

SPACE AND IMAGE

A Cross-disciplinary Study of Architecture and Cinema

vorgelegt von
M. Eng.
Quanquan Liu

an der Fakultät VI – Planen Bauen Umwelt
der Technischen Universität Berlin
zur Erlangung des akademischen Grades

Doktor der Ingenieurwissenschaften
- Dr.-Ing. –

genehmigte Dissertation

Promotionsausschuss:

Vorsitzender: Prof. Raoul Bunschoten

Gutachter: Prof. Klaus Zillich

Gutachter: Prof. Dr. Philipp Misselwitz

Gutachter: Prof. Manfred Sundermann (Professor i. R. Hochschule Anhalt)

Tag der wissenschaftlichen Aussprache: 15. Dezember 2020

Berlin 2021

Contents

Acknowledgements	v
Abstract	1
Abstrakt	3

Introduction

I. Research in Space: Giedion's Legacy	5
II. A Review of the Cross-disciplinary Study of Cinema and Architecture	8
III. The Foundation of Cross-disciplinary Study: Image and Space	15
IV. Hypotheses, Methodology and Structure of Research	20

PART I

Chapter 1: Cinematic Image

1.1 The Concept of Cinematic Image	27
1.1.1 The Movement-Image & the Time-Image	27
1.1.2 Photogénie	31
1.1.3 Summary: the Image from the Other	29
1.2 Making Cinematic Images	32
1.2.1 An Overview of the Mechanical Progress	32
1.2.2 Mise-en-scène	35
1.2.3 Cinematography	38
1.2.3.1 <i>Camera Lens</i>	38
1.2.3.2 <i>Framing and the Moving Camera</i>	41
1.2.4 Montage and Editing	45
1.3 An Analogy Between Cinematic Body and Human Body	49
1.3.1 The Concept of Cinematic Body	49
1.3.2 Two Aspects of Following Study	50

Chapter 2: Theses on Atmosphere

2.1 The Concept of Atmosphere	52
--	-----------

2.1.1 Architectural Atmosphere	52
2.1.2 New Phenomenology and “der Leib”	56
2.1.3 Cinematic Atmosphere	59
2.1.4 Elements of Creating Atmospheres	60
2.2 Visual Elements of Creating Atmospheres	62
2.2.1 Form	62
2.2.2 Material and Materiality	65
2.2.3 Colors & Lights	67
2.2.3.1 <i>Color as the Coating</i>	67
2.2.3.2 <i>Colorful Lights</i>	69
2.2.4 Summary: Aesthetic Effects	70
2.2.4.1 <i>The Painting-like Effect</i>	70
2.2.4.2 <i>Color vs. Materiality</i>	73
2.3 Sound: The Audio Element of Creating Atmospheres	76
2.4 Human Behavior and Atmospheres	79
 Chapter 3: Theses on Movement	
3.1 Two Types of Movements	82
3.1.1 The Perceptible Movement	82
3.1.2 The Potential Movement	84
3.1.3 Summary	85
3.2 The Perceptible Movement	86
3.2.1 The Cinematic Flâneur	86
3.2.2 Human Behavior and Occasionality	89
3.2.3 Action, Defamiliarization and Metaphor	92
3.2.4 Action and Emotion	93
3.3 The Potential Movement	96
3.3.1 The Depth of Cinematic Space: a Spatial Model	96
3.3.2 Layers in Cinematic Space	97
3.3.2.1 <i>The Frame: Windows</i>	97
3.3.2.2 <i>The Reflector: Mirrors and Others</i>	100
3.3.2.3 <i>Positions of Figures</i>	103
3.3.3 Summary	104
3.4 Conclusion: Human Behavior and Spatial Layers	105

PART II

Chapter 4: Case Study on Cinema

4.1 A Film of Flâneur: <i>La Notte</i>	109
4.1.1 An Overview of the Film	109
4.1.2 The Cinematic Flâneur	110
4.1.3 Layers and the Potential Movement	112
4.1.4 Sounds	114
4.1.5 Summary	116
4.2 A Film of Metaphor: <i>8½</i>	117
4.2.1 An Overview of the Film	117
4.2.2 Human Behavior, Space and Metaphor	118
4.2.3 Summary	121
4.3 Ozu's Everyday Life: <i>Late Autumn</i>	121
4.3.1 An Overview of the Film	121
4.3.2 Spatial Form and Layers	122
4.3.3 Color and Material	124
4.3.4 Human Behavior and Atmosphere	126
4.3.5 Summary	126

Chapter 5: A Case Study on Architectural Atmosphere

5.1 A Brief Introduction: Emil Steffann and Church Buildings	128
5.1.1 The First Impression	128
5.1.2 A Biography of the Church-building Master	131
5.2 Theories and Principles	135
5.2.1 Armut	135
5.2.2 Sinngerechtes Bauen	136
5.3 Form	138
5.3.1 The Abstract Form: Liturgical Movement and the New Plan	138
5.3.2 "The Old Form"	141
5.3.3 Proportion and Scale	146
5.4 Materials	149
5.4.1 Stone and Brick	149
5.4.2 Craftsmanship	150
5.5 Lights and Sounds	153
5.6 Summary	157

Chapter 6: Case Study on Movements in Architecture

6.1 Frame and View in Chinese Gardens	158
6.2 View and Movements in Historical Periods	163
6.2.1 Montage of Architecture	163
6.2.2 Visual Movement in Baroque Architecture	168
6.2.3 Summary	172
6.3 Movement in Modern Architecture	174
6.3.1 Loos's Villa Müller	174
6.3.1.1 <i>An Overview</i>	174
6.3.1.2 <i>The "Stage" and "Theatre Box"</i>	177
6.3.1.3 <i>Path and the Perceptible Movement</i>	183
6.3.2 Mies's Villa Tugendhart.....	183
6.3.2.1 <i>An Overview</i>	183
6.3.2.2 <i>Frames, Layers and the Flowing Space</i>	183
6.3.2.3 <i>Path and the Perceptible Movement</i>	187
6.4 Summary	190

PART III

Chapter 7: Conclusions and Further Questions

7.1 A Brief Review of Important Concepts	193
7.1.1 Cinematic Image & Cinematic Body	193
7.1.2 Atmosphere	195
7.1.3 Movement	196
7.1.4 Integration of Concepts	197
7.2 Inspiring from Cinematic Images	198
7.2.1 An Overview	198
7.2.2 Atmospheres as an Aesthetic	198
7.2.3 Study on Everyday Life	200
7.2.4 Spatial Layers as as a Research and Design Method	203
7.3 Further Questions	205
Bibliography	208
Credits of Figures	215
Index	219

Acknowledgements

There are many people that have earned my gratitude for their contribution to my dissertation.

Firstly, I would like to express my sincere gratitude to my supervisor Prof. Klaus Zillich, for his continuous support of my PhD study and related research, for his patience, motivation, and immense knowledge. His guidance helped me in all the time of research and writing of this dissertation. Also, I would like to thank my supervisor Prof. Dr. Philipp Misselwitz, for his tolerance, for inspiring my interest in the development of innovative research methods.

Besides my supervisors, I would like to thank the rest of my dissertation committee: Prof. Raoul Bunschoten and Prof. Manfred Sundermann, for their sincere support in such a difficult Corona-time.

I am also grateful to Ms. Jessica Lüttke, the office manager of Prof. Zillich and Prof. Raoul Bunschoten, and Ms. Franziska Berger, the office manager of Prof. Misselwitz. They offered me kindly help all the time to get through all the procedure of my PhD study.

My sincere thanks also goes to the following academics: Professor and architect Gisberth Hülsmann, the only living member of the former collaborators of Emil Steffann, who helped me significantly on my study of Steffann; Dr. Dongyang Liu, who always encouraged me to pursue my interests in architecture and cinema; and Mr. Zhiqin Wang, my dear friend, a young film critic, who gave me rather profound inspiration on cinema.

I gratefully acknowledge China Scholarship Council, for founding me four-years scholarship.

I am indebted to all my friends in Berlin, Dr. Zao Zhang, Ms. Xiaobei Ma, Ms. Anchi Huang, Ms. Rui Liang, Ms. Yi Yang, Ms. Siran Chen, Mr. Fabian Heisler, and so many others, who spent so much precious time with me. I am grateful to

have their friendship in my life.

I give my special thanks to my therapist Ms. Yvonne Lipkowsky-Rauch, who helped me get through my most depressed, self-doubtable days.

Last but not the least, I would like to express my deepest gratitude to my family: my parents – Mengzhou Liu and Shuqing Ma, my twin sister – Yuanyuan Liu, and my husband – Shengdi Fu. I could not imagine finishing my dissertation without their consistent support financially and mentally. From them, I learned self-confidence, perseverance, courage, tolerance, and of most importance, how to love. I dedicate my dissertation

to my family, with love.

Abstract

This cross-disciplinary study intends to establish a bridge connecting architecture and cinema. Space, as one of the most important concepts in modern architecture, is where my interests started. Cinema, as a newborn technology in the late nineteenth century and a significant art form in the twentieth century, has enriched our understandings on space. In order to study the issue of cinematic space, I employ the concept of *image* – the *movement-image* and the *time-image* that defined by Gilles Deleuze, as the essence of cinema. Hence, my aim is to relate image to space, to study the architectural space through the cinematic image. The study begins with concepts and theories from philosophy and film studies, and then moves towards case study on cinema and architecture.

The first significant concept is the *cinematic image*. Since the image always requires a body to perceive it, the *cinematic body* is the one that responsible for the cinematic image. However, the cinematic body is not a physical or materialized body but an abstract concept, which involves two conditions: the static and the dynamic. Based on them, I develop two sub-concepts as well as the principal characteristics of the cinematic image: *atmosphere*, related to the relatively static perception; *movement*, related to the dynamic perception. Atmosphere, as a philosophical concept given by Hermann Schmitz, the founder of New Phenomenology, is considered to be an area-less space of feelings (*der Gefühlsraum*) that related to the *felt body* (*der Leib*). I study on visual and audio elements that create cinematic atmospheres, including form, material (and materiality), color, light, sound and human behavior (a complex of visual and audio element), to associate them with emotions and feelings. Movement, as the last but not at least key concept, is categorized into two types: the perceptible movement, which refers to, at first, the cinematic flâneur, as well as human behavior and actions; and the potential movement, a tendency and possibility of movement, which leads to a fascinating topic of frames and layers.

After discussing all the key concepts, I carry on with case study. I choose films

from three film masters, Michelangelo Antonioni, Federico Fellini and Yasujirō Ozu, to analyze them from new perspectives of atmosphere and movement (the two factors are hardly separable in a specific case study). The methodology of the new approach to study films is of great importance and it could benefit the study on architectural space. Next, for the issue of architectural atmosphere, I study the work of German architect Emil Steffann; for the issue of movement in architecture, I start with frames in traditional Chinese Gardens, and the “montage of architecture” argued by Sergei Eisenstein, and then discuss spatial movement in historical periods (the Renaissance and Baroque architecture), and finally I point out some similarity between films and modern architecture – the work of Antonioni and Ozu leads me to the work of Adolf Loos (villa Müller) and Mies van der Rohe (villa Tugendhat).

Through my whole study, I intend to demonstrate how the knowledge of atmosphere and movement derived from cinema could be applied to the study of architectural space. I summarize the conclusion of my research into three specific aspects: how could atmosphere work as an aesthetic in both cinema and architecture; how to study everyday life and everyday space through films; how to use the new understandings on frames and layers to distinguish various concepts of space, as well as establishing architectural design methods.

Abstrakt

Mit dieser interdisziplinären Studie soll eine Brücke zwischen Architektur und Kino geschlagen werden. Der Raum, als eines der wichtigsten Konzepte in der modernen Architektur, ist der Ausgangspunkt meiner Interessen. Das Kino, als eine neugeborene Technologie im späten neunzehnten Jahrhundert und als eine bedeutende Kunstform im zwanzigsten Jahrhundert, hat unser Verständnis vom Raum bereichert. Um die Bedeutung des filmischen Raums zu untersuchen, verwende ich die zwei Begriffe des Bildes - das *Bewegungs-Bild* und das *Zeit-Bild*, die von Gilles Deleuze als das Wesen des Kinos definiert wurden. Mein Ziel ist es demzufolge, Bild und Raum zueinander in Beziehung zu setzen und den architektonischen Raum durch das filmische Bild zu untersuchen. Die Studie beginnt mit Konzepten und Theorien aus der Philosophie und den Filmwissenschaften und geht dann zu Fallstudien von Kino und Architektur über.

Der erste bedeutende Begriff ist das Filmbild. Ein Bild braucht immer einen Körper um es wahrzunehmen, hingegen ist der Filmkörper ein Element, der für das Entstehen des Filmbildes verantwortlich ist. Der kinematische Körper ist jedoch kein physischer oder materialisierter Körper, sondern ein abstrakter Begriff, der zwei Bedingungen beinhaltet: die statische und die dynamische Bedingung. Darauf aufbauend entwickle ich zwei Teilkonzepte sowie die Hauptmerkmale des Filmbildes: Die Atmosphäre, bezogen auf die relativ statische Wahrnehmung; die Bewegung, bezogen auf die dynamische Wahrnehmung. Atmosphäre, als ein philosophischer Begriff von Hermann Schmitz, dem Begründer der Neuen Phänomenologie, gilt als ein flächenloser Gefühlsraum, der sich auf den *Leib* bezieht.

Des Weiteren beschäftige ich mich mit visuellen und akustischen Elementen, die filmische Atmosphären erzeugen, darunter zählen: Form, Material (und Materialität), Farbe, Licht, Ton und das menschliche Verhalten (ein Komplex aus visuellen und akustischen Elementen). Diese bringe ich mit Emotionen und Gefühlen in Verbindung um die filmische Atmosphäre darzustellen. Die Bewegung, als letztes thematisiert aber nicht als das letzte Schlüsselkonzept dieser Studie, wird in zwei Typen kategorisiert: zum einen die wahrnehmbare

Bewegung, die sich zunächst auf den filmischen Flaneur, aber auch auf das menschliche Verhalten und Handeln bezieht; zum anderen die potentielle Bewegung, eine Tendenz und Möglichkeit der Bewegung, die zu einem faszinierenden Thema von Gestaltung führt.

Nachdem ich alle Schlüsselkonzepte diskutiert habe, fahre ich in meiner Arbeit mit einer Fallstudie fort. Hierfür wähle ich Filme von drei Filmmeistern aus, Michelangelo Antonioni, Federico Fellini und Yasujirō Ozu, um diese schließlich aus neuen Perspektiven von Atmosphäre und Bewegung zu analysieren. Dieser neuen Ansatzes zur Untersuchung von Filmen ist von großer Bedeutung, und könnte eine Methodik sein die der Studie über den architektonischen Raum zugute kommt.

Hiernach beschäftige ich mit dem Thema über die architektonische Atmosphäre, hierfür betrachte ich das Werk des deutschen Architekten Emil Steffann.

Für das Erläutern des Themas zu der Bewegung in der Architektur beginne ich mit der Analyse von der Gestaltung in traditionellen chinesischen Gärten und diskutiere dann die „Montage der Architektur“ wie sie von Sergei Eisenstein argumentiert wurde. Des Weiteren nehme ich Bezug wie die Bewegung in historischen Perioden in Europa (der Renaissance- und der Barockarchitektur) gesehen wurde und schließlich weise ich auf eine gewisse Ähnlichkeit zwischen Filmen und moderner Architektur hin. Das Werk von Antonioni und Ozu führt mich zu den Arbeiten von Adolf Loos und Mies van der Rohe.

Mit meiner Studienarbeit möchte ich einen neuen Ansatz zeigen, wie das Wissen über Atmosphäre und Bewegung vom Kino abgeleitet werden kann und auf die Untersuchung des architektonischen Raums angewandt werden könnte. Ich fasse das Fazit meiner Forschung zu drei spezifischen Aspekten zusammen:

- Wie könnte Atmosphäre als Ästhetik sowohl im Kino als auch in der Architektur funktionieren;
- Wie kann man das Alltagsleben und den Alltagsraum mit Hilfe von Filmen untersuchen;
- Wie kann man das neue Verständnis von Gestaltung nutzen, um verschiedene Raumkonzepte zu unterscheiden, sowie um architektonische Entwurfsmethoden zu etablieren.

Introduction

I. Research in Space: Giedion's Legacy

Space is one of the most important concepts in modern architecture. My interest in architecture started with my fascination with space. I believe that space is architecture's core subject and concern.

Space as a concept has caught the attention of architectural theorists and historians. Sigfried Giedion's (1888-1968) work, *Space, Time and Architecture*, represents one of the most significant meditations on space. First published in 1941, this book remains to this day a major work of research on modern architecture. Its subtitle is also noteworthy: *The Growth of a New Tradition*, in which, *New Tradition* refers to modern architecture. For Giedion, modern architecture is the result of a spatial evolution, *a new tradition* that nonetheless can be traced back through history. In the first two parts of the book, Giedion elaborately categorized three historical

periods that he believed were related to modern architecture (i.e. the *new tradition*): the two continuous periods of Renaissance and Baroque architecture, which he named “our architectural inheritance”, and the nineteenth century when new buildings using the steel frames emerged as “the evolution of new potentialities”.¹ During these three periods, according to Giedion, architectural and urban spaces were attached to scientific discoveries, new technologies, new art forms, and other human activities, in a word, to lived realities.

Giedion further argued that modern architecture embodied all these historical spaces in new ways. A brief review of Giedion’s interpretation. In the fifteenth century, the discovery of scientific perspective, which was first used in painting, led directly to a new conception of space in Renaissance architecture and cities. Architects like Donato Bramante (1444-1514) and Michelangelo (1475-1564) had used perspective to create the illusion of space;² what’s more, side by side with “illusion”, stable perspective had become a new aesthetics in both architectural and urban spaces. In the seventeenth century, the architect and mathematician Guarino Guarini (1624-1683) used careful mathematical calculation in order to develop complicated ideal curves, which were considered to be “a direct connection between artistic and mathematical knowledge”.³ A new mode of space was built through its most remarkable features of Baroque architecture: curved lines in buildings and cities. Finally, in the nineteenth century, with the development of the first industrial revolution, iron and steel were used widely in construction, new structures correspondingly were invented, and new modes of space based on lived realities were developed, such as market halls, department stores, and so on. Due to the use of steel frames interleaved with glass, these new spaces could be much larger and much brighter than earlier buildings. Drawing on these historical observations, Giedion proposed a new framework for thinking about how new conceptions and modes of space were created in the course of the historical process. More importantly, he showed how architectural space was strongly influenced by developments in science, industrial technology, art and everyday life. Having walked through the history of space, Giedion continued to discuss modern

¹ See the titles of parts II and III in *Space, Time and Architecture: The Growth of a New Tradition*. Giedion (2008).

² See Giedion (2008), p. 36 & pp. 64-71. His example from Bramante refers to the illusionistic choir in Santa Mariapresso S. Satiro in Milan, while his example from Michelangelo refers to the Capitol in Rome.

³ Giedion (2008), p.122.

architecture, which was born with modern industry and art.

Giedion's passion for technology and lived realities was also explored in his later work, *Mechanization Takes Command* (first published in 1948), which could be considered a veritable encyclopedia of mechanical inventions. In this book, Giedion followed how mechanization and its effects and influence on everyday life. He assembled a wide range of research, examining various inventions from the medieval period to the early twentieth century, including small objects such as locks, large systems like automatic assembly lines, machines for baking, agricultural production, electric home appliances, and so on. However, aside from a very few comments on the Lumière Brothers' cinematography⁴ and Henri Bergson's (1859-1941) lecture on the "Cinematographic Mechanism of Thought", Giedion was seemingly neither interested in cinema nor familiar with Bergson's theory.⁵

Born in the year 1888, while Giedion actually grew up together with the cinema, in its early years it was quite difficult for someone outside the film industry or the nascent discipline of film studies to understand the new art, let alone fully grasp cinema's potentials for architecture. As a consequence, for historical, professional and personal reasons, Giedion was not sensitive to cinema's potential as a new technology and art. Giedion was hardly alone in this oversight, as even Bergson, one of the few philosophers to treat cinema, did not fully appreciate its essence.⁶

Despite his scant treatment of cinema, Giedion nonetheless did successfully express an important point: the concepts of space (even before "space" was used in architectural vocabulary) always vary and develop in tandem with developments in science, technology and art. Inheriting Giedion's thought, I would like to propose a hypothesis: as a newborn technology of the late nineteenth century, as well as a

⁴ Lumière Brothers refer to Auguste Lumière (1862-1954) and Louis Lumière (1864-1948), who were among the first filmmakers in the late nineteenth century. They were born in Besançon, France. In 1895, they had their first motion-picture projected in Paris, and the film was *Sortie des Usines Lumière à Lyon (Workers Leaving the Lumière Factory)*.

⁵ See Giedion (1970), p. 28. In the second part of *Mechanization Takes Command*, Giedion considered the cinematograph as a mechanical invention aimed at catching movement.

⁶ Although it was Henri Bergson who first proposed the concept of *movement-image* in his book *Creative Evolution* (French: *L'Évolution créatrice*, first published in French in 1907), he failed to realize how cinema truly captured the movement-image. Bergson, in fact, saw cinema as a "false" movement-image. In his book *Cinema I: The Movement-Image*, Gilles Deleuze borrowed and elaborated Bergson's concept of movement-Image, but he rejected Bergson's description of it as false, and instead sought to demonstrate that cinema is actually movement-image. See the chapter of "Theses on Movement: First Commentary on Bergson" in *Cinema I: The Movement-Image*, Deleuze (2013a), pp. 1-12.

young art form, cinema influenced how people experienced space, and the study of cinema can help us to enlarge our understandings of space. Furthermore, architects may couldn't help wondering: could the study of cinema help us form new ideas to guide architectural design, outline new methods of research, or advance new concepts in aesthetics of architecture?

II. A Review of the Cross-disciplinary Study of Cinema and Architecture

Ever since I started to study architecture, I have been interested in cinema. Cinema is a rich and powerful medium that tackles the issue of space in a unique way that no other medium has been able to replicate.

Cinema was a new technology born in the in the late nineteenth century. In comparison to other art forms, it is a young art that only emerged in the early twentieth century,⁷ at the same moment as modernist architecture. In the nineteenth century, the great invention before cinema was photography. However, photographs are still and silent pictures. It is not until the late nineteenth century that motion pictures were invented and given a new name, cinema.⁸ The inventions of

⁷ In the early part of the twentieth century, cinema came to be considered “the seventh art” (Manifeste des 7 Arts), a title given by the Italian film theorist Ricciotto Canudo (1877–1923) and still in use today. Initially Canudo published an essay titled “La Naissance d'un sixième art - Essai sur le cinématographe” (The Birth of the Sixth Art) in *Les Entretiens idéalistes*, 25 October, 1911. Drawing from Hegel's *Lectures on Aesthetics* he claimed cinema as the sixth art after architecture, sculpture, painting, music, and poetry. Later, he added dance to his account as the sixth art, so cinema became “the seventh art”. Canudo's essay is edited into *Film Theory. Critical Concepts in Media and Cultural Studies. Volume I*, see Simpson (2004), pp. 25-33.

⁸ Terminologically, we should pay attention to the word *cinema* and its two synonyms: *film* and *movie*. In Chinese, there is only one word to depict the motion-picture: 电影, which can be translated literally as *electronic images*. It is a bit obscure for Chinese to understand the differences among these three English words, which outside the discipline of film studies are even confused for English speakers. As I will frequently use these words, they should be explicated.

photography and cinema led to what Walter Benjamin (1892-1940) called a new “age of mechanical reproduction”, from his most well know essay, “The Work of Art in the Age of Mechanical Reproduction”.⁹

Due to their concurrent development, it is worth asking if there is a close relationship between cinema and modernist architecture. Some cross-disciplinary studies have focused on cinema and architecture, which can be organized into five broad approaches.

The first type of cross-disciplinary studies on cinema and architecture focus on the spaces shown/presented in films, including both artificial film sets and real buildings, cities and landscapes. In short, they primarily focus on what we might call the film set. Books such as *Film Architecture: Set Designs from Metropolis to Blade Runner*¹⁰ and *Learning from Hollywood, Architecture and Film*,¹¹ which are more like catalogues of outstanding set designs and buildings in films than studies of space, are representative of this approach.

The second approach builds on but goes further than the first. Not only does it focus on striking spaces on screen, more importantly it focuses on the emotional resonances and atmospheres of those spaces. Giuliana Bruno’s *Atlas of Emotion*:

The English word *cinema* originated in the early twentieth century from the French *cinéma*, which is an abbreviation of *cinématographe* from the late nineteenth century. In English, there is the word *cinematograph* that corresponds to the French *cinématographe*, however neither are commonly used nowadays. The word *cinema* basically has two meanings: (i). a theater where films are shown; (ii). the production of films as an art or industry. In the first meaning, which is concrete, it refers to the theater, to the building; in the second meaning, it becomes a general, abstract and conceptual definition. During my research, I mostly use the word *cinema* in the second sense, as well as in derivatives like *cinematic space*.

As a noun the word *film* has more material meanings: (i). the motion-picture; (ii). a strip of plastic or other material, used in a camera to produce photographs or motion pictures; (iii). cinema considered as an art or industry. It is obvious that the third meaning of *film* is equivalent to the second sense of *cinema*. When it refers to a specific piece of work, I use the word *film*, as well as other terms such as *film studies*.

The last term, *movie*, happens to be the least important one for my study. It basically abbreviates motion-picture. It can always be replaced by the word *film*. Conventionally, it has a close connection with commercial films, especially Hollywood, and is widely used in a simple and loose way, like *movie stars*. As its meanings can be expressed by film or cinema, I drop it from my study.

⁹ The original German title of this essay is “Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit”, and it was first published in 1935. In the next year, it was published in French with the title “L’œuvre d’art à l’époque de sa reproduction mécanisée”. Later, in 1939, Benjamin published the revised German edition with the same original title.

¹⁰ See Neumann (1996).

¹¹ See Schaal (1996).

¹² See Lamster (2000).

*Journeys in Art, Architecture, and Film*¹³ and Juhani Pallasmaa's *The Architecture of Image* focus on the creation of poetic and atmospheric images. Nonetheless, this approach does not claim to be theoretical. As Pallasmaa concedes, he does not see his work as a theoretical study.¹⁴

The third approach is to take cinema as a cultural and historical text, i.e. material for sociological or cultural studies, through which one can analyse modernism and postmodernism in modern society and cities. This approach is commonly used to study the relationship between films and cities. In his book, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*, the contemporary Marxist scholar David Harvey cites two films, *Blade Runner* (1982), an important American science-fiction film directed by Ridley Scott, and *Wings of Desire (Der Himmel über Berlin)*, 1987), a German film directed by Wim Wenders,¹⁵ to analyse the postmodernity of cities through films.¹⁶ Other books that can be classified in this approach include *Cinema & Architecture: Méliès, Mallet-Stevens, Multimedia*,¹⁷ *The Cinematic City*,¹⁸ *Cinematic Urbanism: A History of the Modern from Reel to Real*,¹⁹ *Film and Urban Space: Critical Possibilities*,²⁰ and so on.

The fourth approach is related to film theory, which has proved more contentious. Anthony Vidler's book, *Warped Space*, is representative of this approach. Vidler advances two meaningful points about the relationship between film, architecture and urban space: one about "The Explosion of Space" and the other about "Metropolitan Montage".²¹ The most significant shortcoming of Vidler's approach is that he is mainly in dialogue with philosophy and film theory instead of the films themselves, and that most of his sources date from before WWII. His work is more like a literature review than a sustained argument. Although film theory is a necessary and important source of knowledge, we should keep in mind what the great contemporary film theorist J. Dudley Andrew has warned us about: it is quite

¹³ See Bruno (2002).

¹⁴ See Pallasmaa (2007), p. 8.

¹⁵ Wim Wenders (1945-) is one of the pioneer filmmakers in post-war German cinema. He is a representative of the New German Cinema (German: *Neuer Deutscher Film*).

¹⁶ See Harvey (1999), chapter 18 *Time and Space in the Postmodern Cinema*, pp. 308- 326.

¹⁷ See Penz (1997).

¹⁸ See Clark (1997).

¹⁹ See Alsayyad (2006).

²⁰ See Pratt (2014).

²¹ See Vidler (2002), pp. 99-122.

dangerous to let film theory become a replacement for the experience of watching films.²² Thus, A cross-disciplinary study based on pure film theory is not solid.

The fifth approach is perhaps the most radical one. In the post-war period, some architects began to question the meaning of modern architecture and buildings (or constructions), and carried out the practice of architecture in other means rather than doing design of buildings. Some considered cinema to be a mean of practicing architecture. The Italian architecture group *SuperStudio*²³ was one of those pioneers. Between 1972 and 1973, they published a serial of film scripts (storyboards) named “Atti Fondamentali” (Fundamental Acts), including five stories each referring to one important aspect of human life: *Life, Education, Ceremony, Love, and Death*.²⁴ Due to the lack of funding, only two of them were filmed: the first one regarding *life, Supersurface: An Alternative Model for Life on the Earth* (1972, Fig. i), and the third regarding *ceremony, Cerimonia* (1973, Fig. ii).²⁵ In the films, as well as in film scripts, *Superstudio* intended to discuss fundamental issues of architecture but beyond the typical discipline of architecture. In fact, *Superstudio* was not the first architect to express ideas through films. As a big fan of cinema, Charles Eames (1907-1978) and Ray Eames (1912-1988) began to make films much earlier. The office of Charles and Ray Eames produced more than 100 short films from 1949 to 1988.²⁶ (Fig. iii) The Eames were close friends with the great Hollywood director Billy Wilder (1906-2002), and they admitted that they learned so much from Wilder’s films.²⁷ The Eames did make some advertising campaigns but mostly they expressed thoughts and ideas on architecture and life through cinema, same as *Superstudio* did. Another representative is Bernard Tschumi’s *The Manhattan Transcripts* – although for Tschumi, he did not make any films but write a book. In the forward, Tschumi describes the *Transcripts* as the “film books in which the illustrations are enlargements of frames from the film”,

²² See Andrew (1976), p. 4.

²³ *Superstudio* was a radical architecture group found in 1966, and dismissed in 1978. The group members included six architects, Adolfo Natalini, Cristiano Toraldo di Francia, Gian Piero Frassinelli, Alessandro Poli, Alessandro and Roberto Magris,

²⁴ *Superstudio*’s film scripts were first published in magazine *Casabella* between 1972 and 1973. See Mastrigli (2017), *Superstudio Works 1966-1978*, pp, 435-442.

²⁵ In 2010, the other three films scripts were filmed by Interaction Design Lab. Full version of all five short films are published online: <https://www.architectureplayer.com/authors/superstudio>.

²⁶ See the filmography in *The Work of Charles and Ray Eames*, Albrecht (2005), pp. 188-193.

Also see filmography in *The Films of Charles and Ray Eames*, Schuldenfrei (2015), pp. 237-238.

²⁷ See Midal (2016), p. 39.



Fig. i *Supersurface: An Alternative Model for Life on the Earth* (1972) by Superstudio



Fig. ii *Cerimonia* (1973) by Superstudio

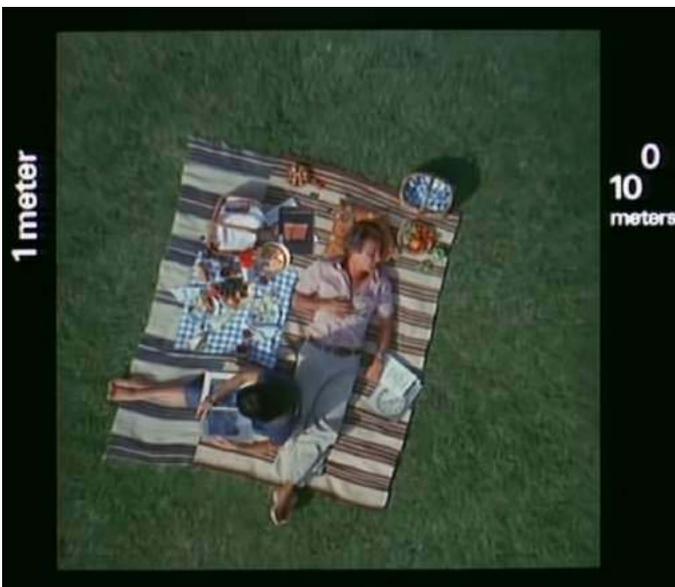


Fig. iii *Powers of Ten™* (1977) by Charles and Ray Eames

and they “consists of frame-by-frame descriptions of an architectural inquest.”²⁸ The *Transcripts* were first conceived between 1977 and 1981, containing four “episodes”: MT1 – *the Park*, MT2 – *the Street*, MT3 – *the Tower (the Fall)*, and MT4 – *the Block*. All of them are originally based on some live spaces in Manhattan. “Frames” and “sequences” are the keywords for each episode:

The Manhattan Transcripts are not a random accumulation of events; they display a particular organization. Their chief characteristic is the sequence, a composite succession of frames that confronts spaces, movements, and event, each with its own combinatory structure and inherent set of rules.²⁹

Since the *Transcripts* are represented in successive photos, drawings and collages, in the way similar as the storyboard of a film script, we could read them as watching films (that haven't been shot) in the mind, to get the idea of architecture given by Tschumi. (Fig. vi) In 1982, Tschumi added an illustrated index with more concepts engaging film studies (this part was edited into the *Postscript*, 1994 edition). While he is informed by film theory, he has little interest in just citing and commenting, instead he adapts theoretical concepts for his own purposes. One ingenious interpretation is the *Kuleshov Effect*, a film montage effect demonstrated by the Soviet filmmaker Lev Kuleshov (1899-1970).³⁰ Tschumi interprets the montage effect as the relationship between spaces and actions: “Spaces are qualified by actions just as actions are qualified by spaces. One does not trigger the other; they exist independently. Only when they intersect do they affect one another.”³¹ This insight guided his later design for the *Parc de la Villette*, Paris. (Fig. v) With *The Manhattan Transcripts*, Tschumi, the same as *Superstudio*, was not creating a specific design for a concrete building, but the concepts of architecture. Considering from this aspect, both of them equated architecture with cinema.

Recently, some universities have developed programs that study the relationship between cinema and architecture. I have visited one special program of the Atelier Lapierre at the *Accademia di Architettura di Mendrisio*. This program is similar to

²⁸ Tschumi (1994), p. 6.

²⁹ Tschumi (1994), p.10.

³⁰ The Kuleshov Effect is a mental phenomenon by which viewers derive more meaning from the interaction of two sequential shots than from a single shot in isolation.

³¹ Tschumi (1994), p. xxxvi.

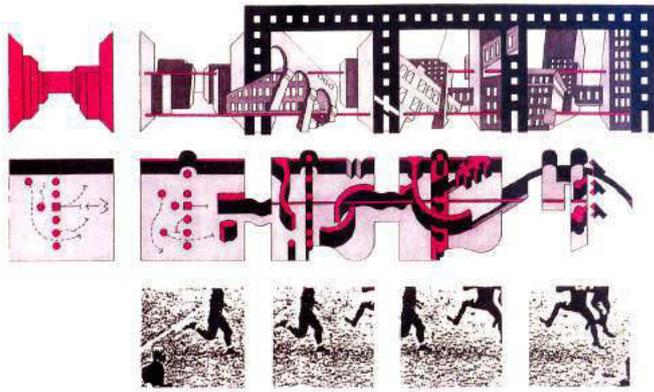


Fig. iv A color plate from MT4 – the Block



Fig. v Parc de la Villette, Paris

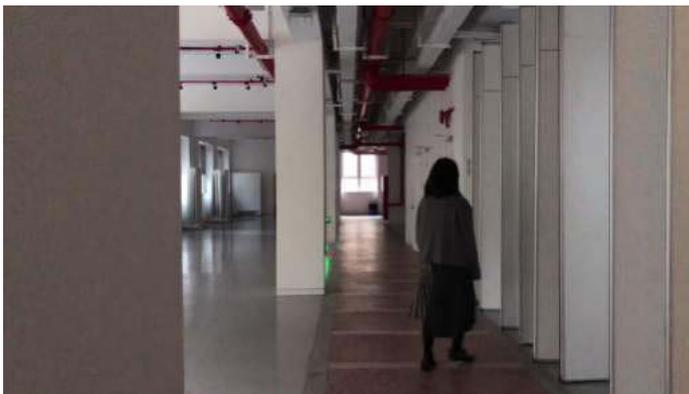


Fig. vi Inside a campus building of Nanjing University, Nanjing, *Stalker* (2015)



Fig. vii In Zhan Yuan, Nanjing, *Stalker* (2015)

the second approach described above, as I have discussed in my article, “Space of Fiction: A Review on ‘Architecture and Cinema’ Teaching Program of Atelier Lapierre in AAM”.³² In addition, Prof. Andong Lu (Nanjing University, Nanjing, China) invited me to take part in a Cinema-Architecture workshop, in March 2018. The task of the two-day workshop was to make a short film about Chinese gardens, focusing on presenting the spatial characteristics of Chinese gardens in the cinematic way. I worked as a tutor to instruct four students to finish a short film *Stalker* (2015), which was shot in *Zhan Yuan* (Chinese: 瞻园, Nanjing) and the campus of Nanjing University. I chose the term *montage* as the key word of my film, making an analogy between the space of Chinese garden and the campus space. (Figs. vi & vii)

Although I share mutual interests with researchers who have previously conducted studies on cinema-architecture, my approach follows its own theory and methodology. Most scholars in the field of architecture do not engage the identity and essence of cinema, and thus fail to establish a basic, but solid, foundation to conduct cross-disciplinary study. The first step must be to construct a common ground between architecture and cinema by defining several important concepts generated from the nature of cinema.

III. The Foundation of Cross-disciplinary Study: Image and Space

The basic question begins with the essence of cinema. What is cinema? Is an illusion or representation in the mind? Is it a representation of real-life? One may treat cinema as something “unreal”, as two-dimensional pictures that depict movement, that is to say, as a moving picture or “motion picture” (the name the

³² See Liu, Quanquan, “Space of Fiction: A Review on ‘Architecture and Cinema’ Teaching Program of Atelier Lapierre in AAM”. *The Architect*, 2015, vol. 177, pp. 42-49.

new technology was given when it was born). Thanks to the French philosopher Gilles Deleuze's (1925-1995) two volumes on cinema, we have obtained deep insights into cinema, in particular in his concepts of the *movement-image* and the *time-image*. In order to understand Deleuze's work, first we must review the concept of *image* that he inherited from Henri Bergson.

Approaching philosophy's long dependence on dualism, which had been retained in the contending philosophies of realism and idealism, Bergson proposed in *Matter and Memory* the concept of *image* in order to "overcome the theoretical difficulties which have always beset dualism".³³ For Bergson, the *image* differs from both the *representation* of idealism and the *thing* of realism. It has a certain existence that is "placed half-way between the thing and the representation."³⁴ In the first chapter of *Matter and Memory*, Bergson elaborated the relation between the human body and the image:

Here I am in the presence of images, in the vaguest sense of the word, images perceived when my senses are opened to them, unperceived when they are closed. All these images act and react upon one another in all their elementary parts according to constant laws which I call laws of nature.³⁵

In other words, the images we perceive constitute the world. However, there is one particular image, "which is distinct from all the others, in that I do not know it only from without by perceptions, but from within by affections: it is my body."³⁶ The human body, brain, nerves and "the disturbance travelling through the sensory nerves and propagated in the brain" are all images,³⁷ which will lead to an "eventual action".³⁸

Bergson's thought is rarely associated with space, since he spent most of his life working on the philosophy of "time". After all, the concept of *image* was developed to study "memory", which belonged to his major line of research on *duration* (*la durée*) that was originally elaborated in his doctoral dissertation, *Time and Free*

³³ Bergson (1929), p. vii.

³⁴ Ibid.

³⁵ Bergson (1929), p1

³⁶ Ibid

³⁷ Bergson (1929), p.3.

³⁸ Bergson (1929), p.8.

Will (published in 1889). In this book, written two centuries after Kant's *Critique of Pure Reason*, he critiqued Kant's concepts of space and time by arguing that Kant had mixed them together and thus confused space and time. Bergson valued time as the *duration* that is independent from space. He suggested that the immediate data of consciousness was the *duration*, in which there is no juxtaposition of events, and therefore there is no mechanistic causality. It is in the *duration* that we can speak of the experience of freedom.

When Deleuze adopted Bergson's concept of *image*, he accepted Bergson's arguments about *duration* as well. For Deleuze, cinema is the *movement-image* and the *time-image*, which in my own words I call the *cinematic image*. To define cinema as the *image* instead of pure imagination or representation, is a major contribution. Deleuze's philosophy of cinema allows us to treat cinema not as a false or mental object, but as the *image* indeed, in essence no different from the other images we perceive in daily life. Since the world we live in is constituted by images, and the cinema is constituted by cinematic images, it is possible to suppose that, to some extent, the world we live in shares some of the same essential *qualities* as cinematic world.

Now let's think about the term "space", which was originally an important issue in philosophy. In the Western world, discussion of space started in ancient Greece, where geometry, which described two-dimensional shapes, areas and lines, helped Greek thinkers to understand that areas exist in space, and made it possible to grasp solid objects as three-dimensional volumes. Generally speaking, the ancient Greeks understood space as the physical environment, as the living space for human beings. It is where our bodies exist, as well as other objects. It is usually visible and perceptible, and can be measured in length, width and depth. It is worth noting that the first generation of Greek philosophers also opened the topic of the "psyche" or "soul", which refers to a human inner world.³⁹ As such, the mind-body duality has existed in Western thought since the ancient Greeks.

It was only with Immanuel Kant (1724-1804) that space came to be clearly considered as something mental: "a pure intuition". In *Critique of Pure Reason* (first published in 1781) Kant elaborated his interpretations of space (as well time), writing: "space is not an empirical concept that has been drawn from outer

³⁹ See Schmitz, Atmospheric Spaces.

experiences”, but instead is “*a priori*, which is the ground of all outer intuitions”.⁴⁰ For Kant, space is “in the mind *a priori*... as a pure intuition, in which all objects must be determined...” and is “prior to all experience”. He considered space to be transcendent, and treated space and time as a single phenomenon. Space, as *a priori* knowledge, is a property of mind. It is a subjective form of human sensibility, and serves the rationality of the human mind. Kant used mathematics to demonstrate his observations. In geometry, abstract spaces exist that have nothing to do with human physical experience. Because the mind is able to understand and solve geometry problems, space thus exists as an *a priori*. Kant’s argument about space is one part of his theory of *reason*. From Kant, as well as mathematics and physics, we understand that mental space could result from rational thinking, or could be a pure intuition that leads to rationality. So we have the concepts of physical space and mental space, the distinction between them is generated by the mind-body duality, with deep roots in Western philosophy.

Then, let’s go further and focus on the concepts of space in architecture. Although philosophers have developed various profound concepts of space, it is something of a shock to discover that the term “space” entered architectural terminology no earlier than the nineteenth century. In his book *Words and Building*, architectural historian Adrian Forty explains that terminologically, “space” is a very modern concept, which was enthusiastically developed by the pioneers of modern architecture. According to Forty, the initial discourse on space as a category in architecture originated in Germany with two sources: one came from Gottfried Semper’s consideration of space as an “enclosure”, which his great successor Adolf Loos expanded; the other dates back to philosophical discussions on aesthetics that began with Kant, were developed by Schopenhauer and Robert Vischer, and were continued in the 1890s by Adolf Hildebrand, August Schmarsow and Theodor Lipps.⁴¹ One notes that in German, the word for space is (*der*) *Raum*, which carries philosophical meanings not present in the English word “space”. Forty points out that, for modern architecture, the term space was used in an ambiguous way, which lead to a confusion between mental and physical space.⁴² He also demonstrates that different architects in different historical periods held different concepts of space, which lead to their own specific theorizations of architectural space. If Giedion

⁴⁰ Kant (1998), pp. 157-158.

⁴¹ Forty (2012), pp. 257-262.

⁴² Forty (2012), p. 256.

pointed out that architectural space is influenced by other factors such as technology and art, Forty has suggested that modern architecture is to some extent generated out of the different concepts of space active within architecture and its philosophical inspirations.

Put simply: what is architectural space? Is it the mental space, physical space, or both? Forty has highlighted the contributions of the French Marxist philosopher Henri Lefebvre (1901-1991) to this in his work, *The Production of Space* (originally published in 1974). The core issue in this book is “social space”, which Lefebvre argued differs from pure physical or mental space. For Lefebvre, space is both conceptual and physical, as the human brain can think about space and exists in space. Space is not a thing, but a product (but not like the product of living materials such as sugar or cloth): it is both the work and the production. Space is not only a social relationship, but also a concrete embodiment of ideology. Lefebvre believed that western history has been trying to abstract “social space” and simply describe it as “mental space”. Lefebvre’s concept of social space is closely associated with modern architecture, towards which he held a rather critical attitude. Forty has pointed out that Lefebvre’s contribution was to clearly interpret and distinguish two concepts: “architectural space” and the “space of architects”.⁴³ Lefebvre believed that architectural space is part of the production of space; it should not be reduced to the “space of architects”, which is the “abstract space” designed by architects and totally dominated by capitalism. Lefebvre clearly disgusted the latter by criticizing how architects turned architecture into spectacle. When we read Lefebvre’s ideas today, it is not difficult to understand his argument placed in the context of postmodernism. The value of Lefebvre’s critique is that it resists architecture becoming “a self-determining practice”.⁴⁴ In fact, he stressed that architects should make space a real social space and not just be concerned with abstract aesthetics or blindly serve capitalism, as architecture possesses social significance. Lefebvre’s insights should be a wake-up call for architects.

From Forty’s discussion, we can see that since the beginning of modernist architecture concepts of space have continuously developed. No matter whether architectural space is mental, physical or social, I set those differences aside temporarily in order to just focus on the “quality” of space and image. Through the

⁴³ Forty (2012), p. 272.

⁴⁴ Forty (2012), p. 275.

concepts of *image* and space, I believe we can find a solid common foundation between so-called cinematic space and our lived space. In my approach to the study of space, I treat it as having the same “quality” as image: it is more than an *a priori*, or a pure idea of mind, but it is also distinct from things or from a purely physical existence. The question is, since *image* is without doubt related to time – the reason Bergson invented the concept in the first place – then can *image* be related to space as well? In the fact, although Deleuze never purposely intended to relate *image* to space, in the course of his discussions over the two volumes he inevitably discussed space, which I will explore in later chapters.

To summarize: space is the core concern of modern architecture; image is the essence of cinema; neither of them belongs to pure idealism as a *representation*, nor to pure realism as a *thing*. Based on previous studies, we already have some understandings of the concepts of both of them. It is reasonable to establish a conversation between them due to their “ambiguous” positions in the philosophical world and our lived realities.

IV. Hypotheses, Methodology and Structure of Research

My study is based on two hypotheses. First, benefited from Giedion’s research, I suppose that, as a modern art and technology, born at almost the same time with modernist architecture, cinema might have influenced, or has the ability of influence the understanding of space – the core issue of architecture, hence, cinema could bring new ideas and concepts to architecture and architectural design. Second, image could become the bridge from cinema to architecture. The concept of image I employed is from Henri Bergson, who created this idea to overcome the duality of body and mind, physical and mental, and was developed by Gilles Deleuze, who associated Bergson’s concept of image with cinema and defined cinema as the

movement-image and time-image. As for architectural space, although it has an apparently three-dimensional area, it is a complex concept beyond a physical existing. My task here is to relate *image* to space, to study architectural space through images, to be specific, through cinematic images. I believe that *image* not only plays an important role in time, memory, and *duration*, as Bergson argued, but also can be deployed to approach and explore the rich connotations of space.

It is worth noting that Deleuze did not introduce philosophical methods into cinema, instead, he “introduced” cinema into philosophy. For him, cinema is a “material”, a tool to study and interpret philosophy. Thanks to Deleuze, study on cinema becomes a study of philosophy. I will develop my own method to engage Deleuze’s philosophical concepts into my study on cinema and architecture. My dissertation contains three parts, basically from the study on concepts and theories to case study, from the study on cinema to that on architecture.

Part I, from Chapter 1 to Chapter 3, focuses on concepts and theories. The basis of doing this cross-disciplinary study is to understand cinema, to understand image. That is to say, it is necessary to study the practical process of making a film, and to study the ontology theory of cinema. Reading film history and theories helps me to clarify important concepts that would carry on my study. Watching films is of course the essential approach of understating cinema. Concepts from philosophy and films theories will be employed in Part I, as well as plenty of films, which are materials for explaining the concepts.

In Chapter 1, I explain the concept of cinematic image, using mostly the knowledge of film making and film theories, including philosophy that regarding cinema. Through the interpretation of cinematic image, I will make an analogy between cinematic body and human body, and develop the further research of image and space into two directions: one leads to a relatively (but not absolutely) static situation that I call the study of atmosphere; the other leads to a study on movement. These two aspects are both related to body and perception. They are not separated, but represent two extreme situations, one focuses on the relatively static experience and the other on the dynamic experience. The followings chapters, Chapter 2 on atmosphere and Chapter 3 on movement, are respectively corresponding to these two aspects.

In Chapter 2 and Chapter 3, I aim to set up an example of how to do film studies

(i.e., how to analyze films) from the architects' point of view. I begin with abstract concepts of atmosphere and movement, and then go on with concrete cases to illustrate the concepts. On the topic of atmosphere, I consider the cinematic image, i.e. the visual-audio image, as a collection of elements that create atmosphere. The elements include visual elements (form, material, colors/lights), the audio element (sound), and the complex element, human behavior. To analyze the atmosphere aesthetics of a film can be done through analyzing those elements. On the topic of movement, I distinguish between two types of movement: the perceptible movement that includes human behavior and action; the potential movement that could lead to the discuss on layers in space. Each aspect has its special meanings.

It needs to be clarified that my selection of films as study cases is based on several reasons. First, since I support the "Auteur theory" that argues a film as a distinctly personal artwork of the director, those chosen films are usually directed by great film masters, such as Federico Fellini, Michelangelo Antonioni, the masters from *Italian Neo-realism Cinema*, or Eric Rohmer, Jean-Luc Godard, the pioneers from *French New Wave*, or Wim Wenders from *New German Cinema*, or contemporary film directors as Alfonso Cuarón, Terrence Malick, etc. They represent the highest achievement of film art and the spirit of their time. Second, I intend to study films that were selected to enter the world-famous film festivals (such as Berlinale, Cannes Film Festival, Venice Film Festival, etc.) and have certain influence all over the world. Given the importance of these films, they are normally well discussed by film theorists and critics, whose comments and ideas could enlighten my understanding on these films. Third, all the films are quite available nowadays (no matter when they were released in the first time), for instance, they are still released in the way of DVDs, or they can be purchased and watched/downloaded on the internet. All the three reasons are to ensure that the chosen films are in a context where they can engage in public discussion. However, there is still a vast array of films that meet these standards above. Last but not least, my scientific judgement and personal aesthetic taste help me to locate my interests in concrete films. This judgement is based on a comprehensive understanding of film history and, in particular, a broad watching experience of world cinema. Theoretical readings and film watching experiences have given me the ability to judge: which films fit my arguments and can be used as supporting evidence and materials. Nevertheless, my personal experience is limited. I can only focus on the films and film masters that

touch me and inspire me proudly.

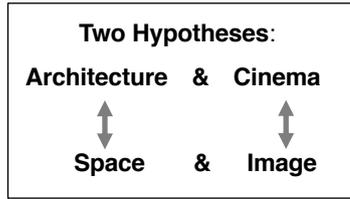
Part II of the dissertation, namely from Chapter 4 to Chapter 6, is the part of case study. Compared to chapters 2 and 3, the case studies in chapter 4 are very complete and integrated examples of film analyzing, which is however using the basic tools and ways given in previous chapters. That is to show what we can learn from cinema through the eyes of architects. The three films I chose for Chapter 4 all belong to post-war cinema. The three film masters, Antonioni, Fellini and Ozu, all represented outstanding cinematic aesthetics. Through the concrete case study, I will develop a further thinking: the way directors deal with images bears some resemblance to the way architects deal with space.

In Chapter 5 and Chapter 6, the case study on architecture, I will apply the knowledge I get from the study on cinema, still focusing on the issue of atmosphere and movement in architecture, to demonstrate that the study of cinema could benefit architecture. In Chapter 5, I choose the church buildings of German architect Emil Steffann to be my cases, not only because that they express great aesthetics of atmosphere, but also has something to do with the “forgotten” architect, Steffann, who deserves an exhaustive study. At the beginning of Chapter 6, the discussion on the topic of movement, I start with a historical review to show that, we can use the methods of image-analyzing to read some historical buildings. However, the power of image exerts more with modern architecture. I choose Adolf Loos’s Villa Müller and Mies’s Villa Tugendhart to do case studies, because I believe they represent different ideas of space that could be correspondingly found in the films by Ozu and Antonioni. I intend to give some new readings into these classic modern architecture, also, to demonstrate how to apply the knowledge of cinema into architecture.

In part III, the final Chapter 7, I will summarize the conclusions of my research and bring forward perspectives for a further and future study. Through my whole study, I hope to raise some new concepts on architectural space, and create more approaches to study space, the extremely rich connotation.

To sum up, I will use the following diagram to demonstrate my structure of research:

Introduction



Theoretical/Philosophical Foundations:
(Henri Bergson & Gilles Deleuze)

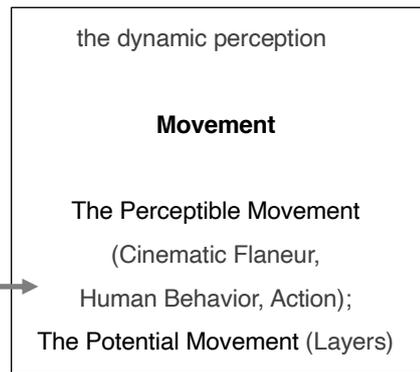
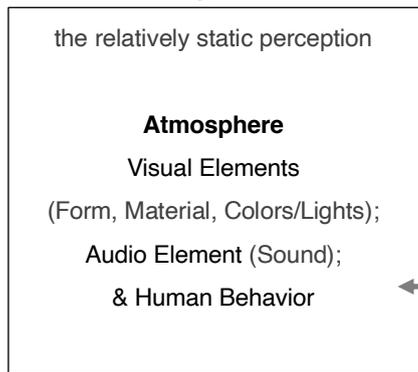
← The Concept of **Image**

**PART I:
Concepts**

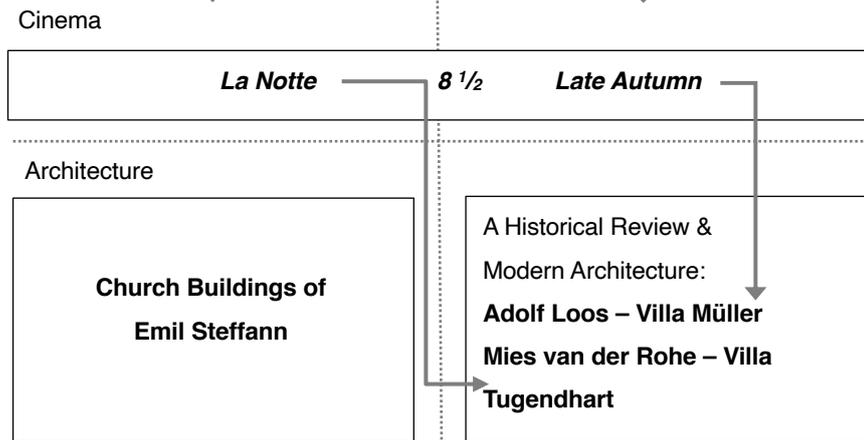


Making Cinematic Image :

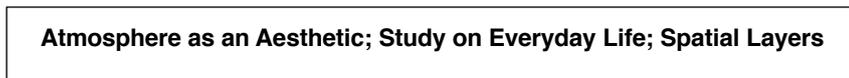
- Mise-en-scène
- Cinematography
- Montage and Editing



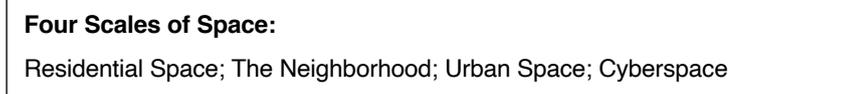
**PART II:
Case Studies**



**PART III:
Conclusions**



Further Questions



PART I

Chapter 1: Cinematic Image

1.1 The Concept of Cinematic Image

1.1.1 The Movement-Image & the Time-Image

In order to understand the concept of cinematic image, I turn to Deleuze's insights into the movement-image. In the first chapter of *Cinema I: the Movement-Image*, Deleuze discusses the meaning of the movement-image by reviewing Henri Bergson's three theses on movement. This term *movement-image* was not initially invented by Deleuze, but created by Bergson in his significant book, *Matter and Memory*, in 1896. Published the year cinema was born, Bergson however wrote the book years earlier and was not able to grasp cinema's potential. Nevertheless, his discovery of the movement-image, "the extraordinary invention of the first chapter of *Matter and Memory*" as Deleuze put,¹ allowed him to foretell, however

¹ Deleuze (2013a), p.3.

unintentionally, the essence of the emerging art. That is to say, although Bergson himself failed to associate his movement-image concept with cinema, Deleuze found that some of Bergson's arguments worked perfectly to explore the nature of cinema. For Bergson, as well as for Deleuze, movement is always indivisible:

you cannot reconstitute movement with positions in space or instants in time (...) you can bring two instants or two positions together to infinity; but movement will always occur in the interval between the two... On the other hand, however much you divide and subdivide time, movement will always occur in a concrete duration (*durée*); thus each movement will have its own qualitative duration.²

Here Deleuze beautifully explains the indivisibility of the movement-image, as well as the cinematic image. We concede that technically cinema is premised on the optical phenomenon known as “the persistence of vision”, which means that human visual perception of objects would proceed for a time even the light is gone – discover of this optical phenomenon can date back to the ancient Egyptians, but the first scientific description of it was in 1824 by the British physician Peter Mark Roget (1779-1869).³ Hence, when we examine a reel of film frame by frame we would find a continuous series of distinct still images. When the film roll runs and the film projected, each picture lasts 1/24th of a second on screen, or in others words, that the eye receives 24 images over the course of a single second, as the general frame rate for a film is 24 frames per second (24 fps), though in the silent period it was often 16 fps. Hence Jean-Luc Godard's famous axiom that, “The cinema is truth 24 times per second.”⁴ The same principle of persistence of vision is at work in today's digital films. In Ang Lee's (李安) recent work, *Billy Lynn's Long Halftime Walk* (2016), he used an unprecedented frame rate of 120 fps. Combined with 4K HD resolution and 3D effects, the film established a new milestone in both the technique and aesthetics of cinema. However, despite Ang Lee's shooting at 120 fps, the basic mechanism remains the same. If we were to operate on a film, to isolate teach of the pictures that run in the course of one second, we would have 16 or 24, even 120, single-frame pictures. Nonetheless, these individual frame pictures are not what constitute the cinematic image. Cinematic images and single-frame pictures must be distinguished.

² Deleuze (2013a), pp.1-2.

³ See Cook (2016), p. 3.

⁴ This saying is from Godard's film *Le Petit Soldat* (1960).

Deleuze proposed up two irreducible formulas for movement, which can help us understand the relationship between the single-frame picture and the cinematic image: “immobile sections + abstract time” opposed to “real movement – concrete duration”.⁵ The first refers to the single-frame picture, while the second the cinematic image. A single-frame, an immobile section is indeed the material unit of a film, but it is not a cinematic image, which must and can only exist in a concrete *duration*, in movement. Persistence of vision enables people to perceive a sequence of pictures as continuous indivisible movement, rather than single instant positions. Sarcastically, Bergson confused cinematic image with single-frame pictures. As Deleuze argued, although Bergson discovered the concept of the movement-image in 1896, ten years later (when he first published *Creative Evolution* in 1907) he seemed to have forgotten his extraordinary invention, and considered cinematographic images as illusions, a false movement rather than the movement-image.⁶

The essence of cinema is the cinematic image, which is as well developed as the *time-image* by Deleuze. The time-image is the *duration*, a concept that reveals the nature of movement. Such an understanding of cinematic image is not only an philosophical idea. Filmmakers also consider movement as the nature of cinema. The world famous Italian film director Michelangelo Antonioni (1912-2007) once argued the meaning of image in an article “The Event and The Image”. His comments were similar as those of Deleuze, but written twenty years earlier:⁷

(...) for a director the problem is to catch a reality which is never static, is always moving toward or away from a movement of crystallization, and to present this movement, this arriving and moving on, as a new perception. It is not sound – words, noises, music. Nor is it a picture – landscape, attitudes, gestures. Rather it is an indivisible whole that extends over a duration of its own which determines its very being.⁸

Cinematic image, once called the motion-picture, is the movement-image and time-image. Although a film is physically constituted of single-frames pictures, it

⁵ See Deleuze (2013a), p. 2.

⁶ See Bergson (1998), p. 305.

⁷ Antonioni’s article titled “Il fatto e l’immagine” was first published in *Cinema nuovo* 164, July 1963, and translated in *Sight & Sound* 33 (I), winter 1963-64. Deleuze’s two volumes on cinema were first published in 1980s – *Cinema I: The Movement-Image* (French: *Cinéma I: L'image-mouvement*) was in 1983, and *Cinema II: The Time-image* (French: *Cinéma II: L'image-temps*) was in 1985.

⁸ See Antonioni (2007), p. 51.

expresses *real movement*, which is continuous and indivisible. Cinematic image is not a collation of single-frame pictures, and it cannot be represented through still pictures. That is why I suggest that we cannot study the cinematic image through *stills* – we can only understand cinema through the movement-image.

1.1.2 Photogénie

Although cinematic image has the same qualities as any image we perceive through the human senses, it also possesses significant differences. For example, if we compare the image of an apple that we directly perceive by our own eyes to the cinematic image of an apple shown on screen, the apple is the same but the two images would appear different. Take for example a shot from Wenders's film *Der Himmel Über Berlin*. The film shows us notable locations throughout Berlin such as the National Library (Staatsbibliothek zu Berlin) designed by Hans Scharoun (1893-1972), the favourite haunt of the angels, and the Victory Column in Tiergarten, which the protagonist, the angel Damiel (played by Bruno Ganz), visits several times. (Figs. 1-1 & 1-2) If we visit those places in person, we could acquire images for ourselves. Images perceived by our own human senses appear different from those cinematic images from the film because they are perceived under different circumstances and through the medium of the camera.

In the early period of cinema, the term *photogénie* was used to describe the effects of cinema aesthetics. The French word *photogénie* is a combination of *photo* and *génie*, which means “spirit” in English. Pioneering directors and film theorists were acutely conscious of the difference between the motion-picture and an object perceived directly through the human senses. While first used to describe photography and photographic effects, *photogénie* was later applied to the study of cinema by Ricciotto Canudo, who first announced cinema as “the seventh art”. The meaning of *photogénie* was developed and expanded by Canudo's heir, also a French film theorist, Louis Delluc (1890 – 1924), who wrote a book entitled *Photogénie* that analysed certain characteristics of the concept,⁹ and also by the

⁹ See Delluc (1920).

French film director and theorist Jean Epstein (1897 – 1953).¹⁰ During 1920s, the theory of *photogénie* had great influence on French impressionist cinema. In post-war era, Italian film theorist Guido Aristarco (1918-1996) had fully elaborated and made a comprehensive interpretation of *photogénie* in his book *Storia delle teoriche del film (The History of Film Theory, 1951)*. In history, the term *photogénie* referred to the general understanding of film aesthetics, and is an early starting point in film theory to discuss what cinema is. It points out an obvious fact: the cinematic image differs from the image we perceive through our human senses. Today, the phenomenon of *photogénie* is not strange in our daily lives. It is a common phenomenon that occurs whenever we take photos or videos.

Now the concept of cinematic image becomes more complex. On the one hand, the cinematic image has the same essence as any other image we perceive in the sensible world and thus it is absurd to oppose cinematic image to “reality” as there is “reality” but for images. On the other hand, with the quality of *photogénie*, the cinematic image appears to be obviously different from the other image we receive through our senses. What then is the cinematic image?

1.1.3 Summary: the Image from the Other

Cinematic image is neither a still picture nor a false illusion. It is a real indivisible movement-image or time-image just like the other images we perceive in the sensible world, but it also retains special qualities and characteristics. Again, take an apple as an example. Through the human senses I can identify an apple and perceive an image of it. For me, the apple consists of the images I receive. The cinematic image of the apple is a processed image that the cine camera and other equipment “perceive” and produce (see table 1-1). Thus, the cinematic image is a processed image, a perceived image of the other.

¹⁰ Jean Epstein was one of the representatives of French impressionist cinema. *La Glace à trois faces* (1927) and *La chute de la maison usher* (1928) are his most important films. He published an essay “On Certain Characteristics of Photogénie” in 1924, and it is edited into *Film Theory. Critical Concepts in Media and Cultural Studies. Volume I*, see Simpson (2004), pp. 52-56.

Table 1-1

The Raw Material	<i>An Apple</i>	
The Subject	<i>"I"</i>	<i>cine camera (working together with other equipment)</i>
The Image	<i>perceived image of the apple</i>	<i>processed image of the apple</i>

Further, the cinematic image is a special image in that it requires less perceptual engagement from our own body, but more intellectual interpretation. Indeed, as an image, I first have to perceive through human visual and audio senses to get the cinematic image, which is a complex visual-audio image. However, it is not the process of my perception of the cinematic image that helps to “create” the image. The cinematic image itself is a mature and processed image that automatically impacts me. As Deleuze argued, we cannot escape the influence of cinema (i.e. the cinematic image), because it turns on a *spiritual automaton* within us.¹¹

1.2 Making Cinematic Images

1.2.1 An Overview of the Mechanical Progress

The cinematic image is an elaborately processed image that requires interpretation, and a complex image that consists of several inner elements. In order to understand the cinematic image properly, the first thing to understand is how to make it. As simplified as possible, to produce a cinematic image requires four mechanical-technical steps:

¹¹ See Deleuze (2013b), p. 161.

- A. *mise-en-scène*
- B. cinematography
- C. post-production
- D. projection

The final step, projection, just requires a correspondence between equipment and a place, and thus is not (yet) actually closely connected to the creative process of filmmaking. Here I focus on steps A to C, which really are most essential to the creation of the cinematic image. These steps are not completely distinct, as they but sometimes overlap as part of the overarching filmmaking process.

Step A, *mise-en-scène*, is a French word first used by theatre directors that means “to put on stage”. Generally, the *mise-en-scène* includes four aspects: film set, lighting, (actor’s) costume and make up, and acting. It describes the arrangement of all the elements on set before shooting starts.¹² Step B, cinematography, indicates how cine-camera works during film shooting, including a serial of mechanical operations, such as choosing camera lenses and the depth of field, framing; it is also closely related to the status of the camera, whether or not the camera tracks the action, or the camera stays stationary – that is to say, to find ways of either keeping the camera moving (through mounting on its auxiliary tools as a crane, a dolly, a Steadicam, etc.), or making it stationary. Besides, it is important to be aware that cinematography is always cooperating with lighting, and the framing (of cinematography) is based on the film set and the acting, which belong to Step A, *mise-en-scène*. Now comes to step C, post-production, it refers to all the technical procedures that occur following shooting, including: film editing, film score (soundtrack), special effects (abbreviated as **SFX**), and other processes. Since step C is usually done in the (post-production) studio, it is more independent. Step A, *mise-en-scène*, and Step B, cinematography, are closely combined with each other. We can consider the *mise-en-scène*, in all its aspects, as the raw material for cinematic perception, while steps B and C are tools of perception. That is to say, step A, the *mise-en-scène* is responsible for **what to perceive**, while step B and C are responsible for **how to perceive**.

¹² *Mise-en-scène* is a basic and important concept in film studies. It has been fully explained in plenty of books regarding film studies, such as the fourth chapter on *mise-en-scène* in *Film Art. An introduction*, see Bordwell (2008), and the second chapter on *mise-en-scène* in *Understanding Movies*, see Giannetti (2008).



Fig.1-1 The the National Library, Berlin
Der Himmel über Berlin (1987)



Fig.1-2 The Victory Column, Berlin
Der Himmel über Berlin (1987)

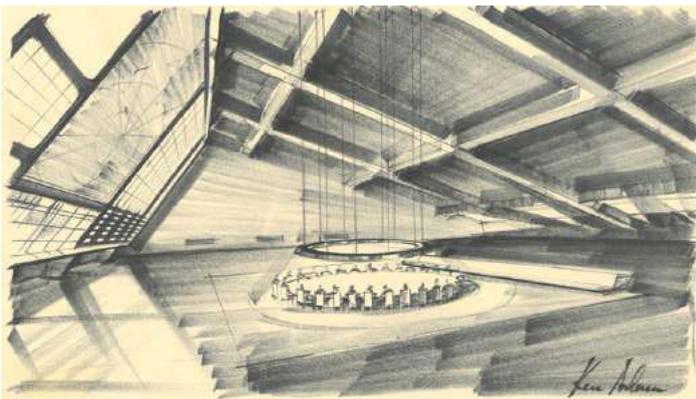


Fig.1-3 Ken Adam's design of the War Room, *Dr. Strangelove* (1964)



Fig.1-4 The model of the modern house from *Mon Oncle* (1958), designed by Tati's painter friend Jacques Lagrange

1.2.2 Mise-en-scène

As an important part of mise-en-scène, a film set can be artificial, built in a studio or onsite, or it also can be staged in an existing place, such as a building, an open urban space or a natural landscape.

The first built-onsite type requires original set design. In the early period of German cinema, especially expressionist films, many films were defined by excellent set designs with astonishing aesthetic effects, such as *Das Cabinet des Dr. Caligari* (1920), *Metropolis* (1927). Architects sometimes worked in set design as well, such as Hans Poelzig (1869-1936), who designed the sets for *Der Golem* (1920).¹³ Another significant example was Ken Adam (1921-2016), who studied architecture and eventually became a set designer. He was famous for the *007* (*James Bond*) serial films and for his cooperation with Stanley Kubrick (1928-1999) on *Dr. Strangelove: How I Learned to Stop Worrying and Love the Bomb* (1964, Fig. 1-3). As a fan of Ken Adam, Daniel Libeskind highly comments, “that world of Ken Adam did ‘heighten’ the expectations in space, in light, in color, in fully reality in terms of architecture.”¹⁴ For French director Jacques Tati (1907-1982), the film set always showed his critic attitude towards modern architecture. The film sets of absurd architectural and urban spaces in *Mon Oncle* (1958) and *Play Time* (1967) would be great examples of declaring his criticism of the mechanism, indifference, boredom of modern architecture and modern life. (Fig. 1-4) Although the film sets appear wonderful on the screen, we should keep in mind that *photogénie* is a basic characteristic of cinematic image, which means, everything we “see” in a film could be a “fake”. That is to say, it is quite different to construct a film set compared to build a house for real living. Since most film sets are only temporary constructions, set designers usually use wooden, plastic or other boards to build up the building and then paint it to mimic other materials. For instance, in *Inception* (2010), the famous contemporary film director Christopher Nolan, who has a great passion for architectural models, successfully built a “concrete” fortress that actually used wooden boards (designed by Guy Hendrix Dyas), which is the largest set used in the film. After painting, the temporary wooden construction does appear to be a concrete one.

The Swedish director Roy Anderson, famous for his so called “life trilogy,”¹⁵ is

¹³ See Posener (1992), pp. 141-143.

¹⁴ Hars-Tschachotin (2014), p. 9.

¹⁵ The “Living trilogy” by Roy Anderson includes following films: *Songs from the Second Floor*

another filmmaker passionate about set design. Since he refuses to use any computer-generated special effects, Anderson works in a very particular and “old-fashioned” way. Mostly he shoots in a studio using a limited area, where film sets are built up indoors. Anderson once said that all his sets are determined by the size of the studios.¹⁶ Since Anderson always uses long takes to shoot a scene, and the majority of his shots use a fixed position of the camera (he rarely uses a dolly to move the camera), he only needs to create a realistic-seeming set from one specific perspective. Framing of cinematography is important for his set design. The design of his film set is based on the perspective of camera, which means the set only look reasonable through the camera, and his team only build the part that can be seen through the camera.¹⁷ Cooperating with cinematographers, his team of set designers successfully create visual illusions, reminiscent of the perspective illusions in Bramante’s illusionistic choir in the Santa Maria presso San Satiro church (1479-1514) in Milan. The beautiful barrel vault of the choir is not totally built up in three-dimensional space – half of it was painted. The choir rests in the axis of the church, and when it is viewed from the front, it is hard to tell which part is painted and which built. Giedion studied this case as an example of the use of perspective in Renaissance architecture.¹⁸ Both cases demonstrate that *mise-en-scène* is closely associated with cinematography, as *mise-en-scène* is made not for the human eye but for the kino-eye.

Besides the artificial film set, the second type of film set is called “on location” – to employ an existing building or an urban area outside the film studio. This way is actually the original way of film shooting. Since the very beginning of cinema, modern cities have become one of the favourite film sets of directors. Take Berlin for an example. The earliest films in Germany, the short films of the Skladanowsky Brothers,¹⁹ such as *Unter den Linden* (1896), *Leben und Treiben am*

(2000), *You, the Living* (2007) and *A Pigeon Sat on a Branch Reflecting on Existence* (2014). In 2019, his latest film *About Endlessness* is released.

¹⁶ See the interview in the documentary film *Tomorrow's Another Day* (2011), which records the working progress of making the film *You, the Living* (2007). The documentary film is made by Johan Carlsson, the producer of *You, the Living*.

¹⁷ Roy Anderson’s method of set design is presented in the documentary film *Tomorrow's Another Day* (2011).

¹⁸ See Giedion (2008), p. 36.

¹⁹ The Skladanowsky Brothers refer to Max Skladanowsky (1863-1939), Emil Skladanowsky (1866–1945), and Eugen Skladanowsky (1859–1945). They were the earliest filmmakers in Germany. Max and Emil Skladanowsky invented Bioscop, an early film projector. The first public show of their short films was on November 1, 1895, even earlier than the Lumière Brothers. In 1995, Wim Wenders made a documentary film *Die Gebrüder Skladanowsky* on the Skladanowsky family, as the homage to the German film paironeers.

Alexanderplatz (1896), *Die Wachtparade* (1896), were shot in famous urban spots. When it comes to the late silent cinema, F. W. Murnau's (1888-1931) *Sunrise* (1927) depicted vivid metropolitan scenes in Berlin; the documentary film *Berlin – Die Sinfonie der Großstadt* (1927) presented various aspects of urban life of Berlin. In post-war cinema, began with the Italian neorealism, cities and urban spaces were more frequently taken as film sets. In Roberto Rossellini's (1906-1977) *Germany Year Zero* (1948), the scenes of ruins in Berlin give us intense audio-visual and spiritual shocks. As I mentioned earlier, Wenders's *Der Himmel Über Berlin* is as well a great film that takes place in Berlin. After German reunification, filmmakers continue to take Berlin as the film location to make excellent films, such as *Good Bye Lenin!* (2003), *Run Lola Run* (1998), *Oh Boy* (2012), *Victoria* (2015), etc.

So far, in the above examples, I only discuss mise-en-scène at a “static” level, mostly in the context of a film set. After all, the greatest charm of motion-picture is to capture and present movement. During filmmaking, mise-en-scène is a dynamic complex rather than a static factor. If we can consider the film set as a relatively static element, the acting of actors and actresses, moving animals (to some extent, they can also be regarded as actors), props (running cars or machines), and so on are all dynamic elements. Lighting can also create the sensation of movement. In a night driving scene in Jean-Luc Godard's *Pierrot le fou* (1965), the hero Pierrot (played by Jean-Paul Belmond) and the heroine Marianne (played by Anna Karina) sit in a car while Marianne drives, and red, yellow and blue lights flash alternately to create a strong sensation of a car running through a dark background at night – in fact, the car did not run, it was the effects of lighting that made it seemingly moving.

To sum up, regarding mise-en-scène, we should pay attention to two points: first, the film set and the entire assemblage of mise-en-scène is never directly seen by the audience, since the cinematic image is always processed through cinematography and post-production; second, mise-en-scène is not a static concept that refers to an abstract space, but a dynamic progress that could only be presented during movement and time. In short, all aspects of mise-en-scène constitute the “raw materials” of cinematic images.

1.2.3 Cinematography

To produce a cinematic image requires the cine-camera, which works in in basically two ways: one is to shoot in a static state in a fixed position; the other is to shoot while in motion. Although cinematography seems far away from the field of architecture, it is important to understand the basic principles of cinematography that relate to the knowledge of space.²⁰

1.2.3.1 Camera Lens

Unlike the human eye, the camera lens inevitably causes distortions. There are several kinds of camera lenses with different focal lengths, each of which has its specific purpose that leads to certain effects.

Let's begin with the normal lens, whose perspective is usually similar to human vision, which has a focal length close to the diagonal length of the camera receptor. In the 35mm film format, the image diagonal is 43.3mm and the normal lens is accordingly 50mm. The Japanese director Yasujirō Ozu (1903-1963) preferred to use 35mm film with a 50mm lens. In Ozu's films, the optical distortion caused by the camera lens is not obvious. (Fig. 1-5) However, the cinematic image Ozu created does present a sensation of unfamiliarity, which has a great deal to do with his framing, which I will continue to discuss in the next section.

The next type of camera lens, the **wide-angle lens**, has a short focal length (usually shorter than 35mm), which makes it possible to generate exaggerated perspective effects. Compared to the normal lens, it has a wider angle of view and a larger depth of field. The wide-angle lens creates stronger optical distortions, especially at the edges of the frame, which is called barrel distortion. An ultra-wide-angle lens, or fisheye lens, can achieve an extremely wide angle of view, up to 180 degrees and even beyond, which is beyond that of the human eye. A fisheye lens creates panoramic images with extraordinary scenery, and it generates the strongest barrel distortion effects as well. Unlike the normal lens, the effects of wide-angle lenses

²⁰ Plenty of books on film studies contain discussions about cinematography. A classic textbook is Blain Brown's *Cinematography. Theory and Practice* (2012). Other books such as David Bordwell and Kristin Thompson's *Film Art: An Introduction* (2008), Louis Giannetti's *Understanding Movies* (2008), also have chapters on cinematography. They are not exclusive to film studies, but also suitable for architects to read.

or fisheye lenses are absolutely distinguished from human vision. Why use wide-angle lenses? They are able to capture more scenes, even at a close distance, as well as creating deep focus.²¹ Antonioni is a master who frequently used wide-angle lens and deep focus. In one scene from his film, *La Notte* (1961), with three figures arranged in one room, the young lady (played by Monica Vitti) in the foreground appears quite big and the hero (played by Marcello Mastroianni) in the background rather small. Although such a perspective seems consistent with our natural perception, it is eventually much strengthened – the space of the foreground is enlarged and the background compressed by the wide-angle lens. (Fig.1-6) In addition to enhancing perspective and enlarging space, the wide-angle-lens also can create some specific atmospheres. The films of the American director Terrence Malick, who has favoured wide-angle lenses, provide a case study. In *Knights of Cups* (2015), wide-angle lenses and fisheye lens are extensively used to shoot architectural and urban spaces, landscapes, and people, through which Malick successfully created a detached and dream-like atmosphere that implies the indulgent lives of his characters. Especially when the camera moves, the optical distortions already exaggerated by wide-angle and fisheye lenses become even more prominent. To be more specific, the perspective point changes constantly so that not only the straight lines of buildings become arches, but all the immobile elements in the shot seem to move, as if everything is dancing. (Fig.1-7) The exaggerated and artistic effects of space appear to be from the point of view of a viewer in an altered state. This atmosphere of lost, irrational, and disordered emotions reveals the degeneration and distortion of life, which the viewer can see directly.

The third most commonly used camera lens, the **long focal length lens** (usually longer than 75mm) or the telephoto lens, is basically the opposite of the wide-angle lens. It has a small depth of field and a considerably tiny angle of view. The perspective effect is diminished rather than improved, and optical distortions are quite negligible. The long focal length lens is suitable for portrait photography, especially for close-ups. When using a long focal length lens, space appears compressed. In Carl Theodor Dreyer's (1889-1969) film, *The Passion of Joan of Arc* (1928), Dreyer used close-ups to capture the touching facial expressions of Joan of Arc (Fig. 1-8). The background is almost totally blank.

²¹ Deep focus is a technic of cinematography that refers to a large depth of field, with the front-to-back range all in focus.



Fig.1-5 Ozu's film *Equinox Flower* (1958)



Fig.1-6 *La Notte* (1961)



Fig.1-7 *Knights of Cups* (2015)



Fig.1-8 *The Passion of Joan of Arc* (1958)

Deleuze commented that:

By suppressing ‘atmospheric’ perspective Dreyer produces the triumph of a properly temporal or even spiritual perspective. Flattening the third dimension, he puts two-dimensional space into immediate relations with the affect, with a fourth and fifth dimension, Time and Spirit.²²

Different kinds of camera lenses shape spaces in different ways. Some lenses create effects similar to human vision, while others produce quite distinct visual effects that far beyond human natural perception. Through the kino-eye, space can be distorted, expanded or compressed, deepened or flattened. In addition, camera lenses can always work together with filters to achieve specific aesthetic effects.

1.2.3.2 Framing and the Moving Camera

Framing is an important factor in cinematography that includes two aspects: the angle of the shot and the composition of image. The camera’s angle of view is free and flexible, which could be objective or subjective (POV),²³ human or non-human (from the perspective of animals), and there are many sorts of angles including the high-angle, the low-angle, the bird’s eye view, and so on. Framing is closely related to the position of camera, which either can be fixed or in motion.

As mentioned earlier, Ozu, who always preferred a 50mm, also had a favor for symmetrical composition. He always asked his cameraman to fix the camera at a quite low position and to shoot the scene from a slightly lowered angle.²⁴ Due to his unique way of framing, Ozu successfully gave everyday banalities a sensation of ritualization. I will take Ozu’s work as the case study on cinema, and continue to discuss it in Chapter 4.

Since the camera can stand in almost anywhere and shoot in any angle, the camera

²² Deleuze (2003a), p.121.

²³ POV is the abbreviation of *point of view*. In cinema, a POV shot refers to a first-person shot or a subjective camera. The shot usually films from the perspective of a character, to show what he/she sees.

²⁴ A low-angle shot refers to the position below eye height. Ozu’s low-angle shot is well known and frequently discussed. For instance, Donald Richie talked about this in his book *Ozu. His Life and Films* (1977), on the chapter of *Shooting*. Besides, Wim Wenders has done an interview with Ozu’s cameraman Yuharu Atsuta (厚田雄春, 1905-1992) in his documentary film *Toyko-Ga* (1985), to show how Ozu worked with the camera.

view is capable of creating more visual possibilities, especially through a moving camera. In the contemporary Japanese director Kiyoshi Kurosawa's film, *Creepy* (2016), there is an outstanding bird-view shot combined with a moving camera. In the plot when the hero, a former detective and a professor now teaches criminal psychology, together with his old colleague visit a crime scene – a neighborhood with several multi-story houses and a courtyard, the shot begins with a normal angle of human perspective, then, the camera moves up (with the help of a crane) into the sky to shoot the neighborhood from a bird-view, which as if presents the perspective of God who tries to reveal the truth of a serial murders. The powerful effect of this shot not only owes to the bird-view, but also to the moving camera.

In the earliest films, the camera was usually fixed on a tripod. When we review the early films of the Lumière brothers, *Worker Leaving the Factory* (1895) or *Arrival of a Train at La Ciotat* (1896), and the works of the Skladanowsky brothers, we find that they are all made up by one single shot. The camera was always put in a fixed position to make a continuous long take that usually lasted dozens of seconds, but not longer than a minute. Although simple and short, such a one-shot, black and white, silent film had already successfully captured movements and was called a *motion-picture*. Not long after, the camera became mobile and able to explore more movements. F.W. Murnau was the first to free the fixed camera and set in smoothly in motion in *The Last Laugh* (1924). Afterwards, the camera cannot only record and capture movement, but also observe movement during its own movements. Moving the camera helped to create new and extraordinary images that can only be made in the course of movement.

Today, there are myriad ways to make a camera move by using equipment such as vehicles, cranes, dollies, Steadicam, drones, and other techniques. Under certain circumstance, mechanical devices help to create movements similar to the experience of the human body. For instance, when a moving camera mounted on a vehicle, most of the time, they create movements that resemble our daily experience of travelling by vehicles. In early cinema, vehicles were widely used to help the camera move, such as Dziga Vertov's (1896-1954) *Man with a Movie Camera* (1929), and in post-war cinema, such as Wim Wenders's "Road Movie Trilogy": *Alice in the Cities* (1974), *The Wrong Move* (1976) and *Kings of the Road* (1976). Another important device is Steadicam, a camera stabilizer that the cameraman can wear on his or her body and stabilize a handheld camera. Invented in 1975, the Steadicam helps the cameraman to make smooth shots that imitate the movement

of a walking or running body. In the German film, *Victoria* (2015), which was made in one long take, the cameraman carried a Steadicam at all times from the perspective of a “bystander” that is closely following the protagonists and observing what happens. It is worth noting that, when capture the movement in the process of movement, the cine-camera can display some special images, which are either difficult to be clearly perceived in our daily life experience, or easy to be ignored. In Louis Malle’s (1932-1995) short film, *Vive le tour* (1962), the director put the camera on vertices as well, and was not afraid to use some blurred images to demonstrate speed. (Fig. 1-9) Another example is the famous spinning scene from François Truffaut’s (1932-1984) film, *The 400 Blows* (1959). In the scene, when the hero, the little Antoine (played by Jean-Pierre Léaud) skipped class and went to a playground to join the game of spinning wheel, the camera moved together with the spinning wheel, presenting the motion of spinning (a POV shot of the hero, Fig. 1-10). The fleeting moment of movement is captured and clearly shown by the camera. Although those “blurred images” are quite delicate that we could get through our bodily movement, they are hard to notice and easy to ignore since they are the results of perception during speedy movements. This capacity of the camera is what Walter Benjamin described in his analysis of cinema when he stated that from the perspective of Freudian psychoanalysis, he pointed out that “only the camera can show us the optical unconscious, as it is only through psychoanalysis that we learn of the compulsive unconscious.”²⁵

Besides the capability of “imitating” movements of human body, actually, most of the time, the movements of the camera (combined with certain devices) manipulated by filmmakers and cameramen are far beyond the capacity of the human body. For example, cranes usually create relatively large-scale movements that go beyond human body’s normal experience. Sometimes, filmmakers design their own unique devices to achieve particular movements, often in long takes. In film history, one of the most famous long takes comes from Antonioni’s film, *The Passenger* (1975). In the penultimate scene, the camera achieves an “impossible” movement that starts inside a room and then moves outside, passing through an iron window. (Fig. 1-11) The grating of this iron window is so narrow that according to common sense, a camera cannot pass through it. To achieve this shot,

²⁵ Benjamin (2008), p. 30.



UP Fig.1-9 *Vive le tour* (1962)

MIDDLE Fig. 1-10 *The 400 Blows* (1959)

DOWN Fig.1-11 *The Passenger* (1975)

Antonioni cut a hole in the iron grate and then moved the camera at a certain tricky angle. Once the camera passed beyond the room, it was hung by strings to keep it moving smoothly.²⁶ By so doing, Antonioni successfully created a freely moving camera, a free movement, as free as a ghost.

1.2.4. Montage and Editing

Montage is an important to filmmaking, especially in film narrative. As a term, montage was originally used in architecture and it meant to assemble elements together. In filmmaking, montage has plenty of meanings. Without doubt, the “Soviet School” headed by Sergei Eisenstein (1898-1948) made perhaps the most significant contributions to theories of montage. Generally speaking, while montage can be considered as film editing, it is more than just editing even as it evolved from the technique of editing.

As with the moving camera, montage (and editing) was only invented after the first films were made. The French director Georges Méliès (1861-1938) was one of the earliest inventors of film editing, a technique which brought new possibilities to cinema.²⁷ Even since, filmmakers filmed several shots and then carefully combine them in a particular order to generate a whole and coherent story. *The Great Train Robbery* (1903), a work of early film by the American pioneer Edwin S. Porter

²⁶ Antonioni wrote about how to make the long take in the article “La penultima inquadratura di *Professione: Reporter*” (Antonioni on The Seven-Minute Shot). It was first published in 1975 and translated in *Film Comment* II (4), July-August 1975. See Antonioni (2007), pp. 125-126.

²⁷ Lots of pioneers gave great contributions to film-editing. Georges Méliès first realized that turning off the camera and re-turning it on can create special effects, just like magic show. He used this technic to make some films like *The Vanishing Lady* (1896) or *A Nightmare* (1896). Moreover, British director George Albert Smith (1864-1959) adopted the same technic in his early films as *The X Ray Fiend* (1897) and *Santa Claus* (1898). Later Méliès began to connect multiple shots made in different settings, and to combine these shots as one film, such as *The Astronomers Dream* (1898), and *A Trip to the Moon* (1902). However, most Méliès’s editing was in the service of creating astonished spectacles rather than narrative. Meanwhile, G. A. Smith may contribute more to film editing. In *A Kiss in the Tunnel* (1899), different scenes happened in different places were edited together, to show the simultaneousness of events. In 1900, Smith discovered close-up. He began to work on different shots as long shot, full-length shot and close-ups, cutting and editing them in a sequence, such as *Seen Through a Telescope* (1900) and *Grandma’s Reading Glass* (1900). A later work *Mary Jane’s Mishap* (1903) was much more mature. James Williamson (1855-1933), another leader of Brighton School, in his shots films as *Fire!* (1901), *Stop Thief!* (1901), used sequences of shots to tell a coherent story happened in multiple places. These works were much interesting than a single shot film, although still rather rough.

(1870-1941), is a good example of the use of editing to create certain cinematic effects. Due to its editing, the French film theorist Jean Mitry (1907-1988) considered it to be the first “cinematic film”.²⁸

In the first three decades of twentieth century, developments in film editing eventually evolved into montage. The famous *Kuleshov effect*,²⁹ demonstrated by the Soviet filmmaker Lev Kuleshov, revealed that shots are only materials, but montage is the artistic core of cinema. Eisenstein went further by developing a theory of montage that suggested that montage is not only the editing of shots but also related to the *mise-en-scène*. Eisenstein believed that the elements in a shot (elements of *mise-en-scène*) are also elements of the montage. From the perspective of editing, montage is related to time and thus it could be classified as a part of post-production. From the perspective of framing, however, montage is related to spatial composition and therefore it also could be categorized as part of the process of cinematography and the *mise-en-scène*. Eisenstein’s theory of montage strongly integrated cinematography, *mise-en-scène* and editing into an organic whole.³⁰

When we consider montage as a method of editing, it is mostly as an operation on time. Through montage, time can be expanded or compressed, much as different lenses expand and compress space. In Eisenstein’s film, *Battleship Potemkin* (1925), which is an excellent representative of montage, there are several points where montage is used as a way to re-construct time in order to express certain attitudes and emotions. Early in the film, a young navy soldier who is cleaning dishes becomes angry and smashes a plate. The moment of smashing the plate is actually quite short (according to our common sense). However, Eisenstein used montage to convert one movement into several movements, filmed from different angles of view. The process of smashing the plate is seemingly prolonged, but to be more precisely, unlike in slow-motion, the whole time has been prolonged through repetition and emphasis, and thus we can see an accumulation of images from various angles, instead of only one instant movement. In this way, the director successfully presents the character’s rage. Another noticeable scene is the famous

²⁸ See Mitry (2000), p. 95.

²⁹ A full discussion on *Kuleshov Effect* could be found in Mitry’s *The Aesthetics and Psychology of the Cinema* (2000), pp. 101-104.

³⁰ Regarding the concept of montage, Eisenstein had written plenty of articles, an important one is “Beyond the Shot”, in which he associated the issue of montage with *mise-en-scène* and framing. See Eisenstein (1988), pp. 138-150. Besides, J. Dudley Andrew makes a thorough discussion on Eisenstein’s montage theory. See Andrew (1976), pp. 42-75.

episode on the Odessa steps.³¹ Again, Eisenstein used montage to “delay” some movements, such as the scene of the death of the young mother and her baby’s pram rolling down the steps. In the second case, the concrete operation of montage is different from the first. In the second plot, Eisenstein divided the tragedy of the mother and her baby into several movements, and inserted other scenes happening on the steps in-between each cut. The extension of time fully renders the atmosphere and feelings of the characters.

Montage as a way of editing also help to reduce or compress time. A jump cut is a typical method. In *À bout de souffle* (*Breathless*, 1960), Godard creatively used jump cuts to express a period of continuous movement, when the heroine is driven around Paris by the hero. Godard elaborately assembled several fragments of the car driving and then directly connected them. Although we see only “jumping” fragments instead of a continuous process, we could still understand those fragments as part of a single continuous movement. Jump cuts usually occur during an overarching process of existing movement. Gestalt psychology could explain how our brain automatically combines those segments into a whole. Godard’s invention of jump-cut was so revolutionary that French film director Henri Decoin (1890-1969) commented after watching *À bout de souffle*: “from now on, continuity shots are out.”³²

Of course, jump cuts is not the only way of editing to create movements. In sequence shots not only is time compressed, we also obtain a sensation of continuous action from seemingly split fragments. The sequence of shots from “Part One” of Michael Haneke’s *The Seventh Continent* (1989), in which the camera is fixed for every single shot, but through editing those sequence shots present continuous actions. It all starts in the morning, when the alarm rings at six o’clock – the first shot in this sequence shot. In succession, Haneke used thirteen shots (fourteen in total), including shots of the wife wearing house slippers, drawing the curtain, and waking up the child, and (the husband) tying his shoes and so on, to present the start of a normal family day compressed into about four minutes. The whole sequence, especially the first eight – from the ringing alarm clock to the scene of waking up the child – are so well organized that they seem fluent as a whole process of continuous action. To sum up, at the level of editing, montage is a

³¹ As this scene has been extensively studied, I won’t describe it in details. One of the most important studies of this scene is Mitry’s arguments, the chapter on *Rhythm and Montage* in *The Aesthetics and Psychology of the Cinema*. See Mitry (2000), pp. 147-150.

³² Godard (1972), p. 173.

reorganization of time in narrative. It is working in the level of the audience's mind as a psychological stimulation. Montage can extend or compress time, as well as present continuous movements without a moving camera.

Montage is also a way to depict memory and imagination. Another master of the French New Wave, Alain Resnais (1922-2014), used flashbacks – another typical method of montage – in both *Hiroshima mon amour* (1959) and *Last Year at Marienbad* (1961) to depict memory. In the great Spanish surrealist Luis Buñuel's (1900-1983) films, such as *Belle de jour* (1967) and *The Discreet Charm of the Bourgeoisie* (1972), montage often is used to express the imagination.

Further, montage often serves as “the formal structures whose selection and organization are the basis for the whole film dialectic.”³³ In *Russian Ark* (2002), directed by Aleksandr Sokurov, the whole film is made in a single shot that lasts almost 100 minutes. When we study this film, or this kind of one-long-take film (another example is the German film *Victoria* mentioned earlier), montage is not only related to editing or to an operation on time, but also to the whole structure of the film and its composition of images. When the camera moves from indoor to outdoor spaces it deals with the montage both in time and space.

Montage is a way of creating movements through editing instead of a moving camera. It reveals the concept of movement that already exists in our mind. Meanwhile, Montage is the organization of a film structure, which is related to every aspect of cinematic images. According to the corresponding aesthetic and artistic principles, directors can freely use montage to construct the film structure, and to rebuild the dimensions of time and space.

³³ Mitry (2000), p. 129.

1.3 An Analogy Between Cinematic Body and Human Body

1.3.1 The Concept of Cinematic Body

When studying images, I begin with perception. The image is based on intuitive perception, which requires a body. Although perception is related to a physical body that the image is far beyond, it can be considered the prerequisite for creating images. For perception, we need a body that can stay still to observe or perceive while moving itself. Human body, with no doubts, is capable of perception. We may wonder: is there a cinematic body that responsible for the cinematic image?

Pioneers of film directors and theorists have brought forward some thoughts on the body of cinema. Dziga Vertov created the concept of the *Kino-eye*. He believed that the camera could work as a mechanical eye, similar to the human eye, and that a moving camera could be considered as a type of body similar to the human body.³⁴ When I define the concept of “cinematic body”, I come back to the perceptions of the human body, which has five senses including vision, hearing, smell, taste and touch. The cinematic body possesses vision and hearing, as the cinematic image is an audio-visual image. Further, there is a significant analogy between the cinematic body and the human body: both have the ability to move, although in different ways. Despite of the significant similarity between the movement of the cinematic body and that of human body, there are profound differences between the “perception” of the cinematic body and the human body, not only because of the motion ability of the cinematic body is far beyond that of human body, but also due to other technique as well aesthetic factors as camera lens and framing. Unlike the human body, the cinematic body is neither something concrete nor something visible. It is not the body of the camera itself, though it has a great deal to do with it; rather, it possesses the ability to exercise three “perceptions” similar to the human body: vision, hearing and motion perception. In addition, it can “move” freely and perceive movements during its own movements. The three central steps in filmmaking – the *mise-en-scène*, cinematography and post-production – clearly demonstrate how the cinematic body works. We can consider the *mise-en-scène*, in all its aspects, as the raw material for cinematic perception, while cinematography and post-production (mostly montage/editing) are tools of perception. That is to say,

³⁴ Vertov’s writings regarding the concept of *kino-eye*, such as *The Birth of Kino-Eye*, *Kino-Eye*, *From Kino-Eye to Radio-Eye*, etc., have been edited by Annette Michelson in *Kino-Eye: The Writings of Dziga Vertov* (1984).

mise-en-scène that responsible for **what to perceive**, is the object of cinematic perception, while cinematography and post-production are responsible for **how to perceive**. The latter progress forms the cinematic body that perceives the “raw material” (i.e. the *mise-en-scène*) and presents cinematic images.

Nonetheless, the cinematic body does not have the ability to touch, smell or taste, and it thus exerts its audio-visual function to its ultimate point. As I argued before, since cinematic image can be spatially as well as temporally compressed or extended, the perception of the cinematic body differs from the human body. The cinematic body brings new possibilities about motion perception since during its own movements it can perceive and present movement-image in all possible ways. The superposition of these two senses of vision and hearing, plus its ability to move, creates the seemingly “mechanical perception” of the cinematic body that goes beyond the natural perception of the human body. However, this “mechanical perception” is not produced purely by the machine, but contains human wisdom as the result of human artistic creation using the machine. The cinematic body is an analogy, a metaphor; it is closely associated with cinematography and editing, but it is not some pure mechanical progresses because it requires the audience’s intelligence to understand it – an excellent example is the interpretation of montage.

1.3.2 Two Aspects of Following Study

If we can make an analogy between cinematic body and human body, we could consider both of them from two aspects: the cinematic body can remain relatively still and perceive with its kino-eye, similar to our body staying still as we perceive the world in which we put ourselves; or the cinematic body can move and perceive at the same time, just as our body moves and observes simultaneously – the second way refers to when our bodies are relatively still, yet they move as they are conveyed via a third medium, such as travelling by car, train, plane or ship, and riding a horse or bicycle, and so on.

The cinematic body can perceive and present the movement-image not only through static observation, such as a slow-motion shot, but also in the course of its own movement. The former is usually associated with a fixed or slowly moving camera,

such as images from Ozu's films, while the latter is associated with a moving camera or a moving "body", such as the example given from Antonioni's *The Passanger*. From the perspective of perception, images we could get from an architectural space are actually similar to cinematic images in two aspects: one kind is the relatively static perception that requires a still body and the other is perception during bodily movement.

In order to study image and to study space, both very rich concepts, I have organized my research on these two concepts around perception, where the one focuses on an immersive perception with a relatively still body, while the other involves perception with a moving body. The first aspect leads to a discussion of atmosphere, and the second to a study of movement.

Chapter 2: Theses on Atmosphere

2.1 The Concept of Atmosphere

2.1.1 Architectural Atmosphere

To get an image requires a body – my body or the cinematic body. As I argued in Chapter 1, the first aspects of an image are associated with a body in a relatively static state. In this case, the image leads us to the concept of atmosphere. How so? When we get an image based on our bodily perception, especially when the image is of a place in which we put ourselves, we may generate a *description* of this place, such as “a busy city square”, or a more personal *expression*, such as “a lovely garden that makes me joyful”. Such a description fits the concept of atmosphere.

According to the Oxford Dictionary, the word *atmosphere* originally referred to “the envelope of gases surrounding the earth or another planet”. It is a term that originated in meteorology. However, we might be more familiar with its second

meaning: “The pervading tone or mood of a place, situation, or creative work.” Before discussing the concept of atmosphere further, assuming that we know nothing about any of its philosophical meanings, let’s try to explain it from our daily experience. Atmosphere can be linked to a certain place (material space). A church could create a sacred atmosphere; a concert hall a solemn and elegant atmosphere; a children’s play yard a joyful and lovely atmosphere. When one visits a park, the grass, trees and flowers might bring a delightful and relaxing atmosphere; however, plants in a cemetery might invoke a mournful atmosphere, even lead to a meditation on life and death. Certainly things other than place can also generate atmosphere, such as music. One song might recall childhood or a love story and thus invoke a nostalgic or romantic atmosphere. Peoples’ daily lives are full of experiences of atmospheres.

If we review the history of modern architecture, Adolf Loos (1870-1933) could be considered one of the pioneers who studied the atmosphere of space based on perception. Loos believed that “the architect’s general task is to provide a warm and liveable space”.¹ In his famous article, “The Principle of Cladding”, he wrote:

the artist, the *architect*, first senses the effect that he intends to realize and sees the rooms he wants to create in his mind’s eye. He senses the effect that he wishes to exert upon the spectator: fear and horror if it is a dungeon, reverence if a church, respect for the power of the state if a government palace, piety if a tomb, homeyness if a residence, gaiety if a tavern. These effects are produced by both the material and the form of the space.²

Loos advanced the strong argument that architects should review the expected effects of a space before they design it and concluded that the materials and form of the space are two fundamental elements of spatial effects. In German, the original word is, “(die) Wirkung”.³ Although Loos never used the term atmosphere, I believe his discussion on effect belongs to the concept of atmosphere. In order to serve for the aim of creating certain spatial effects, Loos developed the concept of *cladding* (*Bekleidung*), which was strongly influenced by Gottfried Semper’s

¹ Loos (1982), p. 66.

² Ibid.

³ The original title of “The Principle of Cladding” is “Das Prinzip der Bekleidung”. See Loos (1921), pp. 108-113.

discussion of the spatial enclosure,⁴ as an important idea for his architectural design. For Loos, as well as for Semper, the essence of architecture is spatial enclosure.

Loos's argument for "effects" came from the consensus that was not necessarily engaged with personal emotions, although he did inevitably put personal understandings and feelings into his designs. Undoubtedly, the development of modern psychology has helped us to understand and present spatial effects in other ways, since feelings and emotions can be scientifically studied. Before going into the theory of atmosphere, it is worth reviewing some comments on atmosphere from the important contemporary architect Peter Zumthor, who considers atmosphere to be the "architectural quality", or "quality in architecture", and that "quality architecture... is when a building manages to move me."⁵ In his book *Atmospheres* Zumthor narrates an experience on a holiday plaza that established his vivid understanding of atmosphere. He wrote:

So what moved me? Everything. The things themselves, the people, the air, noises, sound, colours, material presences, textures, forms too – forms I can appreciate. (...) What else moved me? My mood, my feelings, the sense of expectation that filled me while I was sitting there. Which brings that famous Platonic sentence to mind: <Beauty is in the eye of the beholder>. Meaning: it is all in me. But then I perform an experiment: I take away the square – and my feelings are not the same. (...) I could never have had those feelings without the atmosphere of the square. (...) People interact with Objects. As an architect, that is what I deal with all the time.⁶

Zumthor's exposition clearly demonstrates his understanding of atmosphere: it is everything that he can perceive through natural senses, and such perceptions stimulate his feelings and emotions. He believes that perceptions and emotions are closely intertwined, and that the former can immediately generate the latter.

I enter a building, see a room, and – in a fraction of a second – have

⁴ Loos's inheriting of Semper's space theory has been studied many times by architectural historians and theorist. Benedetto Gravagnuolo has given some comments on the chapter of *Cultural roots in Adolf Loos. Theory and works*. See Gravagnuolo (1982), p. 38.

⁵ Zumthor (2006), p. 11.

⁶ Zumthor (2006), p. 17.

this feeling about it.

We perceive atmosphere through our emotional sensibility, a form of perception that works incredibly quickly. (...) Something inside us tells an enormous amount straight away. We are capable of immediate appreciation, of a spontaneous emotional response, of rejecting things in a flash. That is very different from linear thought (...) We know all about emotional response from music. (...) I have no idea why that is so, but it's like that with architecture too.⁷

Compared to Loos's words, Zumthor pays more attention to personal feelings, always researching the mystery of atmosphere and trying to build spaces that could eventually move people. No matter personal feelings are involved or not, how could we make sure that an atmosphere touches one person would as well touch another? Can we share the mutual understanding of an atmosphere? It seems that, to some extent, people could be able to make the same or similar emotional reactions to a particular atmosphere. Just as those examples given earlier, when we experience a sacred church, or an elegant concert hall, we might reach a consensus on the feeling spatial atmospheres. Of course, in other cases, "one man's meat is another man's position." A place one finds peaceful might appear melancholic to another.

So far, we understand that when we get an image of a place, we would have a certain atmosphere. Architectural atmosphere is one attribute of architectural space. However, when we talk about atmosphere, it is not yet clear to judge whether it is objective or subjective, material or mental. The philosophy of new phenomenology has answered this question by bringing atmosphere into philosophical discussion.

⁷ Zumthor (2006), p. 13.

2.1.2 New Phenomenology and “der Leib”

As the founder of new phenomenology, the contemporary German philosopher Hermann Schmitz states that: “an atmosphere is a total or partial, but in any case comprehensive occupation of an area-less space in the realm of what is experienced as being present.”⁸

From Schmitz’s point of view, “being present” is necessary to understand atmosphere. The basis and precondition for atmosphere is human perception that requires a body. To achieve atmosphere, or “being present” is to be able to experience using the five senses. However, instead of discussing the meaning of “body”, Schmitz created an important concept: *der Leib*. In English, *der Leib* means the *felt body*, the concept of which was first explicated in Schmitz’s early work in 1965 and which he has developed ever since, to be the core concept of the new phenomenology.

I define the felt body of a person the epitome of everything that he himself can perceive as belonging to himself, in the vicinity – not always within the boundaries – of his material body. (...) These include first of all the purely corporeal stirrings such as fright, anxiety, pain, hunger, thirst, itching, sharp pains, disgust, vigour, fatigue; secondly, the corporeal strings which are the affective marks of emotions, e.g. of joy, sadness, anger, shame, fear, courage, compassion, contentedness, despair; thirdly, the perceived voluntary and involuntary movements such as walking, grasping, jumping, dancing, shivering, twitching, swallowing; and fourthly, the irreversible corporeal directions, sometimes occurring without movement, as when on gazes, sometimes tied to movements, as in breathing out and swallowing. All these corporeal events are area-less.⁹

⁸ The original text is: “Eine Atmosphäre ist eine totale oder partielle, in jedem Fall aber umfassende Besetzung eines flächenlosen Raumes im Bereich dessen, was als anwesend erlebt wird.” From Schmitz’s article “Atmosphärische Räume”. See Schmitz (2016). p.19.

The English version “Atmospheric Spaces” is translated by Margret Vince, see *Ambiances, Rediscovering*, 2016. URL: <http://ambiances.revues.org/711>; DOI: 10.4000/ambiances.711

⁹ Ibid.

Another German philosopher Gernot Böhme developed Schmitz's idea of *der Leib* to work on the philosophy of atmosphere. In one short essay, "Body, nature and art," Böhme briefly introduced his idea of the body: first, body as a physical presence in nature can experience and perceive the external world by "bodily being in the world"; second, body is pertinent to self-experience, which corresponds not to the outer world but by sensing and feeling ourselves as "the body felt". This essay concludes with a task for contemporary art: art "should enable us to experience the living body as the nature that we are ourselves."¹⁰ For both Schmitz and Böhme, the concept of *der Leib/the felt body* goes much further than a purely physical body to involve feelings and emotions, and they are dedicated to developing a theory of atmosphere.

According to Schmitz, atmosphere is an area-less space that is not three- or two-dimensional, nor can it be measured in a geometric way. He emphasized that to create an atmosphere does not require that something or somewhere be concrete, such as a bathtub or a warm room. Instead, "it is everywhere one goes, borderless in the space of experienced presence."¹¹ The experience of listening to a song, or smelling flowers, is being present as well, although music and smell cannot be seen or touched. Furthermore, Schmitz believes that as the "spaces of feelings" (Gefühlsraum),¹² atmospheres are not completely individual, since feelings (Gefühle) are not purely private.

Böhme's research on atmosphere is more connected to architecture. He considers atmosphere to be a concept of a new aesthetics and argues in three main points:

- a. Aesthetics has so far been an aesthetic of judgement; that is, it is not so much about experience, let alone sensuous experience (...) With Kant at the latest, however, it is about judgement, that is, the question of the right to participate in or reject something. (...) Aesthetic theory supplies the vocabulary for art history and art criticism. (...) Thus, sensuousness and nature have all but disappeared from aesthetics.
- b. The centrality of judgement in aesthetics and its orientation towards

¹⁰ Böhme (2017a), p. 114.

¹¹ The original text is: "es ist überall. wohin man geht, randlos im Raum erlebter Anwesenheit." See Schmitz (2016), p. 20. The English version is translated by Margret Vince, see *Ambiances, Rediscovering*, 2016. URL: <http://ambiances.revues.org/711>; DOI: 10.4000/ambiances.711

¹² Schmitz (2016), p. 47.

communication has led to a dominance of language and, particularly in the late 1980s, to the dominance of semiotics in aesthetic theory. (...) Aesthetics can take on the general title of *Language of Art*. However, (...) it can not be taken for granted that a work of art is a sign, insofar as a sign always points to something it itself is not, namely to its meaning. (...) This is evident in the contortions semiotics had to perform, with the term *iconic sign*, to subsume even images under the sign.

c. The primary task of aesthetics is no longer to determine what art or a work of art is and to provide the means for art criticism. Rather, the theme of aesthetics is now the full range of aesthetic work, which is generally defined as the production of atmospheres and extends in that sense from cosmetics to advertising, interior architecture, stage design and to art more narrowly defined.¹³

According to Böhme, the old aesthetic is about judgement, not including experience, sensuousness or nature; the aesthetics of judgement led us to languages and signs, especially under the realm of semiotics which restricted the understanding of aesthetics; the new aesthetics should be in a wider range than just art critics, it should embrace the true art itself. “Concerning producers, then, New Aesthetics is a general theory of aesthetic work – understood as the production of atmospheres. Concerning recipients, it is a complete theory of perception, in which perception is understood as the experience of the presence of humans, objects, and environment.”¹⁴ Furthermore, Böhme argues that atmosphere is the subject matter of architecture, and emphasizes the applied theory of atmosphere to architecture.¹⁵

To sum up, to create architectural atmospheres is to practice aesthetics. Atmosphere is based on bodily perception but involves human emotions and feelings as well. It is neither possible nor necessary to judge atmosphere as purely objective or subjective. Atmosphere occupies an intermediate status between subject and object; it is an area-less space, and same as the quality of space, it is not purely material or mental but something in-between.

¹³ Böhme (2017b), pp. 14-17.

¹⁴ Böhme (2017b), p.17.

¹⁵ Böhme has lots of writings regarding atmospheres and architecture that have been edited in books, such as the German collection *Architektur und Atmosphäre* (2013), *Atmosphäre: Essays zur neuen Ästhetik* (2014).

2.1.3 Cinematic Atmosphere

Cinematic atmosphere is a new emerging topic in film studies. The study on cinematic atmosphere benefits from the new phenomenology, the theories of Hermann Schmitz and Gernot Böhme. In the book *Filmische Atmosphären*, a collection of essays, Schmitz's especially Böhme's research on atmosphere becomes the fundament of many academics.¹⁶

How could the cinematic image create atmosphere? Hermann Schmitz argues that atmospheres are area-less spaces, the spaces of emotions,¹⁷ which must be experienced as “being present”. Since “being present” requires a felt body, we may naturally think of the cinematic body as the felt body of cinematic atmospheres. Is it true? In Chapter 1, I argued that the cinematic body refers to an abstract concept, which perceives and produces cinematic images. When we watch a film, perceive cinematic images, our body becomes “being present”. However, the cinematic image is a unique type of image, a processed image, a spiritual automaton that is given by the cinematic body. Our body just receives and feels the atmospheres, but the work of perception is mainly done by the cinematic body. Therefore, the *felt body* for cinematic atmosphere is the cinematic body plus the audience's body. The “being present” that cinematic atmosphere requires is different from that of paintings or sculptures. As the art of mechanical reproduction, films can be projected and watched simultaneously in different places. People must go to museums to visit art works to get the atmospheres they create, such as paintings of Caspar David Friedrich (1774-1840),¹⁸ William Turner (1775-185),¹⁹ or the ancient sculpture *Laocoön and His Sons*.²⁰ When it comes to cinematic atmosphere, “being present” means watching films, no matter the audience put him- or herself anywhere. This is a huge convenience and a significant characteristic of the art of mechanical reproduction.

¹⁶ See Brunner (2012).

¹⁷ See Schmitz (2016), p.16.

¹⁸ Caspar D. Friedrich is the most important German Romantic landscape painter in the nineteenth century.

¹⁹ William Turner was an English painter at the same time of Caspar Friedrich. In 1844, he wrote to John Ruskin: “Atmosphere is my style”, and this sentence is cited by Zumthor in his book *Atmospheres* (2006).

²⁰ It's interesting to find that Eisenstein had written an article “Laocoön”, in which he commented Lessing's writing on Laocoön, associated art and art criticism with his theory of montage. See Eisenstein (2010), pp. 109-202 .

To create atmospheres is a practice of aesthetics. Cinematic atmosphere is related to aesthetics as well. There was a long time debate regarding aesthetics in cinema, between the formalists and realists. On one hand, there were formalists such as directors of expressionism, Soviet Montage School; on the other hand, there were realists like Siegfried Kracauer (1889-1966),²¹ André Bazin (1918-1958),²² and the Italian Neorealists. The debate was ended to some extent by Jean Mitry with his book *The Aesthetics and Psychology of the Cinema* (first published in 1965), which opened a new era of film theory.²³ In contemporary film theories, it is difficult to find the so-called formalist or realist camp. If we pull two poles out of cinematic atmosphere, which are based on duality of realism and formalism, one pole would be ordinary, banalities of everyday life; the other would be dramatic, ritual, and surrealist situations. These two poles are not fractured or absolutely opposite, instead they have a thread in-between connecting from one pole to the other. For cinema, atmosphere is not a style or an art form, although it is often presented through a specific “style”. It is one way of approaching the aesthetics of cinema.

2.1.4 Elements of Creating Atmospheres

Since atmospheres are “spaces of feelings” which are area-less, I intend to anchor the study of atmosphere in some concrete elements that constitute images and spaces.

The architectural atmosphere is based on human perception of the built

²¹ Siegfried Kracauer was a German film critic and theorist. He believed the realism is the most significant function of cinema. His film theories were mainly written in *From Caligari to Hitler: A Psychological History of the German Film* (first published in 1947), and *Theory of film: The Redemption of Physical Reality* (first published in 1960).

²² André Bazin was one of the most important film critics and theorists in post-war cinema. As the “father of the French New Wave”, he was a co-founder of the famous French film magazine *Cahiers du cinéma*. Same as Kracauer, he valued the realism of cinema. J. Dudley Andrew considers Bazin’s writings to be the most important of realist film theory (Andrew, 1976). Bazin’s most renowned writings are edited in four volumes of books named *Qu’est-ce que le cinéma?* (*What is Cinema?*), originally published in French between 1958–1962. The first and second volumes are already translated and published in English.

²³ See Andrew (1976), p. 185.

environment. In order to avoid the binary between physical and mental, body and mind, I use the expression of the “built environment” to refer to something purely physical – the three-dimensional construction of buildings, urban space and landscape, and so on. The physical, concrete and materialized elements, artificial (a house, a road) or natural (the wind, the river) that constitute the built environment, are the elements of creating atmospheres. Human being has five senses to perceive the built environment. The concept of the felt body is based on those five types of perceptions.

The cinematic atmosphere emphasizes on visual and audio perceptions of the “felt body”. Since cinematic images are audio-visual images that as well involve movements, the visual and audio perceptions are directly manifested, and the perceptions of movements are automatically working beneath the appearance, perceived and understood through visual and audio perceptions. No matter architectural atmosphere or cinematic atmosphere, they both require the ability of vision and hearing. Compared with hearing, the perception of vision is more complex, since there is a lot of rich information in a visual image.

Usually, at first we perceive the form of a space or an object, then we look closer to observe the material and color of it. Nonetheless, visual and audio perceptions are not complete individual but usually work together. Especially when we observe the human behavior, which is an important image that we could get from the architectural or cinematic spaces. Strictly speaking, human behavior and activities do not belong to the built environment, but interact with it.

Cinematic images set up great examples for architects, by presenting how these elements arouse people’s feelings and emotions. In the following sections, I would analyze the issue of atmospheres from the perspective of cinema, focus on the visual elements and audio elements that create cinematic atmosphere.

2.2 Visual Elements of Creating Atmospheres

2.2.1 Form

I consider *form* as the first element of visual perception, since it is the basic outline or appearance of a space, or an object. In architectural vocabulary, *form* is an important term, as Adrian Forty has commented: it is “one of the triad of terms (‘space’ and ‘design’ are the other two) through which architectural modernism exists”.²⁴ Form has rich but also ambiguous meanings: one sense means “shape,” which in German equates to the “Gestalt”, while the other means “idea” or “essence” that “implies some degree of abstraction from the concrete particular”.²⁵ Form is fascinating because it stretches from physical perception to mental comprehension. Here, the form of architectural space I am discussing refers to the concrete spatial form that begins with “shape”. However, it likely results from the act of imagination after the perception of physical shape.

First, I would like to give an example of a spatial form of an apartment building from Roman Polanski’s film, *The Tenant* (1976), which tells a story of a healthy young man from Poland (played by Polanski himself) who gradually goes mad. The film critiques French society’s intolerance towards foreign immigrations. The most significant set is the hero’s apartment building, a multi-floor apartment building with an inner courtyard. The building does not have private toilets for each apartment, but only public ones on each floor. The public toilet on the hero’s floor locates exactly facing his window, hence he can observe the toilet from his apartment. (Fig. 2-1) The spatial relation of voyeur creates an inherent dramatic effect. By the end of the film, the courtyard becomes a metaphor: when the hero finally becomes mentally disordered, he imagines the courtyard as a theatre. In this dramatic scene, the hero stands at the edge of his window and imagines himself as an actor on stage, while the other windows are theatre boxes where his neighbours and girlfriend sit. (Fig. 2-2) He feels obligated to jump and eventually does so, doing the show for his audience. Nonetheless, however absurd, his madness reveals a resemblance between the apartment courtyard and the theatre. They both offer a specific place that can be viewed from different directions and perspectives. What connects them is not their function but their similar spatial forms, to be more

²⁴ Forty (2012), p. 149.

²⁵ Ibid.

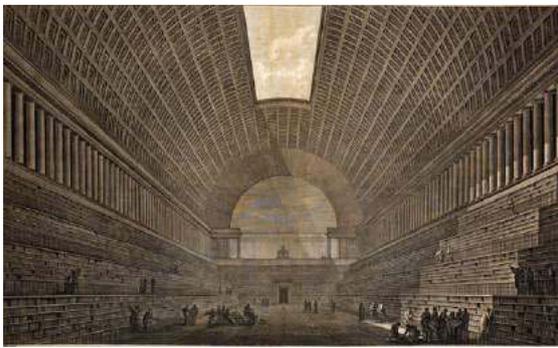
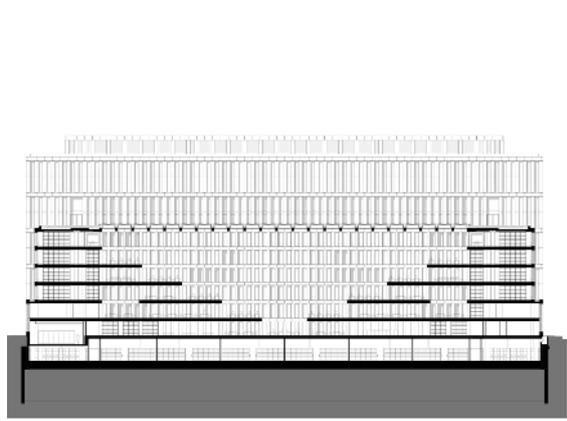
specific, a form that allows you to see and be seen.

“To put on stage” is not a patent of theatre. Max Dudler’s Jacob and Wilhelm-Grimm Center, i.e., the university library of the Humboldt-University of Berlin presents a similar form. Located at the centre of the library, the six-story tall reading hall is designed symmetrically in a step-like form. The lower step/level can be observed from the higher levels. (Figs. 2-3 & Fig. 2-4) Such a space creates dramatic effects. When studying in the massive reading hall, it feels that you oneself are not only in a public space, but in a place where you are being watched. In order to absorb sound and reduce noise, the inside walls use wooden veneer with small round openings. The form of this space and its materials remind us of the theater, though Dudler’s reference likely comes from Étienne-Louis Boullée’s (1728-1799) 1795 design for the National Library.²⁶ (Fig. 2-5)

When looking at the interior of Dudler’s reading hall or Boullée’s library, the spatial forms resemble the ancient Greek amphitheater, though enclosed and adapted to local topography. Observed as spatial forms, these spaces are remarkably similar. (Fig. 2-6)

From a reading hall to an amphitheater, because of spatial form we can make an unexpected and unconscious association to something that has nothing to do with the function of space. Forms of space can become an imagined object, a metaphor, an analogy, usually generated during use. In Polanski’s film, it would be impossible to imagine a theatre without an audience (the neighbors). Likewise in Dudler’s reading hall, the users located on different levels help to create the atmosphere of a theater. Consciously or subconsciously, *form* usually stands in for not only a concrete shape, but also a “pattern”, an abstract meaning that is beyond the shape but nonetheless generated from it. And it is the latter that allows form to create subtle atmospheres.

²⁶ See Dudler’s recent monograph *Max Dudler*, edited by Alexander Bonte (2012), p. 100.



LEFT

RIGHT

- UP Fig.2-1 *The Tenant* (1976)
- MIDDLE Fig.2-3 The reading hall of Jacob and Wilhelm-Grimm Center
- DOWN Fig.2-5 Boullée's 1795 design for the National Library

- UP Fig.2-2 *The Tenant* (1976)
- MIDDLE Fig.2-4 A Section of the reading hall of Jacob and Wilhelm-Grimm Center
- DOWN Fig.2-6 The Odeon of Herodes Atticus in Athens, located on the south-west slope of the Acropolis

2.2.2 Material and Materiality

If form can refer to both the shape of a solid object and to a void space (just as in the figure-ground relationship), then material must be related only to a solid object, to something that is concrete. The perception of material is not only related to vision, but also to the other senses such as hearing, touch, taste and smell. As we do not use senses other than vision and hearing to perceive cinematic images, the perception of the material is inevitably restricted in cinema. We can say, therefore, that the cinematic image is inherently incomplete in exploring materiality. Nonetheless, since the visual and audio perception of the cinematic body is extremely powerful, even beyond human perception (as I argued in Chapter 1), cinematic perception can explore materiality in its own unique way.

Andrei Tarkovsky (1932-1986) was a master of exploring materiality in cinema. In his last film, *Offret* (*Sacrifice*, 1986), which is full of touching and sensuous images, the director ingeniously depicted a spiritual world constructed with materials. The documentary film *Regi Andrej Tarkovskij* (1988) shows us how Tarkovsky filmed his final masterpiece.²⁷ The country villa where the hero lives, located on a beautiful natural grassland, is a significant film set, designed and built specifically for this film. Tarkovsky worked closely with set designers to scrutinize each detail of the film set and props. The basic tone of the interior spaces is rather dark. The living room, for example, features a dark floor, ceiling, walls (three out of four interior walls are covered with dark wall paper) and furniture. In order to produce a contrast, the director chose light-colored and half-transparent materials (such as lace), including the tablecloth, curtains, bed sheets, pillowcases, even female characters' costumes, to enlighten interior spaces and as symbols of the feminine. Tarkovsky captured these fabrics with touching detail, for example: when the lace curtain is in the foreground, even the pattern of the fabric is clearly visible. (Fig. 2-7)

The material and materiality of fabrics are carefully presented to show time passing – after all, people require time in order to perceive the material. Tarkovsky repeatedly focused on blowing curtains – when there was no wind, or the wind was not strong enough, Tarkovsky's team used an electric fan to make the wind.²⁸

²⁷ The film *Regi Andrej Tarkovskij* (1988) is directed by Michal Leszczykowski. It records the working progress of Tarkovsky filming *Offret*.

²⁸ The method is shown in the documentary film, *Regi Andrej Tarkovskij* (1988).

Whether in the living room, or the son's or daughter's bedroom, the director made several shots with the same theme. Through the vivid cinematic image, it is almost as if we can feel our skin softly kissed by the wind. The blown curtain expresses a sense of lightness and softness that belongs to the fabric, and it also conveys a sense of warmth, brightness and vitality to dark interior spaces.

Further, cinematic images are good at presenting materiality by displaying how people use materials and objects, which also requires the passage of time. The scene featuring the hero's wife, who wears an elegant dress and teases her husband with the soft scarf in her hands, shows a feminine perspective on sexuality. The scarf is an important prop, not just for the wife but for all the film's female characters, who usually appear with a scarf, whether wearing or holding one. How female characters treat the scarf adds a feminine quality to the otherwise lifeless object. Fabric, curtain or scarf, seems to have become a character in the film, with its own personality and emotions, and which can "speak" and communicate wordlessly with the audience.

How Tarkovsky dealt with natural elements also is worth comment. At the beginning of the film, there is a scene in the woods: the hero sits in the grass, muttering lightly and slowly, and watches his little son who crawls in the grass, playing around him. A long take, an empty shot without any figures in it, shows how the wind blows the grass and how the grass sways, accompanied by rustling sounds. As if all these natural elements in the woods - wind, grass and trees - have become figures with souls. Their lovely postures and the comforting sounds they make together compose a peaceful atmosphere, a true beauty. His cinematic images, including visual and audio images, are so strong that it is as if we were in the woods on the soft grass with the wind blowing across our flesh.

These materials in the film, such as fabric, grass, trees, are all common things in everyday life and we may fail to see their potential to evoke a poetic atmosphere. What we can learn from Tarkovsky's films is not the set or mise-en-scène, but the functions and effects of material and materiality, which is presented through the change in time, and should be studied as time passing.

2.2.3 Colors & Lights

2.2.3.1 Color as the Coating

Unlike material, color can only be perceived through vision. Indeed, materials have their own natural textures and colors. Take building materials for example: marble, wood, brick, steel, iron, or bronze all have their own natural color(s) – mostly in low saturation, as a material characteristic. Some plants may have a bright color in high saturation, while most building materials do not.

Color is an intriguing property, however, as it is not always attached to a material. Most of the time, in fact, it exists independently of a specific material. When we look at a piece of red brick, we call it a brick because we perceive its materiality, but if we paint the red brick a pure bright red color, it would become a red cube. In the beginning, the red color is an attribute of the red brick; after painting it with red paint, the red color is given as an independent quality to the original object. Color conquers materiality and gives the object a relatively abstract appearance.

Jean-Luc Godard was one of those talented directors who are sensitive about colors. He once showed his preference for color directly: “*Not blood. Red.*”²⁹ This famous saying could be considered a victory of color over materiality. When we look at the blue sofa in the seaside villa (Casa Malaparte)³⁰ in *Le mépris* (1963), the first and most important impression is its color. Although the material of the sofa cover seems to be fabric, its bright blue conquers materiality to become its primary characteristic. (Fig. 2-8) Another excellent example of using colors is Peter Greenaway’s film *The Cook, the Thief, His Wife and Her Lover* (1989), in which he uses colors to distinguish cinematic atmospheres. There are three main film sets in this film: the banquet hall, which is mainly in red color; the kitchen, which is in green color; the washrooms (both ladies’ and men’s rooms) are in white color. All the figures are dressed in different colors corresponding to the space they are in. Greenaway’s color renders the whole space into a specific atmosphere with strong symbolic meaning.

²⁹ This is from an interview with Jean-Luc Godard, conducted by Jean-Louis Comolli, Michel Delahaye, Jean-André Fieschi, and Gérard Guégan, published in *Cahiers du Cinéma*, October 1965. Cahiers: “There is a good deal of blood in Pierrot.” Godard: “Not blood. Red.” See Godard (1972), p. 217.

³⁰ The villa in the film is a real building located on Capri, Italy. It was designed by Italian architect Adalberto Libera for his client Curzio Malaparte.



Fig.2-7 *Offret* (1986)



Fig.2-8 *Le mépris* (1963)



Fig.2-9 The colorful facade in Cologne



Fig.2-10 The colorful interior of the Centraal Museum, Utrecht



Fig.2-11 Rietveld's red-blue chair:
(left) before painting and
(right) after painting

In the built environment, color is usually applied to material objects through painting. In this way, color becomes a coating, which covers materiality through visual disguise. Looking at the row of building facades in the riverfront of Rhine, Cologne, at first we would be attracted by colors before materials because color is more eye-catching than texture. (Fig. 2-9) It is the same thing with the part of the colorful interior in the Centraal Museum in Utrecht. (Fig. 2-10) In this museum, exhibits Gerrit Rietveld's (1888-1964) famous red-blue chair. (Figs. 2-11) Before painting it, we can clearly tell the chair is made of wood. With colorful paint, red, blue and yellow become the most distinguishing characteristics of the chair and it is even impossible to detect the original material. In essence, to use color as a coating is to create an effect of picturesque painting. Among all the colors, white is a special one as it not only obliterates materiality, but also carries an abstract meaning in modern life, such as the white cube of modernist architecture. It is much the same with modern furniture and other commodities.

2.2.3.2 Colorful Lights

As an important element of atmosphere, color can create atmosphere in several different ways. First, color can work to dominate a space. A distinctive example is Godard work in *Pierrot le Fou* (1965), in which he created bizarre atmospheres using bold colors by using colorful lighting. In “chapter two” of the film, there is a scene of a surprise party at the apartment of the protagonist's in-laws. Pierrot, played by Jean-Paul Belmondo, walks into the living room, which consists of a series of colorful spaces: first red, then green, yellow and blue. In the end, it becomes a space full of colorful lights. Godard used lighting to create colorful spaces, which all seemingly lacked spatial depth. Neither spatial form nor materiality is important in them. Color conquers all and becomes the predominate element in a space. In this case, color and space are coequal. (Figs. 2-12 to 2-15) Godard explained the use of colors (colorful lights) in *Pierrot le Fou*:

When you drive in Paris at night, what do you see? Red, green, yellow lights. I wanted to show these elements but without necessarily placing them as they are in reality. Rather as they remain in the memory—splashes

of red and green, flashes of yellow passing by. I wanted to re-create a sensation through the elements that constitute it.

(...) In my opinion the cinema should be more poetic in a broader sense, while poetry itself should be opened out.³¹

It is worth pointing out that “green space” scene, Pierrot has a conversation with an American director. Pierrot asks: “What exactly is cinema?” The American director answers: “Film is like a battleground. It is love, hate, action, violence, death... One word, emotions.” Through this character Godard speaks: cinema is all about emotions. Atmosphere and emotion can be generated by material, but also by color.

In fact, spaces created by colorful lights are not rare in cinema. In Terrence Malick’s film *Song to Song* (2017), colorful lights are frequently used to render the space of music concerts. This resembles the work of the contemporary artist James Turrell, who uses colorful lighting to create area-less and direction-less spaces. (Fig. 2-16) However, Turrell’s colorful spaces are quite on the contrary of Malick’s. In the film, Malick uses colorful lights to create a dreamlike, noisy and impetuous atmosphere of live concert; otherwise, Turrell’s colors and lights, in the case of his light-installation in the burial chapel of Dorotheenstädtischer cemetery in Berlin, lead to a mental space with peace and mediation.

2.2.4 Summary: Aesthetic Effects

2.2.4.1 The Painting-like Effect

Godard did not patent the use of colors. For many film directors, colors were an important part of their aesthetics. Finnish director Aki Kaurismäki, who has a strong humanitarian spirit and tells stories about the disadvantaged in society, always colors his films in strong contrast and with high saturation to present humanity’s warmth. In recent years, the refugee has become a frequent theme in his films.

³¹ Godard (1972), p. 234.



Fig. 2-12 The red room,
Pierrot le Fou (1965)



Fig. 2-13 The green room,
Pierrot le Fou (1965)



Fig. 2-14 The yellow room,
Pierrot le Fou (1965)



Fig. 2-15 The blue room,
Pierrot le Fou (1965)



Fig. 2-16 James Turrell's light-
installation in the burial chapel
of Dorotheenstädtischer
cemetery, Berlin

In *Le Havre* (2011), for example, in one scene at the bar, where the hero talks with his close friend, the owner of the bar, Kaurismäki designed the mise-en-scène to be like a painting. The film set, props, even the costumes are well matched in basic tone to the yellows (with the blue color in contrast) that dominate the film's palette. (Fig. 2-17) Aki Kaurismäki's film reminds us of the American realist painter Edward Hopper's (1882-1967) paintings and indeed, it is not difficult to discover similarities between them. Zumthor even admits frankly in *Thinking Architecture*:

I admire the director's empathy and respect for his characters. He (...) shows them in a light that lets us sense their dignity, and their secrets. Kaurismäki's art lends his films a feeling of warmth. (...) To built houses like Kaurismäki makes films – that's what I would like to do.³²

Painting-like effects are not rare in contemporary cinema. Compared to Kaurismäki or Godard, Roy Anderson represents another kind of painting-like effect. Each scene in Roy Anderson's films looks like a moving painting, reminiscent of the German Neue Sachlichkeit (New Objectivity) paintings from the 1920s and 1930s and in particular the work of Christian Schad (1894-1982). As I mentioned in Chapter 1, Roy Anderson always films in studio with artificial film sets and the construction of film sets requires fake materials. As such the director moves towards dematerialization. In contrast to Kaurismäki, Roy Anderson is fond of low-contrast and low-saturation images. Lighting is an important factor in creating this special atmosphere. Unlike Kaurismäki's images, there are no strong shadows in Roy Anderson's scene. All the figures in his films always wear exaggerated and dramatic makeup, which makes their faces look like bloodless statues, as if they have become "things". The director strips materiality from everything including objects and human beings, and then gives them an artistic "mask" through color and light. (Fig. 2-18)

Compared to Tarkovsky's work, the painting-like effect is something quite different. Although the "style" of Aki Kaurismäki and Roy Anderson is quite different, they both treat cinematic image as paintings. Color is important for the painting-like effect, and it could work differently according to its brightness and saturation.

³² Zumthor (1999), p. 48.

2.2.4.2 Color vs. Materiality

Although color is an attribute of a material, it can also exist independently or as a coating to erase the materiality of material. Materiality represents something concrete while color represents something abstract. When color conquers a material and materiality, it can dominate the space and develop an aesthetics of its own. Now, it seems that we have two opposite situations: one is the concrete material and materiality, the other is color, colorful light and abstract space. Let's think about one more question: must materiality and color stand against each other? Can they coexist? Is it possible to have both color and materiality? In fact, the situation of materiality versus color is not either one or the other.

Eric Rohmer's (1920-2010) work gives us a solution. In *L'Ami de mon amie* (*My Girlfriend's Boyfriend*, 1987), as well as other films, actor's costumes, film sets and props are usually designed in bright colors with rich textures. In a scene at a party, the two heroines both wear blue, one a blue skirt, the other a blue top. While it is true that the color of the costumes is very striking, we can also immediately grasp the shining silk-like material clearly. (Fig. 2-19) Rohmer chose all the costumes and props carefully to successfully present a balance between materiality and color. His cinematic image carries more saturation than Tarkovsky, but is not as bright as Godard or Kaurismäki. Rohmer's cinematic image is a synthesis of material and color. He integrated them into a beautified everyday life. In an interview conducted by Graham Petrie, Rohmer talked about his understanding of colors for his early color-films *La Collectionneuse* (1967) and *Le Genou de Claire* (1970):

I didn't use color as a dramatic element, as some film-makers have done. For me it's something inherent in the film as a whole. I think that in *La Collectionneuse* color above all heightens the sense of reality and increases the immediacy of the settings. (...) In *Le Genou de Claire* I think it works in the same way: the presence of the lake and the mountains is stronger in color than in black-and-white. (...) The color green seems to me essential in that film, I couldn't imagine it without the green in it. And the blue too-the cold color as a whole.³³

³³ An Interview made by Graham Petrie with Eric Rohmer, *Film Quarterly*, Vol. 24, No. 4. (1971), p. 38. Also see *Eric Rohmer: Interviews*, edited by Handyside (2013), pp. 9-10.



Fig.2-17 *Le Havre* (2011)



Fig.2-18 Roy Anderson's film, *A Pigeon Sat on a Branch Reflecting on Existence* (2014)



Fig.2-19 *L'Ami de mon amie* (1987)



Fig.2-20 *Cries and Whispers* (1972)

With no doubt, color is an important factor of the aesthetics of cinema. Rohmer valued color but considered it to be an inherent factor for the film. Trees, grass and plants are supposed to be green, the lake is blue – they have their own color as a natural attribute. In this sense, color services for materiality instead of conquering it.

No matter color or material, it is just a question of aesthetics. In another film master Ingmar Bergman's (1918-2007) films, we can also find a perfect combination of color and material. In his second color film, *Cries and Whispers* (1972), the red color is a dominant element of the visual effects. (Fig. 2-20) As Rohmer commented: "the color is very deliberately worked out and he (Bergman) gets his effects mainly by the way he uses red."³⁴ Meanwhile, Bergman's images are full of materiality similar as those of Tarkovsky: women's dresses and jewelries, furniture and commodities, are all presenting the beauty of material. It is the same case with his later work as *Fanny och Alexander* (1982), or *Höstsonaten* (1978), in which the yellow leaves and green grass drag us into a real world with materiality, rather than an abstract space.

Discussions on materiality and color both point to the creation of atmosphere, which could remind architects of the experience of making architectural renderings. There are two tendencies in perspective renderings: one tends to imitate realist materiality, the other tries to pursue an abstract and artistic expression. The projects I present in Figs. 2-21 & 2-22 stand for those two aspects. In contemporary architecture, color has become more abstract than in classical architecture. Color is no more mere attribute or decoration for an object, such as a wall or ceiling, but an independent factor for creating atmosphere. This transformation may have passed to architecture from contemporary art. It has led architects to reconsider the meaning of materiality and color, but also to challenge the education and practice of architecture as regards the representation of architectural images.

³⁴ Ibid.

2.3 Sound: The Audio Element of Creating Atmospheres

Sound exists as the audio image, which is everywhere as part of the built environment and human behavior. If photography could capture an immobile section of still image, however, no one or no method could capture an “immobile” sound. In this way, sound itself becomes the duration, the time-image. The relation of sound and time could be quite clear, but the relation between sound and space could be a little blur. As I argued earlier, sound could create atmospheres, which are area-less spaces. The atmospheres and spaces created by sounds cannot be seen by eyes or touched by hands. When we hear something – the sound of birds, for example – a melodious birdsong may make us comfortable, but a noisy one may make us fidgety. The noise from cars on the road is usually irritating; otherwise, the sound of music is normally pleasant. As a very special type of sound, music has significant effects on arousing one’s feelings and emotions. Gernot Böhme defines music: “a sequence of tones is considered music only when it has a form, that is, when it is organized into a whole by a theme.”³⁵ He believes that “the tendency of music towards spatial art, particularly, has brought it into the realm of an aesthetics of atmospheres.”³⁶

Atmospheres created by sounds, although are indeed based on the perception of hearing, they are actually feelings of synesthesia. If we close our eyes, and just listen to the sounds, they may recall our memories, or stimulate our imaginations to think about some visual images, even smells and feelings of touch. For instance, when we hear the sound of streams flowing, we could have corresponding (visual) images in our minds, or imagine the feeling of putting our bare feet into the stream. The process that from the sound to the visual image and other feelings, is so called synesthesia. When we say, “architecture is the concrete music”, it is also a metaphor based on synesthesia. Human body and mind has the ability of experiencing and understanding synesthesia.

Vision is considered to be the very even the most important of five senses of human. However, hearing is significant as well. For cinema, an art of the seen and the heard, the visual image is the beginning and the basic form. In late 19th century, when cinema was born in France and Germany, there were only silent films. It was not

³⁵ Böhme (2017b), p. 135.

³⁶ Böhme (2017b), p. 127.

until the late 1920s that sound film appeared. The technique of synchronized sound established a milestone in the history of film. Ever since the born of sound films, sound has become not as a complement but more like an inevitable factor for cinematic images. Nevertheless, as the vision dominates human senses, the visual image predominates in cinema. Obviously, pure visual images without sound can be regarded as a film, as in the early silent films; but when there are only sounds without any visual images, no one would consider it as a film, but a broadcast, maybe. Hence, when study sound in cinema, I tend to focus on how it works with visual images to create atmosphere. After all, cinematic images are complex images, with the visual and audio images working together.

First, let's review the function of the soundtrack, also called the score. Music has been important since early cinema, when silent films were often accompanied by live piano or organ. The most important function of live music or soundtrack is to render an atmosphere and express emotions. An excellent example comes from *The Tenant* I analyzed in my discussion on "form". In the hero's illusion, he not only sees the courtyard as a theater, but also hears music and applause, which helps to complete the theatrical atmosphere. Tarkovsky, the master who created beautiful visual images, as well had deep insights into music and soundtrack.

Music can be used to produce a necessary distortion of the visual material in the audience's perception, to make it heavier or lighter, more transparent, subtler, or, on the contrary, coarser ... By using music, it is possible for the director to prompt the emotions of the audience in a particular direction, by widening the range of their perception of the visual image.³⁷

Tarkovsky believed music has a strong capacity to create emotions, and "music is not just an appendage to the visual image. It must be an essential element of the realisation of the concept as a whole."³⁸

In addition to the music in films (soundtrack), the most common sounds in cinema are human voices and ambient environmental sounds that reflect the scene or plot – this kind of sound is what defines the sound film. Sound is a natural phenomenon and sound enhances an atmosphere by completing the visual image. In the previous

³⁷ Tarkovsky (1989), p. 158.

³⁸ Ibid.

discussion about materiality – the scene in the woods in *Offret*, for example – I already took sound as an important factor in creating atmosphere. Tarkovsky had not only a great taste of music, but also a highly sensitivity of all sounds. He knew how to combine the visual and audio image into a whole. Another scene in *Offret*, when some airplanes fly over the villa, all the characters, sitting in the living room, hear the noise of planes from inside the house. With no visual images, we can still imagine a much bigger space that includes the world in which the planes fly. In this case, Tarkovsky used the sound to create what Deleuze called *out-of-field*, or what the film theorist and composer Michel Chion declares, *the offscreen space*.³⁹ A sound without a visual referent reminds us of the bigger picture beyond the visible image. Furthermore, in this scene, the planes eventually cause a fierce visual explosion: a milk jar falls and breaks into pieces. As a fan of Tarkovsky, the contemporary Japanese musician Ryūichi Sakamoto (坂本龍一) commented that, in Tarkovsky's films, there are various sounds, including the sound of water, wind, footsteps, which combine with the soundtrack to constitute a world of music. Hence, Ryūichi considers Tarkovsky to be a musician.⁴⁰

As sound is produced by vibration, human behavior is always accompanied with sound. Sound may not be able to directly seen by eyes, but human actions create sound all the same. Sometimes, sounds are exaggerated in order to express an emotion. In one scene from Paul Thomas Anderson's *Phantom Thread* (2017), the hero, a famous fashion designer played by Daniel Day-Lewis, is having breakfast with his young girlfriend and his sister. During breakfast, the noises created by the girlfriend's movements, such as buttering bread, pouring water, are obviously overstated and much louder than what we would experience them. What the audience hears is not a realistic representation of sound, but what the hero feels: he considers the "noise" too loud and a distraction, expressing his feelings about the girlfriend. The director uses exaggerated sound to express his character's emotions.

³⁹ See Chion (1994), pp. 73-80.

⁴⁰ See the documentary film *Ryuichi Sakamoto: CODA* (2017), directed by Stephen Nomura Schible.

2.4 Human Behavior and Atmospheres

As I discussed in the last section, atmosphere is not a pure static state but a dynamic process. The motion-perception allows us to perceive movements around us or executed by us. In cinematic space, as well as in architectural space, the most common movement we perceive is human behavior. Humans live in and interact with space. Human behavior is an important element of the built environment. As we sense, the atmosphere of a cafe full of people differs from an empty one. And sometimes, human behavior is able to create the most powerful and charming atmospheres. In his commentary on Ettore Scola's (1931-2016) *Ballroom* (1983, Fig. 2-23), Zumthor states:

The focus of the film is on its main character. But it is the ballroom with its tiled floor and its paneling, the stairs in the background and the lion's paw at the side which creates the film's dense, powerful atmosphere. Or, is it the other way round? Is it the people who endow the room with its particular mood?

I ask this question because I am convinced that a good building must be capable of absorbing the traces of human life and thus of taking on a specific richness.⁴¹

The relationship between human behavior and space is always well presented in cinema. Dutch director Joris Ivens (1898-1989) was adept at exploring the interaction between humans and their environment. In his early documentary film, *Rain* (1929), which took place in Amsterdam, Ivens focused on the interactions between the built environment, natural element and human behavior. Such as the scene in a rainy day, people hold up umbrellas, which look like round lotus leaves covering the street. Ivens depicted the beauty of the rain through the image of urban life. In another documentary film *Le mistral* (1966), Ivens captured the influence of wind on the built environment and human life: the blowing wind makes trees swaying, the bride's veil flying in the air, and makes it difficult for people to walk a bicycle... He was always fascinated by interactions of natural elements and human life. In *The Seine Meets Paris* (1957), Ivens cast the River Seine as his protagonist, which communed with the people that interacted with it.

⁴¹ Zumthor (1999), p. 24.



Fig.2-21 The design project of a villa,
by Liaohui Guo (AAM, 2014)



Fig.2-22 The design project:
Utopien, Weggeworfene
by Chao Wu & Reto Streit
(ETH, 2017)



Fig.2-23 *Ballroom* (1983)



Fig.2-24 *The Seine Meets Paris* (1957)

His main set offered a beautiful view from a riverfront space: workers labor at the dock, lovers date, painters paint, and children play along the banks... People enjoy various activities along the riverfront and the Seine River and people interact to create a rich atmosphere. (Fig. 2-24) Ivens's work shows us how cinema becomes a direct and vivid observation of life.

Atmosphere and human behavior have a very intriguing relationship: a specific atmosphere will lead to a specific behavior, that is to say, the atmosphere could be a cause of human behavior. Meanwhile, human behavior could affect the atmosphere, and become part of atmosphere, which is a dynamic process, changing and evolving all the time. Humans and space continuously interact, and thus between atmosphere and human behavior the influence is mutual. However, the cause and practice of human behavior are both uncertain, perhaps partly influenced by the atmosphere of a space, perhaps the result of unpredictable randomness.

Chapter 3: Theses on Movement

3.1 Two Types of Movements

3.1.1 The Perceptible Movement

As I argued in Chapter 1, the cine-camera is capable of recording movements, and the cinematic body “owns” motion perception, based on which we can draw an analogy between the cinematic body and the human body. When compared to the human body that perceives the world through vision, sound, touch (kinesthetic), taste, and smell, the cinematic body may initially appear lacking as it only sees and hears. Nonetheless, the cinematic body reproduces two basic aspects of human corporeal movement: one is movement of the other perceived by the cinematic body (or human body), in which the body remains still and watches other objects move, such as a bird flying or a car speeding by; the other movement involves the body itself in the moment of movement, perceiving the world pass by as, for example, while driving or riding in a train car. In short, motion perception allows one to

perceive movements including those executed by another and those executed by the self. It is true that these two situations of movements often combine and occur simultaneously. Such is the experience of talking a walk: we command a bodily movement by walking, and meanwhile we observe movements carried out by others. In any case, those above movements can be perceived through vision, hearing, touch or other senses. Hence, I name this type of movement “the perceptible movement”.

Cinematic image is full of perceptible movements. Since the original essential of cinema is to capture movements, it was called the *motion-picture* in the beginning. When we review the works of early cinema, such as the Lumière brothers’ *Arrival of a Train at La Ciotat* (1896), the running train seems so “real” that strongly astonished the audience. Besides the train or any moving objects, natural elements (wind, rain, etc.) and human behavior are as well important parts of the movement-image. Human eye is more sensitive to moving things than still ones.

However, the cinematic body is, after all, different from the human body. The cinematic body does not require a specific visible subject to execute a movement, thus, cinema can present movement itself and it can detach movement from a subject. In Alain Resnais’s short film *Night and Fog* (1956), the camera never appears on screen, but moves like a ghost wandering through the concentration camp. With no figures in its shots, the audience feel the movement as the camera passes through fields and buildings. The film reveals a steady, free, pure movement without a certain visible subject. (Fig. 3-1) Another example is Resnais’s *Toute la mémoire du monde* (*All the world’s memory*, 1957), the camera (working together with the dolly) conducts a free movement in the old Bibliothèque nationale de France (National Library of France). Such a movement may remind us the experience of walking: we observe the outer space during the process of bodily movement. However, the difference is that the camera is not our own body but a neutral instrument that can present an objective process of movement. Due to the moving camera, we are able to perceive and observe such a pure movement, which was once only perceived through our own bodily movements. Through cinema, we can perceive a pure movement without any subjects. It is not “something is moving”, but the movement itself. This might be one of cinema’s great contributions.

3.1.2 The Potential Movement

Since the cinema presents pure movement without a specific subject (body), it shows new possibilities for movements and for spaces by detaching the subject away from movement. To demonstrate this, let's imagine a three-dimensional coordinate system that can correspond to any specific three-dimensional physical space.

First, we put ourselves in an existing physical space, as well as in a three-dimensional coordinate system, which contains at least one other object, maybe a door or a desk. We use our senses to perceive images of this space.

Then, we create spatial relations among (or between) different objects. Since there exists at least one more object in the space besides our own body, we can name our position point A – a coordinate position – and the other as point B. We can imagine a movement from our body to the other object, because we can move ourselves towards this object, that is, a movement from point A to point B, which we can name “movement A-B”. However, the movement has not actually happened, it is just an imagined movement in imaginary space. In the same way, if there existed additional objects within this space, such as object C (point C) and object D (point D), we could imagine a movement executed by object C toward object D, that is to say, a movement from point C to point D, which we can name “movement C-D”.

Next, let's try to discard the subject of movement A-B and movement C-D, which means that we do not know who or what creates a movement. Let's just focus on the movement itself: imagine the movement as a vector, which has a direction with a certain power.

Last, we clear all the objects from the physical space so that we are left with no human body and no other objects. However, retain the four points that we plotted on our coordinate system, which designate where these objects once were. If we can differentiate point A from point B, we still can imagine a movement from point A to point B, and likewise from point C to point D. Then, it would not be difficult to understand that the space model is full of countless points and countless movements from one point to another. These imagined movements do not have a certain subject. They are vectors, pure movements. (Fig. 3-2)

Such an imagined movement is actually a potential movement. It is deduced from a perceptible concrete movement. It may have a potential subject, such as our own body – we can always imagine our own body move towards somewhere; it may

possess no subject, but it exists as abstract movement – a vector. Unlike perceptible movement, it is not something happening or that happened, and thus it can not be perceived directly, but only exist as a possibility or tendency.

Now, it would be inappropriate to continue to call a potential movement an “imagined” movement. In the beginning, we imagined some movements that had not happened. Seemingly, these imagined movements existed only in our own mind. However, they do exist as a poverty of a space. It just requires one’s mind to understand the concept: a physical space can be abstracted into a three-dimensional model, and movement into vectors, an abstract space contains endless vectors, just as a physical space contains countless movements, some of which are perceptible and some of which are potential. Thus, when a physical space is delimited, potential movement is outlined as well.

3.1.3 Summary

To sum up, we have two types of movements, which inhabit both our real-life space and cinematic space:

1. A perceptible movement: movement executed by oneself or by others (people or objects) that can be perceived.
2. A potential movement: the possibility of movement that is based on, but is beyond, human motion perception.

Perceptible movement is always something that is happening or has happened; potential movement is what is going to happen or could happen. It is the tendency, possibility or contingency of movement. Those two types of movements are connected rather than separated. Only with experience of the first type can people understand the second. The second type, because it is a possibility of movement, could or could not be executed; once executed, it would become the first type of movement. Thus, the second type of movement may lead to the first type. Take basketball as an example. The action of shooting is a perceptible movement. However, before shooting, the player may have to estimate in advance the dribbling route, as well as how to cooperate with teammates and at what angle to shoot the

ball. The player has already elaborated potential movement before actually acting. If the player chooses one potential movement to realize, then the chosen one becomes the perceptible movement.

Space is a “container” of movements. Perceptible movement may seem similar to the phenomenon of lights, as both can “enlighten” a space. When we move our own body, we can say that our body defines a space; when we observe movements by others, along the trace of perceptible movement, we see space as well. Since a building cannot move itself, the most important perceptible movement as regards architectural space is that directly executed by or relating to human body. While potential movement is something rooted within a space, as a property of space, it cannot be “enlightened” by a perceptible movement, but only stimulated between different positions in space.

3.2 The Perceptible Movement

3.2.1 The Cinematic Flâneur

In cinematic images, plenty of subjects present movements, including moving objects, animals, natural elements and human being. Among those various movements, human behavior matters most.

When studying perceptible movements in human actions and bodily movements, the best representative for cinema is probably the figure of flâneur, who wanders the city and observes urban life. Although the term “flâneur” occurred as early as the 16th or 17th century, it was Walter Benjamin who first drew it into the academic domain and elevated it to a symbol of the 19th century urban modernity.

The street becomes a dwelling space for the flâneur; he is as much at home among house façades as a citizen is in his four walls. To him the shiny, enamelled signs of business are at least as good a wall ornament as an oil painting is to a bourgeois in his salon. The walls are the desk against which he presses his notebooks; news-stands are his libraries and the terraces of cafés are the balconies from which he looks down on his household after his work is done.¹

Benjamin depicted the flâneur as someone who takes the city as one's own home by sauntering around the city. This is the first characteristic of the flâneur. The second characteristic is the identity of the *homme de lettres*, who observes the fleeting moments and variety of urban life. Charles Dickens (1812-1870) and Charles Baudelaire (1821-1867) expressed this spirit in literature, while Constantin Guys (1802-1892) did so in painting.

(the flâneur) He develops reactions that are in keeping with the tempo of a big city. He catches things in flight; this enables him to dream that he is like an artist. Everyone praises the swift crayon of the graphic artist.²

It is hardly surprising that the film director would also work well as a flâneur by taking the camera while travelling around the city to capture and present the city's modernity. Dziga Vertov's film, *Man with a Movie Camera*, can be considered an early work of the cinematic flâneur. As Anthony Vidler has already commented: "Certainly it is not too difficult to imagine the figure of Benjamin's flâneur, Vertov-like, carrying his camera as a third eye, framing and shooting the rapidly moving pictures of modern life."³ Vertov's films were not the only ones. In the period of late silent film (from 1919 to 1929), a new film genre emerged: the "city symphony", which focused on filming urban life, including documentary films such as *Berlin: Die Sinfonie der Großstadt*, and short films such as Joris Ivens's *Rain*, and Jean Vigo's *A propos de Nice* (1930). In these films, the camera plays the role of the flâneur. Later in post-war cinema, a significant change happened. Starting with Italian neorealism, the flâneur became a concrete character on the screen. In the first chapter of *The Time-Image*, Deleuze gave a name to such a figure: a *seer*. He discussed the heroes and heroines from some of Robert Rossellini's (1906-1977) films, including *Germany Year Zero* (1948), *Stromboli* (1950), *Europe 51* (1952)

¹ Benjamin (1985), p. 37.

² Benjamin (1985), p. 41.

³ Vidler (2000). p. 115.

and *The Lonely Woman* (*Voyage in Italy*, 1954, Fig. 3-3) to elaborate on the *seer*. The seer, like the flâneur, never initiates or gets involved in events. He or she does not really act, but instead wanders, sees and feels, just like the heroine in *Europe 51*.

Europe 51 shows a bourgeois woman who, following the death of her child, crosses various spaces and experiences the tenement, the slum and the factory. Her glances (...) pass through every state of an internal vision, affliction, compassion, love, happiness, acceptance, extending to the psychiatric hospital where she is locked up at the end of a new trail of Joan of Arc: she sees, she has learnt to see. (...) This is a cinema of the seer and no longer of the agent.⁴

The cinema of the French New Wave also developed the cinematic flâneur. A great example, Agnès Varda's (1928-2019) film *Cleo 5 à 7* (1962, Fig. 3-4), presents a beautiful female singer named Cleo, who spends an afternoon sauntering across Paris while worrying about her health. The film begins with a scene in the fortune-teller's apartment where Cleo receives some worrying messages. She then behaves like a flâneur who carries a heavy mental burden, and she encounters various kinds of people (her friends, lover, doctor, strangers, etc.), goes to many places (a café, a hat shop, her apartment, a sculpture studio, a cinema, a park, a hospital, etc.), and eventually decides to accept the truth without fear. What Cleo sees changes her, in the same way that Rossellini's figures are changed. However, her change seems less important than the process of experience.

The cinematic flâneur remains popular in contemporary cinema. The German film *Oh Boy* (2012) shows one day of a young man's life in Berlin. Played by the German actor Tom Schilling, the protagonist Niko Fischer, bored with law school and having already dropped out of college, experiences a seemingly normal but quite dramatic day: he has to face lots of people, to encounter plenty of unexpected events, and finally witnesses the death of a stranger.

Compared to Vertov's *kino-eye*, the figure of the flâneur in post-war cinema has become more free, sauntering with no planned route just as the duckweed floating on the river led to an unknown future, observing the fragments of urban life and weaving them together in a loose and irregular way. However, the cinematic flâneur, who seems no different from the flâneur defined by Benjamin, does not write or

⁴ Deleuze (2013b), pp. 2-3.

paint his/her own observations – rather, it is the film director who creates a film to present the figure’s experience, through which the flânerie is completed.

3.2.2 Human Behavior and Occasionality

The behavior of the cinematic flâneur might seem aimless, with no specific purpose and it is little wonder that accidents happen during the process of flânerie. However, even during a planned action with a purpose, human action can be interrupted and disrupted by some unexpected events. Our bodies often encounter this in daily life, and such happenstance and accident is frequently presented in film.

In Vittorio De Sica’s (1901-1974) film *Bicycle Thief* (1948), human behavior is accompanied by various occasional incidents. The story of this film is quite simple: the hero, a poor working-class man, and his son try to find his stolen bicycle. At the start of the film the bicycle is stolen – it is an accident. In the process of searching for the lost bicycle, although the hero has a clear aim, he still encounters random, occasional incidents. A notable scene is the unexpected rain. Facing a sudden and heavy rain, the hero and his son run to take shelter from it, along a tall building wall, where they meet a group of seminary students who speak German that the hero cannot understand. They stand together for a while until the rain stops, the group of students leave, then the hero and his son continue their search for the lost bicycle. (Fig. 3-5) One could argue that the rain scene has something to do with the main story line, because it adds the difficulty to find the bicycle, however the chance meeting with the foreign seminary students has nothing to do with the main story line. De Sica took time to depict an accidental event which seems meaningless and irrelevant as a way of maintaining the “phenomenological integrity” of reality, as André Bazin put it.⁵

Run Lola Run (1998), a successful film by the German director Tom Tykwer, presents a similar cinematic perspective. In Lola’s three runs,⁶ she encounters the

⁵ See Bazin (1972), pp. 51-52.

⁶ The whole film is based on the hypothetical possibility that life can be re-done. It consists of three segments. The main plot of the film seems clear and simple: Lola receives a phone call from her

same people, but each time in a slightly different time and place, subtle differences that brought different results to Lola's runs. These differences reveal a simple truth: life is uncertain, full of occasional and unexpected incidents.

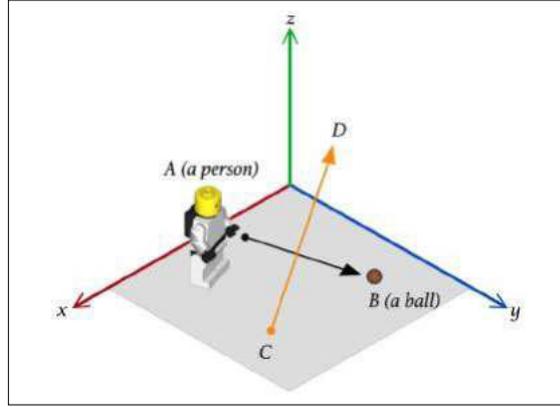
In *Bicycle Thief* and *Run Lola Run*, the protagonists have their own explicit aims and try to fulfil them through reasonable actions. However, accidental incidents inevitably interfere with their tasks, which reveals a common but easily neglected truth: the occasionality of everyday life shapes human behavior.

In both examples above, the occasionality refers to accidental events. Actually, in daily life, the occasionality and uncertainty exist in each seemingly unchangeable routine, in each moment that looks predictable. There is a famous plot in De Sica's film, *Umberto D.* (1952), the scene of the maid getting up that fully presents the reality of everyday life. De Sica took enough time to show each detail of the maid's morning: she sees a cat walking through the glass roof (the sky window); she gets up, wearing her morning gown, and walks through the corridor; she strikes a match on the wall, in order to light the gas for boiling water – it does not work at the first time, so she strikes another match; she stretches her leg and uses the foot to close the door of the closet slowly... (Fig. 3-6) De Sica did not compress or reduce the routine of a normal morning; instead he presented as many as trivial moments that constitute the reality. As Bazin commented, this scene stands at the opposite of "art of ellipsis", what cinema is usually considered to be.⁷ This scene also shows us the relation between human behavior and the built environment. Although the maid's behavior is limited with a small space, the kitchen, she does conduct plenty of moves, most of which happen randomly, such as she looks through the window to see a cat walking on the glass roof. Meanwhile, the maid's moves show her feelings and emotions: "Her eyes meet her pregnant woman's belly, and it is as though all the misery in the world were going to be born."⁸ She finally cries when sitting alone in a chair.

boyfriend Manni, who is in a huge trouble and needs Lola's help. Manni needs 100,000 Marks in twenty minutes, otherwise, his gangster boss will kill him. Lola runs through the city, trying several different ways to get the money and save Manni. Lola does not succeed at first, so she tries again and again. Lola runs three times in all, with two failures and a success in her third attempt.

⁷ Bazin (1972), p. 81.

⁸ Deleuze (2013b), p. 2.



LEFT

RIGHT

UP Fig. 3-1 *Night and Fog* (1956)

UP Fig.3-2 The model of the potential movement

MIDDLE Fig.3-3 *The Lonely Woman* (1954)

MIDDLE Fig.3-5 *Bicycle Thief* (1948)

DOWN Fig.3-4 *Cleo 5 à 7* (1962)

DOWN Fig.3-6 *Umberto D.* (1952)

Cesare Zavattini (1902-1989), the great Italian film theorist, one of the screenwriters of *Umberto D.* (the other was De Sica himself), defined Neorealism cinema as “an art of encounter – fragmentary, ephemeral, piecemeal, missed encounters.”⁹ This is what Bazin called “image facts”.¹⁰ I believe that architects should see the value of Neorealism cinema not only as an aesthetics of cinema, but of most important, consider it as a study on the reality of everyday life that involves human behavior and the built environment.

3.2.3 Action, Defamiliarization and Metaphor

As we all know, the built environment (such as a house, a road, a chair) usually does not move by itself. However, human being is capable of interacting with the built environment to exert various activities. It is possible study the built environment (mostly buildings) through observing and studying human actions in cinema. One excellent example is the great American director Frank Capra’s (1897-1991) film, *Arsenic and Old Lace* (1944).

The main set of the film is a villa in Brooklyn, New York, where live three residents: two old ladies – the aunts of the hero (played by Cary Grant), and the hero’s younger brother Teddy, who suffers from mental illness. In this villa, horrendous crimes happen: killing, hiding corpses and burying, all done by the two old ladies. They constantly kill lonely old people through poison, because they believe that what they do is to take care of those old people in the best way – obviously they are mental disordered without knowing it. The villa has an appealingly normal layout and interior, however, it fits the criminal function. The contrast between the everyday life and criminal behavior causes a dramatic effect. The old ladies show us how to associate everyday things with such non-everyday behaviors as committing murders, through which, everyday things are given unusual meanings. All the murders begin at the dining table. A dining chair, a Windsor arm-chair, becomes the “chair of death”, where the (potential) victims sit. Later, the hero is tied to the same chair by his fugitive brother. The Windsor chair is more than a

⁹ Ibid.

¹⁰ Bazin (1972), p. 37.

dining chair, but as a place of terror. Of course, the hero does not die. When the police arrive, the hero finally gets away from the chair, and breaks it in half during fighting. The smashed chair still owns a metaphor: it indicates that the hero ends the killing. Another notable furniture in the villa is the window-seat: it works as a sofa, also as a storage box. It could be open from the upside – its special position (under the window) makes it a passage connecting indoor and outdoor. (Fig. 3-7) All those three functions are presented in the film, especially the function of storage: it once becomes the place to hide a corpse.

This film may remind us of Alfred Hitchcock's (1899-1980) *Rope* (1948). A murder happens in an urban apartment, and it is committed with everyday things, as a rope and a storage box. After the murder, the box is even covered with a piece of dining cloth and serves as a dining table in the living room.

Once we see the furniture being used as a tool for murder, we could be shocked and surprised, since the furniture is defamiliarized. A murder is, after all, something uncommon in daily life. However, the extreme situation can still inspire us: we can imagine giving an unusual function to a daily article, or a space, to give it a special meaning, or a metaphor. That is a way of defamiliarization in daily life.

3.2.4 Action and Emotion

What I argued in the previous sections, presenting human behavior, as well as human action, involves narrative of films, and reveals functions and meanings of the built environment. Besides that, human action also comprises emotions, which are although normally revealing by facial expressions.

Robert Bresson's (1901-1999) *Pickpocket* (1959) is a great example of exploring human actions, especially through the hands. Of course hands are not faces, but through several close-ups of the thieves' hands, we still feel the intense atmosphere, even the thief's cautious and nervous emotions. (Fig. 3-8)

Another example comes from "Part One" of Michael Haneke's *The Seventh Continent* (1989) – the same plot as I mentioned in Chapter 1. A series of shots present human morning actions: getting up, brushing teeth, dressing, making coffee,

having breakfast... All these shots, which include shots ranging from close-up to medium to medium-long shot, capture only bodily actions. pure bodily movements, while obscuring the face and facial expressions. However, we recognize and feel the mechanical, regular, ordinary, trivial daily life. (Fig. 3-9) Such a sequence of shots reveals the director's critical attitude toward the banality of everyday life.

In Alfonso Cuarón's latest film, *Roma* (2018), the director presents more shots of the heroine's bodily actions than her facial expressions. The maid is based on Cuarón's own family maid from his childhood. In the film, the maid's love and care for the family, as well as the director's praise and gratitude for her, is demonstrated through how he depicts her daily work: cleaning the house, cooking meals and serving the masters and children. Although it rarely features shots of her facial expressions, her personality and emotions are presented clearly to the audience. (Fig. 3-10) In cinema, there are a lot of similar examples, such as *Jeanne Dielman, 23 Quai du Commerce, 1080 Bruxelles* (1975), in which the brilliant Belgian female director Chantal Akerman (1950-2015) showed us here respect of the daily life the heroine, a single mother, a housewife, and a daytime-prostitute. Unlike Cuarón's long shot, Akerman used more medium shots and close-ups to capture the actions of the heroine.

Furthermore, in *Roma*, a notable phenomenon is that the director even expresses feelings and emotions through close-ups of non-life objects, which are obviously operated by human. In the scene when the hero's father drives the large car into the relative narrow corridor in the courtyard, the car can be seen as an extension of the driver's bodily action, which presents a strong emotion of anxiety. Instead of close-ups of face, Alfonso Cuarón uses several close-ups to show how the car hardly passes the corridor: the body of the care grazes the entrance gate; the rearview mirror and headlights both inevitably graze the wall. (Figs. 3-11 & 3-12) Those close-ups of the car become a metaphor of the driver's situation: he is trapped in a difficult position (his marriage). Later, the hero's parents get a divorce – his father moves out, and his mothers stays with the children in the big house. Finally, the mother gets rid of the big old car, as well as her marriage – she buys a new small car, which can be easily driven into the corridor. The new care also becomes a symbol of a delightful and hopeful future.

To sum up, bodily actions, including when human body use tools (as driving a car), could express emotions, which directly contribute to creating an atmosphere.



UP

Fig. 3-7 *Arsenic and Old Lace* (1944)

MIDDLE - LEFT

Fig. 3-8 *Pickpocket* (1959)

MIDDLE - RIGHT

Fig. 3-9 *The Seventh Continent* (1989)

DOWN

Fig. 3-10 The maid cleans the courtyard,
Roma (2018)

Fig. 3-11 A close-up of the driving car,
Roma (2018)

Fig. 3-12 A close-up of the driving car,
Roma (2018)



3.3 The Potential Movement

3.3.1 The Depth of Cinematic Space: a Spatial Model

As I argued in the first section, we possess both perceptible movement and potential movement in our real-life space, as well as in cinematic space. The former – mostly human bodily movement – can be perceived through motion perception; the latter is a poverty of space that exists everywhere within a space but cannot be perceived directly. Although potential movement is invisible, it occurs between different positions, which could help enlighten it. In cinematic images, there is usually a depth of field, which includes different positions such as the foreground, midground and background. As Deleuze has argued, “the frame is therefore inseparable from two tendencies: towards saturation or towards rarefaction.”¹¹ Cinematic spaces thus can develop towards deep space or towards shallow space.

Shallow space designates the suppression of perspective, such as the close-ups from *The Passion of Joan of Arc*, which I discussed in Chapter 1 in relation to the camera lens. (Fig. 1-8) Here I want to discuss several medium and long shots from Dreyer’s masterpiece, *Ordet* (*The Word*, 1955, Fig. 3-13). In one scene that depicts an indoor funeral, the interior space is shallow and flattened: the walls are painted white and the windows are covered with white curtains. Light illuminates the scene but no outdoor landscape is perceptible. The interior seems like an abstract two-dimensional space, far away from secular life but close to the religious spirit.

In contrast to Dreyer, other directors favored creating a deep space with a large depth of field, a cinematographic technique also known as deep-focus. Using deep-focus enables the foreground, midground and background all in focus. Take one scene from Michelangelo Antonioni’s film *The Cry* (1957, Fig. 3-14) as an example: the protagonist talks with his ex-girlfriend about his daughter, who visibly stands in the background, framed by the window. The cinematic space is divided into several layers: the protagonist in the foreground, the window in the midground, and the little girl in the background. In contrast to Dreyer’s window in *Ordet*, Antonioni’s window opens out towards the world, where it attracts the audience’s attention and creates a potential movement from inside to outside. This scene is similar to a famous deep-focus scene from Orson Welles’s (1915-1985) *Citizen Kane* (1941, Fig. 3-15), in which in the background little Kane plays outside in the

¹¹ Deleuze (2013a), p. 15.

snow, while his parents deal with the lawyer about Kane's adoption issue in the foreground. The original function of deep-focus relates to the narrative of films. With deep-focus, it is possible to use one shot to present scenarios happening in fore- and backgrounds. Meanwhile, the shot of deep-focus is always associated with distinct layers to identify different depth of field. In both scenes mentioned above, the window becomes a frame to create more spatial layers, in which potential movements can be stimulated.

In cinematic images, the foreground, midground and background seem to exist in different layers between which potential movements could occur. However, there can also be additional layers in the cinematic image. When we see a door, a wall, a window, or other objects, we may consider it as a hint of a layer, since it can divide the space. The following diagram is a spatial model that contains numerous layers, one of which contains numerous points. (Fig. 3-16) In this model, different colours refer to different layers as well as different positions. Movements could happen within one layer (between different points) or between different layers.

3.3.2 Layers in Cinematic Space

3.3.2.1 The Frame: Windows

Layers exist in cinematic space as well as in real-life space. A common method to establish a layer is to create a frame within the frame of cinematography. The window, which divides interior and exterior space, might be the most frequently used frame in cinematic images (as with the two examples of deep-focus given above). Since the window connects the interior and exterior, one can look through it from both angles of view: from the inside to the outside, or from the outside to the inside. Both ways of looking can be seen in Alfred Hitchcock's film *Rear Window* (1954), which is one of the earliest works discussing voyeurism in cinema. Due to a broken leg, the hero, a photographer played by James Stewart, has to spend "six weeks sitting in a two-room apartment with nothing to do but look out the window at the neighbors."¹² The photographer not only looks from the inside (his

¹² This is said by the hero in the beginning of the film when he is talking with his boss on the phone, complaining about his boring daily life.

apartment) to the outside (the yard in the neighborhood), but also from the outside (the yard) to another inside (other apartments). It is the latter view that really matters, as he observes a hidden murder. (Fig. 3-17) In *Rear Window*, the behavior of looking into others' windows is similar to looking at a cross-section of a building and not just its façade. The windows become small frames inside the big frame – the screen – as well as small stages where plays are performed. To be put on stage, to be watched – this is the first significant function of the frame in cinematic images. In this case, the content of the frame is important, as the photographer witnesses the hidden crime.

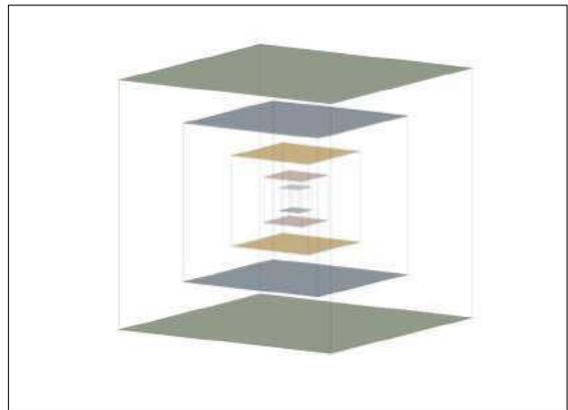
Another important function of the frame, as well as the window, is to reveal an endless space beyond the visible frame. Deleuze created a term to discuss this function of the frame: the out-of-field, which refers to “what is neither seen nor understood, but is nevertheless perfectly present.”¹³ A scene from Antonioni's film *L'eclisse* (1962), where the heroine and hero talk in an apartment, features a view through an open window onto an urban view outside: the street, the cathedral and other buildings. (Fig. 3-18) The view itself is not important. Its function is to reveal the sprawling urban context of a small bedroom, to establish the connection between a limited interior space and a broad urban space. When we perceive the view outside the window, our minds have been drawn through the window, from inside to the outside. We not only observe the movement outside in the street, but also complete a visual journey across this special layer: the window. Antonioni uses windows to draw the audience's attention to the space “outside”, the space in another layer or layers.

Deleuze commented on these two different functions of the frame:

This duality is most clearly expressed in Renoir and Hitchcock; in the former space and action always go beyond the limits of the frame which only takes elements from an area; in the latter the frame confines all the components, and acts as a frame for a tapestry rather than one for a picture or a play.¹⁴

¹³ Deleuze (2013a), p. 19.

¹⁴ Ibid.



LEFT

RIGHT

UP Fig. 3-13 *Ordet* (1955)

UP Fig.3-14 *The Cry* (1957)

MIDDLE Fig.3-15 *Citizen Kane* (1941)

MIDDLE Fig.3-16 The space model of layers

DOWN Fig.3-17 *Rear Window* (1954)

DOWN Fig.3-18 *L'eclisse* (1962)

To sum up, the first function of the frame is to put something in focus, like a show on the stage, a centripetal type; however, the second is to create a centrifugal type – what can be seen in the frame is not important, it is the link to a much vaster unseen space that matters.

3.3.2.2 The Reflector: Mirrors and Others

In addition to the frame, such as windows, the reflector is another common tool to create spatial layers. The reflector is a special kind of frame: although it is flat, it visually expands space through reflection. It does not really make the space wider, but it enriches it with additional visual information. Mirrors are the most common reflectors.

In Heinz Emigholz's documentary film, *Loos Ornamental* (2008), there is a scene of Loos's Café Museum in Vienna, which contains both the frame (a window) and the reflector (a mirror). Since the point of view is from inside the café, the audience can observe the scenery of the street through the window as well as in the mirror, which reflects the street from a different angle. (Fig 3-19) The frame and the reflector help enrich the density of the interior space and establish a close relationship between the interior of the café and the exterior of the street.

Another function of the reflector is to create metaphoric and dramatic spatial relations. Take François Truffaut's short film *Antoine and Colette* (1962).¹⁵ The hero, Antoine Doinel, has grown up to be a young man and falls in love with a beautiful girl named Colette. In a scene that takes place in Antoine's apartment, Colette and Antoine talk together face to face, but Antoine does not directly appear in person but only as a reflection in the mirror. The normal way to shoot a conversation of two figures is to use shot-reverse shots,¹⁶ which creates a visual coherence, or to make one long shot that contains both figures, in which their eyes look at each other. However, Truffaut did not adopt either way. Instead he made

¹⁵ It is one of Truffaut's Antoine Doinel films. The first film of the Antoine series is Truffaut's first feature film, *The 400 Blows* (1959). *Antoine and Colette* is the second. The third is *Stolen Kisses* (1968), the fourth is *Bed and Board* (1970), and the fifth, as well as the last one in the series is *Love on the Run* (1979).

¹⁶ A shot-reverse-shot is a technique when film two characters talking face to face. The first shot usually shows one character, and then takes the shot of the other character, to create a sense of them looking at each other.

Colette talk to Antoine's reflection in the mirror, through which there is no direct eye connection: Antoine is looking at Colette, while the girl is looking somewhere else. This shot serves as a metaphor and as a foreshadow of their doomed relationship: her love is gone and she has no more interest in Antoine. (Fig. 3-20) Antonioni used a similar technique in *Identification of a Woman* (1982), where the hero has a conversation with his girlfriend in which instead of looking at each other, the director broke their eye connection with a mirror: the man looks at the woman, but the woman is not focused on him anymore. (Fig. 3-21) In both films, the reflectors and reflections indicate an alienated relationship between the characters.

Sometimes, window glass is not only transparent but reflects, so that it has a combined function as both frame and reflector. In the scene where Cleo shops for a hat in *Cleo from 5 to 7*, Varda had the camera shoot the shop window from the outside. Thus, we look through the glass of the shop window to see Cleo try on hats, while at the same time, because the window also reflects the street, we can see reflections of pedestrians and vehicles as they pass by. We have a cinematic image of overlapped spaces. (Fig. 3-4) Here, the glass of the shop window possesses two attributes: transparency and the ability to reflect. Another example is a scene from *Identification of a Woman* (1982) where Antonioni placed the camera outside the window glass to shoot towards the interior, where the hero and his female friend stand facing the window. In this shot, in which the camera remains fixed, we can see both the two figures and the scenery they look at in the reflection on the window. (Fig. 3-22) One could use two shots to film this scene: first to shoot the figures, then to shoot the scenery outside the window. However, Antonioni's one shot increases the density of the cinematic image. In this case, the window glass is a reflector as well as a transparent frame.

There are, of course, other forms of reflectors, such as the water surface from the opening minutes-long shot in Cuarón's film *Roma*. The director uses the water on the ground to reflect the view above: the skyline of the house, and the plane flying over the sky. In all these shots, although we can only see reflections of spaces through the reflector, it brings in an unseen space that is much broader than what we can see, the out-of-field. The reflector is like a window with two functions: the view it presents is important, as well as the invisible space it links to.



LEFT

RIGHT

UP Fig. 3-19 *Loos Ornamental* (2008)

UP Fig.3-20 *Antonie and Colettehe* (1962)

MIDDLE Fig. 3-21 *Identification of a Woman* (1982)

MIDDLE Fig. 3-22 *Identification of a Woman* (1982)

DOWN Fig. 3-23 *Madame de...* (1953)

DOWN Fig. 3-24L *l'avventura* (1960)

3.3.2.3 Positions of Figures

In fact, characters in films do not move or act constantly. Sometimes, their positions associating with others objects could constitute layers. In this section, I focus on the position of human body in space. In the last section, the cases of the reflector, such as the scene from Truffaut's *Antoine and Colette* (Fig. 3-20) and the one from Antonioni's *Identification of a Woman* (Fig. 3-21), have already touched on this issue.

Roy Anderson once commented:

Just making an interesting scene, a living still life, a living scene. They don't have to say anything. (...) Art is full of situations, where people find themselves in frozen positions. Since they are so well captured, so well placed, they tell us a story without saying anything.¹⁷

It is true that in Roy Anderson's films, dialogues are quite rare. He carefully chooses the positions of his figures, similar as a painter's work on the composition of a painting.

Positions of figures can refer to the spatial relationship between human body and the built environment, as well as the spatial relationship between or among different people. In a scene from *Madame de...* (1953), directed by Max Ophüls (1902-1957), the heroine is placed behind a ticket window, which is constituted by wire nets. Such a *mise-en-scène* is a metaphor of the heroine's situation: she is going to trap herself in an affair. (Fig. 3-23) Her position within the film set creates the metaphor. In Antonioni's *L'avventura* (1960), he expressed the inner feelings and emotions of the characters through their positional relationships. Whether on the deserted island or in the city, the characters are always placed in well-designed positions to present feelings of being lost, turbulent and uneasy. At the end of the film, the hero Sandro (Gabriele Ferzetti) runs out the door to look for Claudia (Monica Vitti): he sees her, but he does not go to her directly, and instead he silently goes straight in another direction, reaches a bench, sits down and begins to cry. The position of the hero and heroine shows the incommunicable moment of alienation between two people. (Fig. 3-24) Although Claudia eventually moves towards Sandro and touches his head to comfort him, he looks back at her. This touching scene, narrated entirely

¹⁷ From an interview in the documentary film *Tomorrow's Another Day* (2011), made by Johan Carlsson, the producer of Roy Anderson's film, *You, the Living* (2007).

through motion and position, presents the lovers' conflicted mental states and emotions. Nicholas Ray's (1911-1979) film *Johnny Guitar* (1954) is also an excellent example that shows rich spatial relations between human body and the built environment, as well as between or among different figures. In the last plot, there is a shot when the hero Johnny and the heroine Vienna have to fight against their rivals, Emma and Kid, the four of them use the house and the environment as a cover. Their positions constitute a quadrilateral that reveals the tense atmosphere among them. Through all the cases, we can see that positions of figures could be a significant way of expressing emotions and feelings, and creating atmospheres.

3.3.3 Summary

The study of potential movement leads us to a space with layers. The frame, the reflector, even human body could become tools for creating layers. More importantly, they could stimulate potential movements between different layers. The window, which divides inside from outside, may imply a movement from inside to outside, or from outside to inside. Through a window, no matter from which direction we look, we observe a scenery that is constituted of perceptible movements; through the connection of inside and outside, the unseen "force" is a potential movement. When a new layer appears, not only can it carry movements within it, but also it can establish potential movements between it and other layers. That is to say, the layer, which is perceptible, is important for stimulating potential movement, which is imperceptible. Just as light can illuminate a space, and the perceptible movement can declare a space, the layer can visually imply potential movement.

3.4 Conclusion: Human Behavior and Spatial Layers

In cinematic space, as well as in real-life space, the built environment, we have the perceptible movement that includes bodily movements, and the potential movement that could be stimulated by layers.

When study the perceptible movement, human behavior is the most important factor for architects. As I argued in Chapter 2, human behavior and atmosphere have an intriguing relationship: the former is an important element for the latter, which means human behavior could create an atmosphere; the latter is also an important influence on the former, since atmospheres can shape human behavior as well. Both aspects would interest architects, who are most likely eager to design a space with a charming atmosphere, as well as a space that could stimulate certain human behavior, or in other words, a space that could generate predictable human behavior. Human behavior is capable of creating emotions as well as atmospheres. However, human behavior is unpredictable, it could lead to the defamiliarization of the built environment. Through the study of perceptible movements in cinematic space, we have developed two categories of bodily movements: the first is behavior with a specific aim or purpose, which can be called “action”; the second is aimless movement, full of incidents and possibly even unconsciousness, the behavior of *flânerie*. Further, it is significant that unexpected and accidental events can impinge on both types of movement. Although architects try to shape people’s actions and behaviors through architectural design, we have to admit that human actions and behaviors are tied to the occasionality of daily life.

The occasionality of everyday life actually leads to the study on the potential movement. Space cannot be defined by certain causality, nor can human behavior. The unknowable and unpredictable, the potential movement that has not yet happened, also must be accounted and designed for. Since the potential movement is a poverty of space, space must allow and even enable unknown and unpredictable human behavior to occur. While the meaning of layers in architectural space is slightly different from that in cinematic space, the cinematic type of layer could become a method of design. I will deepen the study of layers and movements in cinematic space (Chapter 4) and architectural space (Chapter 6).

So far, the theoretical and conceptual exposition of cinema comes to an end. In Part II, I will continue with case study on cinema and architecture. In Chapter 4, I am going to treat cinema as a synthesis, by focusing on the works of three film masters,

Fellini, Antonioni, and Ozu. Their films are great representatives through which, we could find a concrete way and methods of film studies that could benefit architecture.

PART II

Chapter 4: Case Study on Cinema

4.1 A Film of Flâneur: *La Notte*

4.1.1 An Overview of the Film

Michelangelo Antonioni's film *La Notte* (1961) is a great case to study movement in cinematic spaces. In this film, we see plenty of shots that use deep-focus, and which contain numerous layers that suggest potential movements. We also discover a plot revolving around an urban flâneur, which brings perceptible movements of the human body.

The film tells the one-day story about a middle-class Milanese couple that faces a crisis in their relationship. The husband, played by Marcello Mastroianni, is a writer who is constantly attracted to other young and beautiful women. The wife, played

by Jeanne Moreau, is from a wealthy family and conducts her own “adventure” as a flâneuse. They try to maintain their marriage: the wife accompanies her husband to his book party; the husband voluntarily confesses to his infidelity; they go together to the bar and join in their friends’ party; however, their minds cannot help but to drift apart. The troubled, struggling relationship haunts them at all times. At the end of the film they have a heart-to-heart talk on a park lawn, hoping to draw closer to each other. However, it turns out to be just another futile and hopeless attempt to rescue their marriage. Similar to *L’Avventur* (1960) and *L’Eclisse* (1962), Antonioni offers neither solutions nor answers, nor does he look forward to a hopeful future. Rather, he only describes and represents a confusing situation.

In *La Notte* as well as in Antonioni’s other films, the alienation of modern life is always the theme, the figures are always confused and lost: a woman is really missing in *L’Avventur*; the city and the landscape is vast and centrifugal; everything is dreamy and uncertain. In a word coined by the film critic Andrew Sarris (1928-2012): “Antoniennui.”

4.1.2 The Cinematic Flâneur

In this film, the cinematic flâneur is the wife, who silently leaves her husband’s book party to begin her own flânerie, which seems to have no clear aim or destination. She walks alone through the city across streets and through many buildings; she meets a crying little girl in a dilapidated courtyard, where she also sees a broken clock; she accidentally witnesses a group of gangsters fighting; she watches fireworks with some strangers in an open park... The director makes his audience saunter alongside the heroine, to see the banality of urban life (mostly the life of the working class), to feel lost and to feel the loneliness. Antonioni tells a feeling, an atmosphere rather than a drama.

In this film, not only does the director show us the randomness and occasionality of everyday life, but also he presents plenty of seemingly unimportant details. It is a common characteristic in Italian neorealism cinema that directors intended to capture the whole and integrated situation of daily life, just as I argued in Chapter 3, what De Sica did in *Umberto. D.* There is always sometime in daily life, even if

we are not flânering around the city, we can flânerie anywhere in a sort of sense. Such as the scene when the husband comes back home after his book publishing party. His wife is out flânering and he has to be at home alone (although their maid works at home). He looks extremely bored reading the letter he just received and falls asleep while reading them. Antonioni took plenty of time and shots to film the scene of reading letter, he believed it is necessary to make such shots.

I think it is important to establish, to capture the moments in the life of a character that appear to be less important. When all has been said, when the main scene is over, there are less important moments; and to me, it seems worthwhile to show the character right in these moments, (...) because they serve to clarify everything that has happened, as well as what is left of it inside the character.¹

Further, during the heroine's flânerie, Antonioni framed several brilliant shots that established a new form of narrative. Continuous with the scene of her leaving the book party, the wife walks down a busy street. When the wife walks out of frame, the camera does not follow her immediately, but instead continues to shoot some irrelevant passengers. (Figs. 4-1 & 4-2) It is similar to others shots in which the director lets the heroine walk into a crowd while he captures some anonymous pedestrians in the foreground, which most attracts the audience's attention. With the foreground occupied by irrelevant figures, the audience is "forced" to notice something not directly connected to the main story. However, that is the intact reality the director tends to present. Presenting trivial movements in everyday life is similar to Benjamin's comments about cinema: it reveals the unconsciousness of human being.² Another example is the sense after the heroine calls her husband at an open-air store, in which the director intentionally shot two women talking at a table in the background. Antonioni captured some scenes that seemingly like the "background" of the heroine's life, but treated them as serious as if they belonged to the main story line. By doing so, he presented an extremely rich and real daily life, and opened opportunities of looking at our everyday life from new perspectives.

¹ Antonioni (2007), pp. 8-9.

² See Benjamin (2008), p. 30.

4.1.3 Layers and the Potential Movement

Although Antonioni did create some cinematic images that move “towards rarefaction” and some that feature “shallow space” in this film, he mostly preferred to compose deep space with frames and layers. In the film, we find almost every possible use of frames to create layers. The most common frame is the window, which always plays a significant role. In one scene the couple visit their sick friend in the hospital, there is a big window in the small ward. Through the window, the director shows his audience buildings, streets and traffic, even a helicopter, all of which is not just background for decoration, but which also seemingly has nothing to do the main story line. (Fig. 4-3) Another scene during the husband’s book party features a small window in the background that shows the busy traffic on the street. (Fig. 4-4) Those windows suggest to the audience: the limited room on the screen is connected to an endless unseen space outside the screen, to Deleuze’s concept of *out-of-field*. There are plenty similar scenes in the film, especially those taken in rather limited spaces. In the scene of the couple driving a car, the camera shot inside the car, where the space is quite small; but through the car window, the view is extended to the endless outside space.

Antonioni occasionally put figures into the frame to create a “stage”, such as one scene from the evening party where the wife observes her husband through a glass window talking with a young woman, their friends’ daughter. (Fig. 4-5) In this case, the heroine’s attention, as well as that of the audience, is drawn into the frame, which implies that she is (and we are) watching a “show”, an important scenario.

Similar to *Rear Window*, the relationship of urban neighborhood has also be explored. After his book party, the husband stays home alone. He wanders the apartment, goes on to a small balcony to talk with a female neighbor, then walks to another big balcony where he occasionally observes another man standing by the window in another apartment. (Fig. 4-6) They both live in modern high-rise apartments and seem bored. The frames here – windows, balconies, doors – help to define and confine a specific space and indicate its ownership. The process of seeing others through a frame (mostly a window) implies a potential movement from the viewer’s position to the other she/he sees.

Besides windows, Antonioni as well extensively used the reflector. In an urban context, he preferred to use glass walls or windows to reflect the vividness of urban life. In the beginning of the film, along with the rhythmic music, the camera



LEFT

RIGHT

UP Fig. 4-1 The heroine walks in the foreground, *La Notte* (1961)

UP Fig. 4-2 The heroine walks out of the shot, and two irrelevant passengers, from the background in Fig. 4-1, walk into the foreground, *La Notte* (1961)

MIDDLE Fig. 4-3 The heroine watches a helicopter outside the window, *La Notte* (1961)

MIDDLE Fig. 4-4 The window in the room shows the busy traffic on the street, *La Notte* (1961)

DOWN Fig. 4-5 Through "frame", the heroine watches her husband talking with a young lady, *La Notte* (1961)

DOWN Fig.4-6 The husband notices a stranger standing by the window in another apartment, *La Notte* (1961)

executes a movement that begins at the top of a skyscraper (which is supposed to be Gio Ponti and Pier Luigi Nervi's Pirelli tower): it is a linear movement downwards, along the façade of the glass wall, which reflects a modern urban scene. In this case, the reflector – the glass wall of the skyscraper – and the reflections both represent the modernity of the city. (Figs. 4-7 & 4-8)

Further, Antonioni was fond of creating a frame that was both transparent and reflective. The scene where the husband meets a young woman at the evening party is indicative: at first, the shot shows the reflection of the husband; later, the husband himself shows in the shot and walks into the hall to talk with the young woman. (Figs. 4-9 & 4-10) The window here increases the density of space, and shows flexible relationship between the outdoor and indoor spaces.

Figures of the film are also capable of creating layers, as I argued in Chapter 3. Antonioni always carefully arranged the positions of figures as part of mise-en-scène and framing. Such as the scene after the book publishing party, there is also a shot of a woman and a "net". When the wife leaves her husband's party, the director places the camera behind a fence to make a long shot: the fence is in the foreground, while the heroine shows up in the midground and background, and then walks away from the camera to the street in the background. In contrast to the heroine from Ophüls's *Madame de...*, Antonioni's heroine seemingly escapes a cage (her marriage) as she begins her free and aimless flânerie. (Fig. 4-11) The position of the figure becomes a metaphor.

4.1.4 Sounds

For Antonioni, sounds are unquestionably spatial. He successfully combined sounds, the audio images, with the visual images to create movements and spaces.

Surprisingly, Antonioni rarely used music as soundtrack in this film, except for the beginning plot. As I argued in the last section, the camera moves from the top of a glass wall downwards, accompanied by the soundtrack, a piece of rhythmic music that expresses a strong rhythm through time, that work together to embody this rhythm within cinematic space. Rhythm is an important factor both for music (the art of time) and architecture (the art of space), which reminds us of the classic



LEFT

RIGHT

UP Fig. 4-9 *La Notte* (1961)

UP Fig. 4-10 *La Notte* (1961)

MIDDLE Fig. 4-11 *La Notte* (1961)

MIDDLE Fig. 4-12 *La Notte* (1961)

DOWN Fig. 4-7 Pirelli tower,
La Notte (1961)

DOWN Fig. 4-8 Pirelli tower, Milan

observation: architecture is frozen music. Other so-called soundtracks in the films are actually “ambient sounds” that match specific scenes. In the scene of the club, the jazz dance is accompanied by music, and so is the night party.

Since music is rarely used, ambient sounds become especially important. Antonioni’s attitude towards sounds is the same as his attitude towards visual images. He captured ambient sounds as rich as possible. A great example is the scene at night when the heroine drives in the rain with a male friend. From the images we can see them two sitting in a car and talking. However, we can not hearing theirs words but just the heavy rain. An mysterious and ambiguous atmosphere is created by the sound of the rain.

Similar with Tarkovsky’s *Offret*, aircrafts appear as well in the film, twice actually. One scene is what I mentioned in the last section, the scene in the hospital: the wife hears the sounds of a helicopter and walks to the window to look outside. (see Fig. 4-3) Another scene follows the heroine as walks in the city and hears an aircraft and then looks up to check for a plane. Different from the first helicopter, the director never shows us the plane this time, but our mind is inevitably connected to the endless sky. (Fig. 4-12) In these two cases, sounds from outside the visual image helps to broaden the cinematic space into an invisible yet extended dimension. Meanwhile, sounds here become the unexpected incidents that reveal the occasionality.

4.1.5 Summary

Through the film *La Notte*, we can study movements and space from three aspects: first, as the perceptible movement, the heroine’s behavior of flânerie helps to reveal the randomness, occasionality, even unconsciousness of daily life; second, the potential movement can be studied through the layers in cinematic space; third, sounds help to create movements and spaces. It is not only *La Notte*, Antonioni’s films always have magnificent scenes with particular work on mise-en-scène and framing, which could be inspiring for the study of space.

4.2 A Film of Metaphor: *8½*

4.2.1 An Overview of the Film

I will continue my study on human behavior by focusing on the metaphor and meaning of movements. A representative case would be Federico Fellini's (1920-1993) *8½* (1963). The background as to how Fellini created this film is quite intriguing. Fellini made it when he was 43 years old, arriving at the peak of his career with an important film *La Dolce Vita* (*The Sweet Life*, 1960) that won the Palme d'Or at the 13th Cannes Film Festival (1960). Owing to this great prestige, the whole world was anticipating what Fellini would do next. Fellini answered the world with the astonishing film, *8½*. This film tells the story of how the hero, a famous film director Guido (played by Marcello Mastroianni), conceives and prepares to make a film, creating a subtle relationship with Fellini's situation at that time. Perhaps the only difference is that in this film, the hero Guido fails to carry out his film project, while Fellini completed it and achieved great success, winning Best Foreign Language Film at the 36th Academy Awards, USA (1964). Truffaut once highly praised the film:

Films about medicine annoy doctors, films about aviation exasperate fliers, but Fellini has managed to please filmmakers with *8½* which is about the difficult pregnancy of a director who is getting ready to shoot a film. (...)

Fellini has been an actor, a screenwriter, a circus buff, a designer. His film is as whole, as simple, as beautiful, and as honest as the one that Guido, in *8½* wants to make.³

In this section, I choose a few fragments of the film to analyze its display of mental and psychological spaces through the perceptible movement of human behavior. This film interweaves scenes of "reality" (the present), "imaginary" (dreams) and "memory" (childhood) in which various actions happen. Reality leads us to the imaginary world, opening a path from the physical to the spiritual world.

³ Truffaut (1985), p. 272.

4.2.2 Human Behavior, Space and Metaphor

The hero, Guido, lives in a life full of imaginations, dreams and memories, hence, the film is full of symbolic dreams and imaginary scenarios that represent metaphors about human behavior and space.

The film begins with the first dream of the hero. In the dream, he is driving a car during a bad traffic jam. Being confined to a small suffocating car and facing the gaze of many strangers makes him fretful. He manages to escape from the car window and fly into the sky. However, he later finds himself tied to a rope tugged by a man standing on the beach. He struggles to get rid of the rope, but he fails and finally falls into the sea with great fear. (Figs. 4-13 & 4-14) The dream ends, and Guido wakes up suddenly in panic. The beginning of the film already sets up the emotions of the hero: he is trapped in his life; he longs for a free space, an escape, but he is still dragged back to his difficulties. As the film goes on, we can see that Guido feels restless about his life, marriage, and career.

In a later scene of Guido's memory, the little Guido plays with his friends at the sea. They all like to watch a woman, the prostitute lives by the sea, dancing and singing. The vast seashore forms a space of openness and freedom. In strong contrast is Guido's Catholic school. With high white walls and small windows, the interior of the school is cold and ascetic. The little Guido looks unhappy and full of fear at school. Such a memory leads to an imaginary scene in the life of the adult Guido. In a large and white public bath with ritual atmospheres, Guido is summoned to see the bishop. Here, there is no church but a bath that is imagined as the metaphor of a church. Guido does not meet the bishop in person, but through a "window". Why Fellini (Guido) chose the window? At Catholic school, the little Guido used to confess through the window to the priest. The window becomes a metaphor, a way of connecting Guido with a spiritual world – in the film, it refers to a rigid religious world that the little Guido fears of.

Among all the metaphors in the film, I believe the biggest one relates to the hero's issues with his mother. One obvious indicator of this is that, after falling asleep with his lover, Guido dreams of his mother. In his dream that happens in an imaginary place in which Guido's parents are buried, the most noteworthy aspect is the perceptible movement presented through moving cameras and the technique of montage (Figs. 4-15 & 4-16) As discussed in Chapter 3 with respect to the example of Resnais's *Night and Fog*, the camera moves like a ghost in cinematic space. The

perceptible movement here does not follow one specific figure; hence, it constructs a pure movement separate from human behavior. It presents the movement itself, a pure movement that moves from one figure to another, from one spot to another. The perspective seems to be changing and moving all the time. With this changing perspective, we can see how photography and montage combine perfectly to create a truly free movement, reminiscent of the concept of flowing space created by Mies van der Rohe.

The next three plot points I am going to discuss are all related to the metaphor of the mother issue, and more specifically the metaphor of the womb. The first happens at a party where Guido is invited by the magician to take part in a trick, which invokes memories of his childhood. The young Guido, who doesn't seem to like bathing, runs around the house to avoid the bath. For a second, he runs under a table, a perfect place for a child to hide. However, he is inevitably caught by the adults, and has to bathe in a large tub with other children. After that, he is carried out and wrapped up in a piece of white cloth (Figs. 4-17 & 4-18). The table under which little Guido hides and the white cloth that enwraps him both appear again later in the film. If their meaning is initially ambiguous, it becomes clearer later.

In a later scene in Guido's imagination, the adult Guido is surrounded by women in his life, including his wife, his lover, female colleagues, female friends, etc. It echoes the earlier scene of bathing in his childhood. Just like when he was a child, he is wrapped in white cloth by women after bathing (Fig. 4-19). The action of wrapping is a metaphor for the womb, which used to make the hero feel safe but to which he can never return.

The third related event happens at the press conference. Facing all his colleagues, as well as reporters and their questions, Guido feels overwhelmed and begins to imagine himself fleeing under the table, echoing the scene from his childhood. However, even though he tries to seek protection under the table as a metaphoric womb, people still haunt him (Fig. 4-20). He has nowhere to run and shoots himself with a pistol. It is notable that before this imaginary suicide, his mother reappears. Although it is an imaginary suicide, it indicates the completion of the film project. After the imagination, Guido seems to be reborn. He accepts the divorce from his wife and the failure of his career.



Fig. 4-13 8½ (1963)



Fig. 4-14 8½ (1963)



Fig. 4-15 8½ (1963)



Fig. 4-16 8½ (1963)



Fig. 4-17 8½ (1963)



Fig. 4-18 8½ (1963)



Fig. 4-19 8½ (1963)



Fig. 4-20 8½ (1963)

4.2.3 Summary

Different from Antonioni's *La Notte*, in *8½*, Fellini used amount of amazing soundtracks to render atmospheres. Various feelings and emotions are presented through music. We do not even need to see the visual images, just listen to the soundtracks, we could feel nervous, anxious, relaxed, cheerful, and any other kind of emotion that Fellini intended to tell.

Fellini's *8½* shows us how metaphor works with human behavior and the built environment. In all the hero's memories, dreams, and imaginations discussed in the last section, human behaviors and actions are perfectly combined with buildings, furniture, and daily necessities to constitute meaningful metaphors. Besides that, the moving camera shows us the truly free and pure movement in space. Such a pure movement reveals the quality and potential of space.

4.3 Ozu's Everyday Life: *Late Autumn*

4.3.1 An Overview of the Film

As one of the most internationally influential Japanese directors, Yasujirō Ozu (1903-1963) only focused on the issues of family in his film career. He repeatedly filmed the same theme, as he claimed: "I run a tofu shop. I only make tofu."⁴

Late Autumn (秋日和, 1960) is the fourth color film of Ozu, one of his late work. Afterwards he made only two films more, *Kohayagawa-ke no aki* (小早川家の秋, 1961) and *Sanma no aji* (秋刀魚の味, 1962).⁵ The story of *Late Autumn* is considered to be quite similar with his early film *Late Spring* (晩春, 1949). It tells

⁴ This is the title of Ozu's book *僕はトウフ屋だからトウフしか作らない* (2010). Translated by the author.

⁵ The first color film of Ozu is *Equinox Flower* (彼岸花, 1958), and the second *Good Morning* (お早よう, 1959), the third *Ukigusa* (浮草, 1959).

a story of “marrying a daughter” – the same old theme that appears permanently in Ozu’s films. The film begins with a funeral: the father died, left his wife, Akiko Miwa (played by Setsuko Hara) and his daughter Ayako Miwa, (played by Yôko Tsukasa). Because of the absence of the father, this time, it is not the father who is worried about the daughter’s marriage, it is his friends, the daughter’s uncles who are trying to marrying her well. Meanwhile, one of the late father’s friends, who is a widower, falls in love with the mother, Akiko Miwa, and tries to marriage her. The relationship between the mother, Akiko, and the daughter, Ayako, is delicate and subtle, especially the mother’s love for the daughter. Although the daughter once misunderstood and quarreled with her mother, she finally thought it through and understands the mother’s feeling. Besides the relationship within the family, friendship is also presented by the film. In the end, the daughter meets a young man she loves and gets married; while the mother, Akiko remains single. Begins with a funeral and ends with a wedding, *Late Autumn* shows a circle of life.

4.3.2 Spatial Form and Layers

As I argued in Chapter 1, Ozu constantly fixed his camera in a low position to shoot the scene from a low-angle. With the frequently symmetrical composition, Ozu’s images always have a strong sensation of stability. Although the composition is not always symmetrical, Ozu’s framing still focuss on the sense of balance and stability, which owes great to the low-angle of framing. When look at Ozu’s images, we could find the resemblance with the Renaissance paintings. Such as the scene of the funeral in the beginning, no matter Ozu shot the outer space or inner space of the temple, the composition of framing is always stable. (Fig. 4-21)

Ozu’s stories usually happen at the same places, including where people live – houses or apartments, where people work – offices, schools, and where people entertain and relax – Japanese izakaya, restaurants, hotels... Therefore, his film sets have great similarity; sometimes he even use the same film set for different films. We can see that the office in *Late Autumn* looks exactly the same as the one from *Equinox Flower* (彼岸花, 1958). When he shot those film sets, similar as the Renaissance paintings, there is usually an “ending” of the view within the sight. Even when he shot the scene of an urban space, he still put an ending in his images,

except for some empty shots that are with more blank. In the scene when the daughter stands at the rooftop of her office building to look at the trains passing by, Ozu did not show us any sight of the sky, but shot the scene from a high-angle that the view ends at the buildings in the distance. (Fig. 4-22) The composition of this urban scene is essentially the same with his interior scenes. Ozu's indoor space is clearly confined within the house, even if we can see some outdoor space, it is only a limited area. House is important for Ozu, means a complete world. It is rare to find the *out-of-field* in Ozu's images, even if they exist, they are insignificant. He forced his audience to see and listen to only what he gave in his cinematic images. He created a closed system, a centripetal type, as what I argued in Chapter 3.

How to enrich the contents of the centripetal type of images? Ozu chose layers. Just as the example of the urban scene given above, we can clearly tell the foreground – two symmetrical building and lines of red trucks, the midground – the road, railways and trains, and the background – buildings far away. Ozu created potential movements within his closed system. When it comes to the indoor space, layers become more obvious. The traditional Japanese house has plenty of layers: the walls, windows, doors, glass, pillars... Such as the scene of the mother and the daughter talking in the hotel room, in the foreground sits the daughter, some cushions and tea sets, in the midground sits the mother, and in the background an outside corridor, perhaps a courtyard and the other rooms. (Fig. 4-23) Although the space of a hotel room is not big, it does not look simple or boring. Ozu's camera always shot from a low-angle, giving us a perspective as if we were sitting in front of the characters to watch them perform on the stage. Besides the architectural elements, Ozu carefully arranged all the props that were chosen by himself. From the foreground to the back ground, Ozu usually gave us full of surprise with various and proper props, although they are normal everyday things as a kettle, a chair, a bottle of flowers, etc. As a master of *mise-en-scène*, not only did Ozu dare to shoot “empty shots”, which is rather “rarefied”, but also he worked as a magician to immensely enrich ordinary scenarios with easily overlooked small pieces of objects, which make the frame “saturated”.⁶

A subtle but significant element in the *mise-en-scène* is the glittering light. It first appears in the beginning of the film, when the late father's friend walks through a corridor, on the back wall there is light glittering, seemingly like a reflection from

⁶ Here the terms “rarefied” and “saturated” are from Deleuze's comments on frame, in *The Movement-Image*. Deleuze classified two types of frame: towards saturation, or towards rarefaction. See Deleuze (2013a), pp. 15-16.

a small pound in the courtyard, where we can not see but have to imagine. (Fig. 4-24) Later, the glittering light on the wall appears several times more, from different positions in the house, even in different scenes. (Fig. 4-25) For the audience, we can not explain where the light comes from? I believe Ozu himself did not bother to give an answer. For Ozu, the aesthetics of images are of the most importance, not the logic.⁷ In fact, the *mise-en-scène* never asks for an authenticity or a consistency. We don't need to explain the rationality of this glittering light, just need to feel and understand its effect. The glittering light, although quite slight, evokes a free movement in a rather closed system.

4.3.3 Color and Material

Began in 1958, Ozu made six color films in total. Color was important for him. Because of the love of the red color, Ozu frequently used props in red color. We can see a red kettle appears several times in *Equinox Flower* (see Fig. 1-5), and the red stool (see Fig. 4-21), red trucks (see Fig. 4-22), etc., in *Late Autumn*. Although the color in this film is not as bright as in *Equinox Flower*, but still, it plays an important role.

Ozu's use of color reminds me of Rohmer's films. As I argued in Chapter 2, Rohmer was a master who balanced the color and material, so did Ozu. He was not afraid of using bright colors like red, yellow, green, but as well strongly expressed the materiality of materials as the cloth, wood, leather, and so on. Speaking of color and material, there is an obvious similarity between Ozu and Rohmer's images. They both valued the beauty of everyday life and daily necessities; colors for them are at the service of decorating, not as dominating as in Godard's film, *Pierrot le fou*. Ozu showed us the possibility to evoke the potential of both color and material.

⁷ See Richie (1977), the chapter on shooting, pp. 125-131.



Fig.4-21 *Late Autumn* (1960)



Fig.4-22 *Late Autumn* (1960)



Fig.4-23 *Late Autumn* (1960)



Fig.4-24 The red circle indicates the position of the glittering light, *Late Autumn* (1960)



Fig.4-25 The red circle indicates the position of the glittering light, *Late Autumn* (1960)

4.3.4 Human Behavior and Atmosphere

Most of the time, Ozu's figures are sitting, sitting on the ground, or at the desk, or at a dining table. This relatively static posture makes the figures' positions part of the spatial layers, as I argued in Chapter 3.

Although sitting, figures' actions as eating, drinking, talking, are well presented. Each time when there is a dialogue, between two characters or among more characters, Ozu always made it a complete conversation without any ellipsis. We can see the characters discussing each detail of everyday life, and they never speak hurriedly. Similar as De Sica's scene of the maid getting up (see Chapter 3), Ozu expressed the whole reality of human behavior, although for him, it is mostly through the conversation.

It seems that the characters in Ozu's films would never be furious, ecstatic or extremely sad. They do and say everything in a gentle and mild way. In Ozu's eyes, birth, death, wedding are all common things in everyday life. In the funeral – at the beginning of the film, and in the wedding – at the end of the films, characters never show strong grief or joy. However, it does not mean that Ozu did not care those events. He cared each event in daily life and shot it with great respect. From a normal conversation at the dining table, to the scene of the wedding, Ozu exerted a sense of rite on human behavior.

4.3.5 Summary

Ozu's films always present a banal ordinary life, however, in a ritual, anti-ordinary way. Cinematic atmospheres created by Ozu are full of underlying conflicts. Deleuze commented:

Ozu himself is not the guardian of traditional or reactionary values, he is the greatest critic of daily life. He picks out the intolerable from the insignificant itself, provided that he can extend the force of a contemplation that is full of sympathy or pity across daily life.⁸

⁸ Deleuze (2013b), p. 19.

Ozu's films make me think of the Japanese architect Kazuo Shinohara (1925-2006), whose works successfully create a poetics of everyday life.

From Ozu to Antonioni, we could perhaps find an aesthetic difference between the east and the west. Ozu's composition of frame is full of stability, reminding me of the Renaissance paintings. Antonioni's images otherwise lead to the abstract composition of modern art, with a sense of instability and asymmetry. Although both of them are masters of using layers, they belong to different camps. Ozu's most images belong to the category of the centripetal type, while Antonioni's to the centrifugal type. For Ozu, space is mostly a closed system, but for Antonioni, space refers to an open system. To some extent, we can make an analogy between Ozu's films and Adolf Loos's villas, and another one between Antonioni's films and Mies's works. I will elaborate the architectural spaces of those two great architects in Chapter 6.

Chapter 5: A Case Study on Architectural Atmosphere

5.1 A Brief Introduction: Emil Steffann and His Church Buildings

5.1.1 The First Impression

In Chapter 2, I discussed cases mostly on cinematic atmosphere. In this chapter, I present a case study on architectural atmosphere, by focusing on German architect Emil Steffann (1899-1968) and his works, which may have inspired an important contemporary architect Peter Zumthor (1943-). As an advocate for the Liturgical Movement, Emil Steffann devoted his whole career to modern church buildings. He was one of the most important church architects in the 20th century Germany. (Fig. 5-1) Moreover, Steffann was classified as a member of the “Cologne School” which also included architects Dominikus Böhm (1880-1955), Rudolf Schwarz (1897-1961) and Heinz Bienefeld (1926 -1995), who had established “alternatives

to the New Building” in modern German architecture.¹ Of most importance, Emil Steffann was a genuine church-master (*Kirchenbaumeister*), who used the simplest and purest designs to create the most touching atmosphere. His works always incorporated noble and mysterious divinity with secular humanity, which presents great touching atmospheres.

It is generally believed that church buildings should be sacred, with strong religious even mysterious atmosphere, of which, the Gothic church would be an outstanding representative. However, Steffann’s church buildings may surprise the visitors by both exterior and interior. Take the church St. Maria in den Benden (1955-1959, Düsseldorf) as an example. Looking from the outside, the form of the church is quite simple: a huge sloping roof covering a red-brick-made building, with a slight but delicate cross standing on the top, presenting its own identity as a church. (Fig. 5-2) The church does not erect and point into the sky as a Gothic church; on the contrary, it lies on the ground, embracing the earth. If remove the cross, it would look like an enlarged rural house rather than a church. When enter this church, we may find the altar stand under a lower part of the roof, surrounding by chairs. (Fig. 5-3) When I first visited this church, sit in front of the altar, I feel like God was being in the church instead of the far away heaven – that “God is with me”.

All of Steffann’s works give out the similar atmosphere: peaceful, scared, but full of the warmness of humanity. Both the exterior and interior of his church buildings show great simplicity and asceticism. Apart from a few monastery projects and restoration projects – such as the Münster Cathedral renovation project (Münster Dom, 1952-1955, Fig. 5-4) – most of Steffann’s works was on parish churches (*Pfarrkirche*), which constitutes the focus of my research. A parish church only serves its own region and is generally much smaller than a cathedral in scale, volume, and area. Steffann never intended to give churches a grandiose look, including the Münster Cathedral.

¹ The name of “Cologne School” was coined by German historian and theorist Manfred Speidel in his article, “The Cologne School: The Architecture of Dominikus Böhm, Emil Steffann and Heinz Bienefeld”. Geographically, these architects all came from the state of North Rhine-Westphalia, or close to it. Meanwhile, they had all worked in Cologne and its surrounding areas. They were mostly engaged in the architectural design of church buildings, and used traditional vocabularies and handcrafts. They represented an opposing contrast to the International Style and its abstract “white cubes”. Thus, they created “alternatives to the New Building”. See Speidel, *Architecture and Urban (a+u)*, 1983:07, p. 22.

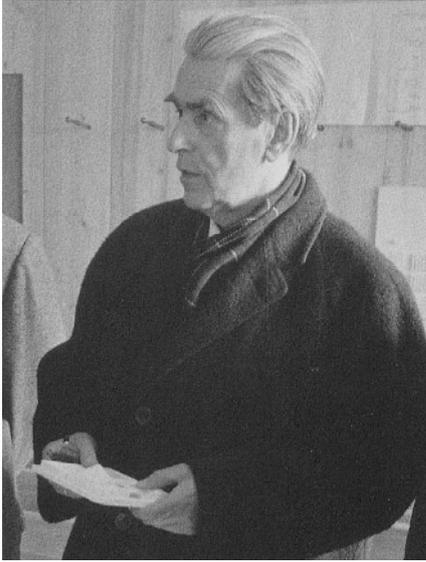


Fig. 5-1 The portrait of Emil Steffann



Fig. 5-4 Münster Cathedral, Münster



Fig. 5-2 St. Maria in den Benden, Düsseldorf



Fig. 5-3 The altar of St. Maria in den Benden, Düsseldorf

Steffann rarely designed tall bell towers for his churches, nor did he give them a symbolised or monumentalised form. Steffann's church buildings never stand out in their environments. They look like "anonymous architecture", which fits well into the environment, such as the churches of St. Laurentius (1952-1957, Munich, Fig. 5-5) and St. Hedwig (1964-1968, Cologne, Fig. 5-6).

Steffann's work reminds me of two churches in the Copenhagen suburbs. One is Grundtvig's Church,² which has a marvelous façade designed by Peder Vilhelm Jensen-Klint (1853-1930). The façade, which was built during the 1920s and was considered to reflect expressionist aesthetics, has a solemn atmosphere much like a monument. (Fig. 5-7) The other is Jorn Utzon's (1918-2008) work, the Bagsvaerd Church (1968-1976), whose white façade and house-like form expresses an affinity with everyday life. The external appearance of Steffann's works may hew closer Utzon's buildings – they both remind people of a "house", of secular life, though their interiors feature significant differences. (Fig. 5-8)

5.1.2 A Biography of the Church-Building Master

Despite his extensive work and his contributions to everyday architecture, Emil Steffann's reputation has been limited to studies of church architecture. A short biography is necessary here, before we go deep into his architectural work to understand the greater significance.

Emil Steffann was born in 1899 into a doctor's family in the town of Bethel, near Bielefeld. In his youth period, he studied sculpture, arts and crafts in Bielefeld and Berlin. In 1921, Steffann built a house in Lübeck for his mother, with his own hands and without any professional architectural education.³ Before he became a professional architect, the most important personal experience was his years of traveling, studying and working in the Italian town of Assisi, during his twenties.

² Grundtvig's Church was mainly built from 1921 to 1927. After Klint's death in 1930, his son Kaare Klint continued to work in charge of on the interior and adjacent buildings until 1940.

³ The personal experience of Steffann in his childhood and youth is recorded in many documents, one of which is Johannes Heimbach's writing. See Heimbach (1995), pp. 42-44.

When Steffann lived in Assisi in 1926, he made two significant decisions for his life – as known as his “double conversion.” The first was to convert from Protestantism to Catholicism. Born as a Protestant,⁴ Steffann did not feel the calling of religion until he travelled to Assisi, a holy town of Catholicism and the birthplace of San Francesco (1182—1226).⁵ His second “conversion” was to decide to become an architect. While working with Danish sculptor Skikylt, Steffann determined to devote himself to architecture, “in which all the plastic arts combined”.⁶ The local landscape and architecture in Assisi – the famous Basilica San Francesco (Fig. 5-9), the numerous little country churches and the Romanesque architecture – became Steffann’s “inner Bilder” (inner image)⁷ and exerted a great influence on his architectural designs throughout his entire career.

Steffann returned to Germany in 1928 and entered Lübeck architecture school (Lübecke Baugewerkschule) to study architecture under Prof. Münch. He followed with a yearlong internship with the German architect Hans Pieper (1882-1946).⁸ That was his relatively short and only professional training on architecture.

In 1931, Steffann became acquainted with Rudolf Schwarz, who became the most significant figure for Steffann’s career, as well as his close friend and “teacher”.⁹ At the time they first met, Schwarz’s first church design, the St. Fronleichnam church in Aachen, had just been completed and Steffann went to visit it. This trip to Aachen brought Steffann into contact with Schwarz and the Liturgical Movement, including priest Romano Guardini ((1885-1968)),¹⁰ and others.

⁴ Steffann’s father Dr. Paul Steffann came from a French religious family believed in Huguenot, which was a group of French Protestants.

⁵ San Francesco d’Assisi (1182—1226) was an Italian Roman Catholic friar, deacon and preacher. He was the founder of the men’s Order of Friars Minor, the women’s Order of Saint Clare, the Third Order of Saint Francis and the Custody of the Holy Land. Francis is one of the most venerated religious figures in history.

⁶ Author’s translation. The original text is “alle Plastik in sich vereinigt”. Heimbach (1995), p. 44.

⁷ Hülsmann (1981), p. 27.

⁸ Hans Pieper (1882-1946) was a German architect, once committed as the director of city planning bureau of Lübeck.

⁹ When Rudolf Schwarz died in 1961, Steffann wrote affectionately: “He (Schwarz) is my real teacher. ... We - he as a teacher, I as a student - are always talking to each other, but we hardly communicate in words.” – Author’s translation. The original text is “Er war mein eigentlicher Lehrer. ... Wir, er der Lehrer und ich der Schüler, haben eigentlich immer miteinander im Dialog gestanden, meist allerdings, ohne miteinander zu sprechen.” See Lienhardt (1999), p. 12.

¹⁰ Romano Guardini was an Italian-born German Catholic priest, one of the most important figures in Catholic intellectual life, especially in Liturgical Movement in the 20th century.



Fig. 5-7 Grundtvig's Church, Copenhagen



Fig. 5-8 Bagsvaerd Church, Copenhagen



Fig. 5-6 St. Hedwig, Cologne

Fig. 5-5 St. Laurentius, Munich



Fig. 5-9 Basilica San Francesco, Assisi



Fig. 5-10 Franciscan monastery, Cologne

Later, Steffann and Schwarz began their cooperation in 1936. Since then, they maintained a 30-year friendship, and helped each other as they sought new ways to design modern church buildings.

Following the war, the demand for churches surged greatly. In 1950, Steffann undertook the reconstruction project for the *Franziskanerkloster* (Franciscan monastery, Fig. 5-10) in Cologne. He rebuilt the church with bricks and stones from the ruins and won a certain reputation. Steffann had since established his own office and worked as an independent architect. Although his office was not big, usually no more than four co-workers, they managed to build more than 40 churches, a number of public buildings, and a few residential projects in nearly two decades. Steffann and his collaborators – his apprentices – have been called as the “School of Natural Building”.¹¹ The “Steffann School” includes Heinz Bienefeld¹² – perhaps his most famous apprentice, Nikolaus Rosiny (1926-2011), Paul Georg Hopmann, Karl Otto Lüfkens, and Gisberth Hülsmann.¹³ Steffann ran his office until his 1968 death in a car accident, at the age of 69.

¹¹ The name of “Schule des unbefangenen Bauens” is given by German architect Manfred Sundermann in his article “Holz und Stein werden dich lehren... Schule des unbefangenen Bauens: Emil Steffann, Mitarbeiter, Schüler”. See Lienhardt (1999), pp. 65-96.

¹² Heinz Bienefeld is probably the most influential architect among Steffann's working partners, except his “teacher”, Rudolf Schwarz. Because of the WWII, Bienefeld could not get an official architectural education, but worked with Dominikus Böhm as an apprentice. Bienefeld later became one of Böhm's most important disciples. After Böhm died, he left Böhm's office and began to work with Steffann in several projects, including the St. Hildegard church in Bonn, St. Remaclus church in Cochem-Cond. Afterwards, Bienefeld established his own office, working as an independent architect. He designed numerous great buildings, mostly small residential projects.

¹³ Gisberth Hülsmann (1935 -) began working with Steffann in 1961, when he was only a young architect who had just finished the study with Egon Eiermann (1904-1970). However, Hülsmann, who was trained by Eiermann but was not very interested in the style of modern architecture, was attracted by Steffann's design concepts, methods and works. In Steffann's last years, Hülsmann completed dozens of design in cooperation with Steffann and other partners, including St. Laurentius church and St. Hedwig church in Cologne. Although Hülsmann has only worked with Steffann less than seven years, this period has a significant impact on Hülsmann's career and the rest of his life. Hülsmann regards Steffann as a figure as his father. When I interviewed him in 2015, he told me that, to him, “Steffann seems have never left.”

5.2 Theories and Principles

As an architect, Emil Steffann actively wrote and spoke about his architectural and design ideas.¹⁴ He knew the importance of summarizing and sharing his thoughts and ideas, while simultaneously practicing architectural design. It is imperative to study Steffann's writings in order to understand his architectural work because he unified thought, word, and deed. His theories and principles reflected his ideas about life or, in other words, his values became his design principles. In what follows, two of Steffann's most important concepts are elaborated: "Armut" and "sinngerechtes Bauen". A close analysis of these terms helps to reveal the principles behind Steffann's buildings.

5.2.1 Armut

The first and paramount design principle for Steffann was **Armut**. Armut is a German word, derived from Christianity, which means the minimum standard of living. It might be translated into English as "poverty". However, "poverty" does not capture the nuanced meaning of Armut, which also includes nobleness and holiness. It might be translated as "holy poverty", but I prefer to retain the original German to preserve its multiple meanings. In the 1950s, Steffann wrote about Armut in a letter to priest Régamey:

The keywords I am seeking for are Armut and simplicity. It is impossible to express it in a shorter and more accurate way. For it seems to me that Armut is not only what must be endured, but also a task that our time imposes on us.¹⁵

¹⁴ All the writings of Steffann have been organized and listed by Susanne Grexa, See Lienhardt (1999), p. 133.

¹⁵ Author's translation. The original text is "Die Leitworte, nach denen ich suche, sind Armut und Einfachheit. Es ist unmöglich, es kürzer und treffender auszudrücken. Denn es scheint mir, daß die Armut nicht nur erlitten werden muß, sondern sie ist eine Aufgabe, die unsere Zeit uns auferlegt." See Hülsmann (1981), p. 44.

Steffann's pursuit of Armut was related closely to his experiences in Assisi, where he had taken the vow of Armut. Inspired by his religious beliefs, Steffann endorsed the spirit of Armut wholeheartedly. He not only took Armut as his primary principle of architecture, but also led a simple life, occupying a simple wooden house with his family from 1950 until his death.

Steffann's belief in Armut also related to the post-war situation. After the war, people faced cities full of ruins. Building tall and magnificent churches, to pursue a divine place with a glorious and spectacular atmosphere, seemed a logical response to such destruction and death. Steffann, however, pursued the contrary. Working in devastated cities, he tended to reuse bricks and stones from the ruins. He accepted the reality of material shortage and poverty and built churches with a simplicity, genuineness and sincerity that was almost ascetic. His buildings expressed the principle that Régamey shared with him in a letter: "our churches must express this idea to the world: essentially, we need very little."¹⁶ Steffann did not consider Armut to be terrible or shameful, but as a quality that may exist in the virtue of a noble man. He believed that only when people accepted Armut could they build the Church.¹⁷ That is to say, the spirit of Armut was the fundamental and prerequisite principle for church buildings.

5.2.2 Sinngerechtes Bauen

Another important concept brought for Steffann was "sinngerechtes Bauen". He first articulated in his 1963 speech, "Rationality and Authenticity of Materials in Church Buildings" (*Materialgerechtheit und Materialechtheit im Kirchbau*).¹⁸ In his remarks, Steffann elaborated four subprinciples, as well as four requirements, to achieve "rationality and authenticity of materials:"

1. to understand materials properly, the precondition of which is to handle

¹⁶ Author's translation. The original text is "Unsere Kirchen müßten die Welt lehren, daß zum Wesentlichen sehr wenig genügt." See Lienhardt (1999), p. 55.

¹⁷ The original text is "Das ist unsere Unglück. Wir sind arm und wollen es nicht sein. Ja, hätten wir die Einfalt der Armen, wir könnten Kirchen bauen." See Lienhardt (1999), p. 58.

¹⁸ The speech was first published in 1963. See Lienhardt (1999), pp. 55-58.

- materials in high-quality handicrafts;
- 2. the structure of a building must be reasonably developed from materials;
- 3. to suit the church's location and situation;
- 4. "sinngerechtes Bauen".

The first three subprinciples are concrete and understandable. However, Steffann did not paraphrase on his fourth point, "sinngerechtes Bauen", which requires further unpacking. "Sinngerecht(es)" is an adjective that modifies "Bauen" ("building" in English). The adjective "sinngerecht" is a compound word, in which "-gerecht" is a suffix, meaning "relating to". The German word "(der) Sinn" is a noun, which has meanings similar to the English word "sense". German architect Manfred Sundermann has interpreted "(der)Sinn" in two ways: one is the biological meaning, which refers to the senses and perceptions of human body, including vision, hearing, smell, touch and taste; the second is the philosophical meaning, which means being valuable and meaningful to human being. The second meaning derives from the first. After all, it is the senses that makes man able to perceive. And, based on perceptions, man can obtain and understand the value and significance carried by things.¹⁹

With his demand for sinngerechtes Bauen, Emil Steffann led us back to the experience of our sensory perception, which has been satisfied by our building (action). He also directed us to the world perceived through senses, which consists of things that are given a meaning by our building (action), and through this, we have reached the essence of them.²⁰

To sum up, "sinngerechtes Bauen" has two meanings: first, it means "sensuous building", which leads people to pay attention to bodily perception and experience in buildings; the second is based on the first one, that is "meaningful building", which encourages people to find the essence of things and to understand the

¹⁹ Sundermann has written an article "Sinngerechtes Bauen" to explain its meanings. See Hülsman (1981), pp. 8-9.

²⁰ Author's translation. The original text is "Mit seiner Forderung nach einem sinngerechten Bauen verweist Emil Steffann uns zurück auf die Erfahrungswerte unserer sinnlichen Wahrnehmung, denen unser Bauen Genüge zu tun hat, und auf die durch die Sinne wahrgenommene Welt der Dinge, denen wir mit unserem Bauen einen Sinn geben und darüber hinaus in ihrem Wesen gerecht zu werden haben." See Hülsman (1981), p. 8.

meaning of buildings through perception. Thus, the concept of “sinngerechtes Bauen” reveals a process of human experiences with architecture: first, to perceive; then, to understand.

“Sinnrechtes Bauen” is a requirement demanded by Steffann. He required architects to treat materials and structures with respect and honesty. Only in this way could man correctly perceive materials and buildings, and through perception, grasp the meaning of architecture. To define Steffann’s design as “sinngerechtes Bauen” is appropriate. Although all of his church buildings seem very simple, they touch people with their great simplicity. The unique atmosphere of Steffann’s works can only be understood through experience.

5.3 Form

5.3.1 The Abstract Form: Liturgical Movement and the New Plan

When talking about modern church buildings in the 20th century, the Liturgical Movement’s influence must be taken into account. Church architects sought new ways to build modern churches along lines developed by the Liturgical Movement. Steffann once said: “Action is everything, form is nothing.”²¹ “Action” here refers man’s behavior during liturgy; “form” refers to the visible shape of space. For Steffann, as well as for other Liturgical Movement advocates, the most important criterion for a modern church is to offer a space for the new liturgy. Under the influence of the Liturgical Movement, the most direct and distinguished change in church buildings occurred in their layouts. The new liturgy suggested that the altar should not only represent the center of the church, but also stand close to people.

²¹ Author’s translation. The original text is “Handlung ist alles, Form ist nichts.” See Hülsmann (1981), p. 51.

Unlike previous arrangements, the altar was situated so that it could be surrounded by chairs, creating a relationship between the altar and believers that is more intimate and more flexible.

In the beginning of Steffann's career, He intended to create the new religious space that would suit the new demands of the Liturgical Movement. In 1932, Steffann was commissioned by the Catholic community in Lübeck to design the procession of the Feast of Corpus Christi.²² Influenced by the Liturgical Movement, Steffann designed a new form of this traditional liturgical feast in which the altar was the core of the parade and achieved a great success. The movable altar was surrounded by the clergy formed in a closed ring. This project showed Steffann's ties to the Liturgical Movement, and it was credited as his "first church".²³ This "first church" was not constructed out of bricks or stones, rather it was formed by people and human behavior. The people, their clothes, their behaviors, and the form of the parade created a religious atmosphere, a movable church without architectural materials. (Figs. 5-11 & 5-12)

Later, in Steffann and Schwarz's first cooperation, the design project for the St. Anna Church in Berlin-Lichterfelde (1936), they proposed a significant idea:

...man could imagine to build a church in a new ground plan and in an old, historical form. Compared with that to build in a modern form with an old ground plan, the former could suit more to our new wish.²⁴

In other words, they believed that a modern church should have "a new ground plan + an old form". (Fig. 5-13) Unfortunately, this project was not realized. If it had been, it would have represented the first church designed for the new liturgy. Nevertheless, it showed elementary principles in Steffann's theories about design.

²² The Feast of Corpus Christi (*Fronleichnam* in German) is a liturgical celebration that usually held as an outdoor procession, in which the Bishop and clergy would participate. The date of the feast is not fixed. It could be the thursday after Trinity Sunday, or 60 days after Easter, or the Sunday immediately following this.

²³ The expression of Steffann's "first church" is from Günter Rombold's article "Maßstab der Architektur ist der Mensch", See Lienhardt (1999), p. 15. Steffann himself had written an article about this project, named "Ein Beispiel Religiöser Festgestaltung". The article is collected in Lienhardt (1999), pp. 13-14.

²⁴ Author's translation. The original text is "... man könnte sich vorstellen, daß eine Kirche, die nach neuem Grundriß in alten, historischen Formen erbaut würde, eher zu unserem neuen Wollen passen könnte, als eine, die in ,modernem' Formen über altem Grundriß entstanden wäre." See Heimbach (1995), p. 35.

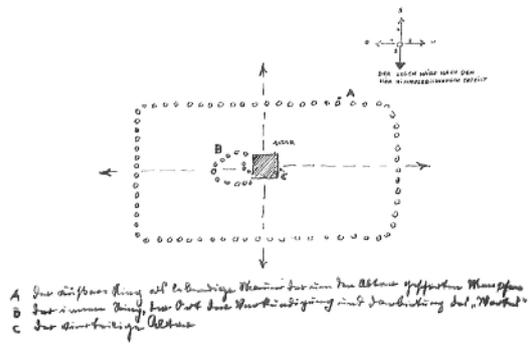


Fig. 5-11 Steffann's Sketch of the procession of the Feast of Corpus Christi



Fig. 5-12 The procession of the Feast of Corpus Christi, Lübeck

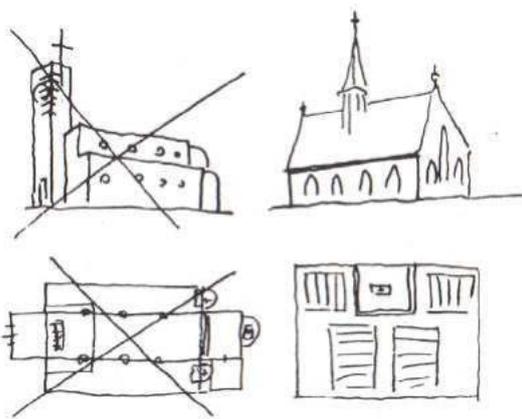


Fig. 5-13 Schwarz's Sketch: "a new ground plan + an old form"

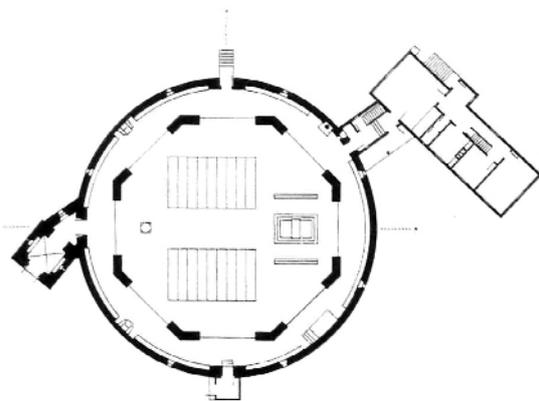


Fig. 5-14 The plan of St. Hildegard, Bad Godesberg

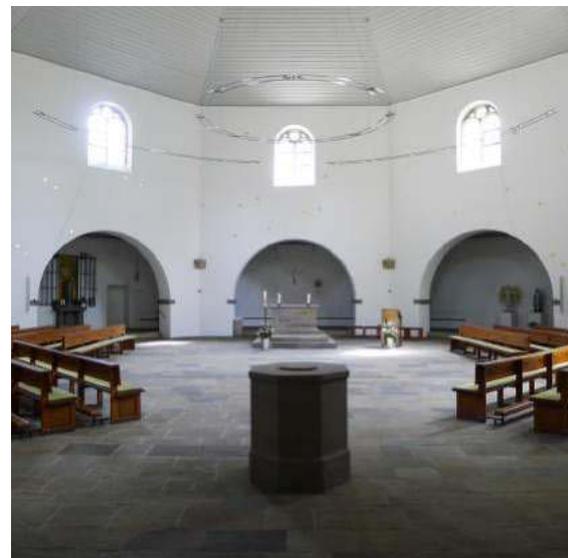


Fig. 5-15 The interior of St. Hildegard, Bad Godesberg

The new ground plan carried a new form as well. Steffann believed that the form of the church should be determined by the new liturgy, not by the shape of the building.

All of Steffann's subsequent churches were designed to suit the new liturgy. Although their ground plans appear to vary, he always designed the altar as the core of the space. In Schwarz's "seven plans", except for the first plan "holy ring", the others all focus more or less on the "direction". Schwarz intended to lead people to establish a connection with the far away heaven through churches. He was keen in creating a mental space beyond the church space.²⁵ Different from Schwarz's "seven plans", Steffann constantly favored a centripetal plan. He intended to create a mental space within the church space. A centripetal plan would help to form an inward power. The altar is not a path outwards toward heaven, but a means to bring God into the space. St. Hildegard Church in Bad Godesberg (1957-1962), the project that Bienefeld and Hülsmann were engaged in, can be considered as one of his ideal plans for church buildings. (Figs. 5-14 & 5-15)

5.3.2 "The Old Form"

At the beginning of his career, Steffann decided to give modern churches an "old look". Reviewing his works according the external appearance, his parish churches can be sorted into two types: one is the "vernacular" church and the other is the "geometry" church.

An early work, the "Notscheune" (Emergency Barn) in Boust, Lothringen, is representative of the first type.²⁶ In 1942-1943, Steffann was commissioned to reconstruct the village of Boust, which was almost completely destroyed by aerial bombing. Steffann conceived a plan of a church with a plaza, however, in order to avoid Nazi persecution or censure, he could not call the building a church. Instead he referred to it as "Notscheune", or "Scheunenkirche" (Barn Church).²⁷ While it

²⁵ Schwarz's elaboration of "seven plans" is originally from his writing "Vom Bau der Kirche". See Pehnt (1997), pp. 86-89.

²⁶ Boust is a commune in France. Today it belongs to Moselle department. During WWII, the Lorraine region was once occupied by Nazi. France got Lorraine region back after the war.

²⁷ See Heimbach (1995), p. 101.

was originally designed as a church, it was never actually used as such, and was instead used as a public barn by local residents, a fact that Steffan knew.²⁸

During wartime, the barn-like church not only took the form of a “disguise”, but also offered a place to stock harvest in need. Who can say that it was not the wish of God? (Fig. 5-16) The Barn Church in Boust is the most important built church in Steffann’s early career before 1950s. It became a significant reference for his later works and if we compare it with the St. Bonifatius Church in Krefeld, this similarity becomes quite apparent. (Fig. 5-17) The Barn Church reflects Steffann’s careful thoughts on landscape and environment. He believed that a church building should not only respond to its own aesthetic effects, but, and most importantly, it should suit its local situation, which includes its external environment and social situation. Looking at drafts Steffann drew for the Barn Church, the new church, located on the main road of the village, harmoniously fit its environment. With no tall bell tower, nor pompous look, it was nothing more than a simple barn that belonged in such a rural village. (Fig. 5-18) This fit with his third requirement of the “rationality and authenticity of materials”, as outlined in section 5.2.2.²⁹ In order to respond to the church’s “situation”, Steffann controlled two aspects of its construction: first, the form of the church, and second, the use of materials (see section “5.4 Materials”).

It is worth noting that not only in this case but in all cases, Steffann preferred to give the church a vernacular and local look, so that it appeared to be an agricultural building or enlarged farm house. He not only subordinated the church to its environment, but also successfully added a piece of everyday banality into the divine holiness. The Barn Church’s form was simplified as much as possible.³⁰ It expresses Steffann’s belief in *Armut*. Meanwhile, it contains some of Steffann’s most commonly used architectural vocabularies: thick, massive walls and strong buttresses (Figs. 5-19, 5-20, & 5-21); arches and arch-shaped windows. (Figs. 5-22, 5-23, & 5-24)

²⁸ See Heimbach (1995). p. 102.

²⁹ The original text is: “...nur auf sich und seine ästhetische Wirkung bezogen ist, der Situation aber, in welcher eine Kirche errichte wird, nicht gerecht wird. Zur Situation gehört sowohl der Bauplatz mit seiner Umgebung als auch die innere und äußere Lage der Gemeinde an diesem ihr bestimmten Ort.” Lienhardt (1999), p. 56.

³⁰ See Lienhardt (1999), p. 100.



Fig. 5-16 The Barn Church, Boust



Fig. 5-19 A historical street in Assisi



Fig. 5-17 St. Bonifatius Church, Krefeld



Fig. 5-20 The wall of St. Hedwig, Cologne

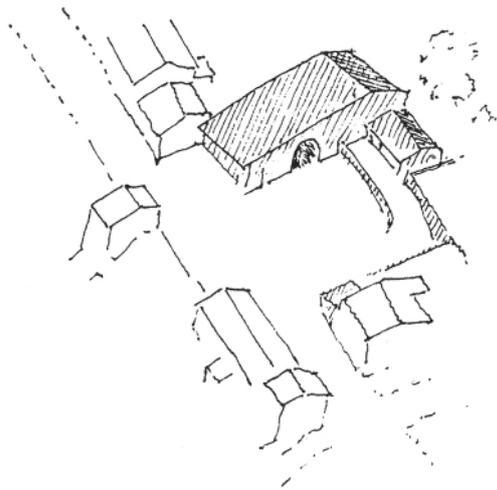


Fig. 5-18 Steffann's sketch of the Barn Church in Boust

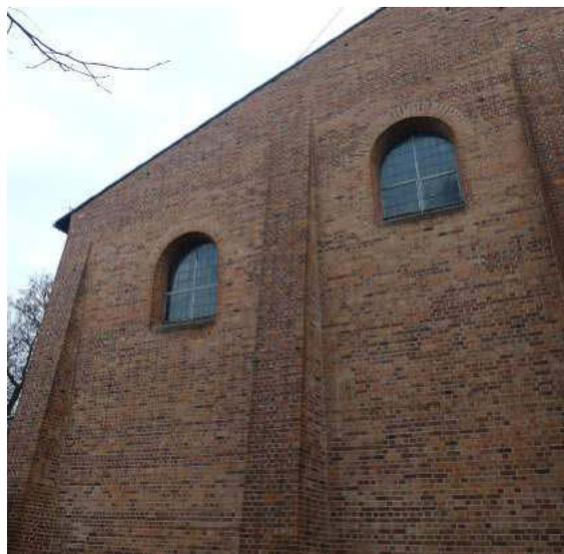


Fig. 5-21 The Wall of St. Laurentius, Munich

These elements were developed from historical buildings in Assisi – Steffann’s “Inner Bilder” (inner image) – and it can be difficult to differentiate his works from Assisian originals. He had great respect and interest in history, but he did never look for the rationality of the classic architecture, what Heinz Bienefeld had sought. Steffann was more interested in “Italian vernacular” buildings.³¹

It is true that Steffann’s interest in “Italian vernacular” vocabularies cannot account for all his works. In the other type, “geometry” churches, we can find one “parabola” church, St. Bonifatius Church in Lübeck (1951-1952, Fig. 5-25), six “cube” churches, including St. Helena in Bonn (1961, Fig. 5-26), St. Augustinus Church in Düsseldorf (1961-1969, Fig. 5-27), etc., and two “triangle” churches, including St. Maria in den Benden (see Figs. 5-2 & 5-3) and Gemeindezentrum Heilig Geist in Mühlheim (1965). As suggested by their names, these churches’ forms can be understood as comprising one or several combined geometric volumes. In the “geometry” type, Steffann chose from different architectural vocabularies. He no longer used arches or buttresses; instead, he used long striped ribbon windows, which suggested a more modern, streamlined look. Nevertheless, Steffann’s “geometry” churches conformed to his basic design principles: centripetal layout, large volumes and tall walls, masonry construction, and most of all, responsive to location and environment. Among those, St. Helena Church in Bonn is a very unique case that properly responds to the urban context. Located on a city street, its main façade faces the street. To give the church an atmosphere of urbanism, Steffann designed a “cube” box with a facade covered by black slate instead of red brick.

Rural or urban context, vernacular or geometric form, Steffann never deliberately highlighted the church building itself. He had no interest in making the church stand out of its environment and preferred to give the church a humble appearance. It is little wonder that his church buildings are considered to be “anonymous architecture”.

³¹ See Speidel, “*The Cologne School*”, *Architecture and Urban (a+u)*. 1983, 154(07): 24.



Fig. 5-22 The courtyard of San Damiano, Assisi



Fig. 5-25 A "parabola" church: St. Bonifatius, Lübeck



Fig. 5-23 The Interior of St. Laurentius, Munich



Fig. 5-26 A "cube" church: St. Helena, Bonn



Fig. 5-24 The interior of Franciscan monastery, Cologne



Fig. 5-27 A "cube" church: St. Augustinus, Düsseldorf

5.3.3 Proportion and Scale

The proportions of his church buildings are mysterious and precise but possess great beauty. Priest Cappellades once commented on the St. Elisabeth Church (1950-1958) in Opladen:

...the large, bare surfaces which do not have any ornament, and the nude building body, apparently without any arranged phantasy, are neither empty nor boring. The reliability of the forms, the precision of the proportions, and a certain grace that touch the visitor in their modest manner, create a real nobility, not an arrogant, but a casual, poetry-filled nobility.³²

The huge but simple volume of the church shows its humble nobility, which is the spirit of Armut. (Fig. 5-28)

However, to find a regular pattern of proportion in Steffann's work would prove difficult. Gilsberth Hülsmann, one of his apprentices in the "Steffann School", once pointed out that Steffann usually used handmade models to study building proportions.³³ Bienefeld used to mention that proportion was a "taboo" topic that Steffann found awkward.³⁴ We have reason to believe that Steffann did not follow the classic law of proportion (as Bienefeld did), and instead he worked out proportions based on perception, experience, and even out of intuition. He preferred large volumes without any deliberate segmentation on the façade. The product of this proportion remains a little mysterious.

On the topic of "scale", Steffann gave a clear answer in both words and deeds. As early as 1937, he put forward that, "the measure of architecture is the human being."³⁵ In contrast to the huge volumes of church buildings, Steffann often designed details here or there with a "small scale" that suited the human body. On

³² Author's translation. The original text is "... die großen, nackten Flächen, die keinerlei Ornament tragen, die hüllenlosen Baukörper, anscheinend ohne jede Phantasie hingestellt, sind weder leer noch langweilig. Die Zuverlässigkeit der Formen, die Genauigkeit der Proportionen und eine gewisse Anmut, die den Betrachter in ihrer bescheidenen Art anrühren, schaffen einen echten Adel, keinen hochmütigen, sondern einen ungezwungenen, poesieerfüllten Adel..." See Hülsmann (1981), p. 46

³³ From author's interview with Hülsmann in 2015.

³⁴ Bienefeld said: "Dieses Thema war tabu... Steffann war es peinlich." See Bienefeld, "Bauen mit Stein. Heinz Bienefeld im Gespräch mit Nikolaus Kuhnert und Manfred Speidel." Arch+. 1986, 84: 30.

³⁵ Author's translation. The original text is "Maßstab der Architektur ist der Mensch". See Lienhardt (1999), p15.



Fig. 5-28 St. Elisabeth Church, Opladen



Fig. 5-29 The prayer's window on the west wall of St. Laurentius, Cologne



Fig. 5-30 The main entrance of St. Bonifatius, Krefeld



Fig. 5-31 The door handle of the main entrance of St. Bonifatius, Krefeld

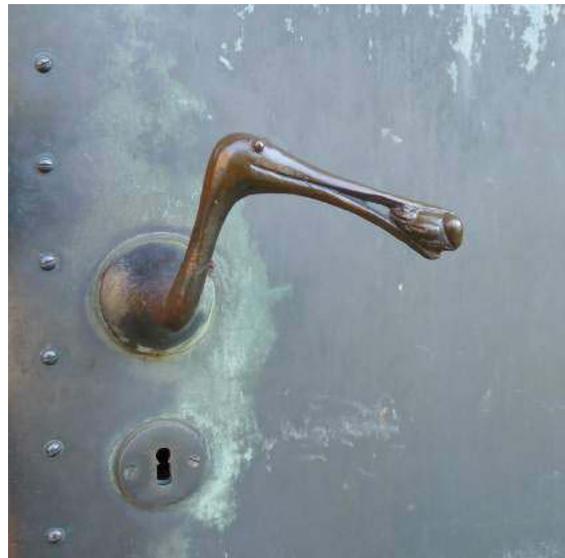


Fig. 5-32 The door handle of the secondary entrance of St. Bonifatius, Krefeld

thick and massive walls, he would always install small windows or doors, which resembled those found on local houses, such as the small window for prayers on the west wall of St. Laurentius in Cologne (1960-1962, Fig. 5-29) Another noticeable design method was his design for entrances. Steffann always made the entrance a relatively small space: sometimes he designed a corridor covered with a low roof to lead people to the entrance; other times he attached a small room to the big volume of the church as the entrance so that people would not feel lost facing a tall building, and would instead always find a welcome entrance designed for the human body. (Fig. 5-30) Besides, as mentioned earlier, sometimes Stefan lowered the roof of the altar instead of raising it (such as the church St. Maria in den Benden in Düsseldorf, Figs. 5-2 & 5-3). These design methods all take care of the scale of human body.

Besides, Steffann paid attention to each detail of the church. All the lamps, furniture, especially door handles, and any other articles that people need to use in the church, were carefully chosen. During my interview with Ms. Renate Kloss, who works at the St. Bonifatius Church in Krefeld, she told me that, “I am deeply fond of the door handles in this church. Every time I open the door, I feel comfortable and welcomed by the church.”³⁶ (Figs. 5-31 & 5-32) I believe this is Steffann’s way of taking care of the people who use the church.

Steffann’s combination of large proportions and small scales is reminiscent of Robert Venturi’s comments on his own “mother’s house” in *Complexity and Contradiction in Architecture*: “it is both complex and simple, ... big and little.”³⁷ The huge proportion seems come out of no rational ratio, which brings an atmosphere of holiness, nobility and Armut, while the scale was designed at human scale to welcome people to the holy space. The spatial quality of Steffann’s churches was described as reflecting “the spatial quality of anthropology”.³⁸

³⁶ The interview took place in 2015, Krefeld.

³⁷ Venturi (2002), p. 118.

³⁸ Author’s translation. The original text is “anthropologische Raumqualitäten”, from the article “Quellen menschlichen Seins und Bauens offenhalten,” by Günter Rombold, See Hülsmann (1981), p. 10.

5.4 Materials

5.4.1 Stone and Brick

Steffann preferred wood, stone and brick for building materials, although he occasionally used concrete. All the facades of Steffann's church buildings are made from either brick or stone. In the following, I am going to summarize his principles for building materials.

The first principle was to use local materials. The reconstruction project for St. Bonifatius Church (1952-1958, Figs. 5-33 & 5-34) in Dortmund provides a significant example. The façade is made of sandstone, which were sourced from a local quarry about 30 minutes drive from the church. Steffann once said, "Personally, I would not build reinforced concrete churches in villages, or suburbs with a rather intact pastoral style. Instead, I would choose materials that have been used in local houses for a long time."³⁹ Steffann's attitude towards choosing materials, as well as his understanding of the relationship between the building and its environment, in another word, its "context", was a precursor to later transformations that occurred in postmodern architecture.

Second, Steffann preferred to reuse discarded materials from ruins or from older buildings. In the reconstruction project of Franziskanerkloster (monastery) in Cologne (see Figs. 5-10 & 5-24), he rebuilt the church with bricks and stones from the ruins. This was the first time that he discovered the glamour of "waste". In a later project for the construction of St. Hedwig Church in Cologne, he sourced stones used to build the walls from old buildings. (see Figs. 5-6 & 5-20) Today, recycled materials, such as old bricks and stones, are considered to be both an environmentally friendly and energy-saving approach, and to lend buildings a look of nostalgia and history. The "old look" has already become an aesthetic in contemporary architecture, especially when the "context" is taken into account. An outstanding example of this movement is the Art Museum in Ravensburg (Kunstmuseum Ravensburg, 2010-2013), for which the architects chose recycled bricks for the façade to give the building a "historic" look that suits its surroundings.

³⁹ Author's translation. The original text is "Ich selbst würde in ein Dorf oder in eine einigermaßen intakte ländliche Umgebung zum Beispiel keine Eisenbetonkirche setzen, sondern würde die Materialien bevorzugen, die hier seit alters zu Hause sind". See Lienhardt (1999), p. 56.

In the “context” of the immediate postwar period, the need to use recycled materials was driven by shortages in materials and supplies. Waste and ruins might represent the only resource for obtaining building materials. As Steffann pointed out: “(to suit) the situation that includes both the construction site and its environment, as well as the internal and external situation of the religious community in this particular place.” Here, “the external situation” referred to the social situation. In the project at Franziskanerkloster in Cologne, the use of recycled bricks fit not only the spatial environment, but also the special historic period. The bricks from ruins reminded people of a certain time when their society was “Armut”. Therefore, through materials, Steffann created a bridge that connected the present and the past.

His third principle was to respect the nature of materials, which can be seen as a part of his first requirement of “Materialgerechtheit und Materialechtheit”: to understand the material. Since Steffann always favored natural materials like stone and brick, he chose materials with rough surface, and in various colors and shapes. Even for red bricks, there are different shades from light red to dark red to purple-red and so on. (Fig. 5-35) Further no two bricks or stones were identical. Thus, his façades were rich in texture with subtle changes in color. Even if, when the interior walls required white paint, they were not plastered completely flat or smooth, but retained the shape and texture of the masonry.

5.4.2 Craftsmanship

Natural stone and brick remind people not only of the nature of materials, but also of craftsmanship. Steffann once quoted Schwarz’s words in the article, “Baufibel für Lothringen”: “What man can understand through words, what man can operate with eyes and hands, is his scale: his handcraft.”⁴⁰ These materials Steffann chose, stones and bricks, were suitable for handcraft. Steffann believed that materials should be handled as high-quality handcrafts. Craftsmanship is also contained in the first requirement of “Materialgerechtheit und Materialechtheit”.

⁴⁰ Author’s translation. The original text is: “Was ein Mensch im wörtlichen Sinne begreifen, was er mit Auge und Hand wirken kann, das ist sein Maß: sein Handwerk.” See Lienhardt (1999), p.75.

How then to do the masonry work? If we compare the façades of Steffann's churches with those of Dominikus Böhm and Heinz Bienefeld, who were fond of craftsmanship as well, we can clearly tell the difference. Böhm and Bienefeld favored making masonry work as decoration, and it is possible that Bienefeld inherited this practice from Böhm. For the Maria Königin Church in Cologne (1952-1954), which they built together, Böhm designed a façade with masonry decorations: he arranged bricks so that their short sides faced down. (Fig. 5-36) Bienefeld also designed a façade with decorative masonry for St. Willibrord Church in Tier (1969-1973): he laid bricks vertical or at angles in order to give the church "an outstanding piece of clothes" to catch people's attention.⁴¹ (Fig. 5-37) Such an attitude was quite opposed to Steffann, who always intended for church buildings to become anonymous architecture.

...the new church, or the extension of an old one, would work out better the more it fits into its environment without extravagance and without attracting attention, the better the less one asks about the architect.⁴²

Masonry work in Steffann's churches is precise but simple, with a quality of abstinency that corresponded with Steffann's belief in Armut. Steffann never pursued anything for the reason of pure decoration, or unnecessary in function. He valued the natural texture of materials and built them in the simplest way, which expressed his respect for craftsmanship: to use the handcraft but not to show off the technique. When we look at Stefan's church buildings, we are moved by those bricks and stones with a rich texture, even without patterns or decorations on the facade. Stone, brick, and masonry create an image that is distant from the abstraction of "white cube" architecture, as well as the cold precision of industrial manufacturing. Steffann's materials and craftsmanship carry an affinity for nature and the human body.

⁴¹ See Bienefeld, Arch+. 1986, 84: 26.

⁴² Author's translation. The original text is "Ich meine, die neue Kirche, beziehungsweise der Erweiterungsbau einer alten wird um so besser gelingen, je mehr er sich ohne Extravaganzen und ohne auffallen zu wollen seiner Umgebung einfügt und je weniger man nach dem Architekten fragt." See Lienhardt (1999), p. 56.



Fig. 5-33 St. Bonifatius, Dortmund



Fig. 5-36 The masonry of St. Willibrord, Tier



Fig. 5-34 Sandstones of the wall, St. Bonifatius, Dortmund



Fig. 5-37 The masonry of Maria Königin Church, Cologne



Fig. 5-35 The red-brick wall of St. Bonifatius, Krefeld

5.5 Lights and Sounds

Steffann had a unique understanding of natural light. He rarely made his churches bright, and preferred dark interiors. He always designed small but accurate windows in thick walls, to handle natural light in a delicate way. Even when he occasionally designed large windows, he often chose translucent glass or stained glass, such as for the St. Elisabeth Church (Fig. 5-38) and for the St. Bonifatius Church (Fig. 5-39) in Dortmund. Even though his design featured largewindows, the natural light remained limited and soft.

It seems that for Steffann, the primary state for the space is darkness: natural light shines into the church to illuminate a limited area, and as such, the light creates an aura, from which an observer can detect different degrees of brightness and darkness. Through thick and tall walls, together with small windows, the interior of the church is still quite dim. Steffann meant to create a mysterious and calm atmosphere that would force people to retreat from the outside world and focus on the inner world. The layout, the centripetal plan, not only formally, but also mentally, creates a space where people can be calm and talk to their own hearts, immersing themselves in the spiritual world. Such an atmosphere is perfect for meditation. (Fig. 5-40)

Peter Zumthor, a supporter of Steffann's work, was deeply touched by the wonderful light-atmosphere when visiting St. Laurentius Church in Cologne. He found it so amazing that could not imagine how Steffann figured it out.⁴³ This church is a representative case of Steffann's "cube" churches. (Fig. 5-41) In this church, as in his other "cube" churches, Steffann designed long, strip-shaped windows beneath the roof and on the upper part of high walls, except along the east wall (where the altar is located). These long, narrow windows connect to form a U-shape. On a sunny day, a ribbon of light caused by natural light appears on the east and south walls, and its position shifts over time. (Figs. 5-42 & 5-43) This long U-shape window might remind some of Le Corbuiser's ribbon window, especially the one at the Convent of Sainte-Marie de La Tourette (1955-1962, Fig. 5-44). Besides this U-shape window, Steffann only made use of small windows on the east and west walls. Due to the limited natural light, artificial lighting is

⁴³ Zumthor once visited the church with the architect Gisberth Hülsmann, and he was surprised by the design of the light. From the author's interview with Hülsmann in 2015.



Fig. 5-38 The arched window of St. Elisabeth, Opladen



Fig. 5-41 A "cube" church: St. Laurentius, Cologne



Fig. 5-39 The arched window of St. Bonifatius, Dortmund

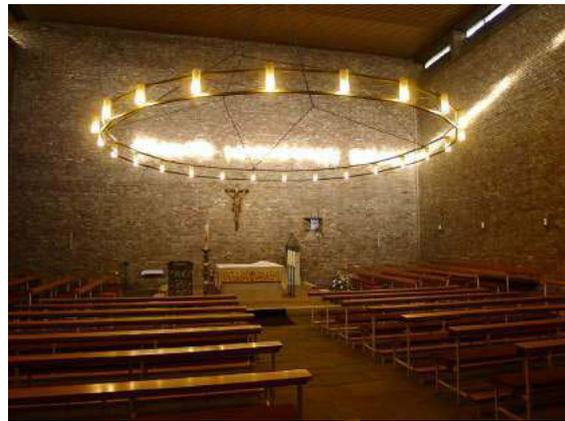


Fig. 5-42 The ribbon window of St. Laurentius, Cologne

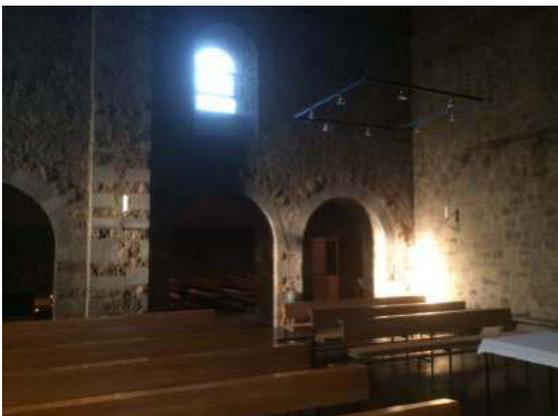


Fig. 5-40 The natural lighting in St. Hedwig, Cologne



Fig. 5-45 The artificial lighting of St. Bonifatius, Dortmund

usually required during mass services. His artificial lighting designs are also an important part of his interiors, and Steffann usually worked with church artists to create custom lamps for the churches, such as the St. Bonifatius Church in Dortmund. (Fig. 5-45)

Generally speaking, the interior of this church is dim during daytime. The experience of entering the church, similar to Steffann's many other churches, is surprisingly wonderful. When people open the door to enter the church, moving from a bright outdoor space to a dark indoor space they would feel completely blind for a moment. However, after a few minutes, when their eyes adjusted to the new environment, people will slowly regain the ability to see. The interior space would slowly reveal itself to its visitors. The interior walls, furniture, corridors, the altar, everything slowly emerges into people's vision. This experience is like to deprive the visual ability of human body out of a sudden, and then to return the sense quite slowly to the human body. Light is not given at the beginning, and it seems that Steffann intended that visitors move from perceiving nothing to everything, from darkness to lightness. In this way, Steffann created an interior that forces people to face their "inner space".

Inside the church, not only natural light but also sounds are isolated from the outside world. People can only hear the ring of the church bell, the music played by the organ, the songs from the choir, and the words delivered by the priest. All of these sounds, as well as the symbolic elements of churches, were carefully planned. Besides that, it is always silent inside a church. However, when exiting the church, one may experience more sounds from the natural environment. The St. Laurentius church in Cologne has a square courtyard, which is an excellent example of incorporating sounds from nature. The beautiful courtyard, which unfolds at the entrance to the church, has a religious cross-fountain. Around the courtyard, there is a circular corridor (the so-called "grey space"), each side of which has a rainspout in the center of its roof. On rainy days, the rainwater flows from the rainspout and into the fountain. Steffann conceived a strategy to integrate the building with nature, to make rain a religious scene, to highlight the relationship between man and nature. In this interaction with nature, man finds the meaning of architectural space. (Fig. 5-46)



Fig. 5-42 The ribbon window of St. Laurentius, Cologne

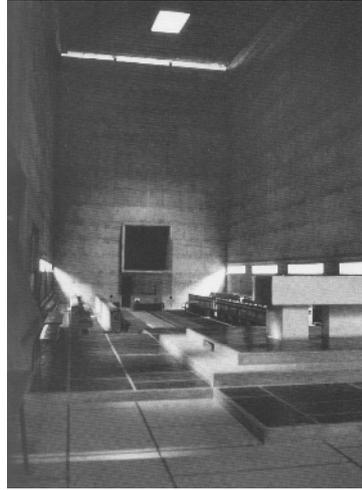


Fig. 5-44 The ribbon window of the Convent of La Tourette



Fig. 5-46 The courtyard of St. Laurentius, Cologne



Fig. 5-47 The woodcut "Hope" by Gerhard Marcks

5.6 Summary⁴⁴

The most precious virtue in Steffann's works is its atmosphere of nobility and simplicity, divinity and humanity. In Steffann's church buildings, simple as they are, we can see the magic he achieved with the form and materials. With his belief in Armut, simplicity, and the authenticity of materials, Steffann created unique atmospheres, which are not only sensuous but spiritual and emotional.

Steffann's churches create a sacred and religious atmosphere and express a concern for people. For Steffann, architecture's prototype should be the "house" (Das Haus).⁴⁵ From his acquisition of the woodcut "Hope" (Die Hoffnung, 1945, Fig. 5-47) by the German sculptor Gerhard Marcks (1889-1981), we can discern Steffann's understanding of architecture: a house that shelters. He believed that essentially church buildings are no different than the houses people inhabit, and that a building should give people both spiritual and physical protection. This simple insight recalls the story of the birth of Christ: an ordinary, humble stable became a place that sheltered both the human and the divine.

In sum, visiting Emil Steffann's church buildings fascinates, as one starts by perceiving the physical space, and are then led to the mental space. Steffann was a master of creating atmosphere, and his concern with liturgy and human behavior leads us to our next discussion of movement in space.

⁴⁴ This chapter is based on the author's previous publication as a paper written in Chinese, see Quanquan Liu, *The Church-Architect from "the Cologne School": Emil Steffann and his Architecture of "Armut"*. *The Architect*. 2019 (02), vol.198: 24-32.

In this chapter, the sections and subsections of 5.2.1 *A Biography of the Church-Building Master*, 5.2 *Theories and Principles* (including sections 5.2.1 & 5.2.2), 5.3.2 "The Old Form", 5.3.3 *Proportion and Scale*, 5.4 *Materials* (including sections 5.4.1 & 5.4.2) are modified from the previous publication. The subsections of 5.1.1 *The First Impression* & 5.3.1 *The Abstract Form: The Liturgical Movement and the New Plan* are mostly originally written for this dissertation. In the section of 5.5 *Lights and Sounds*, the content regarding "lights" is based on the previous publication, and the part regarding "sounds" is original. The figures in this chapter are partly chosen from the previous publication, and partly original. See *Credits of Figures*.

⁴⁵ See Steffann's article in magazine *Gottesdienst* (1937), published by Schwarz's liturgical circle in Burg Rothenfels. See Hülsmann (1981), p. 28.

Chapter 6: Case Study on Movement in Architecture

6.1 Frame and View in Chinese Gardens

As I argued in Chapter 3, there are two types of frames: the first is centripetal, while the second type, which Deleuze defined as “out-of-field”, is centrifugal. The centripetal frame causes the viewer to pay attention to the scenery inside the frame, and seems to resemble a picture frame or the boundary of a stage. The picture frame emphasizes a view or tableau of a place, while the stage focuses on the performance of people on a set. The centrifugal frame is an opening and a connection, for example, a window through which the interior view/space is connected to a broader exterior space.

Chinese gardens embody both types of frames. In the first type, as in the “empty window” in the *Xiangyue Veranda* (Chines: 响月廊, Fig. 6-1) in the *Garden of*

Cultivation (Chines: 艺圃, Yi Pu),¹ the frame works as a closed system much like Hitchcock's framings: an opening through which visitors appreciate a picturesque view from their standing position. There is indeed space beyond the window. However, the space beyond is only for people to observe, and is not to be entered into. There is a clear boundary between the viewer and the view. In this case, the frame and its view appear similar to a picture.

The second type of frame also has various representatives. It can be a window, a lattice window, or an "empty window" as well. However, it leads to a view of an open system: the view is not confined to visible images framed through the window, but opens onto a much wider "outside" space. The second type of frame is more common in Chinese gardens, such as the one in *Lingering Garden* (Chines: 留园, Liu Yuan),² from where people can see the *Hanbi Mountain-house* (Chines: 涵碧山房) on the other side of the lake. (Fig. 6-2) Through this window, not only we can appreciate a beautiful view, but we also can actually find a path to the view we see. Many open windows are aimed at revealing the space "behind the wall", the space far away but accessible. (Fig. 6-3) Besides the open windows, another typical architectural element that works as the second type of frame in Chinese Gardens is the *Moon Gate* (Chines: 月门). It indicates the out-of-field more strongly and directly, since the gate is itself something for people to walk through. After all, its original and basic function was as a door through which people could move from one spot to another. Meanwhile, it differs from a more typical door not only because of its beautiful shape that resembles the moon, but also due to the view and spectacle that it faces. Thus, it works both as a frame for a picture and as an opening that invites people to walk into the picturesque view, such as the beautiful moon gate in the *Garden of Cultivation*. (Fig. 6-4)

In addition, if we carefully observe a Chinese Garden, we discover frames everywhere. Corridors and buildings are always quite open and connect with each other through "frames". (Figs. 6-5 & 6-6) If the whole garden seems like a closed system, separate from the world outside, within the garden it is in fact an open system.

¹ The *Garden of Cultivation* (Chines: 艺圃, Yi Pu) is a classical Chinese Garden located in Suzhou that was built in 1541 (during the Ming Dynasty).

² The *Lingering Garden* (Chines: 留园, Liu Yuan) is one of the largest Chinese Gardens in Suzhou and was built in the Ming Dynasty and renovated in the Qing Dynasty.



Fig. 6-1 The "empty window" in Xiangyue Veranda

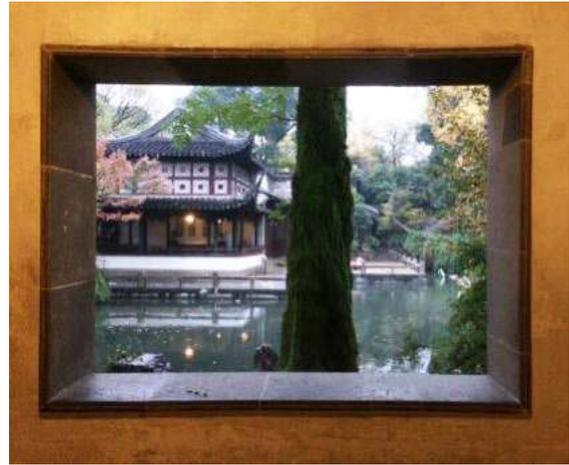


Fig. 6-2 An open window in Lingering Garden, the view towards the Hanbi Mountain-house



Fig. 6-3 An open window in Lingering Garden

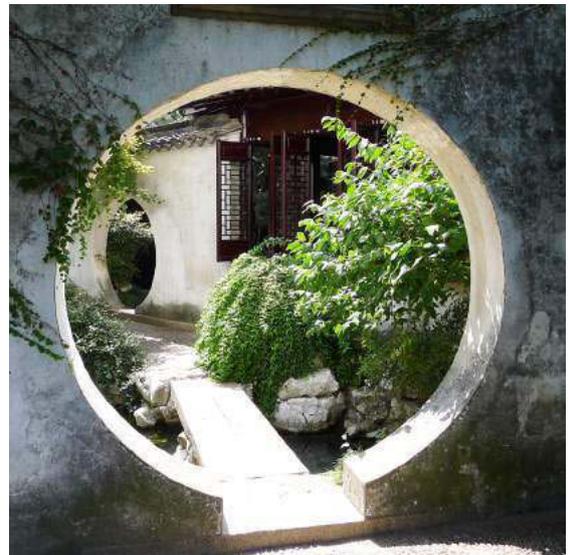


Fig. 6-4 A moon gate in the Garden of Cultivation



Fig. 6-5 A corridor in Lingering Garden



Fig. 6-6 The view from Qingfeng Chiguan (清风池馆) towards Xiao Penglai (小蓬莱) in Lingering Garden

To sum up, the second type of frame, which indicates the out-of-field, is more common in Chinese Gardens. In this case, the boundary between the viewer and the view no longer exists since we can actually walk into the view we see, though of course our position relative to the view changes. It reveals an intriguing difference between the aesthetics of classical Chinese art and the aesthetics of European art. The Hungarian film theorist and critic Béla Balázs (1884-1949) once argued:

A basic principle of European aesthetics and art philosophy from the ancient Greeks to our own time has been that there is an external and internal distance and dualism between the spectator and work of art. This principle implies that every work of art by force of its self-contained composition, is a microcosm with laws of its own. It may depict reality but has no immediate connection and contact with it. (...) Even if I hold a painting in my hand, I cannot penetrate into the painted space of the picture. I am not only physically incapable of this, but my consciousness cannot do it either.³

After outlining this principle, Balázs continued to argue that, “this feeling of insuperable distance”, the dualism of the spectator and work of art is not applicable to all nations. Then he gave two Chinese tales – one about a painter who appreciates his own work and goes into the painting of the landscape after it is done, and the other about a young man who falls in love with a lovely woman in a picture and enters the picture to live with her – to demonstrate that for the ancient Chinese, the attitude was quite the opposite. “The spectator does not regard the inner world of a picture as distant and inaccessible,”⁴ as the viewer can enter the work of art (a painting, for example). Although I cannot discern the exact sources for Balázs’s tales, in classical Chinese literature we do find similar stories. In *Liaozhai Zhiyi* (*Strange Stories from a Chinese Studio*, Chinese: 聊斋志异) there is a story named “The Painted Wall” (Chinese: 画壁), which tells a young man entering a mural in a temple to meet a beautiful maiden.⁵

Balázs believed that cinema is an art that required a new philosophy of art, since it

³ Balázs (1952), p. 49.

⁴ Balázs (1952), p. 50.

⁵ *Liaozhai Zhiyi* (Chinese: 聊斋志异) is a collection of tales written by Pu Songling (Chinese: 蒲松龄, 1640-1715) from the Qing Dynasty. The Chinese version of the story “Mural” (Chinese: 画壁) see 蒲松龄 (2002), 《聊斋志异选》, pp. 12-16. The English translations have plenty of editions. An early version was translated by Herbert A. Giles, see Pu, Songling (1916), *Strange Stories from a Chinese Studio*, pp. 6-8.

“disregards the principle of self-contained composition”,⁶ which is exactly what Chinese Gardens present to people: we can walk into the picturesque landscape once framed like a picture. The literati, the designers of Chinese Gardens, who were generally the owners of the gardens, were deeply influenced by Chinese painting. As in the tales recounted by Balázs, the idea of entering and travelling into a picture was a common aspiration for the Chinese literati. In the *Summer Palace* (Chinese: 颐和园)⁷ in Beijing there is a particular place called “travelling in a picture” (Chinese: 画中游), where people can encounter beautiful views.

As Balázs argued, ancient European art did not allow people to cross the boundary between the spectator and the work of art. However, “in the cinema the camera carries the spectator into the film picture itself.”⁸ The American director Woody Allen created a story, *The Purple Rose of Cairo* (1985), which literarily breaks the boundaries of the film-screen. The heroine, Cecilia, a housewife, was always lingering in the cinema and fell in love with the hero from the film, “The Purple Rose of Cairo”. One day, while re-watching the film, the hero recognized her from the screen and started to talk with her, eventually stepping out of the screen. They started a relationship in “real life”. Later, the hero took Cecilia back into the screen and introduced her to his friends in the film. The hero and heroine travelled freely from one space to the other, breaking the boundary between “reality” and the “screen”. We can see this film as a metaphor of “identification” that was first brought forward by Balázs. Since the feeling of identification, or “travelling in a picture”, exists as a quality of Chinese Gardens, we can associate Chinese Gardens with cinema. However: what about European architecture?

⁶ Balázs (1952), p. 50.

⁷ The Summer Palace is an imperial garden built in the Qing Dynasty. Longevity Hill (Chinese: 万寿山) and Kunming Lake (Chinese: 昆明湖) constitute the main garden. The place of “travelling in a picture” (Chinese: 画中游) is a group of buildings located on the west side of Longevity Hill.

⁸ Balázs (1952), p. 48.

6.2 View and Movements in Historical Periods

6.2.1 Montage of Architecture

From ancient Greece, the Acropolis of Athens is undoubtedly one of the most important buildings. The French architectural historian Auguste Choisy (1841-1909) produced a full and accurate description of the Acropolis.⁹ It is worth noting that both Le Corbusier and Eisenstein cited and were inspired by Choisy's writing; Anthony Vidler first pointed out this phenomenon in his book, *Warped Space*.¹⁰ Corbusier cited Choisy in *Vers une architecture* to explain his concept of "promenade architecturale", which is similar to what Choisy described: the changing perspectives and views when visiting the Acropolis. Likewise, Eisenstein elaborated on Choisy's description of the "successive tableaux" of the Acropolis.¹¹ Eisenstein chose four drawings Choisy included, what he called *four successive 'picturessque shots'*, to create a simple storyboard of four shots that could form cinematic images of the Acropolis. (Figs. 6-7) Shot (a) refers to Fig. 6-8, which shows the view of the Propylaea, the entrance of the Acropolis. Shot (b), Fig. 6-9, shows the view of Athene Promachos, where people would arrive and see just past the Propylaea. Shot (c) presents the view of the Parthenon, as in Fig. 6-10, and shot (d) the view of the Erechtheum in Fig. 6-11.

It is hard to imagine a stricter, more elegant and triumphant construct than this sequence.

Shots (a) and (b) are equal in symmetry and at the same time the opposites of each other in spatial extent. Shots (c) and (d) are in mirror symmetry, and function, as it were, as enlargements of the right-hand and left-hand wings of shot (a), then reforming again into a single, balanced mass. The sculptural motif (b) is repeated through shot (c), by the group of sculpture (d) and so on and so on.

It would further be of particular interest to analyse the length of time in which each of these pictures was presented to the spectator...¹²

⁹ See Choisy (1899), p. 413.

¹⁰ Vidler (2002), pp. 117-121.

¹¹ Vidler (2002), p. 118.

¹² Eisenstein (2010), pp. 66-67.

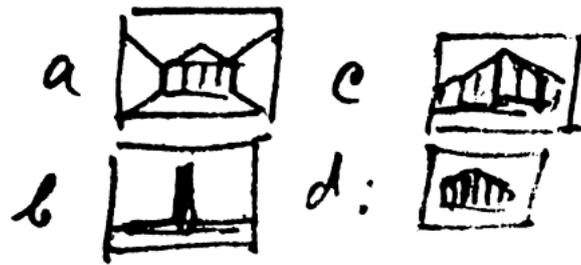


Fig. 6-7 The story board drawn by Eisenstein

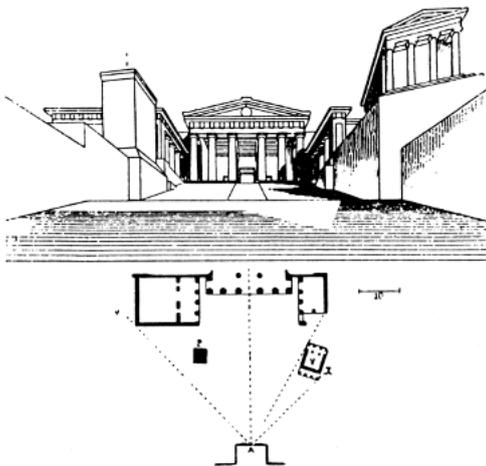


Fig. 6-8 Shot (a): the view of the Propylaea



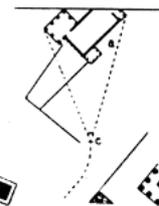
Fig. 6-9 Shot (b): the view of Athene Promachos



Fig. 6-10 Shot (c): the view of the Parthenon



Fig. 6-11 Shot (d): the view of the Erechtheum



The main idea given by Eisenstein indicates two points: first, during a visit to the Acropolis, we would get different views from different positions; second, if we follow a specific path that forms a sequence (both in space and in time), we constitute the “montage plan”, the montage of architecture, no matter whether it is in the Acropolis or any other monument of antiquity or modernity. Montage was the way that Eisenstein associated cinema with architecture.

In fact, Eisenstein’s theory of montage and architecture also works for Chinese Gardens as well; essentially, it is basically applicable to any carefully designed building and other three-dimensional works of art, such as sculpture. Not only did Eisenstein give us a way to make an imaginary film that combines our experience of visiting buildings, but he also emphasized a simple principle: ever since ancient Greece, architecture (urban space as well) should be experienced in the course of bodily movement. When we visit the Piazza della Signoria in Florence, we can experience its amazing urban space and the buildings that were built around it in the Medieval and Renaissance periods. The American city planner Edmund Bacon (1910–2005) analyzed the design of this square in his book, *Designs of Cities*. He argued that people could arrive in the square from different directions and would always encounter well-framed and designed views. In Fig. 6-12, he gave examples when entering the square from the northwest (the street Calimaruzza, the green lines), from the northeast (the upper half of the yellow lines), and from the southwest (the street Vacchereccia, the blue lines), describing and presenting the beautiful views from each direction. As a supplement, I photographed Fig. 6-13 from point A (the red lines).

It is impossible to enter Piazza della Signoria at any point without being confronted with a complete and organized design composition. The powerful impression received is largely due to the interplay of points in space defined by the sculpture with the formal facades of the medieval and Renaissance buildings behind them, a Renaissance ordering of the space of a medieval square. (...)

As one walks about the square, the variously placed sculptural groups appear to move in different directions in relation to their backgrounds and to one another, involving the onlooker in continual orientation, disorientation, and reorientation to a new set of relationships.¹³

¹³ Bacon (1976), p. 111.

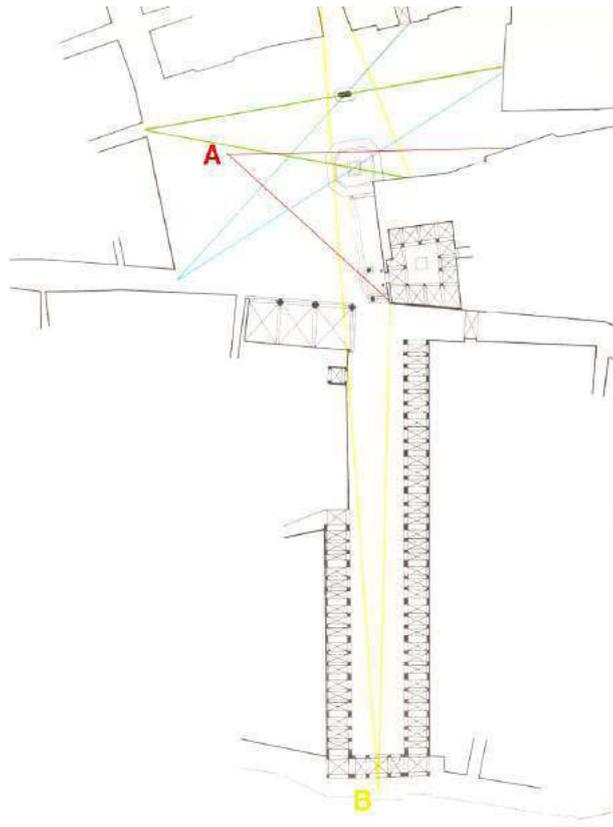


Fig. 6-12 Bacon's diagram of Piazza della Signoria



Fig. 6-13 The view of point A: Palazzo Vecchio



Fig. 6-14 The view of Point B: from Uffizi towards the Palazzo Vecchio

Who could deny that Bacon's descriptions of the experience of visiting Piazza della Signoria from various perspectives through bodily movements constitute almost exactly a montage of architecture? Of course, the "montage plan" for Piazza della Signoria seems more complicated than the one for the Acropolis given by Eisenstein.

Further, Bacon stressed the perspective depth of Uffizi, and the architectural uniformity on the street of Piazza degli Uffizi (the view from point B, the lower half of the yellow lines in Fig. 6-12). Designed by Giorgio Vasari (1511-1574), Uffizi is as well exemplified by Giedion in *Space, Time and Architecture*. Although the street Piazza degli Uffizi is rather short, Vasari successfully conceived a perspective in depth in this limited space. (Fig. 6-14) This is a classic technique of Renaissance architecture and urban design, thanks to the discovery of scientific perspective. Giedion approvingly commented on the design, but also attributed this masterpiece to Vasari's teacher, Michelangelo.

The continuous, lightly bracketed triple cornice seen with the symmetrical outline of the roof above make this a masterpiece of perspective in depth. This regular planning of the Uffizi would have been almost inconceivable but for the example Vasari's master, Michelangelo, had given him in the group of buildings then under construction on the Capitoline hill in Rome.

...but instead of being dynamically backed against the piers, as on the Capitol, Vasari's columns are spaced out at regular intervals.¹⁴

Giedion pointed out the significant difference between Vasari's Uffizi and Michelangelo's Capitol, noting the dynamic force lacking in the former. When we walk along the street Piazza degli Uffizi from the south, the arch of the loggia, toward the square, we encounter different views changing in order and rhythm. However, since the columns of Uffizi are designed in equal intervals, the experience of walking through is similar to changing a camera's range (types of focal lengths) from an extreme-long shot to a medium-long shot. Such a change could indeed create an architectural montage. However, the experience of movement is different in the case of the Capitol.

We should keep in mind that Michelangelo was a great master "who [bridged] periods in art which do not necessarily succeed one another chronologically", and was "an admixture of Gothic and Baroque", although he lived in an era called the

¹⁴ Giedion (2008), pp. 58-59.

Renaissance by later generations.¹⁵ The architectural complex on the Capitol heralded the arrival of the Baroque era, when the question of movement had a richer and new content.

6.2.2 Visual Movement in Baroque Architecture

I placed the Capitol in the category of Baroque architecture because it already expresses some characteristics of the Baroque. The Capitol refers to a complex located on the top of the ancient Capitoline hill. After climbing a staircase called “la Cordonata”, people would come to the wedge-shaped piazza named Piazza del Campidoglio, which features an oval-shaped paving pattern. Around the piazza are three important buildings: the Palazzo Nuovo and the Palazzo dei Conservatori (the Capitoline Museum) are symmetrically located on the left and right side, and the Palazzo Senatorio stands at the southeast, facing the staircase. Here Michelangelo applied the principle of perspective to create a visual illusion. When people walk up to the piazza and look toward the Palazzo Senatorio (looking from point A to point B, Fig. 6-15), the wedge-shaped piazza would appear to be a rectangle due to the perspective (Fig. 6-16). However, when people stand in front of the Palazzo Senatorio and look toward the staircase (looking from point B to point A), the wedge shape would enhance the perspective (Fig. 6-17). Things are more interesting if we walk through the piazza (from point A to point B), as the perspective of the left and right wings is changing constantly, not to mention the pavement’s curved pattern. The wedge-shaped piazza and the oval-shaped pattern give this place a strong dynamic sense. The dynamic views change with bodily movements, but this kind of change differs from the Uffizi.

It is little wonder that Michelangelo conceived such a masterpiece, since he was always fascinated with movement and “had the urge to experiment with its artistic and physical potentialities, which, being inherent in Western man, permeates the Gothic just as it does the Baroque.”¹⁶ We can imagine that if we wanted to make a film of the Capitol, the proper way would be to use a moving camera (perhaps

¹⁵ Giedion (2008), p. 69.

¹⁶ Ibid.

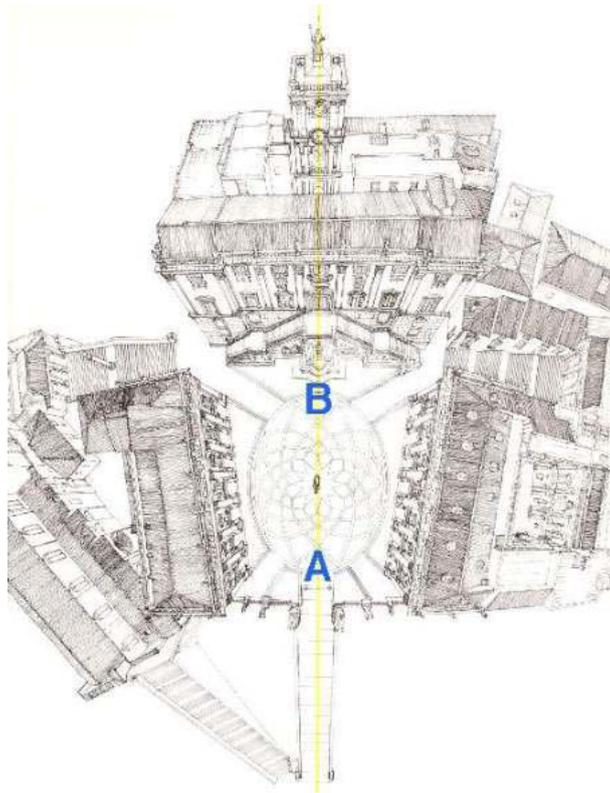


Fig. 6-15 A bird-view drawing of Capitol, Rome



Fig. 6-16 The view from point A to point B, Capitol, Rome



Fig. 6-17 The view from point B to point A, Capitol, Rome

with a dolly) to make a single long take, which is different from Eisenstein's architectural montage. Such an approach would resemble Terrence Malick's films, such as *Knight of Cups* (2015), discussed in Chapter 1. Malick used a fisheye lens to take long shots in which perspective is exaggerated and distorted. The straight lines of buildings and other constructions appear curved, which strengthens the dynamic sense (see Fig. 1-10).

For Baroque architecture, we do not need a special lens to distort the lines, since it is full of curved lines capable of creating the illusion of movement. In his book *Renaissance and Baroque*, Heinrich Wölfflin (1864-1945) demonstrated how Baroque architecture was closely related to the question of movement. First, he explained the essential quality of Baroque architecture: painterliness. He associated architecture with the art of painting. In the early linear style of painting, a sharp, clear and unbroken outline of every object is necessary; later, in the painterly style, the Baroque style, it works with broad, vague masses, and light and shade become the most important elements.

Light and shade contain by nature a very strong element of movement. Unlike the contour, which gives the eye a definite and easily comprehensible direction to follow, a mass of light tends to a movement of dispersal, leading the eye to and fro; it has no bounds, no definite break in continuity, and on all sides it increases and decrease. This, basically, is how the painterly style evokes an illusion of constant change. (...)

Corresponding to this distinction between linear and massive is another, that between 'flat' and 'spatial' (substantial). The painterly style, (...) the different objects seem to project or recede in space (...) therefore, all flats areas become rounded and plastic with a view to effects of light and shade.¹⁷

Wölfflin continued to argue that the second element of creating an illusion of movement is the "*dissolution of the regular*", i.e. the opposite of *unpainterly*, which is defined by the straight line and the flat surface, the uniform series and the regular interval, and symmetrical composition.¹⁸ The Renaissance style, such as the Uffizi, seems to meet all the points of the unpainterly.

Further, Wölfflin indicated the third element of painterliness: elusiveness, which

¹⁷ Wölfflin (1979), p. 31.

¹⁸ Wölfflin (1979), pp. 32-33.

means that “individual objects should be not fully and clearly represented, but partially hidden.”¹⁹ This is another significant difference between the Renaissance and Baroque style. In the former, because of the rigid one-point perspective and straight lines, the contour of each object is clearly visible. In the latter, it is impossible to grasp the contour at one glance since some part of the object is hidden, and the spectator has to imagine the hidden part and change perspective constantly in order to get the whole picture.

Rudolf Wittkower (1901-1971), Wölfflin’s brilliant student, commented on sketches drawn by the late Italian Baroque architect, Filippo Juvarra (1678-1736), whose work, I believe, clearly shows “elusiveness” and other qualities of the painterly (Figs. 6-18 & 6-19). The themes of these sketches include Roman ruins, memorial buildings such as the Arc de Triomphe, and some famous sculptures from the classical era. The intriguing part is that all the buildings and sculptures are “...placed in an idealistic pseudo-classical setting, a fanciful combination of imaginative romanticism, archaeological realism and architectural *jeu d' esprit*.”²⁰ Just as Wittkower noted, these sketches were not drawings of Baroque architecture. However, when we look at the asymmetrical compositions, overlapping buildings and hidden parts, we have to change our focus without rest from one object to another, from one spot to another... Isn’t this representative of the baroque style?

When we visit Baroque architecture, in Francesco Borromini’s (1599-1667) San Carlo alle Quattro Fontane, for example, we find all the elements of painterliness discussed above. Both the fluctuating façade and the interior (Figs. 6-20 & 6-21), with all the curves, light and shade, create a visual perception of movement. The curved cornices in particular draw our vision up and down, moving with their shapes.

In a later chapter on Movement from *Renaissance and Baroque*, Wölfflin summarized the principles of the baroque style as massiveness and movement.

It (the baroque style) did not aim at the perfection of an architectural body, (...) but rather at an event, the expression of a directed movement in that body. (...)

In contrast to Renaissance art, which sought permanence and repose in everything, the baroque had from the first a definite sense of direction. It

¹⁹ Wölfflin (1979), p. 33.

²⁰ Wittkower (1975), p. 195.

expressed an urge for upward movement...²¹

Movement in Baroque architecture, as Wölfflin described it, is actually based on visual perception and it does not necessarily require bodily movement, as Eisenstein's montage of architecture required, to create the "illusion" of movement. The spectator's view changes constantly when we visit Baroque architecture because the baroque style itself presents stimulations that change our visual focus. In this case, views can change without bodily movement.

The movement of visual focus that happens with Baroque architecture: is it a perceptible movement or a potential movement? If we compare Baroque architecture with the Chinese Garden, we find some distinct differences. The "illusion" of movement, or dynamic visual perception, is more concrete in Baroque architecture. Movement happens where it is clearly stimulated and suggested, and we can even trace an imaginary path of movement, such as the upward movement of the dome.²² However, potential movements in the Chinese Garden, through frames and between layers, are more flexible and uncertain. No specific direction or path is suggested. Therefore, we could say that movement in Baroque architecture is semi-perceptible and semi-potential.

6.2.3 Summary

From ancient Greece to the Baroque, the visual illusion of movement was doubtless enhanced. In particular historical periods, we have found discerned both bodily movement and the visual illusion of movement. The former is perceptible and the latter semi-perceptible and semi-potential.

So far, we have not discovered any frames or spatial layers such as those that occur evidentially in Chinese Gardens. With the development of the concept of space, modern European architecture appears differently.

²¹ Wölfflin (1979), p. 58.

²² See the chapter on the Church in *Renaissance and Baroque*. Wölfflin (1979), pp. 91-123.



Fig. 6-18 A sketch of Filippo Juvarra, from Chatsworth volume, folio 14

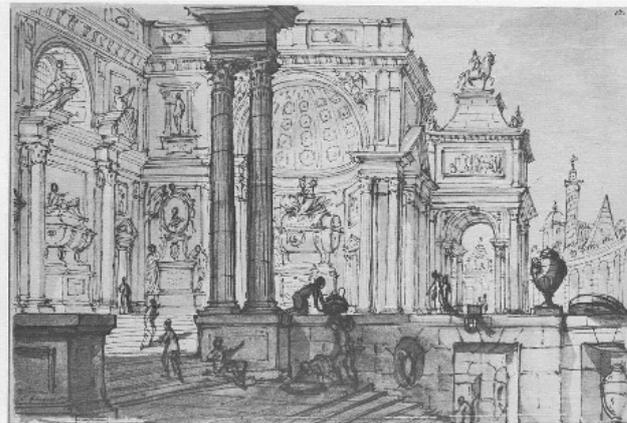


Fig. 6-19 A sketch of Filippo Juvarra, from Chatsworth volume, folio 17

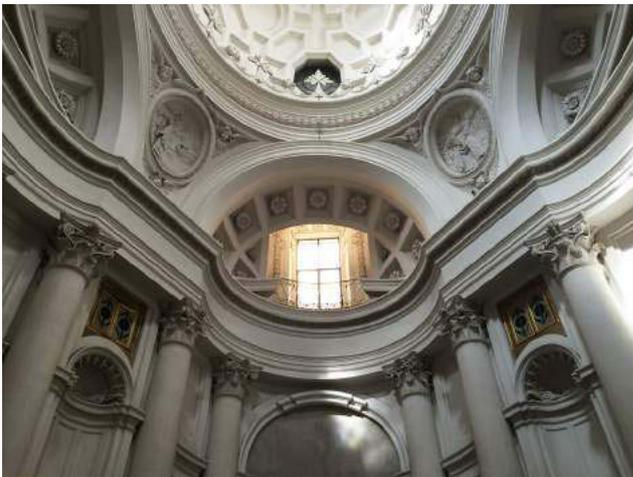


Fig. 6-21 The interior of San Carlo alle Quattro Fontane, Rome

Fig. 6-20 The façade of San Carlo alle Quattro Fontane, Rome



6.3 Movement in Modern Architecture

In this section, I focus on the issue of movement in modern architecture. I choose the representative work by two great modern architects –Villa Müller designed by Adolf Loos, and Villa Tugendhat by Mies van der Rohe. As a comparison, Le Corbusier’s work would be studied as well. The reason for choosing these two villas is that they both contain rich layers that represent different concepts of space. The layers in modern architecture bare some resemblance to that of cinema. To be more specific, there are some common characteristics in Loos’s villas and Ozu’s films, as well as in Mies’s design and Antonioni’s films. An interesting fact that cannot be ignored is that both of the villas are already filmed as documentaries: Heinz Emigholz filmed Loos’s work and made a documentary *Loos Ormental* (2008, see Chapter 3); Diter Reifarth made a film *Haus Tugendhat* in 2013.

6.3.1 Loos’s Villa Müller

6.3.1.1 An Overview

In October 1928, Adolf Loos and his Czech associate Karel Lhota obtained a commission from František Müller, the wealthy co-owner of the Müller & Kapsa firm, to build a Prague villa for the Müller family. The villa, located on a hillside in the city’s west end, was completed in 1930. As one of the late works of Loos, critics and historians consider Villa Müller to be the architect’s most mature work and an embodiment of his design theory, which mainly includes two aspects: *Raumplan* and *Bekleidung* (cladding).

In order to approach Loos’s theory, first we begin with his concept of space. As argued in Chapter 2, Loos shared the same idea with Semper that the space is an enclosure for which the essential core is spatial form and cladding. On this basis, he was fond of designing “cubes” in his villas, since one cube is an entire enclosure. The appearance of his villas usually looks quite simple, in the form of a cube. As a great example, villa Müller resembles a cube and a relatively enclosed one, as the openings in the four facades are quite limited. (Figs. 6-22 & 6-23) As such, it would be difficult for prying eyes to know anything about what was happening inside the

house. For the occupants of the villa, they too were not encouraged to look outside. Loos thought that windows existed solely to provide natural light, and was not an opening from which to glimpse outside. He used to tell Le Corbusier: “A cultivated man does not look out of the window; his window is a ground glass; it is there only to let the light in, not to let the gaze pass through.”²³

Contrary to its appearance, the interior of Loos’ villas is quite rich regarding both aspects of *Raumplan* and *cladding*. Although he did not personally employ the term *Raumplan*, his methods of design could lead to a mature system, which is called *Raumplan*, a term created by Heinrich Kulka when summarized Loos’s theories of design.²⁴ In villa Müller, all of the rooms are designed in the form of a cube, and there is always a clear boundary between different cubes. We can say that, the essence of *Raumplan* is how to arrange these cubes. Obviously, Loos never did it in a boring way. In an interview with his co-worker Karel Lhota in 1930, Loos described the characteristics of the villa Müller (as well as of his other work):

I do not design plans, facades, sections, I design space. Actually there is neither a ground floor, an upper floor or a basement, there are merely interconnected spaces, vestibules, terraces. Every room needs a specific height – the dining room a different one from the pantry therefore the floors are on varying levels. After this one must connect the spaces with one another so that the transition is unnoticeable and natural, but also the most practical.²⁵

In villa Müller, it is difficult to tell the so-called first floor, or second and third floor, since the floors of rooms rise gradually in vertical height. I will discuss about this in the next section.

The other principle, cladding, as I mentioned in Chapter 2, was clearly explained by Loos in his article “The Principle of Cladding”. Loos believed that cladding is superior to the structure. In Loos’s early design of the bedroom for his first wife,

²³ Beatriz Colomina gives a fully discussion about Corbusier’s original writing from *Urbanisme* (Paris, 1925) and its two versions of English translations in her essay “The Split Wall: Domestic Voyeurism”, see Colomina (1992), p. 74.

²⁴ See Kulka (1979), pp. 13-15. Also see Van Duzer’s writing in *Villa Müller. A Work of Adolf Loos* (1994), pp. 38-43.

²⁵ Van Duzer (1994), p. 38.



Fig. 6-22 Villa Müller, the view from southwest



Fig. 6-23 Villa Müller, the north facade



Fig. 6-24 Lina Loos's bedroom



Fig. 6-25 The living room in villa Müller,
Loos Ormental (2008)



Fig. 6-26 The children's room in villa Müller,
Loos Ormental (2008)

the very young student Lina Loos, we can see the space covered with soft materials, such as cloth, feather and fur, providing an extremely sensual effect, or, we can just put it in another word: atmosphere. (Fig. 6-24) In villa Müller, Loos chose various materials for the interior cladding, one of the most marvelous materials is the green marble. John Hejduk (1999-2000), who never personally visited Loos's work, based on one photo he saw, highly praised the use of marble by Loos: "The veins with in the marble were like a multitude of lightening flashes in a dark sky. A sky filled with electrical veins."²⁶ From the perspective of materiality, Loos's theory of cladding remind me of Tarkovsky's films as I discussed in Chapter 2. (Fig. 6-25) Meanwhile, Loos did not refuse color. For instance, he painted the interior walls of the children's room in yellow (Fig. 6-26); for the exterior, he as well colored the windows and doors on the façade bright yellow, which combined well with the simple beige exterior walls (see Figs. 6-22 & 6-23). The appearance of villa Müller indicates a tendency of abstraction.

6.3.1.2 The "Stage" and "Theatre Box"

Loos' comments on the window fit with his concept of space as an enclosure. Because it is impossible to look outside, focus inevitably turns towards the interior space. In Villa Müller, the living room and the spaces connected to it, including the dining room and the ladies room, are the most fascinating parts of the house. Heinrich Kulka noted that when he designed the living room, Loos referred to the relation between the theatre box and the stage, which represents explicitly the essence of his *Raumplan*.

The living room is the first and most significant space the visitor and family encounters (of course, there exists another "hidden" path for the servants). When you enter the villa, you pass the anteroom and cloakroom, walk several steps up the narrow winding staircase, and eventually arrive in the living room. From the living room it is a half-floor of stairs up to the dining room, and if you continue onward you would arrive at the ladies room. (Figs. 6-27 & 6-28) Each room sits at a different floor level, and each has a different overall height within the villa's

²⁶ Van Duzer (1994), p. 14.

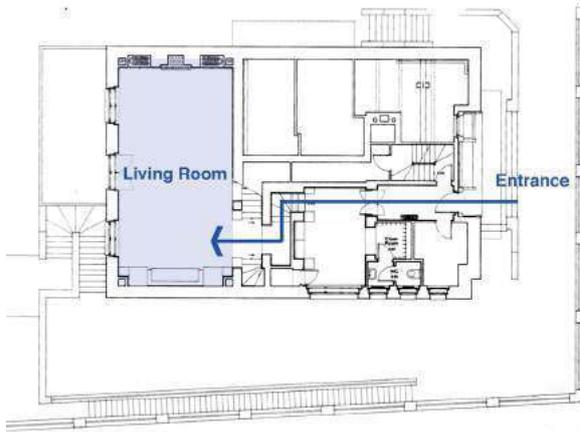


Fig. 6-27 Plan of the entrance floor, from the entrance to the living room, Villa Müller

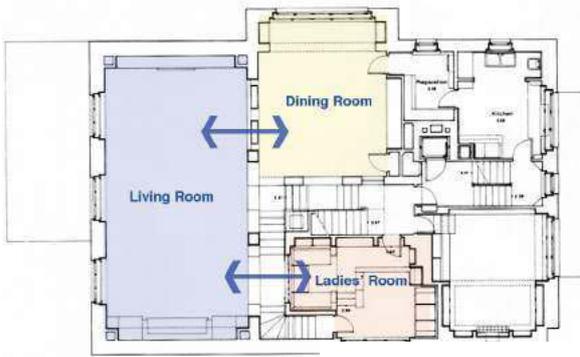
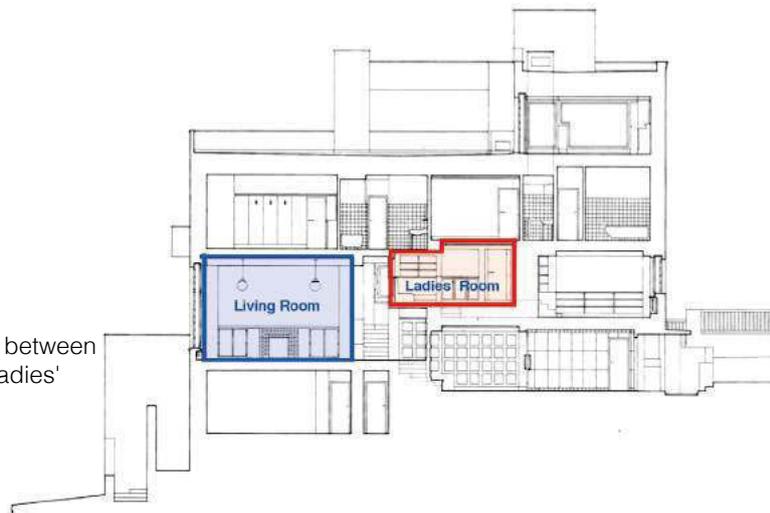


Fig. 6-28 Plan of the main floor: living room, dining room, ladies' room and study, Villa Müller

Fig. 6-29 Section, the relationship between the living room and the dining room



Fig. 6-30 Section, the relationship between the living room and the ladies' room



overall mass. The living room, for example, is one and a half floors high; it shares its ceiling with the dining room, while the ladies room ceiling sits slightly higher above. The rooms are set in a spiral around the staircase, which forms a central axis that connects these spaces. It is difficult to state how many traditional floors exist in this villa, as rooms are set a half-floor above each other (as we can see from sections, Figs. 6-29 & 6-30).

On the north wall of the living room are two large, symmetrically arranged windows, between which a glass door has been set to connect to the terrace. Their primary function is for natural lighting and are designed to fit the classical principle of symmetry. Because Loos never intended for people to peer outside, he designed fascinating interior views for people to admire. From the living room looking inwards you can see the dining room a half-floor above and, at the same time, the wall and the window of the ladies room as well as the central staircase. (Fig. 6-31)

First let's consider the relationship between the living room and the dining room. The two rooms are separated by a segment of the central staircase, by columns and by the wall, which taken together form a frame that divides the two rooms into two layers. Loos was good at manipulating interior level differences to enhance the potential movements between different layers. Compared to the dining room, the living room commands the dominant position and as such it bears a close resemblance to the stage, while the dining room, partly enclosed by walls, more closely resembles an auditorium. However, the dining room can also be considered a stage, because the dining room can be observed from the living room as well. Due to the mutual visibility between the two rooms, both could function as both stage and auditorium. This is exactly what Loos called "spatial interaction": "We have always the intention to connect rooms with each other, but we never thought to do this as only in one direction. In this way, a suite of rooms arose in the living space."²⁷ (Figs. 6-32 & 6-33)

Then, let's consider the relationship between the living room and the ladies room. At first glance, the window of the ladies room is clearly a frame, an opening for observation and even for surveillance. (Fig. 6-34) Beatriz Colomina has suggested that the ladies room is much like a theatre box: from the small window you can

²⁷ Van Duzer (1994), p. 40.



Fig. 6-31 The living room in villa Müller



Fig. 6-34 The ladies' room in villa Müller,
Loos Ormental (2008)



Fig. 6-32 The view from the dining room to the living room in villa Müller, *Loos Ormental* (2008)



Fig. 6-37 The staircase in villa Müller,
Loos Ormental (2008)



Fig. 6-33 The view from the living room to the dining room in villa Müller, *Loos Ormental* (2008)



Fig. 6-35 The view from the living room to the ladies' room in villa Müller, *Loos Ormental* (2008)



Fig. 6-36 The Dutch Embassy in Berlin,
by Rem Koolhaas

monitor everything happening in the living room.²⁸ However, when she wrote these words Colomina had never visited villa Müller, and hence she did not have a complete sense of the whole space.²⁹ The ceiling in the ladies room sits slightly above the living room and the room's window is situated at a higher position than is typical. Through the window in the ladies room you can only see the living room's ceiling. To monitor the living room would require an awkward and laborious viewing position that a high class woman would not have adopted. The section Fig. 6-30 clearly shows the spatial relation between these two rooms and one does not need to visit villa Müller personally to recognize Colomina's mistake. The purported view from the theatre box (the ladies room) to the stage (the living room) does not actually exist and it is likewise impossible to observe the ladies room from the living room. (Fig. 6-35)

As I discussed above, in Loos's mind the windows on the facade only function to provide natural light and do not belong to the "frame". In villa Müller, the frames are the components Loos used to divide interior space: columns, walls, stairs, and interior windows/openings. The human behaviors performed in each layer form a series of dramatic scenarios related to everyday life. In Loos's design, each layer is a closed system. It perfectly represents the first function of the frame, the centripetal type, which is to present an inwards, enclosed and theatrical scenery. The layers and frames in Loos's villas share some similarity with that of Ozu's films. Ozu did not encourage an *out-of-field* either, hence, the movement happens within the closed system he created. As for Loos, he arranged each closed system at a different scale and in different positions, which enhances the potential movements between each layer.

In contemporary architecture, the creation of an interior stage is still an irresistible temptation for architects. While designing the Dutch Embassy in Berlin, Rem Koolhaas created an 11-floor building that is only 27 meters tall.³⁰ The half-floor height difference creates interior frames across the building. Visual contacts, as well as potential movements, could happen between any two adjacent layers. (Fig. 6-36)

²⁸ See Beatriz Colomina's essay "Intimacy and spectacle- the interiors of Adolf Loos." *AA Files* 1990, No. 20: 8.

²⁹ Beatriz Colomina's mistake is pointed out by Prof. Christopher Long at his class. See Xiong, Xiangnan's essay "The Openness and Intimacy of Interiors of Adolf Loos", *Journal of Human Settlements in West China*. 2014, 29(04): 63.

³⁰ See François Chaslin's article "Psychogeography of a Cube: The Dutch Embassy in Berlin", in the book *The Dutch Embassy in Berlin* by OMA/ Rem Koolhaas (2004), pp. 35-37.

6.3.1.3 Path and the Perceptible Movement

In architecture, a path is a walking route designed by an architect, such as a staircase or corridor. Because walking is a type human behavior that is perceptible as movement, then path is defined as the space where this perceptible movement occurs. By understanding how an architect deals with path, we can access the architect's concept of space.

Since Loos considered space to be an enclosure, he not only managed to shape each room to a complete cube, but he also bestowed the whole building with a feeling of completeness in dimensions, most of the time in the form of a cube or cuboid. His *Raumplan* focused especially on spatial interaction, for instance in the villa Müller, the relation between the living room and the dining room as well as between the living room and the ladies room. Loos realized spatial interaction through shifts in both the horizontal and vertical dimensions. For Loos, the interior path which connected each room should be compressed as much as possible. It is noteworthy that although Loos drew on the theatre as a reference when designing the villa, he still considered using the loge as a connecting space in the theatre to be “intolerable.” Furthermore, he considered galleries or annexes (loge) superfluous, “but with the combination of one higher main room and lower annex rooms, space was economized.”³¹ Loos managed to directly connect every room together without a loge, just as he had designed his other villas. He tried his best to compress and integrate the area of path.

In the villa Müller, Loos managed to connect all the rooms with only a single central staircase. All the paths are fixed, embedded into the spaces, just as if Loos had designed embedded furniture. These spaces are so well designed that they are just as a precise machinery in that all the parts seamlessly bite into each other. (Fig. 6-37) It seems that the corridor was irrelevant for Loos. However, did he encourage people to look while walking through his space? We may find some answer in Emigholz's documentary film. In *Loos Ornamental*, surprisingly, Emigholz took lots of shots in the staircase, from where we can also see frames and layers in the connecting rooms.

³¹ Van Duzer (1994), p. 42.

6.3.2 Mies's Villa Tugendhat

6.3.2.1 An Overview

Located in Brno, Czech Republic, villa Tugendhat designed by Mies van der Rohe was built during 1928-1930, almost parallel to Loos's villa Müller. In mid-1928, approximately the moment when Mies began work on the German Pavilion in Barcelona, he accepted the commission to build villa Tugendhat. It is apparent from comparing the two buildings that Mies gained experience from the the German Pavilion (completed in May 1929) that he applied to on the villa Tugendhat. If Loos's space is a stack of cubes, then Mies's space is a large platform, on which the flowing space realizes.

This three-floor villa sits on a sloped terrain with its main facade facing southwest. From the main street the entrance, which is on the top floor of the villa, is accessible. (Figs. 6-38 & 6-39) This floor's primary function is to serve as the entrance hall and to house the family bedrooms, which are connected to a terrace that faces the garden. Descending the staircase from the entrance floor, you arrive on the main floor of this villa, which features the living room, dining room, study, conservatory and other spaces which constitute one large, continuous, flowing living space. In addition to this living area, this floor also features servants quarters and supply and storage rooms. The lowest floor, the basement, was designed mainly for utility facilities. (Figs. 6-40 & 6-41)

6.3.2.2 Frames, Layers and the Flowing Space

We can consider the frame in this villa from two aspects: the windows and the interior frames. In short, Mies's windows are always with an outside view. The massive and continuous windows on the main floor face directly on to the garden and unconsciously pull the eye towards the outdoor space. The windows become frames for the outdoor view, which extends to the horizon. Admiration of the exterior view starts from the limited interior and extends to the infinite exterior. Thus, the windows in the villa Tugendhat serve the second function of frame exactly – leads the view to an infinite *out-of-field*. (Figs. 6-42 & 6-43)



Fig.6-38 The main entrance view of villa Tugendhat



Fig.6-39 The garden view of villa Tugendhat

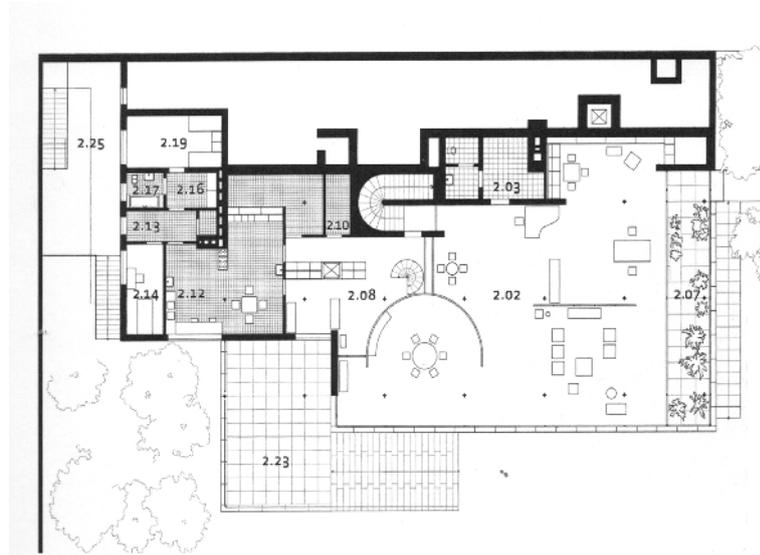


Fig. 6-40 The main floor, villa Tugendhat

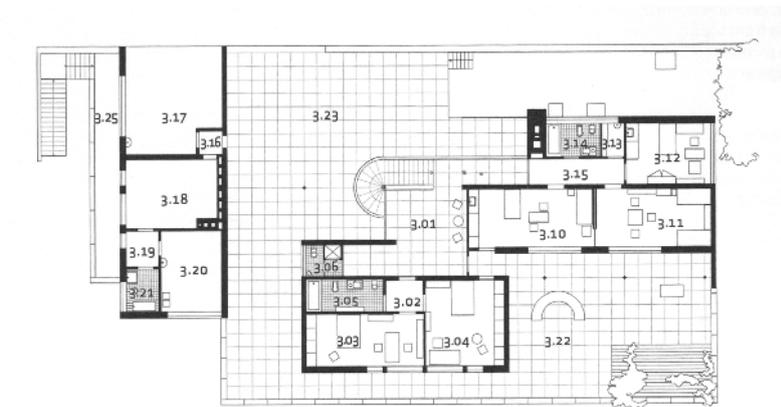


Fig. 6-41 The upper floor, villa Tugendhat

Speaking of the windows with a view, let's consider how Corbusier used windows in his villas. In villa Savoye, his windows were designed for viewing the landscape outside the villa, such as the ribbon window on the second floor. (Fig. 6-44) Although similar as Mies's intention, the ribbon windows are connections between the interior and the exterior spaces, they are still different from Mies's design. After all, Mies was fond of the material of glass, and he was a pioneer to designed projects of skyscrapers with glass walls, such as the Friedrichstraße skyscraper project (1921, Berlin). In villa Tugendhat, the windows are already quite close to the glass wall, since the windows on the main floor could totally sink to the lower floor. (Fig. 6-45) It looks that the window on the second floor that faces the roof garden are closer to the design of Mies. However, Corbusier's windows have more meanings. It is worth noting that through the window on the second floor that faces the roof garden, you can certainly enjoy the exterior scene, but at the same time, you look onto an intentionally designed space as the promenade extends into the outdoor space. When people in the room look out through the window, they see scenes of daily life happen along this promenade, which has become a stage. Corbusier combined the view and path perfectly. He designed the promenade that extends from indoor to outdoor spaces, that could became a stage. The windows facing the promenade intend to tell the viewer to enjoy a certain staged view and, at the same time, to remind the viewer that the stage is set in an unbounded space – the roof garden, a grey space. However, in the Villa Savoye, the promenade extends from indoor to outdoor space, from a limited space to an unbounded one. The promenade here is both a stage and an extension to the infinite outside world. (Fig. 6-46)

For the interior, either didi Mies neglect the frames, which he particularly utilized on the main floor. The graceful cross-shaped steel columns, which serve as the structural support and the interior walls, which are non-loadbearing, compose frames that divide the continuous living area into several layers. With these frames Mies produced a “stage-effect” similar to the dramatic interior atmosphere in Loos's Villa Müller, especially in the dining room, with its semi-circular wooden wall, or in the meeting area, which faces the garden with a marble wall behind. (Figs. 6-47 to 6-49) However, these areas are not enclosed but open onto another spacious system. In other words, they were not designed as enclosures but as a space, which belongs to and connects to an endless infinity. This is especially obvious in the meeting area, which was fitted with sofas and a tea table, since from the plans it is clear that the original arrangement did not create symmetry



Fig. 6-42 The view from the living room, *Haus Tugendhat* (2013)



Fig. 6-43 The view of the conservatory, *Haus Tugendhat* (2013)



Fig. 6-44 The ribbon windows in villa Savoye



Fig. 6-46 The view of the outdoor promenade in villa Savoye



Fig. 6-47 The interior frame in villa Tugendhat



Fig. 6-48 The interior frame in villa Tugendhat, dining area



Fig. 6-49 The interior frame, *Haus Tugendhat* (2013)



Fig. 6-45 The sunk window, *Haus Tugendhat* (2013)

with the marble wall and the steel columns, but rather was shifted slightly to the east. In Mies's frame, there is always an *out-of-field*.

In fact, this villa, with its centrifugal features, represented an evolution of designs for an earlier brick country house (Potsdam, 1924, Fig. 6-50) and for the German Pavilion. Later, Mies's Golf Club project (1930, Krefeld), although not realized, still remained the same idea of flowing space.³² (Figs. 6-51 & 6-52)

As a result, the stages and tableaux created by Mies are unbalanced. Each interior frame contains a tendency to motion, as if it is trying to break out of the frame, similar to Antonioni's frames, which usually form unbalanced compositions. Loos created a classic, balanced and stable composition, which forces the viewer to focus solely inside the frame. Even if one would like to wander from layer to layer, there's always an end waiting. In comparison, Mies created a frame that never forms a closed system with inner stability but always opens outwards, which enables the eye to move and shift constantly.

In sum, the massive window set by Mies leads the view outwards. Moreover, there always exists an inner force in his interior spaces, which tends to draw the view from one place to an invisible elsewhere beyond the current view.

6.3.2.3 Path and the Perceptible Movement

In the flowing space created by Mies, it is possible to fail to see a defined path. On the main floor of the villa Tugendhat, for example, Mies does not differentiate between the path and the room and instead integrates them into a whole flowing space. In his plan, the path is not defined and hence one can decide freely how to walk through his space. One can pause, rest and enjoy the view at any time from any spot, and even catch it from the corner of the eye. Mies regarded the path as a hidden factor that integrates into the flow of space. However, in his design there are no such "interactions" in his space as those in Loos's villas. By linking all the rooms into a single connected whole, movements from one space to another would be so natural that sometimes one would even not be conscious about doing so. Mies did

³² The project of Golf Club in Krefeld was built in 1:1 model in 2013, as a short-term open exhibition. See Lange (2014). The author has visited the model in Krefeld.

not design vertical spatial relations – he never emphasized the vertical interaction like Loos – and focused only on a vast and free-flowing horizontal space. It could be argued that in Mies’ famous project for the new national gallery in Berlin, he designed a sunken courtyard that can be viewed from the upper platform. (Figs. 6-53 & 6-54) However, given the vertical elevation, a person in the courtyard could hardly communicate with someone standing on the upper platform. On the contrary it exists primarily as an extension of the lower floor, which communicates with the interior space that is part of the same platform.

Interaction in Corbusier can be seen in his space and promenade, but interaction here is in an overlaid state, which Colin Rowe has called “transparency”.³³ To elaborate, it is helpful to consider his Villa La Roche also. Much like the ribbon window, the promenade is a design language that Corbusier would constantly utilize, for example the curved ramp promenade in the gallery of the Villa La Roche. The promenade here becomes an intrusion of small spaces into another, bigger space. The entrance hall of Villa La Roche features two “intruded” paths as well: one is a protruding staircase platform, the other a walkway that connects the Villa’s east and west wings. (Figs. 6-55 & 6-56)

Corbusier’s “installation” of space, as should be obvious, does not reproduce Loos’ system. Loos precisely designed and restricted the path and concealed it behind functional space. In contrast, Corbusier would precisely design the most essential paths and even highlight them. While walking along his path, he establishes communications between humans and both the interior and exterior spaces. It thus can be argued that Loos and Corbusier are opposite types: Loos compressed his walking path into the form of a cube (such as the staircase in villa Müller), but Corbusier valued the promenade and wanted people to stop and glance around. The space created by Corbusier is never a closed system, but an open one, open to other parts of the building and open to the exterior spaces that surround his buildings. In this way, Corbusier and Mies are much alike, except that Mies’s path is hidden within a whole flowing space.

³³ See Rowe (1997).

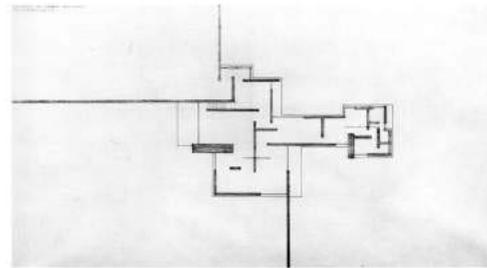
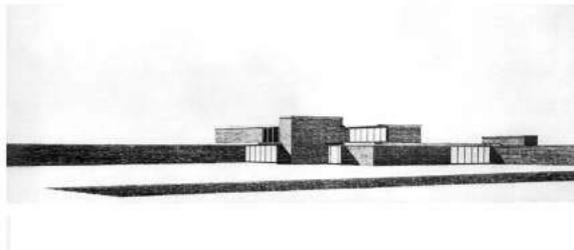


Fig. 6-50 Perspective view and plan of the brick country house project



Fig. 6-51 The 1:1 model of Mies's Golf Club project

Fig. 6-52 The 1:1 model of Mies's Golf Club project



Fig. 6-53 The view of the sunken courtyard from the lower floor in the new national gallery, Berlin

Fig. 6-54 The sunken courtyard in the new national gallery, Berlin,



Fig. 6-55 The curved ramp promenade in the gallery of villa La Roche

Fig. 6-56 The view of the entrance hall in villa La Roche

6.4 Summary

In this chapter, I begin with the case study of space in Chinese Gardens, and that in historical periods in Europe. The historical buildings in eastern and western world may represent different concepts of space.

Not only in Chinese Gardens, I find layers everywhere in ancient Chinese buildings. Due to the wooden structure, the traditional Chinese buildings have a quality of “transparency”. The palaces and temples, which are groups of buildings, are usually symmetrically arranged along a central axis, and the gates are always open in the center of the buildings. Through the axis, a line of buildings is in fact connected in space. They actually have visual connections with one another. In the European tradition, a building is regarded as a closed individual with independent appearance. For instance, when we visit the Acropolis of Athens, we visit the buildings one by one, along the route of travel (as Eisenstein’s montage of architecture), but do not connect two or three buildings at one glance. I believe one important reason is that the body of a wooden building is more transparent than that of a building built by stones. However, if we enter the “stone house”, we would see a different scene. Although the size of the window on the wall is limited, the indoor doors are set one by one, forming visual layers. When we visit a Gothic church, the pillars become the frame that naturally divides the space layers. With the birth of modern architecture in Europe, with the use of new building materials and structures, architectural space has achieved unprecedented freedom and flexibility.

PART III

Chapter 7: Conclusions and Further Questions

7.1 A Brief Review of Important Concepts

7.1.1 Cinematic Image & Cinematic Body

Cinematic images are neither purely mental nor material. The concept of *image* I have discussed is inherited from Henri Bergson, who created it to overcome the idealism-realism dualism.

Cinematic images are audio-visual images that involve movement. Since we receive cinematic images through the human perceptions of vision and hearing, the audio and visual factors are self-evident. However, the perception of movement is naturally contained within audio-visual images, because we can never get away from *duration* (as Bergson put it), which is movement in essence, but owns a

comprehensive and complicated meaning. The movement-image and the time-image, as Deleuze put in his two volumes of *Cinema*, are both images of *duration*.

Cinematic images are processed images. They are preconceived and produced before the spectator perceives them. They are images from *the Other* and can be shared among different spectators simultaneously. *The Other*, who or what produces cinematic images, is the cinematic body.

The cinematic body is not a concrete or materialized body but an abstract concept. We can even say it is a metaphor. The analogy between cinema and the human body is not an original idea. The concept of *kino-eye* was advanced by Dziga Vertov in the late silent film era. However, the concept of the cinematic body is my creation. Just as all images need a body to perceive them, cinematic images are perceived by the cinematic body. The concept of the cinematic body corresponds to the mechanical process of making films, which includes how filmmaking deals with the “raw material” (*mise-en-scène*) and processes it into the cinematic image. That is to say, the cinematic body is the progress of cinematography and post-production. Similar to a human body, the cinematic body is able to see, listen and move. It perceives through audio and visual perceptions a static or a dynamic condition. The cinematic body’s visual perception, audio perception and the ability to move have something in common with the human body. However, it far exceeds the limits of natural perception and capacity for movement of the human body. It is because of the peculiarity of the cinematic body that its creation - cinematic images - have the unique significance worthy of our deep study.

Based on two conditions of the cinematic body, the static and the dynamic, I approach the study of cinematic images through two aspects: one is based on the relatively “static” perception of the cinematic body, which leads me to the study of atmospheres; the other is based on the dynamic perception of the cinematic body, which opens an approach to the study of movement.

7.1.2 Atmosphere

My concept of atmosphere is engaged with the New Phenomenology, drawing on theories developed by Hermann Schmitz and Gernot Böhme. According to Schmitz, *der Leib*, as the *felt body*, is the subjective, and *being present* is the prerequisite of creating atmospheres. When we perceive cinematic images, that is, when we watch a film, the subjective is the *felt body* of us, not the cinematic body. Although the subject watching a film could be anyone of us, only with the existence of such a *felt body*, can it *be present*. For cinematic atmospheres, *being present* means (someone from the *felt body*) watching a film.

As audio-visual images, I analyze the atmospheres of cinematic images in two aspects: the visual elements and the audio elements. Nonetheless, we should always keep in mind that the movements are an inherent element.

As I argued in Chapter 2, visual elements mainly include factors of the built environment, form, material and materiality, colors and lights, as well as human behavior and activities. For cinema, these visual elements basically belong to the part of *mise-en-scène*, as film sets, lighting, costume and makeup, and acting. However, all the aspects of *mise-en-scène* are just raw material, to create atmospheres they must be transmitted and presented through the *kino-eye*, after the work of cinematography and post-production (primarily editing).

The audio elements are difficult to classify, since all the sounds we hear are included. No matter the source of the sound, it always has an effect on human emotions and feelings, and hence it becomes an element that shapes atmospheres. Sounds cannot be measured in a geometrical way but they reveal the area-less spaces, the atmospheres in time, or in other words, in *duration*. Although visual perception is the dominant in all five human senses, the role of sound cannot be underestimated. Sometimes, sounds are more efficient, direct and intense in arousing people's emotions, such as through music.

Human behavior is a special element to the creation of atmospheres. We need a comprehensive perception of vision and hearing to perceive human behavior, hence, the image of human behavior is a complex visual-audio image. It has a tricky relationship with atmospheres. Not only could it help create atmospheres, but also it could be influenced by atmospheres. Of more importance, human behavior is a totally dynamic progress that could lead to the study of movement.

7.1.3 Movement

When we mention the concept of movement, we usually think of intuitive phenomena that we can perceive, including movements that we see or hear, and our own bodily movements. A walking man, a running car, a bouncing ball, a flying bird, a willow branch swaying in the wind... they all belong to the movements conducted by others and that we perceive. Also, we naturally perceive the movements of our own body when we walk, run, jump or move in other ways. I classify movements that can be perceived in the category of perceptible movement. In cinema, there is one special perceptible movement that presents movement itself, with no specific or visible subject that conducts the movement. This is the pure movement actually executed by the cinematic body – a moving camera or the technique of editing. It happens quite often in cinema, as in the examples I provided: Resnais's *Night and Fog* and *All the World's Memory* (see Chapter 3), Antonioni's *La Notte*, and Fellini's *8½* (see Chapter 4).

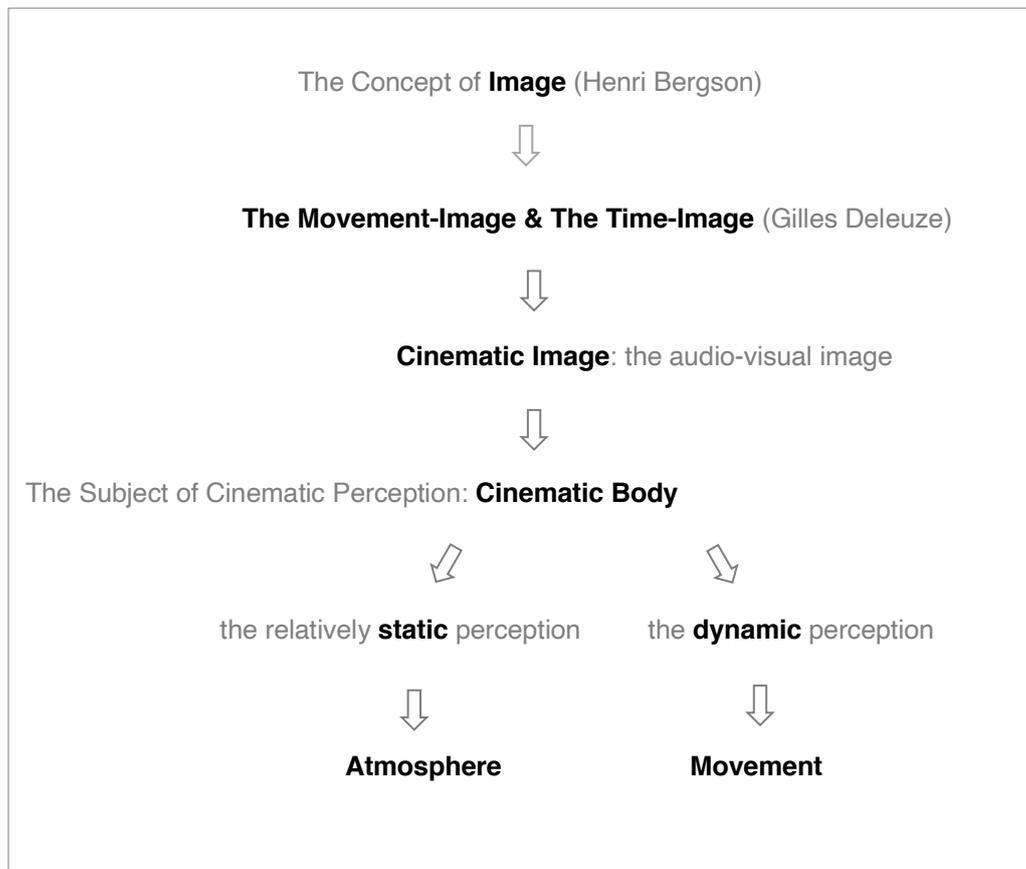
The second type of movement I classify as potential movement, which is an abstract concept of movement, which I compared to a vector. It is based on visual perception, combined with the experience of bodily movement. That is to say, a potential movement is derived from perceptible movement, just as a concept is derived from lived reality. It is uncertain and could happen anywhere and at anytime. However, it can be implied by layers of space. Different layers reveal different spots within a space, and thus we can always imagine an abstract movement from one spot to another. Therefore, we can study a potential movement by studying the layers of a space.

To understand these two types of movements, we require a “body”. In the first type of movement, perceptible movement, either the spectator (the body) perceives movement or the spectator (the body) moves. In the second type, potential movement, the spectator conceives the concept based on bodily perception. In either case, a body must be given.

As cinematic atmospheres mostly engage with mise-en-scène (although they are not equal to each other), movements in cinema engage with additional factors. The perceptible movements include an actor's acting and any moving objects within the mise-en-scène; it also indicates the movement of the cinematic body, which is, in many cases, equivalent to the moving camera. Potential movement in cinema is mainly implied through mise-en-scène and framing (i.e. through cinematography).

7.1.4 Integration of Concepts

After the brief review of important concepts in my dissertation, it is necessary to draw a clear diagram to demonstrate how the various concepts relate to each other.



Illus. 7-1

To sum up, the basic understanding of cinematic image is inherited from Henri Bergson and especially Gilles Deleuze. There is not too much room for interpreting new ideas into the concept. But from this I have developed a concept of my own: the cinematic body – although Deleuze has argued about the topic of “body” in his second volume of cinema,¹ his discussion is different from my definition of “cinematic body”, which makes an analogy with the human body. Following that, I have distinguished two ways of perceptions of the cinematic body: the relatively “static” perception, and the dynamic perception. Those two ways respond to two concepts: atmosphere and movement, which are the key words of my study on image, also serve as the bridge between image and space.

¹ See the 8th chapter of *The Time-Image*, Deleuze (2013b), pp. 195-230.

7.2 Inspiring from Cinematic Images

7.2.1 An Overview

In fact, the study of cinematic images mainly focuses on two factors: the built environment and human behavior/activities. The two are inseparable and interactive, since all constructions are built for life and human behavior affects the built environment. I divided my study on cinematic images into two topics, atmospheres and movements, in order to address their contents in more detail. I do not intend to separate atmospheres from movements as they are intertwined. When we deal with the issue of architecture, we cannot simply think that atmospheres correspond to the built environment and that movements refer to human activities, although the built environment is responsible for creating atmospheres and human activities do belong to movements. Images are *duration*, always dynamic. When we consider the study of cinematic images, we should consider all related factors as part of a whole dynamic package, and not as separated, static parts. The three architectural design methods that I discuss seem to be independent, but they are in fact intrinsically linked in a continuous line, progressing step by step.

7.2.2 Atmospheres as an Aesthetic

As area-less spaces, atmospheres are never a concrete construction or an object, although they can be created through these things. For an architectural atmosphere, it mainly regards to two aspects: the built environment and human behavior. Gernot Böhme believes that atmosphere is a concept of a new aesthetic, as well as the subject matter of architecture (see Chapter 2). As “producers”, the task of architects is to create proper atmospheres. In order to do so, they first need to put themselves in the position of the “recipients”, to understand what an architectural atmosphere really is. While I believe that there are many approaches to study of atmospheres, in my research I tackle the problem of cinematic atmospheres. Cinematic images are audio-visual images, and hence those elements that constitute visual images and

audio images are responsible for creating atmospheres. The former includes form, materials, objects (such as furniture, decorations), colours and light, while the latter refers to all varieties of sounds.

First, the spatial form can communicate a perception that, combined with the intuition and memory of a former experience, could create an underlying or subconscious analogy that creates subtle psychological feelings in people, such as the courtyard from Polanski's film *The Tenant*. Another example is Max Dudler's Humboldt-University library (see Chapter 2) and Emil Steffann's church buildings (see Chapter 4).

When we speak of material and materiality, they work strongly on emotions. Different materials give people different feelings. Wood often makes people feel warm and close to the nature. Although marble also makes people think of the nature, it expresses feelings of coldness and hardness. Meanwhile, materials also possess symbolic meanings. Rosewood, as well as marble, can be seen as symbols of an owner's wealth. Compared to materials, colors arouse emotions more directly. Red may express warmth, passion and perhaps anger, while blue expresses calmness, even melancholy. Colors in architecture sometimes have symbolic significance, especially in traditional buildings. For instance, traditional housing on Santorini, representative of housing in the Mediterranean, is white walls with blue roofs, while the traditional housing in the Jiangnan area of China (the ancient Hui Zhou, for example) is mostly white walls with black tiles. Material and color have a strong impact on people's psychological and emotional state. For architectural design, they are significant details for shaping atmospheres. Considering the development of modern architecture since last century, we could get a "bar" with two poles: one pole represents materiality, while the other color and abstraction. Tarkovsky's films (see Chapter 2), Loos' villas (see Chapter 6), Emil Steffann's church buildings that I discussed in Chapter 4 represent the direction of materiality; Steffann's famous acolyte, Peter Zumthor, works in this way as well. I have yet to exemplify any detailed cases of architecture from the other pole, abstraction, however, Godard's and Roy Anderson's films and Corbusier's "white houses" represent the abstract to some extent, as could James Turrell's installations. And it is not difficult to find some concrete examples in our daily life, especially in the case of art-house, commercial interiors, bars and clubs. In fact, most of the time, architects and film directors chose a point "in-between" that contains both materiality and a certain abstraction, such as Rohmer's films (see Chapter 2), Ozu's

films (see Chapter 4) and Mies's New National Gallery in Berlin (see Chapter 6).

The use of sound is much freer in cinema than in architecture. As I argued earlier, it is difficult to classify sounds. In the built environment, the most common sounds might be surrounding sounds such as the human voice, the noise of traffic, the wind blowing, the birds singing, and etc. Further, we are certain that music is a special type of sound. Theoretically, Böhme discussed the acoustic atmospheres associated with music: "The music that pervades a space can make it oppressive, energizing, compact or fragmented."² In architectural design, sounds deserve more attention. Needless to say, buildings such as theatres and concert halls, even the design of residential buildings, need to consider the effect of sounds, since almost everyone watches and listens to TV, films, videos, and music every day. To some extent, sound is similar to light: everywhere it goes, space is formed. It creates space of its own kind.

Atmosphere is not static but a dynamic area-less space. It should be noted that in the built environment, human perception is based on five senses, which means we have more approaches to an architectural atmosphere than to a cinematic atmosphere. Of course, one more important element creates atmospheres: human behavior. Architects usually first focus on the built environment, to consider what they can "offer" for potential human behavior and how to influence human behavior. Meanwhile, once human behavior happens in a built environment, it impacts and helps to shape the atmosphere. The two are in an interactive and dynamic relationship. So, the study of atmosphere finally leads us to the study of human behavior, which I categorize in next section as part of the study of everyday life.

7.2.3 Study on Everyday Life

Generally speaking, the study of everyday life is based on the study of human behavior (the perceptible movement) through the built environment. Cinematic images feed us quantities of materials regarding the fact of daily life.

² Böhme (2017b), p. 76.

The concept of everyday life is usually associated with normalness, triviality, repetitiveness, boredom, insipidness, and so on. However, even the most mediocre daily life is actually unpredictable. *Occasionality* is the first key word that I intend to explore in relation to everyday life. The discovery of occasionality owes much to Neorealist cinema. The Italian film theorist Cesare Zavattini defined neorealism “as an art of encounter – fragmentary, ephemeral, piecemeal, missed encounters.”³ As with the plot of the maid’s work in the morning, which he and De Sica co-wrote for *Umberto D.* (see Chapter 3), the scenario appears so real that it perfectly presents errant and wavering lived reality. Besides, stories of the flâneur such as *Europe 51* (see Chapter 3) and *La Notte* (see Chapter 4), show us an unbound, dreamlike life experience with no orbit. It is true that daily life is not tightly woven following a certain program, but works with loose and “deliberately weak connections and floating events.”⁴ Accordingly, the built environment should be able to provide spaces with possibilities and potentials. Space should never be confined to certain purposes or “functions”. A typical negative case is the “modern villa” from *Mon Oncle*, where people’s life is constrained by the horrible architectural design and so-called convenient modern household appliances (see Chapter 1). *Occasionality* reveals a truth of everyday life and reminds us of the importance of flexibility and freedom in space.

The second key word is *metaphor*, which refers to how daily objects and the built environment are endowed with special meanings due to certain human behaviors. A great example is the case of Fellini’s *8½*, in which the table and white cloth are a metaphor for the womb (see Chapter 4). Unlike those cases from Chapter 2, which do have some similarity in form – such as the layout of the courtyard from *The Tenant* and a theatrical stage, as in Fellini’s case - a metaphor is endowed with meaning mostly through human behavior and not through a similarity of perception. The image of the womb, which is quite distant from the image of a table, is never given in the film, but could be related to, based on the hero’s “mother issue”. In *Arsenic and Old Lace*, a normal Windsor armchair seated at a table becomes the “chair of death”, the symbol of the murder and, with the broken of chair, it indicates that the killing is complete (see Chapter 3). Objects could be treated as an element in creating atmospheres, meanwhile, during the process of being used, they may express something new. Although a space or an object has its own attributes and original functions, users (people) treat it in various ways that do not necessarily

³ Deleuze (2013b), p. 2.

⁴ Deleuze (2013b), p. 1.

follow from their original settings or purposes. A table is used as furniture for eating or working. However, Fellini's hero Guido uses it as a place to hide. Metaphor reminds us that we should not fall into the trap of "preconceptions" and "conventions". Instead, we should keep an open mind to space, and try to explore new operations in daily life through the study of the relationship between objects, the built environment, and the human body and behavior. New relationships and operations may generate new meanings.

The last key word is *rite*. Ozu's films are important here as Ozu was the great master of presenting the banalities of daily life in a *transcendental* way.⁵ As discussed in Chapter 4, Ozu's stories are always covered with an "everyday" appearance: he constantly focused on the Japanese family life (which usually involves the plot of "marrying a daughter") and most of his sets were traditional Japanese houses (or apartments), offices and schools. In these settings, Ozu's *rite* or *transcendental* does not express any grandeur or atmosphere far beyond the banalities of everyday life. Unlike the dramatic effects of Bergman's *Cries and Whispers* or *Fanny and Alexander* (see Chapter 2), Ozu's operation looked quite unobtrusive. His low-angle shooting and well-designed *mise-en-scène* brought a sense of solemn, distance and defamiliarization into daily life. It is notable that Ozu carefully captured the essentials of Japanese houses with doors and windows used to constitute frames, one after the other. He made residential interiors look like a stage, perhaps not as dramatic as the "stage" in Loos's Villa Müller, but through his own aesthetics. Human behaviour (acting) completed his unique atmospheres. Donald Richie has pointed out that when there is a performance (by the characters) in a scenario, Ozu always shot the whole performance, with respect to the performer (actor/actress). His choice accorded with traditional Japanese etiquette that was rare in other directors' films.⁶ This attitude of respecting everyday life was not exclusive to the scene of performance, as Ozu frequently used long takes to shoot trivial and ordinary actions such as wearing gloves. When Ozu focuses on such normal details in daily life, the audience is "forced" to watch the images and pay attention to even the commonest daily behavior. This is the neorealism of Ozu. His aesthetics teach us to give ordinary, everyday life space, time, and respect. In this regard, the maid from Alfonso Cuarón's *Roma* and the mother from Chantal Akerman's *Jeanne Dielman, 23 Quai du Commerce, 1080 Bruxelles* (see Chapter

⁵ Paul Schrader and Donald Richie both commented on Ozu's films as "transcendental" in style. see Schrader (1972) and Richie (1974).

⁶ See Richie (1974), in the chapter on *Shooting*.

3) are similar to Ozu's characters. Through their daily life, the work of housekeeping, we can see how the directors' praise the characters and their everyday lives. *Rite* becomes an aesthetics of daily life, not in a dramatic way, but as a serious attitude, a touching emotion.

Finally, it should be noted that human behavior involves emotions, and emotions create atmospheres. All three key words contain aspects of emotions. Compared with the flaneur films or Fellini's films, most of the time Ozu's camera remained still. Instead of moving, he showed us frames and layers with a balanced composition that lead us to study potential movements and their effects.

7.2.4 Spatial Layers as a Research and Design Method

In Chapter 6, I focused on modern villas and here I will continue to study residential buildings. What I argued in Chapter 4 and Chapter 6 constitute some good analogy between cinema and architecture.

The first analogy exists between Ozu's films and Loos's villas. As I argued in Chapter 4, for Ozu, the space of the Japanese house refers to a complete world, similar as Loos's concept of space as an enclosure. Ozu's indoor spaces are clearly confined within the house, and even when you can see exterior spaces, it is limited. Therefore, we can classify the cinematic space created by Ozu, as well as the architectural space by Loos, into the category of centripetal space. Ozu "forced" his audience to see and listen to only what he gave in the cinematic image, usually combined with frames. It is rare to find the *out-of-field* in Ozu's images. In Loos's villas, the situation is a slight different. Although Loos was fond of creating a symmetric layout and the effect of a "stage" – same as Ozu's preference, his space was rare confined within one room. Such as the spatial relationships between the living room and the dining room, and between the living room and the ladies' room in Villa Müller, constitute what people call *Raumplan*. These rooms have their own boundaries but are connected with each other. When people sit in the living room, they could see the *out-of-field*, the dining room and the ladies' room. However, the view ends at the exterior walls of the villa. After all, Loos did not encourage people to look through windows to get an outdoor view. Therefore, we can say that Loos's

space is “flowing” within the villa.

As another great film master who was fond of frames and layers, Antonioni was on the contrary to Ozu in many ways. The difference between Ozu and Antonioni might be considered as the difference between Eastern and Western aesthetics. Generally speaking, Antonioni’s frames, as well as Mies’s, represent the other type: the centrifugal frame. *Out-of-field* is an important characteristic in Antonioni’s cinematic space. He rarely created a space that is completely closed (except for close-ups). Not to mention that he was a fan of deep focus, and the asymmetric composition of cinematic images, both of which help to build the *out-of-field*, an infinite space out of the screen. Ozu otherwise sometimes used shallow focus. Nonetheless, Ozu’s shallow focus was different from Dreyer’s “shallow space”, since he still revealed rich spatial layers, even if they were blurred in the background.

In the built environment, there are plenty of elements that can create layers, including architectural elements such as doors, windows, mirrors and glass, pillars, walls, furniture, lights, etc., and outdoor elements such as roads, plants, etc. Through the study on Loos’s Villa Müller and Mies’s Villa Tugendhat, we can tell that the movement in architectural space has shown new characteristics in modern architecture, compared to that of Renaissance and Baroque architecture. To sum up, layers as elements in space create various effects:

- i. Increase the depth of space, causing a visual illusion: expand or compress space;
- ii. Set a stage, creating dramatic or ritual effects;
- iii. Interact the view with the path, to create events in space.

Frames and layers is a treasure for architectural design. Architects could use them to create various effects in space, as well as help create the spatial atmosphere we expect.

7.3 Further Questions

In my study, I associated the concept of the flâneur with human behavior and related to the practice of everyday life. I also notice an interesting phenomenon that interactions between human behavior and the built environment create three different scales of space: the scale of an apartment or a house, the scale of a neighborhood, and the scale of urban space. These three scales constitute a meaningful topic worthy of further study. Hitchcock's films could be excellent cases regarding all these three types of space.⁷

First, let's examine the smallest scale: residential space, such as an apartment or house. At this scale, I intend to focus on its independence as a complete individual. In Hitchcock's *Rope*, the story unfolds in an urban apartment, much like Capra's *Arsenic and Old Lace* mainly happens in a villa (both are discussed in Chapter 3). *Dial M for Murder* (1954) shows how a murder is planned to happen in an apartment. In *Psycho* (1960), the motel and the house, both owned by Norman Bates, can be treated as a single residential unit, as both are isolated from the outside world. In all these examples, although the space is limited, it is precisely divided into areas with specific functions, each of which has a corresponding symbolic meaning. Take the three-floor house (the first floor, the ground floor, and the basement) from *Psycho* as an example. In *The Pervert's Guide to Cinema* (2006),⁸ Slavoj Žižek's first documentary film, he calls it the "mother's house" and argues that the three floors correspond to the three levels of human subjectivity: the ground floor is the *ego*, where Norman behaves as a normal motel owner; the first floor upstairs is the *superego*, where Norman "plays" as his dead mother to communicate with himself, since the figure of his mother represents the *superego*; and the basement is the *id*, "the great reservoir".

In addition to all these "murder houses", we have other cases such such as *El ángel exterminador* (*The Exterminating Angel*, 1962) by the Surrealist master Luis Buñuel. The story begins with a night-time party that takes place in a luxury villa, already an independent space. When the guests arrive, they are welcomed into a huge living room. Then, strangely, all the servants leave the villa and all the guests, including the hosts, are trapped in the living room, a much smaller space than the

⁷ See Steven Jacobs (2007), *The Wrong House: The Architecture of Alfred Hitchcock*.

⁸ Žižek's second documentary film is *The Pervert's Guide to Ideology* (2012). He wrote both of the screenplays and "acted" as the leading man in each film. Sophie Fiennes directed both films.

villa. They have to remain in this isolated space. For Buñuel, small spaces were never a problem. He successfully divided the limited space into several areas with different groups of people. Compared to Buñuel's surrealist story, Akerman's *Jeanne Dielman, 23 Quai du Commerce, 1080 Bruxelles* presents a case related to everyday life (see Chapter 3). In all the cases noted above, the filmmakers put the most important story in a rather limited space, like a theatrical stage, in order to focus on the essence of human behavior and try to reveal deeper meanings beneath the appearance of daily life.

Next comes to the medium scale: the neighborhood. There are relatively few cases of this type of space, such as Hitchcock's *Rear Window* (see Chapter 3), and the plots from *Creepy* (see Chapter 1), *The Tenant* (see Chapter 2), and *La Notte* (see Chapter 4). Most cases are related to "voyeurism", except for the usual encounters between neighbours in a modern residential apartment such as in *La Notte*. Another example is *Good Morning* (お早よう, 1959), in which Ozu presents a normal neighborhood relationship in a traditional Japanese residential area. The house in Abbas Kiarostami's (1940-2016) *Like Someone in Love* (2012) depicts both a typical relation in an urban neighborhood and being spied on by a next-door neighbour. Antonioni and Ozu reveal the ordinariness of everyday life, while others show us the dramatic side, the voyeur, which does exist in the neighborhood.

Finally, the third scale: urban space. Most films shot on location in cities, and films with the figure of a flaneur/euse as the hero/-ine, belong to this category. Again I begin with a Hitchcock film. In *Vertigo* (1958), the hero, retired detective John (played by Jimmy Stewart), is hired to investigate the heroine, Madeleine (played by Kim Novak). The film's plot is centred on stalking and surveillance. The first stalking is quite classic: the hero follows the heroine in a car through the city of San Francisco, from her residence to a flower shop, a church, a cemetery, an art museum and finally a hotel. As the story develops, the heroine leads us, and the hero, through additional urban places, including to Fort Point, beneath the Golden Gate Bridge, where she jumps into the bay. Stalking seems to be an intriguing theme for filmmakers. Eric Rohmer's films shot in Paris also contain stalking. In *La Femme de L'aviateur* (*The Aviator's Wife*, 1981), the hero follows a beautiful blond lady from a café, where he first saw her, to the Parc de Buttes-Chaumont, where Rohmer had already shot a short film, *Nadja at Paris* (1964). Another stalking plot occurs in *Les rendez-vous de Paris* (1995), in the third story of the film, when the hero, an artist, follows a young lady to the Picasso Museum. In the same film, Rohmer shot

several romantic places in Paris, including Tschumi's Parc de la Villette.

Antonioni's films also give us abundant studies of urban spaces, since they were shot on location and never inside a studio. They vividly depict urban life in different cities, such as Milan in *Cronaca di un amore* (*Story of a Love Affair*, 1950) and *La Notte*, Rome in *L'amore in città* (*Love in the City*, 1953) and *L'eclisse* (1962), Turin in *Le amiche* (1955), Sicily in *L'avventura* (1960), London in *Blow-up* (1966), Barcelona in *The Passenger* (1975), and so on. Wim Wenders's trilogy of road movies and *Der Himmel über Berlin*, and Rossellini's films, such as *Germany Year Zero*, *Europe 51*, also belong in this third class of films.

The flaneur/euse's behavior is closely related to *social space*, as Lefebvre put it. Urban spaces, which are carefully chosen by directors, are not only about buildings, landscapes, landmarks, or some *spectacle*, as Guy Debord (1931-1994) put it,⁹ but are about how human behaviour interacts with the built environment. How could the cinematic flâneur reveal additional meanings of social space? That is another significant question.

Beyond all the three scales of space above, however, a fourth scale should also be discussed: the cyberspace/ the Internet space. The term cyberspace is a combination of the words "cybernetics" and "space". Cyberspace is an abstract concept that describes the virtual reality within a widespread, interconnected digital technology/computer network. It can be seen as a new type of "social space". When Deleuze defined cinema as the movement-image and the time-image, the internet was not developed yet. Nowadays people can make a video easily with smart phones and publish it on Youtube; or making a videoconference with laptops (especially during the time of COVID-19). Video images creating by the latest device, images published by everyone on Internet, are they the movement-image and the time-image? Of course! Although they would look a bit different (rough or even not pretty), given the cinematic aesthetics is usually missing in those images, they are in essence no different from any cinematic image. The images of cyberspace are getting stronger power in our daily life, and forcing us to confront new challenges and questions: does the theory of atmosphere need updating? Or, do we need a new concept of aesthetics? What could we treat, or learn from images related to cyberspace? These are questions for now and the future.

⁹ See Debord (2004), *The Society of the Spectacle* (French: *La société du spectacle*). The book was first published in 1967.

Bibliography

- Adam, Ken & Frayling, Christopher (2008): *Ken Adam Designs the Movies*. Thames & Hudson.
- Albrecht, Donald (2005): *The Work of Charles and Ray Eames: a legacy of invention*. New York: Abrams.
- Alsayyad, Nezar (2006): *Cinematic Urbanism: A History of the Modern from Reel to Real*. New York: Routledge.
- Andrew, J. Dudley (1976): *The Major Film Theories. An Introduction*. Oxford, London & New York: Oxford University Press.
- Antonioni, Michelangelo (2007): *The Architecture of Vision. Writings and Interviews on Cinema*. Ed. Carlo di Carlo & Giorgio Tinazzi. Chicago: The University of Chicago Press.
- Aristarco, Guido (1951): *Storia delle teoriche del film*. Torino: Giulio Einaudi Editore.
-
- Bacon, Edmund N. (1976): *Design of Cities*. New York: Penguin Books.
- Balázs, Béla (1952): *Theory of the Film: Character and Growth of a New Art*. London: Dennis Dobson Ltd.
- Bazin, André (1967): *What is Cinema? Vol.I*. Trans. Hugh Gary. Berkeley & Los Angeles: University of California Press.
- Bazin, André (1972): *What is Cinema? Vol.II*. Trans. Hugh Gary. Berkeley & Los Angeles: University of California Press.
- Benjamin, Walter (1985): *Charles Baudelaire: A Lyric Poet in the Era of High Capitalism*. London: Verso Editions.
- Benjamin, Walter (2008): *The Work of Art in the Age of Mechanical Reproduction*. Trans. J. A. Underwood. London: Penguin Books.
- Bergson, Henri (1929): *Matter and Memory*. Trans. Nancy Margaret Paul and W. Scott Palmer. London: George Allen & Unwin Ltd. New York: The Macmillan Company.
- Bergson, Henri (1998): *Creative Evolution*. Trans. Arthur Mitchell. New York: Dover

Publications.

- Bienefeld, Heinz & Nikolaus Kuhnert (1986): *Bauen mit Stein. Heinz Bienefeld im Gespräch mit Nikolaus Kuhnert und Manfred Speidel*. Arch+. 84: 24-30.
- Böhme, Gernot (2013): *Architektur und Atmosphäre*. München: Wilhelm Fink Verlag. 2. korrr. Auflage.
- Böhme, Gernot (2014a): *Architecture and atmosphere*, Helsinki : Tapio Wirkkala Rut Bryk Foundation.
- Böhme, Gernot (2014b): *Atmosphäre: Essays zur neuen Ästhetik*. Berlin: Suhrkamp Verlag.
- Böhme, Gernot (2017a): *The Aesthetics of Atmospheres*. Ed. Jean-Paul Thibaud. New York: Routledge.
- Böhme, Gernot (2017b): *Atmospheric Architectures: the Aesthetics of Felt Spaces*. Ed. and trans. A. –Chr. Engels-Schwarzpaul. London: Bloomsbury Academic.
- Bonte, Alexander, Ed. (2012): *Max Dudler*. Berlin: Kehrer.
- Bordwell, David & Thompson, Kristin (2008): *Film Art: An introduction*. New York: McGraw-Hill.
- Brown, Blain (2012): *Cinematography: Theory and Practice: Image Making for Cinematographers, Directors, and Videographers*. 2nd Edition. Oxford: Focal Press.
- Brunner, Philipp, Jörg Schweinitz & Margrit Tröh, Ed. (2012): *Filmische Atmosphären*. Marburg: Schüren Verlag GmbH.
- Bruno, Giuliana (2002): *Atlas of Emotion: Journeys in Art, Architecture, and Film*. New York: Verso.
-
- Chion, Michel (1994): *Audio-Vision: Sound on Screen*. Ed. and trans. Claudia Gorbman. New York: Columbia University Press.
- Choisy, Auguste (1899): *Histoire de l'Architecture, Vol. 1*. Paris: E. Rouveyre.
- Clarke, David B., Ed. (1997): *The Cinematic City*. London & New York: Routledge.
- Colomina, Beatriz, Ed. (1992): *Sexuality & Space*. New York: Princeton Architectural Press.
- Colomina, Beatriz (1990): *Intimacy and spectacle- the interiors of Adolf Loos*. AA Files. No. 20: 5-15.
- Cook, David. A. (2016): *A History of narrative film*. Fifth Edition. New York: W. W. Norton & Company.
- Curtis. William J. R. (1986): *Le Corbusier: Ideas and Forms*. Phaidon Press Inc.

- Debord, Guy (2004) : *The Society of the Spectacle*. Translated by Donald Nicholson-Smith. New York : Zone.
- Deleuze, Gilles (2013a): *Cinema I: The Movement-Image*. Trans. Hugh Tomlinson and Barbara Habberjam. London: Bloomsbury Academic.
- Deleuze, Gilles (2013b): *Cinema II: The Time-Image*. Trans. Hugh Tomlinson and Robert Galeta. London: Bloomsbury Academic.
- Delluc, Louis (1920): *Photogénie*. Paris: M. de Brunoff.
-
- Eisenstein, Sergei(1988): *S. M. Eisenstein Selected Works Vol. 1: Writings 1922-34*. Ed. and trans Richard Taylor. London, BFI, Bloomington : Indiana University Press.
- Eisenstein, Sergei (2010): *Towards a Theory of Montage: Sergei Eisenstein Selected Works, Vol. 2*. Ed. Michael Glenny and Richard Taylor. Trans. Michael Glenny. London: I. B. Tauris.
-
- Forty, Adrian (2012): *Words and Buildings: A Vocabulary of Modern Architecture*. London: Thames & Hudson.
-
- Giannetti, Louis (2008): *Understanding Movies*. Eleventh Edition. New Jersey: Pearson Education Inc.
- Giedion, Sigfried (1970): *Mechanization Takes Command. A Contribution to Anonymous History*. Third Printing. New York: Oxford University Press.
- Giedion, Sigfried (2008): *Space, Time and Architecture: the Growth of a New Tradition*. Fifth revised and enlarged edition. Cambridge, Massachusetts: Harvard University Press.
- Godard, Jean-Luc (1972): *Godard on Godard. Critical Writings by Jean-Luc Godard*. Edited by Jean Narboni & Tom Milne. New York: Da Capo Press.
- Gravagnuolo, Benedetto (1982): *Adolf Loos, Theory and Works*. Translated by C. H. Evans. New York: Rizzoli.
- Grisi, Tino (2014): *Können wir noch Kirchen bauen?* Regensburg: Verlag Schnell & Steiner GmbH.

- Hammer-Tugendhat, Daniela, Ivo Hammer & Wolf Tegethoff (2015): *Tugendhat Hous. Ludwig Mies van der Rohe*. Translated by Andrea Lyman. Basel: Birkhäuser.
- Handyside, Fiona, Ed. (2013): *Eric Rohmer. Interviews*. Jackson: University Press of Mississippi.
- Hars-Tschachotin, Boris, Kristina Jaspers, Peter Mänz & Rainer Rother Ed.(2014): *Bigger Than Life. Ken Adam's Film Design*. Bielefeld: Kerber Verlag / Berlin: Deutsche Kinemathek, Museum für Milm und Fernsehen.
- Harvey, David (1999): *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*. Cambridge, Massachusetts & Oxford: Blackwell Publisher.
- Heimbach, Johannes (1995): „*Quellen menschlichen Seins und Bauens offen halten*“: *Der Kirchenbaumeister Emil Steffann (1899-1968)*. Altenberge: Oros Verlag.
- Hülsmann, Gisberth (1981): *Emil Steffann*. Düsseldorf: Akad. d. Architektenkammer Nordrhein-Westfalen.
- Jacobs, Steven (2007): *The Wrong House: The Architecture of Alfred Hitchcock*. Rotterdam: 010 Publishers.
- Kant, Immanuel (1998): *Critique of Pure Reason. The Cambridge Edition of the Works of Immanuel Kant*. Translated by Paul Guyer & Allen W. Wood. Cambridge: Cambridge University Press.
- Kulka, Heinrich (1979): *Adolf Loos: das Werk des Architekten*. Wien: Löcker Verlag.
- Koolhaas, Rem (2004): *The Dutch Embassy in Berlin by OMA/ Rem Koolhaas*. Rotterdam: NAI Publishers.
- Lamster, Mark, Ed. (2000): *Architecture and Film*. New York: Princeton Architectural Press.
- Lange, Christiane & Robbrecht en Daem architecten, Ed. (2014): *Mies 1:1. Ludwig Mies van der Rohe. The Gold Club Project*. Köln: Verlag der Buchhandlung Walther König.
- Lienhardt, Conrad, Ed. (1999): *Katalogbuch: Emil Steffann (1899-1968). Werk, Theorie, Wirkung*. Regensburg: Verlag Schnell & Steiner.
- Liu, Quanquan (2015): “Space of Fiction” — A Review on “Architecture and Cinema”

- Teaching Program of Atelier Lapiere in AAM. *The Architect*. 177 (05): 42-49.
- Liu, Quanquan (2019): *The Church-Architect from "the Cologne School": Emil Steffann and his Architecture of "Armut"*. *The Architect*. vol.198 (02): 24-32.
- Long, Christopher (2009): *The Originals and Context of Adolf Loos's Ornament and Crime*. *Journal of the Society of Architectural Historians* 68, no. 2: 200-223.
- Loos, Adolf (1921): *Ins Leere Gesprochen: 1897-1900*. Berlin: Verlag der Sturm.
- Loos, Adolf (1982): *Spoken into the Void. Collected Essays 1897-1900*. Trans. Jane O. Newman and John H. Smith. Cambridge, Massachusetts: The MIT Press.
- Mastrigli, Gabriele, Ed. (2017): *Superstudio Works 1966-1978*. Macerata: Quodlibet Habitat.
- Midal, Alexandra (2016): *Eames & Hollywood : Selection From the 'Movie Sets' Collection*. Bruxelles : CFC-Éditions
- Mitry, Jean (2000): *The Aesthetics and Psychology of the Cinema*. Trans. Christopher King. Bloomington: Indiana University Press.
- Murphy, Diana. Ed. (2005): *The Work of Charles and Ray Eames*. New York: Harry N. Abrams.
- Neumann, Dietrich (1996): *Film Architecture: Set Designs from Metropolis to Blade Runner*. München: Prestel.
- Pallasmaa, Juhani (2007): *The Architecture of Image: Existential Space in Cinema*. Helsinki: Pakennustieto Publishing.
- Penz, François & Thomas, Maureen, Ed. (1997): *Cinema & Architecture: Méliès, Mallet-Stevens, Multimedia*. London: British Film Institute.
- Posener, Julius (1992): *Hans Poelzig. Reflections on His Life and Work*. Trans. Christine Charlesworth. New York: The Architectural History Foundation & Cambridge, Massachusetts: The MIT Press.
- Pratt, Geraldine & Rose Marie San Juan (2014): *Film and Urban Space: Critical Possibilities*. Edinburgh: Edinburgh University Press.
- Pu, Songling (1916): *Strange Stories from a Chinese Studio*. Translated by Herbert Allen Giles. London: T. Werner Laurie.

- Richie, Donald (1974): *Ozu. His Life and Films*. Berkeley, Los Angeles, London: University of California Press.
- Riley, Terence & Bergdoll, Barry, Ed. (2001): *Mies in Berlin*. New York: The Museum of Modern Art.
- Rowe, Colin & Slutzky, Robert (1997): *Transparency*. Basel: Birkhäuser.
- Schaal, Hans Dieter (1996): *Learning from Hollywood: Architecture and Film*. Stuttgart: Axel Menges.
- Schmitz, Hermann (2016): *Atmosphären*. Freiburg & München: Verlag Karl Alber.
- Schrader, Paul (1972): *Transcendental style in film: Ozu, Bresson, Dreyer*. Oakland, California: University of California Press.
- Schuldenfrei, Eric (2015): *The Films of Charles and Ray Eames*. London & New York: Routledge.
- Simpson, P., Utterson, A. & Shepherdson, K.J. Eds. (2004): *Film Theory: Critical Concepts in Media and Cultural Studies*. Vol. I. London & New York: Routledge.
- Tarkovsky, Andrey (1989): *Sculpting in Time: Reflections on the Cinema*. Austin, TX: University of Texas Press.
- Truffaut, François (1985): *The Films in My Life*. Translated by Leonard Mayhew. New York: Simon & Schuster.
- Tschumi, Bernard (1994): *The Manhattan Transcripts*. London: Academy Editions.
- Van Duzer, Leslie & Kleinman, Kent (1994): *Villa Müller: A Work of Adolf Loos*. New York: Princeton Architectural Press.
- Venturi, Robert (2002): *Complexity and Contradiction in Architecture*. New York: The Museum of Modern Art.
- Vertov, Dziga (1984): *Kino-Eye: The Writings of Dziga Vertov*. Edited by Annette Michelson. Translated by Kevin O'Brien. Berkeley: University of California Press.
- Vidler, Anthony (2002): *Warped Space: Art, Architecture, and Anxiety in Modern Culture*. Cambridge, Massachusetts: The MIT Press.

Wittkower, Rudolf (1975): *Studies in the Italian Baroque: the collected essays of Rudolf Wittkower*. London : Thames and Hudson.

Wölfflin, Heinrich (1979): *Renaissance and Baroque*. Trans. Kathrin Simon. New York: Cornell University Press.

Xiong, Xiangnan (2014): *The Openness and Intimacy of Interiors of Adolf Loos*. *Journal of Human Settlements in West China*. 29 (04): 58-63.

Zumthor, Peter (1999): *Thinking Architecture*. Translated by Maureen Oberli-Turner. Basel: Birkhäuser.

Zumthor, Peter (2006): *Atmospheres. Architectural Environments, Surrounding Objects*. Translated by Iain Galbraith, Wiesbaden. Basel: Birkhäuser.

蒲松齡 (2002): 聊齋志異選. 張友鶴選注. 北京: 人民文學出版社.

小津安二郎 (2010): 僕はトウフ屋だからトウフしか作らない. 東京: 日本図書センター.

Credits of Figures

Introduction

- Fig. i *Supersurface: An Alternative Model for Life on the Earth* (1972), directed by Superstudio, <https://www.architectureplayer.com/authors/superstudio>
- Fig. ii *Ceremony (Cerimonia)*, 1973), directed by Superstudio, <https://www.architectureplayer.com/authors/superstudio>
- Fig. iii *Powers of Ten*TM (1977), directed by Charles and Ray Eames, DVD
- Fig. iv Tschumi (1994): *The Manhattan Transcripts*. London: Academy Editions. p. VII.
- Fig. v Photo by the author
- Fig. vi, vii *Stalker* (2015), directed and produced by the author

Chapter 1

- Fig. 1-1, 1-2 *Wings of Desire (Der Himmel über Berlin)*, 1987), directed by Wim Wenders, DVD
- Fig. 1-3 *Dr. Strangelove: How I Learned to Stop Worrying and Love the Bomb* (1964), directed by Stanley Kubrick, DVD
- Fig. 1-5 *Equinox Flower (彼岸花)*, 1958), directed by Yasujirō Ozu(小津 安二郎), DVD
- Fig. 1-6 *The Night (La Notte)*, 1961), directed by Michelangelo Antonioni, DVD
- Fig. 1-7 *Knights of Cups* (2015), directed by Terrence Malick, DVD
- Fig. 1-8 *The Passion of Joan of Arc* (1928), directed by Carl Theodor Dreyer, DVD
- Fig. 1-9 *Vive le Tour* (1962), directed by Louis Malle, DVD
- Fig. 1-10 *The 400 Blows (Les Quatre Cents Coups)*, 1959), directed by François Truffaut, DVD
- Fig. 1-11 *The Passenger (Professione: reporter)*, 1975) 41, directed by Michelangelo Antonioni, DVD
- Fig. 1-4 Photo by the author

Chapter 2

- Fig. 2-1, 2-2 *The Tenant (Le locataire, 1976)*, directed by Roman Polanski, DVD
- Figs. 2-4 & 2-5 From Bonte, Alexander, Ed. (2012): *Max Dudler*. Berlin: Kehrer. p. 100.
- Fig. 2-7 *The Sacrifice (Offret, 1986)*, directed by Andrei Tarkovsky, DVD
- Fig. 2-8 *Contempt (Le mépris, 1963)*, directed by Jean-Luc Godard, DVD
- Figs. 2-12 to 2-15 *Pierrot the madman (Pierrot le fou, 1965)*, directed by Jean-Luc Godard, DVD
- Fig. 2-17 *Le Havre (2011)*, directed by Aki Kaurismäki, DVD
- Fig. 2-18 *A Pigeon Sat on a Branch Reflecting on Existence (2014)*, directed by Roy Andersson, DVD
- Fig. 2-19 *My Girlfriend's Boyfriend (L'Ami de mon amie, 1987)*, directed by Éric Rohmer, DVD
- Fig. 2-20 *Cries and Whispers (Viskningar och Rop, 1972)*, directed by Ingmar Bergman, DVD
- Fig. 2-21 Drawing by Liaohui Guo
- Fig. 2-22 Drawing by Chao Wu & Reto Streit
- Fig. 2-23 *The Ball (Le Bal, 1983)*, directed by Ettore Scola, DVD
- Fig. 2-24 *The Seine Meets Paris (La Seine a rencontré Paris, 1957)*, directed by Joris Ivens, DVD
- Figs. 2-3, 2-6, 2-9 to 2-11, 2-16 Photos by the author

Chapter 3

- Fig. 3-1 *Night and Fog (Nuit et brouillard, 1956)*, directed by Alain Resnais, DVD
- Fig. 3-3 *Journey to Italy (Viaggio in Italia, 1954)*, directed by Roberto Rossellini, DVD
- Fig. 3-4 *Cleo from 5 to 7 (Cléo de 5 à 7, 1962)*, directed by Agnès Varda, DVD
- Fig. 3-5 *Bicycle Thieves (Ladri di biciclette, 1948)*, directed by Vittorio De Sica, DVD
- Fig. 3-6 *Umberto D. (1952)*, directed by Vittorio De Sica, DVD
- Fig. 3-7 *Arsenic and Old Lace (1944)*, directed by Frank Capra, DVD
- Fig. 3-8 *Pickpocket (1959)*, directed by Robert Bresson, DVD
- Fig. 3-9 *The Seventh Continent (Der siebente Kontinent, 1989)*, directed by Michael Haneke, DVD
- Figs. 3-10 to 3-12 *Roma (2018)*, directed by Alfonso Cuarón, DVD
- Fig. 3-13 *The Word (Ordet, 1955)*, directed by Carl Theodor Dreyer, DVD
- Fig. 3-14 *The Cry (Il Grido, 1957)*, directed by Michelangelo Antonioni, DVD
- Fig. 3-15 *Citizen Kane (1941)*, directed by Orson Welles, DVD
- Fig. 3-17 *Rear Window (1954)*, directed by Alfred Hitchcock, DVD

- Fig. 3-18 *The Eclipse* (*L'Eclisse*, 1962), directed by Michelangelo Antonioni, DVD
- Fig. 3-19 *Loos Ornamental* (2008), directed by Heinz Emigholz, DVD
- Fig. 3-20 *Antoine and Colette* (*Antoine et Colette*, 1962), directed by François Truffaut, DVD
- Fig. 3-21, 3-22 *Identification of a Woman* (*Identificazione di una donna*, 1982), directed by Michelangelo Antonioni, DVD
- Fig. 3-23 *The Earrings of Madame de...* (*Madame de...*, 1953), directed by Max Ophüls, DVD
- Fig. 3-24 *The Adventure* (*L'Avventura*, 1960), directed by Michelangelo Antonioni, DVD
- Fig. 3-2, 3-16 Drawn by the author

Chapter 4

- Figs. 4-1 to 4-7, 4-9 to 4-12 *The Night* (*La Notte*, 1961), directed by Michelangelo Antonioni, DVD
- Figs. 4-13 to 4-20, 8½ (1963), directed by Federico Fellini, DVD
- Figs. 4-21 to 4-25 秋日和 (Late Autumn, 1960), directed by Yasujirō Ozu(小津 安二郎), DVD
- Fig. 4-8 Photo by the author

Chapter 5

- Fig. 5-1 From Lienhardt, Conrad (1999): *Emil Steffann (1899-1968): Werk, Theorie, Wirkung*. Regensburg: Verlag Schnell & Steiner. p.9
- Figs. 5-11 & 5-12 From Lienhardt, Conrad (1999): *Emil Steffann (1899-1968): Werk, Theorie, Wirkung*. Regensburg: Verlag Schnell & Steiner. pp. 13 & 14.
- Fig. 5-13 From Hülsmann, Gisberth (1981): *Emil Steffann*. Düsseldorf: Akad. d. Architektenkammer Nordrhein-Westfalen. p. 79
- Fig. 5-14 From Grisi, Tino (2014): *Können wir noch Kirchen bauen?* Regensburg: Verlag Schnell & Steiner GmbH. p. 124
- Fig. 5-16 From Hülsmann, Gisberth (1981): *Emil Steffann*. Düsseldorf: Akad. d. Architektenkammer Nordrhein-Westfalen. p. 83
- Fig. 5-18 From Lienhardt, Conrad (1999): *Emil Steffann (1899-1968): Werk, Theorie, Wirkung*. Regensburg: Verlag Schnell & Steiner. p.39
- Fig. 5-37 Photo by Chenxi Gong
- Fig. 5-44 Curtis. William J. R. (1986): *Le Corbusier: Ideas and Forms*. Phaidon Press Inc. p185
- Fig. 5-47 From Lienhardt, Conrad (1999): *Emil Steffann (1899-1968): Werk, Theorie, Wirkung*. Regensburg: Verlag Schnell & Steiner. p.64

Figs. 5-2 to 5-10, 5-15, 5-17, 5-19 to 5-43, 5-45, 5-46 Photos by the author

Note: Figs. 5-3, 5-5 to 5-10, 5-17, 5-19 to 5-23, 5-25, 5-27, 5-28, 5-30, 5-33, 5-35, 5-36, 5-39 to 5-42 are previously published in Liu, Quanquan (2019): *The Church-Architect from "the Cologne School": Emil Steffann and his Architecture of "Armut"*. *The Architect*. vol.198 (02): 24-32.

Chapter 6

Figs. 6-7 to 6-11 From Eisenstein, Sergei (2010): *Towards a Theory of Montage: Sergei Eisenstein Selected Works, Vol. 2*. Ed. Michael Glenny and Richard Taylor. Trans. Michael Glenny. London: I. B. Tauris. pp. 66, 62, 63, 64, 65.

Fig. 6-12 & 6-15 Drawn by the author based on donthe diagrams from Bacon, Edmund N. (1976): *Design of Cities*. New York: Penguin Books. pp. 110 & 114.

Figs. 6-18 & 6-19 From Wittkower, Rudolf (1975): *Studies in the Italian Baroque: the collected essays of Rudolf Wittkower*. London : Thames and Hudson. pp. 194 & 196.

Fig. 6-24 From Gravagnuolo, Benedetto (1982): *Adolf Loos, Theory and Works*. Trans. C. H. Evans. New York: Rizzoli. p. 104

Figs. 6-25, 6-26, 6-32 to 6-35, 6-37 *Loos Ornamental* (2008), directed by Heinz Emigholz, DVD

Figs. 6-27 to 6-30 Drawn by the author, based on the drawings from Van Duzer, Leslie & Kleinman, Kent (1994): *Villa Müller: A Work of Adolf Loos*. New York: Princeton Architectural Press. pp. 81, 85, 84

Fig. 6-31 Postcard. Photographer: Pavel Štecha, Radovan Boček.

Figs. 6-40 & 6-41 From Hammer-Tugendhat, Daniela, Ivo Hammer & Wolf Tegethoff (2015): *Tugendhat Hous. Ludwig Mies van der Rohe*. New editon. Trans. Andrea Lyman. Basel: Birkhäuser. pp. 106-107.

Fig. 6-42, 6-43, 6-45, 6-49 *The Tugendhat House (Haus Tugendhat, 2013)*, directed by Dieter Reifarh, DVD

Fig. 6-50 From Riley, Terence & Bergdoll, Barry, Ed. (2001): *Mies in Berlin*. New York: The Museum of Modern Art. p. 195.

Figs. 6-1 to 6-6, 6-13, 6-14, 6-16, 6-17, 6-20 to 6-23, 6-36, 6-38, 6-39, 6-44, 6-46 to 6-48, 6-51 to 6-56 Photos by the author

Index

Films

The information of the films is written in the following order:

English title (Original title, Released year)

The title is written once when the original one is English or there exists no official English title.

- 8½ (1963) 115, 119, 194, 198
- À propos de Nice (1930) 85
- Alice in the Cities (1974) 40
- All the World's Memory (Toute la mémoire du monde, 1957) 81, 194
- Antoine and Colette, (Antoine et Colette, 1962) 98, 101
- Arrival of a Train at La Ciotat (L'Arrivée d'un train en gare de La Ciotat, 1896) 40, 81
- Arsenic and Old Lace (1944) 90, 198, 202
- Autumn Sonata (Höstsonaten, 1978) 72
- Battleship Potemkin (Броненосец «Потёмкин», 1925) 44
- Belle de Jour (1967) 46
- Berlin – Die Sinfonie der Großstadt (Berlin: Symphony of a Metropolis, 1927) 35, 85
- Bicycle Thieves (Ladri di biciclette, 1948) 87, 88
- Billy Lynn's Long Halftime Walk (2016) 26
- Blade Runner (1982) 10
- Blow-up (1966) 204
- Breathless (À bout de souffle, 1960) 45
- Ceremony (Cerimonia, 1973) 11
- Citizen Kane (1941) 95
- Claire's Knee (Le Genou de Claire, 1970) 71
- Cleo from 5 to 7 (Cléo de 5 à 7, 1962) 86, 99
- Contempt (Le mépris, 1963) 65
- Creepy (クリーピー 偽りの隣人, 2016) 40, 203
- Cries and Whispers (Viskningar och Rop, 1972) 72, 199

- Commerce, 1080 Bruxelles (1975)
92, 200, 203
- Dial M for Murder (1954) 202
- Die Wachtparade (1896) 35
- Directed by Andrei Tarkovsky (Rigi
Andrej Tarkovskij, 1988) 63
- Dr. Strangelove: How I Learned to Stop
Worrying and Love the Bomb
(1964) 33
- Equinox Flower (彼岸花, 1958) 120,
122
- Europe '51 (Europa '51, 1952) 86, 198,
204
- Fanny and Alexander (Fanny och
Alexander, 1982) 72, 199
- Germany Year Zero (Germania anno
zero, 1948) 35, 86, 204
- Good Bye Lenin! (2003) 35
- Good Morning (お早よう, 1959) 203
- Hiroshima, My Love (Hiroshima Mon
Amour, 1959) 46
- Identificazione di una donna
(Identification of a Woman, 1982)
99, 101
- Inception (2010) 33
- Jeanne Dielman, 23, Quai du
- Johnny Guitar (1954) 102
- Journey to Italy (Viaggio in Italia, 1954)
86
- Kings of the Road (1976) 40
- Knights of Cups (2015) 37 168
- Kohayagawa-ke no aki (小早川家の秋,
1961) 119
- Last Year at Marienbad (L'Année
dernière à Marienbad, 1961) 46
- Late Autumn (秋日和, 1960) 119, 120,
122
- Late Spring (晚春, 1949) 119
- Le Havre (2011) 70
- Leben und Treiben am Alexanderplatz
(1896) 34
- Like Someone in Love (2012) 203
- Loos Ornamental (2008) 98, 172
- Love in the City (L'amore in città, 1953)
204
- Man with a Movie Camera (Человек с
кино-аппаратом, 1922) 40, 85
- Metropolis (1927) 33
- My Girlfriend's Boyfriend (L'Ami de
mon amie, 1987) 71
- My Uncle (Mon Oncle, 1958) 33, 198
- Nadja in Paris (Nadja à Paris, 1964) 203
- Night and Fog (Nuit et brouillard, 1956)

- 81, 116, 194
- Oh Boy (2012) 35, 86
- Phantom Thread (2017) 76
- Pickpocket (1959) 91
- Pierrot the madman (Pierrot le fou, 1965) 35, 67, 122
- Playtime (1967) 33
- Pour le Mistral (1966) 77
- Psycho (1960) 202
- Rain (Regen, 1929) 77, 85
- Rear Window (1954) 95, 96, 110, 203
- Rendez-vous in Paris (Les rendez-vous de Paris, 1995) 203
- Roma (2018) 92, 99, 199
- Rope (1948) 91, 202
- Run Lola Run (1998) 35, 88
- Russian Ark (Русский ковчег, 2002) 46
- Sanma no aji (秋刀魚の味, 1962) 119
- Song to Song (2017) 68
- Story of a Love Affair (Cronaca di un amore, 1950) 204
- Stromboli (1950) 86
- Sunrise (1927) 35
- Supersurface: An Alternative Model for Life on the Earth (1972) 11
- The 400 Blows (Les Quatre Cents Coups, 1959) 41
- The Adventure (L'Avventura, 1960) 101, 108, 204
- The Aviator's Wife (La Femme de L'aviateur, 1981) 203
- The Ball (Le Bal, 1983) 77
- The Cabinet of Dr. Caligari (Das Cabinet des Dr. Caligari, 1920) 33
- The Collector (La Collectionneuse, 1967) 71
- The Cook, the Thief, His Wife and Her Lover (1989) 65
- The Cry (Il Grido, 1957) 94
- The Discreet Charm of the Bourgeoisie (Le Charme discret de la bourgeoisie, 1972) 46
- The Earrings of Madame de... (Madame de..., 1953) 101, 112
- The Eclipse (L'Eclisse, 1962) 96, 107, 204
- The Exterminating Angel (El ángel exterminador, 1962) 202
- The Girlfriends (Le amiche, 1955) 204
- The Golem (Der Golem, 1920) 33
- The Great Train Robbery (1903) 43
- The Last Laugh (Der letzte Mann, 1924) 40
- The Night (La Notte, 1961) 37, 107, 114, 119, 194, 198, 203, 204
- The Passenger (Professione: reporter, 1975) 41, 49, 204
- The Passion of Joan of Arc (1928) 37, 94
- The Pervert's Guide to Cinema (2006) 202
- The Purple Rose of Cairo (1985) 160
- The Sacrifice (Offret, 1986) 63, 76, 114
- The Seine Meets Paris (La Seine a rencontré Paris, 1957) 77
- The Seventh Continent (Der siebente Kontinent, 1989) 45, 91

The Sweet Life (La Dolce Vita, 1960)
115

The Tenant (Le locataire, 1976) 60, 75,
194, 198, 203

The Tugendhat House (Haus Tugendhat,
2013) 172

The Word (Ordet, 1955) 94

The Wrong Move (1976) 40

Umberto D. (1952) 87 90, 109, 198

Unter den Linden (1896) 34

Vertigo (1958) 203

Victoria (2015) 35, 41, 46

Vive le Tour (1962) 41

Wings of Desire (Der Himmel über
Berlin, 1987) 10, 28, 35, 204

Worker Leaving the Factory (La Sortie
de l'Usine Lumière à Lyon, 1895)
40

People

- Adam, Ken 33
Akerman, Chantal 92, 200, 203
Allen, Woody 160
Anderson, Paul Thomas 76
Anderson, Roy 34, 70, 101, 196
Andrew, J. Dudley 11
Antonioni, Michelangelo 27, 37, 41, 43, 49, 94, 96, 99, 101, 104, 107-110, 112, 114, 119, 125, 172, 185, 194, 201, 203, 204
Aristarco, Guido 29

Bacon, Edmund 163, 165
Balázs, Béla 159, 160
Bates, Norman 202
Baudelaire, Charles 85
Bazin, André 58, 87, 88, 90
Benjamin, Walter 9, 41, 84
Bergman, Ingmar 73, 199
Bergson, Henri 7, 17, 18, 21, 25-27, 191
Bienefeld, Heinz 126, 127, 132, 139, 142, 144, 149
Böhm, Dominikus 126, 149
Böhme, Gernot 55-57, 74, 193, 195, 197
Borromini, Francesco 169
Boullée, Étienne-Louis 61
Bramante, Donato 6, 34
Bresson, Robert 91
Bruno, Giuliana 10
Buñuel, Luis 46, 202, 203

Canudo, Ricciotto 8, 28
Capra, Frank 90, 202
Choisy, Auguste 161
Colomina, Beatriz 177, 179
Cuarón, Alfonso 92, 99, 200

Day-Lewis, Daniel 76
De Sica, Vittorio 87, 88, 90, 109, 124, 198
Debord, Guy 204
Deleuze, Gilles 16-18, 21, 25-27, 30, 39, 76, 85, 94, 96, 124, 156, 192
Delluc, Louis 28
Dickens, Charles 85
Dreyer, Carl Theodor 37, 39, 94
Dudler, Max 61, 196

Eames, Charles 11
Eames, Ray 11
Eisenstein, Sergei 43-45, 161, 163, 165, 168, 170, 188
Emigholz, Heinz 98, 172, 180
Epstein, Jean 29
Fellini, Federico 104, 115, 116, 119, 194, 198-200

Ferzetti, Gabriele 101
Forty, Adrian 19, 20, 60
Friedrich, Caspar David 57

Ganz, Bruno 28
 Giedion, Sigfried 5-8, 19, 21, 34, 165
 Godard, Jean-Luc 26, 35, 45, 65, 67, 68,
 70, 71, 122, 196
 Grant, Cary 90
 Greenaway, Peter 65
 Guardini, Romano 130
 Guarini, Guarino 6
 Guys, Constantin 85

 Haneke, Michael 45, 91
 Hara, Setsuko (原 節子) 120
 Harvey, David 10
 Hejduk, John 175
 Hildebrand, Adolf 19
 Hitchcock, Alfred 91, 95, 96, 157, 202,
 203
 Hopmann, Paul Georg 132
 Hülsmann, Gisberth, 132, 139, 144

 Ivens, Joris 77, 79, 85

 Jensen-Klint, Peder Vilhelm 129

 Kant, Immanuel 16-19, 55
 Kaurismäki, Aki 68, 70, 71
 Kiarostami, Abbas 203
 Koolhaas, Rem 179
 Kracauer, Siegfried 58

 Kubrick, Stanley 33
 Kuleshov, Lev 13, 44
 Kulka, Heinrich 173, 175
 Kurosawa, Kiyoshi (黒沢 清) 40

 Le Corbuiser 151, 161, 172, 173, 183,
 186, 196
 Léaud, Jean-Pierre 41
 Lee, Ang (李 安) 26
 Lefebvre, Henri 19, 20, 204
 Lhota, Karel 172, 173
 Lipps, Theodor 19
 Loos, Adolf 19, 51-53, 87, 98, 125, 172,
 173, 175, 176, 179-181, 183, 185,
 186, 196, 198-201
 Loos, Lina 175
 Lu, Andong 15
 Lüfkens, Karl Otto 132
 Lumière Brothers 7, 34, 40, 81

 Malick, Terrence 37, 68, 168
 Malle, Louis 41
 Mastroianni, Marcello 37, 107, 115
 Méliès, Georges 43
 Michelangelo 6, 165, 166
 Mies van der Rohe, Ludwig 117, 125,
 172, 181, 183, 185, 186, 197, 201
 Mitry, Jean 44, 58
 Müller, František 172
 Murnau, F. W. 35, 40

 Nervi, Pier Luigi 112
 Nolan, Christopher 33

Novak, Kim 203
 139, 148
 Scola, Ettore 77
 Scott, Ridley 10
 Semper, Gottfried 19, 52, 172
 Skladanowsky Brothers 34, 40
 Sokurov, Aleksandr 46
 Steffann, Emil 126-155, 196
 Stewart, James 95, 203
 SuperStudio 11, 13
 Tarkovsky, Andrei 63, 64, 70, 71, 73, 75,
 76, 114, 175, 196
 Tati, Jacques 33
 Truffaut, François 41, 98, 101, 115
 Tschumi, Bernard 11, 13, 204
 Tsukasa, Yôko (司 葉子) 120
 Turner, William 57
 Turrell, James 68
 Tykwer, Tom 88
 Utzon, Jorn 129
 Varda, Agnès 86, 99
 Vasari, Giorgio 165
 Vertov, Dziga 40, 47, 85, 86, 192
 Vidler, Anthony 10, 85, 161
 Vigo, Jean 85
 Vischer, Robert 19
 Vitti, Monica 37, 101
 Welles, Orson 95
 Ophüls, Max 101, 112
 Ozu, Yasujiro (小津 安二郎) 36, 39,
 49, 104, 119-125, 172, 179, 197,
 199-201, 203
 Pallasmaa, Juhani 10
 Pieper, Hans 130
 Poelzig, Hans 33
 Polanski, Roman 60, 61, 196
 Ponti, Gio 112
 Porter, Edwin S. 44
 Ray, Nicholas 102
 Reifarth, Diter 172
 Resnais, Alain 46, 81, 116, 194
 Richie, Donald 199
 Roget, Peter Mark 26
 Rohmer, Eric 71, 73, 122, 197, 203, 204
 Rosiny, Nikolaus 132
 Rossellini, Roberto 35, 86, 204
 Saint Francis of Assisi 130
 Sakamoto, Ryūichi (坂本 龍一) 76
 Scharoun, Hans 28
 Schilling, Tom 86
 Schimtz, Hermann 54, 55, 57, 193
 Schmarsow, August 19
 Schopenhauer, Arthur 19
 Schwarz, Rudolf 126, 130, 132, 137,

Wenders, Wim 10, 28, 34, 39, 40, 204

Wilder, Billy 11

Wittkower, Rudolf 169

Wölfflin, Heinrich 168-170

Zavattini, Cesare 90, 198

Zizek, Slavoj 202

Zumthor, Peter 52, 53, 70, 77, 126, 151,
196