Movie Storyboards: The Art of Visualizing Screenplays*, San Francisco 2013, p. 14.

⁶⁴ After John Canemaker, *Paper Dreams: The Art and Artists of Disney Storyboards*, New York 1999, p. 5. Diane Disney Miller, *The Story of Walt Disney*, New York 1956, p. 194.

⁶⁵ James Mottram, *The Making of Memento*, New York 2002, p. 153. In Nolan's words: "I get bored with it very quickly. Most [storyboards] are drawn according to conventions, and they have a comic-book feel to them, which doesn't necessarily relate that strongly to where you're going to put the camera, and what lens you're going to use."

chronologized timeline in Leonard's map, which is contrary to the well-ordered consistency we find in a storyboard. Nevertheless, the analogy I want to stress here between the mapping of photographs and a storyboard resides in the idea of creating a narrative continuity with the help of images displayed on a vertical surface. Therefore, I would like to suggest that each photograph in *Memento* functions as a fragmented cell (a panel) of a storyboard. Each of them offers a glimpse (a summary) of a single shot or sequence. Moreover, we can see different usage of point of views and camera lenses like in a traditional storyboard. We find thus in the photographs an alternation of "medium" (Natalie) and "close-up" (Teddy) shots that correspond to the diversity we may find in filmmaking. Each image (photograph) presents a character (Teddy, Natalie, Dodd, Jimmy and Leonard), a place (the motel Discount Inn) or a prop (the Jaguar). The captions under each picture of the characters help Leonard to understand their context better. They may be considered as kind of "blockings" informing their subsequent development. In this respect, according to the storyboard tradition,⁶⁶ the photographs and the captions serve as a summary of a larger plot and function as the panels of the storyboard telling the story of *Memento*. Leonard tries indeed to make sense of each single picture by rearranging it on a map he specifically created as a mnemonic tool. This seems evident in the way Leonard tries to (re)construct his own story by putting the photographs together, as if they were the visual fragments that correspond to his recollection.

Contrary to the principles of storyboarding which help the chronological ordering of a narrative, Nolan organizes the photographs in an unconventional way in *Memento*. The photographs are presented in a fragmentary order breaking with the idea of

⁶⁶ John Canemaker, *Paper Dreams: The Art and Artists of Disney Storyboards*, New York 1999. And Fionnuala Halligan, *Movie Storyboards: The Art of Visualizing Screenplays*, San Francisco 2013.

continuity as it is the case also in the intertwining sequences. This provokes within the audience some confusion and mimics Leonard's own chaotic experience. It is intentional that the photographs displayed in a heterogeneous order resemble the disconnected sequences of the film. Under this light, each picture functions as a part of a larger whole corresponding to a scene or a sequence. When put together, the chaotic continuity of the photographs represent at a smaller level the same fragmentary aspect as that existing between each sequence in black-and-white or color. They are the parts of a larger whole that needs to be reconstructed and which corresponds to the whole storyline of *Memento*. Taking the "storyboard" perspective into account, the color sequences and the black-and-white sequences in *Memento* can be considered at their level as the panels of a storyboard in a broader context. Every sequence is a "frame" (a still image) of the filmstrip, divided into color and black-and-white frames. If we put each frame into the whole composition and reorder it coherently, it is possible to reconstruct the whole storyboard. When the filmstrip is running, it resembles to the fragmentary structure of a storyboard, unfolding the story frames by frames or panels by panels. In this respect, photography in *Memento* does serve an essential role when it comes to embody the whole story, like the panels in a storyboard.

Mnemosyne Atlas

Long before it was introduced in the US, the concept of storyboard appeared as early as the 1920s in Germany.⁶⁷ Right around the same period, similar use of visual

⁶⁷ See the exhibition "Between Film and Art. Storyboards from Hitchcock to Spielberg" in Deutsche Kinemathek – Museum für Film und Fernsehen: <http://www.deutsche-kinemathek.de/en/exhibitions/past/2011/storyboards/workshop-room> (accessed 15 July, 2015). And further reading: Kristina Jaspers, « Zur Entstehungsgeschichte und Funktion des Storyboards », in Katharina Henkel, Kristina Jaspers, Peter Mänz (dir.), *Zwischen Film und Kunst. Storyboards von Hitchcock bis Spielberg*, Bremen, Hachmann Edition, 2011, pp. 12-17.

display can be seen in the project *Mnemosyne Atlas* (1924-1929). Through the juxtaposing of photographic images from different period, place and culture, Warburg intended to reveal a continuity of ideas beyond the boundaries of linear historical narration and geographic provenance. Essentially, creating narrative continuity through the display of images is the same as a storyboard's basic function of story-telling with display of drawing plates.

Warburg constantly reordered the images according to new connections or new ideas, and he believed that these symbolic images by juxtaposing and placing them in sequence, could stimulate immediate and synoptic insights into the images that he called “bewegtes Leben” (life in motion or animated life).⁶⁸ In *Aby Warburg and the Image in Motion*, Philippe-Alain Michaud and Georges Didi-Huberman further augments this idea of “life in motion” with a cinematic approach. According to Didi-Huberman’s foreword, Michaud understands *Mnemosyne*’s “motion” by referring the images to “jumps, cuts, montages”, and “through mapping repetitious and different images on the *atlas* which the visualization becomes a serial of continuous events.”⁶⁹ Brian Dillon, paraphrasing Michaud’s idea, speaks of the panels “with their blank squares and scrawled captions, as perverse mirror images of the textless patterns on the photographic plates, hastily sketched storyboards for a movie that only ever played in the mind of the scholar/director [Aby Warburg].”⁷⁰

Although there are differences in terms of function, medium and coherence between

⁶⁸ See Cornell University Library of *Mnemosyne* Research: <http://warburg.library.cornell.edu/about> (accessed 4 July, 2015), the introduction is written by Christopher D. Johnson.

⁶⁹ Georges Didi-Huberman, “Foreword”, in Philippe-Alain Michaud, *Aby Warburg and the Image in Motion*, Sophie Hawkes (trans.), New York 2004, p. 16.

⁷⁰ Brian Dillon, “Aby Warburg’s *Mnemosyne Atlas*”, in *Frieze Magazine*, Issue 80, January-February, 2004. See http://www.frieze.com/issue/article/collected_works/ (accessed 5 July, 2015).

the plates of the *Mnemosyne Atlas* and those of a storyboard, there are also similarities in the way they serve as a visual tool – their collective purpose to achieve “narrative continuity” by displaying images on a flat surface. The *Mnemosyne Atlas* was for Warburg like a storyboard to a director, in the way both boards give immediate insight and comprehension of the construction of a thinking process through a sequence of images. If we further consider *Mnemosyne* under its cinematic aspect, according to Tom Gunning, cinema is an art of the moving image that could simply be created using a series of still images.⁷¹ The juxtaposing of photographs in *Mnemosyne* uses sequenced still images to create the movement that constitutes the story, as described by Gunning. Continuity can be achieved solely by the montage of images without them necessarily being mounted chronologically or sequentially. *Memento* shares the same aspect of montage. The images have not necessarily to be coherent in time or place, but it is the display of one image attached to another that creates and articulates a specific order. In this respect, the use of montage of photographs in *Mnemosyne* and *Memento* also share this point of view.

Cinematic Representation of Storyboard

Memento isn't the first to display the storyboard structure in the film, since we can find precedents in the history of cinema. *Blow-Up* (1966), as we have already seen, has already conceptualized this idea in a different approach – photography. Antonioni's *Blow-Up* is one of the best-known films about photography, and due to its importance and the role it plays in the history of cinema, it is necessary to question its influence. It showcases the use of mapping photographs in order to reconstruct a story, a principle which is also at stake in *Memento*. While reconstructing the events that

⁷¹ Tom Gunning, “The Play between Still and Moving Images: Nineteenth-Century ‘Philosophical Toys’ and Their Discourse”, in Eivind Røssaak (ed.), *Between Stillness and Motion: Film, Photography, Algorithms*, Amsterdam University Press 2011, pp. 27-43, p.27.

took place in the park, Thomas, the photographer, tacks the photographs one next to the other on the beam and walls of his studio (Fig. 6), arranging them in order to understand what really happened. Thomas then attentively studies the photos by printing a selection of enlargements, juxtaposing them in a sequence which, he first thinks, successfully prevented the male sitter from being shot.⁷² Each photograph is fragmentary and partial, yet putting them together in a sequence, creates a narrative continuity. Unlike the tabular structure of a storyboard, the photographs in *Blow-Up* function even closer to a film strip. The arrangement of the photos corresponds to the editing of a film, where the successive shots composed by the “long shot,” “medium shot” and “close-up” photographs contain different points of view. Like moving frames in a filmstrip, the series of successive photographs in motion create an effect of a narrative sequence. Not far from the concept of a storyboard where it pre-visualizes a story in serialized panels, the narrative continuity in the montage of photographs essentially takes the same approach and is used by Antonioni in *Blow-Up* in a transformative way. The fragmentary photos function analogously to the montage of photographs in *Memento*, symbolizing a sequence corresponding to a part of the whole storyline. These photos are intentionally made up of fragments in order to resonate with the ambiguous narration.

Another example is shown in a more futuristic touch, released two years after *Memento*. In *Minority Report* (2002), the principles at stake are similar, since the main protagonist the police Chief of Pre-Crime played by Tom Cruise assembles different fragmentary visual clues by waving his hand covered with sensor gloves in mid-air, by macro-zooming, twisting, turning, comparing the images or placing them

⁷² Frank P. Tomasulo, “‘You’re Tellin’ Me You Didn’t See: Hitchcock’s *Rear Window* and Antonioni’s *Blow-Up*”, in David Boyd and R. Barton Palmer (eds.), *After Hitchcock: Influence, Imitation, and Intertextuality*, Austin 2006, pp. 145-172, p. 155.

in sequence (Figs. 11, 12). It bears a clear influence from *Blow-Up* and echoes the sequence, where Thomas makes a close-up of the problematic images, and arranges them in sequence to carefully study the photos in details. As in *Memento*, the implementation of montage in both *Blow-Up* and *Minority Report* functions similar to the concept of a storyboard.

It is worth mentioning that Nolan might be playing with the codes of tradition in *Blow-Up*, in which one can easily understand its logical and chronological arrangement of the images. The same execution can be seen in *Minority Report*. Nevertheless, the sporadic display of photos in *Memento* showcases Nolan's unique way of direction in the cinematic tradition.

1-4 Photography and Authenticity

As David Company notes, photography often plays a role as a tool for memory and authenticity in film. This is even more obvious in film noir and detective movie where forensic pictures are often represented.⁷³ It is no coincidence in this respect, if Nolan uses photography as a tool in his noir-ish *Memento*. In a similar vein the film *Blow-Up*, also throws into question the authenticity taken by photography. One of the photographs the protagonist Thomas shot in a park, showing a body lying on the ground shows a very vague quality. The more he “blows-up” the problematic portion of the photograph, the more abstract and grainy the photographic image looks. Can this photograph prove that a murder has happened? Is this image authentic? The director Antonioni does not try to solve this question, because what Thomas sees is not equal to what the event turns out to be. The question of authenticity in photography also rises in *Memento*. To examine the issue of authenticity, we have to

⁷³ David Company, *Photography and Cinema*, London 2008, pp. 95-97.

consider first the relationship between photography and the detective story.

Photography and Investigation

Walter Benjamin saw a common development of photography and detective fiction in the nineteenth century:

The invention of photography was a turning point in the history of this process. It was no less significant for criminology than the invention of the printing press was for literature. Photography made it possible for the first time to preserve permanent and unmistakable traces of a human being. The detective story came into being when this most decisive of all conquests of a person's incognito had been accomplished. Since that time, there has been no end to the efforts to capture a man in his speech and actions.⁷⁴

Since its invention, photography has had multiple applications, not only presented in the artistic form, but serving as scientific evidence due to its “fidelity equal[ing] to nature itself.”⁷⁵ It influenced the development of detective story. As Ronald R. Thomas notes, the nineteenth-century detective storyteller Edgar Allan Poe believed that “a photograph produced nothing less than truth itself by achieving a perfect identity with its referent.”⁷⁶ Nolan might re-exploit this long-lasting belief in his scenario with his character who behaves like a detective and pretends to solve his case by using a Polaroid camera.⁷⁷ As the story unfolds, we see Leonard not only making use of the photographs as his memos to compensate his lack of short-term memory, but taking them as a tool to record and investigate the crime scene as in the case of Jimmy and Teddy's death (Fig. 13). Normally, it would be unusual for an “ordinary”

⁷⁴ Walter Benjamin, “The Paris of the Second Empire in Baudelaire”, in Michael W. Jennings (trans.), *The Writer of Modern Life: Essays on Charles Baudelaire*, London 2006, pp. 46-133, p. 79.

⁷⁵ After Siegfried Kracauer, *Theory of Film: The Redemption of Physical Reality*, Oxford 1960, p. 4. Quoted from Gay-Lussac's speech in the French House of Peers, July 30, 1839, by Eder, *History of Photography*, p. 242.

⁷⁶ Ronald R. Thomas, *Detective Fiction and the Rise of Forensic Science*, Cambridge 1999, p. 112.

⁷⁷ In *Memento*, Leonard uses a Polaroid SLR 690 which offers the advanced instant photographic features of its legendary Polaroid SX-70.

man to record a crime scene after killing people.⁷⁸ It is however clear that the sense of investigation is deeply rooted in Leonard's nature since he was an insurance investigator before the loss of his memory. It is what Teddy says to Leonard, "You don't know who you are [...], you are wandering around, playing detective [...]." It is also expressed when he talks to Teddy and asserts that: "they (the police) collect facts, they make notes, and they draw conclusions." He further emphasizes his process of collecting data as an unmistakable fact by saying "Facts, not memories. That's how you investigate. It is what I used to do." When Leonard finds clues that might be related to his assault case, he takes photos which he develops within a few seconds and writes down a caption on them. Due to this process, he believes that what the photograph presents is authentic evidence. This belief in the power of photography is stressed by the use of a camera that could deliver photographs within a minute without a long processing in a darkroom. According to Company, the authoritative character of a Polaroid photograph lies in its time and place, there is no artificial manipulation within its processing.⁷⁹ Therefore, photography becomes crucial evidence for Leonard to investigate the assault case.

As the story unveils further, we come to realize that Leonard not only presumes himself as a detective, but he also might be a potential serial killer in the name of justice. This potentiality is suggested in the ambiguous relation between taking pictures and literal shooting activated by Nolan at the beginning of the movie, when Leonard holding a Polaroid camera, aims and shoots literally his target with his gun. This "snapshot"⁸⁰ action implies literally the arrest and the killing of his targets,

⁷⁸ Here I specifically mean "ordinary" man is to stress that Leonard is not a professional killer or detective, according to the movie he is a white-collar worker, an insurance investigator before the incident.

⁷⁹ David Company, *Photography and Cinema*, London 2008, p. 112.

⁸⁰ According to Oxford Dictionary, the definition of the term "snapshot" means "an informal

Jimmy and Teddy. As Susan Sontag puts it “[...] the camera is a sublimation of the gun, to photograph someone is a sublimated murder [...]”⁸¹ It seems that Nolan exploits this idea, showing that the use of a camera implies the action of killing. Thus we can consider that the function of photography lies in *Memento* in a broader perspective: fundamentally speaking, it works as a mnemonic tool to assist Leonard with his memory troubles; in terms of investigation, it serves as a forensic evidence, and helps Leonard to collect clues in order to solve his assault case; in terms of hunting, his photo shooting becomes the metaphor of his brutality.

As discussed previously, photography relates to detective investigation and therefore opens the possibility to question its authenticity value which could trace back to the development of forensics. In 1839, Louis Jacques Daguerre and Henry Fox Talbot both announced the invention of photography, and from the 1840s, photography has been used as a “scientific tool” for criminal identifications and prisoner documentation.⁸² The invention of photography transformed the status of personal portraiture, making the images function as identifiers.⁸³ This transformation shows

photograph taken quickly, typically with a small handheld camera.”

<http://www.oxforddictionaries.com/definition/english/snapshot?searchDictCode=all> (accessed 10 February 2015)

Before the “snapshot” was associated with photo shooting, the term was originally used in hunting means one uses gunshot with a very quick aim. In 1860, Sir John Herschel used the term “snapshot” to discuss about the potentiality of a rapid sequence of instantaneous photographs. The term came to common use until the late 1880s, when instantaneous photography became more practical since Kodak Company introduced its first successful amateur camera in 1888. In a more modern sense, Leonard takes his handheld camera, a Polaroid SLR 690, aims his targets and shoots. Thus “snapshot” photography takes a different relevance if we connect the term to its old etymology.

See Todd Gustavson, “Innovative Devices: George Eastman and the Handheld Camera”, in Elizabeth W. Easton (ed.), *Snapshot: Painters and photography, Bonnard to Vuillard*, New Haven and London, 2011, pp. 13-21, pp. 15-17. And Yu-Yun Liu, “The Birth and Evolution of the Snapshot”, in *Snapshot: Birth, Evolution, and Definition of a Problematic Notion*, Taipei 2013, p. 7.

Brian Coe and Paul Gates, *The Snapshot Photography: The Rise of Popular Photography 1888-1939*, London 1977, p. 6.

⁸¹ Susan Sontag, “In Plato’s Cave”, in *On Photography*, New York 1977, pp. 3-24, p. 14.

⁸² After Ronald R. Thomas, *Detective Fiction and the Rise of Forensic Science*, Cambridge 1999, pp. 111-114. On the history of photographic evidence, see Waltz, *Criminal Evidence*, pp. 361-371. And Waltz, Jon R., *Criminal Evidence*, Chicago: Nelson Hall, 1975.

⁸³ Peter J. Hutchings, “Modern Forensics: Photography and Other Suspects”, in *Cardozo Studies in*

that personal portraiture that once represented a symbol of wealth became at the end of the 19th century the tool of documentation and identification in police work.⁸⁴ According to Peter J. Hutchings, a clerk serving in the Paris Prefecture of Police named Alphonse Bertillon invented a system of identification which was called “bertillonage,” “by taking eleven physical measurements, recorded on cards along with verbal description and, increasingly, ‘photographs’ in order to distinguish individuals.”⁸⁵ The measurements were the foundation for its archival system. Later the Bertillon’s archive extended to two kinds of photography – full face and profile, to make the individual more easily identifiable.⁸⁶ What Leonard does when adding descriptions to the photographic profile in order to assist him in the recognition of the individuals he is investigating, is like Bertillon’s method constructing and juxtaposing the photographs as his personal archive for his forensic investigation.

Photography intertwines with the emergence of forensic knowledge and the development of detective story, usually associated with its ontological nature and authenticity. This emphasis is stressed in Bazin’s *Ontology of the Photographic Image*. He explains: “The objective nature of photography confers on it a quality of credibility absent from all other picture-making. [...] we are forced to accept as real the existence of the object reproduced, actually *re-presented*, set before us, that is to say, in time and space.”⁸⁷ He further relates photography to forensics by asserting that “The photograph as such and the object in itself share a common being, after the

Law and Literature, Vol. 9, No. 2 (Autumn-Winter, 1997), pp. 229-243, p. 234.

⁸⁴ Ronald R. Thomas, *Detective Fiction and the Rise of Forensic Science*, Cambridge 1999, pp. 112-113.

⁸⁵ Peter J. Hutchings, “Modern Forensics: Photography and Other Suspects”, in: *Cardozo Studies in Law and Literature*, Vol. 9, No. 2 (Autumn-Winter, 1997), pp. 229-243, p. 235.

⁸⁶ Peter J. Hutchings, “Modern Forensics: Photography and Other Suspects”, in: *Cardozo Studies in Law and Literature*, Vol. 9, No. 2 (Autumn-Winter, 1997), pp. 229-243, p. 235.

⁸⁷ André Bazin, Hugh Gray (trans.), “The Ontology of the Photographic Image”, in *Film Quarterly*, Vol. 13, No. 4, (Summer, 1960), pp. 4-9, p. 8.

fashion of a fingerprint.”⁸⁸ Bazin believes that photography is not the copy or substitute of the object, but it transforms its time and space into its reproduction, as if the past reality of the object re-emerges in the photograph. It is indexical as a fingerprint. This belief is also shared by Roland Barthes: “[...] the photograph possesses an evidential force, and that its testimony bears not on the object but on time. [...] the power of authentication exceeds the power of representation.”⁸⁹ The “credibility” of photography relies in its absolute power to convince the spectator that what is “re-presented” is the “trace” of a real thing or event that has happened and existed. Nolan wittingly exploits this belief to create ambiguity through photography in *Memento*. The viewer would, thus, easily be convinced that the annotations written on the back of the photographs are factual.

The subject of the photographs in *Memento* can be categorized into two types: physical objects or places, such as the Jaguar car and the Discount Inn motel; individuals or physical persons as for instance Teddy, Natalie, and Dodd. These photographic portraits need captions to identify their referents. For example, Teddy’s photo, which presents him in an almost full-frontal portrait, smiling under the day light, gives the impression of a friendly and easygoing personality (Fig. 14). On the back of the photo, the caption weakens the visual evidence, since it says “Don’t believe his lies. His is the one. Kill him” (Fig. 15). The caption strengthens the idea that Teddy’s appearance is treacherous, while Natalie’s photo showing the sitter in profile, the contours of her upper body covered in shadow, contrasting with spotlight on her face, gives a sense of loneliness (Fig. 16). The caption seems to confirm her

⁸⁸ André Bazin, Hugh Gray (trans.), “The Ontology of the Photographic Image”, in *Film Quarterly*, Vol. 13, No. 4, (Summer, 1960), pp. 4-9, p. 8.

⁸⁹ Roland Barthes, *Camera Lucida: Reflections on Photography*, Richard Howard (trans.), New York 2000, pp. 88-89.

appearance since it informs that “She has also lost someone. She will help you out of pity” (Fig. 17). The picture and the written description show how sympathetic and sorrowful she is. As the story unfolds, we see Natalie offering Leonard a photocopy of a car registration and a driver’s license to help him find his target “John G”. According to the caption it makes sense for Leonard that Natalie should be “reliable.” The fact is Natalie had a fight earlier with Leonard, since she knows that Leonard is responsible for Jimmy’s death. As Leonard could not find a pen to write down how she mistreated him – actually Natalie deliberately hid the pen to prevent him from “remembering” this experience. This information has not been archived on the Polaroid photograph. Another example shows Teddy trying to inform Leonard that Natalie might use him for her own good, and asks Leonard to write down the caption on Natalie’s photo as “Do not trust her.” Ironically, Leonard later refuses to accept this statement by crossing out the phrase, because the caption on Teddy’s photograph invites him not to believe his lies. More ambiguously speaking, at the end of the story after Leonard kills Jimmy, Teddy informs Leonard that he has got his revenge a year ago with the evidence of a photographic portrait of himself. The picture shows Leonard half naked with blood stained on his face a hand pointing at his chest, smiling in a state of satisfaction (Fig. 18). Teddy claims that he has helped Leonard to find the real “John G,” but he could not remember he had already done his vengeance. In a furious rage, Leonard thinks that he was set up by Teddy to kill Jimmy, the wrong target. In order to retaliate on Teddy’s treachery, Leonard thus writes down the caption “Don’t believe his lies” to inform him of Teddy’s ruse.

As mentioned previously, the story is unfolded in a reverse storytelling. In order to find some structure within this complex narration, the spectator has to follow the clues (photos and captions) considered as authentic proofs by Leonard. The spectator is

experiencing the same confusion as that of Leonard. This subjective point of view makes us “share his [Leonard’s] misjudgments.”⁹⁰ At the end of the story, the spectator feels like Leonard with the impression of having been tricked: this treachery has been orchestrated by Nolan who offers what might be considered as authentic clues (the photos and captions) as true illusions; this treachery is also that orchestrated by Teddy and Natalie to fool Leonard or exploit his handicap; it is also Leonard’s own treachery. It thus triggers the viewer to question whether Leonard had actually killed the assaulter or whether this whole tracking is just a manipulation set by himself. In this ambiguous and chaotic situation, the spectator has difficulties to dig out the truth. Nolan’s exploitation of photography’s forensic quality, emphasizes the confusion.

The ambiguous perception can be compared to the way *Blow-Up* plays with the issue of photographic illusion. Thomas believes that a murder has been committed. This belief proves to be true after he witnesses the corpse in the park. However, at the end of the film, Thomas’ assumption is completely discredited due to the disappearance of the corpse as well as that of the photographic evidence. Nothing can be proved anymore. Uncertainty and uncanniness remain in both films. Antonioni and Nolan successfully create the illusions through photography, and exploit the idea that an image is just what it is: an image. And they both address the issue of filmic images being deceptive, and similarly cinema itself is an illusion. Therefore, the result of the investigation thus becomes insignificant, yet it is the process of investigation that matters. Although there is no direct reference toward *Blow-Up* in *Memento*, the way Antonioni plays with enigmatic illusion with photographs and ambiguous perception can be indeed illuminated in *Memento*.

⁹⁰ Peter Thomas, “Victimage and violence: *Memento* and trauma theory,” in *Screen*, Vol. 44, No. 2, 2003, pp. 200-207, p. 205.

Chapter Two: Tattooing as Mind Mapping and its Ambiguous Narratives

In *Written on the Body: The Tattoo in European and American History* published in 2000, Jane Caplan notes that a “renaissance” of tattoo practices took place in the late 20th century in both Europe and the USA. Specifically during this period, the Tattoo Renaissance became synonymous with the counterculture where the practices of tattooing increasingly popularized. Consequently, this movement sparked the society’s interest in the history of tattoo art.⁹¹ It may well be that Nolan’s movie should be inscribed within this trend. In any case, the principle of inscribing texts on one’s body, in order not to forget something, as it appears in Nolan’s movie corresponds to a personal experience. As he confesses in a conversation with an interviewer on a short video clip, “[*Memento*] is an extrapolation of the way I look my life,”⁹² further mentioning that he often writes notes on his hand as his personal memento. Nolan also asserts that tattooing is “the most extreme form of recoding experience or information.”⁹³ These personal experiences and ideas were later adapted into the scenario of *Memento*. Leonard, the male protagonist depends on Polaroid photographs to record his short-term memory, while tattoos serve a deeper and personal context to the protagonist. Leonard treats tattoo as a mnemonic device that is more “reliable” and “trustworthy” than the written notes, as he puts: “If you have a piece of information which is vital, writing on your body instead of on a piece of paper can be the answer.” If we consider the written caption on the Polaroid photographs as another form of “writing on a piece of paper” as Leonard asserts, the fact they are often modified or erased make them arbitrary and patchy. We therefore should ask what these tattooing information mean for Leonard, by first addressing the issue of tattoo

⁹¹ Jane Caplan, “Introduction”, in Jane Caplan (ed.), *Written On the Body: The Tattoo in European and American History*, London 2000, xi-xii.

⁹² See the video clip of “Christopher Nolan on Character & Perceptual Distortion In *Memento*” at *Eyes on Cinema*: <https://www.youtube.com/watch?v=nQqZNZE9ByE> (accessed 7 July, 2015).

⁹³ James Mottram, *The Making of Memento*, New York 2002, p. 160.

and memory in this chapter and then questioning the narrative quality the inscriptions embody. Finally, tattoos are as problematic as the photographs when it comes to authenticity. It is therefore necessary to discuss the ambiguous state of tattooing which Leonard represents, and to address this issue by examining the notion of tattooing in the history.

2-1 Tattoo and Memory

Tattooing as Mind Mapping

Tattoo's characteristic is to leave a permanent mark on one's skin, which Susan Benson describes as a way to defy time.⁹⁴ What is imprinted on the flesh cannot be easily removed from the surface. In this respect, time exists atemporally on the tattooed flesh. It signals Leonard's inability to sense time, as he keeps looping in a circle of past and present, because he does not know for how long the assault happened. In order to overcome this problem, Leonard's body is covered with tattoos⁹⁵ that are giving him essential and confidential information: for his own purpose – to live, to remember, to investigate and to avenge. Leonard's tattooed body does not only serve as the memos for his own purpose, but it hence becomes a “map of memory”⁹⁶ which helps him orient himself in life. The function of his tattoo is thus analogous to the way he constructs the “photo-mapping” as discussed in the first chapter. As Steve Pile points out Leonard's skin becomes his “Ego” and it is dramatized in the tattoo, which projects “forgotten and hidden truths and facts.”⁹⁷ As Pile states, “the Skin Ego is the projection of an image of both mind-and-body onto

⁹⁴ Susan Benson, “Inscriptions of the self: Reflections on Tattooing and Piercing in Contemporary Euro-America”, in Jane Caplan (ed.), *Written on the Body: The Tattoo on European and American History*, London 2000, pp. 234-254, p. 251.

⁹⁵ There are 26 tattoos on Leonard's body, see Appendix 6 for the details of the inscriptions.

⁹⁶ Atte Oksanen and Jussi Turtiainen, “A Life Told in Ink: Tattoo Narratives and the Problem of the Self in Late Modern Society”, in: *Auto/Biography*, Vol.13, 2005, pp. 111-130, p. 120.

⁹⁷ Steve Pile, “Topographies of the Body-and Mind: Skin, Ego, Body Ego, and the film ‘Memento’”, in *Subjectivity*, Vol. 27, 2009, pp. 134-154, p. 145.

the surface of the body, as well as the use of body as a surface and a model for the mind.”⁹⁸ The inscriptions marked on Leonard’s body are, according to Catalina Botez, investigation clues, that make “[...] the skin becomes an imprint of the mind that performs that enquiry and therefore a bearer of Leonard’s mindful ego.”⁹⁹ Leonard’s inscribed body thus becomes a map that contains information projecting his way of thinking, his consciousness and unconsciousness due to his dysfunctional memory problem. The marks showcase his responses to the assault: the emotional trauma caused by the loss of his wife and his inability to retain his short-term memory; the assault survival while carrying with the mnemonic condition; and his desire to avenge. Leonard transforms his thoughts and memories into words visually grafted on his flesh, a denominator of “Mind Mapping”. Each inscription is fragmentary and partial. It illustrates Leonard’s broken memory. Put into a larger context, each inscription corresponds to a fragment of a story, which mimics the broken sequences in *Memento*.¹⁰⁰

It is also noticeable that Leonard’s 26 tattoos (Fig. 19) have different font styles from the ornate to the self-written. There is no significant reference referring to their meanings of varying font styles (or size and position) in the film. The only font style we can be certain of is his hand-writing as it is represented on his left thigh: “FACT 5: DRUG DEALER” (Fig. 20). Leonard personally inscribes this tattoo while he is talking on the phone in the motel room. Therefore, based on the font style of the “FACT 5” inscription, we can suggest that the following tattoos are made by himself:

⁹⁸ Steve Pile, “Topographies of the Body-and Mind: Skin, Ego, Body Ego, and the film ‘*Memento*’”, in *Subjectivity*, Vol. 27, 2009, pp. 134-154, p. 151.

⁹⁹ Catalina Botez, “Skin-Deep Memos as Prosthetic Memory in Christopher Nolan’s *Memento* (2000)”, in Caroline Rosenthal and Dirk Vanderbeke (eds.), *Probing the Skin: Cultural Representations of Our Contact Zone*, Newcastle 2015, pp. 312-334, p. 314.

¹⁰⁰ Catalina Botez, “Skin-Deep Memos as Prosthetic Memory in Christopher Nolan’s *Memento* (2000)”, in Caroline Rosenthal and Dirk Vanderbeke (eds.), *Probing the Skin: Cultural Representations of Our Contact Zone*, Newcastle 2015, pp. 312-334, p. 315.

“JOHN G. RAPED AND MURDERED MY WIFE” (Fig. 21) circles his neck and written in reverse; “PHOTOGRAPH: HOUSE CAR FRIEND FOE” (Fig. 22) is written upside-down at his upper abdomen; “DON’T TRUST” and “HIDE YOUR WEAKNESS” (Fig. 23) are written upside-down at his lower left ribcage; “OR JAMES” belongs in “FACT 3” (Fig. 24) tattoo is inside his right forearm. As Pile suggests, the hand-written tattoos indicate that Leonard can trust no one (the professional tattooists), except for himself.¹⁰¹ It signals the great importance of this tattoo means, as well as Leonard’s suspicious character expresses consciously and unconsciously. It is therefore necessary to discuss the meaning of this tattooed body, specifically the two most important inscriptions that define the key moments in the plot.

Autobiography: Remember Sammy Jankis

Tattoos carry a narrative quality. As Atte Oksanen and Jussi Turtiainen recall, “individual tattoos are plotted into a life story.” Every inscription is telling a story, a story of the bearer, constituting his/her autobiography which is very personal and subjective. In Leonard’s case, the tattoos are fragmentary and scattered on his body. As any tattoos, they correspond to a montage of [his] life.¹⁰² Most of Leonard’s tattoos are branded in his body, which makes them even more private for his personal understanding, except the one inscribed on the back of his left hand – “remember Sammy Jankis,” exposed without the clothing coverage (Fig. 25). As it is located, this inscription can be noticed easily by the protagonist.¹⁰³ Deliberately visible, it serves

¹⁰¹ Steve Pile, “Topographies of the Body-and Mind: Skin, Ego, Body Ego, and the film ‘Memento’”, in *Subjectivity*, Vol. 27, 2009, pp. 134-154, p. 146.

¹⁰² Susan Benson, “Inscriptions of the self: Reflections on Tattooing and Piercing in Contemporary Euro-America”, in Jane Caplan (ed.), *Written on the Body: The Tattoo on European and American History*, London 2000, pp. 234-254, p. 246.

¹⁰³ For instance, when Leonard washes his hand in a lavatory of a restaurant, he suddenly notices this tattoo.

as an incessant reminder of his mnemonic condition, which also reminds us that the director Nolan often writes notes on his hand to help him remember. Although we cannot assure that the tattoo is hand-inscribed by Leonard himself, the font seems to mimic man's hand-writing which indeed corresponds to Nolan's mnemonic tool as he mentions.

In the black-and-white sequences, Leonard confides he has investigated the case of Sammy Jankis before the assault happened. Sammy is an ordinary semi-retired accountant, who suffers from short-term memory loss due to a minor car accident. Leonard, when he was an insurance investigator, was in charge of examining whether Sammy is a con man trying to obtain the insurance or not. Hence, the "Sammy" branding becomes a switch to turn on Leonard's awareness: it reminds him Sammy's analogous condition and situation, and warns him about Sammy's failure to make his life possible. It is a bridge that (re)connects Leonard's consciousness to the past and an ever changing present. Its function is made evident during the phone conversation he has in the motel room:

"Sammy Jankis. Yeah, I guess I tell people about Sammy to help them understand. Sammy's story helps me understand my own situation. Sammy Jankis wrote himself endless notes. But he'd get mixed up. I've got a more graceful solution to the memory problem. I'm disciplined and organized. I use habit and routine to make my life possible. Sammy had no drive. No reason to make it work."

Unlike Sammy's situation, Leonard learns to be "disciplined and organized" in order to make his life feasible, as he and we can read from the injunctions inscribed on his body: "HABIT & ROUTINE," "LEARN BY REPETITION," and "Condition Yourself" (Fig. 26, 27). These remarks branded on Leonard's own skin seem to reinforce his belief, through a range of credos he must obey and follow. The

commandment mark “learn by repetition” reinforces and implies Leonard’s repetitious behaviors of killing, tattooing, and failing to make new memories.¹⁰⁴ In the case of Sammy, we learn that he is unable to store knowledge through repetition, for, when Leonard tests him, he cannot help touching an electrified object. This impossibility to learn makes the doctors diagnose Sammy’s psychological condition.

When Leonard describes his investigation about Sammy Jankis in the motel room, he is also preparing for tattooing himself on his thigh. He takes a needle and tapes it to a ball-point pen as replacement of tattoo pigment, pricking it on his thigh to write “FACT 5: DRUG DEALER.” Meanwhile, Leonard further describes what happened between Sammy and his wife:

“The crazy part was that this guy who couldn’t follow the plot of ‘Green Acres’ could do the most complicated things as long as he had learned them before the accident [...].”

We see in the flashback sequence, Sammy drawing insulin into a syringe, withdrawing the needle, and inserting it into his wife’s arm. Here, Nolan wittingly indicates the relationship between “injection” (a shot) and “pricking” (tattoo). Both processes need a sharp needle to penetrate one’s skin. The action of tattooing here brings us back to the primitive techniques as described for example in the last quarter of the seventeenth century by a surgeon who encountered American natives. As Lionel Wafer notes:

“They first with the Brush and Colour make a rough Draught of the Figure they design; and then they prick all over with a sharp Thorn till the Blood gushes out [...].”¹⁰⁵

¹⁰⁴ William G. Little, “Surviving *Memento*”, in *Narrative*, Vol. 13, No. 1, 2005, pp. 67-83. p. 68.

¹⁰⁵ After Jane Caplan, Introduction, in Jane Caplan (ed.), “*Written On the Body: The Tattoo in European and American History*”, London 2000, XViii. Lionel Wafer, *A New Voyage and Description of the Isthmus of America*, ed. L. E. Elliott Joyce (Oxford, 1934), p. 83. Wafer was a surgeon on pirate expeditions to this region (Darien) in the 1680s.

Even until now, the tattoo practice needs a sharp needle to insert into one's skin, as Leonard does. The scene where Sammy gives his wife insulin shots also implies the metaphor of intrusion and the break-in of Leonard's home. It conveys that one's skin is the protective shelter of the body, as well as the home is the shelter for people resides. The skin is inserted by a sharp needle could symbolize the intrusion that happened in Leonard's home. This idea intensifies the issue of "intrusion" which lies at the core of *Memento*, and more specifically in the story of the assault that violated Leonard's integrity.

In the end, Mrs. Jankis decides to test her husband's condition and see whether his memory trouble is physical or psychological, asking him to give her insulin shots in a short amount of time. Sammy's memory problem makes him unaware of the situation and consequently causes him to kill his wife through overdose of insulin. It seems in this context that Sammy's repeated injections finds its counterpart in Leonard's compulsive tattooing, and further suggests the two characters' intimate relationship. Nolan offers an ambiguous clue that seems to suggest Leonard's impersonation as Sammy Jankis.

After Mrs. Jankis' death, Sammy is sent to a mental institute. In a split second, we see Sammy sitting on a chair, who suddenly becomes Leonard. Near the end of the story, Leonard's flashback shows him ambiguously "injecting" insulin on his wife's thigh, a clue which seems to indicate that he is making fun of her by "pinching" her. It seems that through the action of tattooing (or injecting), diverse allusions to the body – and mostly the skin – as bearer of the past, are unconsciously activated. It seems that behind the surface diverse things are buried underneath. As Jay Prosser puts, skin has

memories, it “brings to its surface a remembered past.”¹⁰⁶ This assumption can be seen in one scene when Leonard forgot he just slapped Natalie’s face, but still feels a sense of disturbance on his hand as he moves his wrist. In this case the body has recorded something the mind is not able to recall. All this implies that it is possible that Leonard is simply altering the facts. The assumption that his wife has been murdered by intruders may be replaced instead by the possibility that she has been killed by Leonard himself and that the assault never took place. The cause of her death might have been due to his injecting her an overdose of insulin. Ironically, this might respond to the inscription Leonard put recalling him that “MEMORY IS TREACHERY” (Fig. 28). Hence the inscription “remember Sammy Jankis” helps him to graft onto Sammy. By altering his flesh, he thus “make[s]-over” his own identity.¹⁰⁷

Tattoos often present themselves as narratives and do not only function as symbols.¹⁰⁸ Taken this idea into account, the “Sammy Jankis” tattoo does not only refer to the story of the retired accountant Sammy, but also another fabricated story about Leonard’s past and secrets. The tattoo narratives can also connect to the “storyboard narrative” discussed in the first chapter. Each tattoo displayed on Leonard’s body is fragmentary and partial and embody a story of its own. Each inscription is akin to a portion of script of the storyboard, a cell that belongs to the whole story. It is like a piece of a jigsaw puzzle that must be replaced in its correct place in order to reconstitute a sequence of the narrative.

¹⁰⁶ Jay Prosser, “Skin Memories”, in Sara Ahmed and Jackie Stacey (eds.), *Thinking Through The Skin*, London 2001, pp. 52-68, p. 52.

¹⁰⁷ William G. Little, “Surviving *Memento*”, in *Narrative*, Vol. 13, No. 1, 2005, pp. 67-83, p. 83.

¹⁰⁸ Karin Beeler, Introduction, in *Tattoos, Desire And Violence: Marks of Resistance in Literature, Film And Television*, North Carolina 2006, p. 2 and p. 11.

Autobiography: JOHN G.

Tattoo is often associated with memory. As Susan Benson puts: “This sense of taking what is external and making it internal is also found among those who seek tattoos as a form of a memorialization of those loved and lost [...]”¹⁰⁹ For instance, a seventy-five-year-old mother memorialized recently her son – the pilot Liou Tzu-chung – who was killed in the February 2015 TransAsia Airways plane crashes in Taipei, by tattooing her son’s appearance on her upper arm (Fig. 29). This tattoo means to the mother a lot, since, as she explains: “Wherever I go, Tzu-chung would be by my side. I’m so relieved that he can look for me no matter what.”¹¹⁰ As we can understand, tattoo is deeply inscribed in its symbolic practices and with the notion of loss. A dimension Nolan exploits and develops in the scenario of *Memento*, as for example when Leonard looks at himself in the mirror, and finds the reverse inscription across his chest saying: “JOHN G. RAPED AND MURDERED MY WIFE” (Fig. 30). The sense of loss is enhanced with the inscription marked on his left biceps: “SHE IS GONE” (Fig. 31). These two inscriptions that seem to be hand-written and might have been tattooed by Leonard himself are more intimate and personal. They thus give Leonard and the viewer a deeper meaning of loss and participate to the memorial function that is often attributed to the practice of tattooing.

In addition to the function of mourning the dead, the backward written inscription “John G. raped and murdered my wife” strongly refers to Leonard’s reversed memory, as well as the backward storytelling strategy used by Nolan. The reversed inscription needs to be read as in a mirror. It is at this time another identity of Leonard slowly

¹⁰⁹ Susan Benson, “Inscriptions of the self: Reflections on Tattooing and Piercing in Contemporary Euro-America”, in Jane Caplan (ed.), *Written on the Body: The Tattoo on European and American History*, London 2000, pp. 234-254, p. 246.

¹¹⁰ <http://www.appledaily.com.tw/appledaily/article/headline/20150515/36551449/> (accessed 17 May, 2015).

shows up as he studies the phrase. The branding of this inscription helps him not to forget his past and further indicates “who he is becoming.”¹¹¹ Every time he sees the sentence “JOHN G. RAPED AND MURDERED MY WIFE” he recalls the assault and his determination to find the murderer. He thus impersonates himself as a detective, collecting data like conducting a forensic investigation, and then inscribing the crucial clues on his body as following:

FACT 1: MALE

FACT 2. WHITE

FACT 3. FIRST NAME: JOHN OR JAMES

FACT 4. LAST NAME: G_____

FACT 5: DRUG DEALER

Fact 6: car license number SG1371U

He thus follows the leads according to the captions on the photos and specifically the “facts” inscribed on his body to chase down the murderer. His way of collecting data and tattooing them on his body might echo the behavior of what D. Angus Vail has defined as a “tattoo collector,” a person heavily tattooed.¹¹² The reality of the pain¹¹³ provoked by the tattooing process anchors Leonard into a reality he has difficulty to grasp. It strengthens the validity and irrefutability of the facts inscribed in his flesh. As the story unfolds, we learn that these clues are actually leading Leonard to hunt down Teddy who asserts that Leonard has already killed the real John G. We begin to discover that Leonard can manipulate himself, and use photos and tattoos to “communicate with his future self, because he doesn’t have the connection of memory

¹¹¹ After Susan Benson, “Inscriptions of the self: Reflections on Tattooing and Piercing in Contemporary Euro-America”, in Jane Caplan (ed.), *Written on the Body: The Tattoo on European and American History*, London 2000, pp. 234-254, p. 246. Vale and Juno, interview with Vyvyn Lazonga, in *Modern Primitives*, pp. 125-6.

¹¹² D. Angus Vail, “Tattoos are like potato chips . . . you can’t have just one: the process of becoming and being a collector”, in: *Deviant Behavior*, Vol. 20, Issue 3, 1999, pp. 253-273, p. 254.

¹¹³ After Susan Benson, “Inscriptions of the self: Reflections on Tattooing and Piercing in Contemporary Euro-America”, in Jane Caplan (ed.), *Written on the Body: The Tattoo on European and American History*, London 2000, pp. 234-254, p. 251. Ron Salisbury, quoted by Madam Chinchilla, *Tattooing International*, CLIII, June 1994, pp. 10-11.

between two selves” as Nolan puts.¹¹⁴ It may become more evident if we discuss the meaning that lies behind the name “John G.”

“John G.” is an abbreviation of someone’s name. In other words, this person is not specifically identified. Nolan may be exploiting the common usage of the name “John Doe” or “John Q” which often refers to an individual (sometimes a corpse) whose identity is unknown.¹¹⁵ In this case, “John G.” could be anyone, as long as his name fits into the abbreviated “John G.” or “James G,” as Teddy once says to Leonard:

“You know how many towns, how many guys called James G? Or John G? Shit, Leonard, I’m a John G. My mother calls me Teddy. I’m John Edward Gammell. Cheer up. There’s plenty of John G for us to find.”

In this sense, the “real” meaning of “John G.” can be easily replaced and altered by anyone. Karin Beeler points out that if tattoos are associated with memory preservation, yet the desire to keep someone’s memory could be easily subverted by an incomplete tattoo.¹¹⁶ It might be true that the “real” John G. is killed as Teddy said, and that it does just serve Leonard as a purpose to live. We should also call into question the credibility of the name “John G.” Given the fact it is a common name which is moreover not specifically identified, many people could fit into this criterion. The real murderer is hence transformed into almost “anyone” that Teddy or Leonard can kill or hunt. For instance, Teddy uses Leonard to kill Jimmy (James F. Grantz), and Leonard manipulates himself to kill Teddy (John Edward Gammell). The memory of “John G.” is thus subverted easily, and the story of John G. is made up by Leonard

¹¹⁴ James Mottram, *The Making of Memento*, New York 2002, p. 31.

¹¹⁵ See the Merriam-Webster Online Dictionary: <http://www.merriam-webster.com/dictionary/john%20doe> (Accessed 7 August, 2015); and Wikipedia: The Free Encyclopedia: https://en.wikipedia.org/wiki/John_Doe#cite_note-Webster1996-8 (Accessed 7 August, 2015)

¹¹⁶ Karin Beeler, *Tattoos, Desire And Violence: Marks of Resistance in Literature, Film And Television*, North Carolina 2006, p. 14.

to his will – John G. could be Jimmy or Teddy.

After the release of *Memento*, the discussion about tattoo and memory in the American serial drama television series *Prison Break* (2005-2009) intensified, particularly emphasizing the use of tattoo as a mnemonic device. *Prison Break* describes a man who deliberately gets himself into a prison to rescue his elder brother and help him escape the death penalty. In order to escape from the prison, the protagonist Michael (Wentworth Miller) needs to memorize the detailed blueprint of the penitentiary. In the beginning, Michael is mind mapping the data on the wall (Fig. 32). Nevertheless, under time pressure to digest the enormous amount of information, Michael comes to a solution to record his whole escape plan – by tattooing it on his upper body. Under the disguise of common design schemes such as a demon killing an angel on the front, an angel slaying a demon on the back, and the combination of words and numbers on both arms (Fig. 33), the whole design is in fact the blueprint of the prison layout and the different steps in the escape plan. The mind mapping process is transformed visually onto his body with different images, words, and numbers. The tattoo bears a story no one could decipher, except the protagonist himself. And it also strengthens another identity Michael wants to build – that of the criminal, in order to fit into the role he has originally given to himself. As we have seen, the trend and the link of tattoo and memory in *Memento* persists and may be adapted into *Prison Break*. Nevertheless, the use of tattoos to plan the escape in *Prison Break* proves to be systematic and logical, unlike the sporadic and arbitrary inscriptions marked on Leonard's body that eventually causes more problems to the spectators. Nolan distinguishes himself and his work by his unconventional styles of direction, which undoubtedly makes *Memento* overwhelmingly compelling.

2-2 Tattoo and Criminality

Tattoo and Ambiguity

In *Memento*, tattoos function as mnemonic devices and stand at the core of Leonard's investigation. As the story unfolds, we learn that Leonard could actually communicate with his future self through the captions on the Polaroid photographs and his tattoos. It is especially the inscriptions marked on his body that change our attitude toward the protagonist and the story. Leonard's tattoos are ambiguous, not only due to their fragmentary aspect, but also their function. At the same time, when it comes to the notion of tattooing, it is often ambiguous. The ambiguity lies in *Memento* and tattooing itself thus force us to call into question what position tattooing presents in the movie and its definition in history.

Through replying on ancient traditions all over the globe, the status of tattoo has remained deeply ambiguous. The oldest evidence of tattooing practice in Europe can be found on the mummified body of the iceman Ötzi (lived between 3350 and 3100 BC.), found in 1991 in Ötztal, in the Alps of Western Europe, which was covered with 61 tattoos.¹¹⁷ It is assumed that the tattoos Ötzi had on his body had a therapeutic function.¹¹⁸ However, tattooing practices range from religious, punitive, decorative and identity demonstration functions.¹¹⁹ Therefore, the status of tattooing is problematic and ambiguous. When it comes to negative aspect, tattoo is often linked to criminality. This early association was made in the fifth century B.C., Greeks and Romans tattooed criminals or prisoners of war for punitive purpose, and marked

¹¹⁷ See the South Tyrol Museum of Archaeology: <http://www.archaeologiemuseum.it/en/oetzi-the-iceman> (Accessed 31 May, 2015) And Sébastien Galliot, "All Tattooed", in Anne & Julien (ed.), *TATTOO*, Published by Musée du Quai Branly /Actes Sud, Paris 2014, p. 18. Note: The discussion here only focuses on tattooing practice in Western Europe.

¹¹⁸ See the South Tyrol Museum of Archaeology: <http://www.archaeologiemuseum.it/en/oetzi-the-iceman> (Accessed 31 May, 2015)

¹¹⁹ Mark Gustafson, "The Tattoo in the Later Roman Empire and Beyond", in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 17-31, p. 17.

slaves for their own property. If people committed crimes, they would be punished by being tattooed (stigmatized) on the forehead as a warning sign.¹²⁰ However, tattooing coexists with dishonorable and honorable practices. According to Greek historian Procopius of Gaza, many Christians chose to be marked by the sign of the cross or the name of Christ on their wrists or arms.¹²¹ Crusaders and Christian pilgrims marked their body with the traditional Christian cross when they arrived the Holy Land.¹²² It was in the 1880s that the relationship between tattoo and crime was prominently propagated by the Italian criminologist Cesare Lombroso to further strengthen its association with deviant behaviors.¹²³ He acknowledged the close connection between tattoos and convicts by asserting that “tattooing assumes a specific character, a strange tenacity and diffusion among the sad class of criminals [...] locked in combat with society [...]”¹²⁴ Lombroso stressed that the criminals had more quantities of tattoos than soldiers who had also the propensity to get tattooed. The pictures inscribed on their bodies were usually more violent or obscene, and often were positioned near or on the sexual organs. He believed that convicts got numerous tattoos and placed them on more sensitive position of the body “shar[ing] with ‘savages’ a lesser sensitivity to pain.”¹²⁵ The example was presented in Lombroso’s *L’uomo delinquente*¹²⁶, illustrating a convict who had numerous inscriptions and

¹²⁰ C. P. Jones, “Stigma and Tattoo”, in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 1-16, pp. 4-9.

¹²¹ After Mark Gustafson, “The Tattoo in the Later Roman Empire and Beyond”, in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 17-31, p. 29. Procopius of Gaza, *Commentary on Isaiah*, 44.5.

¹²² Jane Caplan, “‘Speaking Scars’: the Tattoo in Popular Practice and Medico-Legal Debate in Nineteenth-Century Europe”, in: *History Workshop Journal*, Issue 44, 1997, pp. 107-142, p. 115.

¹²³ Jane Caplan, “‘National Tattooing’: Traditions of Tattooing in Nineteenth-century Europe”, in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 156-173, p. 156.

¹²⁴ After Jane Caplan, “‘National Tattooing’: Traditions of Tattooing in Nineteenth-century Europe”, in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 156-173, p. 159.

¹²⁵ Jane Caplan, “‘National Tattooing’: Traditions of Tattooing in Nineteenth-century Europe”, in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 156-173, p. 159.

¹²⁶ *L’uomo delinquente* was first published in 1876, and reissued in the expansion of editions.

images tattooed on his body and his sexual organ.¹²⁷ Although figurative representations are absent from the tattooed body of Leonard, the visual resemblance between his body and that of the criminal illustrated in Lombroso's book prompts me to compare them. The figure in *L'uomo delinquente* bears the following inscription: "LE PASSE ME TOURMENTE, LE PRESENT ME, L'AVENIR M'EPOUVANTE" (The past tortures me, the present, the future horrifies me) (Fig. 34). This personal motto conjugated at the first person can be put into comparison with the statements "JOHN G. RAPED AND MURDERED MY WIFE" and "Find him and Kill him" marked on Leonard's body. Although the meanings are literally different, their display at the center of the upper chest enables us to grasp their similarities. The position of the tattoos shows how meaningful they must be to both of them. The multiple tattoos scattered on their flesh seem to prove their higher endurance towards pain, a dimension Lombroso associated with the brutality "savages" and criminals are inclined to. In this light, the association can also explain Leonard's potential violence. As Karin Beeler stresses, tattoo correlates with violence due to its painful process of which the subject must endure the entire procedure.¹²⁸ Nolan might have exploited this aspect to imply the potential violence that exists in Leonard, yet covered in the disguise of vengeance.

Although Lombroso amplified the association of tattoos with deviant behaviors, the Victorian society held a different point of view toward them, since Lombrosian criminology had minor effect on the British social perception at the end of the 19th

¹²⁷ After Jane Caplan, "'National Tattooing': Traditions of Tattooing in Nineteenth-century Europe", in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 156-173, p. 159. Lombroso, *L'uomo delinquente*, pp. 48-50.

¹²⁸ Karin Beeler, Introduction, in *Tattoos, Desire And Violence: Marks of Resistance in Literature, Film And Television*, North Carolina 2006, p. 7.

century.¹²⁹ According to Caplan, it was not only because British criminal science was rather uninterested in the tattooed subject, but also because the policing surveillance was more limited in scope.¹³⁰ Therefore, tattooing was not directly correlated with a criminal behavior. It was rather prevalent due to the seafaring culture at that time. The famous English tattooist George Burchett (1872-1953) mentions in his memoirs that shipboard tattooing was imbued with British naval culture.¹³¹ Tattooing became the general shipboard experience, and went beyond the ranks. It was around the late 1880s, that the trend for getting tattooed proliferated among noblemen, ladies, officers in the army and civilians.¹³² According to Burchett, the trend was prompted by King Edward VII, who at the time held the title of Prince of Wales.¹³³ The Prince acquired himself a Jerusalem Cross tattooed on his arm in 1862 on a visit to the Holy Land.¹³⁴ It seems that the craze of tattooing passed down to King Edward VII's two sons. In *The cruise of Her Majesty's ship "Bacchante", 1879-1882*, Prince Albert Victor and Prince George of Wales describe in details about their tattooing experience when they served as naval cadets on a three-year world tour:

"The [Japanese] tattooer finished our arms. He does a large dragon in blue and red writhing all down the arm in about three hours. [...] Two others [tattooers] went on Board the *Bacchante*, where they took up their quarters for two or three

¹²⁹ James Bradley, "Body Commodification? Class and Tattoos in Victorian Britain", in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 136-155, p. 139.

¹³⁰ Jane Caplan, "'Speaking Scars': the Tattoo in Popular Practice and Medico-Legal Debate in Nineteenth-Century Europe", in *History Workshop Journal*, Issue 44, 1997, pp. 107-142, p. 125.

¹³¹ After James Bradley, "Body Commodification? Class and Tattoos in Victorian Britain", in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 136-155, p. 142. George Burchett, *Memoirs of a Tattooist*, London 1958, pp. 45-47.

¹³² After James Bradley, "Body Commodification? Class and Tattoos in Victorian Britain", in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 136-155, p. 146. *Pall Mall Gazette*, 1 May 1889, p. 2.

¹³³ After James Bradley, "Body Commodification? Class and Tattoos in Victorian Britain", in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 136-155, p. 146. George Burchett, *Memoirs of a Tattooist*, London 1958, p. 26.

¹³⁴ Harold Nicolson, *King George The Fifth: His Life and Reign*, London 1952, p. 29. And Royal Museums Greenwich:
<http://www.rmg.co.uk/explore/sea-and-ships/facts/ships-and-seafarers/amazing-facts-about-tattoos>
(Accessed 30 May, 2015)

days, and had their hands full with tattooing different officers and men.”¹³⁵

As we can see the British royals took more positive attitude toward tattooing, regardless of whether it was for religious purpose, as in the case of King Edward VII's marked cross sign from the Holy Land, or for aesthetic reason, as in the case of the two Princes who were tattooed by the proclaimed Japanese tattooist Hori Chyo.¹³⁶ The ambiguous status of tattoo still exists today. We are more accustomed to pop stars or celebrities exhibiting their tattoos as a symbol of self-identity or decoration. On the contrary, the sense of deviance often appears when we encounter in the street, people who have marks on their bodies, making it easy to correlate them with a degenerate behavior or a lower sense of morality. Under this scope, the notion of tattooing is still opaque and ambiguous, and it is also activated in *Memento*.

Ambiguous Identity

According to Oksanen and Turtiainen, many tattoo narratives are under the scope of dramatic life experiences.¹³⁷ It is indeed chimed with what Leonard has suffered from the loss of his wife and his memory problem. All the inscriptions Leonard has are for one purpose: killing the intruder, as introduced by the inscription “Find him and Kill him” (Fig. 35) placed distinguishably in diagonal across his chest just beneath the “John G. raped and murdered my wife” phrase. It seems that Leonard's inner identity is transformed by the tattoos he is bearing, while on the other side he behaves just like a normal person. This is actually what he wants to preach with the inscription “I'M

¹³⁵ Prince Albert Victor and Prince George of Wales, *The Cruise of Her Majesty's Ship 'Bacchante' 1879-1882*, London 1886, Vol. 2, p. 46.

¹³⁶ James Bradley, “Body Commodification? Class and Tattoos in Victorian Britain”, in Jane Caplan (ed.), *Written on the Body: The Tattoo in European and American History*, London 2000, pp. 136-155, p. 146.

¹³⁷ Atte Oksanen and Jussi Turtiainen, “A Life Told in Ink: Tattoo Narratives and the Problem of the Self in Late Modern Society”, in *Auto/Biography*, Vol.13, 2005, pp. 111-130, p. 120.

NO DIFFERENT” (Fig. 36) on his right lower abdomen which is indeed a clear will to cover his inner deviance, and integrate in the society, despite his marginal status as a tattooed person. Natalie is the one in this context who identify the incongruence of his tattoos, when saying skeptically: “You don’t seem the ‘type.’” By embodying different identities, the tattoos thus reflect how capricious Leonard’s inner self is. They reflect the changes that occur in his biography, from the insurance investigator and loving husband, to the detective avenger, who has become a pathological man and perhaps a serial killer, without knowing exactly who he really is.

In *Memento*, Nolan wittingly makes the viewer associate tattooing with the action of injection (insulin shots) and crime, an association that lead the spectator to detect Leonard’s deviance. First, the tinkered tattooing device – the needle and ball point pen – Leonard uses to tattoo his body, is reminiscent of the tattooing machine usually fabricated in prison (Fig. 37).¹³⁸ Sammy’s repeating insulin injections provided to his wife offer us a clearer clue. In a metaphorical sense, the injection and overdosing could imply the addiction of drugs which often relates to crimes, and it actually echoes the drug dealing between Teddy and the drug dealer, Jimmy. Although Leonard is not using drugs – at least it is not shown in the movie – the principle of addiction is illustrated by the use of needles to prick on his flesh and the accumulation of tattoos. According to William G. Little, the repetition of “tattooing,” the repetitious “break-in” on Leonard’s skin could also imply the trauma (the intrusion) he is re-experiencing.¹³⁹ Therefore, Leonard is subconsciously re-experiencing the “violence” which makes him remain in the trauma, and turns him into another “murderer.” As we have discussed previously, Leonard’s compulsive tattooing

¹³⁸ Jérôme Pierrat’s collection, in Anne & Julien (ed.), *TATTOO*, Published by Musée du Quai Branly / Actes Sud, Paris 2014, p. 46. The tattooing machine made in prison.

¹³⁹ William G. Little, “Surviving *Memento*”, in *Narrative*, Vol. 13, No. 1, 2005, pp. 67-83, p. 69.

behavior warns us from his potential violence and connotes his probable deviance. This aspect is all the more evident in the inscription commanding him to – “Find him and Kill him.” When Leonard assumes Teddy is the “John G.” he is looking for and ready to kill, the moaning Teddy says: “That’s who you were (I’m Leonard Shelby, I’m from San Francisco), you don’t know who you are.” Is Leonard making justice for his wife? Or is he just using the tattoos as a purpose to “kill” somebody in order to fulfill his empty life? As Belinda Morrissey puts, Leonard is afraid of making his life purpose end, so he chose not to tattoo himself with the inscription “I Killed John G”. Instead, he is taking a Polaroid photograph which is easy to erase from his memory by burning it.¹⁴⁰ Tattoo thus serves as medium for Leonard to avenge and to kill, or to change his identity with ambiguous and fragmentary narratives if we take Leonard’s case into account.

Christopher Nolan is not the only one to exploit the duality inherent to the ambiguous status of tattoos, since we can find other precedent examples in the history of cinema that might have inspired him. This is the case of Charles Laughton who played with the duality of good and evil in *The Night of the Hunter* (1955), by showing the main protagonist Harry Powell played by Robert Mitchum – a preacher who is enthusiastic at preaching at small towns, treated respectfully by most of the town folks – bearing the dual tattoos LOVE and HATE inscribed respectively on his right and left hand (Fig. 38). These inscriptions have a story the protagonist delineates himself in the following lines:

“The story of good and evil? H-A-T-E! It was with this left hand that old brother Cain struck the blow that laid his brother low. L-O-V-E! You see these fingers, dear hearts? These fingers has veins that run straight to the soul of man.”

¹⁴⁰ Belinda Morrissey, “Impossible Memory: Traumatic Narratives in *Memento* and *Mulholland Drive*”, in Amresh Sinha and Terence McSweeney (eds), *Millennial Cinema: Memory in Global Film*, New York 2011, pp. 97-116, p. 104.

The tattoo he is bearing clearly indicates his two-faced personality. Under the veil of morality, Powell is actually a cruel murderer and a misogynist. He is attracted by women as can be told on his right hand tattoo (LOVE), while on the other hand, as it is written on his left phalanxes, they repulse him (HATE). He is a relentless and cruel murderer of many women victims, mostly for his selfish benefits. He is even willing to hunt down children in order to take over their money. As Beeler puts after John Gray's description, the criminal who first bears the mark is the biblical figure Cain, the son of Adam and Eve who murdered his brother Abel, due to Cain's discontent with God favored more of his brother Abel's sacrifice.¹⁴¹ "And the Lord set a sign for Cain, lest any finding him should smite him" in the verses of Genesis 4:15. As Gray points out the "sign" is the "tattoo" God marks on Cain."¹⁴² This analogy is used by Powell in the movie when he refers to Cain in order to explain the meaning of his left hand tattoo – HATE – implicating himself as a criminal and a murderer who bears the mark of God. At the same time it serves him to make his justice under the Power of God to punish sinners like Cain. Unlike the direct and clear message of duality presented in *The Night of the Hunter*, Nolan prefers to play with obscurity through Leonard's inscriptions. Their multiple meanings and functions are intrinsically more complicated to define.

The duality of the tattoos presented in *The Night of the Hunter* is also discussed in Richard S. Post's article about tattoo and personality disorder, but introduced with a

¹⁴¹ After Karin Beeler, Introduction, in *Tattoos, Desire And Violence: Marks of Resistance in Literature, Film And Television*, North Carolina 2006, p. 105. John Gray, *I Love Mom: An Irreverent History of the Tattoo*, Toronto 1994, p. 25.

¹⁴² After Karin Beeler, Introduction, in *Tattoos, Desire And Violence: Marks of Resistance in Literature, Film And Television*, North Carolina 2006, p. 105. John Gray, *I Love Mom: An Irreverent History of the Tattoo*, Toronto 1994, p. 25.

real example. As Post notes a 27-year-old white male subject caught by burglary in Chicago was found with the inscription LOVE and HATE tattooed on his both hands' first and second finger joints (Fig. 39).¹⁴³ The subject was asked why he had these tattoos, yet he stated no reason. Post describes this subject's tattooing as "one of many bizarre tattoo patterns which indicate the presence of disordered personality."¹⁴⁴ Although there is no direct source to prove that this subject was influenced by the movie, the visual similarity is highly recognizable. The disordered personality is indeed exemplified in the thief's perpetration, and Powell's cruel murder, disguised under the dress of a respectable priest.

Another example raising the ambiguous status of the tattoo in its narrative is also presented in the serial drama television series *Prison Break*. The main protagonist, Michael Scofield before being sent to jail was an educated structural engineer, well-mannered, successful and with a promising career. The tattoo serves him in prison as a second skin, which will not only change his appearance, but also transforms who he is. As Michael Atkinson stresses in "flesh journey":

"the process of intentionally reconstruct[s] the corporeal in order to symbolically represent and physically chronicle changes in one's identity, relationships, thoughts, or emotions over time [...]."¹⁴⁵

After imprinting the tattoos, Michael's identity is transformed, facilitating him to blend into the realm of criminality. The most striking motifs related to Michael's duality are the representations of a demon killing an angel in the front, and an angel

¹⁴³ Richard S. Post, "The Relationship of Tattoos to Personality Disorders", in *The Journal of Criminal Law, Criminology, and Police Science*, Vol. 59, No. 4, 1968, pp. 516-524, p. 519.

¹⁴⁴ Richard S. Post, "The Relationship of Tattoos to Personality Disorders", in *The Journal of Criminal Law, Criminology, and Police Science*, Vol. 59, No. 4, 1968, pp. 516-524, p. 520.

¹⁴⁵ Michael Atkinson and Kevin Young, "Flesh Journeys: Neo Primitives and the Contemporary Rediscovery of Radical Body Modification", in *Deviant Behavior*, Volume 22, Issue 2, 2001, pp. 117-146, p.118.

slaying a demon on the back. The entire tattoo becomes a “suit of armor” worn by the protagonist in a metaphorical way. For Michael, it is a “protection” to cover his real identity and motivation. The images of demon and angel deeply implicate the double identities Michael is playing. He is either a criminal (demon) in the prison, or a decent man (angel) who looks for justice. The tattoo image of an angel slaying the demon is reminiscent of the biblical story about the Archangel Michael defeating Satan. It is not a coincidence that the main protagonist is named “Michael,” whose patron the Archangel Michael protects the good from harm. However, buried beneath his double identity, a visual hint of horrifying and brutal violence becomes visibly convincing that he may be guilty of his alleged crimes. Therefore, in *Prison Break* the use of tattoo on the protagonist Michael suggests a sense of ambiguity in the narrative and the character’s covert identity.

Tattooing serves as medium for religion, punishment, lust, revenge, desire or justice that cannot be expressed directly, and it is well exemplified and delineated in the films, and in the history. Like the diversity of its inscriptions, the meanings of Leonard’s tattoo is multiple and serves different functions. It is above all a mnemonic tool, a scriptural mind map on which the complex and tormented identities of its bearer are reflected. He may be at the same time an avenger, a widower, a murderer, a lunatic, a detective or a deviant. These ambiguities are also present in the tattooed characters of Harry Powell in *The Night of the Hunter* and Michael Scofield in *Prison Break*. If the meanings of their tattoos are as problematic as Leonard’s, their contexts are more easy to grasp than in *Memento*. Nolan here exploits the duality inherent to the ambiguous status of tattoos in the history, and transforms it into Leonard’s inscriptions which have multiple meanings. It thus gravitates a sense of uncertainty in *Memento*, a puzzle that is not easy to resolve.

Conclusion

As the protagonist Leonard says, “Memory’s unreliable. No, really. Memory’s not perfect. It’s not even that good. [...] Memory can change the shape of a room or the color of a car. Memories can be changed or distorted [...]” Leonard sees how undependable memory is, and it is the reason he chooses to rely faithfully on the mediums of Polaroid photographs and tattoos inscribed on his body as his personal memento. Polaroid camera can develop images instantly which help Leonard to grasp synoptic insight of his situation in a short time. They are the embodiment of Leonard’s short-term memories. Along with the annotation written under each picture, the meaning of the image can be easily altered or changed, or the images can simply be destroyed. In this sense, they are the memories that Leonard does not want to remember in some level. On the other hand, the tattoos are permanently inscribed on his body which makes them become the memories he does not want to forget. Even though the tattoos cannot be easily removed from the surface, Leonard can still alter its (John G.) meaning by giving another inscription, such as Teddy’s car license number. In this respect, because they are the products of his thoughts, experiences and judgments, Leonard believes the photographs and tattoos are the representation of reality, despite the unlikelihood. He trusts no one, except himself. Leonard therefore, transforms his thoughts and memories into images – the photographs he is taking, and into words visually grafted on his flesh. In this respect, I strongly suggest they are analogous to the essence of “mind map” which converts invisible thoughts and memories into visual representation. This visual thinking technique has precedents in the history of art and cinema. By introducing the examples of Aby Warburg’s *Mnemosyne Atlas* (1924-1929) and Michelangelo Antonioni’s *Blow-Up* (1966) along with the following films, *A Beautiful Mind* (2001) and *Sherlock Holmes: A Game of Shadows* (2011), we can understand that “mind mapping” is utilized in various forms

and styles, and has possible connections in the history.

Leonard's short-term memory is fragmentary and incoherent. The moment Leonard wakes up from a nap or has been disturbed, he instantly loses memory of what happened a short while ago. Therefore, the mapping of the photographs helps Leonard to regain a sense of order in his life, to understand his own story. The photographs and their annotation serve as a summary of a larger plot and function as the panels of the storyboard telling the story – which in a sense, is the story of *Memento*. The same effect is also represented on Leonard's tattooed body. Although each tattoo is fragmentary and partial, they embody a story of its own. Each tattoo engraving is comparable to a fragment of the storyboard, a section that exists within the whole story. Here, I believe both the mapping of photographs and tattoos share the same essence of a "storyboard" – to create a narrative continuity with the help of images and words displayed on a vertical surface. In this discussion, the art historical project *Mnemosyne Atlas* (1924-1929) and the films *Blow-Up* (1966) and *Minority Report* (2002) further demonstrate that the "storyboard structure" has been practiced in diverse forms. In the case of *Memento*, Nolan epitomizes the process of filmmaking by cleverly utilizing photographs and tattoos to construct a story. The photographic images symbolize the visual grammar of a film, its "editing," whereas the tattoos metaphorically become the "film script." Nolan also plays with the dichotomy between the impermanent character of the photos and the permanency of the tattoos, illustrating the illogical thinking of the protagonist as he uses them to tame his memory and to lead his investigation. While the photos and tattoos may be seen as complementing each other, they are also inconsequent. More specifically, Nolan breaks the filming tradition by redefining the principle of montage, by exploiting the contrasts between scattered photographs and tattoos and their intertwining sequences

to elicit a whole new experience and perspective from the spectators, and in turn establishing *Memento* as an unprecedented phenomenon.

I wanted to offer in this thesis new insights, and hope that my contribution provided elements that can enrich the already abundant literature on this movie. However, it was necessary to limit its scope. The amount of studies, critics and audience responses about *Memento* is immense, hence I have listed the most important studies contributed by many scholars insofar; the critics are mainly enumerated from *The Making of Memento* by James Mottram¹⁴⁶; the audience reviews are based on the proclaimed Internet Movie Database. Besides the sole purpose of underlining the statements, I hope that the examples I present here will help readers better understand these connections in a larger context and see their multifaceted influences. However, there are still some issues that encourage further studies in *Memento*. In the discussion of photography, I suggest that the “issue of snapshot” can be elaborated in a broader context to examine the link in Nolan’s filmography or other prominent film works. I also suggest that the discussion of tattooing can be expanded to the East to promote awareness and foster understanding about the practice and tradition in different cultures. The Japanese society, for example, associates tattooing with the Yakuza or similar crime syndicates, can connect to Leonard’s deviance of tattooing practice. The comparisons and differences between the Yakuza and Leonard’s tattooing practice can be addressed. The Yakuza follows a set of rigorous codes to obtain intricate patterns of full-body tattoos, unlike the unconfined randomness in the rough inkings of Leonard’s self-inscribed texts. Finally, I hope to have reexamined this film by offering historical references, literatures, mind-mapping thinking technique and storyboard structure in order to shed a new light on *Memento*.

¹⁴⁶ James Mottram, *The Making of Memento*, New York 2002.

Appendix

1. Christopher Nolan's Filmography:

Following (1998), Nolan's debut feature, a thriller film shot in black and white, tells a story about an anonymous writer who gains inspiration by tagging along strangers on the road, instead being followed and used by one of his targets. The intricate story lines of *Memento* (2000), which continued the mysterious atmosphere presents in *Following*, received various accolades due to its unusual narration¹ and therefore, established Nolan's career in film industry. *Insomnia* (2002) the remake of a detective story depicts the investigation on a local teen murdered in a town of Alaska, unveiling a secret bearing underneath by the detective. The blockbuster *Batman* trilogy (2005) (The *Batman* trilogy comprises *Batman Begins* (2005), *The Dark Knight* (2008) and *The Dark Knight Rises* (2012).) shows the American superhero in a more delicate and humane representation which distinguishes from the stereotypes of more conventional heroic movies. *The Prestige* (2006) discusses the issue of illusion in the context of magic, staging two stage magicians in nineteenth century London, who rivaled for the best trick in the field, but ended with costs of their life. *Inception* (2010) depicts a mysterious dreamland which could be altered or changed by a group of experts inserting the ideas into one's mind, left an open-ending. *Interstellar* (2014) is an epic science fiction film, where a group of astronauts try to save the earth from extinction, starting the trip to outer space in order to find a new home for the entire humanity, but failing to notice that the mission is actually going to fail.

2. Awards of *Memento* (2000):

According to the Internet Movie Database, *Memento* totally won 52 awards and received 46 nominations. Due to its special narration, *Memento* earned numerous Best (Original) Screenplay awards of which it won 17 awards and 4 nominations.

The 17 awards are including Awards Circuit Community Awards (2001), Boston Society of Film Critics (2001), Bram Stoker Awards (2002), Broadcast Film Critics Association Awards (2002), Chicago Film Critics Association Awards (2002), Florida Film Critics Circle Awards (2002), Independent Spirit Awards (2002), Las Vegas Film Critics Society Awards (2002), Los Angeles Film Critics Association Awards (2001), National Society of Film Critics Awards (3rd Place, 2002), New York Film Critics Circle Awards (2nd Place, 2001), Online Film & Television Association (2002), Online Film Critics Society Awards (2002), Phoenix Film Critics Society Awards (2002), Southeastern Film Critics Association Awards (2001), Sundance Film Festival Special Jury Prize - Waldo Salt Screenwriting Award (2001), and Toronto Film Critics Association Awards (2001). The nominations are including Academy Awards (2002), Chlotrudis Awards (2002), Golden Globes (2002), and Satellite Awards (2002).

See the Internet Movie Database:

http://www.imdb.com/title/tt0209144/awards?ref_=tt_awd (Accessed 17th March, 2015).

3. Story of *Memento* (2000):

Before Leonard starts his journey of revenge, he was an insurance investigator who had been in charge of an investigation of a semiretired accountant, Sammy Jankis (Stephen Tobolowsky) who, like him has no short-term memory. Leonard's work here is to examine whether Sammy's condition is real or if he is faking to gain the insurance claim. The reason of Leonard's memory trouble is to be understood in the damages caused by the violent intrusion of strangers who assaulted him and raped and killed his wife Catherine (Jorja Fox). This assault hence causes Leonard an uncovered head injury which provoked an atemporal short-term memory loss. Having no short-term memory, he uses Polaroid

photographs and tattoos to compensate his “condition,” reorient his life and investigate the assault case. On this process, he encounters a man called John Edward “Teddy” Gammell (Joe Pantoliano), a former officer who mentioned he was in charge of Leonard’s case before. With unclear motives, Teddy gives Leonard clues and information about the intruder, known only as “John G” whom Leonard believes is one of the two intruders that escaped from the crime scene without a trace. Following Teddy’s leads, Leonard finds and kills the target called Jimmy Grants (Larry Holden), a drug dealer whom Teddy is double-crossing with. In order to take over the 200,000 dollars that Jimmy brought to make the deal with, Teddy deliberately induces Leonard to believe that Jimmy is the “John G” he is looking for. But Leonard uncovers Teddy’s trick with rage. In order to avenge Teddy’s treachery, Leonard takes Jimmy’s car along with the cash in the trunk, and manipulates himself by framing “Teddy” as the “John G” in order to put him into death. As the story unfolds, it shows how Leonard catches and hunts Teddy down step by step with the help of Natalie (Carrie-Anne Moss), Jimmy’s girl friend who takes advantages of Leonard to help her get rid of a buyer (Dodd), who originally planned to buy the drugs from Jimmy. In the end, it is uncertain whether Leonard has already killed the attacker or not, or whether his wife was killed by the attacker or by his overdosing insulin. At the same time, we are not certain if Sammy Jankis does exist, or if he is a reflection of Leonard. Sammy is a reminder for Leonard to understand his condition as the tattoo on the back of his hand seems to warn him with its injunction to “remember Sammy Jankis.”

4. Story Resource of *Memento* (2000):

The idea of *Memento* was originally inspired by Christopher Nolan’s younger

brother, Jonathan Nolan, who wrote a short story titled *Memento Mori*.¹⁴⁷ The original idea was established when Jonathan had taken a General Psychology class at Georgetown College in 1996.¹⁴⁸ During the class, they discussed about anterograde amnesia – a chronic short-term memory loss which provided a window and materials for Jonathan to formulate his story. Few months later, after Jonathan returned to the UK, he had the image in his mind of a man: “A guy in the motel room. [...] He has no idea where he is, [...] and he looks in the mirror and notices he is covered in tattoos.”¹⁴⁹ It was after Jonathan told his brother about these ideas that Christopher began to augment the density and intensity of the story, and adapt it to the specificities of the film medium. It turns out that the memory problem has found its own translation in the opening scene through the fading out of a Polaroid photograph, a symbol of Leonard’s incapacity of making new memories. The idea is also stressed as Leonard talks to Burt, the counter clerk, and informs him: “I can’t make any new memories. Everything fades.” Jonathan’s idea about a guy looking in the mirror and finding out he is covered with tattoo, is also illustrated in the scene where Leonard is looking himself in the mirror, and notices the tattoo on his chest with the inscription: “JOHN G. RAPED AND MURDERED MY WIFE.”

5. Story of Michelangelo Antonioni’s *Blow-Up* (1966):

The photographs Thomas snaps in the park are a couple that seems very lovely and sweet. Until the woman (Vanessa Redgrave) detects she has been photographed, she runs toward Thomas and says “You can’t photograph here! We

¹⁴⁷ James Mottram, *The Making of Memento*, New York 2002, pp. 158-167. The story *Memento Mori* was published by *Esquire* magazine in 2001. See the whole story at James Mottram, pp. 183-195. Or listen to the story read by Jonathan:

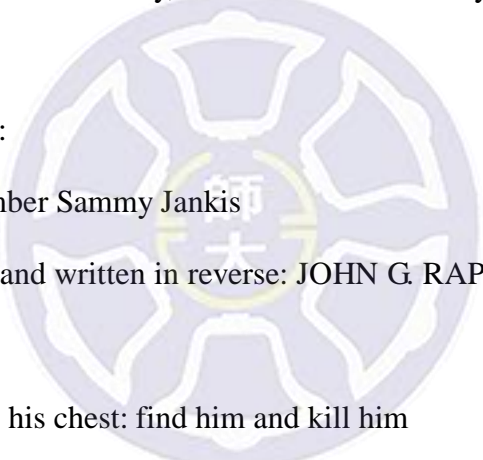
<https://soundcloud.com/mappingtheterritory/memento-mori-by-jonathan-nolan> (accessed 20 February 2015)

¹⁴⁸ James Mottram, *The Making of Memento*, New York 2002, p. 158.

¹⁴⁹ James Mottram, *The Making of Memento*, New York 2002, p. 160.

want to be left in peace!” However, the young photographer cannot resist the urge to take photos, continues snapping the woman and the couple without being bothered by her warning. More strangely, as Thomas returns home, the woman shows up and claims to retrieve the film he shot. Bearing curiosity and wonders, Thomas decides to develop the film after the woman has left. At first, the photographer is not aware of the fact that he took photos of a crime scene, until he witnesses the dead body in the park. When he returns home, the photographs he took in the park are gone, presumably taken away by the suspect. In order to prove this murder case, he returns to the crime scene in the next morning, yet the dead body has disappeared. Eventually, he cannot convince anyone that he did spot the murder.

6. Leonard’s 26 tattoos:

- 
- 1) Left Hand: remember Sammy Jankis
 - 2) Circling his neck and written in reverse: JOHN G. RAPED AND MURDERED MY WIFE
 - 3) Diagonally across his chest: find him and kill him
 - 4) Upper Abdomen (Upside-down): PHOTOGRAPH: HOUSE CAR FRIEND FOE
 - 5) Right Bicep: CONSIDER THE SOURCE
 - 6) Right Bicep: MEMORY IS TREACHERY
 - 7) Left Bicep: SHE IS GONE
 - 8) Left Bicep: Time Still Passes
 - 9) Upper Abdomen (Upside-down): condition yourself
 - 10) Lower Left Ribcage (Upside-down): DON’T TRUST
 - 11) Lower Left Ribcage (Upside-down): HIDE YOUR WEAKNESS
 - 12) Lower Right Ribcage (Upside-down) (12-16): buy film

- 13) CAMERA DOESN'T LIE
- 14) NOTES CAN BE LOST
- 15) HABIT & ROUTINE
- 16) LEARN BY REPETITION
- 17) Lower Abdomen Right Side (Upside-down): I'M NO DIFFERENT
- 18) Under is navel (Upside-down): EAT
- 19) Left Forearm: THE FACTS:
- 20) Left Forearm: FACT 1: MALE
- 21) Left Forearm: FACT 2. WHITE
- 22) Inside Right Forearm: FACT 3. FIRST NAME: JOHN OR JAMES
- 23) Inside Right Forearm: FACT 4. LAST NAME: G_____
- 24) Left Thigh: FACT 5: DRUG DEALER
- 25) Left Thigh: Fact 6: car license number SG1371U
- 26) Right Forearm: NEVER ANSWER THE PHONE

See the Internet Movie Database: <http://www.imdb.com/title/tt0209144/faq#.2.1.4>

(accessed 7 July, 2015).

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Figures



Fig. 1 Picture of Teddy's dead body in the opening scene in *Memento* (2000) directed by Christopher Nolan

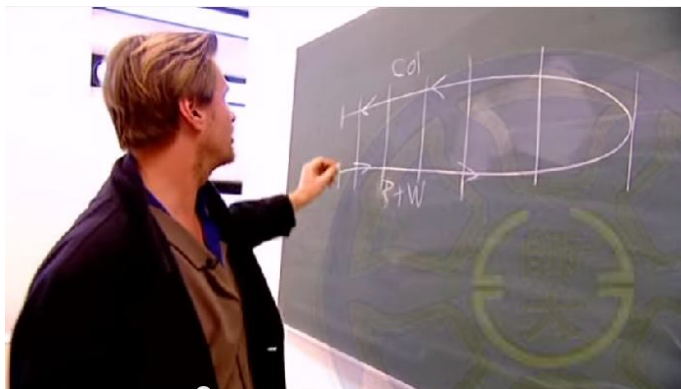


Fig. 2 Nolan describes the hairpin turn. Clip from *Eyes on Cinema*

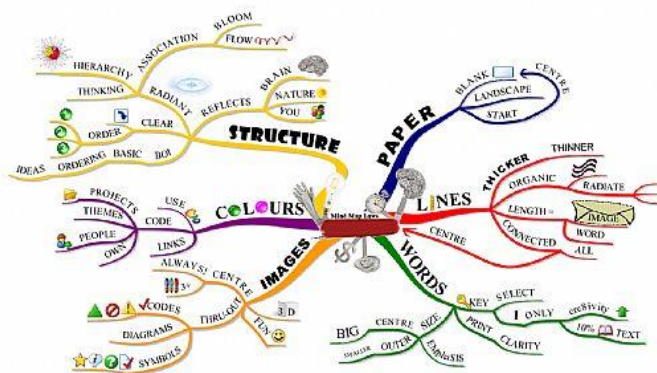


Fig. 3 Mind Map © Tony Buzan



Fig. 4 Leonard's memory map helps him to orient his life order in *Memento* (2000) directed by Christopher Nolan

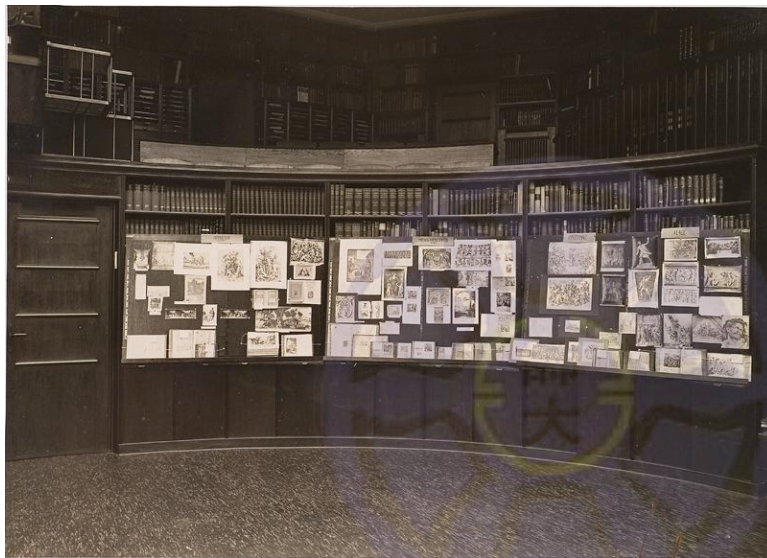


Fig. 5 *Mnemosyne Atlas* © Warburg Institute Archive, London



Fig. 6 Photographer Thomas examines and reconstructs the event in *Blow-Up* (1966) directed by Michelangelo Antonioni



Fig. 7 Nash decipher codes and patterns among newspapers and magazines in *A Beautiful Mind* (2001) directed by Ron Howard



Fig. 8 Nash's mind map as Spider's Web in *A Beautiful Mind* (2001) directed by Ron Howard



Fig. 9 Holmes' investigation board in *Sherlock Holmes: A Game of Shadows* (2011) directed by Guy Ritchie



Fig. 10 Walt Disney tells story of *Pinocchio* (1940) with a storyboard



Fig. 11 The pre-crime chief assembles different fragmentary visual clues in *Minority Report* (2002) directed by Steven Spielberg



Fig. 12 The pre-crime chief assembles different fragmentary visual clues in *Minority Report* (2002) directed by Steven Spielberg



Fig. 13 Picture of Jimmy's dead body in *Memento* (2000) directed by Christopher Nolan



Fig. 14 Picture of Teddy in *Memento* (2000) directed by Christopher Nolan

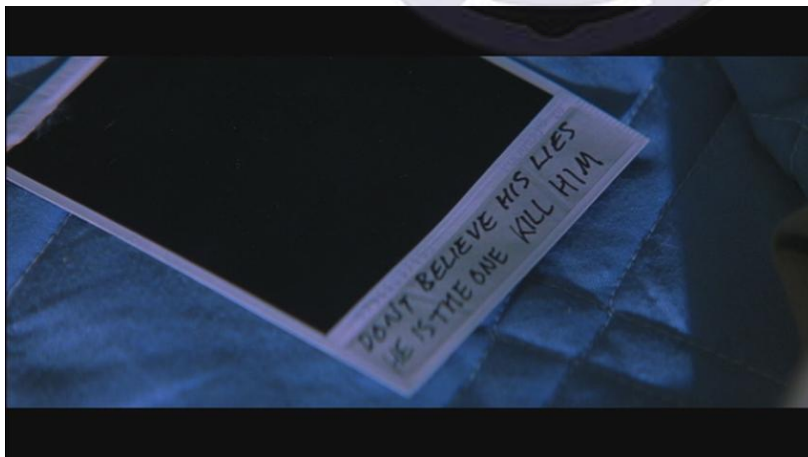


Fig. 15 The annotation of Teddy in the back of the picture in *Memento* (2000) directed by Christopher Nolan



Fig. 16 Picture of Natalie in *Memento* (2000) directed by Christopher Nolan

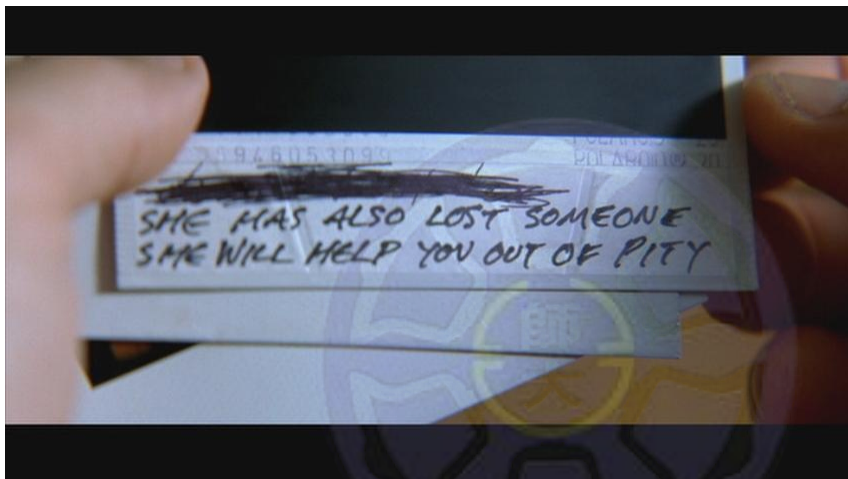


Fig. 17 The annotation of Natalie in the back of the picture in *Memento* (2000) directed by Christopher Nolan



Fig. 18 Picture of Leonard in *Memento* (2000) directed by Christopher Nolan

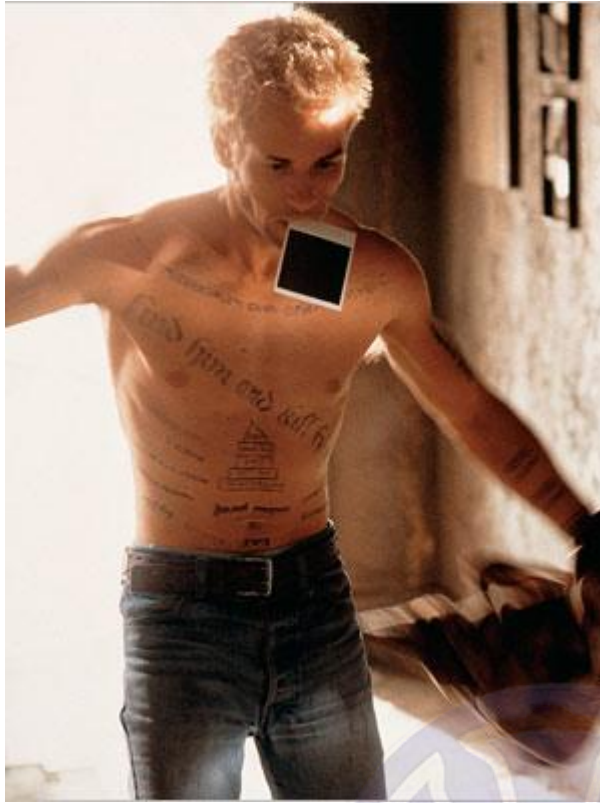


Fig. 19 Leonard's tattooed body in *Memento* (2000) directed by Christopher Nolan



Fig. 20 The tattoo: FACT 5: DRUG DEALER in *Memento* (2000) directed by Christopher Nolan

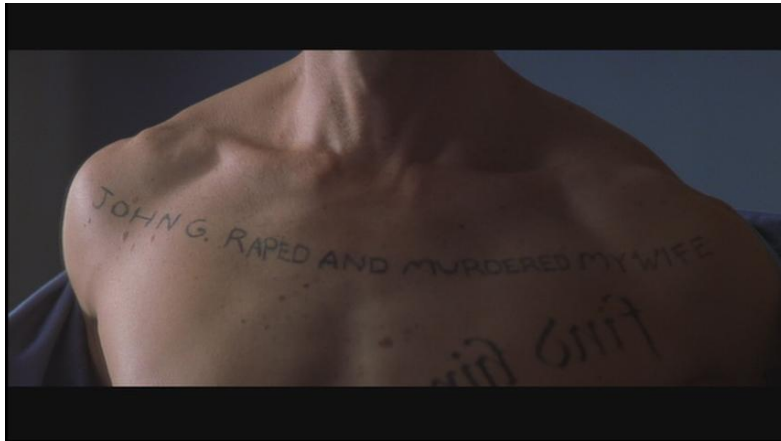


Fig. 21 The tattoo: JOHN G. RAPED AND MURDERED MY WIFE in *Memento* (2000) directed by Christopher Nolan

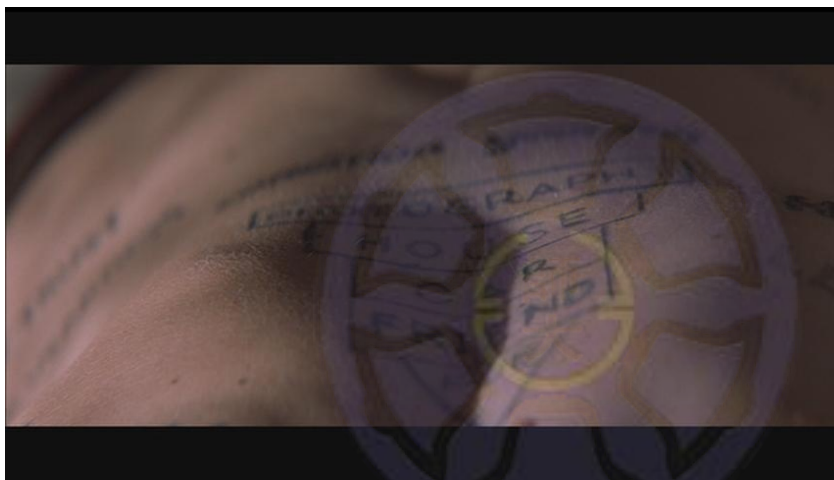


Fig. 22 The tattoo: PHOTOGRAPH: HOUSE CAR FRIEND FOE at Leonard's upper abdomen (upside-down) in *Memento* (2000) directed by Christopher Nolan



Fig. 23 The tattoo: DON'T TRUST and HIDE YOUR WEAKNESS at Leonard's lower left ribcage (upside-down) in *Memento* (2000) directed by Christopher Nolan

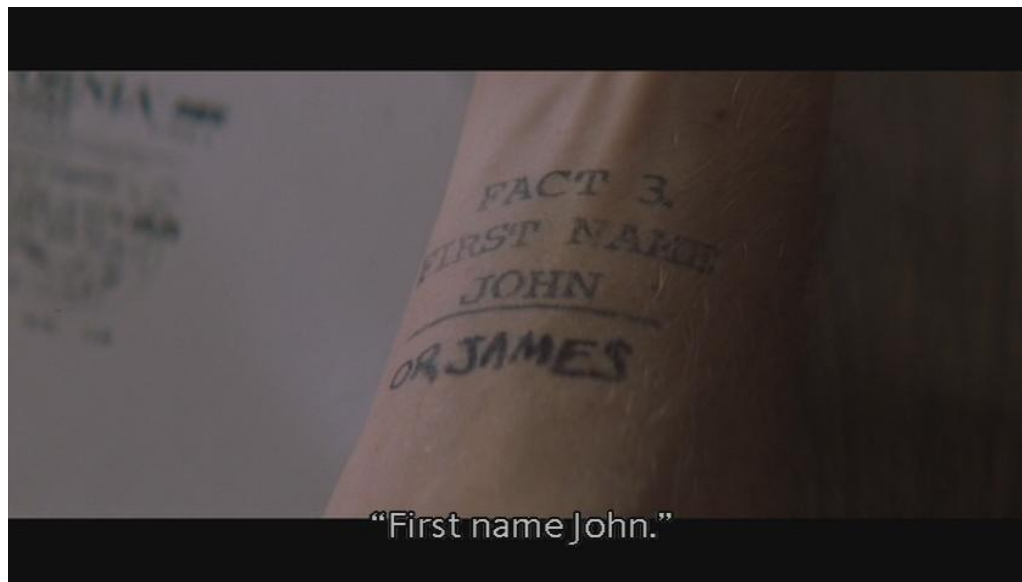


Fig. 24 The tattoo: FACT 3. FIRST NAME: JOHN OR JAMES in *Memento* (2000) directed by Christopher Nolan



Fig. 25 The tattoo: remember Sammy Jankis in *Memento* (2000) directed by Christopher Nolan



Fig. 26 The tattoo: condition yourself at Leonard's upper abdomen (upside-down) and HABIT & ROUTINE at Leonard's lower right ribcage (upside-down) in *Memento* (2000) directed by Christopher Nolan



Fig. 27 The tattoo: LEARN BY REPETITION at Leonard's lower right ribcage (upside-down) in *Memento* (2000) directed by Christopher Nolan



Fig. 28 The tattoo: MEMORY IS TREACHERY at Leonard's right bicep in *Memento* (2000) directed by Christopher Nolan



Fig. 29 A mother memorialized recently her son – the pilot Liou Tzu-chung – who was killed in the February 2015 TransAsia Airways plane crashes in Taipei, by tattooing her son's appearance on her upper arm



Fig. 30 Leonard looks at himself in the mirror and finds out the John G. tattoo in *Memento* (2000) directed by Christopher Nolan



Fig. 31 The tattoo: SHE IS GONE at Leonard's left bicep in *Memento* (2000) directed by Christopher Nolan



Fig. 32 Michael is mapping the data of his escaping plan in *Prison Break* (2005) created by Paul Scheuring

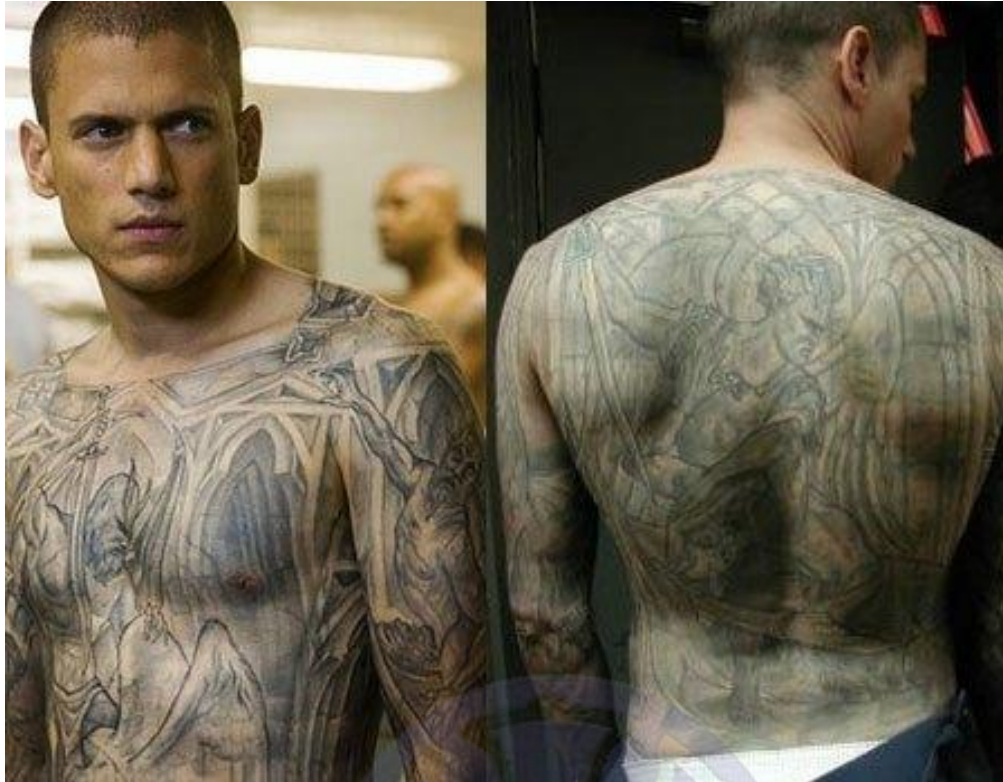


Fig. 33 Michael's tattooed body for his escaping plan in *Prison Break* (2005) created by Paul Scheuring

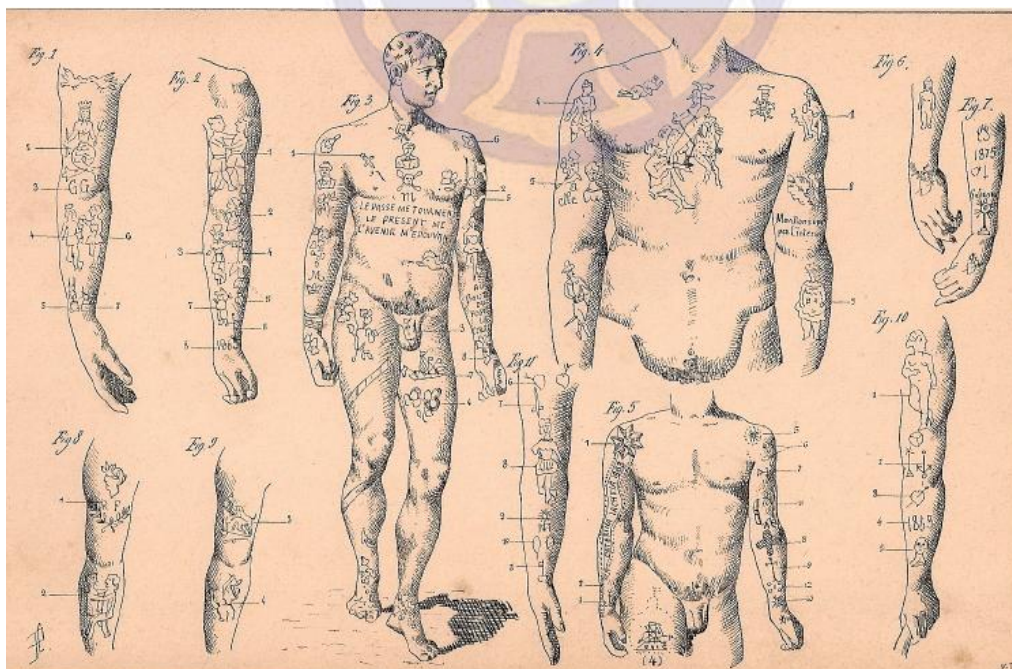


Fig. 34 Tattoos of criminals. Lombroso, *Der Verbrecher* (Atlas). © Lloyd Sealy Library, John Jay College of Criminal Justice



Fig. 35 The tattoo: find him and kill him positions diagonally across Leonard's chest in *Memento* (2000) directed by Christopher Nolan



Fig. 36 The tattoo: I'M NO DIFFERENT at Leonard's lower right abdomen (upside-down) in *Memento* (2000) directed by Christopher Nolan



Fig. 37 Tattooing machine made in prison. Europe. 20th century. 15 x 5 cm. Ballpoint, wire, coil. Private collection, Jérôme Pierrat.



Fig. 38 Harry Powell's dual tattoos LOVE and HATE inscribed respectively on his right and left hand in *The Night of the Hunter* (1955) directed by Charles Laughton

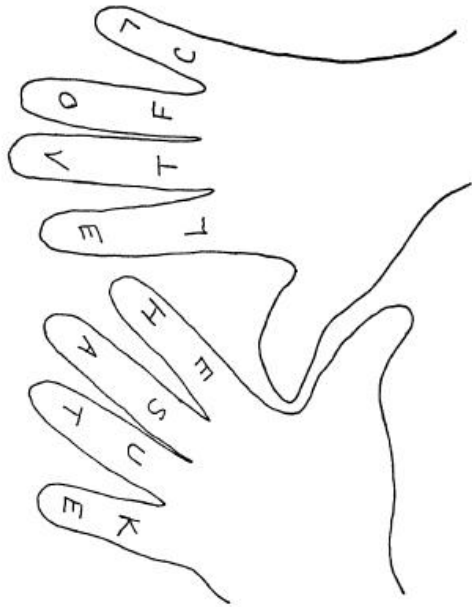


Fig. 39 A 27-year-old white male subject caught by burglary in Chicago was found with the inscription LOVE and HATE tattooed on his both hands' first and second finger joints in Richard S. Post's article "The Relationship of Tattoos to Personality Disorders."

