UNIVERSITY OF CINCINNATI

Date: 8-Apr-2010

I, Laura E Williams, hereby submit this original work as part of the requirements for the degree of:

Master of Architecture

in Architecture (Master of)

It is entitled:

Mind the Gap: Influence of Filmic Strategies on the Architectural Sequence

Student Signature: Laura E Williams

This work and its defense approved by:

Committee Chair: Aarati Kanekar, PhD

Patricia Kucker, MARCH
Mind the Gap: influence of filmic strategies on the architectural sequence

A thesis submitted to the Division of Research and Advanced Studies of the University of Cincinnati

in partial fulfillment of the requirements for the degree of Master of Architecture

in the Department of Architecture and Interior Design of the College of Design, Architecture, Art and Planning

2010

by

Laura E. Williams

B.S. Arch., Georgia Institute of Technology, 2006

Committee:
First Chair: Aarati Kanekar
Second Chair: Patricia Kucker
abstract

The filmic narrative, due to its spatialization of both time and space, has the potential for establishing meaning beyond representation. Both the optical nature of the medium itself as well as an intentionality towards plot construction defines the interchange between the positioning of the spectator with the constructed image. When filmic gaps disrupt the continuity of spectatorship, the viewer is confronted with a multiplicity of readings that are both subtle and oftentimes simultaneous. By translating these filmic strategies into architectural sequences, the built realm can begin to mediate the relationship between spectator and spectacle in a manner that triggers new spatial awareness in the user.

Through the design of the hybrid typology of a multi-modal transportation center and shopping arcade, this thesis is an investigation of the architectural translation of filmic gaps. The multiple user groups inherent to this typology allows for an interweaving and juxtaposition of both user sequences and programmatic conditions. Thus the city, the program, and the users become re-framed in a continually shifting relationship of temporal and spatial manipulations. In an architectural setting that is utilized both habitually and occasionally, a strategy of gaps provides layers of experience that can be unfolded with each repeated use, denying a cohesive and static view of the design.
acknowledgements

Over the course of my architectural education, I have been supported and influenced by an amazing group of individuals on both an academic and personal level. I am forever grateful to all those professors who have pushed me to achieve the most out of design. In particular, I would like to thank my thesis chair committee Aarati Kanekar and Patricia Kucker for their unending advice and patience during this thesis process. Aarati’s tenacity, although paralyzing at times, played a critical part in directing my efforts and challenging my thinking throughout this process. Thank you for your support.

Most importantly I am indebted to all those individuals that have kept me sane throughout these 7 years of education. I am grateful for the friendship of A.Rae, whose phone calls and words of encouragement always helped to brighten my day. Thanks to Cassidy for supplying an abundance of smiles and laughs (and without whom I would have surely starved.) Thanks to Eric, for your continual love and support. Finally, I would like to express my unending appreciation for my family. I could not have made it through this without you. Your love and support have kept me going. Thank you especially to my mother and father for always being there. I cannot begin to express my gratitude for all that you do.
table of contents

List of Illustrations x
Illustration Credits xiv
Introduction xvi

Chapter 1: The Passive to Reactive Viewer

the all-embracing eye
the mediated gaze 4
the eye of the camera 8
automatic thinking
mental frameworks 16
thought & the movement-image 20

Chapter 2: The Creative Viewer

beyond representation
picturing time 34
the regime of the time-image 40
gap (1) simultaneity
the space-time of transparency 44
marginality & centrality 50
gap (2) juxtapositions
cinematographic montage 62
the peripatetic spectator 68
gap (3) stratification
rethinking the image 76
reflective sequences 86
spectacle of the spectator 94

Chapter 3: The Design Project

conclusion / methodology 110
the site / modes of transit 116
design strategies 120
list of illustrations

introduction
Figure 0.1
John Baldessari, Space Between, 1985

chapter 1 | the passive to reactive viewer
Figure 1.1
Jean Dubreuil, La Perspective Practique, 1642
Figure 1.2
René Descartes, Camera Obscura Reference: Optical System of the Eye, 1637
Figure 1.3
Leone Battista Alberti, De pictura, 1436
Figure 1.4
Man with a Movie Camera, Dir. Dziga Vertov
Figure 1.5
Dionysiac Theatre at Athens
Figure 1.6
Eye Line Match: Rear Window, Dir. Alfred Hitchcock
Figure 1.7
Cognitive Process
Figure 1.8
Film Strip

chapter 2 | the creative viewer
Figure 2.1
David Siqueiros, Portrait of the Bourgeoisie. Sketch depicting Theory of Dynamic Spectator (3), 1939-1940
Figure 2.2
David Siqueiros, Portrait of the Bourgeoisie. Sketch depicting Theory of Dynamic Spectator (4), 1939-1940
Figure 2.3
David Siqueiros, Portrait of the Bourgeoisie. Sketch depicting Theory of Dynamic Spectator (6), 1939-1940

Figure 2.4
Thomas Eakins, Marey Wheel Photos of Unidentified Model Jumping, with Eadweard Muybridge Notations, 1884
Figure 2.5
Eadweard Muybridge, Woman Pirouetting (.277 sec)
Figure 2.6
Crystal Palace, 1851
Figure 2.7
Eugène Atget, Magasin, avenue des Gobelins, 1925
Figure 2.8
Pablo Picasso, L’Arlésienne, 1911-1912
Figure 2.9
Kolbe Statue, Barcelona Pavilion, 1929
Figure 2.10
Barcelona Pavilion, Exterior
Figure 2.11
Barcelona Pavilion, Interior
Figure 2.12
Optical Fluctuation, Barcelona Pavilion
Figure 2.13
User Path, Barcelona Pavilion
Figure 2.14
Visual Sequence, Barcelona Pavilion
Figure 2.15
Film Editing Process, Sergei Eisenstein
Figure 2.16
Odessa Steps Sequence (1), Battleship Potemkin, Dir. Sergei Eisenstein
Figure 2.17
Odessa Steps Sequence (2), Battleship Potemkin, Dir. Sergei Eisenstein
Figure 2.18
Pantheon, Acropolis
Figure 2.19
User Path, Acropolis

Figure 2.20
Visual Sequence, Acropolis

Figure 2.21
L'Année Dernière à Marienbad, Dir. Alain Resnais

Figure 2.22
Plot Symmetry, L'Année Dernière à Marienbad

Figure 2.23
Layered Cone of Memory, Henri Bergson

Figure 2.24
Lacan’s Diagram of the Visual Field

Figure 2.25
Convex Mirror in the Ceiling of the Breakfast Parlour, Soane Museum

Figure 2.26
Convex Mirror in the Corridor, Soane Museum

Figure 2.27
External Reflection of Library, Soane Museum

Figure 2.28
Internal Reflection of Dining Room, Soane Museum

Figure 2.29
Antony Gormley, “Between You and Me,” Exposition at the Kunsthall Museum (Rotterdam)

Figure 2.30
Circulation Pattern, Kunsthall Museum

Figure 2.31
Elevation Sequence, Kunsthall Museum

Figure 2.32
Visual Overlap, Kunsthall Museum

Chapter 3 | The Design Project

Figure 3.1
User Overlap

Figure 3.2
User Sequence

Figure 3.3
Gapping Strategies

Figure 3.4
Landmark Adjacencies

Figure 3.5
Proposed Transit Lines

Figure 3.6
Parti Concepts

Figure 3.7
Collage 1_Corner Condition

Figure 3.8
Program & Circulation Axon

Figure 3.9
User, Program, & Time

Figure 3.10
Section Sequence

Figure 3.11
Collage 2_Visual Isolation

Figure 3.12
Collage 3_User Simultaneity

Figure 3.13
Collage 4_Shifting Spectacle
illustration credits

[all images considered to be author’s unless otherwise noted]

  Figure 2.29

  Figure 1.8

  Figure 1.1

  Figure 2.17

  Figure 0.2

  Figure 2.21

  Figure 1.3

  Figure 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.10, 2.11, 2.15, 2.18

  Figure 2.23 (Diagram Concept; Illustration by author)

Buzas, Stefan, and Richard Bryant. Sir John Soane’s Museum,
  Figure 2.25

  Figure 2.24 (Diagram Concept; Illustration by author)

Fulmer, Hilary. “Visual Influences on Limitations of Space: Spatial
  Figure 2.27 & 2.28 (Base Images; Illustrations by author)

Giedion, Sigfried. Space, Time and Architecture: the growth of a
  Figure 2.8

Jonathan, Hill. Actions of architecture architects and creative users.
  Figure 0.1

  Figure 2.16

  Figure 1.5

  Figure 1.4

  Figure 2.9 (Base Photo)
gap (gāp)
noun
1. An opening in a solid structure or surface; a window
2. An empty space or interval; interruption of continuity in any series or sequence; hiatus: a gap in his memory; needed to fill in the gaps in her knowledge
3. A conspicuous difference or imbalance; a disparity: there is a gap between his version of the event and hers
4. A space between objects or points; an aperture: a gap between his front teeth

Origin:
1350–1400; ME < ON gap chasm

Figure 0.1: John Baldessari, Space Between, 1985
introduction | mind the gap

The world is at a remove. How we know the world is never a holistic experience. Gaps inherently exist as the mobility of both the environment and viewer collide into a dynamically changing reality. Both film and architecture are inherently tied to this condition due to their interrelated focus on the viewer/user’s interaction with continually shifting spatial and temporal realities. When the filmmaker/architect abstracts, fragments, and juxtaposes these conditions, the gaps within the interface are expanded and the conceptualization of reality becomes further challenged. Our understanding of the environment thus shifts from a seemingly perfect snapshot to a cognitively engaging state of spectatorship.

Throughout the historical progression of the artistic realm, this relationship has been continually altered due to the changing mobility of both the observer and the image. Painting and literature relied on the static nature of both the body and the represented world. Film, similarly reliant on an immobile spectator, added the dimension of time to the two dimensional representation of painting. Three-dimensional space, inhabited and set in virtual motion by the body has formed the condition of architecture. Within each of these arts, the physical relationships of the medium and spectator are trapped in a predetermined state of mobility. However, meaning is not generated solely by the medium itself, but through the positioning of the spectator or user in relation to the constructed image. While some define this relationship as passive, others engage the physical and cognitive abilities of the spectator as a means for constructing meaning.

The role of the spectator becomes increasingly creative as the mediating gaps between spectator and spectacle establish a multiplicity of readings and journeys. Filmic gaps are most intrinsically linked to that of architecture due to the similar complexity in choreographing the user’s interface with spatiotemporal conditions. The filmic path has been the model for the modern version of the architectural journey, with its own montage of spatial and temporal conditions. Utilizing a stylistic typology of gaps, the modern architectural promenade can follow a mnemonic path of collection and recollection, each user constructing the building anew.

The gaps of spectatorship exist primarily within two systems of classification: the optical and the narrative. Optical gaps entail both the visual mediation of the frame/screen as well as that of virtual realities. Narrative systems, on the other hand, establish a system of devices and structures that oscillate between clear concise patterns and ambiguously shifting realities. While architects have taken their cues from film, they have predominantly relied on the devices of montage for scripting narrative paths. Although montage establishes meaning beyond representation, it is still merely one strategy for heightening cognitive engagement through gapping techniques. A spectrum exists within both the optical and narrative systems that can either reinforce the passive nature of the immobile spectator or construct new systems of creative engagement.

This thesis will delineate the spectrum as presented through multiple representational techniques, primarily focusing on the strategies of film and architecture due to the interrelated nature of the mobile image. Primary theoretical influences include Anne Friedberg’s The Virtual Window due to its comprehensive outline of the changing relationship between the spectator and frame/window.
within art and culture. Likewise, this research is also highly indebted to such film theorists as David Bordwell and Daniel Frampton for their exhaustive analyses of the optical and narrative language of film form. The techniques presented by both these and further theorists will be categorized according to the role they have on either closing or expanding the mediating gaps between spectator and reality, thus determining the passive or creative nature of the viewer. It is through these structures, that the three-dimensional space of architecture can expand beyond linear spatial sequences that define the user as passive and predictable into a collision of montage fragments.

Following the concept of a creative reader/user, the form of this thesis will entail a non-hierarchical structure. Embodied in the works of such architectural authors as Anne Friedberg and Bernard Tschumi, a non-linear structure allows for the reader to think spatially in linking separate ideas and positions. In developing an argument for architectural gaps, this thesis will analyze the changing role of the spectator from the immobile observer in painting and film to that of the peripatetic user in architecture. This involves an analysis of the conditions of viewer reception within various media, in addition to changing viewpoints on the role of narrative form and optical relationships.

The basis for an argument of architectural gaps is dependent on the creative possibilities of the spectator. Thus, the sections of this thesis will not be ordered on a singular topic, but instead will document the shift between the passive observer to the creatively engaged user. These differing user conditions allow for a changing conceptualization of space and experience that can be linked to the narrative patterns of the project's user groups. The structure, therefore, becomes a framework for the methodological approaches to the project.

Chapter 1 will discuss the theoretical underpinnings of devices that pigeon-hole the conditions of spectatorship into a passive and reactive state. These sections identify the connections between filmic thought and reality, establishing a link between the immobile film-goer and the architectural user. Chapter 2 will then identify the potential strategies for providing gaps within filmic spectatorship, allowing the user a more creative role in negotiating the constructed image. These strategies are at the root of three architectural techniques outlined in the latter half of the chapter. Linking the translation of filmic spatiotemporal conditions to those of architectural spectatorship, these gapping strategies establish the underlying basis of the thesis design project.

This outlined system will be utilized in the design of a hybrid typology of a multi-modal transportation center and shopping arcade in downtown Cincinnati. This typology allows for an exploration of the narrative lines of multiple user groups: the commuter, the event-goer, and the shopper. Each of these users has a typically prescribed relationship to the city, merchandise, and other users. Through implementing gapping strategies within each of these story lines, the viewer will be faced with programmatic juxtapositions, temporal shifts, and varying spatial relationships that begin to challenge their standard experience and allow for multiple readings of both the environment and their relationship to it.
Chapter 1 | The Passive to Reactive Viewer

The conditions of spectatorship rely on the dynamic interplay between the positioning of the viewer in relation to the view. As artists/filmmakers/architects, we influence the manner in which the viewer enters into the relationship with the constructed reality of our work. The devices that we utilize can provide either singular interpretations or instigate more active thought processes. This is achieved by providing or negating the gaps in the link between viewer and image. Typically this occurs in a two-fold manner: the optical relationships between the spectator and the image, as well as the narrative strategies that act to unify or subvert this relationship.

Subsequently, the argument of this thesis is premised on the potential for painting/film and thus architecture to establish creative thought within the user, doing so through exacerbating the gaps of spectatorship. In order to ground this argument, however, it is necessary to first establish the conditions by which art and film’s classical representational techniques have deprived the spectator of new forms of thought. Accordingly, the following chapter provides a record of artistic/filmic theories that denote either a passive or reactive position of spectatorship.

The first section, entitled “The All Embracing Eye,” deconstructs the manner in which the viewer is situated in a state of immobility. When the conditions of spectatorship rely on an invariable relationship between the subject/image, the viewer becomes...
a passive entity. Here, the gaps of spectatorship are limited so as to provide an ordering of space and time that is both systematized and legible. As the frame constructs a predetermined organization of space, the spectator becomes an immobile object contained within the confines of the frame. Similarly, as narrative cues establish a continuity of readership, the spectator exists as a disembodied subject whose relationship to the mediated image is static. These conditions act to deny cognitive processes within the spectator by establishing a reality tied to objective criteria.

In the second section, “Automatic Thinking,” it is posited that filmic techniques do not deny thought within the viewer, but are instead analogous to the same mental processes that occur in daily life. As film mobilizes the static nature of the image, the viewer is confronted with a fragmented reality of which they must reconstitute the pieces. Filmic mechanisms cue the brain into thinking, producing subconscious reactions within the filmgoer’s mind. No longer situated within a passive condition, the viewer is now cognitively engaged.

Although still presenting a merely reactive viewer, these theories begin to establish the link between filmic thought and the manner in which the mind negotiates reality. Only with this understanding is it possible to conceive that the creative potentialities of film can extend to the architectural user.

Figure 1.2: René Descartes, Camera Obscura Reference: Optical System of the Eye, 1637
“The limits and multiplicities of our frames of vision determine the boundaries and multiplicities of our world.”
– Anne Friedberg, *The Virtual Window*

In the opening statement of *The Virtual Window: From Alberti to Microsoft*, Anne Friedberg states “We know the world by what we see: through a window, in a frame, on a screen.” The conditions of spectatorship are dependent on the means in which the subject’s gaze is mediated in regards to the environment. Establishing her primary basis from the work of Leon Battista Alberti, who in his treatise *De Pictura* equates painting to an “open window,” Friedberg delineates the relationship that both perspective and the window/frame/screen have on the cognitive mobility of the viewer. She critically notes that Alberti’s metaphor of the window does not serve as a natural view to the outside world, but is instead a means of situating the static viewer in relation to a framed and systematized organization of space.²

Alberti’s method for perspectival construction stems from a Renaissance root of geometric representations.³ Similar to the measured x, y, z coordinates of Cartesian space, the laws of Albertian perspective provide a rational means of spatial organization: reducing the visual world to that of a fixed viewer in time and space. Alberti’s language negotiates the relationship of near/far through

---

Figure 1.3: Leone Battista Alberti, *De pictura*, 1436
the rules of human optics, the convergence of a single visual array towards the horizon. According to Alberti, light rays travel in a linear trajectory focusing on the interior of the eye, thereby constructing a visual pyramid. Linear perspective is therefore based on the concept of two symmetric visual pyramids: one apex extending to the eye of the spectator and the other towards Alberti's "centric point" along the horizon. This "centric point" is measured according to the relative height of the spectator's eye, more specifically "three bracia tall" in Albertian terms. In this regards, the viewer is conceived as the ultimate measure of space, placing them within a central position of spectatorship.

Dependent on this static positioning of the one-eyed viewer, single point perspective establishes an idealized relationship between the scene and observer. Despite its acknowledgement of the spectator's position, Friedberg asserts that the inherent aspects of Renaissance perspective defined the spectator as an immobile figure, passively receiving visual information provided by the medium. Discussed in the writings of theorist Erwin Panofsky, the devices of linear perspective establish a "Cyclopean viewer" who remains "fixed, focused, immobile." In his essay "The Scopic Regimes of Modernity," Martin Jay furthers this criticism in stating "the bodies of the painter and viewer were forgotten in the name of an allegedly disincarnated, absolute eye." While the laws of perspective were meant to be an accurate tool for rendering the world, they in fact reduced the two-point experience of binocular vision to a limited single-point representation. The visual experience is further denied duration or the optical fluctuation associated with natural sight. In his writing Vision and Painting: The Logic of the Gaze, Norman Bryson categorizes this as the reduction of the natural "glance" of optics to the limited fixed "gaze" of representation. Due to these restrictions, the observer is presented with an incomplete 'objective' virtual representation.

As the perspectival rules of mathematics and measurement define a multi-dimensional changing world, the subjective role of the observer is subverted to this single objective vantage point. Martin Jay claims that "the abstract coldness of the perspectival gaze" acted to widen "the gap between spectator and spectacle." Meaning thus becomes dependent on the rules of representation and not the positioning of the spectator. Establishing a consistent and unidirectional reading of the painting, perspective negates the need for prior knowledge or cognitive abilities. Thus, the observer becomes both separated and autonomous from that of the observed, rendered not only immobile but also as a passive 'all-embracing eye.'
“Meaning does not arise from an object relation, but from the position of the spectator in relation to the film text.”
– Patricia Mellencamp, Spectacle and Spectator

As technology emerged, the fixed frame of painting gave way to the multiplicity of frames in the cinematic sequence. These framed snapshots of cinema are both visually organized and sequentially ordered in relation to the narrative of the fiction film. Film theorists until the 1960’s formulated the structure of film narration along mimetic conventions. In paraphrasing theorist Lev Kuleshov, David Bordwell notes that film should be comprised of “plotting actors’ movements as if they occurred in a web of rays that ran from the scene to gather at the camera lens.”

In the practice of showing, the mimetic theory of narrative acknowledges the role of the immobile viewer who is witnessing the events. The existence of the viewer entails a spatial relationship between the observers and observed, thereby addressing the critical role of the gaze found in linear perspectives. While these visual relationships are found in the Renaissance arts, predominantly from the 1400’s to 1600’s, they also extend back to the early stagecraft designs of Greek theaters. Theater in its own definition as a “seeing place” registers the role of visual mimetic devices. In contrast to the circular theater designs of other cultures, Athenian stagecraft demarcated the fictional stage from that of the observers. Greek theaters were constructed as semi-circular

Figure 1.4: Man with a Movie Camera, Dir. Dziga Vertov
forms, thereby orchestrating a series of direct sight lines between the immobile spectator and spectacle.13

Similar to the performances of Greek theater, film also entails an immobile spectator confronted with the mobilized image. In film, however, the image is not fixed according to direct sight lines, but instead involves a fragmentation of both varying frames and spatial/temporal conditions. Although the spectator is faced with a multiplicity of perspectival relations, he still remains situated within the filmic illusion. According to Christian Metz, this is a result of the viewer identifying himself with the positioning of the camera’s optical point.14

Classical narrative in film, dating 1933-1955 achieves this by adhering to the process of continuity editing, smoothing over the inherently disjointed nature of multiple frames in time and space. Due to the psychological unity of continuity editing, theorists persist that the viewer becomes passively intertwined within the spatial constructions of the fictional film. In his essay, “Narrative Space,” Stephen Heath describes the process as one that subordinates temporal and spatial shifts in order to bind the spectator into the narrative illusion.15 Kristin Thompson furthers this claim in stating that the continuity editing techniques of classical Hollywood cinema establishes an “ideal vantage point” for the “invisible onlooker.”16

---

Figure 1.5: Dionysiac Theatre at Athens
The codes and conventions of the mimetic narrative thus combine in a manner that produces a passive position of intelligibility for the viewer. Film techniques such as shot-reverse-shot, 30 and 180-degree rules, eye line match, and match on action allow the spectator to easily construct the spatial and temporal conditions between frames. In Alfred Hitchcock’s Rear Window, for example, the use of eye line matches is an intrinsic component of establishing spatial continuity between the lead character and surrounding set. As James Stewart is positioned within the confines of his apartment, a series of eye line matches orient the viewer to the objects of his gaze. The viewer is taken from a shot of Stewart’s character, Jeffries, situated behind the window to the various points of his observation: the dancer, the honeymooning couple, the bikini girls on the balcony, the couple with the dog, etc.

The intricate patterning of these codes and conventions act to conceal the narrative structure and suppress the spectators’ awareness of the filmic mechanism. The spectator is assigned limited mental operations and is thereby positioned in a state of physical and mental immobility. As theorist Anne Friedberg states, “As the mobility of the gaze became more virtual, the observer became more immobile, passive, ready to receive the constructions of a virtual reality placed in front of his or her unmoving body.”

Following the same optical positioning of Albertian linear perspective, Lev Kuleshov addresses the similarities between the mechan-
ical nature of the camera lens and that of early perspective tools. The photographic camera of cinema is constructed to generate a realistic image of the visual world. Much like the pinhole effect of the camera obscura, the cinematic camera captures a representation of reality through the filtering of light rays about a central optical point. Many film theorists contend that the similar perspectival organization of this cinematic image results in the same spatial delimitation as that of Renaissance painting. Theories such as this would reestablish the role of the passive spectator in not only painting, but film as well.

Bordwell further defines this condition as that of the “invisible observer,” connecting it to the theoretical underpinnings of Vsevolod Pudovkin. In his monograph, Film Technique (1926), Pudovkin asserts that the camera lens should embody the same perceptual conditions as that of an invisible observer. Similar to the constructed relationship of perspective, the director situates the audience within an optical framework that mimics reality. Instead of limiting the viewer to an immobile eye, however, film allows for the observer to be ideally mobile under these prescribed conditions.

Under Pudovkin’s model, changes in focus, tempo, and camera angle all act to mimic “the natural transference of attention of an imaginary observer.” As the film cuts between two separate frames of reference it implies a natural shift in the observer’s attention. Pudovkin extends this claim to continuity editing strategies as well, accounting for the 180° line as the changing glance of an observer positioned within a fixed location.

Consequently, this approach was generally accepted due to its means for justifying the continuity techniques of classical film. Following these conventions, film expresses “not only what the invisible observer sees but the manner in which he interprets the surroundings.” Therefore, theoretical issues in regards to point-of-view could be easily accounted for as the positioning of the “invisible observer... [as] a subject before the objective world of the story action.”

Following this model, the link between the spectator and image is defined as an objectively closed relationship. Analogous to the human eye, Pudovkin’s camera lens produces a reality that most closely matches typical perception. Although theoretically mobile, the viewer passively receives this representation of reality, thus negating the potential for thought beyond recognition.
Theoretical connections between film and perspective position the cinematic image as an objective representation of reality. The filmic image is consequently reduced by the singular optical nature of the lens. However, in *Narration in the Fiction Film*, David Bordwell suggests that the photographic lens is not held to the same spatial constraints as that of linear perspective. The single frame of the cinematic sequence may be reminiscent of Albertian perspective due to the similar visual structure.24 Cinema, however, is not the production of a static image, but a moving one.

While the camera obscura produces a moving two-dimensional representation of a changing three-dimensional world, the photographic camera captures a series of virtual stills in time and space. The sequential projection of these framed snapshots creates a multiplicity of perspectives through time. The spectator is no longer confronted by just a singular framed image, but by the virtual movement between varying spatial conditions. Filmic characteristics such as lens type, focal length, and camera angle aid in dislodging the static nature of the single viewpoint. Therefore, the singular reading of perspectival painting is only applicable to the mechanical aperture of the photographic camera and not the medium of film itself.

The idealized perspective of Renaissance painting is furthermore contradictory to that of filmic narrative structures in that it relies solely on the optical accuracy of the static image. Films, in particular, extend beyond the single frame of painting and typically involve an intercutting of differing temporal and spatial conditions.
The basic nature of film editing, the cut, establishes an inherent discontinuity within the story line. The role of narration, therefore, is to construct a series of devices that cue the spectator into mentally reconstructing the disparate pieces into a cohesive whole. The viewer’s construction of the story becomes inherently bound to a series of narrative elements and systems that either serve to guide or impede overall comprehension. Instead of establishing a divide between the spectator and image, as in perspectival painting, narrative structures thus act to bind the viewer to the fiction film. Consequently, the work of the spectator can no longer be defined merely by a single instance, but must be instead analyzed in terms of an ongoing mental process.

Theorists contend that the unity and intelligibility of both space and time in the classical film produces limited mental processes from the observer. The spectator is thus “the victim or dupe of narrational illusion-making.” Bordwell argues against this stance, stating that the act of constructing the filmic cues is a dynamic and psychologically engaging process by the spectator. According to Bordwell, “Film does not position the spectator, but cues the spectator to execute a definable variety of operations.”

Perceptual psychologists have found that the construction of hypothesis in both film and life is an active mental process of information gathering and grouping. Organisms organize visual information into ‘knowledge based clusters,’ also referred to as schemata. These schemata actively influence what data the organism searches for in order to construct knowledgeable hypotheses of the surrounding environment. Our perception of the world is similar to the multiplicity of frames in film. While the world may appear smooth and continuous like the illusion of classical films, it is in fact a continually shifting and dynamic experience. In regards to visual research conducted at the Institute of Behavioral Sciences at Derby University, Jonathan Jones states:

There is no such thing as the totalizing gaze – the look that comprehends everything – because the nature of visual perception is momentary, partial and fragmentary. Our visual field is very small and precise. Look at someone’s face and you are aware of their surroundings only as blurred secondary information... Like a film camera wielded by a Soviet montage director, you take in the world... in a series of glances.

The fictional film produces a series of these impressions by which the spectator must construct a smooth mental representation of reality. The viewer formulates schemata based on everyday life experiences and then formulates filmic hypotheses according to these ‘clusters.’ The structuring of the narrative both draws upon and also shapes the viewer’s schemata, thereby influencing what information is sought out and tested against previously defined hypotheses. The primary goal in comprehending the narrative film is to reorder the shifting temporality into a linear mental sequence. The patterning of information directly influences the formulation of both schemata and hypotheses, thereby engaging the perceptual activity of the viewer. Thus, the viewer is no longer an “all embracing eye,” but is instead a mentally engaged perceiver.
“Motion pictures are our thoughts made visible and audible. They project pure thought, pure dream, pure inner life.”
– R.E. Jones, The Dramatic Imagination

Early film theorists were enthralled with the potential connections between film and the cognitive processes of the spectator. In his recent book Filmosophy (2006), Daniel Frampton addresses the variety of metaphorical and analogous links that have been made between film and aspects of the human mind. Some theorists such as Edward Small posited a direct analogy between film and the mental states of the brain, while others such as Henri Bergson suggested that cinematic techniques provided a visualization of the human mind’s conscious thought processes. Coining the term “cinematic thought,” Germain Dulac saw film as an expression of human consciousness, extending it to such perceptual aspects as dreams, imagination, daily thought, and memory. In this manner, film becomes a similar construction to the surrealist movement, visualizing the unconscious aspects of the human mind.

Frampton notes the importance of these models in that they provide a new way of examining our own processes of thinking. However, despite their abundance and significance to theoretical discussion, these theories limit the conceptualization of cinema to a representation of the human mind. Instead of understanding film as a means of generating “cinematic thought,” the analogies merely reduce it to a depiction of the filmgoer, replacing...
Pudovkin’s optical connection with a cognitive one. However, Frampton finds that these models hold their true value in this connection, existing as a foundation for “realizing film’s capacities of thinking.”

This establishes a new way of examining film as a thinking device, autonomous and distinct from human forms of thought. For theorist Gilles Deleuze, cinema was not a static representation, but instead possessed its own ways of thinking. Thought, according to Deleuze, is not something that the spectator consciously performs. It is instead an automatic process that reacts to some stimuli in the outside world. “Something in the world forces us to think.” The processes of film thus act to influence the automatic thought of the spectator.

This nature of cinematic thought lies at the heart of Deleuze’s most influential work, his two volume *Cinema*. Completed in 1983, the first volume *The Movement-Image* examines the conditions of cinema as an ‘automobilization’ of the filmic image. Media such as painting provides a static image that the immobile eye of the spectator can slowly analyze and comprehend. The mobilization of film, on the other hand, passes by the spectator in a fleeting motion, demanding an automated subconscious response. “Cinema, precisely because it puts the image in motion... never stops tracing the circuits of the brain.” Thus the movement of the filmic image instigates a movement of thought.

Deleuze’s concept of the movement image, generally relating to pre-war classical films, is structured about a linear narrative order. As actions produce reactions, the structure of the movement image becomes a homogenous story of interconnected moments. Both temporal and spatial conditions are defined within an easily recognizable structure. Continuity editing techniques smooth over the discontinuous nature of multiple perspectives. Actions are simultaneously arranged within a predominantly chronological sequence, requiring minimal restructuring from the spectator. While these sequences may incorporate such narrative techniques as flash-forwards or flashbacks, the temporal shifts are easily recognizable. Time is thus presented purely in an empirical form, leaving the spectator always aware of the discontinuities between past, present, and future.

This continuous nature of the movement-image limits the cognitive responses of the viewer to psychological reactions. Under this premise, Deleuze conceptualizes both film and the viewer of the movement-image as psychological ‘automatons,’ which react to a series of impressions in an unconscious manner. The automaton of the movement-image “no longer depends on the outside because he is autonomous but because he is dispossessed of his own thought, and obeys an internal impression which develops solely in visions or rudimentary actions.” So while the viewer remains independent of the image and free to think, he is still limited by the continuity of the filmic system.
Conclusion

The classical conventions of painterly and filmic construction have limited the gaps between spectator and image. Providing either a prescribed or intelligible representation of reality, these structures limit the thought processes of the viewer. Alberti’s window, Pudovkin’s invisible-observer, and film’s linear narratives all reduce spectatorship to a passive state of recognition. The objectivity of these systems merely provides a reproduction of reality of which the spectator is sutured into. On the other hand, narrative cues and schemata begin to situate film in relation to the mind’s eye and not the purely optical relationships of prior theories. However, when filmic viewing is conceived as an unconscious thought process, the viewer is still limited by an automated reactive role. Spectatorship thus becomes the equivalent of following a “plan or map from which to find meaning.”

These strategies illustrate the manner in which the gaps of spectatorship are limited, forcing a direct reading on the viewer. The importance of these concepts lies in their analogous link between the filmgoer’s mind and everyday thought processes. Walter Benjamin notes the difference between life and cinema as “an unconsciously penetrated space… substituted for a space consciously explored by man.” If film can extend beyond the optical clarity of the movement-image, it can simultaneously provide a new means of rethinking reality for the architectural user. If the gap between image and viewer is widened, the spectator can come into new associations no longer bound by the prescribed image.

Endnotes

2. Friedberg, 12.
3. Prior to the fourteenth century, few efforts were made to generate a correct representational language of spatial relations. During the Renaissance, however, artists looked toward science and mathematics for developing a geometric basis for representing the world, thus reducing human experience to the most objectified measurable elements.
5. Friedberg, 35.
6. Friedberg, 46.
11. While variations exist, narrative structures can predominantly be categorized into two groups: diegetic and mimetic, more precisely telling versus showing. Diegetic theories rely on the act of telling to advance the reading of the story. This type of narration is primarily linguistic, focusing on variations of verbal activity and written codes. David Bordwell aptly described this form of narration through paraphrasing theorist Mikhail Batkin, “the novel... is not a spectacle organized around James-
ian sight lines; it is a polyphony, even a cacophony, of different registers of speech and written language: a montage of voices.” While diegetic narration disregards the intricacies of optical relationships, mimetic narration is principally based on this visual display. The mimetic theory of narrative involves the process of showing and thereby constructing a narrative through spectacle.
22. Bordwell, 10.
23. Bordwell, 12.
31. Frampton, 19.
32. Frampton, 61.
35. Frampton, 61.
37. Frampton, 103.
The inception of film resulted in a critical shift for the role of the spectator. As the singular frame of painting is replaced by the multiplicity of frames in cinema, the viewer is no longer trapped within a static position of observation. The shifting spatiotemporal conditions of the mobilized image rupture the singular viewpoint of perspective, thus widening the gap between subject and image. As the gaps of spectatorship expand, the viewer instinctively reacts to negotiate between the fragments of representation. Consequently, cinema’s new virtual mobility creates the possibility for an emerging cognitive filmgoer. This connection between cinema and thinking has been the source of intrigue for much of film’s early theorists. Gilles Deleuze, for example, contends that the processes of film act to shock the spectator into a more active role of subconscious responses. Hugo Münsterberg similarly asserts that film marks an ontological shift from reality and becomes dependent on the filmgoer’s active thought process for reconstructing the virtual world. The critical importance of this to architecture is the inherent tie that exists between the architectural user and the filmgoer, both implicated in a fragmented condition of time and space.

Consequently, in his book *Filmosophy* (2006), Daniel Frampton addresses this relationship stating, “how we engage with film informs and reflects how we engage with reality... [the validity of which] is being proved ever more important in this visually saturated age.” If cinematic vision provides an insight into the perceptual conditions of
everyday experiences, it should extend that the conditions that evoke the cognitive filmgoer can likewise produce a greater degree of spatial awareness within the architectural user. What then is the means for generating a new mode of thinking in the filmgoer? The thought provoking aspects of cinema are primarily those in which the gaps between spatial and temporal conditions are exacerbated, initiating a shock of responses in the filmgoer’s mind. Under this premise, the following chapter illustrates the overlap between the creative potentialities of filmic gaps and their impact on architectural design strategies.

The opening sections delineate the shift that has occurred in film theory and cinematic approaches, emphasizing the breakdown of Deleuze’s classical movement-image to the modern day time-image. These sections provide a basis for understanding the various means of spatializing time, so as to extend beyond the image based representative techniques of earlier periods. This entails an initial look at approaches to temporal representation in the motion studies of the late 19th century.

The subsequent sections expand these concepts into three ‘gapping’ approaches for architectural sequences, embodying the potential to trigger new spatial awareness. The order in which they are presented is linked to their increasing degree of influence on spectatorship, shifting from optical conditions to more cognitive ones.

Figure 2.2: David Siqueiros, Portrait of the Bourgeoisie. Sketch depicting Theory of Dynamic Spectator, 1939-1940
The first of these strategies emphasizes the role of phenomenal transparency as a means for presenting a simultaneity of spatial positions. This can be visualized in the works of Cubist painters as well as film strategies such as superimpositions and double exposure. These techniques force the viewer to oscillate between two points of reference, denying a fixed singular reading. By simultaneously presenting multiple conditions, time is dislocated from its empirical form and instead presented as a new Deleuzian ‘time-image.’

The second technique, juxtaposition, involves the cinematic montage theories of Sergei Eisenstein in which thought is felt through an intellectual shock to the mind. Within Eisenstein’s theory, the object of cinema is no longer bound to the aesthetic image, but instead becomes the thinking image of the viewer. The ‘whole’ of film is not achieved through continuity editing strategies, but is established through the mental construction of images dispersed in time.

The third strategy divorces itself from the concept of a ‘whole,’ by adopting a system of complete fragmentation. Based primarily on Deleuze’s concept of the time-image, fissures in time and space allow the viewer to construct a mental image that is not bound by the filmmaker’s implied ‘whole.’ Instead the user can enter into a new form of thinking that continually shifts from image to thought and thought to image. Spectatorship thus exists within a stratified realm of space-time.

Figure 2.3: David Siqueiros, Portrait of the Bourgeoisie. Sketch depicting Theory of Dynamic Spectator, 1939-1940
Perspective constructed the world according to a geometric logic, organizing the distance and orientation of space upon the optical conditions of an invisible observer. Based upon the measured coordinate system of “Cartesian space,” it provided a metaphysical means of delineating the spatial relations of near, far, above, and below. Thus, spatial representation was no longer considered an approximation, but instead became precisely defined according to a measured system of linear convergences. The human eye became its primary means of measurement, structuring the dimensionality of the world according to the viewer’s height of observation.

Within this new method of representation, artists began inventing tools for transferring the three-dimensional world onto a two-dimensional plane. Embracing the same spatial organization of Alberti’s fifteenth century window, the seventeenth century camera obscura projected a similar ‘realistic’ image to that of Renaissance perspective. Its pinhole aperture illustrated the equivalent optical principles of the human eye, receiving a convergence of pyramidal light rays from the exterior world. By transferring these rays onto a two-dimensional representation, the camera obscura secured its role as a primary tool for recording space.

It is under these same principles that the photographic camera became an apparatus for observing a single moment in space. However, the photographic camera was differentiated from the camera obscura through its simultaneous ability to capture a single instance of time. Time, like space, became reduced to a static representation, easily absorbed by the consuming spectator. However, when this system became mobilized through film, the photographic image was reduced “to an ever more fractional instant.” As represented movement concealed the nature of the singular image, the static conditions of space and time were reanimated. Although still confined to a two-dimensional representation, time shifted from a snapshot image to an implied continuity of now to then. The primary difference between film and other arts is its ability to introduce this fourth dimension of time and thus mobilize the static image of earlier periods. However, the transition from the photograph to cinema merely replaced one passive condition for another. The singular time of the photograph established a fixed position for the spectator, similar to that of Renaissance perspective. The mobile image, on the other hand, smoothed over the inherent space between frames and resulted in a continuous and intelligible representation of time.

In her text, The Virtual Window, Anne Friedberg addresses the shift that has occurred between these two modes of representation, stating that it is between these two conditions that the spectator is faced with a new representation of time. Prior to film’s mobilization of the image, time and motion were recorded through a new means of photographic inquiry. The earliest representations of this technique can be seen in the experimental work of physiologist Etienne-Jules Marey and photographer Eadweard
Muybridge. In their motion studies of the late 19th century, these two photographers established two distinct approaches for registering movement and time in representation. Friedberg notes the critical distinction between the two photographers’ models: “the use of the single-frame image” in contrast to “a more polyscenic representation of time.”

Marey establishes a model of representation that captures the simultaneity of time within a single frame. In an attempt to chart the motion of physiological patterns, his early studies focused on constructing instruments to capture the locomotion of animals. This included both measurements of internal movement patterns (heart beats, muscle movement) as well as graphing the flying patterns of birds and insects. Due to the burdensome nature of many of his devices, Marey ultimately adopted photography as a means of mimetically recording movement. Later termed chronophotography, Marey’s technique involves the sequential multiple exposure of an object in motion. This method is carried out through the use of a camera equipped with both a revolving shutter and fixed photographic plate. As the shutter rotates, the plate is intermittently masked and revealed, thus allowing for a sequential register of distinct moments in time. These exposures create a multiplicity of overlapping images that are “spatially contained but temporally fractured.” The double exposure of Marey’s work provides a new representation of space/time through the simultaneous visualization of its layers. This condition extends to mod-

Figure 2.4: Thomas Eakins, *Marey Wheel Photos of Unidentified Model Jumping, with Eadweard Muybridge Notations*, 1884
ern film strategies such as superimpositions, where a layering of spatiotemporal conditions can generate meaning through multiplicity. These qualities are at the root of the first type of gap discussed in the latter portion of the chapter, simultaneity, wherein the singular image is replaced by the concurrent visual overlap of multiple spaces and time.

Eadweard Muybridge, on the other hand, captures movement through the isolation of single framed snapshots. In 1878, Muybridge attempted to document the gait of a horse through recording a series of successive photographic frames. Setting up a line of cameras along the path of movement, Muybridge was able to register individual moments in time across multiple frames. The sequential alignment of these snapshots creates a multiplicity of perspectives through time, rupturing the spatial unity of the single viewpoint. The resultant image is that of virtual mobility: “spatially fractured” and “temporally sequential.” By emphasizing the cut, this method establishes the importance of the individual frame and simultaneously requires the spectator to fill in the gaps between. The fractured quality of Muybridge’s stills allows for the sequential juxtaposition of contrasting spatial conditions. The cut, the space between frames, becomes dominant over any sense of implied movement. These qualities are at the heart of the second type of gap, juxtaposition, wherein the opposition between spatiotemporal conditions highlights the nature of filmic construction as the sequential projection of individual frames.

Figure 2.5: Eadweard Muybridge, Woman Pirouetting (.277 sec)
“...the cinematic apparatus implies not only the passage of time, a chronology into which we would slip as if into a perpetual present, but also a complex, stratified time in which we move through different levels simultaneously, present, past(s), future(s) - and not only because we use our memory and expectations, but also because, when it emphasizes the time in which things take place, their duration, cinema almost allows us to perceive time”

-Jacques Aumont, The Image

In the motion studies of Marey and Muybridge, the virtual mobility of the image, both temporally and spatially fractured, challenges the static nature of the photographic image. The spectator is no longer confronted by just a singular framed image, but by the virtual movement between varying conditions. Simultaneously, time is visualized as a representation of itself, not yet subverted to the invisible nature of moving film. As Friedberg notes, the work of Marey and Muybridge established that the “still photograph could see and record what the eye could not.” Their motion studies provide a new view onto reality instead of merely trying to recreate optical perception. Only when Muybridge’s photos are remobilized does the spectator once again lose sight of the representational quality of the singular image.

Deleuze’s two-volume writing, Cinema, is based on the premise that film has the potential to alter thought. The spectator’s construction of reality extends beyond a prescribed optical relation between image and eye. Instead, it is an automatic response to the devices of the narrative structure. In the movement-image, this structure is highly dependent on the role of the action-image, situating both events and character actions within a logically progressing sequence. Editing and stylistic techniques become subservient to a linear structuring of the narrative, thereby smoothing over the inherently disjointed nature of the mobile image. As the spectator is confronted with a mobilized image, ‘sensory-motor’ links in the brain establish a subconscious connection between image and thought. Similar to the schemata theory of perceptual psychologists, Deleuze believes that the image-thoughts of the spectator are linked to one another independent of a specific external object. These mental images are connected within the circuitry of the brain. The devices of film shock this circuit into activation, forcing the viewer into thought. “It is as if cinema were telling us: with me, with the movement-image, you can’t escape the shock which arouses the thinker in you.”

The automatism of the cinematic image, however, is not purely bound to the continuous flow of images. Film is also a product of the temporal relationships between frames. In Deleuzian terms, this translates to the ‘auto-temporalization’ of the cinematic image. At the end of his first volume The Movement-Image, Deleuze notes a critical shift occurring in film structure. The regime of the movement-image was being challenged by an alternative concept of temporal representation. In contrast to the intelligible nature of classical narration, Italian neo-realism and French nouvelle introduced a new image of cinematic construction, that of the time-image. The distinction between Deleuze’s definitions of the two models is principally constructed around the variations in
temporality between each. Unlike the movement image, the time image does not follow a logical narrative sequence. Past, present, and future are presented both interchangeably and simultaneously.¹⁶ Time is therefore no longer expressed in its empirical form, but is instead presented directly as a new crystalline image.

This crystal-image is a new direct representation of time, existing at the boundary between ‘real’ and ‘imagined’. The real, according to Deleuze, is the perceived image in the present, objectively situated in regards to the spectator. It exists within the realm of conscious thought. The imagined, on the other hand, is the virtual subjective recollection of past events. The imagined is not bound by consciousness like the real, but instead exists in time, waiting to be revived by a present image. It is therefore dependent on the spectator’s subconscious memories, establishing a shift between mental and physical time.¹⁷ This simultaneity between past and present is the temporal basis of the crystal-image. It acts to mold time into two distinct directions “one of which is launched towards the future while the other falls into the past. Time consists of this split, and it is … time, that we see in the crystal.”¹⁸

This split, however, is dependent upon the spectator’s memory to be a linking device between these two temporal states. According to Deleuze, the cinema of the time-image involves “the disturbances of memory and the failures of recognition.”¹⁹ This definition draws an interesting correlation to the theoretical work of Henri Bergson. In his text Matter and Memory, Bergson distinguishes two types of memory, that of habitual memory and pure recollection. Habitual memory is stored in the subconscious recesses of the brain, while pure memory is active within consciousness. By paralleling realistic thought processes, these two types of memory relate primarily to the conditions of the movement-image. The time-image, on the other hand, more closely extends to Bergson’s implied third type, “unsolicited” memory. This type of memory is an automatic form that stems from fragmentation and contradiction, or in Deleuze’s term, “failures of recognition.”²⁰

The cinema of the time-image achieves this condition by not attempting to link images, but instead producing an irrational association between them. The continuity and logical connections of classical montage are displaced by a “violent de-association.”²¹ In previous structures, the use of such strategies as 180° line, match cut, and eye-line match provided a rational link between images. The cut of the time-image, however, takes on a new privileged role of creativity. Instead of acting as a relational connection between the edges of one frame with that of another, the cut is highlighted to establish a contradiction between sequential images. Due to the unintelligible spatial and temporal conditions that the cut provokes, the spectator is freed to construct new mental relationships within the narrative. Reality is no longer bound to the filmic illusion. Instead, the spectator constructs a mental reality independent of the moving image and human eye – “a camera-consciousness which would no longer be defined by the movements it is able to follow or make, but by the mental connections it is able to enter into.”²²
As presented in the photographic work of Etienne Jules Marey, the concurrent multiplicity of spatiotemporal conditions establishes a gap between spectator and image. The viewer is no longer presented with unidirectional meaning, but is instead confronted with a variety of readings. In translating this concept to the architectural realm, Marey’s representation of simultaneity can best be visualized in the transparent and reflective nature of material surfaces. The concept of transparency has been embedded with multiple levels of meaning, the primary being the material condition of the plate glass window. The pervious nature of glass allows for both the transmittance of light as well as an unmediated optical relationship between inside and out. It is from the latter condition that Alberti drew the metaphor of the window as a viewing device onto an objective reality. The framed pane of glass establishes both a transparent view of the exterior as well as defining the boundaries between that which is seen and that which exists outside the frame.

This optical coherency, however, disregards the additional characteristic of transparency as an ambiguous dislocation of space and time. As glass making production increased in the 19th century, glass was no longer confined to the frame of the window. Instead, it became part of the architect’s kit of building materials. Emerging all-glass structures such as Joseph Paxton’s Crystal Palace began to redefine the relationship between the spectator and the built environment. Anne Friedberg notes that as new building typologies utilized glass as the primary enclosure, the spectator was confronted with a new “visual system.”

Figure 2.6: Crystal Palace, 1851
that “the spectator amid such a construction of glass was some-
how lost, no longer in a position to judge distance or size as the
perspectival viewer might have been.”

Expanding into ever increasingly large curtains of transparency,
glass enclosures dematerialized the spatial boundaries of archi-
tecture. The transparent and reflective nature of the material es-
tablished a dynamic fluctuation between spatial locations. Space
was no longer defined by material edges, but was instead super-
imposed into overlapping configurations. It is this quality of trans-
parency that Colin Rowe and Robert Slutzky describe in their writ-
ing, “Transparency: Literal and Phenomenal.” The writers define
literal transparency as the physical characteristics of a material for
transmitting light and air. Phenomenal transparency, on the other
hand, exists as a new spatial order of multiplicity and superimposi-
tion.

In quoting art theorist Gyorgy Kepes, Rowe and Slutzky supply a
definition of phenomenal transparency as a “simultaneous percep-
tion of different spatial locations.” In this definition, overlapping
spaces do not occlude one another, but dematerialize to provide a
continual fluctuation between foreground and background. This
paradoxical relationship between the material and dematerializ-
ing aspects of transparency led to a new conception of space that
dislocated the fixed perspectival viewpoint of Alberti’s window.
Space is no longer clearly defined within the frame of the window,
but is instead a dynamic ambiguity of multiple reference points.

In both the writings of Rowe/Slutzky and architectural critic Sig-
fried Giedion, cubist painting provides an exemplary representa-

Figure 2.7: Eugène Atget, Magasin, avenue des Gobelins, 1925
tion of transparency’s new implication of “space-time.” In his text, Space, Time and Architecture, Giedion characterizes this new “space conception” as an “optical revolution” that is inherently tied to Cubism’s multi-faceted representations. He states:

For the first time since the Renaissance, a new conception of space leads to a self-conscious enlargement of our ways of perceiving space... Cubism breaks with Renaissance perspective. It views objects relatively that is from several points of view, no one of which has exclusive authority.²⁸

This condition is most evident in cubist works that provide an overlapping of transparent planes, denying a definition of foreground, middle ground, and background. Both texts identify Picasso’s L’Arlésienne as a primary example for the multiplicity of phenomenal transparency. In this work, Picasso establishes a shallow space of abstracted planes that act to both advance and retreat within the confines of the frame. The transparent nature of these planes allows for a superimposition of multiple points of view, that of the figure from both the front and in profile.²⁹ The painting’s viewer is no longer situated within a singular viewpoint of converging lines, but is presented with a shifting position in time and space. In his book Vision in Motion, Moholy-Nagy characterizes these superimpositions as overcoming “space and time fixations.” “They transpose insignificant singularities into meaningful complexities.”³⁰ Spectatorship, consequently, becomes a cognitive negotiation between these multiple planes of meaning. As the spatial and temporal gaps expand the singular reading of earlier structures, the viewer is shocked into a more active role in reconstituting the fragments of reality.

Figure 2.8: Pablo Picasso, L’Arlésienne, 1911-1912
Whether it is within the static frame of the picture plane or the shifting frames of film, perspective has continually been a means of orienting the viewer in space. In film, deep focus perspectival shots allowed for the spectator to maintain continuity in the reading of the narrative. This approach was usually in contrast to that of Russian montage theorists who valued fragmentation over the continuity of space. Similarly, classical architecture reinforced the value of the perspectival image. Through conventions of vertical symmetry, architects emphasized the center and thereby produced a sense of unity and authority. This resulted in a more instantaneous and clear impression on the spectator, but also limited the users’ creativity and engagement in understanding the narrative of the building.

Phenomenal transparency, on the other hand, establishes a spatial temporality due to the viewer’s simultaneous experience of different spatial locations. Space is no longer defined according to a singular representation, but instead fluctuates between multiple meanings. Similar to the motion studies of Marey and the superimpositions of film, phenomenal transparency establishes a new time-image of temporally fractured moments. Marey’s work, in particular, offers a scientific precursor to that of Cubism, both of which deny the prescribed perspectival reading of earlier models. In architecture, this condition typically entails the use of transparent and reflective surfaces to negotiate the visual boundaries between near and far. Spatial boundaries are dematerialized so as to create ambiguity and force the viewer into a new reading of space/time.

Figure 2.9: Kolbe Statue, Barcelona Pavilion, 1929
In Mies van der Rohe’s Barcelona Pavilion, phenomenal transparency is established through both the reflective nature of its surfaces as well as an asymmetrical arrangement of space. Erected in 1929 for the Barcelona International Exposition, the Pavilion existed as the symbol of a new Germany. Situated at the end of the exposition’s primary axis, the pavilion’s shifting planes contradict the surrounding symmetrically oriented structures. In an attempt to challenge the historic conventions of authority, the Pavilion negates the static nature of vertical symmetry while embracing a fluctuating horizontal disposition.

In his essay, “Mies van der Rohe’s Paradoxical Symmetries,” Robin Evans discusses this effect in regards to the optical flux of the user’s perception. Evans notes that instead of creating a narrative based on symmetry and unity, architect, Ludwig Mies van der Rohe, developed a system of continual visual oscillation. The planar arrangement of the pavilion, reminiscent of a De Stijl painting, negates static and symmetrical readings through the arrangement of shifting parallel and perpendicular planes. However, unlike the two dimensional space of painting, the plan is not an image viewed from above but is experienced from within. In order to translate the virtual movement of the plan into the third dimension, Mies utilizes reflective materials to provide a simultaneity of views.

From the exterior, non-reflective surfaces are experienced frontally thereby visually separating the interior from its surroundings. The pavilion consequently stands in isolation to the exposition, presenting an elevation of overlapping closed-off planes. From

Figure 2.10 (Above) : Barcelona Pavilion, Exterior
Figure 2.11 (Below) : Barcelona Pavilion, Interior
the interior, however, the surfaces take on a new quality of optical expansion. Composed of tinted glass, chrome, and polished marble, the interior planes generate a highly reflective and dynamic visual experience. The spectator is consequently confronted by a two-fold impression, reading the physical materiality of the plane as well as reading the reflection on its surface. This establishes contradictory spatial readings in the pavilion, the visual flatness and physical barrier of the planes in contrast to a virtually projected depth. However, similar to a Cubist painting, these two spatial readings cannot occur simultaneously but instead oscillate within the viewer’s mind. The viewer, therefore, never maintains a singular reading of the space but is instead forced into an awareness of the perceptual processes taking place. Evans goes on to state that “by virtue of its optical properties ... the pavilion always draws us away from consciousness of it as a thing, and draws us towards consciousness of the way we see it. Sensation, forced into the foreground, pushes consciousness into apperception.”33 The viewer is thereby triggered into a new form of spatial and perceptual awareness, continually navigating between the multiple focal planes registered within the surface.

This condition does not occur at all moments within the pavilion, but is instead highlighted when the user is located at a prescribed set of positions. Mies choreographs the user’s movement so that they are continually directed by a sequence of visual cues: the reflecting pond, the Kolbe statue, the black carpet, and the double glass wall.34 These cues orient the spectator within the shifting parallel and perpendicular layout. The spatial arrangement of the

Figure 2.12: Optical Fluctuation, Barcelona Pavilion
planes furthers the Pavilion’s optical oscillation by both denying and enforcing symmetrical relationships. The shifting formal layout contradicts vertical symmetry while blocking views into adjacent spaces. The reflective nature of the materials, however, continually captures a reflection of the internal environment, thereby reconnecting the spectator to the surroundings spaces. When the viewer’s focus is directed parallel to the surface, these reflections present a complete symmetrical perspective that optically contradicts the asymmetry of the plan. This is furthered by the reflective nature of the two ponds, whereby the viewer receives a virtual horizontal symmetry as well. Thus, the materiality and reflectivity of the materials are at odds. The spectator is visually trapped between an illusory sense of perspective and an asymmetrical reality.

Much like the fragmented nature of the time-image, the optical fluctuation in the pavilion generates a continually shifting reading of the building. The planes become a sequence of architectural film screens, compressing multiple focal planes within a spatially defined boundary. Similar to the photographic studies of Marey, the pavilion’s planes capture a simultaneity of varying spatial locations within a single frame. The user, like the film viewer, becomes intellectually mobile as they shift between these varying registers of the object as material and reflection. Moving through the sequence, the viewer’s vision oscillates between near/far and flatness/depth. Consequently, their position changes from one of centrality to marginality as the gaze fluctuates between inside and out.

Figure 2.13 (Right) : User Path, Barcelona Pavilion
Figure 2.14 (Pg. 62-65) : Visual Sequence, Barcelona Pavilion
While the classical narrative structure extends the role of the user beyond a passive entity, it primarily limits viewer activity to unconscious inferences. Sutured into an illusion of reality, the mental life of the viewer is typically a condition of reaction instead of action. Until the early nineteenth century, the process of film editing was subverted to a chain of linear causalities and intelligible temporal sequences. The sequential frames of the early motion studies were reanimated to establish a new sense of virtual motion. In 1879 Eadweard Muybridge constructed a device to sequentially project his images, thereby negating the multiplicity of frames and differentiation between spatial conditions. Termed Zoöpraxiscope, his device was composed of a revolving wheel through which an internal lantern projected light. Producing an optical impression of movement, the reanimation of the sequence denied the analytical quality of the series of single images. The cut became subverted to a role of continuity within the virtual motion of filmic projection.

It wasn’t until the early 1920’s, that the role of the filmic cut became a tool for creative collisions instead of psychological continuities. During the early nineteenth century, Russian filmmakers began breaking away from classical narrative structures and adopted a new form of filmic construction, currently known as “Soviet Montage.” Typically used in Hollywood cinema as a method for compressing time, montage had previously been used as a tool for continuity editing. Soviet montage theory, however, was an
approach to cinema that relied heavily on the creative constructions of film editing. The central aspect, the cut, became a means of stimulating the spectator’s reading of the narrative. Developed in the work of Russian filmmakers such as Sergei Eisenstein, Dziga Vertov, Lev Kuleshov, and Vsevolod Pudovkin, Soviet montage sprung from an ideological politically driven cinema that stressed the production of ideas through imagery. In an effort to both expand the vocabulary of film language and support Marxist ideals, montage was developed as a propagandistic device of creative thinking. While varying definitions exist, the most widely accepted stems from the writings of Soviet filmmaker and theorist Sergei Eisenstein. “Montage is an idea that arises from the collision of independent shots” wherein “each sequential element is perceived not next to the other, but on top of the other.”

This filmic technique is abundant throughout many of Eisenstein’s cinematic masterpieces, primarily that of Battleship Potemkin (1925). Produced in Soviet Russia in the years following the revolution, Battleship Potemkin emerged at a time of constant struggle and debate. The use of montage throughout the film acts as a representative tool for Eisenstein’s pro-revolution ideals, arousing an emotional consciousness in the face of oppression. The best visualization of these techniques occurs in the “Odessa Steps” sequence, whereby the use of cuts elongates the crowd’s fleeing to an emotionally charged seven-minute sequence. The rapid juxtaposition of varying perspectives results in a shifting emotional

Figure 2.16: Odessa Steps Sequence (1), Battleship Potemkin, Dir. Sergei Eisenstein
reading, thereby constructing an overall heightened visceral response from the spectator. The deep perspective of the regimented soldiers registers as deeply inexpressive in contrast to the close-up shots of the facial turmoil in the crowd. At the conclusion of the “Odessa Steps,” Eisenstein reinforces the call for uprising through the montage of two image sequences. The rapid juxtaposition of three cherub statues implies that the statue is throwing a punch. The virtual rising up of three separate lion statues follows this sequence, thereby strengthening the mental image of the Soviets’ active awakening and strength.39

As expressed in these sequences, the new theory of montage editing constructed meaning not through continuity, but through the sequential juxtaposition of disparate imagery. The collision of these forces constructed a synthesis of meaning both different from and beyond the mere sum of its pieces. Thus, the juxtaposition of ‘Image A’ with that of ‘Image B’ acts on the spectator to construct the psychological conclusion ‘C.’ The connection is made in the mind of the viewer. While still maintaining the mental processes of schemata and hypotheses, the spectator is now faced with the creative synthesis of meaning. It is thus the spectator, not the director, who assembles the final product of the film. Cinema is no longer a linear cause-effect chain, but is instead a psycho-physiological spectacle created both for and by the spectator.

Figure 2.17: Odessa Steps Sequence (2), Battleship Potemkin, Dir. Sergei Eisenstein
The analogous relationship between film and architecture stems from the construction of mobile images, presented across shifting spatial and temporal conditions. The multiplicity of both frames and events in the filmic narrative are linked in the confines of the cinematic screen, but also in the mental journey of the viewer. Film spectatorship is not confined to a linear reading due to the diversity of camera movements, points of view, and editing techniques. Instead, it generates a visual and psychological journey of collection and recollection for the viewer. The filmic spectator, situated within a position of physical stasis, is mobilized through the perceptual connection of individual frames. The role of the film viewer parallels the condition of the peripatetic spectator of architecture in that both are psychologically intertwined within the spectacle of the moving image.

In a 1937 essay, Soviet filmmaker Sergei Eisenstein addresses the relationship between the mobility of the spectator on foot and the immobile spectator of cinema. Eisenstein categorizes the “point of view of the moving spectator” as “that which is dispersed in reality, unseizable to a single gaze, scattered about.”\textsuperscript{40} When the spectator is rendered immobile (as in film), he must assemble these shifting impressions of reality. Cinematographic montage is thereby the “means to ‘link’ in one point – the screen – various elements (fragments) of a phenomenon filmed in diverse dimensions, from diverse points of view and sides.”\textsuperscript{41}

---

Figure 2.18: Pantheon, Acropolis
In “Montage and Architecture,” Eisenstein continues to discuss the role of montage as a model for constructing both filmic and architectural space. In film, the viewer’s eye follows a series of diverse perspectives, thereby collecting various points of view along a mentally constructed path. Architecture can be conceived as a similar sequence to that of cinema: a filmstrip of individual frames pulled apart in space and revealed to the mobile spectator through time. The physical space between the frames of an architectural sequence is evocative of the filmic cut in that it establishes a divide in continuity. Just as the film viewer reorders the discontinuous fragments of the film, so must the peripatetic spectator perceptually reconnect the shifting frames of the three-dimensional world. Through the physical, optical, and mental movements of the peripatetic spectator, architectural sequences can establish a shifting representation of the built environment.

For Eisenstein, the architectural composition that best addresses these strategies is that of the Acropolis. “It is hard to imagine a montage sequence for an architectural ensemble more subtly composed, shot by shot,” he writes, “than the one that our legs create by walking among the buildings of the Acropolis.” Through the analysis of notes by the nineteenth century architectural historian, Auguste Choisy, Eisenstein brings witness to the role of spatial and temporal compositions in navigating through the Acropolis.

The shifting relationship of both plan and perspective renders the architectural spectator as a moving camera, capturing a series of diverse impressions. As the spectator navigates the shifting topography of the Acropolis, they are faced with a series of four carefully composed shots. These ‘shots’ are separated by a substantial physical space, thereby elongating the temporal distance between frames. This reinforces the individuality of each frame, while necessitating that the user constructs a mental, not optical, path to reconnect the sequence. Thus, similar to the fragmented nature of film, the montage of views in the Acropolis is dependent on the memory of the spectator. This positions the peripatetic spectator beyond physical mobility, engaging a peripatetic’s of the mind as well.

Analogous to the constructed meaning of cinematic montage, the singular reading of these perspectival images is subverted to the sequential reading between frames. As the viewer approaches the first ‘shot’ of the sequence, they are faced with a frontal view of the Propylaeum, axially situated atop the grand entry stair. Gradually progressing up the stair, the viewer’s gaze to the space beyond is framed by the portal of the Propylaeum. Symmetrically situated within this frame resides the statue of Athena, the second structured shot of the montage composition. As the spectator emerges from the portal, they receive the first panoramic view of the square, encompassing the Erechtheion, Parthenon, and Athene Promakhos. Providing a point of centrality and ‘unity,’ the statue
of Athena stands as the sole object of perception. The statue fills the foreground of the viewer’s gaze, thereby visually dominating over the Erecheion and Parthenon in the background. As the spectator passes by Athene Promakhos, the Parthenon is presented in oblique view. Choisy notes that this layout was due to both the Parthenon’s positioning atop the summit overlooking the city as well as the Greek preference for oblique ‘picturesque’ views. Following this same predilection, the Erecheion also enters the visual field obliquely as the last view of the montage sequence.\(^45\)

While the singular views may read as asymmetrical and unstructured, the overall sequence itself maintains a balanced experience. In both the first and second ‘shots,’ the spectator is presented frontally with a symmetric visual layout. In contrast, the two views at the end are asymmetric, but symmetric to each other.\(^46\)

The visual organization of the four views allows for each structure to have a moment of greater visual importance. The visual occlusions of the “montage plan” prevent the structures in the sequence from being visually compared to the surrounding ones. Instead, the viewer is presented with a series of “first impressions” separated in time and space.\(^47\) As the peripatetic viewer passes from one scene to the next, they can only see the Acropolis as a whole through memory, virtually reconnecting the snapshot images of each structure. As Choisy notes, “Our recollections invariably take us back to first impressions.”\(^48\)

---

45 Choisy notes that this layout was due to both the Parthenon’s positioning atop the summit overlooking the city as well as the Greek preference for oblique ‘picturesque’ views.

46 While the singular views may read as asymmetrical and unstructured, the overall sequence itself maintains a balanced experience. In both the first and second ‘shots,’ the spectator is presented frontally with a symmetric visual layout. In contrast, the two views at the end are asymmetric, but symmetric to each other.

47 The visual organization of the four views allows for each structure to have a moment of greater visual importance. The visual occlusions of the “montage plan” prevent the structures in the sequence from being visually compared to the surrounding ones. Instead, the viewer is presented with a series of “first impressions” separated in time and space. As the peripatetic viewer passes from one scene to the next, they can only see the Acropolis as a whole through memory, virtually reconnecting the snapshot images of each structure. As Choisy notes, “Our recollections invariably take us back to first impressions.”

48 Figure 2.19 (Left) : User Path, Acropolis

Figure 2.20 (Pg. 78-79) : Visual Sequence, Acropolis
“The impossibility of giving the film a single and unitary interpretation makes us think and rethink the image in an endless chain of possible interpretations, in a continuous exchange between image and viewer, between brain and screen.”
– Ils Huygens, “Deleuze and Cinema: Moving Images and Movement of Thought”

In the connection between filmic techniques and design strategies, architectural discourse has continually focused on the translation of montage methods into the architectural sequence. While this provides a means of activating the engagement of the peripatetic spectator, it often solely relies on the principle of a building up of fragments over time. In the cinematic work of Sergei Eisenstein, these fragments instill a sense of shock and surprise that generates new meaning through juxtaposition. Shock is relevant to media such as film in that it is often experienced once or twice with a temporal lag between viewings. In architecture, however, juxtapositions are an inherent component of the built environment and require a greater degree of contrast to elicit surprise. As the spaces of our daily lives are revealed time and time again, shock is lessened through repeated use, leaving the viewer increasingly desensitized. Thus while a montage of fragments may be conducive to the singular static viewings of film, a portion of its critical importance is lost in the translation to architectural strategies.

The primary role of montage in film is to engage the creative role of the user in constructing new meaning. However, this is not the sole means by which film techniques can activate the role of...
the immobile spectator. By organizing and constructing the fragments of a cinematic narrative, the editor establishes a sequence of spatial and temporal discontinuities, which either proves to reinforce or negate the relationship between the plot and story. These temporal conditions can shift in relation to factors of order, duration, and frequency. Some gaps may be focused and instantaneously direct viewer engagement, while others are subtle in that they are only called attention to at a later time or through repeated viewings.

In the classical narrative structure, the spatial and temporal elements of the plot are geared towards the consuming spectator. The narrative cues are concealed so as to reinforce the filmic illusion and suture the spectator into a constructed reality. When these devices interact in a manner that disrupts the filmic illusion, they awaken the spectator to a psychic reality of narrative structuring: a privileged role of creativity. Non-linear narratives, based on the structuring concepts of Deleuze’s time-image, achieve this condition by forcing the spectator to be aware of the narrative operations taking place. Influenced by such filmmakers as Jean-Luc Godard, Alain Resnais, and Federico Fellini, non-linear film creates a stratified experience of temporal events, negating a cohesive relationship between past, present, and future. Thus, the chronological ordering of the movement image is replaced by a stylistic system of discontinuities that continually challenge and redirect the viewer’s expectations and readings.

In a break from the linear narrative of continuity editing, Last Year at Marienbad (L’Année Dernière à Marienbad, Alain Resnais, 1961) is a primary example of this form of filmic structuring. In mimicking the disjointed narrative of a dream, the film follows no chronological or rational order. It instead flashes both forward and back, presenting a sequence of scenes with no temporal connection and thereby gradually pulling the viewer into the dream/memory state of its characters.

The film opens as if frozen in time. As the camera navigates the empty but lavish hallways of a vast vacation castle, a narrator gradually fades in and out of a continually repetitive description of the resort. When finally presented with characters, they eerily resemble that of the luxurious ornamentation, statues frozen in time and memory. As the nameless characters navigate the screen in an emotionless state, the viewer receives only a montage of fragmentary conversations. This sequence is finally broken through a focus on the principle characters. Man “X” addresses himself to woman “A” and struggles to convince her that they have met before.

It is from here that the film cascades into an overlapping series of stories, each of which attempts to draw forth the memory of the initial meeting. The memories are interwoven through flash forwards and flash backs, both contradicting themselves and producing ellipses of time. Sharp juxtapositions of montaged images further overlap one story with that of the next, seesawing between two memories until sequentially giving primacy to the next. Both the stories and time thus fold on to one another establishing a narrative of fissures and fragments.
As style dominates over the plot structure, the spectator is left in a state of confusion and bewilderment. Caught amidst never-ending temporal discontinuities, the viewer must search for narrative operations that provide clues to the film’s structure. As man “X’s” recollection of the past changes, so does the mise-en-scène of the represented memory. Scenes shift according to location, wardrobe, camera angle, and character placement while maintaining continuity of specific elements to highlight the contrast between frames. These continuities are typically repeated throughout the film so as to provide a framework by which the narrative ellipses can be measured. Intermixed within the inconsistent imagery, gliding tracking shots and a repetitive organ score provide consistency amongst contradictory memories. Likewise, Resnais establishes a subtle symmetrical structure that highlights the discontinuities of individual scenes. Operating on both a macro and micro scale, symmetrical relationships function to signal a gap between opposing temporal conditions. These codes displace the forward movement of the story, but provide parameters by which the spectator can creatively construct their own reading within the gaps.

It is these ellipses that dictate over the story, negating a clear reading by the spectator. The temporal gaps, analogous to the gaps of a dream, stylistically reinforce the fleeting and overlapping memories of the story. This is highlighted in a sequence of the film whereby the narrator’s description of the first meeting is not concordant with the images presented. The disparity is achieved through a shift and intermixing of image and dialogue, presenting one component of the pairing prior to the other. As the sequence

![Figure 2.22: Plot Symmetry, L’Année Dernière à Marienbad](image)
progresses, the gap between image and dialogue is only achieved by mentally reconnecting the stratified pieces through memory.

These structures extend beyond montage, by further engaging Bergson's concept of instantaneous memory. Experiences are not linear, but are instead stratified across multiple spatial/temporal conditions. Only memory can act to reconnect the virtual past with the reality of the present. Bergson highlights this concept in his diagram of the layered cone of memory. The summit 'S' is indicative of an individual's present perception of reality, situated on the “plane of action.” Plane AB, however, consists of the totality of memory, the buildup of fragmentary planes A'B' and A''B''. Bergson states:

The essence of the general idea, in fact, is to be unceasingly going backwards and forwards between the plane of action and that of pure memory... the general idea escapes us as soon as we try to fix it at either of the two extremities. It consists in the double current which goes from the one to the other, always ready either to crystallize into uttered words or to evaporate into memories.52

To be focused within either of the extremities would imply an attachment to either the sensory-motor conditions of 'S' or a “life of dreams” across AB.53 The conditions of Deleuze's movement-image rely heavily on the sensory-motor reactions across the plane of action. It initiates movement between the extremities of the cone, but only to provide representations that easily support the present action. The time-image, on the other hand, situates the

Figure 2.23: Layered Cone of Memory, Henri Bergson
viewer within a continually stratified state between the extremities, oscillating between reality and memory.

Within this process the spectator’s gaze is simultaneously dislodged from its static relationship to the image. In the regime of the movement-image, the subject’s position was reminiscent of Renaissance’s classical visual cone. The continuity of the projected image was the object of the viewer’s gaze. The time-image, on the other hand, presents a stratification of past, present, and future, denying a cohesive reading of the film. These gaps instigate a gradual shifting in the viewer’s reading of the narrative, establishing a two-way mirror that captures both the present image as well as reflecting back on the viewer’s memory of past events. This condition is more referential to Lacan’s concept of the scopic field. Within the Lacanian diagram, the singular cone becomes symmetrically superimposed so as to provide a two-way mediation between subject and object. By viewing each other through the screen, both the subject and object become representations. As Lacan states, “I am not simply that punctiform being located at the geometral point from which the perspective is grasped....The picture, certainly, is in my eye. But I, I am in the picture.”

The spectator is thus mobilized into a new position of filmic spectatorship. Instead of passively situated outside the screen, the viewer becomes actively engaged within these new stratified layers of temporal/spatial representation. The object of cinema, therefore, is no longer the projected story, but is instead the manner in which the viewer oscillates between the layers of experience.

Figure 2.24: Lacan’s Diagram of the Visual Field
reflective sequences | gap 3 stratification

“The self-reflection provided by the romantic mirror was a movement that rendered visible the connection between memory and souvenir, between recollection and re-collection.”
-Helen Furján, “The Specular Spectacle of the House of the Collector”

In 1792, John Soane began construction on house no. 12, the first of three connected sites at Lincoln’s Inn Fields. The site would eventually become home to a vast collection of Soane’s privately owned antiquities, displaying them in a multiplicity of unfolding views and experiences. Through the use of hundreds of convex and mirrored panels throughout the “house-museums,” Soane established a narrative of experience based on reflection and representation. Reflection, as defined by John Locke, is “that notice which the human mind takes of its own operations, and the manner of them.” In navigating the labyrinthine sequence of spaces, the viewer is continually faced with both spatial and temporal gaps while continually confronted with a shifting relationship between gaze and self-reflection. The spectator, therefore, similar to the filmic viewer of the time-image, becomes aware of their cognitive role in navigating the collection.

The building consists of the original house of John Soane that was later converted to a museum to house his collection. The layout is thus organized in an uncharacteristic manner of complicated routes and limited sight lines, further fragmenting the disparate collection of antiquities and domestic objects. As the viewer proceeds through the series of spaces, his/her gaze quickly oscillates.

Figure 2.25: Convex Mirror in the Ceiling of the Breakfast Parlour, Soane Museum
back and forth between arrays of fragments posited on every surface. The collection is primarily composed of various architectural casts which block views and further prevent a cohesive reading of the collection. Through the specific placement of mirrors across the inner surfaces, the viewer at once receives a series of framed collections of the whole: a “gathered heterogeneity” of the fragments of history, the viewer, and the domestic environment.

This is especially apparent in the use of a convex mirror at the visual terminus of the corridor. Due to the narrow conditions, each collectible is experienced sequentially as the mobile spectator navigates the length of the space. In contrast to the identical reflection of a plane mirror, Soane’s use of a convex surface focuses the space into a comprehensible perspectival image. The placement of the mirror collects both the full arrangement of antiquities and the viewer’s gaze into a focused and framed interior vista. At once, the viewer is situated within a spatial gap between the fragmentary experience of movement and the collective whole of reflected representation. Both the collection and the user’s experience are metaphorically doubled, establishing an ever-shifting arrangement and transformation of the fragments of the collection.

Simultaneously, a temporal gap occurs between the past and present experiences of the spectator. The physical mobile experience exists in an inverted relationship with that of the reflected representation. As the viewer navigates closer to the mirror, they experience an ever-increasing reflected view of the previous path.

Figure 2.26: Convex Mirror in the Corridor, Soane Museum
while slowly diminishing the length of the current route. The view of the present is in continuous visibility with that of the virtually represented past. Likewise, the viewers themselves exist within the same frame of visual representation. At the beginning of the path, the spectator is not visible within the mirror and thus remains in the classical position of the subject with the collection as the framed object. At the end of the corridor, however, the mirror locks the viewer within its frame and virtually links him to Soane’s collection of antiquities. Thus, like the Lacanian diagram, the spectator fluctuates between the position of subject and represented object and thereby becomes an active participant in the structure of the museum.

Since the mirror of the corridor is fixed, the multiplicity of readings is dependent on the user’s movement through the space. Conversely, mirrored surfaces in other portions of the museum are adaptable by use and thereby generate further temporal gaps of experience. The use of mirrored surfaces in the interconnected dining room and library establish a sequence of changing relationships between the internalized and externalized nature of the museum. The south wall of the library is composed of a ceiling height central mirror situated above a reflective chest. Flanking the mirror are two windows facing the exterior street. In contrast to the technique of the time, Soane utilized mirrored blinds that reflected not the exterior landscape, but the internal space.67 On the opposing northern wall of the dining room, there is an inverted relationship to that of the library. The central figure is not a mirror, but instead a large window looking out onto an inner

Figure 2.27: External Reflection of Library, Soane Museum
The window is framed by small-mirrored panels and flanked on either side by mirrored doors.

The variable nature of both the mirrored blinds on the south wall and mirrored doors on the north establish a continually changing relationship between the spectator, the collection, and the exterior environment. The most external state occurs when the blinds on the south are open and the doors are shut. This extends the view from the library to the exterior through the open windows, while simultaneously reflecting nature on the mirrored doors of the dining room. The most internalized state, on the other hand, occurs when both the blinds and doors are closed, creating an interior trapped in reflectivity. In this state, the only means of visual release is through the window on the northern wall, which likewise looks out onto an interior courtyard. The mirrored paneling around the window simultaneously provides a visual delineation that frames the exterior, thus creating the illusion of a painting and re-internalizing the view.

The multiple narratives that exist in the museum are established through the temporal changes of the mirrored surfaces. Meaning is not derived in the Soane Museum by fragments of shock, but is instead based on a sequence of subtle spatial and temporal discontinuities, characterized as “the ubiquitous dissolution of space by means of reflection.” The multi-dimensional experiences provided by the mirrors allow the spectator to virtually re-collect the museum and its artifacts, while simultaneously allowing for a unique reading by each user.

Figure 2.28: Internal Reflection of Dining Room, Soane Museum
“The spectator is the searchlight... duplicating the projector, which itself duplicates the camera, and he is also the sensitive surface duplicating the screen which itself duplicates the film strip.”
- Patricia Mellencamp, “Spectacle and Spectator”

Much like the non-linear narratives of the time-image, the Kunsthal Museum in Rotterdam achieves a non-linear architectural sequence that stratifies the viewer’s experience. This is primarily achieved through both the visual isolation and autonomous nature of the spaces as well as an oscillating relationship between subject and object. Unlike the nature of the Acropolis, the spectator is no longer confronted with a representation of the ‘whole,’ but is instead faced with a series of continually blurred distinctions.

In designing the Kunsthal, architects OMA, conceived of the parti as a square intersected by two exterior paths, thereby establishing four independent quadrants within the building. The first path is a pedestrian ramp linking the northerly adjacent Museum Park to the Rotterdam metropolis on the south. This is perpendicularly crossed on the lower level by a service road that runs parallel to the park and bisects the building beneath the ramp. These two paths divide the museum into four autonomous zones that can be accessed individually or sequentially, thus providing a greater degree of programmatic flexibility. A complex circulation route intertwines the individual parts, linking three art galleries, an auditorium, and a restaurant. Although it exists as the only connecting...
thread within the museum, the circulation path negates a clearly directed route.

To access the primary public entrance, the visitor must first enter the exterior pedestrian ramp from either the lower Museum Park level or from the upper highway level on the south of the building. On the interior, a second ramp, terraced as an auditorium space, symmetrically crosses the exterior path. The main entrance is situated at the intersection between these two ramps. From here the visitor can proceed to either the lower or upper levels of the auditorium, both crossing over to two stacked galleries on the eastern side of the building. Along the ground level, the path leads to a foyer for one of the secondary entrances along the service road. From here the visitor enters Hall One, which is visually opened up to the park space beyond. At the end of the gallery, the visitor turns about-face to find an interior ramp running adjacent to the exterior pedestrian ramp. Separated only by a glass façade and containing the same floor of striated concrete, these two ramps begin to establish an ambiguity between internal and external relations.63

At the top of the ramp, the visitor proceeds into Hall Two, which in contrast to Hall One is visually opened up to the metropolitan landscape to the south. This oscillation between nature and the city establishes an additional paradoxical relationship within the building. At the end of the gallery, the viewer is once again con-

Figure 2.30: Circulation Pattern, Kunsthall Museum
fronted by a multiplicity of routes: one leading back to the top of the auditorium space and the other along a stepped ramp that runs adjacent to an exterior roof garden. Halfway up the ramp, the visitor can enter into the single story Hall Three which is situated above the auditorium. Following the ramp, on the other hand, results in a framed view of Rotterdam at the roof level above. From here, the viewer can either retreat along the previous route or take the elevator to the lower levels. With the circuitous nature of this route the visitor is confronted with not only three possible entry points but also multiple directions at every threshold. The path does not exist as a prescribed journey, but instead encourages free movement along a circuit-like route. With each visit to the museum, the visitor can thus follow a new journey and receive an evolving understanding of the spatial relationships within the building.

In navigating the museum, the logic of both the individual spaces as well as spatial adjacencies further emphasizes the fragmentation of this overall scheme. Through the visual isolation between parts as well as a variety of structural and material choices, the building provides a disjointed and constantly shifting experience for the viewer. From the exterior, the materiality of the elevations provides the visitor with the first glimpse of the discontinuous nature of the overall design. Comprised of varying combinations of tinted glass, travertine, concrete, and polycarbonate panels, the four elevations provide an inconsistent register of the activities on the interior. The north elevation, with its solid travertine surface above, denies visibility to the range of programmatic activities along the second level as well as visibility of the pedestrian path that bisects it. The west elevation, on the other hand, provides views into the auditorium, the restaurant below, and the offices to the north. However, the tinted glass of the auditorium in combination with dramatic interior lighting results in an intensified reflection of the surrounding park. Thus, the museum continues to blur the distinctions between inside and out.

These conflicts are made visible on the interior of the museum as well. The separate programmatic elements maintain an autonomous nature through both an independent material and structural character. When moving through the museum, the spatial language that is implied in one space will be contradicted in another. As spaces are primarily visually isolated from one another, these juxtapositions are magnified at the thresholds and visual overlaps of the building. These overlaps typically occur in unconventional locations: at the baseboard level of the primary entrance, behind the auditorium podium, the floor/ceiling between galleries, and the parallel interior/exterior ramps. This spatial condition not only shocks the viewer through programmatic juxtapositions but also establishes a shifting relationship between the spectacle and spectator. As an individual passes along the service road, their gaze is focused on the visual break of the pedestrian ramp above. However, simultaneously the driver becomes unknowingly framed.
Pedestrian Sequence

Vehicular Sequence
within the glazed backdrop of the auditorium. Similarly, the visual connection between Hall One and Hall Two establishes a shifting relationship between subject and object. The visitor gazing at the gallery’s artwork above becomes the object of focus for both the visitors in the hall below as well as passersby along the exterior road. The exterior façade of polycarbonate panels thereby becomes a living canvas, registering the shadows of the museum-goer on the inside.

In the article, “‘Do we need a canopy for rain?’: interior-exterior relationships in the Kunsthal,” Michel Moussette addresses these paradoxical relationships as a means to establish a sense of unease within the viewer, confronting them with a “space in which limits are not necessarily clear and material entities tend to not last for very long.” Although the inherent nature of a museum is to situate the viewer in relation to the framed image, the Kunsthal stratifies this experience across multiple spatial and temporal conditions, dislodging them from a static position. Moussette states, “while in displacement through a space defined by architecture, the Kunsthal visitor is put into psychological and physical contact with the uninhabitable, with troublesome zones that play foul with one’s spatial habits.” The viewer, therefore, never receives a ‘whole’ image but is instead presented with a constant exchange of conflicts and contradictions that bring about new impressions with each repeated use.

Figure 2.32: Visual Overlap, Kunsthal Museum
endnotes

1. Frampton, 65.
2. Frampton, 6.
3. Frampton, 2.
4. Friedberg, 60-61.
5. Friedberg, 88.
6. Friedberg, 88.
7. Friedberg, 89.
8. Friedberg, 90.
10. Friedberg, 92.
11. Friedberg, 92.
12. Frampton, 61.
13. Deleuze, Cinema 2, 156.
15. Frampton, 61.
16. Frampton, 62.
17. Donato Totaro, “Gilles Deleuze’s Bergsonian Film Project,” (Offscreen 3.3, 1999)
18. Deleuze, Cinema 2, 81.
19. Deleuze, Cinema 2, 55.
20. Totaro.
22. Deleuze, Cinema 2, 23.
24. Friedberg, 112.
25. Friedberg, 113.
26. Rowe and Slutzky, 45.
27. Rowe and Slutzky, 45.
29. Rowe and Slutzky, 49.
32. Evans, 61.
33. Evans, 67.
35. Evans, 66.
36. Friedberg, 92.
37. Bordwell, 235.
41. Bois, 111.
44. Eisenstein, “Montage and Architecture,” 118.
47. Eisenstein, “Montage and Architecture,” 120.
50. Bordwell, 55.
53. Bergson, 211.
55. Foster, 108.
57. Furján, 59.
58. Furján, 72.
59. Furján, 69.
60. Furján, 69.
61. Michel Moussette, “"Do we need a canopy for rain?: interior-exterior relationships in the Kunsthal,” (ARQ 7, 2003): 283.

63. Moussette, 287.
64. Moussette, 287.
65. Moussette, 290.
68. Buzas, 12.
69. Fulmer, 13.
70. Fulmer, 15.
chapter 3 | the design project
Typically in film, the modern day practices of continuity editing act to affix the viewer within the filmic illusion. Time and motion are represented in an easily recognizable structure that negates the creative participation of the spectator. When caught up in the illusion, the spectator relates to the actors and positions themselves within the filmic screen. On the other hand, the techniques of the time-image fracture this illusion by negating the viewer’s expectations of time/space. It instead presents a complex interaction of incomplete and disparate combinations of which the viewer must construct a cohesive whole. When the filmic mechanisms are no longer suppressed, the viewer is awoken to the reality of spectatorship and becomes mentally aware of their position within the narrative. Thus, both the mind and vision are stimulated in navigating the spatiotemporal conditions of the narrative sequence.

These ellipses of spectatorship, while predominantly relating to filmic narratives, extend to architectural sequences. Within most visual arts, the spectator is fixed within a state of physical immobility. Architecture, however, is unique in that it encapsulates the peripatetic motion of the body through three-dimensional space. Although the filmgoer is physically immobile in comparison to the architectural user, the multiplicity of spatiotemporal conditions in cinema is analogous to the fleeting impressions of everyday perception. Thus, while not being directly translatable, cinematic strategies can provide opportunities for triggering new spatial awareness within the architectural user. The architectural sequence, like the filmic strip, can become a fragmented experience from which the user must reconstruct the pieces through memory. Navigating the built environment, the user is thus mobilized not only physically, but intellectually as well.

The strategies presented in this thesis constitute a range of possibilities for constructing the narrative sequence. When translating filmic strategies into architectural space, the architect is confronted with the same issues of intentionality as that of the filmmaker. As illustrated in both theoretical and precedent form, the manner in which the architect constructs the narrative sequence determines the meaning received by the spectator. In instances such as the Barcelona Pavilion and Acropolis, the architect directs the viewer through a predetermined sequence of events. Although necessitating the user’s memory to link the disparate pieces, the architect already has a preconceived notion of the “whole.” In contrast to the linear trajectories of these sequences, the Kunsthalle Museum and Soane Museum provide labyrinthine paths that do not prescribe a singular reading, but instead encourage a multiplicity of spatiotemporal relations. Similar to Deleuze’s concept of the time-image, these sequences do not depend upon a unified whole. Instead, the spectator is confronted with a fragmentation of multiple viewpoints that provide a continually changing representation of space.

In order to explore the translation of these ‘gapping’ strategies into architectural techniques, this thesis will focus on the design of a multi-modal transit center and shopping arcade in downtown Cincinnati. Due to its inherent nature of facilitating multiple user groups, this typology allows for an interweaving and juxtaposition of both user sequences and programmatic conditions that change according to different temporal periods. The methodology adopted for this design focuses on the sequential progression of three user groups through the building: the commuter, the event-goer, and the shopper. Speed of travel, movement patterns, and build-
ing/city engagement vary depending on each user. This variable nature is in relation to such conditions as programmatic needs, familiarity with the center, travel times, and mode of transit.

The commuter consists of the largest and fastest user group within the transit center. Typically arriving and departing according to a consistent time frame, the commuter maintains a habitual relationship to both the transit center and city. The sequence of movement, therefore, becomes a fast-paced linear A to B path with limited divergences. Generally utilizing the commuter rail during peak travelling hours of morning and evening, the commuter only maintains a prolonged engagement with the center for additional programmatic amenities such as fitness facilities or banks. Purchasing monthly passes and knowing the transit schedule beforehand allows the commuter to arrive shortly prior to the train’s departure, thus limiting their timeframe within the building. The user’s familiarity and consistent interaction with the center thereby negates their need for such programs as ticketing/information while also limiting unnecessary interaction with the surrounding program.

The event-goer, on the other hand, has an intermittent relationship to the city primarily focused around an engagement with the two nearby stadiums. For this user, the city exists as a spectacle for visual consumption. The user’s sequence consists of a multiplicity of speeds and programmatic engagements depending upon the proximity of the event, whether the user has arrived early or late, and the method of transit being used. Unlike the commuter, the event-goer’s irregular and unfamiliar connection to the center would result in a greater amount of time being spent in such loca-
tions as ticketing, information, and waiting lounges.

The shopper has the greatest degree of interaction within the center due to their prolonged use of the building's amenities. Consisting of both locals and transit users that arrive for retail purposes, the shopper’s sequence involves the transit center as both the point of arrival and destination. This user maintains a fragmented sequence of movement, consistently navigating between various programs. This slow and disjointed path entails a greater degree of visual interaction with other users, allowing the shopper to voyeuristically watch the surrounding event-goers and commuters.

By disrupting the path of these three users with the ‘gapping’ strategies presented in this thesis, the design can begin to dislodge the users from a singular representation of space and trigger a greater degree of spatial and temporal awareness. As a result, such conditions as the apathy associated with the commuter’s habitual use can be reduced. Furthermore, by continually reversing the role of spectatorship between spectacle and spectator, user’s such as the shopper can gain a heightened awareness of their voyeuristic and narcissistic tendencies.

Within this system, however, it is important to focus on the appropriateness of specific techniques to the path of each user. The juxtaposition of conflicting programmatic spaces establishes a sense of shock that would eventually be lessened through the habitual use of the commuter, but is relevant to more intermittent building users. Similarly the circuitous patterns of stratification are most conducive to shoppers in that the path need not be clearly defined for exiting, but instead embraces a meandering and fragmented route.

Figure 3.3: Gapping Strategies

### simultaneity

Visual oscillation between multiple points of reference. Establishes a shifting reality from physical to representational.

Achieved through the transparent and reflective nature of materials providing a multiplicity of overlapping spatial conditions. Appropriate for a static viewer or moving viewer along a prescribed path; Subtle and establishes a pause/multiplicity in viewer reading; Appropriate for conditions of habitual use.

### juxtaposition

Meaning derived from the juxtaposition of separate images. Creativity typically increases with the separation of elements in time and space.

Can be achieved through the programmatic juxtaposition of conflicting programs in addition to the transitional change of programmatic elements through time. Due to the reliance on shock as a means of triggering awareness, this technique is more appropriate for users with an intermittent interaction with the transit center, namely event-goers and shoppers.

### stratification

Meaning derived from reorienting the spectator in relation to the framed gaze.

Appropriate for areas of greater usage/movement so that when navigating through the sequence, the viewer can become aware of the oscillating relationship between spectacle and spectator. Circuitous paths appropriate for the meandering condition of the shopper, but may impede the necessary linearity of the commuter’s route.
The site chosen for this thesis design is located in downtown Cincinnati on a two-block riverfront section along 2nd Street and directly East of the National Underground Railroad Freedom Center. The site was chosen for a variety of factors including:

- **Proximity to the riverfront**: establishes a stronger connection between the city and river’s edge. The site maintains visual connections to both the water, as well as one of the city’s historical landmarks, the Roebling Suspension Bridge. Due to this location, the design can further accommodate recreational activities such as bicycle rentals and outdoor seating that engage visitors of the future riverfront park.

- **Adjacency to cultural landmarks**: strengthens the image of the city as a destination for cultural events. The site provides ease of accessibility for large crowds heading towards both Great American Ballpark to the East and Paul Brown Stadium to the West. This reinforces the building’s role as a mediation between the event-goer and the spectacles of the city.

- **Alignment with proposals for future transportation routes**: situates the site at the nodal intersection between the current bus route below 2nd Street and the city's proposed streetcar and commuter rail systems. The transit center’s bus route will mediate traffic to and from the city for football and baseball games, accommodating up to 500 buses and 20,000 people an hour. The streetcar route would run primarily North-South, connecting the city’s central business district to various cultural landmarks including Musical Hall, Union Terminal, Findlay Market, and Fountain Square. The third system, the commuter rail, is elevated above 2nd Street, connecting the Eastern Corridor to Lawrenceburg, Indiana to the West.
University of Cincinnati
Commuter Rail
2nd Street Bus Route
Streetcar
Streetcar Extensions
High-Speed Rail
Riverfront Shuttle

C University of Cincinnati
F Fountain Square
G Gateway Quarter
M Findlay Market
N Newport
P Washington Park
U Union Terminal
V Covington
W Walnut Hills
design strategies

The following design project involves the implementation of the gapping strategies presented in this thesis on both a large gestural scale as well as a more detailed level in relation to the sequence of each user group. The focus began with a response to site/transit conditions that addressed programmatic needs while simultaneously reflecting the previous filmic concepts. The initial parti involves a rectangular frame spanning the full two city blocks between the city edge and riverfront park. Similar to the two adjacent stadiums, this defined edge condition acts as a visual container for the internal spectacle of the transit center. In order to simultaneously provide a contradiction to this condition, however, the two opposing corners of the structure are lifted to provide a visual connection between downtown and the river, allowing the landscape of the adjacent park to connect back to the city. Enhancing this condition are visual corridors that reference iconic emblems of the city: the Roebling Suspension Bridge, the Carew Tower, and the two adjacent stadiums. As the user navigates the center, these reference points are viewed through a layered complexity of both various programs and users, constructing a view of both the city and river that is ever changing. The design thereby acts as a mediation/filter between these two opposing environments, extending the internal spectacle of the program outwardly towards the surrounding landscape.

The notion of spectacle is heightened through the spatial relationship of the transportation systems. The three transit lines are layered within the center both horizontally and vertically to establish a stratified relationship between the relative users of each

Figure 3.6: Parti Concepts
Figure 3.7 (Pg. 122-123) : Collage 1_Corner Condition
mode. Although the lines are physically separated, however, the primary view corridor of the initial parti allows for a simultaneous reading of these transportation zones. The commuter rail runs along an elevated platform above 2nd Street with the streetcar system bisecting the building at grade. The translucent nature of the northern façade registers an index of the commuters waiting on the platform above, making the building a living screen for the activities on the interior. The commuter, thereby becomes an unknowing spectacle for the city beyond. The bus route, on the other hand, extends along a gradual incline from the current route below 2nd Street to grade level below the southern edge of the building. Programmatically this allows for accessibility for mass crowds heading towards the adjacent stadiums. However, situated as a visual stage for the adjacent amphitheater, the bus route likewise becomes a spectacle superimposed over the outward view to the river. The event-goer, typically positioned as a static viewer to the internal spectacle of the stadiums, is now situated as part of the spectacle of both the transit users looking out and riverfront passersby looking in.

The primary objective for arranging program within the center is to interweave programs between user groups to allow for both programmatic juxtapositions as well as a shifting spectator/spectacle relationship between users. This involves juxtaposing programs of a similar nature (i.e. fitness related for each user group) across the site, as well as grouping programs that can allow for an adaptation of space over time (i.e. the vertical connection between a hybrid daytime laundromat with an evening bar.)

Figure 3.8: Program & Circulation Axon  
Figure 3.9 (Pg. 126-127) : User, Program, & Time
some instances this juxtaposition involves a shock value between unrelated programs, such as the commuter’s running track bisecting the lager house below. In other instances, there is a level of programmatic commentary between spaces, such as the fast food eatery overlooking the Whole Foods grocery. Within this process, material selection is critical towards the visual separation or permeability between spaces and users. The reflective tinted glass of the northern storefronts initially montages the reflection of both the shopper with the city beyond. At this moment, however, the three users remain visually separated through a vertical stacking of program. As the shopper continues up the ramp, the glass soon captures the reflection of the commuter’s feet standing on the platform above. Finally, at the top of the ramp, a moment of simultaneity occurs as the commuter, event-goer, and shopper become spatially layered although still physically separated. The sequence of the user thereby gradually shifts from a relationship with the exterior environment to one that is merged with the other transit users.

These gaps between spectator and image negate a static reading of the center. Instead, the viewer is continually confronted with shifting programmatic relationships, temporal variations, and an awareness of their positioning within the spectacle. Similar to the filmic strategies presented in this thesis, the design project attempts to mediate these conditions, thereby triggering a greater degree of spatiotemporal awareness within each of the three user groups.

Figure 3.10: Section Sequence
Figure 3.11 (Pg. 130-131): Collage 1_Visual Isolation
Figure 3.12 (Pg. 132-133): Collage 2_User Simultaneity
Figure 3.13 (Pg 134-135): Collage 3_Shifting Spectacle
bibliography


