

**SPATIAL EFFECTS:
NARRATIVE STRUCTURE IN ARCHITECTURE**

By

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Abstract:

The Potency of compelling narrative structures—or the story constructing sequence of space—has pushed architecture's boundaries into new frontiers through the development of representational technology such as cinema, a burgeoning art form that employs narrative typology as an underlying structure to frame the phenomena of space. In this design research thesis my intention is to investigate and elucidate the function and purpose of narrative in Architecture and Cinema and its development from symbolism to spatial formation.

Thesis Statement:

The first stage of narrative form took flight from pictographic symbols and cartographic delineations to sculptural representations and reliefs. These timeless narratives encapsulated in monumental structures such as the Pyramids of Giza or the Greek Parthenon depict their civilizations' cultural dominance through this system of messaging. It can be argued that a number of such illustrations may reveal varying levels of codification or messaging through historical, cultural, or religious contexts. However, the present form of this system of messaging and symbolism has been considerably altered for the worse, becoming banal and superficial, and lacking depth and narrative content.

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Spatial Effects – Narrative Sequence in Architecture

Synopsis

Storytelling has allowed cultures to recount their tales and experiences since time immemorial. We encounter spatial narratives in architecture through the formation of place and meaning attached to the structure. Architecture narrates and spatially projects stories in space; it connects various places together by threading the narrative and makes space into a place. It encapsulates stories in space experientially through a set of physical constructs and patterns.

Concept

This thesis is based on 'narrative of space' which is revealed experientially through movement, embedded with degrees of meaning and connotation. Architectural narrative exists in different forms and intensities and is layered with multiple interpretations.

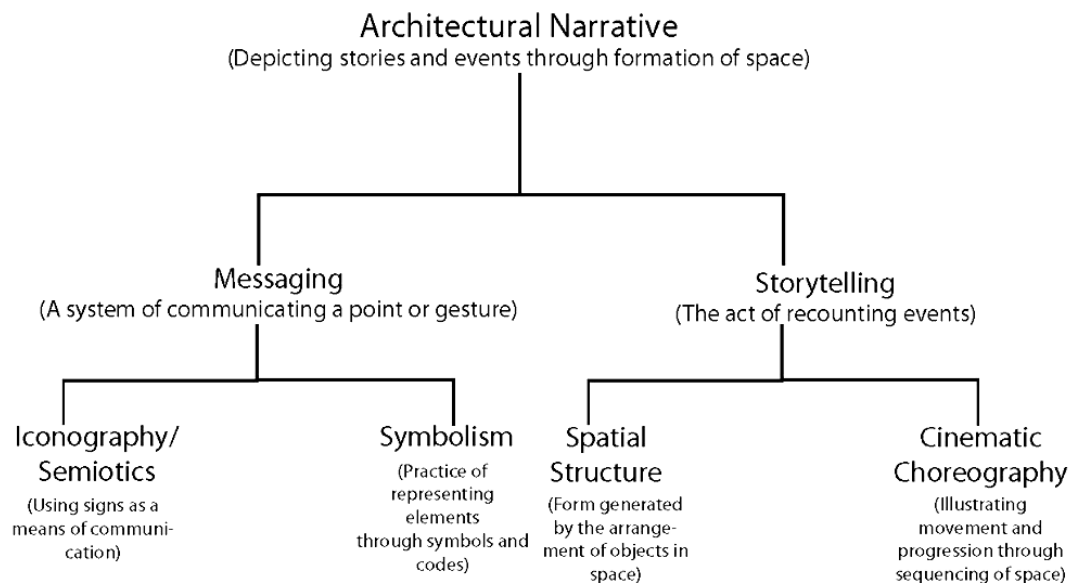


Figure 1.1: Architecture –Narrative Chart - indicating hierarchical points.

Spatial Storytelling

Narrative has been employed as a design medium in architecture to create powerful and memorable sequences of space. The development of narrative form in architecture can be traced to the early monolithic period of cave dwellings and primitive representations of pictorial

art that have survived for centuries and are a testament to its adaptation into various art forms.

According to Cobley, “narrative is a particular form of representation implementing signs bound up with sequence, space, and time.” He further explains the relation between story, plot, and narrative and their relative meaning. “‘Story’ consists of all the events which are to be depicted. ‘Plot’ is the chain of causation which dictates that these events are somehow linked and that they are therefore to be depicted in relation to each other. ‘Narrative’ is the showing or the telling of these events and the mode selected for that to take place.” (Cobley, 2001) The emergence of narrative form is not only evident through the development of architecture over the centuries, but is also manifest in literature, sculpture and painting. The mode of representation may be different but the idea and essence may remain consistent, the idea is to illustrate a tale or story of significance and value to the spectators and hence to generate a kind of emotion or sensation that may be iconic in nature.

Cobley suggests that “the whole notion of narrative progression or a movement from ‘A’ to ‘B’ implies that there is such a thing as ‘narrative space’”. A narrative must advance to its end whilst simultaneously delaying it, and in lingering, as it were; a narrative occupies a ‘space’.” One of the important aspects of this thesis is to define the conceptual and perceptual conditioning of spaces as organized by a narrative sequential order from painting to sculpture and architecture to cinema. The narrative sequential order may be a series of events or actions that are orchestrated spatially to provoke a cerebral or ethereal experience. The hierarchy of this conceptual framework identifies a layering of elements arranged to create a meaningful and multifaceted representation of events meanwhile binding all the essential components together.

The narrative order in architecture also calls attention to how space, event and movement are interrelated, and reveals the analogous connection to cinema. Narrative form intersects architecture and cinema at different levels while also exposing parallel viewpoints and ideologies that have developed over the previous century within the two forms. “From the standpoint of the end of the century, we are able to register continuity in all subsequent attempts across media and in different artistic practices that seek to mirror each successive stage of technological developments, consumer spectacle, and subjective disquiet.” (Vidler, 2000) The other important aspect of understanding these technological developments in architecture and, subsequently, cinema lies in the insertion of signs and symbols as elements of language and communication tools.

The intention is to analyze and define the components that create the narrative framework that has established a compelling relationship between architecture and cinema in terms of the hierarchy of events, semiotics of space, temporal progression and sequencing. The following framework identifies the relationship between architecture, narrative, and cinema established in this thesis.

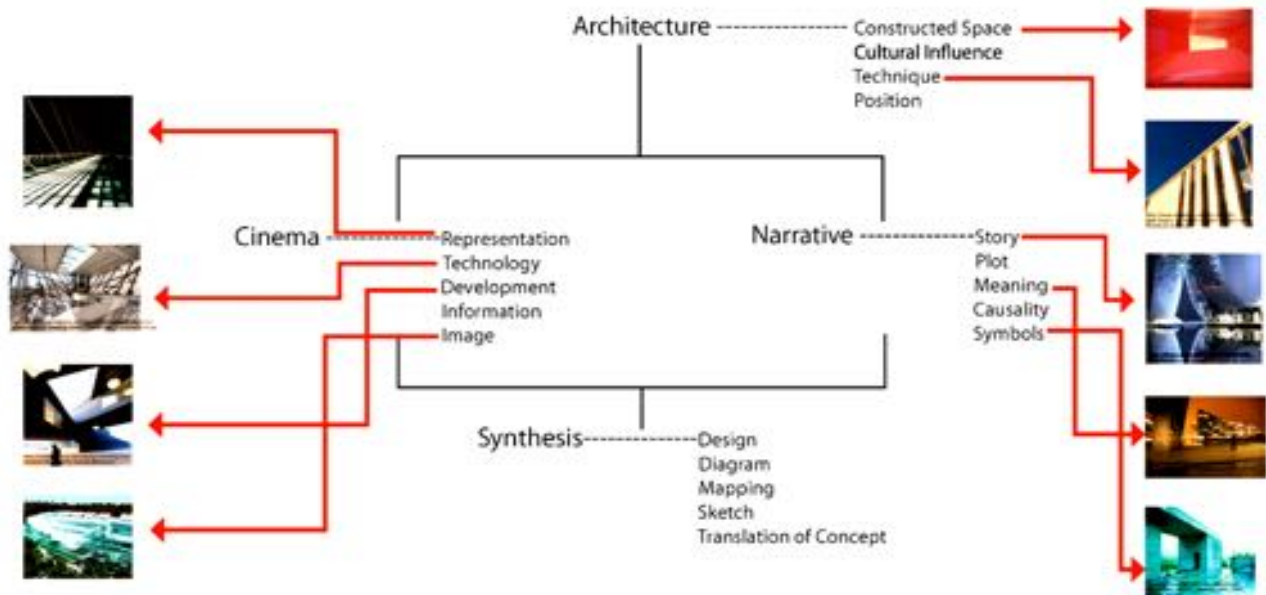


Figure 1.2: Architecture –Narrative – Cinema intersections indicating streams within the setup. Modified After: <http://www.youtube.com/watch?v=hRUdWmJj0IY>

Spatial Effects – Narrative Sequence in Architecture

Project Brief

Executive Summary:

Architecture throughout history has achieved meaning and relevance through symbols or messages embedded within it. The practice of representing ideas and symbolic connotations has through time provided architecture with immediacy of cultural and social significance. This technique of pictorial symbolism and messaging has been adapted into various streams of visual art, more intensely in cinema which utilizes the power of narrative to deliver subtle messages and symbolic connotations by framing architectural space as a setting for events to unfold. Since Architecture is experienced spatially and temporally, and cinema on the other hand is experienced temporally and cerebrally, there are patterns of narrative that intersect, contradict and superimpose sequences and events in both art forms. Theoretically, narrative is incorporated into structuring design spatially, however there is a degree of interpolation which is instrumental in creating meaning, communicating ideas and embodying culture. It has been identified as a critical element in the formation of social and cultural image of empires and regions by assimilation and insertion of messages.

Spatial Effects – Narrative Sequence in Architecture

Introduction:

In our daily interaction with architecture we experience space sequentially as images or frames. The organization of these images in the interiority of space determines the ordering of events which is transcendent in the visually articulated environment. Cinema further amplifies and intensifies this experience or interaction with space by manipulating or influencing the spatial composition in the frame. It is apparent that the juxtaposition of architecture and cinema is anticipated, since cinema frames architecture and similarly applies narrative, movement, space and time in its construct to deliver a message. However, apart from certain parallel streams existing between the two forms in terms of their organization and composition, they are quite distinct in their representation. One of the objectives of this design research thesis is to articulate the types of narrative constructs applied in architecture and cinema to establish the underlying message or symbolism that may or may not be evident in the treatment and portrayal of space.

Articulation of Space –Time Narrative in Architecture and Cinema:

The ability to construct space and time – the two dimensions simultaneously present in cinematic representation, structure the logic of narrative continuity to display events and actions that inform the audience or spectators of cinematic paradigms; concealed symbolically and revealed temporally as moments of anticipation and apprehension spatially. However, Narrative form structures architecture and cinema in two distinct ways; from conceptual messages to semantic expression of spaces and places. This aspect of narrative does not only inform us of the meaning of cultural messages but the ordering of these messages in space. The perception of spatial relationships and choreographed events in time is experientially relative; however narrative construct constitutes layers of conceptual and perceptual conditions that are revealed in architecture as patterns of concrete manifestation and in cinema as cerebral and intangible metaphors.

“The metamorphosis of time entails a metamorphosis of space itself, which by fast and slow motion in optical exaggeration is rendered perceptible.”(Morin, 2005) Here the author mentions that cinema has the ability to warp time and space to establish a disjointed narrative, this ability rendered through cinematographic techniques creates a motion in visual imagery that make the narrative more discernible. This technique has been adopted by certain architects of our generation like Bernard Tschumi, Rem Koolhaas, Coop Himmelblau, and Jean Nouvel, who play with the distortion of space and form temporally by employing a sequence of events that unfold through the programming of a narrative order. Morin further emphasizes the symbiotic

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relationship of time and space as metaphysical elements by stating that “time has acquired the movable nature of space and space the transformative powers of time. The double transmutation of cinematic time and space has produced a kind of unique symbiotic dimension, where time is incorporated in space, where space is incorporated in time.” (Morin, 2005)

Sophia Psarra addresses the space – time relationship with architecture by declaring that, “architecture orders experience through space-time relationships that interface the realm of the conceptual and the world of the senses.” (Psarra, 2009) Architecture constructs experiences through conceptual and perceptual conditioning and cinema orders experience of conceptual and abstract realities by the conditioning and juxtaposing of spatial and temporal relationships, which alter conventional modes of representation through imagery that triggers a sensual and cerebral encounter in the realm of the mind.

The relationship of a spatial - temporal language with architecture and cinema is strengthened by the articulation of narrative form. Essentially narrative encompasses symbolic meaning and cultural messaging that are revealed to a certain extent and magnitude in architecture and cinema. The magnitude of inherent messaging should not be reduced to a rudimentary contradiction, but broadened to a more complex theoretical and analytical explanation. The idea is to elucidate how we physically interact in space and visually or intelligibly encounter a spatial-temporal narrative experience in the built environment and conversely through a projected screen.

Problem Statement:

Articulating issues of concern currently residing in the field of architecture not only display a sterile and dismal environment but indicate the shift taking place, heralded by the constant demand of consumerism and commodification. In this trend the treatment of architecture is more like a business strategy rather than an art form which changes the character and nature of this art into a marketing strategy for moneymaking. In “Brandsapes” Anna Klingmann (2007) mentions, “Dutch Architect Rem Koolhaas condemns the commodification of space and architecture as ‘Junk Space.’ Whereas the predominant ideology of postmodernism had been one of marketable clichés, several counter movements began to form in the 1970s that resisted the commodification of urban space by intentionally eroding its very mechanism.” (p. 111). This clearly identifies the existing demand of shaping architecture and the urban space into a billboard of superficial marketing strategies. The superficiality and banality of consumerism is the vehicle driving the nature of our environment and cities.

Spatial Effects – Narrative Sequence in Architecture

Matters of concern:

Our preoccupation with popular culture and brands has lead us into accepting the sterile and monotonous environments that have been shaped by our apathy for turning a blind eye to creating a more evocative and experiential character of space. “May to June 1968, Bernard Tschumi and Rem Koolhaas were part of an architectural movement whose goal was to turn the concept of the “event” from a moneymaking strategy into a tool for social resistance.”

(Klingmann, 2007) This movement not only established the aspect of event in architecture as a system of generating provocative programmatic sequences but also provided it with the opportunity of staging a narrative spectacle.

“While branding can be a powerful strategy to craft a unique identity, the irony is that it has, in many cases, achieved just the opposite effect. Despite its intention as a catalyst for generating a distinct message in the global marketplace, branding has contributed to the growing homogenization of people and places. More often than not, branding strategies fail to establish sensitive connections to particular contexts by imposing standardized forms and formulas on the urban or suburban landscape.” (Klingmann, 2007) These standardized formulas are being applied in most cities which are constructed and represented as carbon copies of each other, replicating similar layouts and embellished with neon lights and superficial facade treatments. There is no distinction or relevance of cultural messaging applied to a space, it is more a hodgepodge of brand names scattered around a series of spaces which are identical. Products have taken over our landscape and are dominating the path of architecture design and popular culture, where space is treated as mere ornamentation and decoration with signage and advertisement instead of a sensually appealing composition of formal geometries and symbolic connotations.

In “Architecture and Narrative,” Sophia Psarra states that “the concern is in exploring the potential of architecture to overcome conventional cultural norms, generating instead a rich potential for meaning.” Which is pointing at the degree of normalcy and banality that architecture and the constructed environment has reached presently. It has become quite necessary to generate meaning and reveal the potential in formal and spatial significance of conceptual and perceptual messaging into this practice.

However spatial relationships are created through symbolic representation rather than literal forms, as articulated by Robert Venturi and Denise Scott Brown in “Learning from Las Vegas” where architecture is seen as symbol in space rather than form in space. This is the great concern for architecture today that meaning and symbolism has become superficial or

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neglected altogether, and in most cases there is a dearth of profound messaging and absence of a strong narrative structure especially in the mainstream commercial environment. Cinema on the other hand plays off of these messages inherent in our post modern culture and frames realities that stem from Pluralistic and multicultural surroundings, incorporating symbolism and iconography in the landscape of popular culture and generic building types. Cinema manipulates the architectonic space to capture precise moments, narrating and revealing inherent messages displaying the nature of events that are sequentially forming the ideology behind that scene. This aspect of formal and conceptual ideology that is required to frame a spectacle of space in architecture is now becoming quite scarce. It is merely treated as a curtain wall displaying neon signs of brand names with images of models showcasing the product. Architecture today requires a revival of vernacular traditions into its conception and philosophy of thought. The era of post modern architecture was a retaliation to the clean lines of modernism and characterized a quality of confusion and abstractness to its simulation and production. Due to this preoccupation with ornamentation and abstractness there is a loss of narrative and content in the nature of architecture today, which is causing a starvation of experiential and sensorial conditions in the built environment devoid of a connection with its users.

The critical issue raised here is the lack of a provocation for architecturally symbolic and communicative buildings and spaces that heighten the narrative structure and reveal an inherent messaging order in its spatial and formal organization. There is a desire for conceptually abstract symbols and ideologies to be translated into perceptually responsive patterns interpreted within an architectural system inherent with cultural meaning. This approach should take historical, cultural, social, and architectural precedents into account and integrate the practice of messaging and attributing symbols from different styles and movements into the spatial system. Concluding with Venturi's quote, he aptly states that architecture today "Should mix high and low art, the sacred and the putrefying, for this is our natural language."

Spatial Effects – Narrative Sequence in Architecture

Background Information:

With the emergence of new technologies and integration of popular culture such as cinema with architecture, we have been witnessing several shifts and changes in the representation and portrayal of the two art forms. These innovative strategies have also brought with them the aspect of turning an aesthetic production into a commodity and business. The idea is to develop a theoretical premise that shuns the commodification of architecture and consequent standardization of the environment due to marketing schemes. Instead emphasis would be to promote the iconic and revered stature of architecture by illustrating the significance of narrative form in architecture and tying it later to cinema, it would be essential to chart how the idea of narrative technique and symbology originated and when it was established as a cultural practice or as an art form. By depicting the emergence of narrative in architecture and cinema through a historical time line it would clearly indicate the ideology behind the narrative in particular case studies and demonstrate the potential of the narrative thread throughout the development in architecture and in cinema with the introduction of representational technology.

Development of Narrative Content from Ancient Civilization to Postmodernism:

Since the time of cave temples to the Egyptian Pyramids and later the Parthenon, the indulgence has been in revealing the narrative content that was the driving force behind the construction of these monuments through symbols and inherent messages either in the construction technique or sculptural adornment which was an essential component of the structure. Historically they are all spaces that contain and influence knowledge and culture. Their expressive strength is based on their ability to function as repositories of knowledge, but it is often based on the physical arrangement of their spaces carrying a cultural or religious message. Interestingly by embedding a cultural message in the physical composition of spaces through ordered geometry and articulating hierarchy of functions may result in a meaningful design, however a meaningful design becomes implicitly a question of whether its architecture has a meaningful pattern for navigation and orientation with respect to narrative content. Sophia Psarra in her book “Architecture and Narrative” suggests that “the relationship between the conceptual and perceptual characteristics of space, between patterns we can comprehend and those we grasp gradually through movement is one of the main concerns. These relationships are not mutually exclusive but are different and act as interacting systems of ordering experience.” The premise of the book as Psarra states is “to explore how relationships are formed and experienced through layers of ordering and communicating cultural meanings. The

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conceptual-perceptual question is also a matter of knowledge and cognition. It refers to how buildings are grasped as manipulations of space and form, implying a cognitive link between architecture, designer and viewer.” Psarra explains that narrative content structures itself in the patterning of conceptual-perceptual state of ordering space and manipulating form hence engaging the architecture with the viewer. Similarly cinema applies the art of cinematography as a framework for uniting narrative content and architectural backdrop to deliver a message or illustrate a sequence of events hence engaging the viewer with the imagery.

In Tschumi’s text “Architecture and Disjunction,” he calls attention to semiology and linguistics engaging into the practice of architecture. He mentions that the literary works of Noam Chomsky and Roland Barthes were to inform new architectural strategies of coding so that ordinary people would be able to decode multiple meanings on neutral facades. Roland Barthes further mentions that in post modern architecture there is an unusual construct of building facades conveying a world of allusions, quotations, and precedents. By not restricting architecture to a composition of unusual building facades would assist in breaking the current mould that is shaping architecture, which is reminiscent of the “Decorated Shed.” According to Tschumi, ‘In constructing narrative sequence in architecture, “film analogies are convenient, since the world of the cinema was the first to introduce discontinuity – a segmented world in which each fragment maintains its own independence, thereby permitting a multiplicity of combinations.” (Tschumi, 1996) This is the turning point where architecture and cinema start dissolving into each other and fragmentation and discontinuity create interest and fascination in the structuring of the narrative. To illustrate this factor in the conditioning of our environment, it would be essential to signify key moments in history that are relatively important in the development and demonstration of narrative in architectural cinematic imagery. This may be done through an architectural design program indicating shifts and integrating influence of cinema structured by a sequential narrative thread.

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Research Questions:

This thesis examines the relationship between three critical streams of architectural thought that induce meaning and provide a basis for structuring the design response.

- Narrative Sequence of Space
- Cinematic Choreography of Architectural Space – Representational Technology
- Signs, Symbols, and Messaging in Architecture

The first premise raises questions of conceptual formation and its relationship to the perceiver's perceptual interpretation in space. Author, Sophia Psarra, in 'Narrative and Architecture' (2009) elicits questions integral for the development of the argument and design response:

How can we explore the relationship between conceptual structure and perceptual experience, the field of abstract relations and that of bodies experiencing space?

How do these fields contribute to the formation of cultural content?

The second premise raises questions regarding the concept of cinematic choreography in architectural space:

Is spatial choreography the concept of narrative architecture, or the definition?

How does cinema define spatial choreography of architecture and how is narrative structure communicated?

The third premise begins to tie the three themes together by questioning the form of representation and concept of redundancy:

What are the significant clauses, impacts and effects of codification and messaging in architecture?

What is the driving nature of their language and pattern in the environment?

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Literature Review:

Through the creation of buildings and cities architecture has revealed the significance of narrative in the formulation of space, place, and cultural identity, whereas narrative is construed as a method of storytelling which structures a sequence of successive actions and events. As Cobley (2001) articulates, “*Narrative is often seen as a form of representation bound with sequence, space and time.*” Whereas Bordwell (1985) argues that “*Narrative is regarded as a structure, a particular way of combining parts to make a whole, or as narration, as the process or activity of selecting, arranging, and rendering story material in order to achieve specific time bound effects on a perceiver.*” Both statements hold true as Psarra (2009) speculates the nature of narrative in architecture, where narrative is considered as a form of representation that orders events and conditions in space, and as a structural framework that strings together various components to construct the conceptual notion and give meaning to sequential arrangement and juxtaposition of spaces. This provides an apparent picture of the symbols and messages manifested within the physical construct as perceptually interpreted by the perceiver.

With the birth of cinema, the meaning of narrative underwent several shifts and interpretations through which transpired diverse branches and connotations, as Vidler (2000) advocates that cinema anticipates through narrative composition, built forms of architecture and the city from explorations to expressionist icons to represent movement and temporal succession in space. He addresses the impact of this spatial cinematic imagery and innovative representational techniques to re-configure the language of architecture by presenting the literal evocations of Bernard Tschumi in ‘Manhattan Transcripts’ and theoretical and critical work on the relations of space to visual representation in the projects of Diller & Scofidio. Tschumi (1996) reiterates the imaginative aspect of cinema as a form of representational technology by affirming that cinema is inextricably linked to our contemporary condition of defining our cities and cultures; insofar it illustrates the narrative of linking architecture, technology, and society through the development and construction of the world as a set of images.

Tschumi (1996) expands this fascination with the constant flickering of images by citing Walter Benjamin, “*The replacement of the older narration by information, of information by sensation, reflects the increasing atrophy of experience. In turn, there is a contrast between all these forms and the story, which is one of the oldest forms of communication.*” Tschumi (1996) suggests that, Benjamin sheds light on the transforming nature of narrative form through cinema as a technological apparatus for the dissemination of ideas and information, he discusses the reproducibility of images by pointing out that the loss of their exchange value made them

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interchangeable, and that in an age of pure information the only thing that counted was the shock of images and their surprise factor. According to Pallasmaa (2007) architectural imagery and the articulation of space create the basic dramatic and choreographic rhythm in any cinematic endeavour, which is typified in certain cases through a compelling narrative. Cinematic narrative clearly identifies the most potent encounters of architecture through framing devices such as windows and doors that operate as mediators between the two realms, idealism (cinema) and realism (architecture). Colomina (1994) speaks about reality in cinema and defines it as a window into another world. She suggests that space in cinema is defined by new technologies of representation, but these modes of representation are visually transformed by cinematic narration of space. Moreover modern architecture is often thought to be an oscillating debate between the question of space and the question of representation.

Colomina (1994) argues that architecture is absorbed into the world of merchandise through its articulation as ornament, and hence destroys its possibility of transcendence. The only semiotic system of interpreting another semiotic system is language, leaving aside the difficulties of language interpreting architecture. According to Venturi and Brown (1977) modern architects abandoned a tradition of iconology in which painting, sculpture, and graphics were combined with architecture. The authors iterate that decline of symbolism in architecture was supported by modern architects who repositioned the concept of symbolism of form, as an expression. Furthermore meaning was to be communicated through the characteristics of form rather than through messaging and semiotic systems.

Venturi and Brown (2004) expanded and developed their ideas of architectural symbolism and signs in 'Learning from Las Vegas' to patterns of signs and systems in 'Architecture as Signs and Systems: For a Mannerist Time' by suggesting that buildings should add to their context an appropriate subject for discussion on the language of architecture as patterns and systems. Contextual architecture, then, becomes architecture that holds its own ground, aesthetically and functionally within the natural and human environment, and contributes over time to its changing, pulsating patterns. According to Klingmann (2007) there is a banal quality to architecture today, owing to the marketing trends for instance in Las Vegas, the architecture is determined by the demands of spectacle and consumption, boundaries between image and built form has become more obscure. These images have transformed into material semblance where spatial dichotomies between buildings – sign, decoration – architecture, and messaging – physical manifestation no longer exists.

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Research Methodology:

The premise of this design research thesis is to reveal the significance of structuring narrative to shape and formulate space in architecture and further elucidate how cinema frames architecture by the integration of narrative. The argument is to define and determine the underlying potential of architecture displayed through the conceptual – perceptual interpretations of space by analysis of key concepts, uncovered through a review of literature by architects who have successfully incorporated these ideas. Theoretical studies by Bernard Tschumi on the ideology of space and events is critical and raises points such as fragmentation, cultural manifestation, dislocated imagery, representational reality and experiential reality demonstrated in architectural design and cinematic composition. Beatriz Colomina attests that architectural and cinematic expression is about the visual spectacle, a matter of vision. Here, the understanding of visual spectacle in terms of architectural space and cinematic space becomes quite significant to analyse. The idea is to take such concepts that are relevant and critical in structuring a framework and forming a rationale for design. The functional nature of the design object would potentially be flexible in exploring, incorporating, and epitomizing the narrative formation of space, place, and cultural identity through semiotics and symbolism. In architecture, spaces are composed as a system of codes or network of symbols that stitch the narrative into order. These codes are ambiguous and arbitrary in the cinematic realm to establish the narrative which is either a metaphor or an abstraction. A framework of identifying codes, symbols, metaphors, abstractions and literal notions in case studies of relevant architectural works and cinematic endeavours would assist in establishing the varying dimensions of narrative structure. This chart would include elements central to the three major streams of thought, narrative sequence, spatial cinematic choreography, and messaging in architecture, outlining the fundamental aspects that would structure the design guidelines and objectives. Through illustrations and diagrams, these elements, objectives and literary components would support in providing justification for the design intentions and provide a structure in the final application in design. The scope of this research design project is to establish a language and system for design objects through a framework that may be incorporated into architectural projects of specific concern and nature and present a valid basis for debate.

Spatial Effects – Narrative Sequence in Architecture

Research Methodology

Defining Elements of Narrative

Design Area Defined:

The intention is to investigate and reveal patterns of symbology and messaging embedded in architecture to narrate a story or an incident, to commemorate or memorialize its cultural or historical significance. The design premise is to develop a system of design parameters that defines the theoretical ideology established in this thesis:

- Narrative Structure unfolding through Space
- Symbolism and Semiotics represented through Iconography of Space
- Cinematic Choreography to frame the Effects of Space

Design Criteria

The criterion is based upon the structuring of a design framework comprising of essential points and notions relevant to the three streams mentioned above. These points are extracted from projects by different authors based on the theoretical ideology established in this thesis.

Theoretical Points:

According to Marie-Laure Ryan in an article titled “Space – the living handbook of narratology”, narrative is the characterization of stories as the representation of a sequence of events, however she addresses critical questions in the development of narrative and its subsequent representation. In terms of revealing concealed meanings and ideas embedded in structures and the values attached to them, the author raises two key points.

- Questions about representation, what do images represent and how?
- Questions of hidden meanings of images, what ideas and values do the people, places, and things represented in images stand for?

As Fludernik(1996) states that “Narrative is recognized as the discourse of human experience.”, whereas, Friedman(1993) suggests that spatial reading of narrative requires a horizontal axis of plot as well as vertical axis standing for a variety of other literary dimensions. Turner (1996) introduces spatial stories as an interesting concept for the construction of spatial

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narrative which he defines as expressions based on space implying movements, where the “Story” rather than “Spatial” component functions metaphorically.

Bernard Tschumi in his text raises several critical points in “Architecture and Disjunction”

- Considering architecture as a thing of the mind, a dematerialized or conceptual discipline, that concentrates on the senses, on the experience of space as well as on the relationship between space and praxis (the Labyrinth). (1996, Pg 28)
- History of architecture as a history of spatial concepts. Greek “power of interacting volumes” to roman, “hollowed out interior space” from modern interaction between inner and outer space to the concept of transparency. (1996, Pg 30)
- Architectural theory questions an understanding of architecture as a language that refers to meanings outside itself. It claims that the architectural object is pure language and is an endless manipulation of grammar and syntax of the architectural signs. (1996, Pg 36)
- Architecture becomes a selected vocabulary of architectural elements of the past and present with oppositions and contrasts. (1996, Pg 36-37)
- Manfredo Tafuri thus describes Aldo Rossi’s architecture as a universe of carefully selected signs. (1996, Pg 37)
- The labyrinth of experience, full of openings does not tell whether they opened toward its outside or its inside. (1996. Pg 43)
- Questioning nature of space and at the same time making or experiencing real space. (1996. Pg 47)

Sophia Psarra establishes critical points in her text “Architecture and Narrative”

- Integrating the physical fabric and the sculptural narrative into a single ensemble by a variety of objects and points of significance. (2009, Pg 19)
- Constructing a cultural message with two dimensions to the message, profane and sacred.(2009, Pg 20)
- Greek monuments were positioned obliquely so that a single viewpoint was enough to capture their order and create an embodied experience of the entire site. (2009, Pg 25)
- Sculptural ensemble is the shifting sequence of appearance, disappearance, and changing faces. (2009, Pg 35)

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- Contrasts between symmetry and asymmetry, frontality and dispersions are accommodated through the slicing of space by building slabs and administering free course of movement. (2009, Pg 45)
- Geometric construction of narrative incorporates the changing perceptions of viewer through the established idea and image. (2009, Pg 47)

Paul Cobley identifies significant points in “Narrative”

- Narrative is a sequence that is narrated spatially, temporally, experientially, and visually. (2009, Pg 07)
- The most fundamental observation that can be made of narrative is that it consists of signs (2009, Pg 08)
- A sequence of any kind might exist in the world, but if that sequence is to consist of meaningful relations it needs to be understood as being made up of signs. (2009, Pg 08)
- The whole notion of narrative progression or a movement from A to B implies that there is such a thing as narrative space. A narrative must advance to its end whilst simultaneously delaying it. (2009, Pg 12)
- Time is not just a part of the narrative apparatus; in fact, man understands time and narrative on intimate terms precisely because narrative is the human relation in time. (2009, Pg 17)
- The signs in narrative are not the same as those in the world: they are transformations of the world, invariably into stories of human action. (2009, Pg 225)

In “Cinema and semiotic” Author Johannes Ehrat presents these points

- Representations – that is, signs – make certain classes of relations visible as meaning. (2005. Pg 92)
- Cinematic choreography is an instructive example of how a certain condition in signs is rooted in a perfect interplay of multimodal reality. (2005. Pg 110)
- Semiotic sign theory integrates pragmatic, normative, categorical, logical, relational, and metaphysical considerations to remain constituents for the sign concept. (2005. Pg 113)
- The cinematic component of movement – its time and space – can only be obtained in a complex narrative process into which all the variations of meaning have been woven. (2005. Pg 432)

Spatial Effects – Narrative Sequence in Architecture

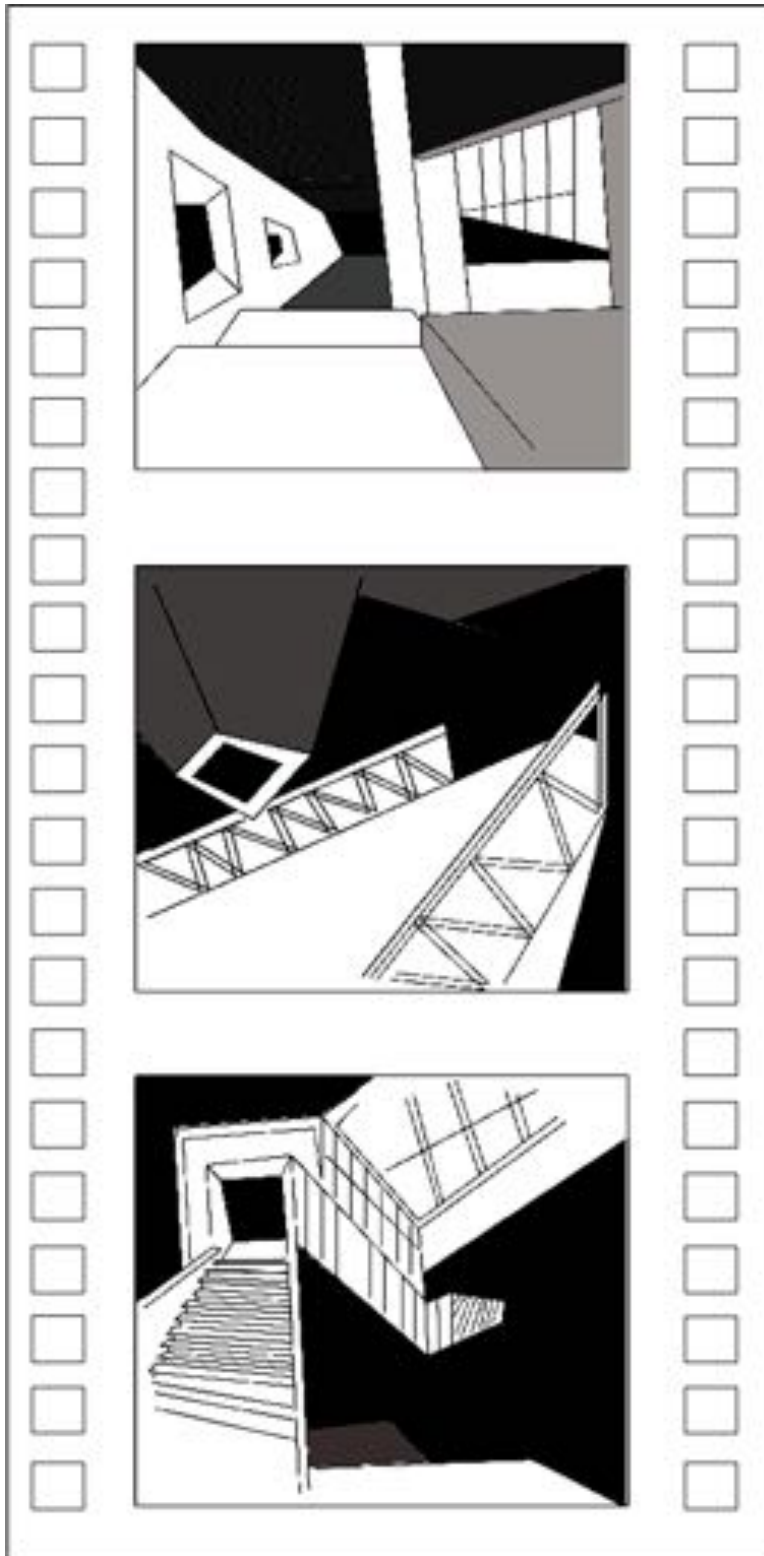
Design Framework

Components	Conceptual Apparatus			Devices
	Narrative Sequence	Semiotics and Symbolology	Cinematic Choreography	
Structure	Geometry	Perceived Meaning	Continuity and Discontinuity	a
Space	Experience	Volumetric Manipulation	Spatial Effects	b
Time	Extension and Progression	Didactic Layering	Motion and Fluidity	c
Axis	Vertical and Horizontal	Fragmentation	Dynamic Movement	d
Hierarchy	Programmatic	Notational	Transformational	e
Levels	Dimensions	Representation	Transcendence	f
Frame	Materialization	Presence of Absence	Event and Eventfulness	g
Circuits	Movement	Transparency and Opacity	Contracted and Expanded Space	h
Metaphors	Implied Order	Coding	Repetition and Distortion	i
Image	Visible Construct	Collage	Montage	j
Language	Anchorage	Content	Appearance	k
Synthesis	Integration of elements and application into design program			

Figure 1.3: Conceptual Framework based on key concepts established by Authors of note.

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Design Framework Illustrations - Story Board:



Device A --- Structure

Geometry
Perceived Meaning
Continuity and Discontinuity

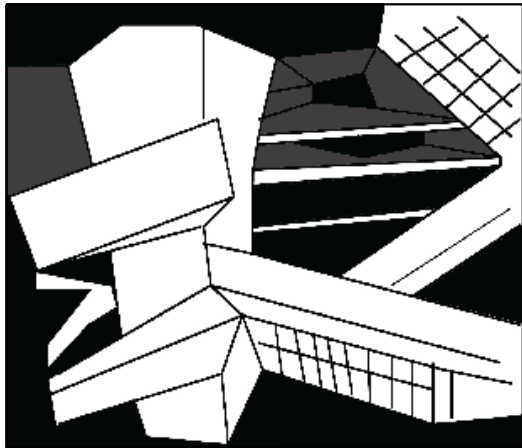
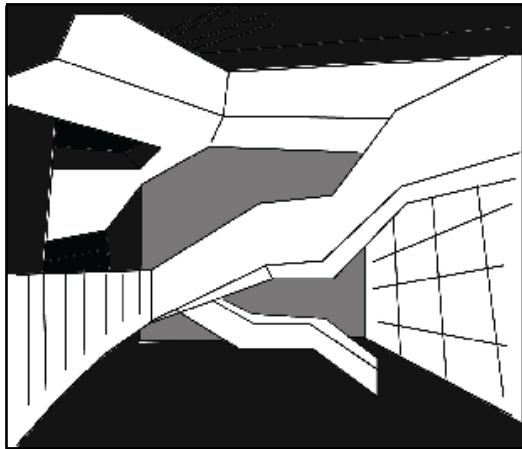
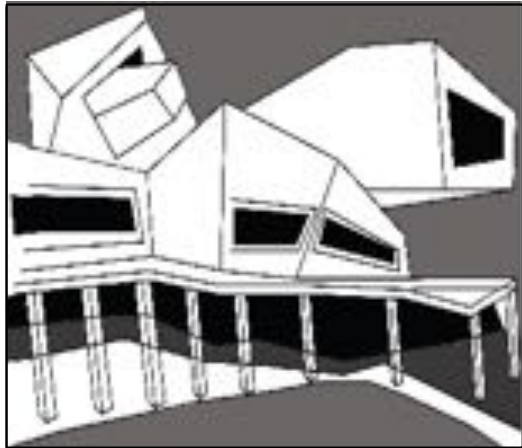
Device B --- Space

Experience
Volumetric Manipulation
Spatial Effects

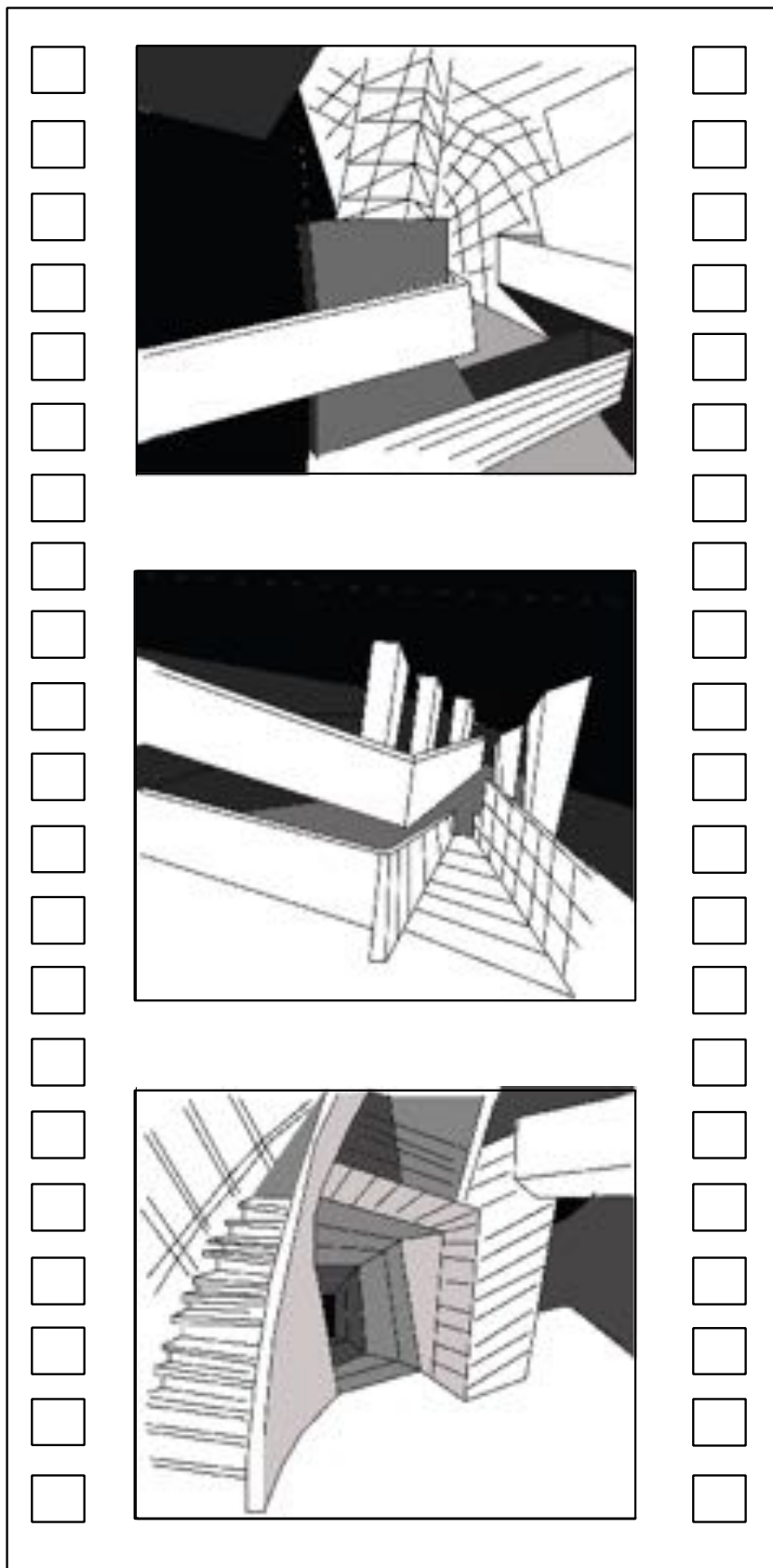
Device C --- Time

Extension and Progression
Didactic Layering
Motion Fluidity

Spatial Effects – Narrative Sequence in Architecture

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<input type="checkbox"/>		<input type="checkbox"/>	Vertical and Horizontal
<input type="checkbox"/>		<input type="checkbox"/>	Fragmentation
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<input type="checkbox"/>		<input type="checkbox"/>	Device E --- Hierarchy
<input type="checkbox"/>		<input type="checkbox"/>	Programmatic
<input type="checkbox"/>		<input type="checkbox"/>	Notational
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<input type="checkbox"/>		<input type="checkbox"/>	Dimensions
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Spatial Effects – Narrative Sequence in Architecture



Device G --- Frame

Materialization
Presence of Absence
Event and Eventfulness



Device H --- Circuits

Movement
Transparency and Opacity
Contracted and Expanded
Space

Device I --- Metaphors

Implied Order
Coding
Repetition and Distortion

Spatial Effects – Narrative Sequence in Architecture

<input type="checkbox"/>		<input type="checkbox"/>	Device J --- Image Visible Construct Collage Montage
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Chapter 1:

Narrative Sequence of Space

Introduction:

Representational form has progressed from the time of the Egyptian hieroglyphs and Sumerian Cuneiform writing, when ancient cultures used symbols and patterns as a pictorial form to convey messages. The evolution of pictorial art to script was a slow transition; however, in the course of this transition a narrative technique developed which eventually took on a variety of forms and expressions. Architecture incorporated pictorial art as a narrative technique to establish an identity and contextual meaning through the embodiment of ritualistic or iconic symbols which, upon analysis and examination, reveal hidden codes and signs.

Narrative experience is not only spatial but temporal as well; it is unveiled through time and movement. The Parthenon and Erechtheion are ancient examples of this truth, as both create a narrative sequence that comes to life through the positioning of the temples on the Acropolis and by the sculptural frieze representing the account of Athena's life.

Narrative in Space – Formation of meaning, story, and plot

Questions of representation and the significance of space and place have been passed back and forth in regards to the development of architecture. These issues refer to the concept of space and the story lying behind the formation of space. When one thinks about architecture's role in the formation of narrative, one must question the idea of space and its representation. Indeed, it becomes necessary to think of architecture as a system of



Fig 2.1: Cave Murals in Lascaux, France. Source: S. Kostof (1995)
pg.23

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representation, or rather a series of overlapping systems of representation, in order to understand the essence of spaces.

Cobley argues that, “narrative form evolved and developed against the background of the evolution of people.” (2009, p.21) This statement asserts the potency of narrative as an illustrative technique documenting the development of man and his surroundings. The beginning of narrative is associated with pictorial art, which is essentially a technique of recording stories or past events through images and text.



Fig 2.2: Ziggurat at Ur, Mesopotamia. Source: <https://musicara.wikispaces.com/mesopotamia>



Fig 2.3: Cuneiform Writing. Source: <http://ant3145-mesopotamia.wikispaces.com>

It is evident in the cave murals in Lascaux, France where pictography reveals signification applied to events and characters. Paul Cobley examines the concept of narrative, its origin and meaning, tracing it back to ancient cultures and civilizations. He suggests that around 3000 BCE the concept of narrative as a basic pictorial apparatus began to change with the building of cities and monuments in Mesopotamia, the development of writing, and the impulse to narratization, which arose from a meditation on, and the desire to record, past events. With this desire emerged an interest in space and form and eventually spatial temporal perception. This interest formulated around the need and desire to accommodate and articulate one's space in terms of personal property and to attach existential meaning to that space. Tracing the origin of narrative exposes evidence of the development of cultures, rituals and practices and provides an understanding of the traditions and concepts of life and death as customary signifiers in the ritualistic practices of primitive settlers.

Norberg Schulz (1971, pg.9) claims that “man's interest in space has existential roots and stems from a need to grasp vital relations with his environment.” Schulz frames the existence of man against the backdrop of time and space compression and he comments on man's constant attempts to connect with his environment and mark his presence. Our actions comprise a spatial aspect; we exist and operate in space. This must involve the

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knowledge or concept of how man occupies and controls space. Because this raises arguments about existence and presence, there is indeed a profound understanding of constructing a relationship with the environment that is needed to make meaning and establish a system of life. Narrative is one of the methods employed to attach signification to the environment by creating elements that determine meaning and order through the concretization of events and actions.

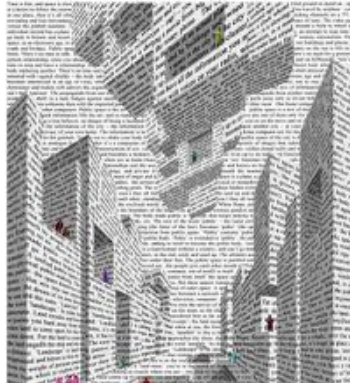


Fig 2.4: Existential Space. Source:
<http://blog.taramoss.com/index.php?blogid=1&archive=2009-06>

Space is created through the inclusion of objects that orient, direct, separate, unite, and narrate. It forms a relationship between the overall scheme of units and the spatial activities, thus defining the objects as figures in the environment. With the insertion of these objects, man develops spatial relationships with the environment, establishing a meaning of the events and rituals in space through orientation. It is in the nature of mankind to mark space as a sign of existence and to orient spatial relationships and events through the organization of space.

Concept of Narrative Space:

The concept of space and narrative originated with the introduction of language, which was essentially pictorial art in early civilizations. Therefore we find terms in language that express spatial relations and, in turn, express man's position in the world. The ancient Egyptians used hieroglyphs as a means to communicate spatial relations and their position in the world. The concept of space was revered in Greek architecture, philosophy, and mathematics as an absolute embodied knowledge of being. It was associated with divine mysticism, cult rituals, and mysterious forces.

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Concept	Space	Existence	Narrative	
			Monument	Story
	Physical Manifestation	Containment	Orientation	Experience
	Mathematical	Structure	Object	Language
	Cerebral	Metaphysical	Geometry	Transition
	Abstract	Surreal	Movement	Orration

Fig 2.5: Charting the concept of space, existence, and narrative.

Space in different cultures and geographical locations over time was comprehended as an abstract entity without any concrete boundaries. However, by structuring a narrative of space and establishing an implied sequence, temporal progression, and succession, the boundaries of space have been made distinct. Narrative establishes a meaning to space relative to its context and function. The meaning of space is further established through the application of narrative forms that utilizes geometry. Norberg – Schulz (1971) attests that it was later demonstrated through experiments that geometries give a clearer approximation of physical space, and that geometry is a human construct appropriated by understanding natural components and elements. This led to the establishment of the concept of space, which encapsulates the physicality of existence and the science of structure, and is indicative of the importance of the Pythagorean Theorem to the art of building.



Fig 2.6: Hieroglyphs in the Egyptian temples. Source:

<http://gizacetaceanconnection.blogspot.com/2010/03/function-and-purpose-of-great-pyramid.html>

The concept of space and place in human history is evident in the monumental structures that narrate the existence and presence of human condition in various cultures and traditions. Space, understood this way, presents itself more or less like a narrative, mapping the evolution and advancement of man as reflected in the creation of architectonic space. Piaget (1971, pg.17) claims that man's surroundings are constructed and composed of permanent objects. These objects, situated in space and time, have a direct connection with

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man's existence and coerce the establishment of narrative form as a communicative tool illustrating the significance and meaning of space. They necessitate the value of signs and significations to the environment as markers or narrators of events in space.

Isolation often serves as a spatial organizer, as is the case of the Egyptian Pyramids of Giza and the Acropolis in Athens. "In the Egyptian pyramid the strongest expression of absolute existence is emphasized through language and form; it is not a place for human activities in the normal sense of the word, but the goal for the path of life." (Norberg – Schulz, 1971, pg. 40-41) The use of narrative form as a spatial language demonstrates that man's existence is dependent upon the establishment of a meaningful and coherent environmental image or existential space. If architectonic space is representative of narrative form, then it serves as an organizing device that presents logical patterns of communication.

Architecture as Story Teller:

Architecture has the potential to narrate stories or past events through the manipulation of geometric form encapsulating space. The insertion of inscriptions and motifs on surfaces and materials, under the play of light and shadow, provide the intensification of the experiential quality of space, especially in the case of the Giza Pyramids at Egypt.

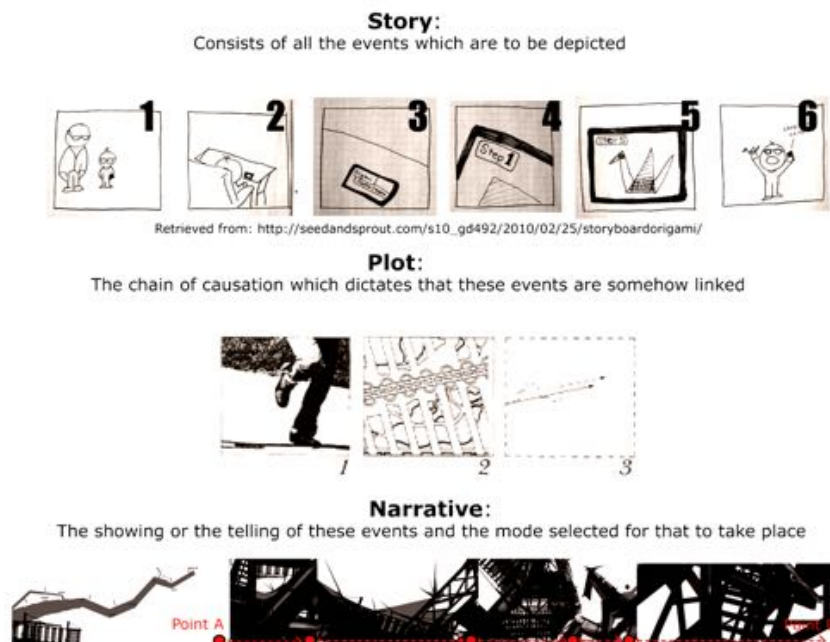


Fig 2.7: Illustrating the difference between story, plot, and narrative.

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Architecture intrinsically narrates stories and events in time as it unfolds sequentially through geometry and space. (Cobley, 2009) It is this ability of architecture that allows it to encapsulate a transitory and fleeting moment in time and transform it into a memorable experience. The essence of spatial stories is intensified by the people moving, occupying, and forming their own stories in space. This relationship of architecture and narrative through sequential progression, which unravels in time, was tested by Le Corbusier through what he termed the “architectural promenade.” This theory holds that architecture functions as a narrative device and metaphorically recounts events or accounts that occur through temporal progression by framing space. The promenade operates as an important circulatory agent in space, generating a complete embodied experience; it articulates a narrative environment or setting for the unfolding of events. It is also a visual construct that frames the environment it is set in. However, a narrative environment is not primarily a verbal construct; instead, it is the outcome of an architectural, urban, built or designed construct.



Fig 2.8: East side of Parthenon Frieze. Source: <http://www.religionfacts.com/greco-roman/images/Parthenon-frieze-gods-Maine-med.jpg>

Parsons (2009) describes the qualities of narrative constructs as environments physically projected or verbally narrated with orientation signs that are framed alongside the environmental elements, juxtaposing built constructs with a natural setting. Traditionally, a narrative environment is constructed to have a beginning (entrance, threshold), middle (centre, circulation) and end (exit). (Parsons, 2009) The sequence enter-circulate-exit is synonymous with that of beginning-middle-end used in traditional narrative structure. Narrative environments, then, articulate some of these elements to structure the content or idea. Narrative plays with the idea of temporality and sequencing in the arrangement of events that occur through movement and the way it is presented as a collective idea.

However, narrative technique employs several different layers of temporal sequencing that are enhanced through montage and disjunction. These techniques add a dimension of

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intrigue to the narrative structure, which may be experienced spatially, as is the case of cinematic choreography. The narrative environments created in architecture, especially in classical antiquity, relay strong messages. This may have been the ultimate goal: to capture the audience's interest and in doing so influence their way of life. For instance the Parthenon, the Greek temple dedicated to the goddess Athena, contains decorative sculptures and friezes which are considered to be part of the religious events of the Panathenaic procession. These events are narrated sculpturally around the entire exterior of the Parthenon, depicting people honoring Athena. Psarra describes the architecture of the Parthenon as a monument embodying the cult of Athena, the patron goddess of the city of Athens. The structure experientially reveals and frames the cultural message, which is embedded in the architecture; this is significant mainly due to its setting on the citadel. (2009) Sophia Psarra claims the cultural messages narrated by the friezes on the Parthenon have two dimensions, which give the city its identity and character. The profane identity of the contemporary city is set against the sacred and revered historical site, which represents the pagan cult rituals of bygone days.

The Parthenon embodied the narrative of Athena's life pictorially through the sculptural friezes. Each pictorial level corresponded to a different phase in the divine and human history of the city and the temples. The potency that the Parthenon embodies by the nature of its narrative, presents an existential reality, in that the building is a ritualistic space symbolizing the power of Athena from the moment one arrives, enters, circulates and exits. It is not any particular space in the journey but rather the journey itself that is a revelation and that represents a continuous path to divine knowledge.

Establishing meaning in space:

The meaning of a place or space is achieved through the formation of plot or structure and the successful application of those elements. As one navigates through space, a narrative environment is distinguished from a banal environment through the unfolding of plot and events. Using the terms character, plot, and story, it could be argued that a narrative environment is dominated by the structure of the story, while a banal environment is usually characterized by vile or unpleasant settings which can dull and reduce the meaning or experience of that space.

Preziosi argues that "meaning is a function of the totality of relationships manifested in a communicative event." (1979, p. 47) It follows, then, that meaning is achieved as a string of connected actions in space. These events, when revealed in an environment, signify the meaning of that space and the totality of relationships existing in that environment. Meaning is

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not established by a single entity or signifier or by a given indication but by a formation of significant elements or zones that are combined together.

Instead of creating mere objects of visual seduction, architectural narrative relates, mediates and projects meanings. According to Pallasma, “the ultimate meaning of any building is beyond architecture; it directs our consciousness back to the world and towards our sense of self and being.” (Pallasma, 2005, p.11) Architecture, unlike other art forms, intrinsically establishes the ephemeral and ethereal experience of space through the insertion of a narrative structure that appeals to the sensibilities of the users. By choosing and combining materials, establishing the play of both light and shadow, and acoustics and sounds, architects embed their messages in structures that individuals may see, hear, and feel through spatial choreography.

Preziosi (1979) articulates the nature and meaning revealed to the viewer through the formation of architectonic space, which is an altering and ever-changing characteristic of dominant functions. The architectural form is merely a manifestation of the messages induced by an “Architectural event.” However, meaningfulness implies choice, and can be thus interpreted from either the sender’s or the receiver’s point of view. The complete appreciation and evaluation of the quality and success of a design depends on an understanding of its meaning, and the way in which perceptual variables are used to achieve and communicate it.

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Narrative Sequence of Space

Patterns of Spatial Constructs and Narrative Ideology

Patterns exist in space in conjunction with the emergence of spatial concepts or architectonic constructs. Patterns of form and space materialized out of the landscape just as language materialized out of pictorial art. Architectural Form, realized out of contextual relations, has been described as structure through the application of various terms such as composition, arrangement, organisation, morphology, and construction. (Ed. Hermann, Jahn, Ryan, 2005, p. 182) Architectural form has evolved as a result of the advancement of building technologies and systems and this has changed the narratives it conveys. Author Marie-Laure Ryan (2005) suggests that architectonic form, when considered as a narrative construct, may be classified as spatial and sequential patterns. Spatial constructs pertaining to and occupying space are sequential because they are bound by sequence, progression, and time.

This leads to an investigation of the nature of spatial patterns and sequential patterns. If we begin to dissect spatial narrative in order to understand the nature and characteristics that make up this form, one finds a horizontal, non-chronological sequence or storyline diagrammed using notations, descriptions, and sketches. This definition of Narrative is “based on successive actions in a story or on spaces that are seen sequentially at the centre of creative imagination.” (Psarra, 2009, p.68) Psarra defines narrative as a chain of causation or successive actions in a story, whereas in architecture it is the sequential arrangement of spaces based on the story that reveals the imaginative powers of narrative.



Fig 2.9: Sequential Patterns.

Source:

http://intotheloop.blogspot.com/2009_03_01_archive.html

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These imaginative creations give form to architectonic spaces that take into account the sequential as well as the illusory characteristics of narrative.

Spatial narrative is essentially comprised of a storyline that provides a structure and physical quality to the concept of space, which further defines its intrinsic meaning. Usually in the assimilation or organization of a narrative, one may rearrange and overlap the pieces as needed to better understand the spatio-temporal story. Other elements used to represent spatial narrative in certain cases may be less visual, such as audio and narrative histories. On the other hand, symbology usually denotes the physical form of the narrative which may depend on its particular application and setting. Spatial narratives may be of varied forms, with the intent to understand and convey multi-layered information as patterns and meaning embedded in space and form. Spatial narratives juxtaposed with sequential narratives are identified as scenes of patterns in space framing or flowing into patterns of transition and transgression that may appear as connections between episodes or events. This presents a clear distinction between the two morphologies of pattern narratives, spatial and sequential: the former is a physical manifestation of geometry and form implying or suggesting hidden meanings or metaphors, and the latter is concerned with movement and progression. Sequential patterns are identified as connectors and transitory paths leading to series of spaces or episodic events. Spatial patterns are revealed as structural forms occupying and defining space that imply a meaning, existing between temporal paths.

Patterns in Space:

Patterns emerge out of spatial composition. Patterns become apparent to us as they appear in a variety of concrete and conceptual phenomena in nature and built space. In architecture, patterns are revered as architectonic connotations, or scientific analogies, that lie behind a physical construct. In the exploration of patterns emerging in space, we witness the inherent abstractness that space occupies and engages. The relationship between patterns in space and architecture has been loosely addressed, giving it a general definition and cursory examination. Patterns have an inherent quality of narrating episodic stances and storylines which provide a structure and physicality to space.

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Fig 2.10: Illustrating the difference between story, plot, and narrative.
Source: <http://2modern.blogs.com/2modern/2009/01/page/3/>

When we use the word narrative, we automatically think of storytelling, the act of narrating events in time and space, ultimately building up to a climax or conclusive outcome. Diagramming or mapping narratives then provides a visual dimension to a linear device, making it more discernible. Patterns naturally develop into a language. A pattern language, in turn, has the structure of a network. “Network of a language.....those structures.” (Alexander, 1977, p. XVIII) Language, as an intricate network of patterns, is derived from sequences of internal patterns, larger and smaller, composing and appropriating the scheme of larger more complex networks and structures. These patterns start taking shape through the occurrence of events in space. This technique makes it possible to compose and construct an architectural narrative by stringing together patterns in a loose way. It is also possible to put patterns together in such a way that many patterns overlap in the same physical space; this may make a building dense and able to capture multiple meanings in a small space.

Buildings and cities achieve spatial prominence as a network of language reflecting their definitive qualities of spatial and sequential patterns. These patterns of events are interlocked with certain geometric patterns in space. This is how the structure of architectural language is created: by assimilating the network of connections among individual patterns. Each pattern in space has a pattern of events associated with it, as there is a fundamental inner connection between patterns of events and patterns in space.

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The Labyrinth as Narrative Pattern:

The image of the Labyrinth has existed in architectural history since the time of classical antiquity, when myths and legends were an integral part of cultures. Myths were and still are identified as narrative constructs alluding to past events, which occur in space and form imaginary architectonic states. The Labyrinth has been the quintessential image of architectural



Fig 2.11: The Labyrinth in space. Source: S. Psarra (2009) pg.93

metaphor, carrying multiple meanings, mythic narratives, and folklores. The labyrinth exists in countless cultures spanning the globe from Africa and ancient Greece to India, China, and pre-Colombian North and South America. For centuries it has been used for religious rituals, meditation, and spiritual practice. In various cultures the labyrinth has been conceived as a model of the prototypical sacred space that depicts the most profound levels of consciousness.

In *Genesis and Geometry of the Labyrinth*, Patrick Conty presents a comprehensive exploration of the Labyrinth and shows how the geometrical construction of the ancient labyrinth corresponds exactly with today's modern geometry, which in turn parallels the science of ancient civilizations. (2002) Labyrinths reveal the presence of a cosmic order, as they interface the world of material form and the subtler realms of higher consciousness. The experience of moving through a labyrinth is quite potent. It impacts circulation and positions the user in space, simultaneously encapsulating, unfolding, revealing, hiding, and concealing. Historically speaking the symbol is represented as an architectural element that reflects the narrative of the culture that built and established it.

Bernard Tschumi suggests that there are two morphological variations on the discussion of space and labyrinthine constructs. He cites the labyrinth as the “empirical research that concentrates on the senses, on the experience of space, as well as the relationship between

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space and praxis.” (1999, p.28) The object of the labyrinth reflects this authoritativeness in the form of a meditative and healing experience for users. The labyrinth, as it engages the individual, creates a shift from the “ordinary” to the “extraordinary” in terms of experience. It affects consciousness through the senses and structures the space it occupies. The image and concept of the labyrinth has been used in the form of stories inserted in other stories to express the idea of a pattern that expands and projects into infinity.

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Narrative Sequence of Space

Conceptual – Perceptual Paradox in Spatial Composition

Architecture is a construct of space; it embodies space, contains it and structures it as a physical manifestation of an underlying concept. Narrative form in architecture provides a backbone to the ordering of events and stringing together of occurrences into a qualitative whole that alters according to conditional or individual precepts. The pressing question is the contradiction or paradox between conceptual and perceptual ideas in architecture and the definition and representation of these ideas. Perceptual cognition is mainly visual. On the other hand, conceptual cognition is mainly intellectual and dominated by the cerebral processes of the brain. However, these occur simultaneously and are equal.

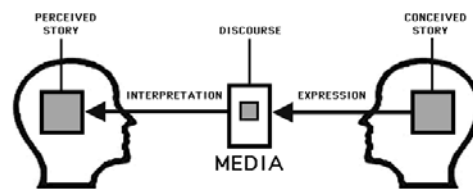


Fig 2.12: Illustrating Perceptual and Conceptual notions. Source: <http://www.darkshire.net/jhkim/rpg/theory/narrative/paradigms.html>

In *Art and Experience in Classical Greece*, J.J. Pollitt (1979) describes the Parthenon and its sculptures as simultaneously understood as something known and measurable and also experienced as a sense-impression. The Parthenon presents an interesting example of conceptual and perceptual data recorded in the spatial and architectonic composition of the structure. Conceptual (thought) and perceptual (sensory) art have contradictory principles and objectives in design. Art created primarily as visual appeal is perceptual. Art that depicts the subject more symbolically or abstractly and conveys a concept or idea is classified as conceptual.

In spatial composition, there is a profound contrast between conceptually ordered absolute space and a perceptually disorienting empirical space. However, the description of architecture through conceptual patterns according to which one can draw diagrams and demonstrate relationships makes spatial composition quite distinct and clear to project. On the other hand, if it is described as an experience in space, or as an entity that changes continuously with movement, the entire embodied knowledge of that space alters with time and

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progression. The structural relations of narrative and space unite perceptions received gradually with the conceptual properties of integration. The perceptual is synchronized to become the conceptual and combined into a complete system which in this way is at once perceptual and conceptual. But the conceptual and the perceptual in buildings and cities are also related to geometry, shape, and form which are factors that take into account description of spatial characteristics and compositions. (Psarra, 2009, p.222) These factors determine the ordering of conceptual and perceptual data as they are combined to create an absolute experience of the senses.

Conceptual – Perceptual form in Architecture

Architecture is a combination of conceptual and perceptual indicators because it throws into question the concept of space as it relates to the perception of space. The conceptualisation and perception of a form or an idea are closely connected, as the former is aimed at the latter. Both the conceptual mind and the perceptual mind “do not think in terms of

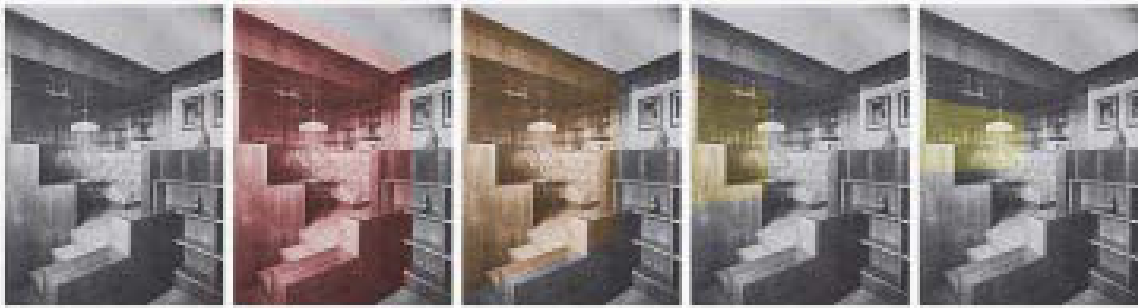


Fig 2.13: Perceptual – conceptual indicators in space. Source: http://architecturality.files.wordpress.com/2011/02/01jennifer-bloomer_mullerhouse_75_02_02.jpg?w=364&h=100&h=100

precise measures and geometrical relations, but rather operate with pre-established elements and relations between them.” (Hickerson, 2004) This is sometimes the cause of a gap between the conceptual and actual perceived structure due to the complexity of the relationship between an idea conceived and an idea perceived.

Conceptual art is distinct from perceptual art in that, “it is made to engage the mind of the viewer rather than his eye or emotions.” (Hickerson, 2004) This shift toward conceptual art involves shifting the emphasis on creation, moving the focus away from the object as perceived and toward the conceptual process used to conceive the object.

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Conceptual – Perceptual Narrative in Cinema

The conceptual – perceptual debate in cinema is quite interesting. Cinema takes the concept of space and creates a disjointed narrative of events that a viewer perceives as a string of episodic stances that they have to piece together. The perception may be entirely different from the concept but it allows for unexpected turns and twists. Disjointed narratives may start at the conclusion or last sequence and then realign events backwards to explain how the beginning was reached. The narrative thus unfolds before us as a sequence of events played in reverse order. Cinema is essentially a conceptual practice; the perceptual realm in this case is the spectator's mind or psyche that plays out the sequences in the subconscious sphere of his cerebral construct.

Synthesis

This chapter illustrates the unique ability of architecture as a narrative construct that can create spaces that have an innate potency to tell or describe events and stories. It is evident, from pictography to painting to the built environment, that man's instinctive approach to documenting and concretizing events is a means to spatially narrate past instances to future cohorts. These spatial stories may emerge in space as colossal empires, magnificent structures, or mythical patterns revealing hidden messages. This chapter traces the appearance and materialization of narrative in the built space and the perceptual effects of such spaces on the observer. This research and analysis is applied in this design thesis to reveal the structuring of space through a narrative construct. It is the ability of narrative to illustrate events and encounters in space, hence shaping them accordingly and imbuing them with a particular language and physical expression.

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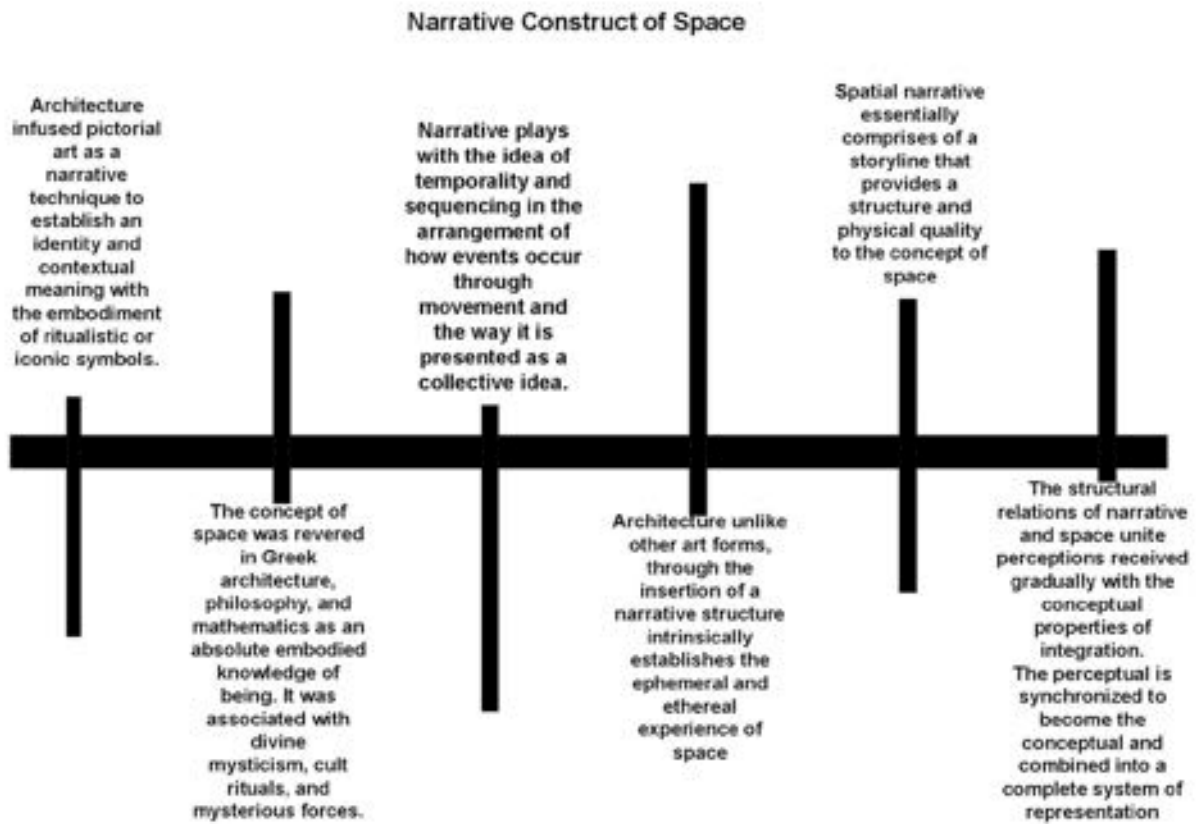


Fig 2.14: Figure illustrating concept of narrative in space.

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Chapter 2:

Semiotics and Messaging in Architecture and Cinema

Introduction:

Humans relate to events and actions through association. Using association, individuals can communicate and express themselves through language or other interpretive mediums. We live in an extraordinarily complex world and communication plays an imperative factor in our daily activities. Given that, the network of communication between objects and individuals is intricately laden with codes and symbols which may be deciphered in numerous ways.



Fig 3.1: Parthenon and its image – metaphors, image – symbols. Source: <http://www.tu-cottbus.de/theoriederarchitektur/wolke/eng/Subjects/021/Barabanov/Barabanov.htm>

Preziosi (1979, p.1) describes the environmental system as an arrangement of values and signs laid out as interrelated symbols addressing various functions. Each system may address partly unique and partly redundant operations in the entire network of communicative assemblage, signifying or indicating inherent messages or codes. The sign systems as a result, reveal an intricate layering of messages and their meanings relative to the environment.

The development of language is a critical component in the establishment of the communicative arts and leads to an understanding of linguistics. This then leads to an understanding of semiotics and its meaning, presence, and relationship to the environment. It has been argued by semioticians that everything can be analyzed semiotically; they understand semiotics to be the pinnacle of the interpretive sciences, the key that unlocks the meanings of all things great and small. (Berger, 2004, p.5) This statement is critical in the understanding of semiotics and has been one of the essential and crucial arguments for its development. Umberto Eco suggests that semiotics could be used “even to deceive and obfuscate.” (Eco, 1976, p.7)

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The system of signs and symbolic elements is evident in the fabric of our societies and communities, and they have undergone theoretical as well as functional investigation in terms of their application and impact on the environment. These studies include the semiotic analysis of language, paintings, architecture, sculpture, myth, folktales, and more recently, cinema.

Narrative Sign and Symbolology - Using Signs to Construct Meaning

The terms Narrative and Semiotics possess a unique relationship through the way in which they are associated and represented, both linguistically or architecturally in the environment. It is interesting to note that both terms associate an ephemeral quality or essence of space, a transitory and fleeting moment in time when one comes in contact with these theoretical manifestations, through either deciphering icons and signs or indicating the narrative threads that illustrate the story or idea behind these motifs or iconic emblems.



Fig 3.2: Panathenaic Procession. Source: <http://www.tu-cottbus.de/theoriederarchitektur/wolke/eng/Subjects/021/Barabanov/Barabanov.htm>

As we have seen, the relationship between the environment and individuals has been recognized through the signification of objects. Through the process of structuring narrative and establishing sign systems in the environment, the meaning and signification of elements is realized. Consequently, by the establishment of a hierarchical system of objects and entities, one is not restricted to dividing most important from least important by means of a rather

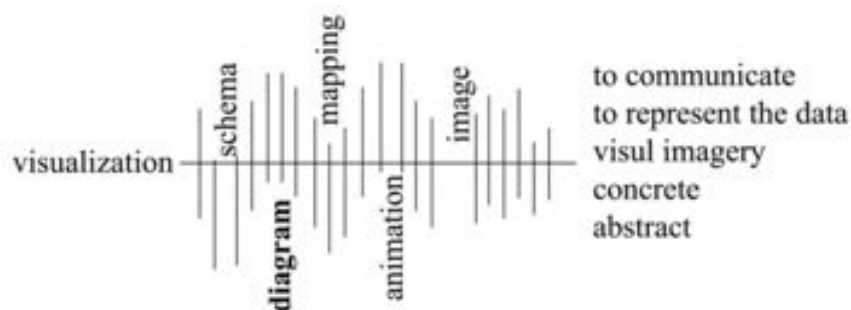


Fig 3.3: Charting Data Visualization Systems. Source: <http://bestesworkz.blogspot.com/2010/05/architectural-diagrams-types-and-usage.html>

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perfunctory approach. Instead, a more meaningful impression is identified. The identity or characteristics of objects becomes evident to us in large part through interaction with this world of sign formations. (Preziosi, 1979, p.1) Preziosi notes that human evolution and development is inadvertently an outcome of human interaction with sign systems in built form. Communication and expression are achieved through the understanding of these objects as sign formations and concepts represented in concrete form.

Larsen claims “a sign is any object which represents another object.” (1994) This statement combines the system of signs and the system of objects into an integrated system of signifiers in the environment. It is through the association between objects, signs, and their signification that meaning is imbued and the representation of the objects is formalised into a code.

Larsen (1994) suggests the sign or the object may represent material manifestation, provided that it can fulfil the representational or allegorical function which may either be verbal, written, gestural, or diagrammatic. For instance, a house may be presented as a codified diagram signifying a hierarchy of zones and places that can only be deciphered by the users or owners of that house, thus constructing a pattern of meaning as users move through it.

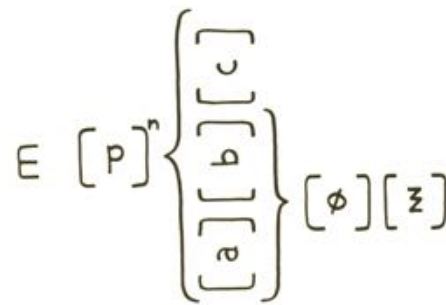


Fig 3.4: Coding the environment.
Source: D. Preziosi (1979)

Meaning of Semiotics – the phenomena of signs

Semiotic theory in architecture by and large describes how architecture embodies signs and meaning in the environment. According to Umberto Eco, “signs are understood to be combinations of signifiers and signified.” This indicates a direct association between the configuration of symbols or icons and their denotation, meaning, or mental concept as a component. Eco considered the functioning of sign systems to be related to the process of embodying meaning in the environment. He referred to semiotics as a means of communication

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Fig 3.5: Signs in Space. Source:
<http://www.slash.fr/evenements/gradations>

through the use of signs and codes, which are used to produce a variety of integrated situations suggesting phenomena in space.

As signs represent other phenomena, any given object can function as a sign if it implies meaning or concern. Still, visual signs and images, even when they bear a close resemblance to the objects to which they refer, constitute an idea that is outside of themselves. According to Barthes, “de Saussure described semiotics as a “general science of signs” that considered “any system of signs” to be a language (cited in Gaines, 2002, p. 3). The term “language” is extended to include written and spoken words, sounds, music, images, or gestures (cited in Gaines, 2002, p. 3). In this sense, the built environment, as a system of signs, is essentially a language expressing meaning. These sign systems can be interpreted as various conditions in the built environment that integrate language and phonetics to establish a method of signification.

The theoretical premise of semiotics and its relationship to the environment in terms of signifying meaning is central to overcoming the ambiguity of the sign. Preziosi expresses the concept of meaning in the sign system as a specification of an ordered trace of relationships which a given sign bears to other signs within the same code. Thus, the meaning of a given architectonic construct is internal to its own code, but its reference may implicate a sequential set of texts or notations.

Narrative Signs and Symbols in Architecture

Architecture is conceived from images; it exists as image and builds an image of its surroundings from sign systems. Signs are usually employed as a conventional language of expression in the construction of architectonic environments through which the architect

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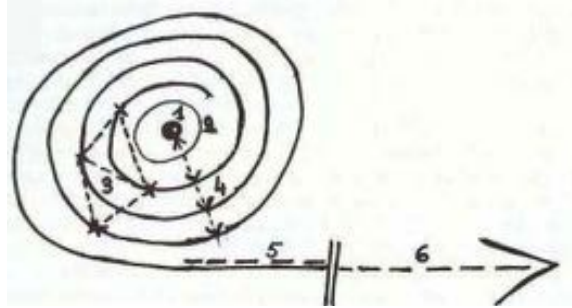


Fig 3.6: Cyclical Pattern of creating symbols and signs. Source: http://www.desphilosophy.com/dpp/dpp_journal/paper2/body.html

communicates his idea or notion. The way we experience architecture works against the notion of buildings as fixed objects in a particular setting because buildings exist temporally beyond their physical presence (Kostof, 1995).

Tobin discusses the theory of semiotics and its relationship to cultural practices by suggesting that, “a general philosophical theory dealing with the production of signs and symbols as part of code systems are used to communicate information, here shifting the focus from individual signs to their combination in code systems.” John Ruskin connected this concept to the built environment when he claimed, “all architecture proposes an effect on the human mind, not merely a service to the human frame.” This is evident in the way space is formed or shaped to suggest its purpose or reveal the meaning or message behind its architecture. But architecture is a medium of cultural expression only to the extent that we are able to absorb its messages. These messages are elicited through the questions of interpretation of culture, period, or an ideology which may reveal as much knowledge about the art or system of expression as it would about human evolution and the concept of society as a sign of identity.

Michel de Certeau, in *“Practice of Everyday Life”* examines the ways in which cities are constructed by the act of walking through them in a series of narratives. The kinds of meanings generated by dynamic motion illustrates an experience of the built environment as a whole; in this case, signs and signifiers are a more fluid and unstable approach than viewing or analyzing fixed signs built into the environment by wall components, doors, and other architectural elements.

A semiotic analysis of the built environment and space signification by Claude Lévi-Strauss indicates that “walls are motivated signifiers of boundaries, reinforced by other sign systems that limit who can go where.” (Hodge, n.d., p.1) Usually the primary spatial signifiers are less prominent, and perhaps in a particular context are signified and managed through secondary sign systems that are more ambiguous.

Spatial Effects – Narrative Sequence in Architecture

In this case the symbol or sign system develops an arbitrary connection between the signifier and signified. People use symbols not only as a way of communicating information to others, but as a way of communicating with themselves. Therefore, symbols are a critical component in the ability to construct an image of reality in the environment. Through symbols people create a social reality for themselves, an overlay of meaning laid as in a network pattern around the natural world.

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Semiotics and Messaging in Architecture and Cinema

Iconography in Cinema and Architecture

Robert Venturi writes “let us acknowledge the elemental quality of architecture as shelter and symbol that makes manifest evocation.” (1996, p.3) The concept of shelter as a symbolic gesture of protection against the elements signifies the primal aspect of life, the basic needs of man made explicit by the inevitable signs of settlement and growth. These signs architecturally manifest, and embrace, the notions of representation, signification, and iconography.



Fig 3.7: Iconography of the decorated shed. Source: Brandscares pg 191

The above paragraph brings forth ideas and concepts shared by architecture and cinema in the context of iconography and its relative meaning. Iconography manifests an aura, an impression, whether it is a shelter denoting built space or shelter as a symbol of the rudimentary form of architecture. Iconography is defined as the identification, description, and interpretation of the content of images. Iconographical representation is used to define a cultural identity and can be traced to the beginnings of civilization. (Romaniuk, n.d.) The term iconography has often been associated with the painting or sculpture of religious icons, in which the icons were seen as the embodiment of the religious figures they represented. The roots of iconography are evident in the sites of mourning and religious ritual, as well as ancient economic and political centers. Placed in this way, icons such as in the Parthenon and Roman Basilica helped create distinct cultural identities.

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Emergence of Iconography

Iconography emerged as a practice of deifying and exalting gods and goddesses in the ancient eastern traditions and can be seen in the religious art of Mesopotamia and in early Hindu culture. This technique was further modified and later adopted by several cultures. However, the modern concept of iconography does not simply define a visual experience as a passive observation leading to a complete understanding of it in a spatial setting. This shift originated with the manipulation of images through the use of camera obscura during the times of Leonardo da Vinci. (Romaniuk, 2009, p.1) Prior to this shift, iconography was embraced as an art form in which religious or important figures were represented as icons loaded with signs that represent the sacred; an index that provides a direct causal relationship between the sign and its referent. An icon..... relationship of arbitrariness. (Leeds-Hurwitz, 1993, p.23) An icon or symbol can bear arbitrariness as well as significance, depending on the indexical relationship it shares with a given culture.



Fig 3.8: Iconography in Byzantine Cathedrals and Churches. Source:

http://www.desphilosophy.com/dpp/dpp_journal/paper2/body.html

A complex image contains an ambiguous quality in its composition and representation. It becomes iconographic when one analyzes or reads the meaning behind the image. That idea is juxtaposed to what an image is and what it seems to be. Venturi, in “Complexity and Contradiction,” raises a point by Joseph Albers who labels “the discrepancy between physical fact and psychic effect a contradiction which is the origin of art.” (1966, p.17) With architecture, we can see levels of complexities and contradictions in different modes of operation. Complexity lies at the very essence of architectural form—at once abstract and concrete, textural and material—and these oscillating relationships are one of the sources of ambiguity in architecture.

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Iconography in Architecture

Since ancient times, the art of iconography has developed into a major phenomenon in architecture, as opposed to simply a symbolic or iconic gesture in the religious realm. As mentioned above, Venturi addresses the symbolic and iconic nature of architecture beyond its elemental quality of appearing as a shelter for living, in “Iconography and Electronics upon a Generic Architecture.”



Fig 3.9: Iconography in Indian Temples.
Source:<http://unliteral.blogspot.com/2010/10/shalabhanjika.html>

When we use the term iconography we generally associate it with symbolism derived from ancient Egyptian, Early Christian, and Baroque traditions. These traditions were iconographic in their mode of representation, using projected ornamental imagery, hieroglyphic bas relief on masonry temples, and iconographic murals and mosaics to create narrative or recount events. These images constituted a sign system. Although they were surface ornaments, they operated as explicit sources of information independent of forms. However, iconography resonates beyond the superficial treatment of signs and codes as ornamental beautification. There are concealed messages and objectives within these systems that are revealed through the iconographic display of structural, spatial, and formal relevance, in both the exterior and interior surfaces of these temples. This demonstrates differences between cultures and vocabularies, which is made apparent in the application and representation of a given belief system.

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A building becomes iconographic if it generates interest or impacts people. It is successful as an icon when it inspires the kind of awe and veneration similar to an object of religious or artistic devotion. With the more recent meaning of an icon, a building must provide a condensed image and stand out in the city, as well as be reminiscent of important metaphors. (Romaniuk, 2009) Charles Jencks claims that such a building needs to create an emotional response to be considered iconic, for a building cannot stand out if it does not. Alan Colquhoun has written of architecture as part of a "system of communications within society." It is in the power of communication that an architectural space grows beyond functionality and becomes a potent iconographic edifice in the society it represents.

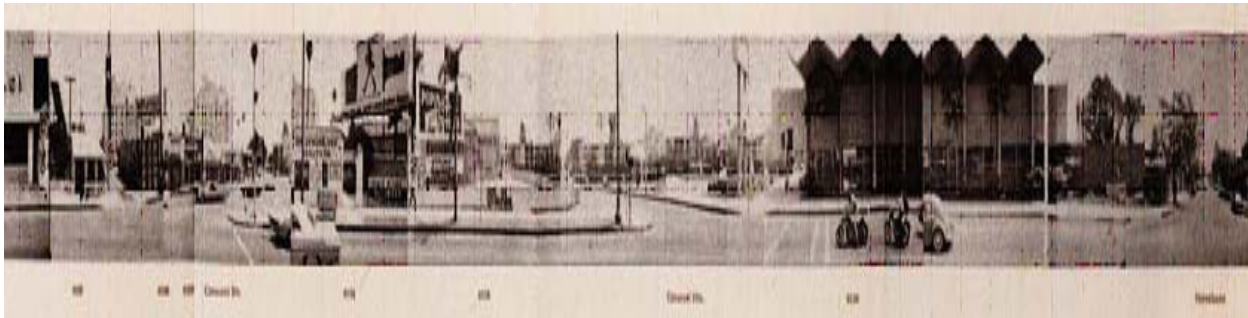


Fig 3.10: Learning from Las Vegas – Iconography and Symbolism of sign systems. Source: R. Venturi (1977)

Thus, the iconography of a building has many, often divergent, meanings and likenesses. The response to a building is generated by thought-provoking metaphors, enabling a critic or a visitor to defend or condemn the building in question. Taking a technical approach to defining architectural iconography, outside of its socio-economic realm, fails to recognize the inherent social quality of signs, perhaps leading to the false assumption that signs can only have one meaning. This mistake is evident in the representation of architectural iconography today, as evidenced by generic electronic images that have bright lights but have a hidden agenda. Venturi (1996, p.5) describes the current condition of architecture as a brightly coloured neon show of flashing lights and electronic imagery. Here the sign takes prominence over the architecture which, in turn, becomes a meaningless charade of pomp and show. This architecture does not embrace or acknowledge human emotions, but rather favours the shallow visual display over meaningful expression.

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Iconography in Cinema

Since the introduction of cinema, iconography has become a potent aspect in the construction and communication of narrative and the representation of imagery. Iconography in cinema is usually identified as a visual style characterized by motifs; it also has the potential to be categorized as an art form and analysed as a philosophical system. In short, it is the study of icons or iconic images, because the visual or tangible objects or persons displayed signify invisible or intangible concepts. (Hayward, 1996) Iconography stresses both mise-en-scene and genre. It points towards social and physical changes in the environment; it emphasizes and frames conditions of the urban environment as a way to comment or criticise. Taking films from the 1930s – 1940s era as an example, we see iconography evident in the representation of architectonic objects such, as the skyscraper in urban cities. The symbol of the skyscraper as a tall, lofty, monumental structure soaring vertically in the sky is represented as an icon of the city.



Fig 3.11: The symbolic skyscraper in cinema. Source: <http://www.skyscrapercity.com/showthread.php?t=366097>

The skyscraper was revered as a powerful, omnipotent symbol of the spirit that conquered the space of the American urban landscape. It was significantly represented as a classical monument in certain cases, aping architectural elements and metaphors of the ancient Greek and Roman empires as well as commenting on the democratic power and political ideologies that these powerful civilizations represented in their structures. The iconography was evident in the height and tall shaft like structure of the skyscraper, formed as an Egyptian obelisk operating as a marker in space.

The iconography in early cinema amounts to an ode to modernity, as it developed more or less around that time period. However, the crowding of space with tall towers, overpasses, bridges, and airborne cars proved to undermine the potential of the human condition in the

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developing urban nexus. This turned the city into a machine consuming humans in order to operate, the quintessential dystopic sci-fi phenomena.

It is interesting to note that cinematic representation is an iconic gesture observing and interpreting the temporal functioning of an event and the conditions that force its outbreak. To think of cinematic iconography as an excess of iconic elements and not as pure iconicity would be an abstraction. (Ehrat, 2005) Although the iconography of cinema investigates the aesthetic and narrative meanings in their special cinematic forms, it assumes that symbolic meaning assigned to images can and will be uniformly decoded within a culture. Hence, cinema is considered as an extremely iconographic art, a continuation of the tradition of symbolism and of the old meanings connected with image and representation.

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Semiotics and Messaging in Architecture and Cinema

Structuring Signs in the Built Environment

The study of architectonic meaning and meaninglessness produces conflicting opinions; therefore to construct a coherent and holistic picture of the built environment is difficult.

(Preziosi, 1979, p.7) It is a colossal task to determine how signs are structured and to what extent they are planned and arranged in the built environment. The network of these signs and significations and symbols created by the city is “termed as urban semiotics [and] is conceived of as a complex semiotic process involving three sign systems: the built environment, the patterns of social interaction, and the means of communication.” (Larsen, 1995, p.1) These interacting patterns change with historical time and from culture to culture. Identifying communicative structures in the built environment permits the creation of connections between zones, allowing for networks of interaction to develop. In order to understand the symbolic identity of the built cityscape, it is essential to perceive sign systems as a directional language.

Codes fix the relationships between concepts and signs. “They stabilize meaning within different languages and cultures.” (Hall, 1997) Codes based on spatial signs, however, are never purely identified as relating entirely to their referent, but they always incorporate varying degrees of specific elaborations, transformations, and associations that are conventional or arbitrary. These meanings are specific to particular groups or codes and may be interpreted inclusively or exclusively of a particular built system.

Architectural Semiotics

The semiotics of architecture are used to analyze buildings in urbanized societies using spatial signifiers such as walls, doors, passages, windows, and roofs. Those are reinforced or modified by secondary systems of spatial signifiers which may be represented as ornamentation, designated pathways, and gardens in a given setting. (Hodge, n.d., p.1) The importance of context, and therefore ideology, cannot be understated here, for when readers or viewers engage with verbal or visual signs, their interpretation is the result of the background cultural codes they introduce and that unifies the signifier and signified.

The meaning of spatial signifiers presents the concept of threshold, transition, vestibule, and passage. These signifiers are reinforced by signifiers resulting from these elements, which are the paths that identify them in the larger scheme and frame their formative qualities of space. The sign systems may impact the functioning of the urban or architectural environment

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as it determines the flows and internal operations dependant on the direction it provides. The architectural significance of these signs may begin to appear as a constructed system of signifiers, transforming individual experience into a phenomenological experience.

Synthesis

This chapter describes the ability of the physical environment to signify. It is the elements of signification that create iconographic characteristics. These exalt and glorify an environment, distinguishing it from the ordinary and establishing an extraordinary sense of space. The meaning of signs and symbols affixed to the environment reveal hidden knowledge and information as one encounters these complexities in space. This design thesis investigates the theory behind the semiotics of space and reveals the symbolic significance of codes and signs in the built context. As a result, notions of iconography emerge and the reverence of icons, concealed messages, and connotations therein are revealed.

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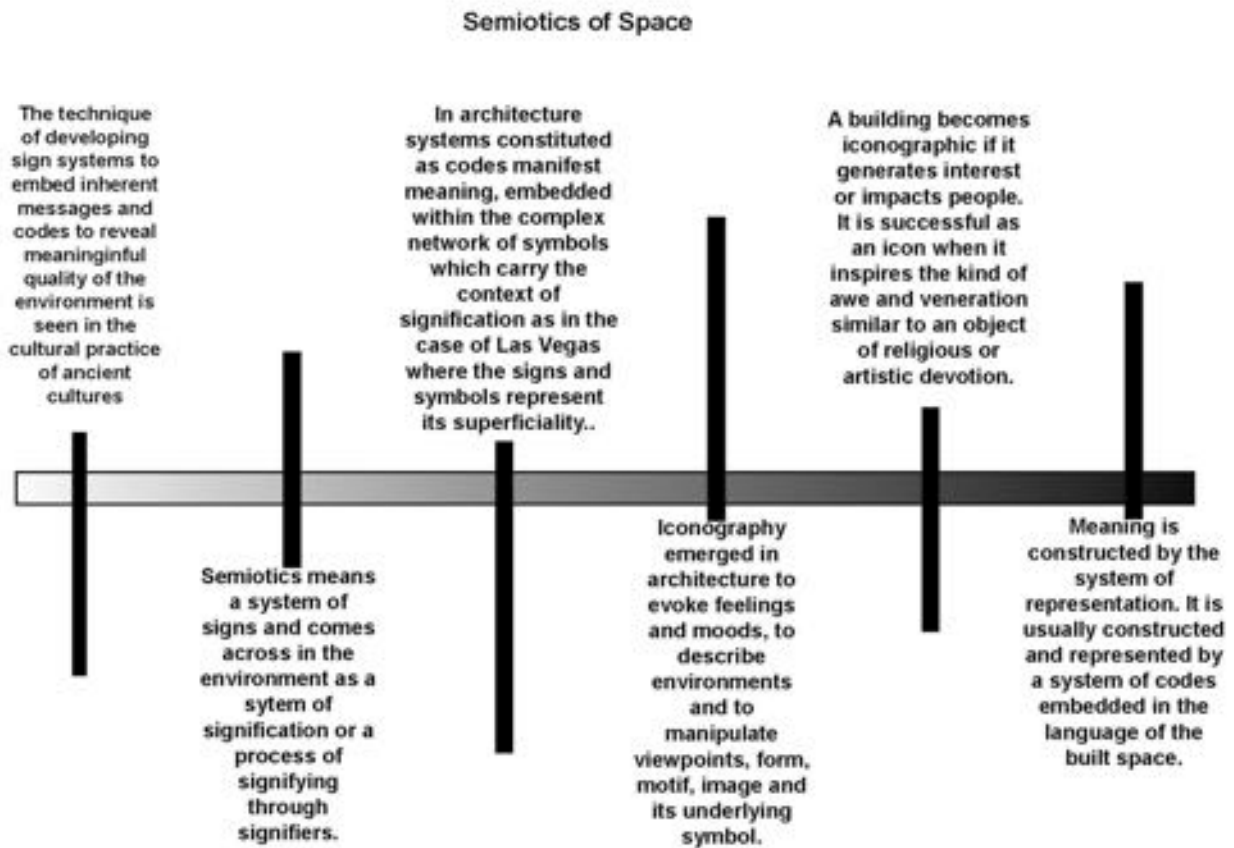


Fig 3.12: Charting Semiotics of space

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Chapter 3:

Cinematic Choreography of Architectonic Space

Introduction

Cinema is experienced as moving imagery encapsulating space on a screen. The form has become an engaging architectural space partaking in an interesting dialogue used to illustrate an idea or thought. However, movement is experienced in both cinema and architecture; the former is a physical manifestation of movement and the latter is a cerebral manifestation of movement. Cinema contains the potency to construct ephemeral spaces, reflecting spaces of the human subconscious in its narrative construct. It does so by commenting on conditions in the built world and human conditions, in addition to the impact of space on the human mind. Because both architecture and cinema are visual and sensorial forms of expression, they are mainly experienced in the dimensions of time and movement; that is, these forms are bound by spatial-temporal compression. That limitation dictates that the viewer is able to experience and comprehend both art forms only if a given creation is physically present. In the case of architecture, one has to move through it spatially to understand its effects and impact, while in cinema the images move in time, narrating the experience to the audience.

When it comes to dissecting architecture and cinema as narrative constructs, questions are raised regarding the way in which spaces anticipated in cinema are conceived as abstract ideologies. In addition, it is important to consider the way in which cinematic spaces are perceived as patterns in architecture, which can be comprehended either through sensual or cerebral experience. In recent times there has been a debate regarding the importance of mental imagery versus an object's physical manifestation and this debate has framed the comparative realms that exist as an outcome of the process of spatial representation. This throws into question the authenticity of constructed worlds in the digital environment, which may not be realized or exist in the real world as authentic constructs.

While the art forms in question share very different qualities, the common association between the two is that they employ similar techniques to demonstrate an idea. The experiential state in both forms can be considered as analogous realms in the mental space of the viewer or user, transferring images from their material state or space to a visual domain.

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In “*The Work of Art in the Age of Mechanical Reproduction*,” Walter Benjamin deliberates on the apparent visual nature shared by architecture and cinema. He suggests that both of the art forms are communicated primarily through the tactile realm along with the visual realm. (1968, p. 217)

Spatial Narrative - Framing Architecture through Cinematic Choreography

Architecture and Cinema both demonstrate a temporal and spatial structure and fundamentally articulate space, whether that space is dynamic or static. These parallel art forms



Fig 4.1: Cinematic quality of Escher's space. Source: <http://www.meridian.net.au/Art/Artists/MCEscher/Gallery/>

illustrate the nature or quality of space by use of sequential progression, as they exist in the realm of time and movement. Since cinema frames architecture and the built environment, it has the ability to project what it specifically desires and engages the audience in a dreamscape. Whether these landscapes are exaggerated, produced, or if they indeed exist is irrelevant in the cinematic context. The point is to create environments that illustrate the narrative eloquently, compelling the audience to cast off reality and enter the realm of the cinematic fantasy world.

Cinema operates as a powerful tool in the construction of situations and nonexistent territories. It comments on conditions of the built world and history, in addition to real life experiences. “In the same way that it depicts.” (Pallasma, 2007, p.13) Pallasma argues that the impact of the cinematic apparatus is a means to conserve history and past events; by this account, cinema is a recorded commentary of its time period and will be a history of such for future generations. In “*The Architecture of Image: Existential Space in Cinema*” Pallasma eloquently sums up the relationship between architecture and cinema by suggesting that the two forms of expressions interact in several different ways. He suggests that the inherent

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architecture of cinematic expression and the cinematic essence of architectural experience are multilateral. (2007)



Fig 4.2: Monotonous environments in Jacques Tati's playtime. Source: <http://alternativechronicle.wordpress.com/2011/03/29/tati/>

It is interesting to note that the architecture of cinematic expression has altered and transformed over time into a realistic representation of our society. From the framing of a room to the lighting of a tunnel, the cinematic architectonic space is suspended somewhere between reality and dreams. The architecture of cinema is a projected illusion, but there are existential assumptions involved in the architectural environment, as an illusory realm, that exist in the mental space of the user as well.

Architectural space in cinema is free of the functional requirements, technical restrictions, and limitations of the professional conventions of real world architecture. (Pallasma, 2007) Pallasma reiterates that the mental images of dreams and memories captured by the cinematic frame is a direct reflection of the mind of its creator and is intrinsically communicated to the viewers through the cinematic apparatus. He claims that architecture has a similar quality, in that architects build in matter and construct physical objects which may echo or narrate images accumulated in the human mental constitution, thus touching upon the emotions and senses of the users.



Fig 4.3: Diagrammatic representation of Spatial-Temporal construct. Source: <http://www.suzannemathew.com/>

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Interestingly, connections other than the spatial and temporal exist in the complex relationship between architecture and cinema, specifically as pertains to language and meaning. The notions of image and representation, and the language within which they are envisioned, refer back to the built landscape. Indeed, the architectural imagery of cinema, the transfer of real life events to the cinematic frame, allowed for a spectacle to transform into a phenomenon in the twentieth century. According to Helmut Weihsmann, in *Cinema and Architecture*, “Architectural form through time.” (Penz, F., & Thomas, M. (Eds.), 1997. Pg 9) This statement echoes Pallasma’s writing on cinema and architecture, which also comments on the inherent relationship of the two forms in terms of structure, pattern, composition, language, spatiality, temporality, and perception.

Walter Benjamin, in his seminal essay “*Work of Art in the age of Mechanical Reproduction*” has eloquently argued for the emergence of cinema as a revolutionary apparatus critiquing on the marvels of the industrial age. He argues that cinema trumps theatre in this respect because it elicits the imagination and suggests that cinema’s representation of reality, or the framing of the built world on camera, is comparably more significant because it permeates real life. In *Cinema and Architecture*, Walter Benjamin is quoted by Author Weihsmann, claiming that the narrative essence in cinema, explores the built world as the narrative and theatrical quality is achieved by framing the built world in a spatial story; by wandering and promenading through streetscapes and urban centres, a film elicits dream-like qualities. (Penz, Thomas, 1997)

Pathways – Movement in Cinematic Space:

Movement is a crucial element in the progression and build-up of a story; it may occur from scene to scene or place to place. In architecture, pathways symbolise direction,



Fig 4.4: Le Corbusier's promenade architectural.
Source: B, Colomina, (1996) pg.292

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movement, and/or circulation. Spatial pathways are considered a tool in cinematic choreography, implying the path/space relationship of the user and viewer. In film, pathways indicate the choreographic workings of movement on a static screen. Greg Smith (2009), in “Cross Section Cinema,” describes cinema as implicitly architectural in its formulation. He describes the ability of cinematic space to be presented as everyday landscapes and locations made obscure and fictional by the manipulation of the narrative space framing the events as they unfold in time. The movement or cinematography of space is therefore created through the portrayal of the narrative. In cinematic space the image of movement and the image of time occur and interact as multilateral entities. These images of motion play out as contrasting elements, producing linear notions of time against layered notion of time, thereby developing an intricate pattern of sequential progression which does not occur as a single narrative construct but unfolds through multiple simultaneous narrative threads. Cinematic imagery involves temporal compression and that through the structuring of a narrative it is captured as a chronological mapping of events in a space-time construct. The framing of cinematic space depends on the tone of the narrative, although the play of imagery and space may not always be represented as a recognizable form. However, a film is understood to be a constructed reality on a static screen, which may allow for various interpretations of spatial experience.

Cinematic narrative often operates on the subconscious mind of the viewer, composing mental pictures in the mind at the speed of 24 frames per second, hence producing movement. The cinematic landscape is essentially a series of images combining two temporalities: the time that is embodied in the images, causing movement, and the displaying of these images within a specific time interval. These two temporalities have a cause-effect linkage: one cause’s movement to occur and the other is the effect of movement produced. (Tomlinson, & Habberjam, (Trans), 2005, pp. 22) By manipulating the cause-effect relation of movement in space, the cinematic frame engages the audience in the narrative effects of space. In that way each image makes the audience anticipate events and actions that are about to unfold in the next image; hence, temporal sequencing is reduced to performance and a visual dialogue of space.

Cinematic Choreography of Space:

Architectural space is very similar to cinematic space in that it is choreographed, arranged, and composed of elements articulating its geometric and atmospheric qualities and illuminating its narrative structure. With cinema however, one has the freedom to construct

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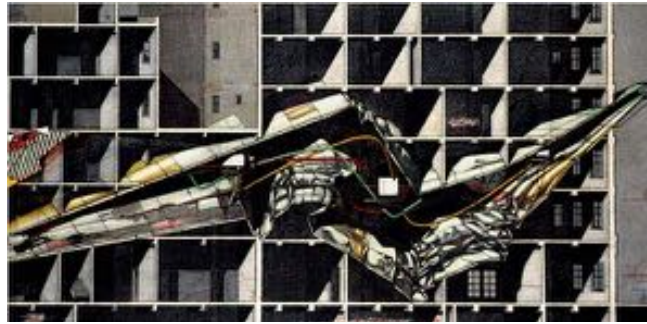


Fig 4.5: Lebbeus Woods architectural installations. Source: <http://newsgrist.typepad.com/underbelly/2008/08/lebbeus-woods-d.html>

fantastical and eccentric spaces without any legal, physical, financial, and structural boundaries.

This practice of creating fantastical settings is materializing and transpiring in art installations and architectural palimpsests which can be very exciting and lead to unexpected results that alter a building's overall composition and extend the choreographed essence of space beyond the visual sphere. For instance, Lebbeus Woods's architectural installations have a cinematic profundity and complexity that epitomizes the art of montage. The image of cinema is presented primarily in movement. It does not construct an image to which movement is added, it immediately frames movement within the construction of the images. This strategy is evident in the architectural installations of Woods. His projects are realized out of the space of the image and stitched together as a complex composition of signs and significations that hint upon the nature of their assembly.

Cinematic imagery leaves such a strong impression that it influences the way audiences look, observe, or perceive the built environment. In this regard, architecture is as integral to cinema as cinema is to architecture. (Penz, F., & Thomas, M. (Eds.), 1997) Paul Virilio (1994) declares the emergence of an era of cinematic architecture by suggesting that there will be a demand for the manufacturing of metaphoric landscapes that will emerge and take precedence over other forms of built constructs. For the purposes of visual appeal and mental hypnosis, the



Fig 4.6: Sterile Corridors. Source: <http://battleshippretension.com/?p=1893>

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architecture of the built world will transform into a fascinating cinematic indulgence. In this case the mental image is an essential structure of consciousness and displays the mental function and workings of the human mind.



Fig 4.7: Immense, endless space generates a sense of claustrophobia and fear. Source: <http://www.filmbrain.com/filmbrain/2007/12/there-will-be-b.html>

Morin (2005) compares the cinematic subconscious space to that of man's subconscious space, he suggests that the two concepts are analogous and cannot be disassociated from one another. This point brings to mind Stanley Kubrick's "The Shining" (1980), in which the labyrinthine intricacies of the inner workings of Jack Torrance's mind are reminiscent of the interiors of the hotel, with its winding corridors and endless passages. Pallasma analyzes the architecture of the hotel by suggesting, "external horror structures and metaphors." (2007, p.97) He dissects the space of the hotel and at the same time compares it to Jack's mental state. There appears to be a sense of fear and disillusionment associated with the way in which spaces are framed and witnessed by the spectator, as architectural metaphors are viewed as consuming entities, overwhelming the subconscious space of the characters and audience.



Fig 4.8: The image of the labyrinth and Jack as the Minotaur. Source: <http://fusionanomaly.net/shining.html>

The film is wrought with analogies and metaphors representing the mental construct of the human mind through the architecture of the hotel. The vast emptiness and isolation create an atmosphere of horror and desertion. There is also a sense of abandonment and disillusion,

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since there is no connection with the outside world. It seems as though the interiors of the hotel have turned into a cannibalistic entity, consuming the mental space of the characters.

The lighting remains the same throughout the film and it appears as though time is at a standstill which further suggests a bleak and dismal atmosphere. Throughout the length of the film there is a sense of disorientation “heightened by the complete absence of views through the windows.” (Pallasma, 2007, p. 107) Towards the end, the characters find themselves in the hedge maze outside the hotel running for dear life; this is another reminder of the labyrinthine construct of Jack’s mind, in which he gets trapped and is framed in an image of self-destruction indicative of the Minotaur in the Cretan labyrinth.

Representation of Architecture in Cinema:

Another aspect that brings the forms together is the change that occurs in the conception of existence and space in the mind and imagination of the user. Juhani Pallasmaa furthers his discussion of cinema and architecture by commenting on the lived image as lived



Fig 4.9: Andrei Tarkovsky's Nostalgia, framing the house in the ruins of an ancient cathedral. Source: J, Pallasmaa. (2007) pg. 70.

space by suggesting that cinema operates as lived image and architecture exists as lived space in which geometric space turns into an experiential one, thus intertwining the physical with the mental worlds. In Nostalgia by Andrey Tarkovsky, the final shot is quite evocative as it frames a “Russian house inside an Italian Cathedral.” The central notion here is the image of the house in the cathedral, the image of an edifice amidst ruins.

We identify images on screen with real life; in fact to a certain extent we rediscover these images, which would seem to dissipate the originality of cinematographic projection-identification but in fact reveals it. (Lu, 2008) It renders an experiential impact of architectural space as a metaphysical construct, synthesizing the effects of the built world onto the user.

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Fig 4.10: The stairs of cinema. Source: <http://kaganof.com/kagablog/2007/04/19/the-stairs-of-cinema/>

Architectonic elements in cinematic space define the character of that space through the articulation of language, light, shadow, and texture. The image of a staircase is suggestive of a labyrinthine structure extruded and stacked continually in a vertical arrangement in space.

“The regular rhythm of stairs also addresses dream imagery” (Pallasma, 2007, p. 33) by making it a signifier of dynamism and metaphoric association ascending towards the sky or descending downwards.

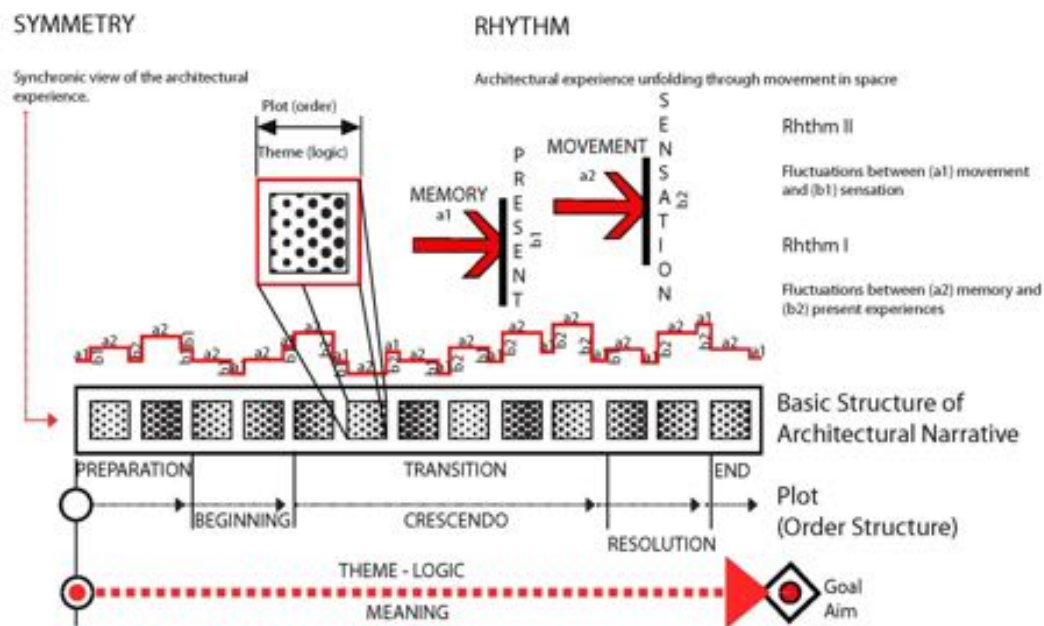


Fig 4.11: Basic Structure of Architectural Narratives (After Dewey 1934) (Formal analogy between an architectural and cinematic experience)

Source: Reference: <http://faculty.arch.utah.edu/people/faculty/julio/exp.htm>

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Cinematic Choreography of Architectonic Space

Dystopia of Technology (Visual Effects) in Cinema and Architecture

The frequent use of visual effects in cinema and architecture has led to a dehumanizing of the senses and a warped perception of the architectural environment. Technology has not only impacted the role of architects set designers and production designers but has altered the experience of the cinematic audience. The end result appears to be a superficial and hollow display of events lacking character and narrative in cinema, which has influenced the way people perceive architecture and hence transformed its intrinsic experiential quality.

Introduction:

Since the advent of the Industrial Revolution and subsequent dissemination of technology in our daily lives, the popularity of cinema as an art form has grown, as has its association with architecture. With different modes of representation continually developing and becoming mainstream, fantasy is becoming increasingly accessible through the medium of cinema. However, there are degrees of superficial realities that are portrayed on screen to which the audience has become complacent, especially on questions about the authenticity and realism of environments projected on screen. It is crucial to note that no matter how successful technology has been in visualising spaces in cinema and architecture, it has also completely changed people's understanding and expectations of the built environment and that has



Fig 4.12: Sci-Fi world depicting a desolate urban environment in Blade Runner. Source: <http://archimalaya.blogspot.com/2011/01/blade-runner-and-our-brave-new-world.html>

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resulted in a distorted vision of reality. According to Eric Mahleb (2005), in “Architectural Representations of the City in Science Fiction Cinema,” sci-fi environments are generated in cinema simply to produce the “cheap thrill” of artificial worlds that are then vigorously consumed by the audience. In effect, this influences the audience’s perception of their own environment, especially in the context of the sociological and technological factors that govern the built environment.

The debate established here questions the relevance of the intense bombardment of artificial worlds and fantasy in cinema. These worlds relentlessly imitate real worlds in a rather unreal and pretentious fashion in order to narrate a story or idea. This barrage of utopic or dystopic visual imagery has changed the role and significance of the production designer to such an extent that it has become impossible to discern the value of special effects as it is applied in the production of a film. Likewise, in architecture the application of visual effects renders a clichéd environment depicted mostly in images and, regardless of the provocation of the image itself, there appears to be a lack of narrative and pragmatic quality behind it; that is, it lacks meaning. It is important to note that technological developments in contemporary cinema appeared to have significant analogies with early cinema, although the increasing predominance of technology and special effects has provided the audience with “primary attraction” and “placed emphasis to the resurgence of performative and spectacle modes, as against purely narrative modes.” (Elsaesser, Barker, 1990) This statement attests the fact that narrative has been neglected as an important factor in the cinematic framework of storytelling and representation, giving greater priority to the spectacle of the screen and display of special effects.

Development of cinematic representation:

The birth of cinema provided new forms of narrative, in part through its adoption of architectonic imagery. This technique of display and exhibition has greatly altered the art of cinematic representation and conversely influenced architecture. Due to the excessive integration of special effects, there has been a transformation in the intrinsic character of showcasing cinematic space. The cinematic apparatus, via the projection system, manipulates the audience into unconscious identification not only with the characters but also with the process of screening and viewing. It enables the audience to become one with the image device and to anticipate events yet to occur. This is why cinematic form is a potent paradigm of

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representation: it instinctively arrests the attention of the spectator and generates in the subconscious mind alternate realities appearing as literal representations of a dream state. The psychological stimulation of the mind identifying with the cinematic realm and generating images connecting narrative to events has been heightened by the application of special effects and trick imagery, which has led to indifference in the user's perception of the built world.

Guy Debord (1994), in "*The Society of the Spectacle*," eloquently states, "Images detached from are deceived." (p. 7) the author criticizes the position of cinema today, which has turned into a mechanical generator of images removed from reality, falsifying and creating deceptive images of the future. The author uses the term "pseudo-world," testifying to the present role of cinema as a generator and authoritative projector of false nonexistent worlds of the future. He suggests that the early stages of cinema placed great emphasis on narrative in its framework and justified its role as visual storyteller, which was then the direct impetus for the success of cinema.

Since temporal spectacles catalyze narrative structure, audiences temporarily escape from the dramatic tension of plot into a realm of make believe or deceptive reality. The important aspect of reality is not the accuracy of representations of the real world, but the degree to which cinema can inspire a belief that the object of representation resembles reality.

Emergence of Special Effects in Cinema and Architecture:

The emergence of production values in the history of cinema, seen as a developing narrational art form, has resulted in the rise, acceptance, and popularity of visual effects as representational technology. The comparison of cinema with architecture is explicable, as both forms incorporate elements and components essential to their physical construct and assemblage. "It is an indisputable fact that the two are interconnected and that a process exists where both feed off from one another." (Mahlab, 2005) However, the continuous bombardment of effects and the desire to create spatial objects and environments as experiential brandscapes has raised questions of authenticity.

Klingmann (2007) raises a valid point regarding the authenticity of present day environments by labelling the recent trends of corporate franchises, shopping centres, and residential developments as imitations and the products of a Culture of Copy. This is not only

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Fig 4.13: The dark oppressive city in Blade Runner. Source: Film Architecture - from Metropolis to Blade runner. Pg 149.

relevant in architecture but in cinema as well, because it questions the legitimacy of portraying extreme dystopic urban environments in both disciplines. The use of dystopia in this sense is synonymous to a stifling and dulling of the senses. The ever increasing parade of visual effects and evermore grandiose sets are devoid of character development and solid narrative structure, and this is one of the key aspects that has altered the experience, influenced mass culture, and redefined peoples' expectations of the structure and future projection of the urban environment.

Visual effects have not only affected the perception of space and impacted individuals' behaviours, but they have also affected peoples' demands for architectural representations and depiction of cities. We live in an era of self-destruction of the urban environment that has witnessed the explosion of cities into the countryside, covering it with what Lewis Mumford calls, "formless masses of urban debris." The technical organization of consumption is thus merely the herald of that general process of dissolution which brings the city to the point where it consumes itself. (Debord, 1994)

Popularization of Special Effects and Abandonment of Critical Narrative Content:

The fear of the future so dramatically illustrated by these tales of machine dominance in cinematic culture have an obvious source, and that is the claim—dating back to the beginning of the Industrial Revolution—that the industrialization and mechanization of life led to dehumanization. The once excessive proliferation of storytelling techniques suggested that filmmakers and their audiences had once been familiar with narrational situations that were considered artistic and inspiring. (Fleishman, 1991) Instead, today these techniques have been rejected and replaced with garish special effects.

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The emergence of computer-generated environments was a key moment marking the escalation of the imagery of dystopic environments staging the domination of machine over man. The dystopian movement emerged as a facet of the industrial age, which attempted to extrapolate human development along its trajectory of modernization. Man's struggle against the dominance of machines and technological modes of life altogether transformed the idea of reality and perception. These images greatly impacted audiences; dystopian worlds were continuously depicted in cinema, depicting the onslaught of the industrial revolution and its many facets warping the representation of the real world. Furthermore, these cinematic emblems have enjoyed cult status and a cult following that provides the basis for the success of the special effects genre, determined as it is to produce replicate alternate realities. The audience consumes these lies and distorted realities, which then completely alter their perception of the actual environment.

Manufactured Landscapes – Transition to Spectacle:

Cities like Las Vegas, Dubai, and Shanghai have been governed by forces of consumerism and profit production; these are the sole agencies responsible for the shaping and formation of these cities. These cities have been fuelled by the desire to produce larger than life



Fig 4.14: Artificial construction replicating motifs as a fantastical urban landscape. Source: <http://www.dubai-information-site.com/dubai-palm-island.html>

urban landscapes and bizarre planning strategies. The palm-shaped, artificial island, for instance, adds to Dubai's myriad of objectified sites and forms one of the emirate's most outlandish iconic images. However, the only way to fully comprehend and view the Palm is through an aerial view.

In the case of Las Vegas, emphasis is placed on the perpetual turnover of profit,

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Fig 4.15: The fake copies of roman structures in Las Vegas. Source: Brandscaes pg 196.

acquired through casinos. Because they have a short life span, casinos are continually remodelled or demolished to accommodate the latest trends. According to Klingmann, “because the architecture of Las Vegas is determined by the demands of spectacle and consumption, boundaries between image and built form become ever more obscure.”(Klingmann, 2007) Las Vegas operates as an urban engine fuelled by entertainment, gambling, spectacle, and consumerism. Debord famously posited “spectacle as the final manifestation of mature capitalism built upon consumption,” and Las Vegas has long occupied the architectural apex in that formulation.

Entertainment based cinema and market driven architecture:

Architecture at its worse has transformed from a complex creative process of integrating diverse functions—such as: structural systems, myriad services and utilities, inter-related spaces and exterior-interior visual connections—into a game of appliqué in which one cuts and



Fig 4.16: Ornamented decorated sheds. Source: Brandscaes pg 102.

Spatial Effects – Narrative Sequence in Architecture

pastes decorations and ornament onto four sides of dull boxes. The role of the architect has transformed considerably: marketing ventures have taken over the architecture and the emphasis has been placed on creating the most beautiful ornamented box in which the interiors and exteriors need not necessarily bear connections. This movement toward market-driven environments is manifested in cities such as Las Vegas, where we experience a bombardment of neon signs and superficial, ornamented boxes, aptly termed by Venturi as decorated sheds.

Contradicting this anxiety of constructing decorated sheds over the mechanization of human life in industrial society, there is a sense of imaging the projected future which celebrates new architectural paradigms that industrialization promises society through technological developments. Industrial society emerged simultaneously with modern science and technology, with each historical development driving the other. As Marshall McLuhan aptly stated, “everybody (mankind) experiences far more than they understand. Yet it is experience, rather



Fig 4.17: Recreating Venice in Las Vegas. Source: Brandsapes pg 199.

than understanding, that influences behaviour.”(2007) This realization is not a novel trend; on the contrary, it is an ancient tradition, because architecture’s ability to mould and create identities through the use of visual and emotional stimuli has constituted its value throughout history. The over abundance of visual effects in our environment parallels the downward spiral in cinema described above. This cinematic overdose of superficial stimulation, at the expense of realism, that is at the core of production design is the paradox resulting from achieving both stylization and realism. At the same time this trend negates essential values that would provide a legitimate vision of reality and urban environments.

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The desire to produce comprehensible urban realities in cinema and, likewise, to develop cognitive and experiential atmospheres in architecture, requires the integration of narrative as a framework for structuring visions that present a holistic approach to the development of urban and architectural communities. However, science-fiction cinema has been plagued over the years by the inability to dream up new dreams. Aside from the occasional independent or low-budget production, for the past thirty years or so, science-fiction cinema has been the property of Hollywood, transforming the genre into a cash generating system. Studio research indicating that dystopia sells better than utopia and that destruction and explosions are more profitable than drama and reflection have driven the genre's output. As a result, the city no longer dreams and hopes in contemporary science fiction cinema. Instead, it lies, oppresses, destructs, simulates and provides its inhabitants with a variety of alternate pseudo-realities from which to choose.

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Cinematic Choreography of Architectonic Space

Negating Commodification of Architecture

Architecture today has come to resemble the cinematic cheap thrill demonstrated through special effects and trifling visualization. It may assume a provocative quality but lacks



Fig 4.18: Creating Sci-Fi environments in urban landscape commodifying the spectacle. Source: <http://cache.gawker.com/assets/images/8/2009/12/dubai-waterfrong-lloyd>.

character and value; instead, it is portrayed as a commodity to drive consumerism. Architecture and cinema today are merely commodities that are irrefutably consumed by the masses. The design of the built environment has been increasingly “engulfed in and made subservient to the goals of the capitalistic economy, more specifically to lure customers.” (Saunders. Ed, 2005) The strategy today is to commodify the environment as a market driven spectacle for the users. Spectacle in this context is the primary manifestation of the commodification or



Fig 4.18: Sparkling and flashing architecture of Disneyfied Landscapes. Source: <http://www.de-todo.org/12065/los-10-lugares-mas-visitados-a-nivel-mundial.html>

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commercialization of the built context, intended to seduce consumers to a stimulating, quickly experienced gratification. Due to the dominant commercial culture, the manufacturing of immediate sensual and stimulating environments is more prominent than the implicit reflective and evocative spaces. These new landscapes are summarized by Fernandez-Galiano in two words, “sprawl and spectacle: a physical environment cluttered with construction and devoured by the media.” (Cited in Saunders. Ed, 2005, p.2). These constructions are reconfiguring our sense of space. Sprawl and spectacle have taken over the language of architecture as a potent force primarily geared to generate a quick turnover of profit.

The Infantilized Disneyfication of everyday environments and objects is responsible for the appearance of the spectacular city. Therefore, the role of architecture in producing, reproducing and mediating the spectacular city and the forms of social life therein is informed and dominated by spectacle. Debord's theoretical stand point concerning the society of the spectacle describes the spectacle's representation and commodification of the urban architectural space. He argues that the city has transformed into a spectacle and presents itself as such.

One of the ways of negating the production of commodified environments and the rapid change of the architecture profession into a business venture is to embrace simple aesthetics geared toward creating meaningful spaces without the use of flashy lights, signs, or ostentatious materials. By embracing the psychological, social, and human aspects of architecture and shunning a quick and superficial gratification of soulless and bleak environments, a symbolically replete and meaningful quality of space may be achieved. The implication of meaning in architecture may be subjective but it is one of the ways of concretely asserting how it may be experienced, understood, and presented. Architecture's meaning is dependent on the setting of elements in space that are composed as a system that profoundly impacts the senses and intellect. This can be aided by completely negating the present day concept that posits environments as abstract, commodified visual spectacles by creating significant, expressive, and evocative spaces.

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The Architecture of Consumer Culture:

The rising popularity of flashing screens and fleeting images has turned the field of architecture into a service of spectacle. Neon architecture has been integrated into the accelerated consumption of images; this development has altered the meaning and symbol of



Fig 4.19: Manifesting the spectacle in built form. Source: Brandscapes pg 68.

architecture form, which is perturbing. The emerging systems in mass media define the architecture that is currently being produced. The domination and alienation that hindered any attempt of producing an emancipatory mass media was the result of social life being mediated through commodity relations. The extension of commodity relations had found its way into all aspects everyday life and culture. The cause-effect chain between this and the transformation of the urban landscape was inevitable and hence difficult to control. The consumption-driving tendencies of emerging technologies, which is evidently changing the fabric of the built world, has been accommodated to interact with these new flows of media and electronics, which are, in turn, structuring our environments. Therefore the term commodity takes on a cultural and social meaning because it changes the way we view and engage with our surroundings. Not only does the commodity become the environment we engage with, but as Walter Benjamin puts it, the change of the spatial object in modernity impacts the overall language and experience of architecture.

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Towards Architecture of Meaning:

Architecture requires meaning in order to become a valuable element of culture. “The essence of the architectural form derives from its semantic layers, sign, symbol, meaning, visual communication, material communication, architectural form, and perception of architecture.” (Krenz, 2010) Meaning is established through the integration of value systems in the message a building communicates to its users; it is the signification and implication that this system of elements has on space through visual and symbolic implementation. Thus, the creation of the

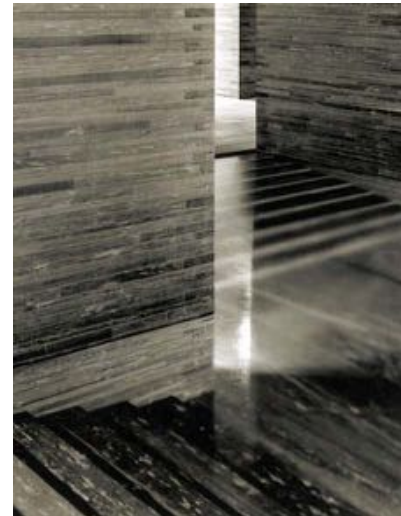


Fig 4.20: Thermal Bath Vals by Peter Zumthor. Source: Atmospheres pg 28.

architectural form has been of interest to many. Architecture touches our lives, shaping the world we live in. However, we are often still unable to understand or comprehend the buildings that surround us. To explore architecture is to examine the very essence of its creation, opening up its interiority to our inspection and revealing what lies behind a design.

While there is a significant amount of creating superficial environments today, in recent times there has been a tendency on the part of architects to recognize the importance of symbolism and meaning in architecture. Meaning emerges from the signification of use and embodies symbolically coded messages in its function. Meaning has become important to the user in the experience and comprehension of the urban environment. The challenge today is to include building elements that present meaning and to represent more corporeal and ethereal environments.

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Fig 4.21: Peter Zumthor. Source: Atmospheres pg 24.

Over the years renowned architects have recognized the importance of creating meaning through architecture. However, it is essential to understand the particular nature of meaning in architecture today because the practice is slowly declining and becoming replaced by the creation of flashy, superfluous environments. Meaning is an integral component in determining what constitutes and establishes a building in the realm of architecture. It is one of the essential factors that defines the nature and attributes of thoughtful and evocative spaces. Architecture without meaning is equivalent to a space devoid of users.

Synthesis:

This chapter charts the development and transformation of the cinematic apparatus as a technological tool commenting on built and human conditions. It frames the built space as an artificial construct in nature and extrapolates the mental realms of the user and spectator. The ideas presented here demonstrate the architectonic quality of space in cinema, the choreographic ability of cinema as a construct, and the inherent physicality of space captured by its frame. The concept of spatial choreography is explained in this design thesis as a tool to generate or capture an essence of the human subconscious. The notion of imagery and movement is tested to create a provocative environment or cluster of environments narrating the effects of space and conclusively representing it in built form. This chapter emphasizes the negation of the current trend of commodified environments and rejects the visually seductive but shallow environments, supporting instead the creation of meaningful, evocative, and potent spaces.

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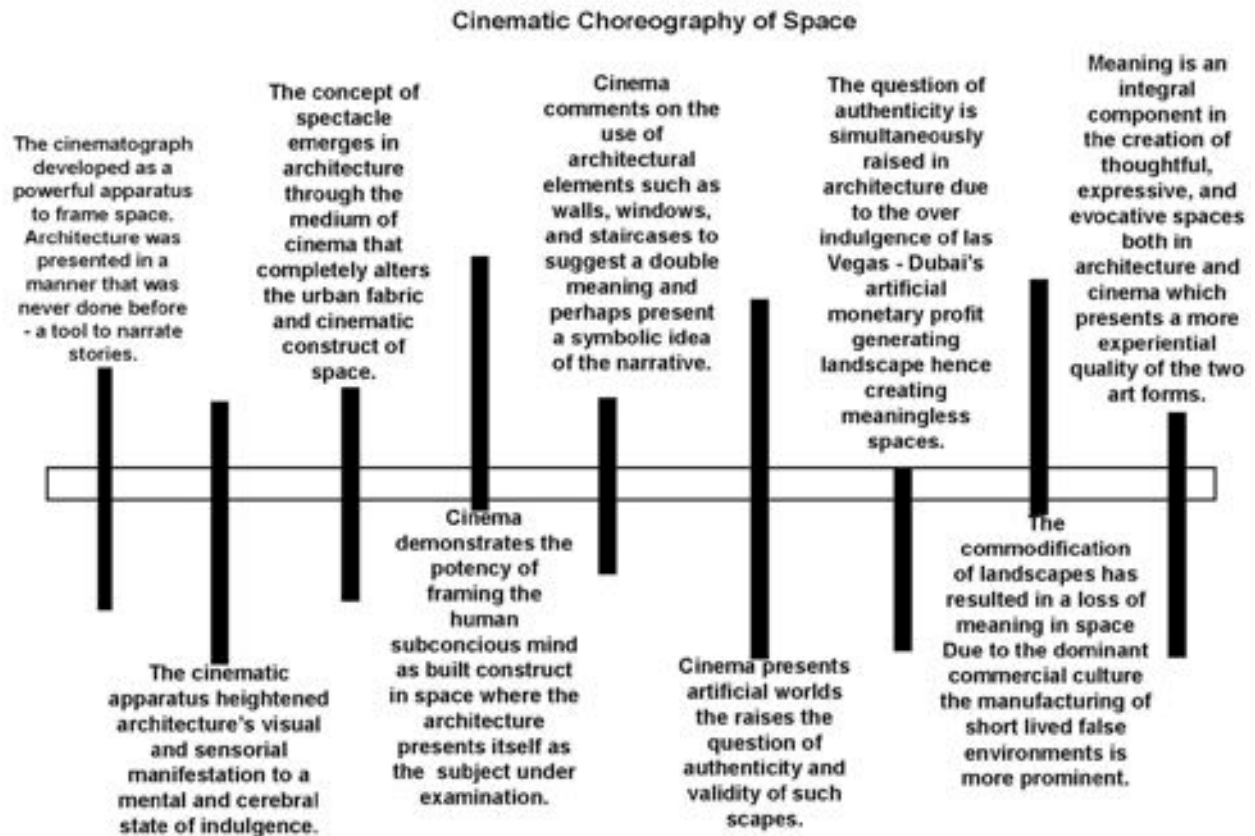


Fig 4.23: Charting the development of the cinematic apparatus.

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Chapter 4:

The Promenade Architecturale – Metaphorical Representation of Movement

Introduction

The concept of a space-time continuum has intrigued and preoccupied man since time immemorial. Throughout the history of civilization, there has existed a constant attempt to concretize and manifest the relationship of space and time through the representation of movement. This practice eventually transformed into Architecture, which, as we have seen, manifests itself in built form as a spatial and temporal art of movement and ritual.

The temporality of space has been represented and analysed through several different concepts and techniques. “Promenade Architecturale” is one of the concepts driven by Le Corbusier’s fundamental principles. (Samuel, 2010) The concept is a metaphor for procession and establishes movement and sequential progression as integral notions of spatial perception and experience.

By definition, “promenade” is either the process of moving through space or a space which denotes or implies movement. Therefore the “promenade architectural” is predicated on movement and sequence. The conceptual premise here is rooted in landscape architecture and emerges in space as a narrative device that positions around itself places of transition and transformation. It not only provides vantage points from multiple views as opposed to a single view, but it also engages the user in a spatial experience as they move through it.

One theoretical premise of this design thesis is to investigate the concept of the promenade as a ritualistic and processional device which is derived from the mythical and metaphoric representation of the labyrinth. It will be important to note the significance and symbolism of the labyrinth and to apply that knowledge to the promenade architecturale. Essentially, this design thesis will demonstrate the representation of movement and sequencing in regard to cinematography and the choreography of space, which refers the passage of time and progression experienced in space. The technique applied is to demonstrate the tangible qualities of the promenade architecturale in contrast to the cinematic promenade, which is a cerebral and intangible device projecting a psychological experience through time and space.

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Concept of the Promenade Architecturale

The promenade stems from landscape architecture and involves a circulatory system of connections through space. It provides the observer multiple vistas and areas of contemplation in a constructed order. Its historical evolution is also rather interesting, as it frames the



Fig 5.1: Blenheim Palace. Source: http://wapedia.mobi/en/English_garden

development of landscape architecture. The idea of promenading is embedded in history; for instance, movement through a sequence of environments is evident in funerary structures of Egypt and Graeco-Roman temples dating back to classical antiquity, as exemplified by the Parthenon. In English and French gardens, the concept of promenading was adopted and manipulated to form sequential zones built to stimulate constantly varying states of mental and sensorial sensation. Robin Middleton described the concept of promenading through a picturesque French garden in 1770 as an emotional and evocative stimulant that changes the notion and experience of the viewer in accordance to the altering views of the landscape and the altering landscape itself. The pleasure of meandering through these



Fig 5.2: English Garden. Source: http://yournestdesign.blogspot.com/2011_02_06_archive.html

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romanticised and idealised landscapes of fantasy and imagination provided the observer with an empowered sense of self derived from the transformative qualities of nature and the landscape. (Moulis, 2005)

The morphology and geometry of landscaped gardens was altered in different phases in history beginning with a focus on ideal representations of formal and geometrically ordered spaces and later adopting a more sensorial and fluid connection of space through each station. This definition of space, as explained through movement, attaches an existential meaning to the promenade: it exists therefore one can experience it. The motion of promenading through space had developed into an understood experiential and conceptual order. That order was later adopted into architecture by Le Corbusier and established as an important theoretical basis for most of his work, as exemplified in *Vers Une Architecture*.

The notion of movement and the experience of the picturesque English landscape transformed in the 18th Century into the artificial reconstruction of the natural environment. This new approach offers itself as “the unknown and confronts us with the unforeseen.” (Schumacher, 1996) The promenade architecturale plays with this notion of anticipation and operates on the predication of seeing and being seen. It does this while playfully embedded in the familiar and transparent order of architecture which had already transgressed the unknown realm.

According to Patrick Schumacher (1996), the concept of the English, or French, garden emerged from the impulse to territorialize architectural space. It was regarded as an aesthetic revolution in the upper society of England and it concretized the sense of personal property by adding acres of flowing landscape that verified the power and authority of the land owner. Thus, the English and French gardens were the realm of the rich and elite of Britain and was marked by acres of sprawling landscaped gardens and palatial estates such as the Kensington Palace



Fig 5.3: Vernacular streets in Morocco. Source: <http://www.dailymail.co.uk/travel/holidaytypeshub/article-600435/Morocco-Souks-sir.html>

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and the Palace at Versailles, both reminiscent of the magnificence, supremacy, and splendour of Hadrian's Villa. The promenade is also evident in the vernacular and traditional architecture of North Africa and the Middle East, where walking on foot is regarded as an integral way of understanding and appreciating space. It is when walking, when moving, that one sees the ordering principles of the architecture unfold.

The Promenade Architecturale in Classical Antiquity

The origination of the promenade architecturale is evident from Le Corbusier's drawings and representation of the Acropolis in Athens, as well as the Parthenon, which epitomizes the quintessential notion of sequential progression. The promenade encircling and leading up to the



Fig 5.4: Panathenaic Procession. Source:
http://www.hydriaproject.net/en/cases/athens/acropolis_hill/importance.html

Acropolis is indicative of Athenian history and culture, with its winding path framing views to ancient temples and ruins that exist around the site. The promenade architecturale at the Acropolis is intrinsically ritualistic and aptly titled the Panathenaic Procession. This starts at the base of the citadel and meanders along the dizzying height leading to the propylaea, a monumental entrance vestibule that frames the Parthenon on its right and the Erechthion to its left, which is now hidden from view. The Parthenon dominates one's vision at the Acropolis but does not expose the routes leading to any of its two entries. While walking along this route one is confronted with the force and might the citadel represents and the sacred, potent nature of

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the positioning of the temples, both of which are influenced by the procession itself. It also takes into consideration the framing of shifting sequences as they appear and disappear, as well as



Fig 5.5: Le Corbusier's sketch of the Acropolis of Athens framing the Parthenon through the propylaea.
Source: Spiro Kostoff, *Rituals and Settings in Architecture*. (1995).

the changing faces of the temples. The temples of the Acropolis were positioned around the route of the Panathenaic Procession, “a ritual that occurred once every four years, [as a part of] the Panathenaic festival.” (Taylor, n.d.) Arriving at the Acropolis, the route appears to lead to a space to the left of the Propylaea, where two walls channel the wanderer onto a designated route leading to the temple of Athena Parthenos, the Parthenon. The other edge of this space is formed by the Erechthion, a smaller temple. The approach to the Parthenon is significantly ritualistic and empowering; as the observer progresses towards the temple the ground plane gradually ramps upwards and the walls leading to the entrance threshold gradually decrease in height, revealing the octastyle Doric columns.

The Notre Dame du Haut Chapel at Ronchamp, by Le Corbusier, appears to be

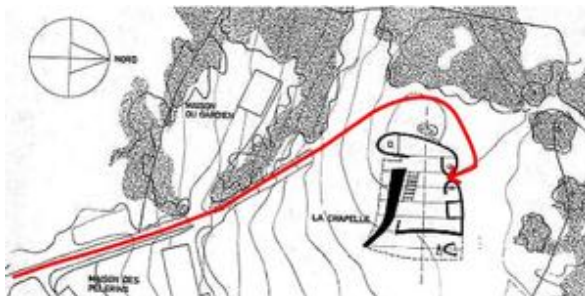


Fig 5.6: Procession at the Chapel at Ronchamp.
Source:

<http://educ.jmu.edu/~tatewl/LE%20CORBUSIER/18.corbu.ronchamp.plan.jpg>

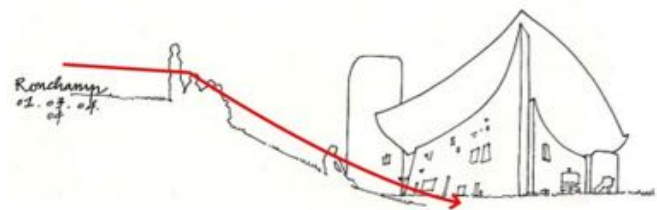


Fig 5.7: Processional Movement towards the chapel.
Source:

<http://educ.jmu.edu/~tatewl/LE%20CORBUSIER/18.corbu.ronchamp.plan.jpg>

fashioned after the Parthenon in terms of approach. It is situated as an object in space on a higher ground plane that is accessible through a circuitous route promenading along the site. Le Corbusier conceived of Ronchamp as a three-dimensional work of sculpture to be viewed from

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all sides and intended visitors to follow what he described as a promenade architecturale in order to experience a series of sequential events when approaching the building and entering its spaces. For Le Corbusier, the concept of shifting views, changing scenes and creating an architectural procession was heavily influenced by Greek and Mediterranean architecture. This technique of staging and framing experiences and views was employed in the design of the chapel at Ronchamp.

Le Corbusier's Icon of Promenade Architecturale – Villa Savoye

The Villa Savoye is the iconic masterpiece of modernity, firmly establishing Le Corbusier's theoretical concept of the promenade architecturale. The promenade architecturale emerged as a reaction against the industrial language of conveyor belt architecture and the musings of modular mass production. Le Corbusier's seemingly unequivocal idea of an architecture of movement is best exemplified by his icon of modernity: the Villa Savoye. This was a built experiment in modern architecture that emphasized the space-time continuum. The sequence of progression commenced at the entry to the site and moving through the interior of the villa is inconspicuously labelled Promenade Architecturale.

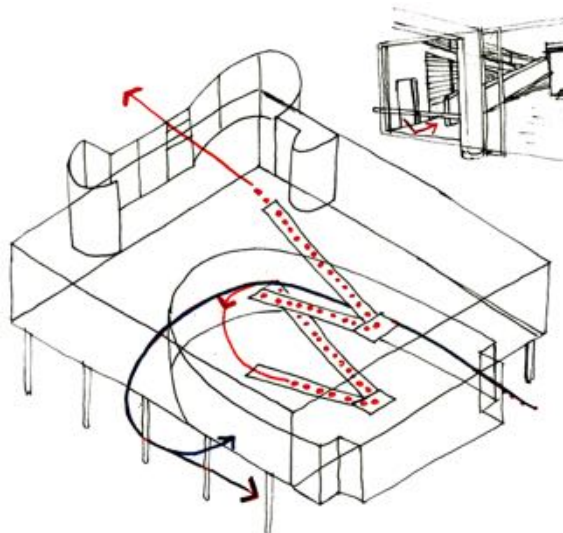


Fig 5.9: Indicating the promenade as a binder.

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According to Schumacher (1996) moving in the Villa Savoye is analogous to promenading through a park, landscape, or urban environment, which can leave the owner feeling as a stranger in his own home due to the shifting, altering, and changing notion of space. The above statement is contested by suggesting that it is the shifting and changing views of the spaces that lead to discovery and mystery of the promenade's role as a spatial binder. Rather than alienating and isolating the house from the owner, the building would be explored as a signifier, giving signification to movement in the architectonic space. In this case, the observer's pathway through built space becomes an essential element of navigation, encountered as a sequence that unfolds before the eyes of the observer as they gradually advance through the structure.

The villa operates as a combination of spatial sequences merging across shifting levels of the planes that are sliced through by the promenade. The promenade essentially constructs a landscape-like quality which is contained within a Cartesian envelope, thus clearly and objectively defining the building, as an object in space. It is only within the envelope that a spontaneous movement unfolds in space, irrespective of the ambiguous exterior shell of the Villa. The journey of the promenade in Villa Savoye begins from the road and incorporates the essence of the industrial revolution by designing for the vehicle, the quintessential symbol of movement and modernity. The car is an integral component in his architecture and signifies the machine age, thus symbolically incorporating the notion of promenading into a mechanised component.

The idea of the promenade in its simplest form is a point of view; however the meaning and representation of the promenade in the work of Le Corbusier is not simply reduced to a single view. It is purposely indirect and accidental, emphasizing the space-time dimension in architecture and the relationship between the development of the promenade architecturale and the notion of mobility. Finally, Le Corbusier's promenade has a poetic and lyrical quality that is not only limited to offering multiple viewpoints to pedestrians; it also operates as a mechanism within the geometric volume, stitching spaces together as a generator of events.

The Labyrinth as Promenade Architecturale - Metaphor

The labyrinth as promenade is an interesting analogy because the labyrinth is so rooted in the mythical realm. A labyrinth is a path or course leading to a destination which is the centre

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Fig 5.10: Labyrinth Pattern. Source: P, Conty. (2002) pg. 14

and there is an element of mystery and ambiguity associated with it. This is manifested in its physical structure and the ordering and succession of spaces produced by each turn. The labyrinth is said to be “one physical structure that simultaneously incorporates order and disorder, clarity and confusion, unity and multiplicity, and artistry and chaos.” (Doob, 1990) The labyrinth is primarily perceived as a path, a linear but circuitous passage to a goal; as a pattern, it is said to describe both the linearity and the architecture of space and time. Metaphorically speaking, the labyrinth suggests certain features associated with its mythical narrative; for instance, it suggests circuitousness, disorientation, ordered chaos, intricacy, complexity, and the anticipation of the unknown.

The labyrinth is likened to a promenade due to its close relationship to movement and sequential progression, as well as the apprehension and mystery of what lies ahead. The characteristic quality of moving through a labyrinth is analogous to the promenade architecturale; both are halting, episodic, and intermittent. In the labyrinth, each turn requires a pause for thought and decision. In the case of the labyrinth it is the nature of its construct and projection in space that causes these obstacles and occurrences to take place. On the other hand, the promenade may predicate similar conditions, influenced by a narrative structure, to generate a similar cause and effect relationship.



Fig 5.11: Stonehenge – architecture ritual. Source: S, Kostoff. (1995).

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The symbolic diagram of the labyrinth can be discerned in the megalithic monument Stonehenge. There is an interesting correlation between the labyrinth and Stonehenge when you consider the potency generated by a simple rock formation, evoking as it does a mysterious and elusive experience of space. The myths of the labyrinth and Stonehenge suggest the existential idea that events and rituals can be constructed around the configuration and formation of monuments. The relationship between the labyrinth and Stonehenge reveals the enigmatic geometry and metaphysical quality evident in both structures. The difference is that the labyrinth is born out of the myth whereas myths, or contrasting narratives, are developed in the case of Stonehenge. Still, the essence of the promenade is relevant in both structures, in which the environment is purposely revealed and concealed, thus framing the ritual of the user.

Tracing the Ritual in the Promenade

The diagram of the labyrinth belongs to and originates from ritualistic practice; indeed, it was born from and embodies a myth and is thus inherently ritualistic. The existence of ritual depends on the construction and concretization of myth, symbolized by diagrammatic sources, dances, and incantations. Ritual is a part of the geometry and structure a myth acquires; it is designed to symbolise the meaning in space.

The geometric pattern of the labyrinth, the ritualistic procession, and the structure of the myth are intrinsically tied into each other. The sequence of pathways and turns represented by the circuitous path becomes “an allegory of life and its possibilities.” (Conty, 2002) Thus, the diagram of the labyrinth becomes a sign, symbolizing the unknown along each twist and meandering towards an objective which is the centre. This path indicates that meaning is born from an assemblage of signs that are transformed into one another; it also represents cyclical time. The promenade architecturale, meanwhile, with its own signification and influence of space, is an integral element in Middle Eastern, North African, and Arab architecture. The winding streets and meandering paths leading to hidden courtyards, the covered bazaars and confluence of streets navigating through leading to plazas and boardwalks along the sea evoke the essence of the promenade, depending as it does on a sense of mystery, discovery, and ambiguity.

The promenade architecturale signifies a purpose and rationality in built space, and is often designed as a ritualistic route that encounters transitional and pause spaces such as the “threshold, vestibule, space of inquiry, reorientation, and culmination.” (Samuel, 2007) Promenade, like the Labyrinth, plays with the concept of secrecy, obscurity, and the unknown.

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The promenade in many cases may symbolize a cleansing ritual, transforming walking into a ritualistic procession that dignifies the space through which it moves. The ritual, rhythm, and pace of the journey through space are epitomized in the architectural promenade, which combines the function of machine aesthetics with man, who is the primary user of the constructed state. The promenade is where, through ritual, modern man addresses his most important spiritual and material needs.

The promenade architecturale is mainly determined by the circulation route and most often takes the form of ramps, thresholds, bridges, corridor, vestibules, and stairs. In the Villa Savoye, the promenade links the different planes of the house through the ramp and staircase, thus defining the function of the space by means of movement and circulation. The ramp turns into a communication element that is integrated into the space, forming the structure's backbone and triggering a series of perceptual experiences. As a result, the promenade becomes a primordial element in the modern perception of space; it is the fourth dimension inherent in the promenade architecturale. The physical and symbolic importance of the ramp must also be noted, as it takes on a primary role as an element of communication. The ramp not only vertically connects various planes and spaces but also serves to summarize the geometry and natural surroundings of the structure.

The Promenade Architecturale in Architecture

The promenade architecturale is evident in the works of other renowned and prominent architects, such as Tadao Ando's Garden of Fine Arts, in which spaces are revealed to the observer through an experiential journey of intersecting ramps and bridges that are presented as a path network system that unfolds through space. The journey is exposed through the framing of events and through the changing and overlapping orientation of paths and walkways, which provide a dramatic combination of visual angles.

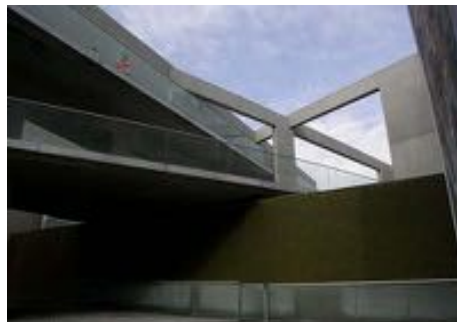


Fig 5.12: Tadao Ando's promenade. Source:
<http://architecturalmoleskine.blogspot.com/2010/01/tadao-ando-garden-of-fine-arts.html>

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Another architect that was influenced by the Promenade architecturale was James Stirling. This is evident in his Staatsgalerie design in Stuttgart, Germany. He incorporated the sloping site into the design, forming an architectural promenade that moved the observer to the walkway and into the museum in an unobstructed flow. The promenade acts as a large sweeping gesture to the pedestrian street, inviting it into its interiority and engulfing the city in its construct.



Fig 5.13: James Stirling's Staatsgalerie. Source: <http://www.arch-times.com/2011/04/04/ad-classics-neue-staatsgalerie-james-stirling/>

promenade. The promenade winds inside and outside of the building, offering astonishing and marvellous views of the interior and exterior. Here the promenade operates not only as a visual stimulator but as a broader sensory motivator as well.

The Promenade Architecturale as a Cinematic Device

The promenade architecturale emerged as an expression of the modern age and made it possible to communicate the ordered sequence of a building in a way “similar to spoken commentary.” (Baltanas, 2005) The promenade serves as evidence of le Corbusier's desire to



Fig 5.14: Le Corbusier's promenade. Source: B, Colomina. (1996)

bind the spatial-temporal dimension and concretize it as an architectonic element. Beatriz Colomina shows how Le Corbusier's architectural promenade is produced by the images of the

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media in which it is portrayed. If the promenade architecturale can be metaphorically defined as a journey or a narrative that unfolds through time and space, then it is this quality of the promenade that is heightened by the frame and positioning of the cinematic device. The cinematic quality of the promenade functions as a device that stitches together a sequence of shots, producing a continuous view of space. It also introduces a temporal factor into the spatial dimension of the promenade by occurring along a chain of visual sensations that are triggered by progressive movement and allow the space to be fully comprehended as a whole.

The ramp, as a cinematic driver of promenade architecturale, permits an unimpeded ascent that enhances the unfolding of perceptual experiences in a space-time continuum. There



Fig 5.15: Tschumi's cinematic promenade. Source: http://onewaystreet.typepad.com/one_way_street/2010/01/index.html

is a ceremonious significance to the positioning and scaling of the ramp as a promenading device suggestive of a grand event yet to unfold. In “Architecture and Disjunction,” Bernard Tschumi mentions the cinematic quality of the promenade in relation to the Parc de la Villette and defines it as a fragmented spatial motion analogous to montage. The promenade architecturale emphasizes the dynamics of movement through space as a cinematic element, a series of frames organized in sequences to frame an experiential journey. The use of the promenade on the cinematic screen was tested by Russian filmmaker Eisenstein, who read buildings as if they were movie scripts, suggesting that architecture is cinematic. “Eisenstein also refers to the montage sequence in terms of a path and is significant for the development of the promenade.” (Samuel, 2010) It is the connection of this path to the space through which it moves that essentially creates the enigmatic quality of the promenade as a driver and generator of events that combines sequential and temporal attributes to reveal a cause and effect relationship.

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Synthesis

The promenade architecturale is demonstrated in this design thesis as a generator of events, it merely does not exist as a circulation device but explores the concept of time and space in its representational modes; at the same time it embodies the notion of ritual and belief. In this thesis the promenade is studied and analysed as a processional element existing and emerging from historical roots. This thesis also comments on the social and cultural implications this structure encompassed and maintained at the time of its realization. This chapter has traced the development and meaning of the promenade and the various forms and representations it has acquired, which continue to change and transform over time. It is observed as a mysterious entity in its own right, especially in the way it is conceived and the meaning it assumes. The approach here is to implement the operational and narrative qualities of the promenade architecturale as emerging from the site conditions, which begins to thread the processional and ritualistic qualities of space, defining movement and temporal progression in space.

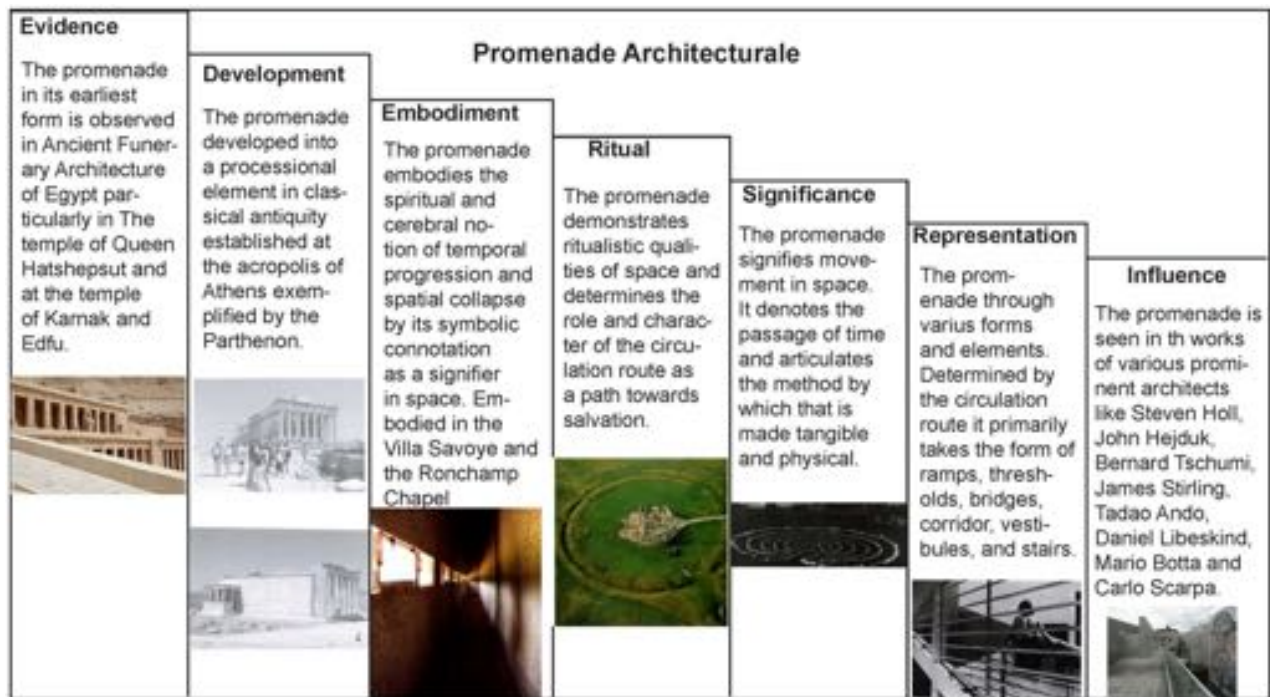


Fig 5.16: Tracing the development of the Promenade.

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Design Project Proposal

Objectives and Guidelines:

Summary of key objectives:

- To clearly represent the rationale and content of the narrative structure through the implementation of the design framework. This will involve distinguishing the nature of the building through program and site selection.
- To integrate aspects of the context into the outcome of the design response using the inherent features and programmatic relationships emerging from the site itself.
- To reinforce and/or explore the theoretical points established through the design's implementation.
- To select a site that has nodes of accessibility points for pedestrians, cyclists, and vehicular traffic and is visually interesting from different vantage points.
- To offer spaces for personal and emotional response through the integration of content and message of the narrative.

Design Item:

This Design thesis explores how narrative structures space and provides a certain quality, ambiance, and meaning to the built environment. The aim is to critique the cause and effect of the vestigial spaces created by highways and to develop a configuration of spaces that organizes events and episodes along a narrative route.

Problem Analysis

The constant bombardment of special effects in architecture and cinema has come to dominate the use of space in both disciplines. In architecture, this has led to a tendency to create a superficial barrage of images that are plastered onto building facades. The overindulgence of superfluous neon lightshows impacts a larger trend: the de-sensitization of the senses. That trend needs to be addressed, as does architecture's role in that de-sensitization.

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Performance and Behaviour:

Memorial Promenade for Fallen Soldiers

Due to the constant barrage of media displaying images and descriptions of war and war ravaged environments, a large portion of society has become apathetic to these conditions, assuming an indifferent attitude. The focus of this design is to commemorate and honour the soldiers who have sacrificed their lives, to pay homage to their relentless struggles in alien landscapes and to honour the military families that have endured such immense losses. The design explores the human conflicts that have shaped landscapes by profiling the human side of war.

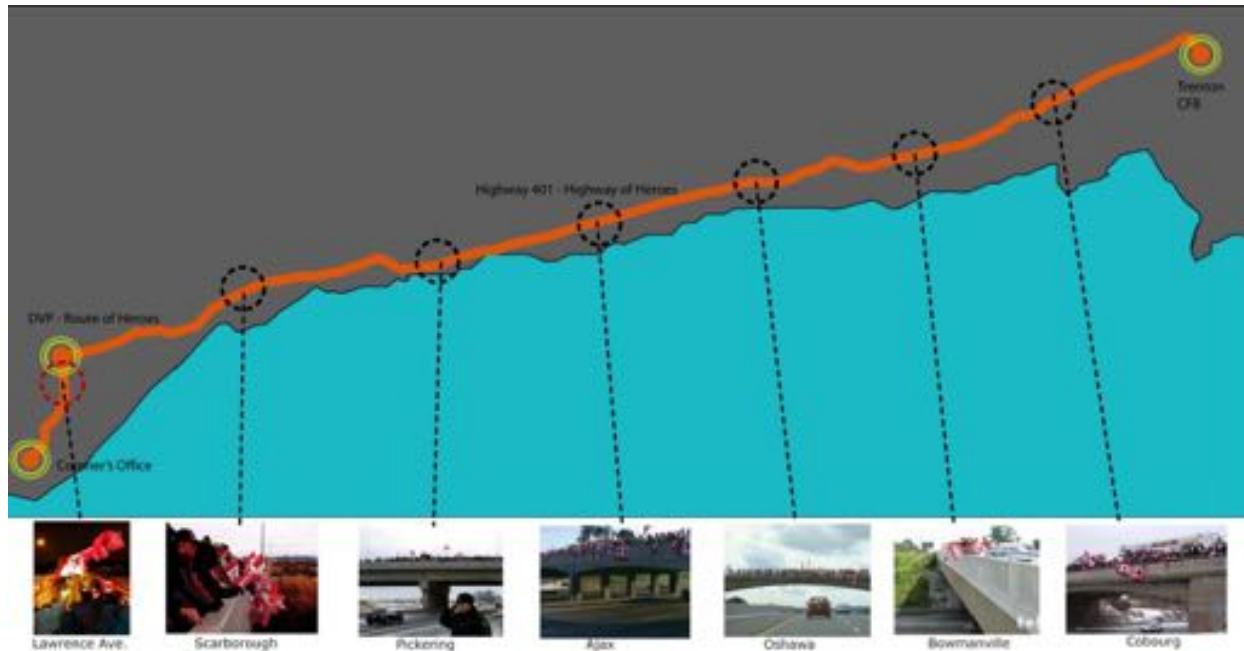
Design Guidelines

- The experience is intended to be potentially intense and emotional, and would be extended into the spaces around the building.
- The interior spaces have to be designed in such a way so as to direct visitors around and into the setting, and hence introduce them to the message, content and experience of the narrative.
- The external spaces would address issues of axis, approach and views as well as contextual relations and integration into the site.
- Integration and implementation of the design framework is crucial to realising the three conceptual notions and creating a legitimate and logical dialogue.

Location

The Highway of Heroes stretches along Highway 401 from the Canadian Forces base in Trenton, Ontario to the intersection of the DVP and Highway 401. The hearses then travel down the DVP, which is now designated as the Route of Heroes, and finally ends its journey at the Coroner's Office in Toronto, located at the intersection of Lawrence Avenue and the DVP.

Spatial Effects – Narrative Sequence in Architecture



Highway of Heroes:

The Highway of Heroes is a stretch of the Highway 401 between CFB in Trenton and the coroner's office at the Centre for Forensic Sciences in Toronto. (Leu, 2010) This stretch of highway was renamed the Highway of Heroes to pay homage to fallen Canadian soldiers in 2007. The city of Toronto dedicated the rest of the route, along the Don Valley Parkway, Bloor Street and Bay Street as the Route of Heroes in 2010. (N.A., 2010)

The congregation of people—often numbering in the hundreds—at the 65 overpasses along the length of the memorial route between Trenton and the coroner's office in Toronto has become a significant event and is considered a national ceremony. The Route of Heroes, announced in June, is the final segment of the Highway of Heroes; it runs south on the Don Valley Parkway, or DVP, to Bloor Street, west to Bay Street, then to the Coroner's Office located near Queen's Park. (N.A., 2010)

Moving along this route, one notices the directional signs on the Highway of Heroes and the Route of Heroes emblazoned with red poppies, which signify the route and pay permanent tribute to Canadian soldiers who have sacrificed their lives in foreign lands. The number of hearses that have travelled this route has now exceeded 146 and crowds consistently unite in a ritualistic fashion to commemorate the fallen soldiers during a repatriation ceremony at accessible spots.

According to Leu, "each overpass is different due to variables such as landscape, topography, adjacencies, span and the period in which it was built. A few are exclusively for

Spatial Effects – Narrative Sequence in Architecture

trains, but the vast majority is for motor vehicles.” (Leu, 2010) In the event of a repatriation and commemoration ceremony, these overpasses convert into “mourning grounds” (Leu, 2010) as throngs of people from different backgrounds and demographics come together to pay their tribute.

There is an emotional intensity in the air as the motorcade passes below and people stand in silence honouring the deceased soldier. This act of mourning has gained momentum and turned into an iconic and symbolic gesture, as more and more people come together to venerate the departed soldiers.

Site Justification:

The site selected for the design exercise is the Don Valley Parkway and Lawrence Avenue. This site was chosen because of its unconventional location between the city and suburban regions. Another reason for this selection is the topography of the site; it exists on a geological formation that provides interesting heights and views across the site as well as of the highway as it meanders through the valley along the Don River. The site is also accessible to a large number of people and is situated in a neighbourhood representative of Toronto’s diverse population. The site provides opportunities for experimentation that are unique to the way the site is formed and are not available elsewhere along the memorial route.

Design Premise

This Design thesis is an investigation of narrative structure in architecture, which is explored by situating the design amidst the landscape of the Don Valley Parkway and Lawrence Avenue interchange. The design premise is based on the narrative and procession of the Highway of Heroes and the Route of Heroes and, consequently, examines the symbolic connotation of the highway that results from the title. The design aims to reveal the iconographic and symbolic nuance involved in paying tribute to war martyrs and soldiers; this nuance is epitomized by the highway in the display of the procession and congregation of people.

The design is essentially a promenade, existing as a series of spaces under the Don Valley Parkway. It also takes into account war ravaged landscapes, the experience of war, reflection and contemplation, and regeneration. The idea is to show the impact of such conditions, so by its placement near the Don Valley Parkway, the design strategy comments on the various implications of context, culture, and the human condition. The design emerges from

Spatial Effects – Narrative Sequence in Architecture

the site as a commentary on built versus vestigial space, constructed elements versus natural elements, and the highway as a major circulation artery and generator of events.

The design is conceived as an organization of spaces narrating episodic sequences and recreating spatial effects of disorder, disruption, and confusion, which slowly fade into a sense of liberation, relief, and emancipation near the end. Designing a space that pays homage to the soldiers and their families would not only establish a narrative of their sacrifices in foreign landscapes but also frame the conclusion of their journey on the highway of heroes to the soldier's final resting place.

Design Questions:

What is the design trying to accomplish?

- The design hypothesis is to generate an experiential mapping sequence in space that illustrates/investigates the narrative of the Highway of Heroes and Route of Heroes.

What innovations/insights is the design demonstrating?

- The design comments on the iconic presence of the highway as a circulation system that creates vestigial and residual spaces.

What is the overall impact of the design in terms of status quo?

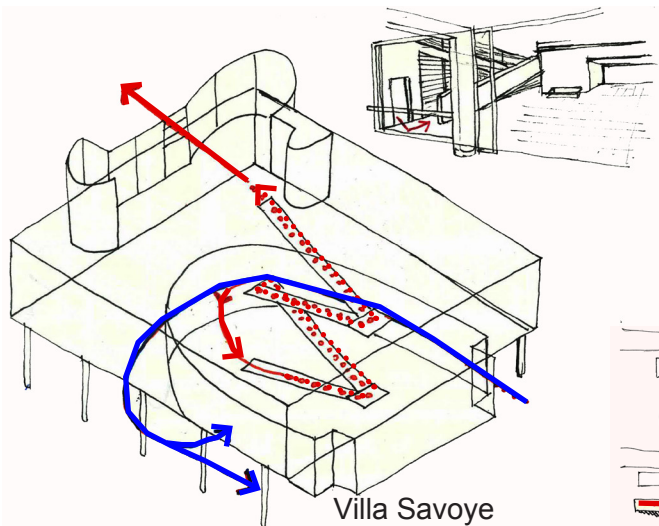
- The design creates a space of commemoration for all classes of society on the highway, transforming the in-between or isolated nature of leftover spaces into settings for contemplation, reflection, and the renewal of the human spirit, which is established in the narrative portrayed in the design.

Spatial Effects – Narrative Sequence in Architecture

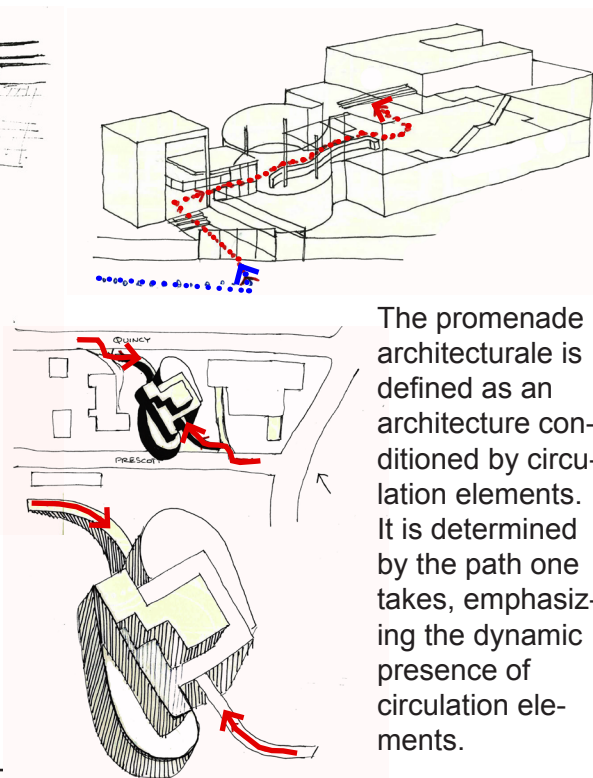
Design Methodology

Temporal Nature of Architecture

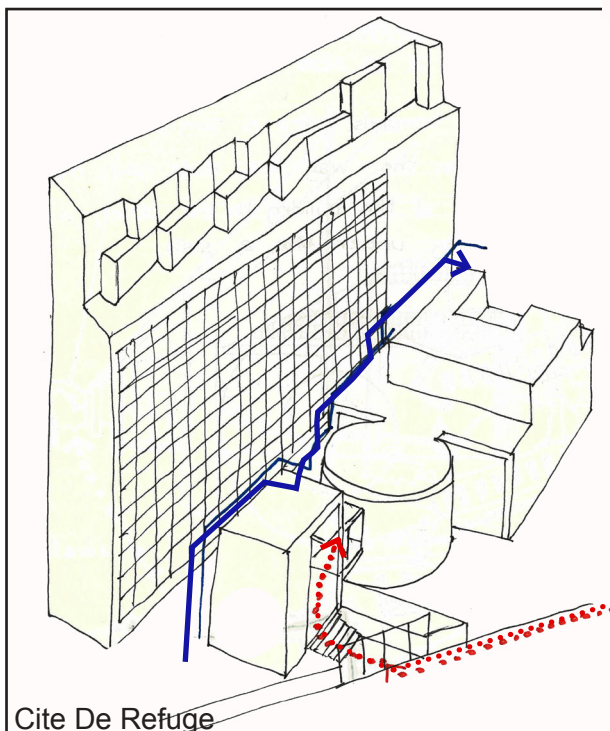
Corb's Promenade Architecturale



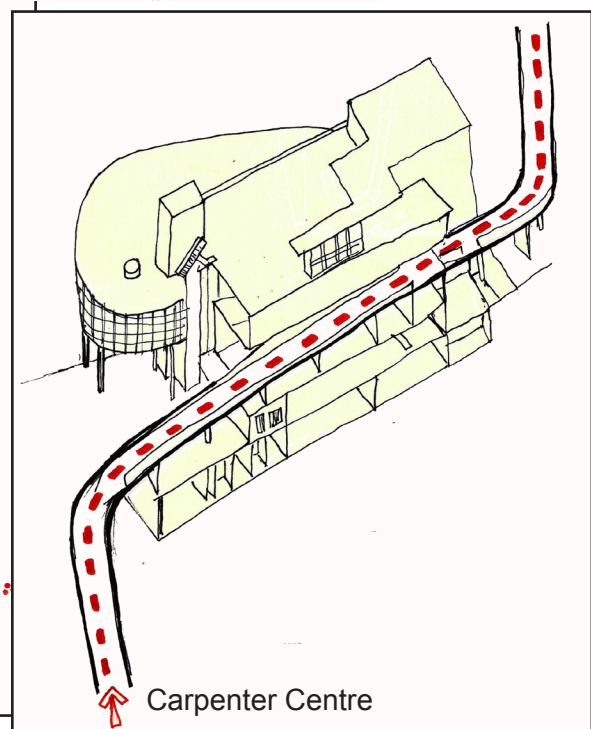
The ramp acts as the vehicle to represent the promenade architecturale. The location of the ramp provides contrasting experiences as one moves from confined enclosures to open spaces enhancing the sense of spatial expansion.



The promenade architecturale is defined as an architecture conditioned by circulation elements. It is determined by the path one takes, emphasizing the dynamic presence of circulation elements.



Cite De Refuge



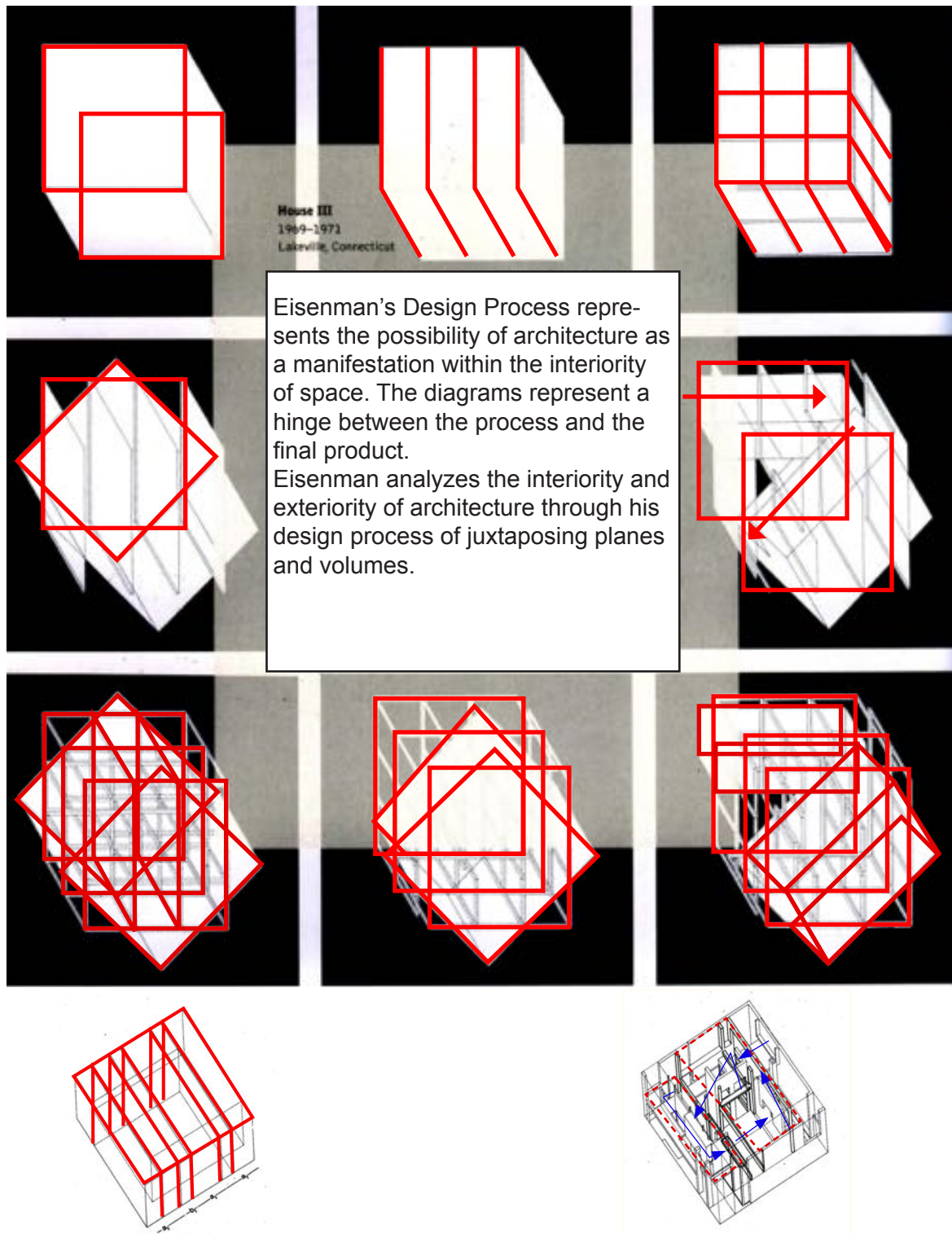
Carpenter Centre

Spatial Effects – Narrative Sequence in Architecture

Design Methodology

Temporal Nature of Architecture

Corb's Architectural Promenade

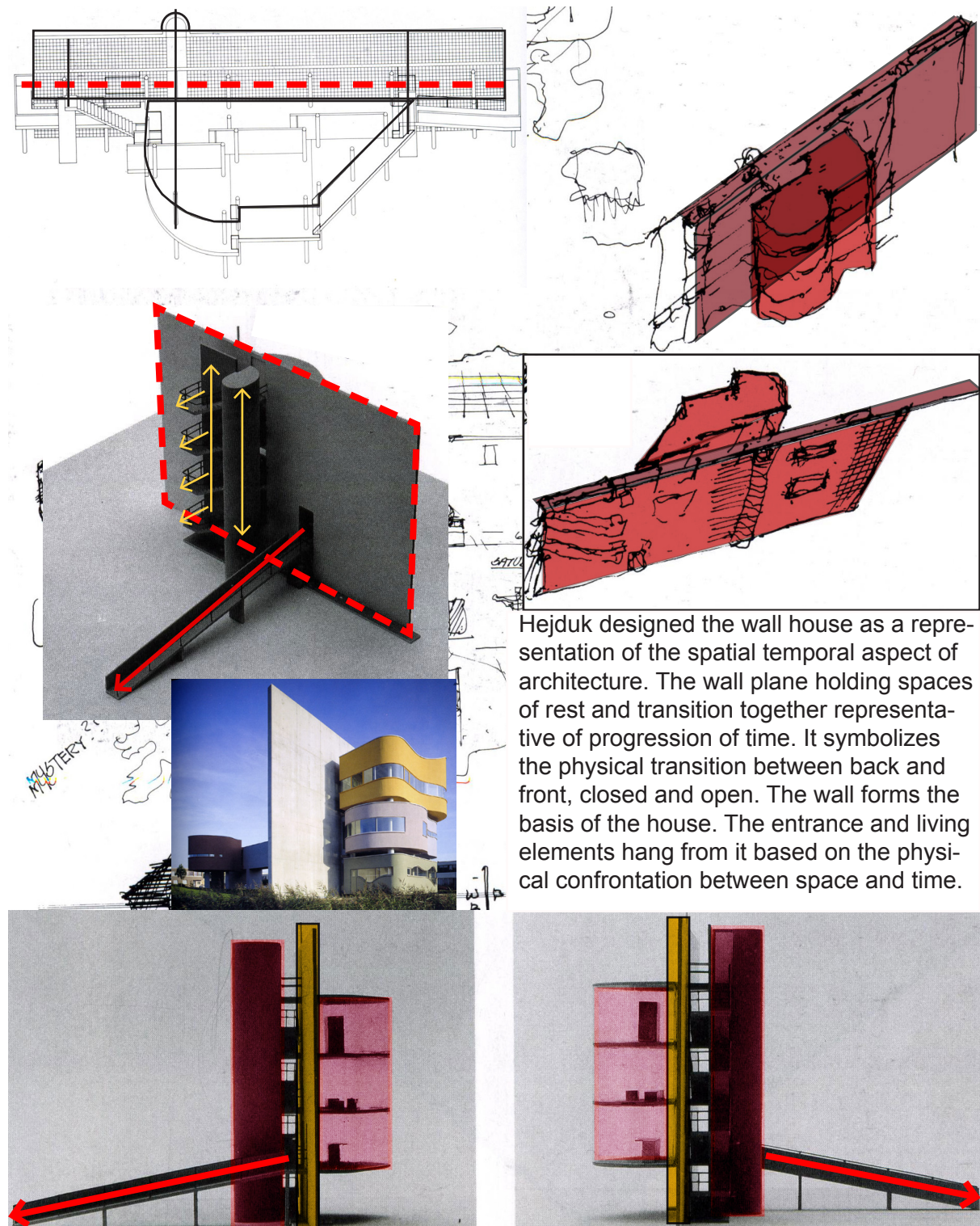


Spatial Effects – Narrative Sequence in Architecture

Design Methodology

Temporal Nature of Architecture

Hejduk's Wall House

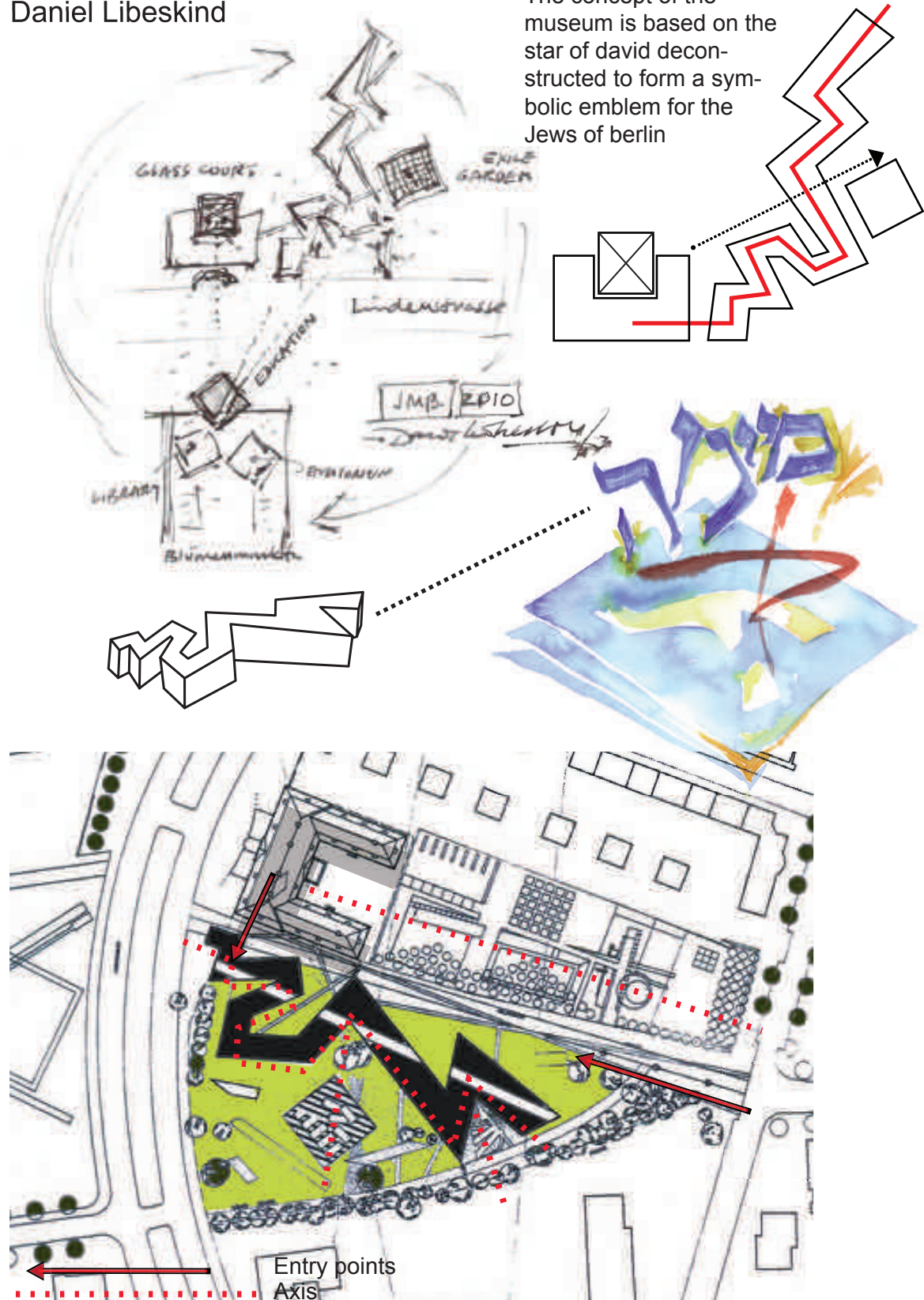


Spatial Effects – Narrative Sequence in Architecture

Case Study

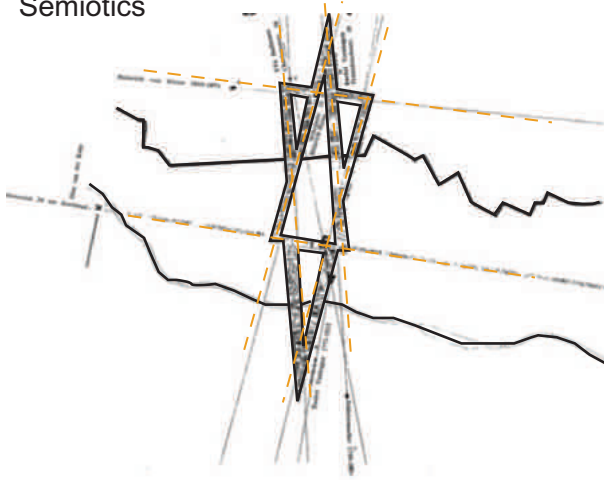
Jewish Museum Berlin
Daniel Libeskind

The concept of the museum is based on the star of david deconstructed to form a symbolic emblem for the Jews of berlin

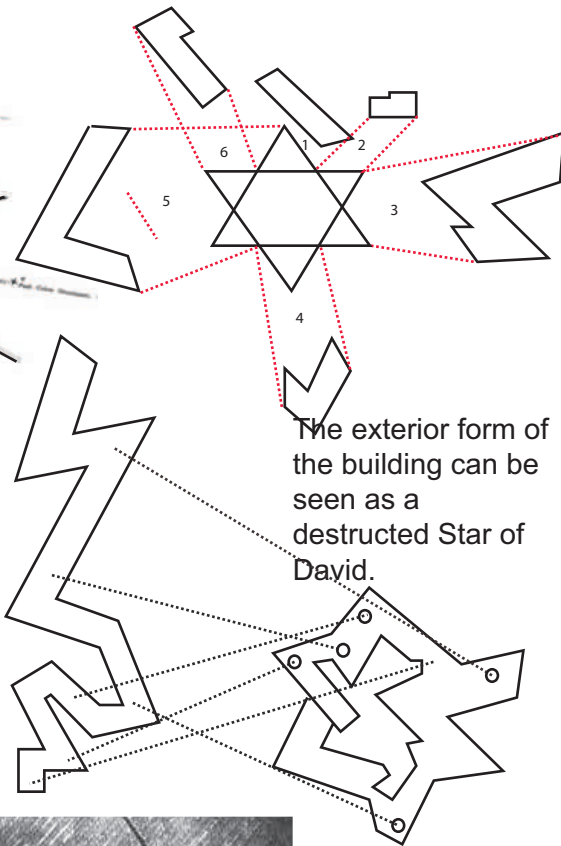


Spatial Effects – Narrative Sequence in Architecture

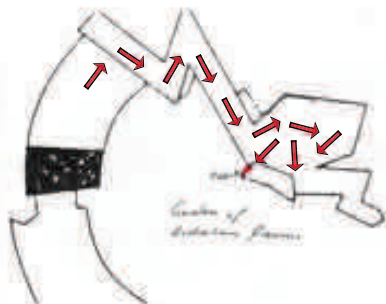
Semiotics



The museum represents the Star of David, which is drawn through a connecting address point in the city, creating a Star of David that is unique to Berlin.



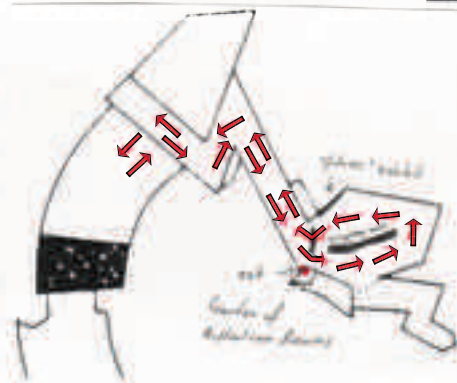
The exterior form of the building can be seen as a destroyed Star of David.



a. Model of visitor journey as anticipated by the architect.



Model of visitor journey as anticipated by the architect.



b. The creation of the current gallery plan

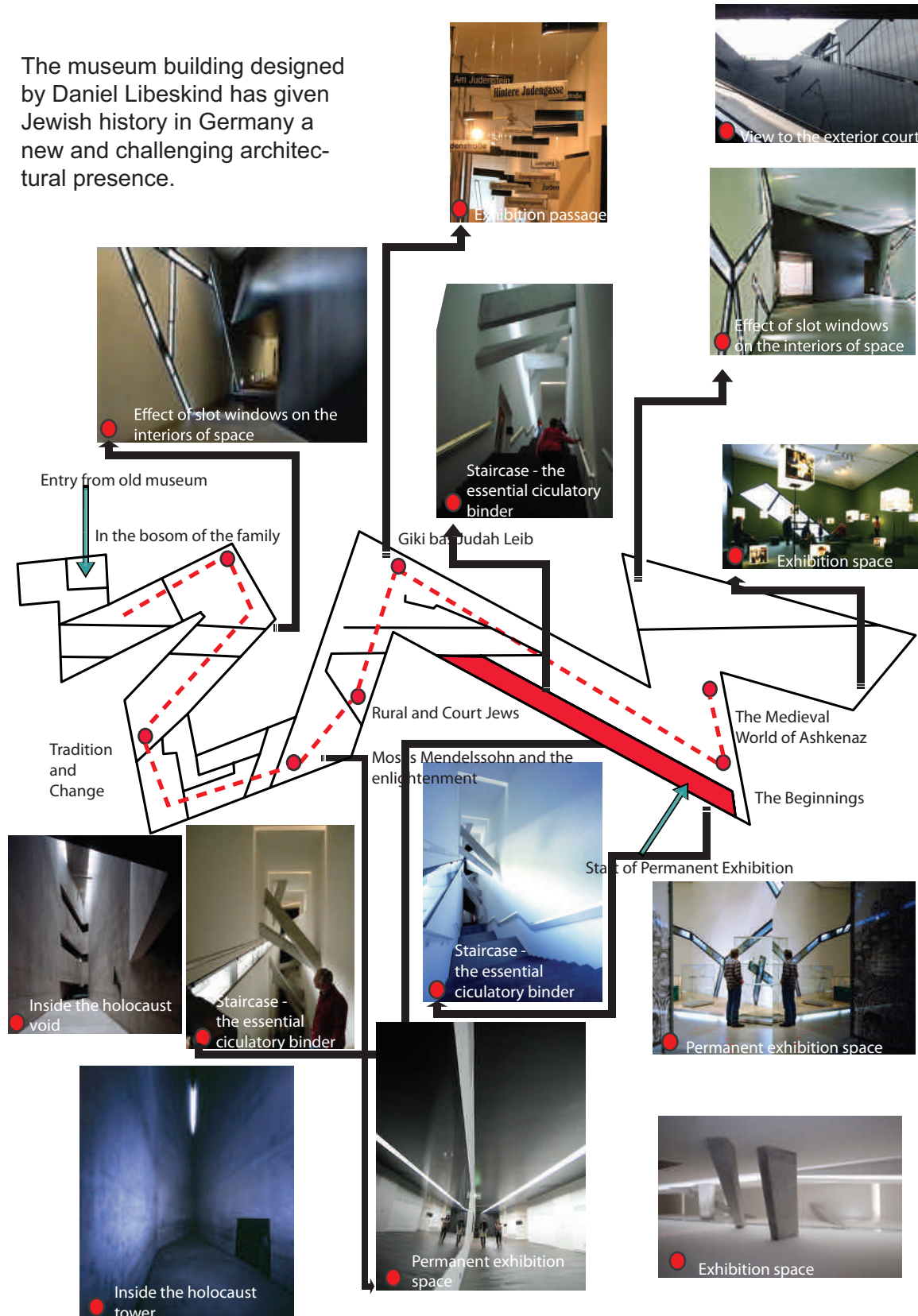
Curation of the current gallery plan.



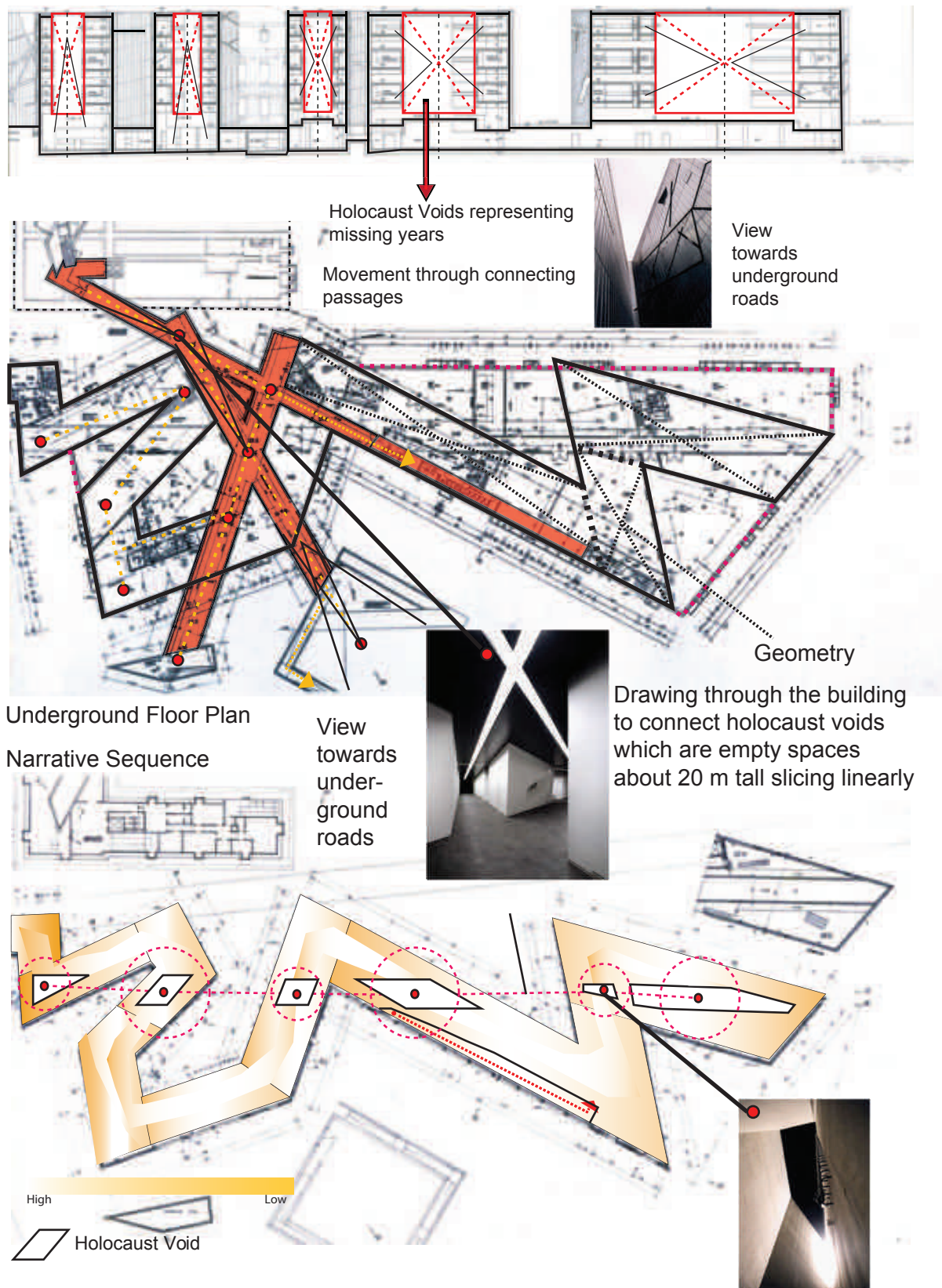
Spatial Effects – Narrative Sequence in Architecture

Cinematic Choreography

The museum building designed by Daniel Libeskind has given Jewish history in Germany a new and challenging architectural presence.

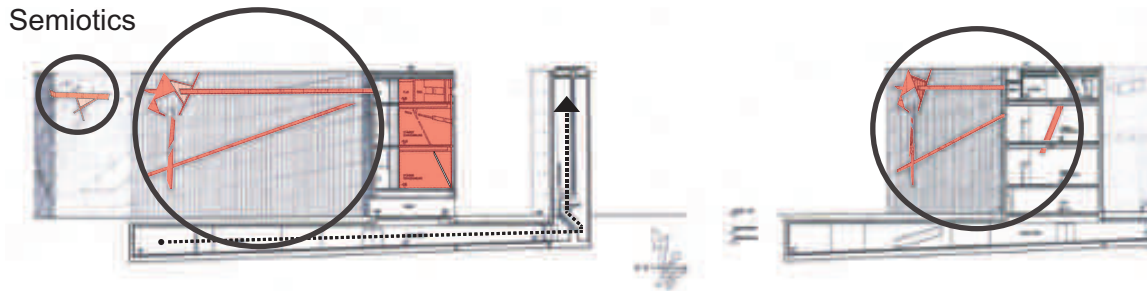


Spatial Effects – Narrative Sequence in Architecture



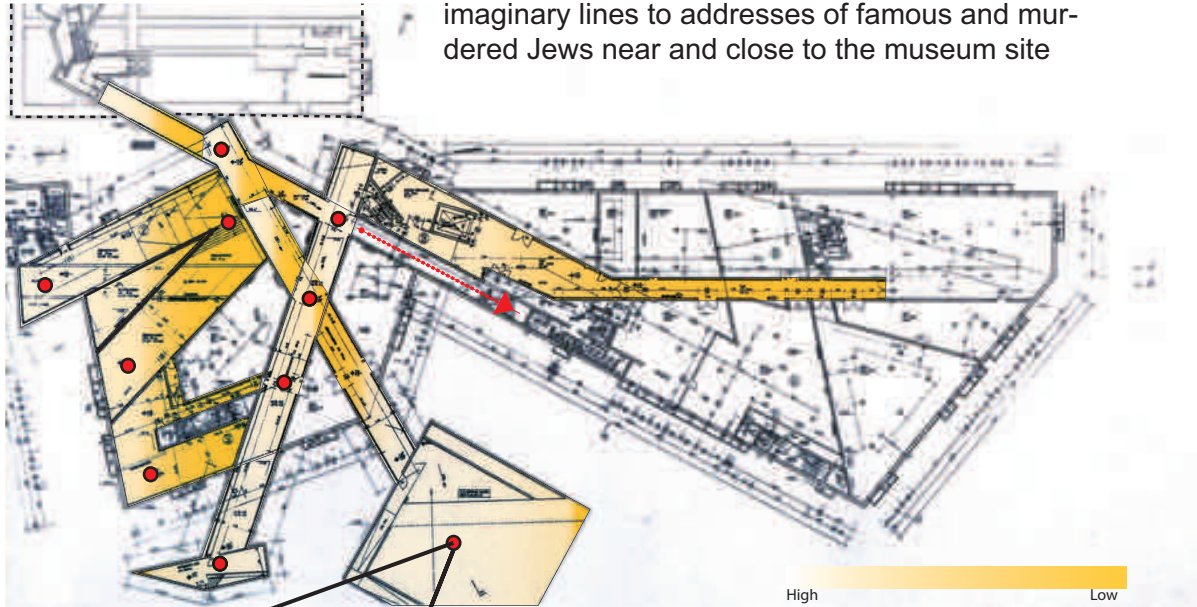
Spatial Effects – Narrative Sequence in Architecture

Semiotics

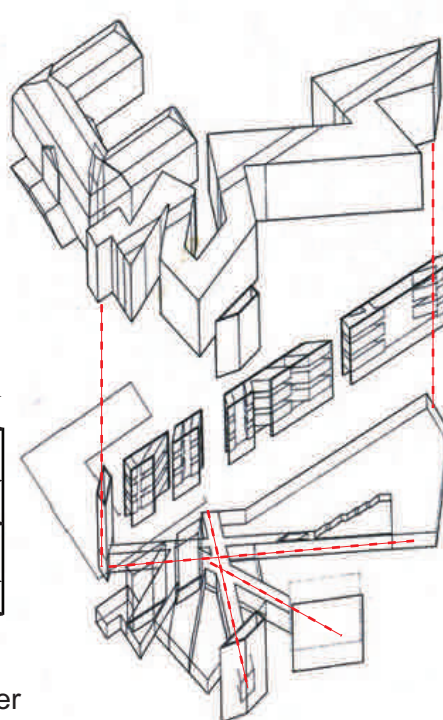
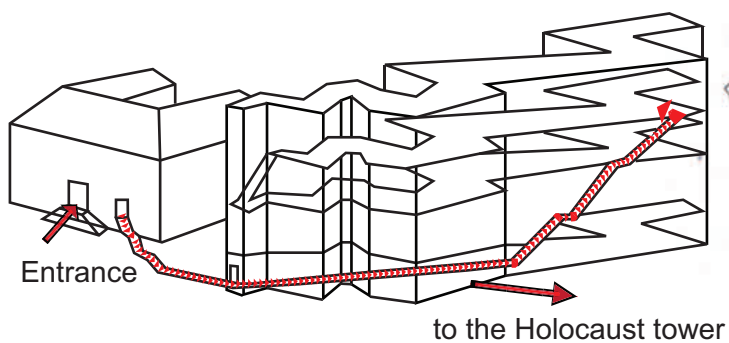


Narrative

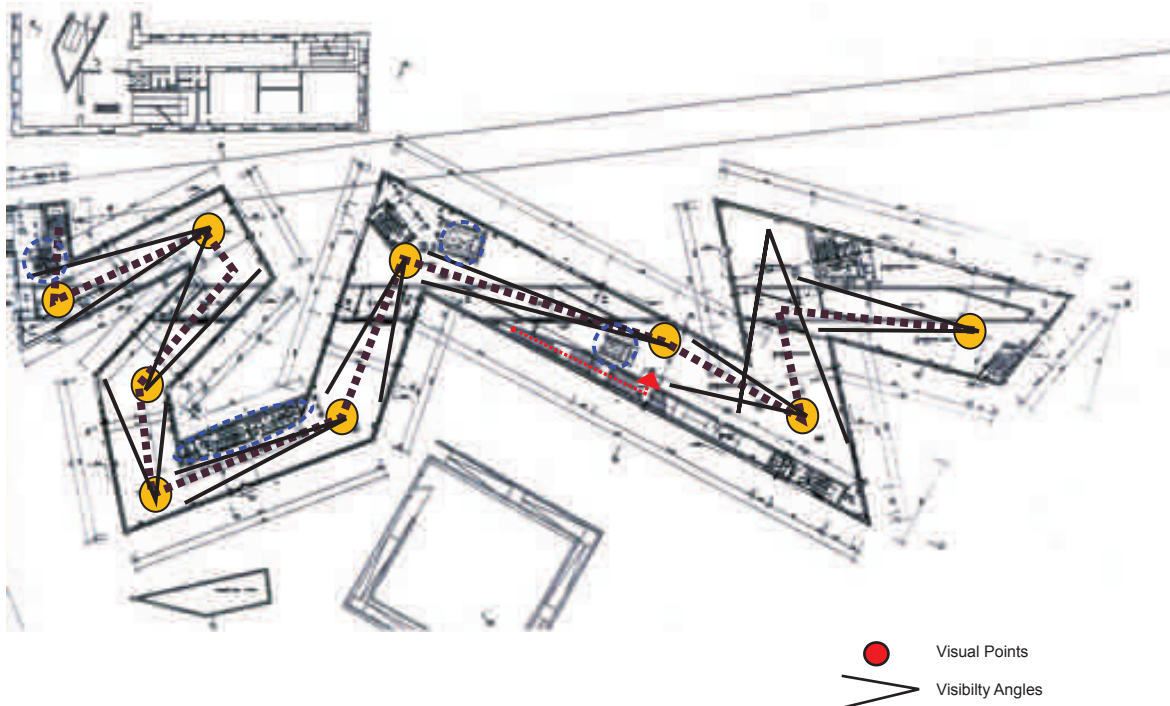
Windows and cut-outs based on and connecting imaginary lines to addresses of famous and murdered Jews near and close to the museum site



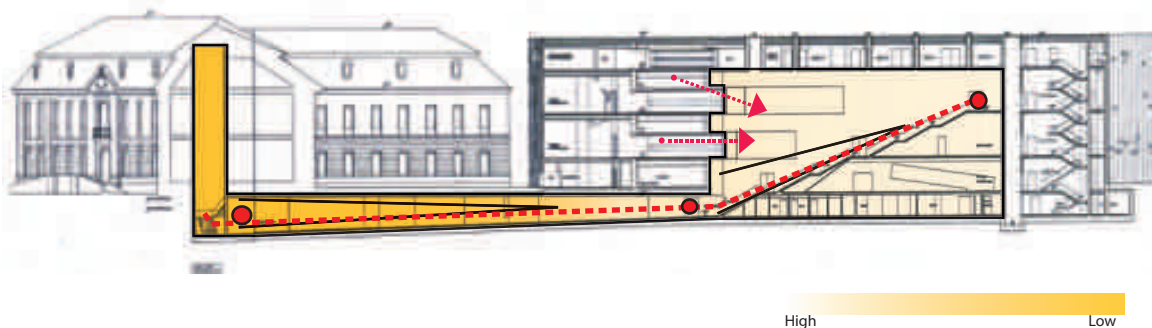
View of the Axis of Exile and through one of the paths



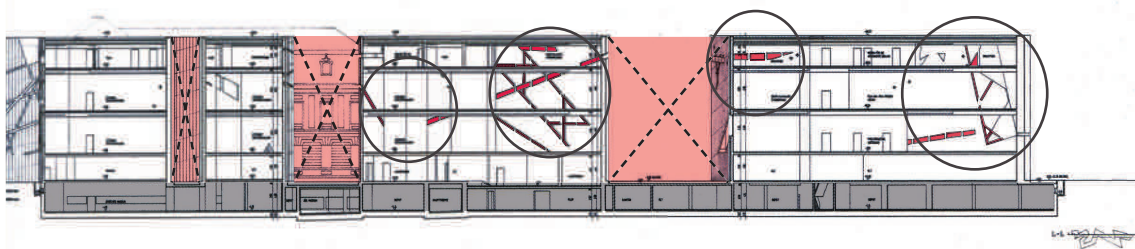
Spatial Effects – Narrative Sequence in Architecture



Narrative



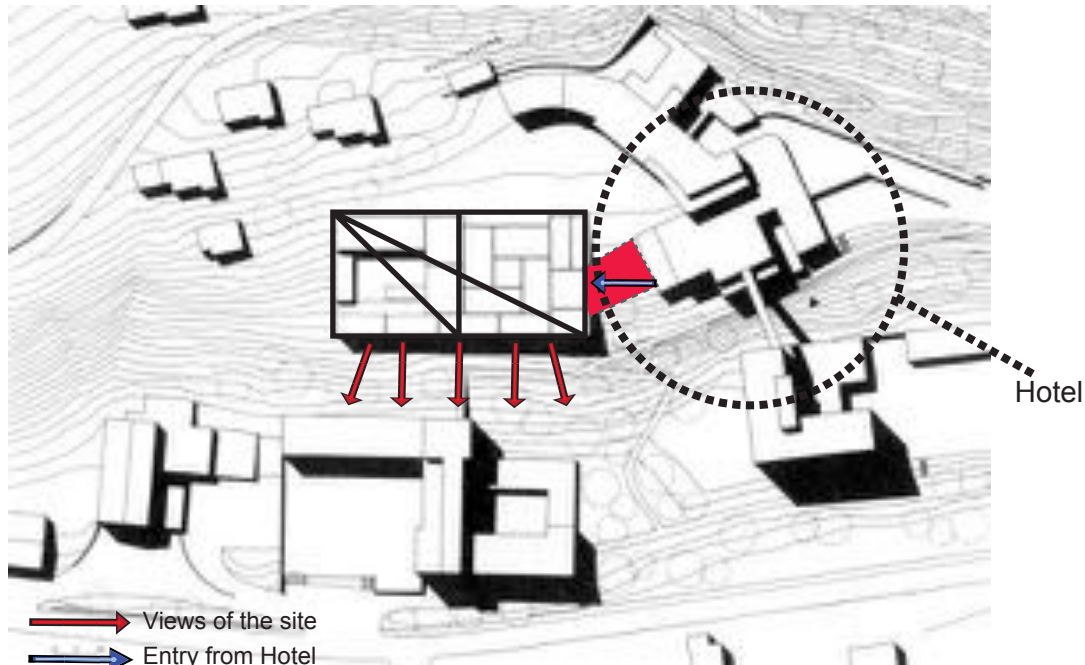
Semiotics



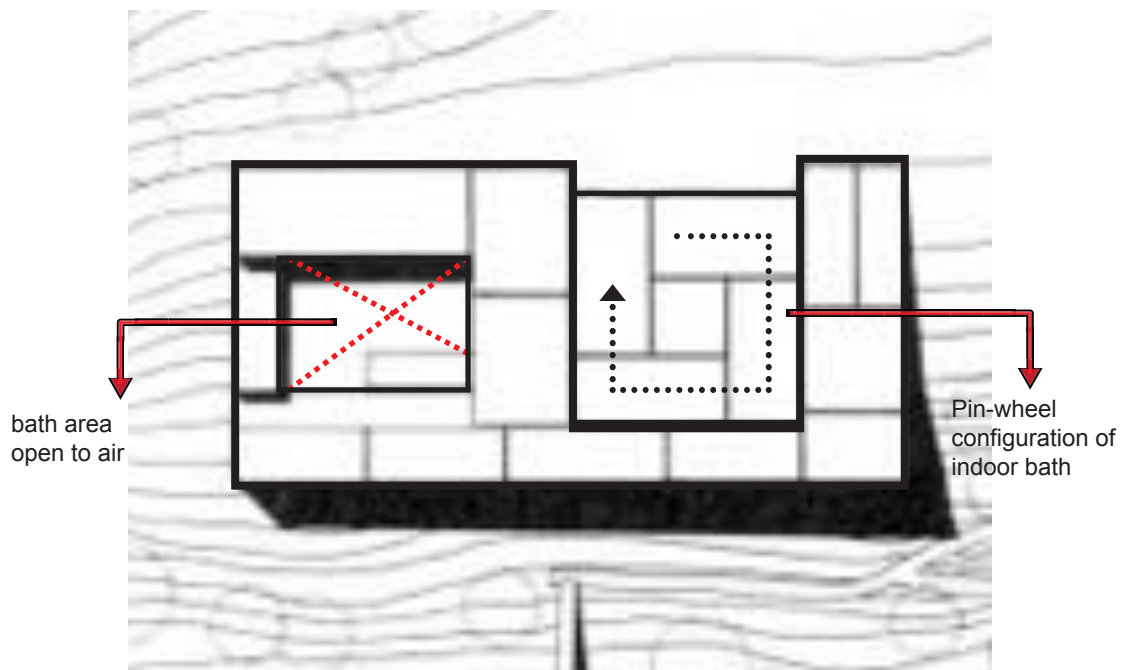
The museum consists of three spaces. All three of the underground tunnels or axes, intersect and represent the connection between the three realities of Jewish life in Germany, as symbolized by each of the three spaces: Continuity with German history, Emigration from Germany, and the Holocaust. (Daniel Libeskind)

Spatial Effects – Narrative Sequence in Architecture

Thermal Bath Vals Peter Zumthor



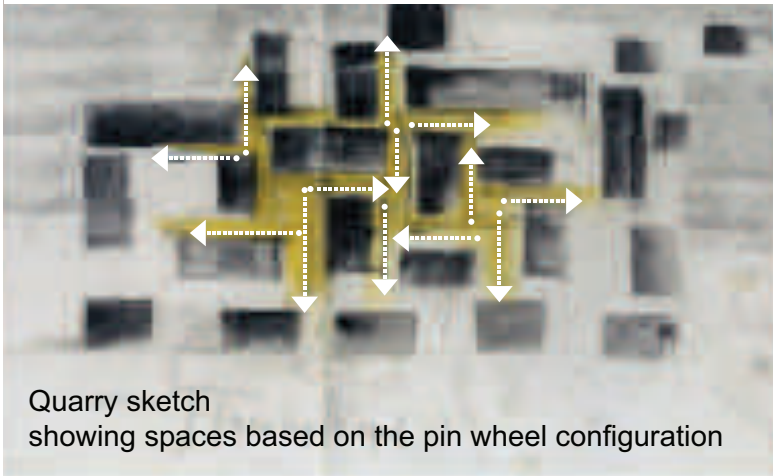
The thermal bath is located in the vicinity of an existing hotel and spa complex. The drawing above shows the rectangular volume of the bath in close proximity to the hotel building.



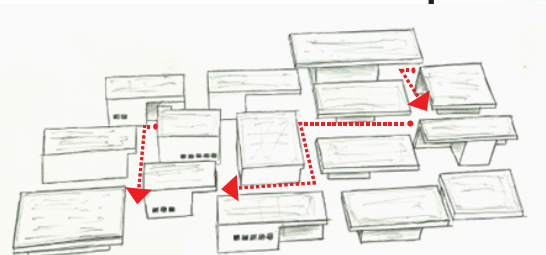
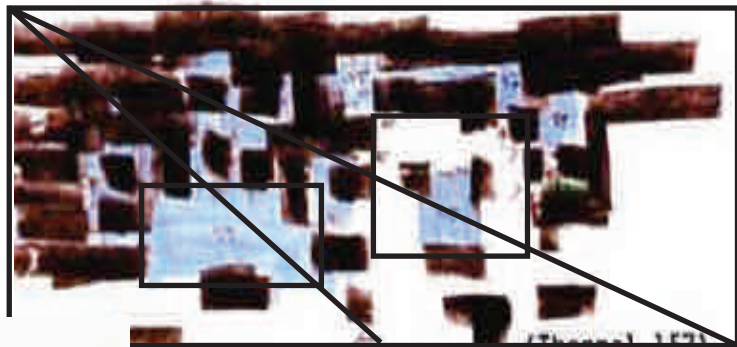
Geometry and composition of the building. The two level building is recessed into the landscape which contrasts with the existing hotel building which is a vertical in comparison to the horizontal public bath.

Spatial Effects – Narrative Sequence in Architecture

Semiotics and Symbology

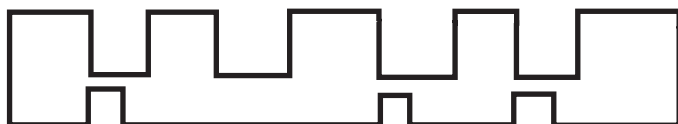
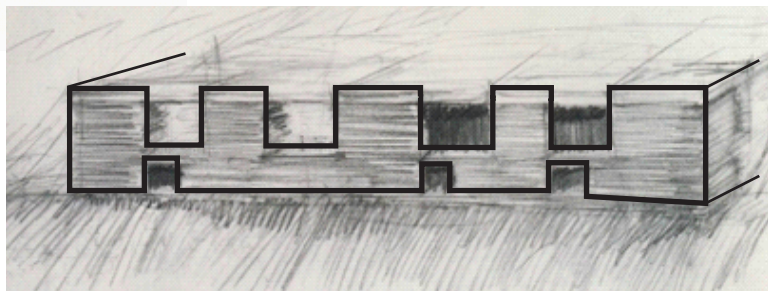


Zumthor inspired by the natural surroundings and context of the site took inspiration from the geology of the area and its history. The vast stone landscape reflecting its natural colours also captured his attention and have been integrated into the building. The visit to the dam of Zerveila seems to have the most profound impact in terms of spatial quality and appearance of the structure which the thermal bath resembles in its imagery. Zumthor describes it as 'powerful and impressive architecture, which are essentially feats of civil engineering built into the mountain with interiors like cathedrals.'



Sketch illustrating the building's appearance in the early stages hollowed out of the mountain

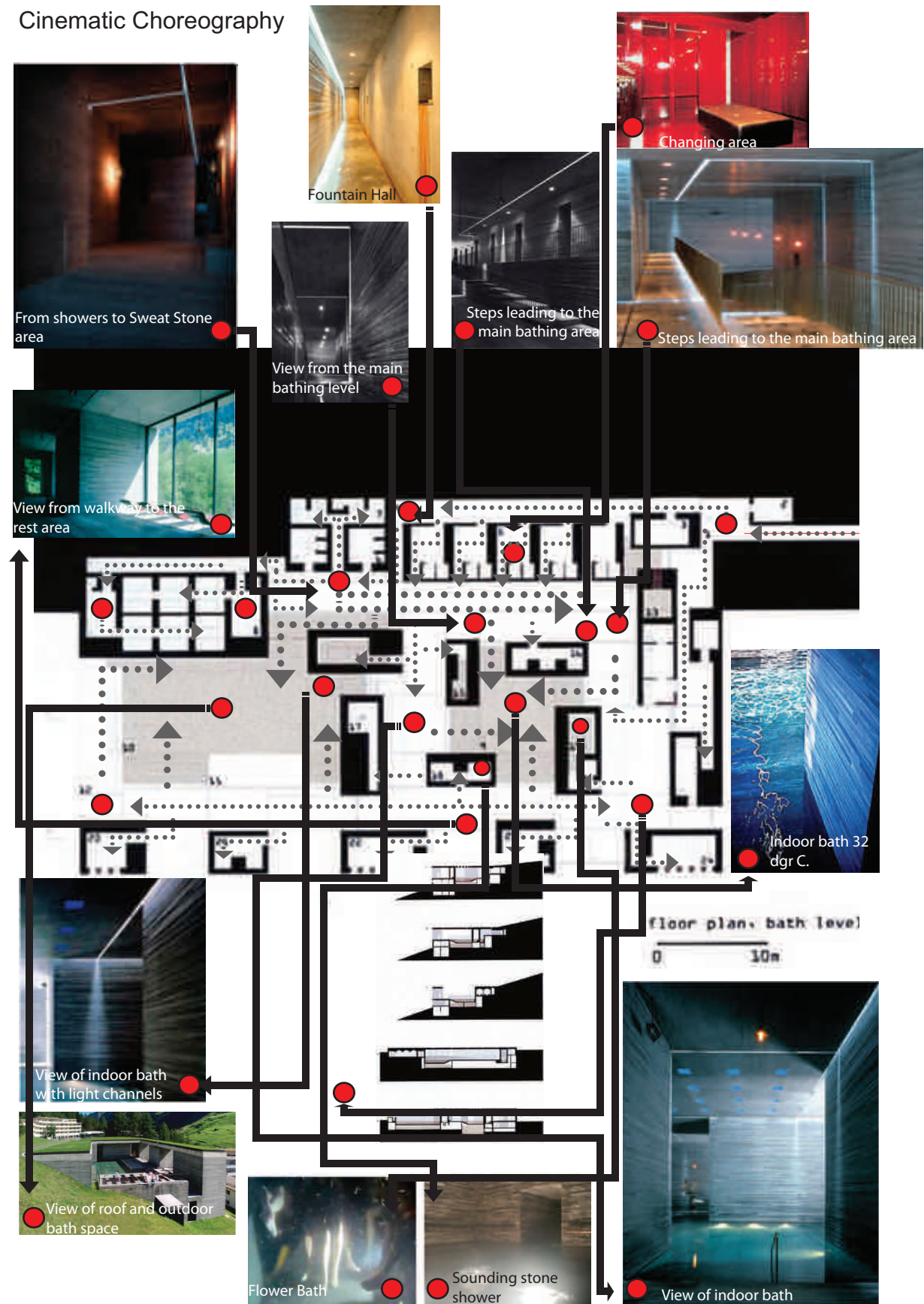
Sketch of the blocks' order and the negative space respectively and a sketch of the 15 blocks as separate pieces of a puzzle



Crenellated facade integrating nature into its architecture

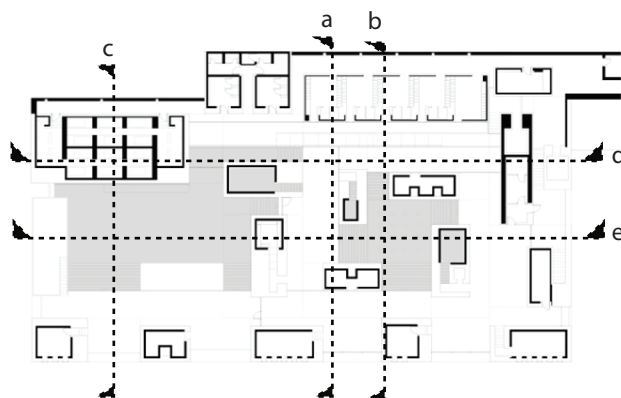
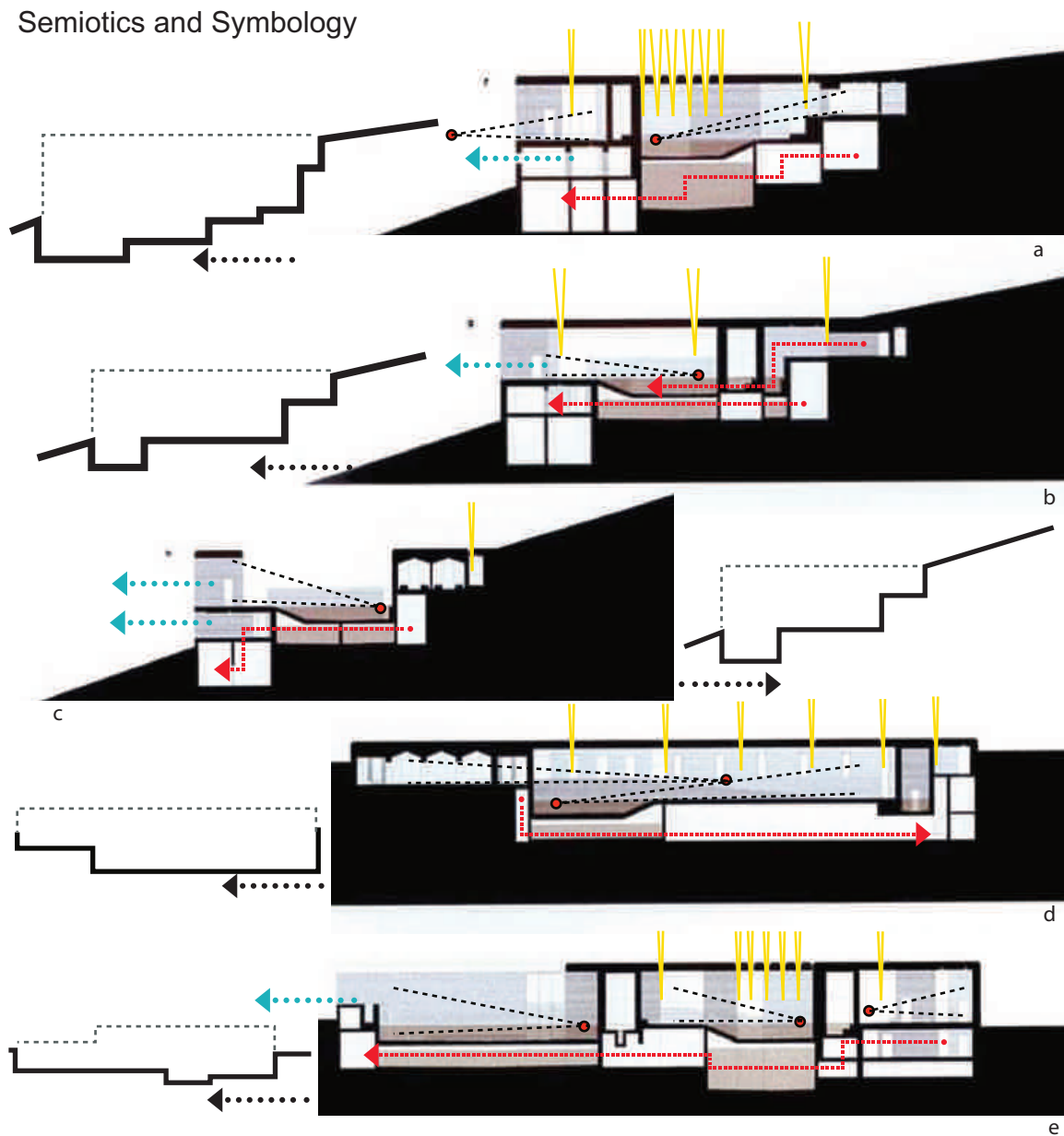
Spatial Effects – Narrative Sequence in Architecture

Cinematic Choreography



Spatial Effects – Narrative Sequence in Architecture

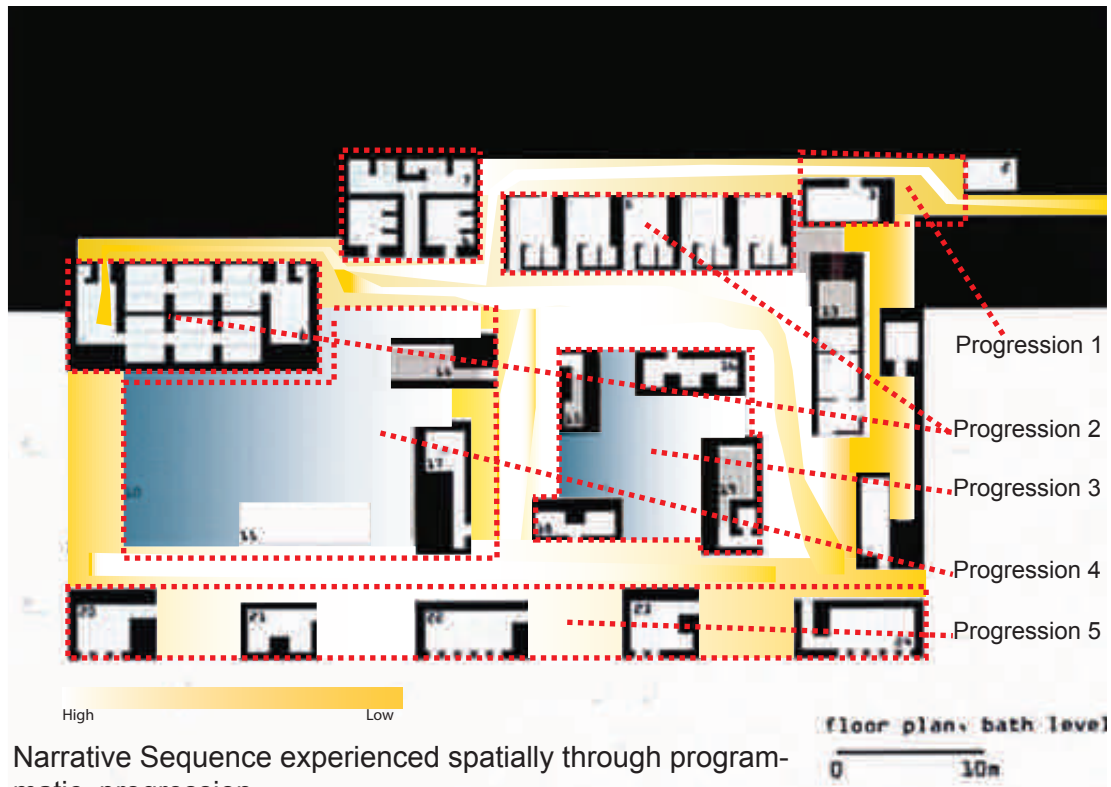
Semiotics and Symbology



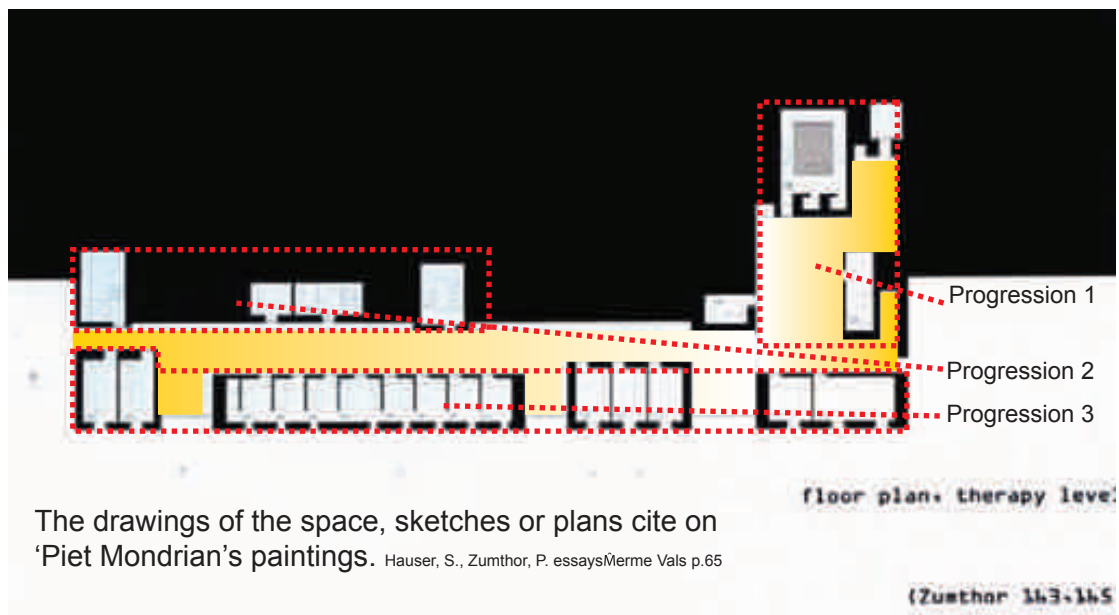
Series of spaces experienced sequentially like a journey in the building. The architect treats the whole construction as a volume of rock, which is, hollowed out of the mountain, similar to the way of a bath born of the mountains, an unstoppable wave of gushing water flowing from it and freezes in a structural form. The building, on the other hand is fragmented in nature but monolithic in appearance and endeavours to assert itself as a singular block of stone. (Hauser, S., Zumthor, P. essays *Merme Vals* p.23)

Spatial Effects – Narrative Sequence in Architecture

Narrative Sequence



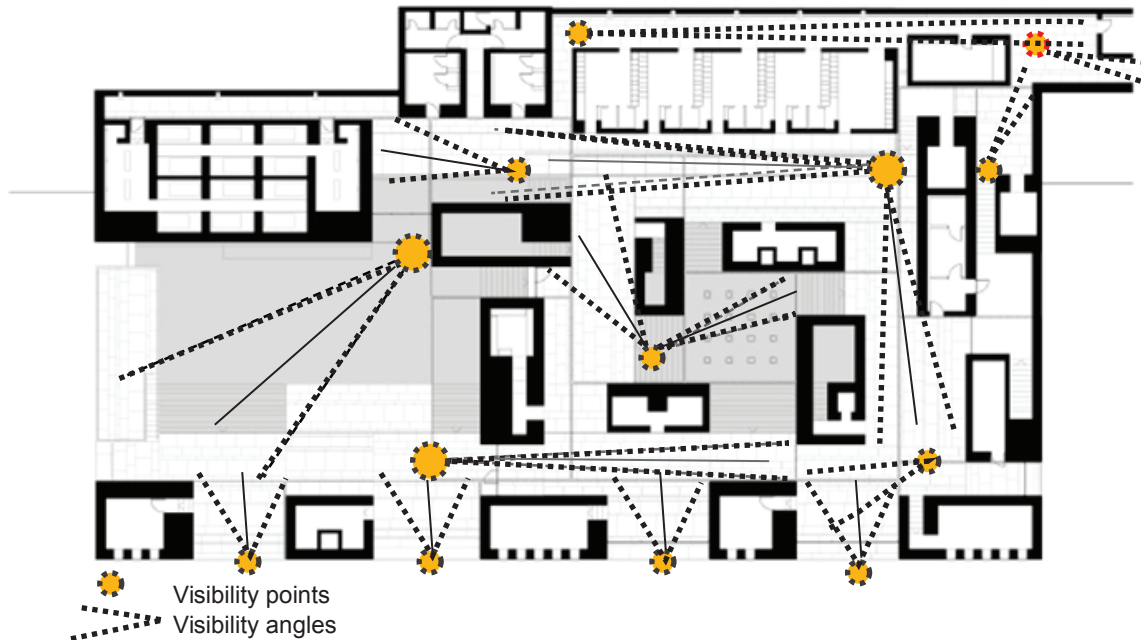
Narrative Sequence experienced spatially through programmatic progression



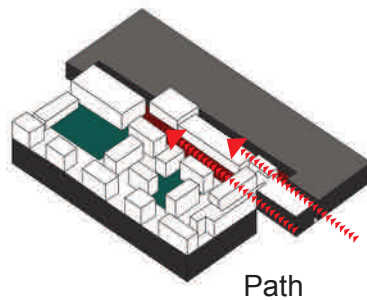
The drawings of the space, sketches or plans cite on 'Piet Mondrian's paintings'. Hauser, S., Zumthor, P. essays *Merne Vals* p.65

Spatial Effects – Narrative Sequence in Architecture

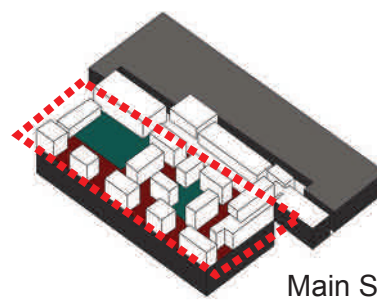
Narrative Sequence



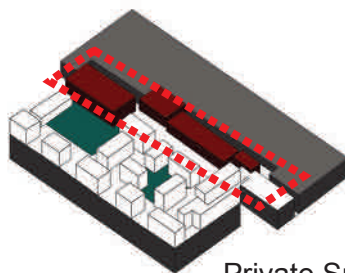
Bathing level plan focusing on the content of each block/unit and the other enclosed spaces



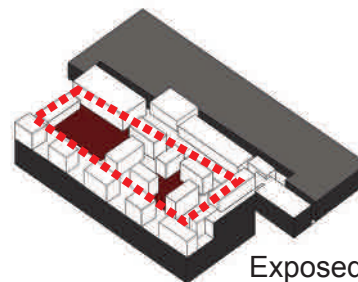
Path



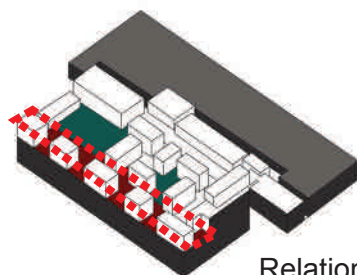
Main Space



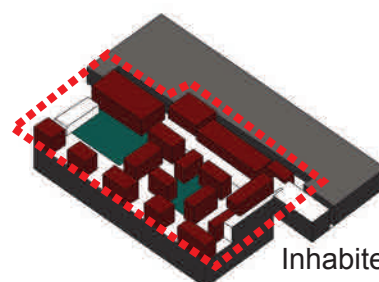
Private Space



Exposed Baths



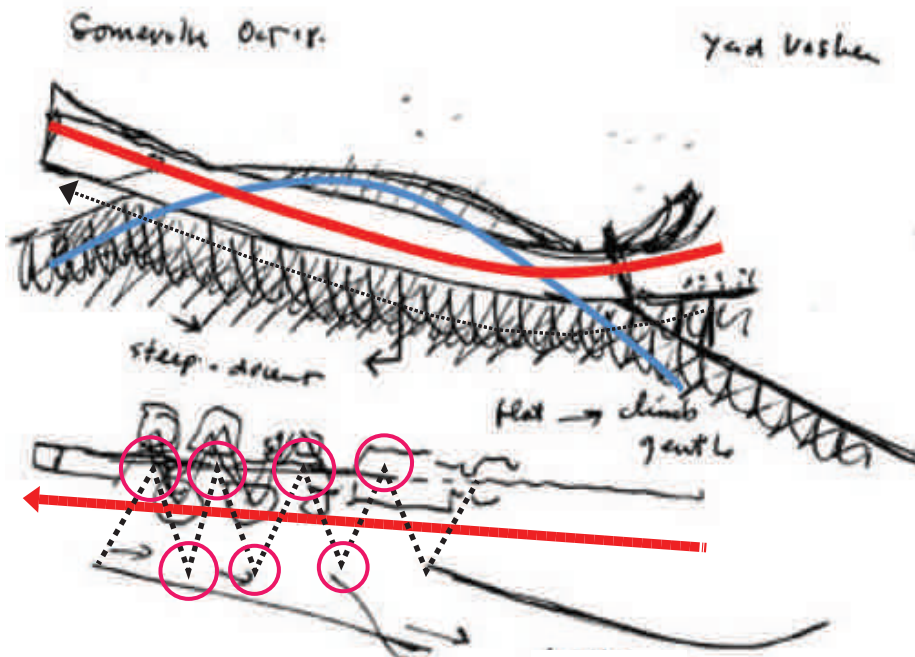
Relation to Exterior



Inhabited Volumes

Spatial Effects – Narrative Sequence in Architecture

Jewish Holocaust Museum Yad Vashem Moshe Safdie

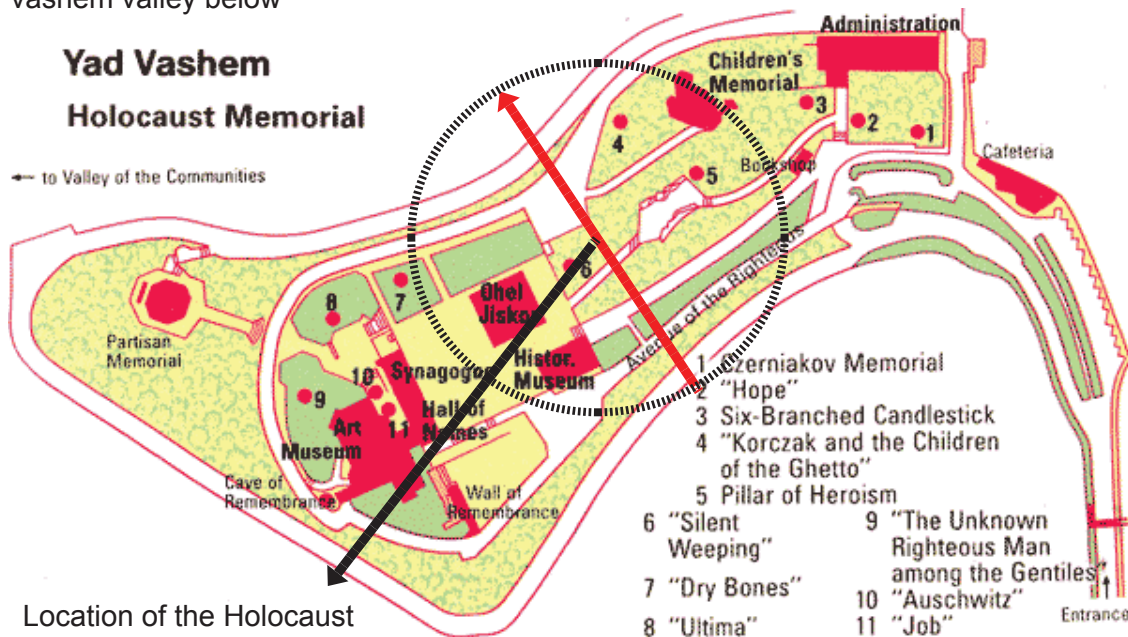


Most of the Museum's concrete and glass "main body" is hidden within the Mount of Remembrance, on which the Yad Vashem campus is situated, allowing little more than its 500 feet elongated, angular spine to convey a sense of its true scale. (N.A., 2005)

Embedded within the Earth, the museum rises from the valley like a planar angular spine framing views of the yad vashem valley below

Yad Vashem Holocaust Memorial

← to Valley of the Communities



Location of the Holocaust Memorial carved into the valley

Spatial Effects – Narrative Sequence in Architecture



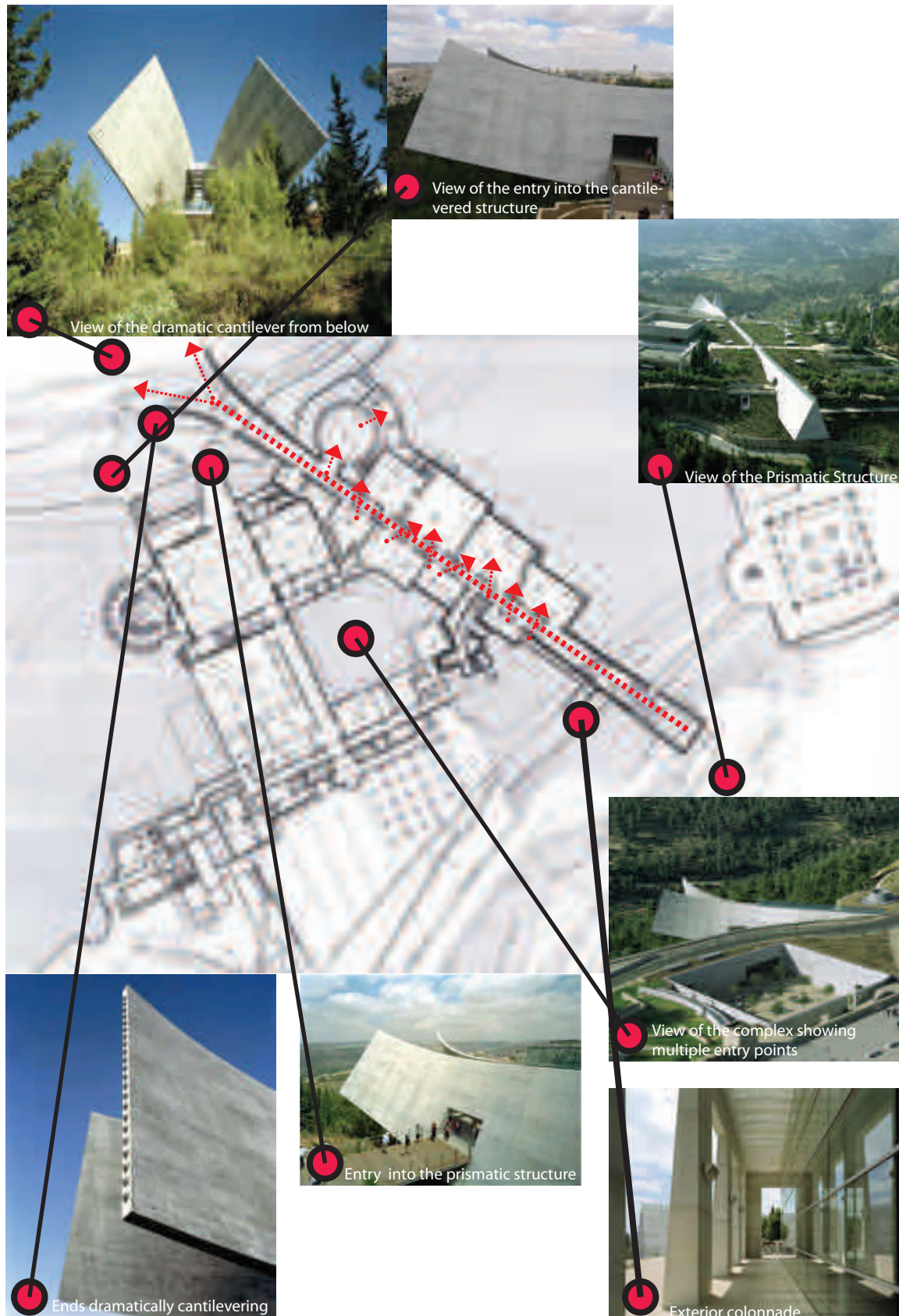
Site Plan



The new Holocaust History Museum is a prism-like triangular structure that penetrates the mountain from one side to the other, with both ends dramatically cantilevering into the open air. The triangular form of the structure was chosen to support the pressure of the earth above the prism while bringing in daylight from above through a 200 meter-long glass skylight. The skylight allows gleams of daylight to contrast with darker areas required for multimedia presentations. Within the galleries, light enters through localized skylights varying from diffused to clear glass, depending on the requirements of each exhibit. (<http://www1.yadvashem.org/yv/en/museum/architecture.asp#>)

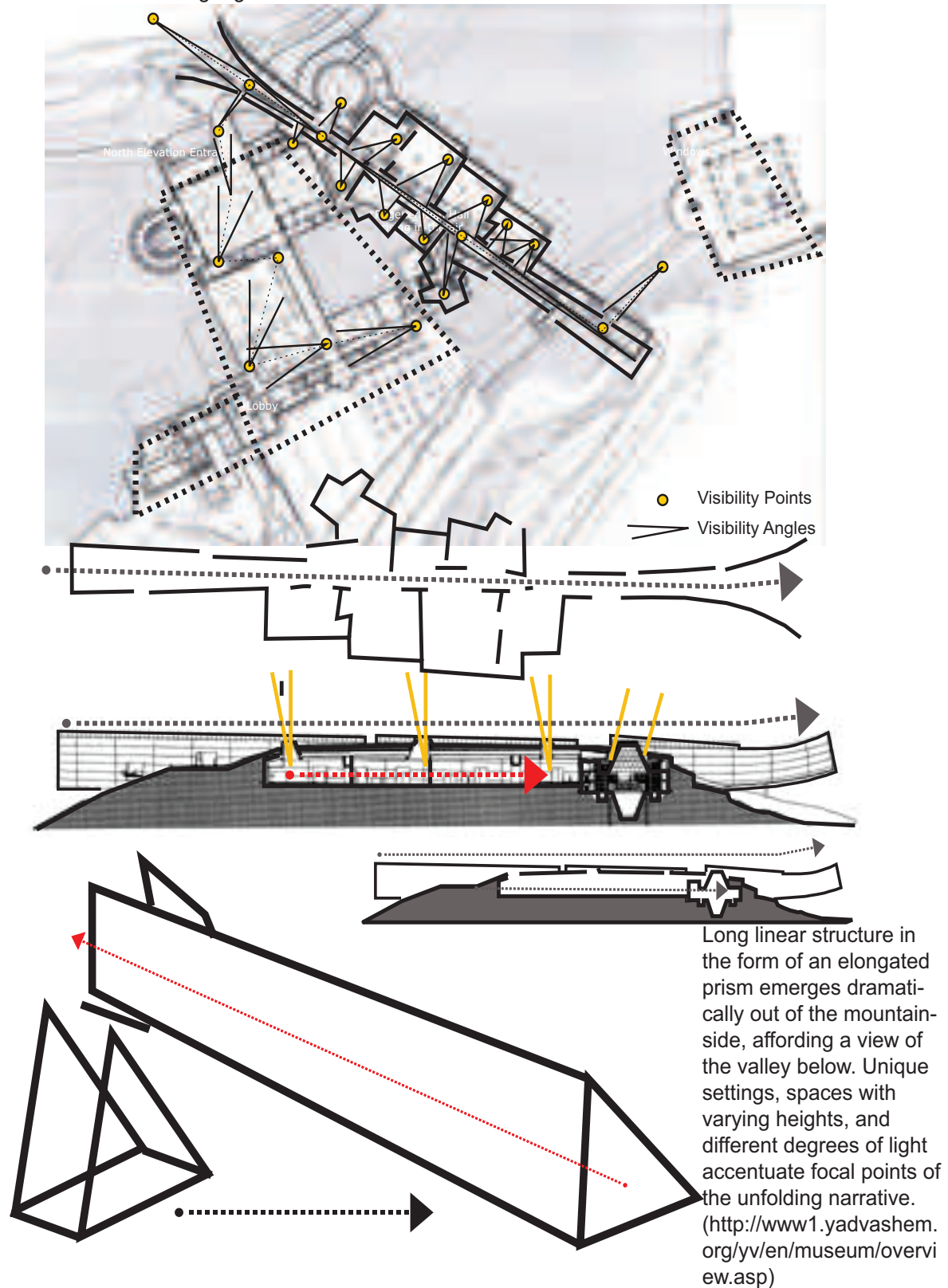
Spatial Effects – Narrative Sequence in Architecture

Cinematic Choreography



Spatial Effects – Narrative Sequence in Architecture

Semiotics and Language



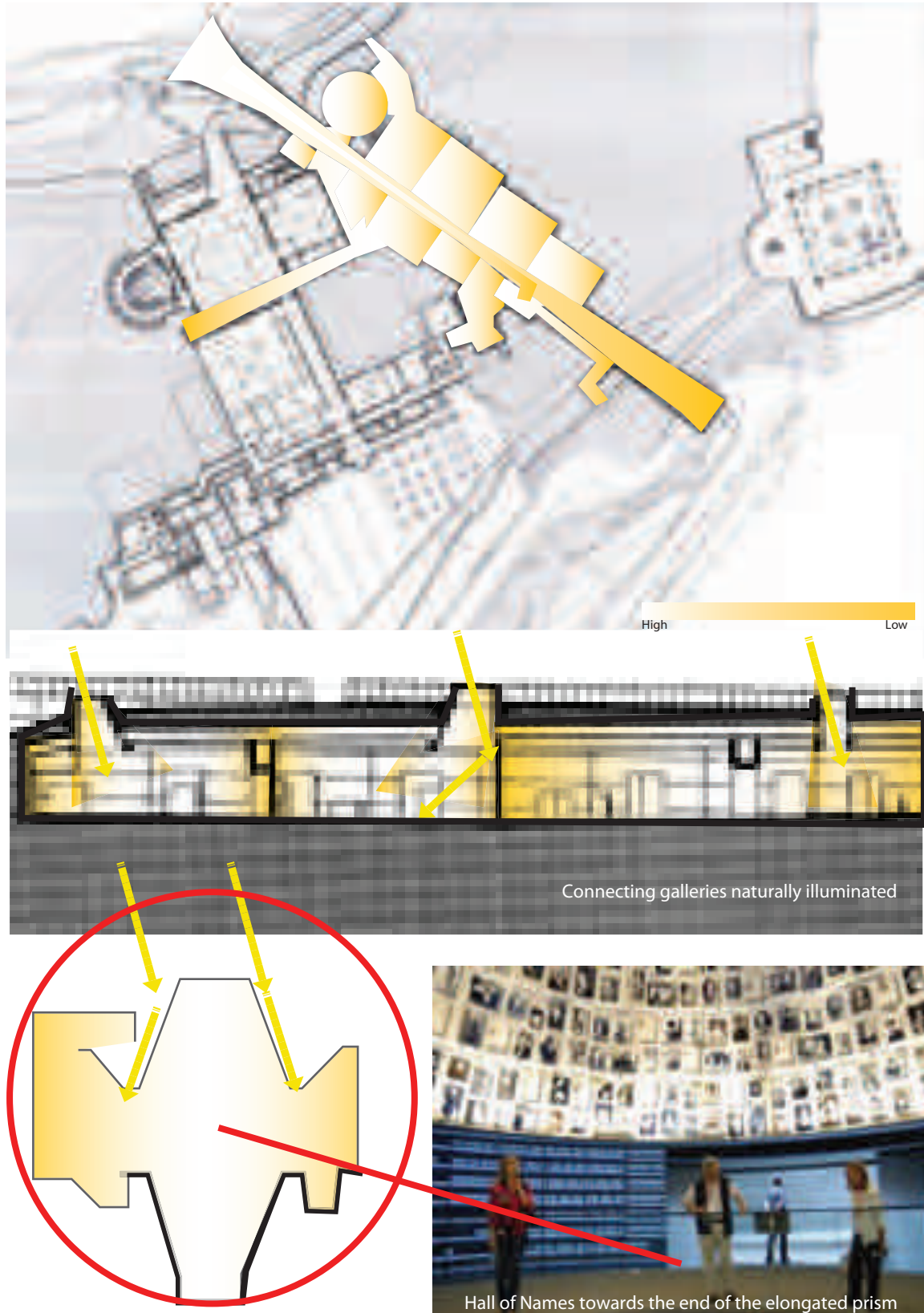
Spatial Effects – Narrative Sequence in Architecture

Cinematic Choreography



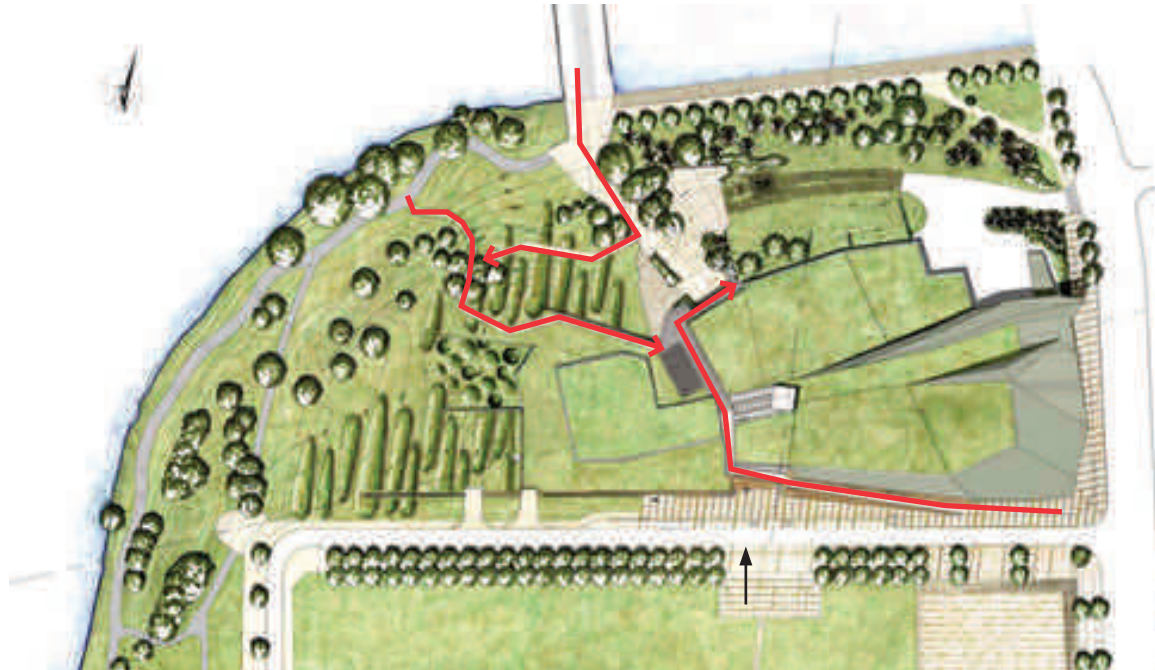
Spatial Effects – Narrative Sequence in Architecture

Narrative Sequence

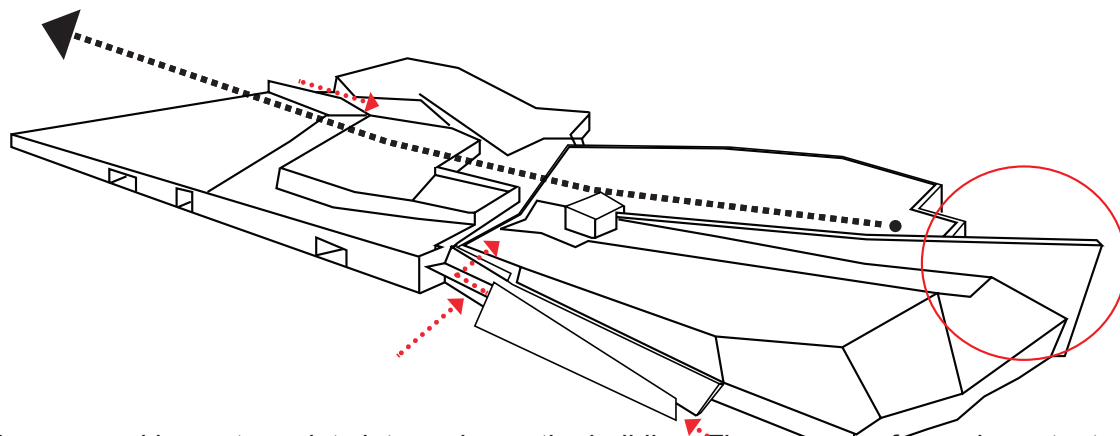


Spatial Effects – Narrative Sequence in Architecture

Canadian War Museum Moriyama and Teshima



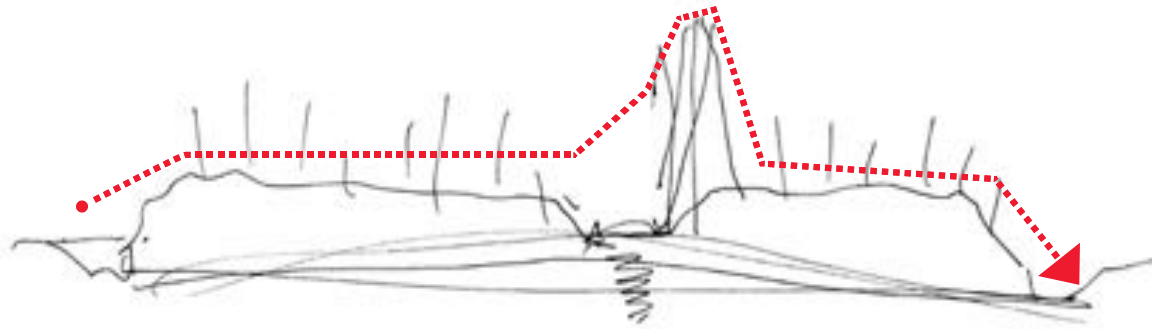
The initial architectural inspiration for the Canadian War Museum came from the people portrayed in the Museum's photography collections. The second source of inspiration was nature. Ravaged landscapes have the remarkable ability to endure the devastation wrought by humans. Not only does nature survive, it regenerates and hybridizes. (<http://www.mtarch.com/mtacwm.html>) Shown in the master plan the green roof rehabilitating the war ravaged landscape metaphorically. Arrows marking circulation patterns on the green roof.



Arrows marking entry points into and over the building. The green roof is an important feature of the building metaphorically representing the landscape regenerating. The regeneration hall is another important element rising like a beacon in the landscape. The Canadian War Museum is a typically low lying building embracing the earth with angular, jagged wall elements.

Spatial Effects – Narrative Sequence in Architecture

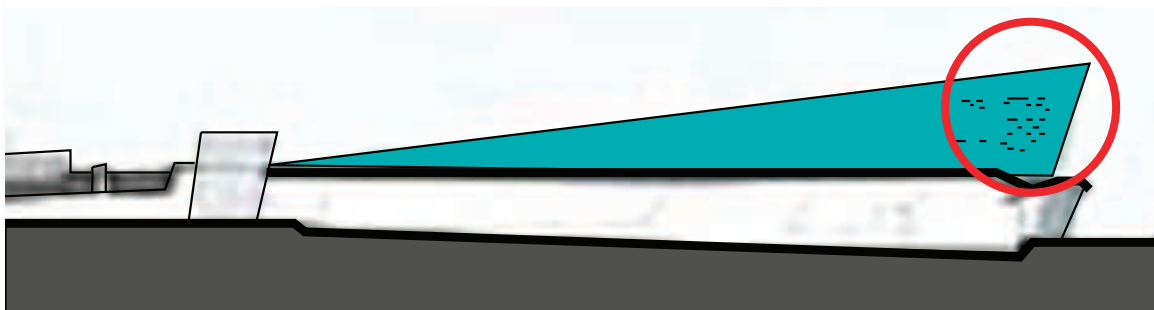
Narrative Sequence and Semiotics



Moriyama's sketch of the Canadian War Museum based on sounds and reverberations of war



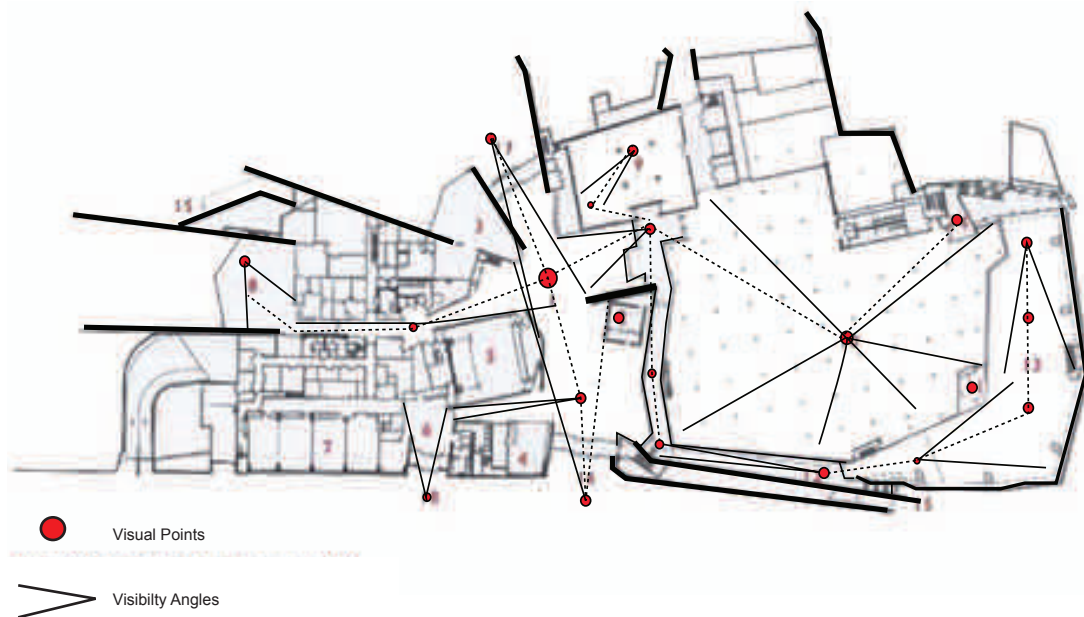
South East side elevation with the Regeneration Hall and Le Breton Gallery facing the Street



The regeneration hall symbolises hope for the future, rising and piercing through the air embedded with morse code which spells out "Lest We Forget"

Spatial Effects – Narrative Sequence in Architecture

Narrative Sequence and Semiotics

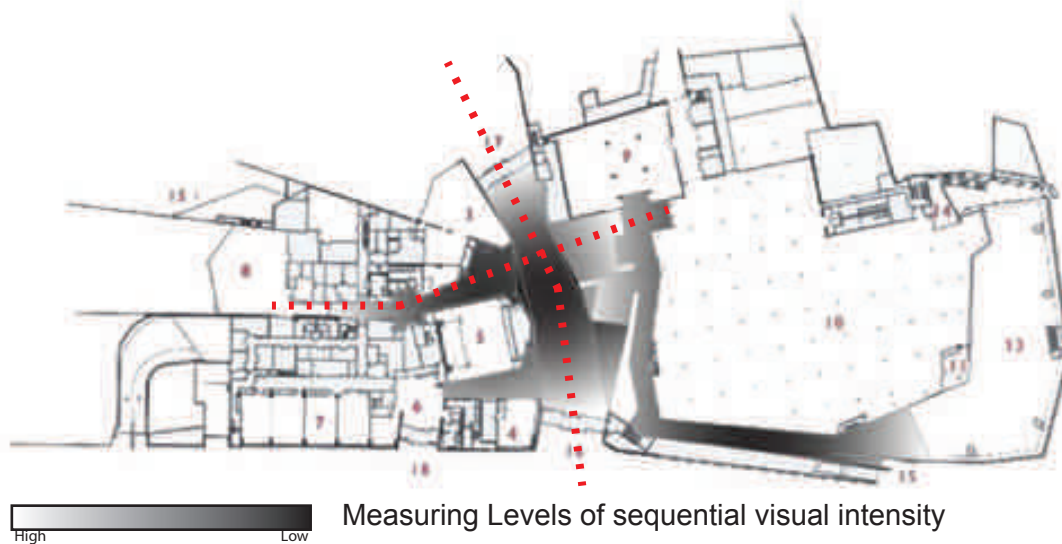


Analysis of visibility points and connections in space sequentially representing depth



Concentric lines showing levels of narrative increasing through progression
Degrees of narrative dimensions experienced through spatial movement with the Regeneration Hall embedded with layers of narrative and semiotic coding

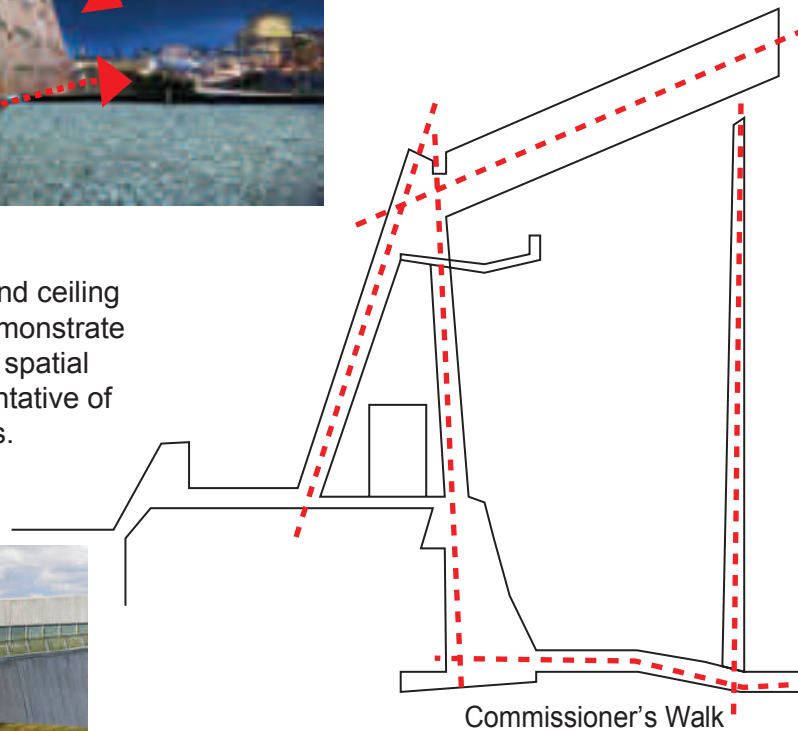
Spatial Effects – Narrative Sequence in Architecture



Visual and Axial Relations of Passageways, corridors, sequential movement and circulation space



Most of the wall, floor, and ceiling planes are angled to demonstrate an irregular and uneasy spatial quality which is representative of war ravaged landscapes.

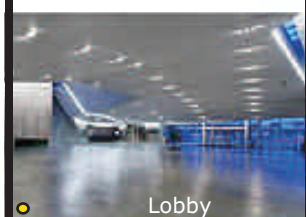
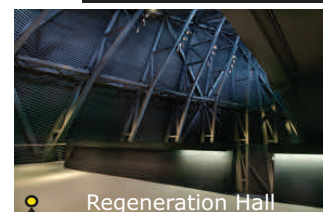
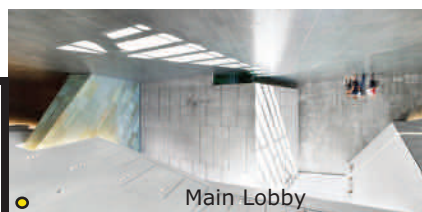
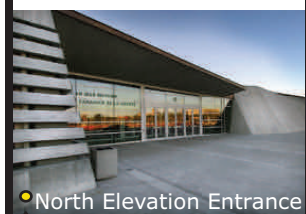
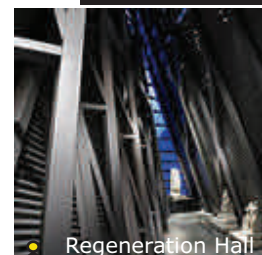
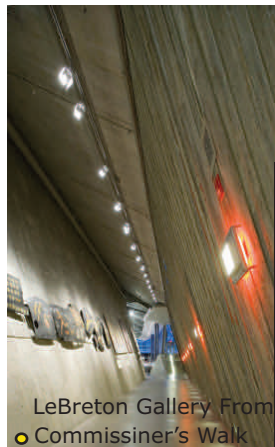
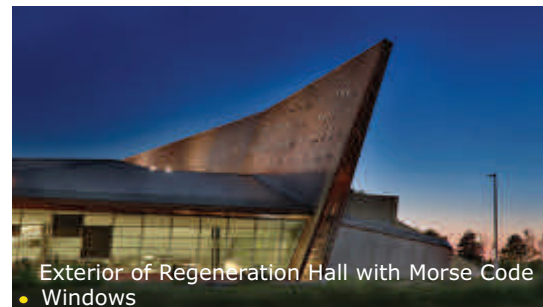


Berms evoke the landscape of a battlefield

Spatial Effects – Narrative Sequence in Architecture

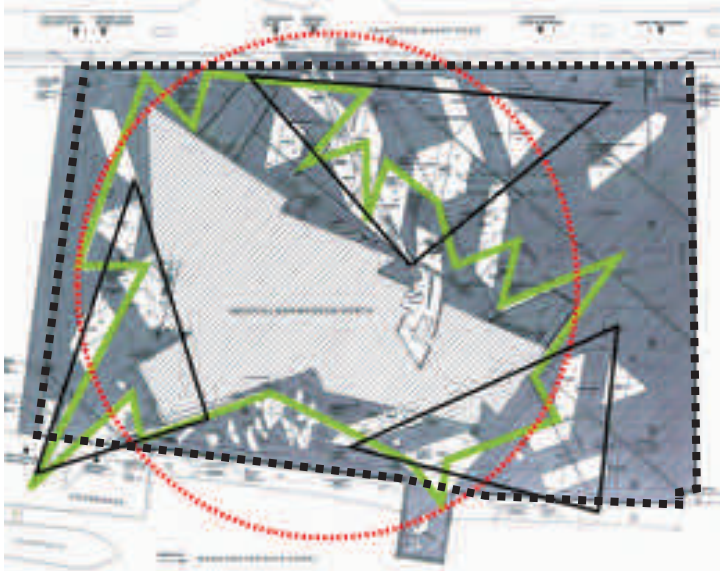
Cinematic Choreography

Cinematic Choreography framing a spatial narrative of war



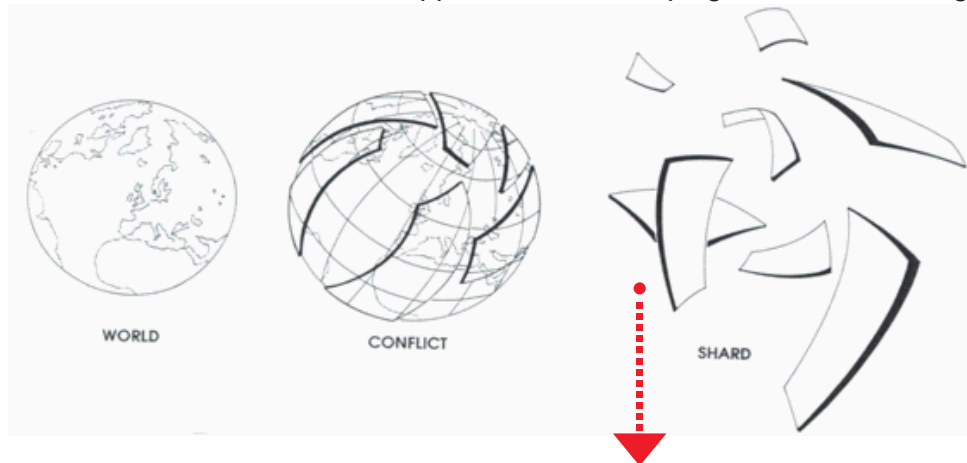
Spatial Effects – Narrative Sequence in Architecture

Imperial War Museum North Daniel Libeskind

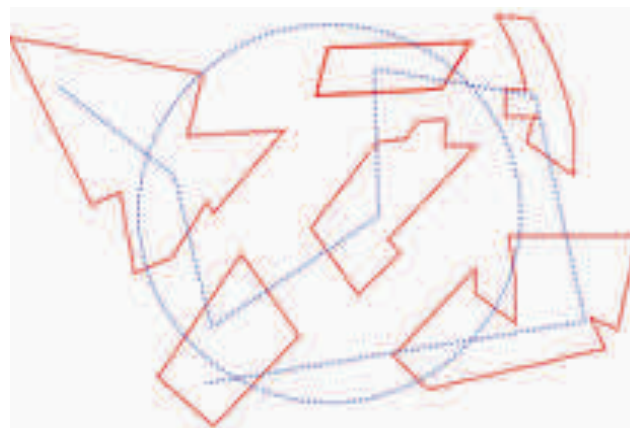


The imperial war north is testament to 'Libeskind's astonishingly assertive, metaphorical style of architecture, in which the building not only contains the story but becomes the story.' (Morrison, 2002)

The site plan reveals the deconstructivist approach to landscaping as well as building design

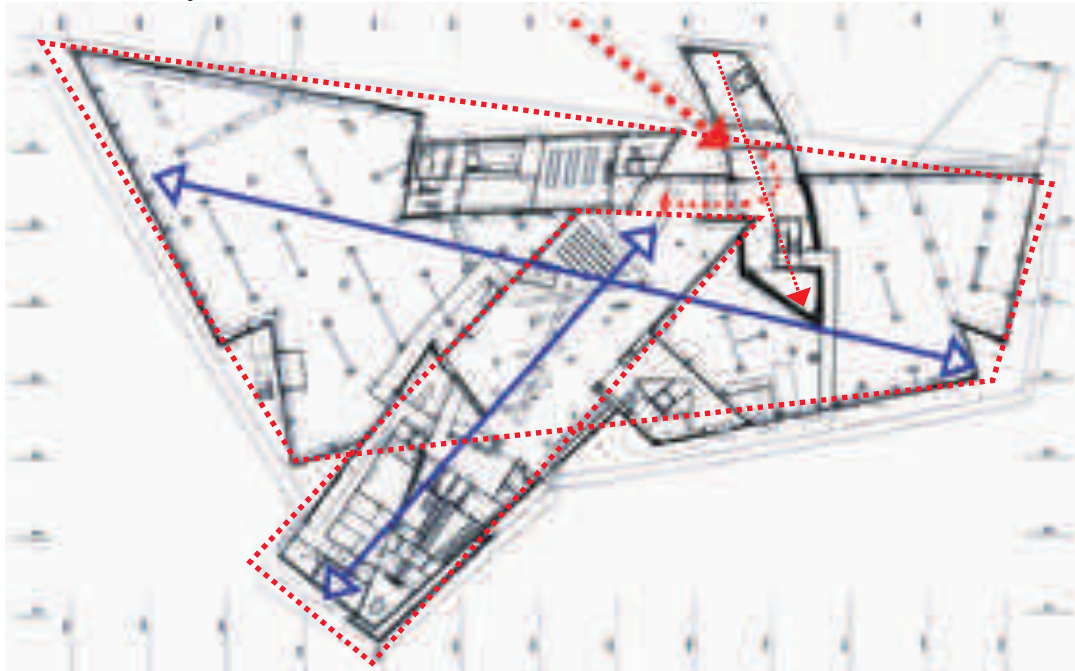


The building concept is based on conflict in the world. Libeskind mentions, "I have imagined the globe broken into fragments and taken the pieces to form a building; three shards that together represent conflict on land, in the air and on water."

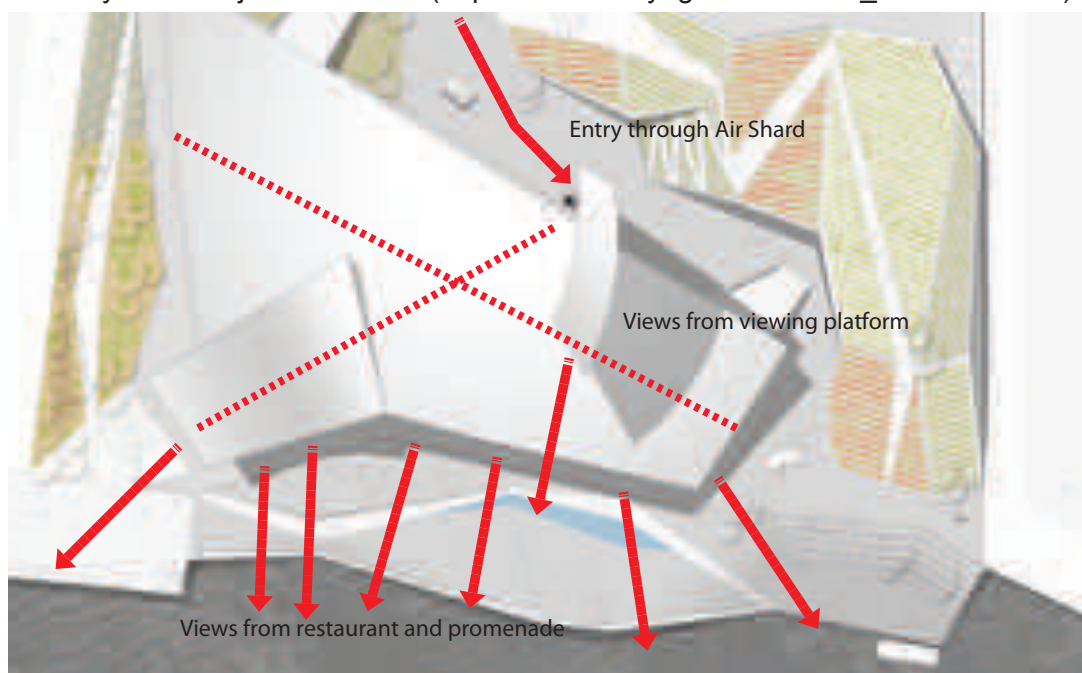


Spatial Effects – Narrative Sequence in Architecture

Axis and Entry Points

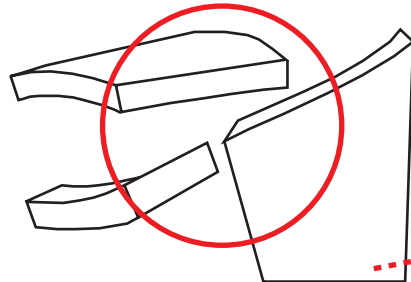


The dramatic entrance to the museum is through the 'Air Shard,' a 55 m high lattice of steelwork, clad in aluminum. The entry space is open to the elements and provides sweeping views of the Manchester Ship Canal at the viewing platform up to 30m high of the 'Water Shard'. The 'Earth Shard' is an irregularly shaped, 50m long structure that visitors will enter from a narrow staircase which rises from the ground floor lobby and leads them out on to 'the North Pole', as it is called, the point from which the floor curves away. The domed floor curves to a 2m drop at the sides and the smooth gradation challenges the viewer's perception by producing strange optical effects on the verticality of the objects around it. (http://www.eltonyoga.com/words_libeskind.html)



Spatial Effects – Narrative Sequence in Architecture

Semiotics and Language



Composition of shards

Wind Shard - Entry point

Earth Shard - Museum / Galleries

Water Shard - Restaurant



Serpentine Gallery - Libeskind

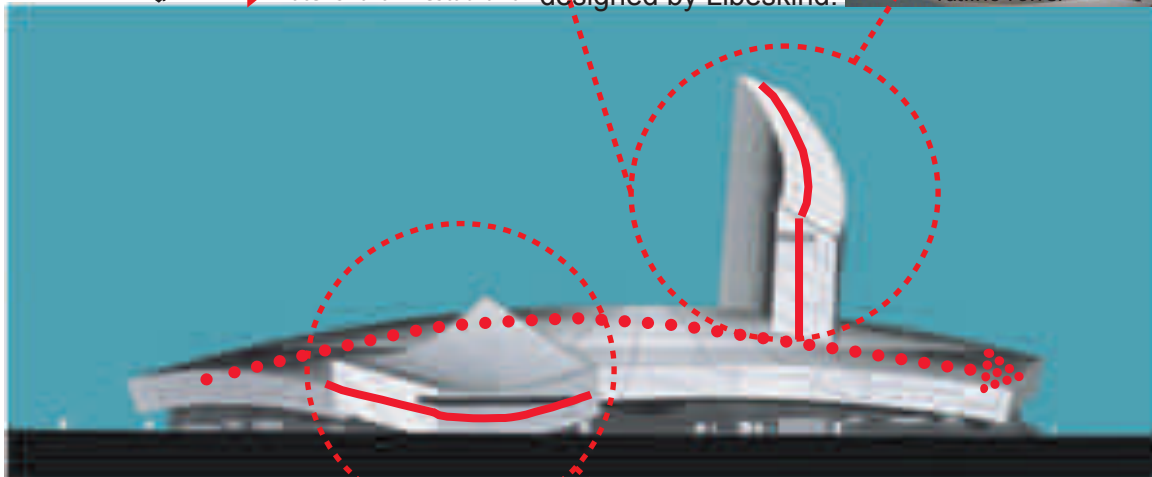


Interior of the wind shard

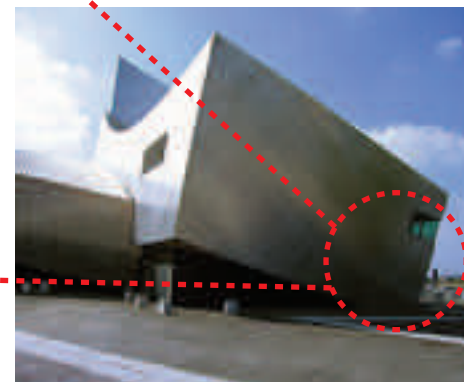
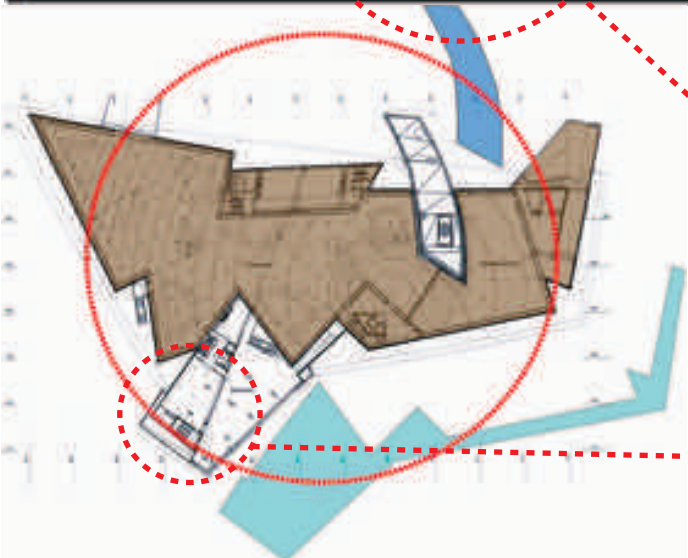


Tatlin's Tower

The tower, which rises over the entrance space is reminiscent of Tatlin's Tower in structure, framework and language and resembles the angled entry point of the 2001 serpentine gallery designed by Libeskind.

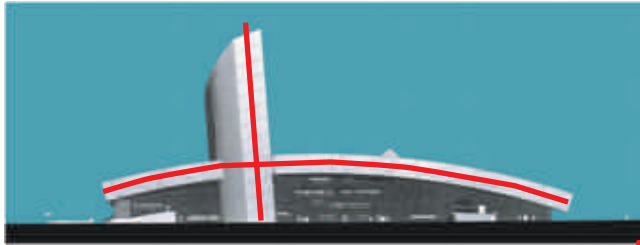


Composed of three interlocking shards, earth - museum, air – entry tower and water - restaurant / promenade



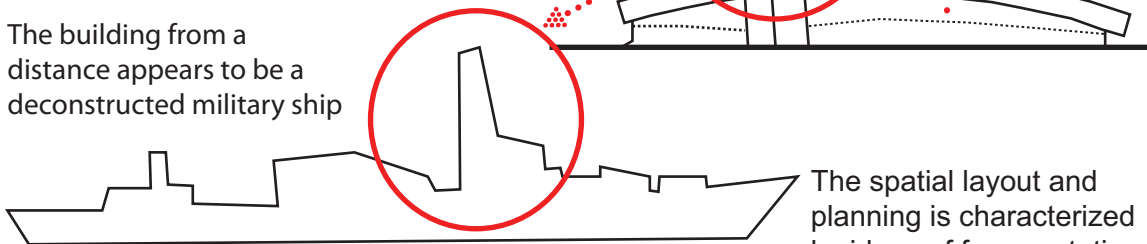
Spatial Effects – Narrative Sequence in Architecture

Semiotics and Language

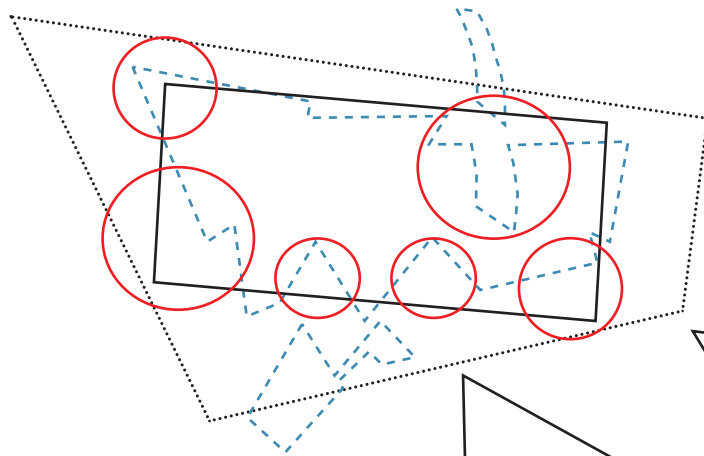


The building from a distance appears to be a deconstructed military ship

Apart from angled walls and curved ceiling planes the floors slope and tilt to demonstrate unlevelled landscapes

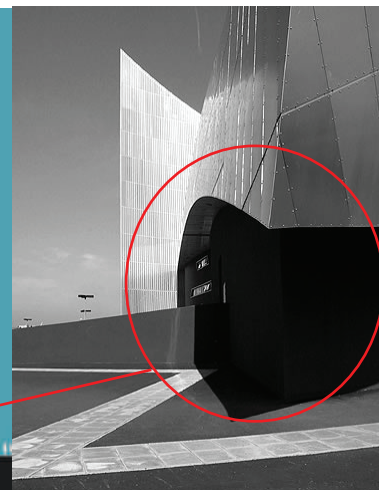
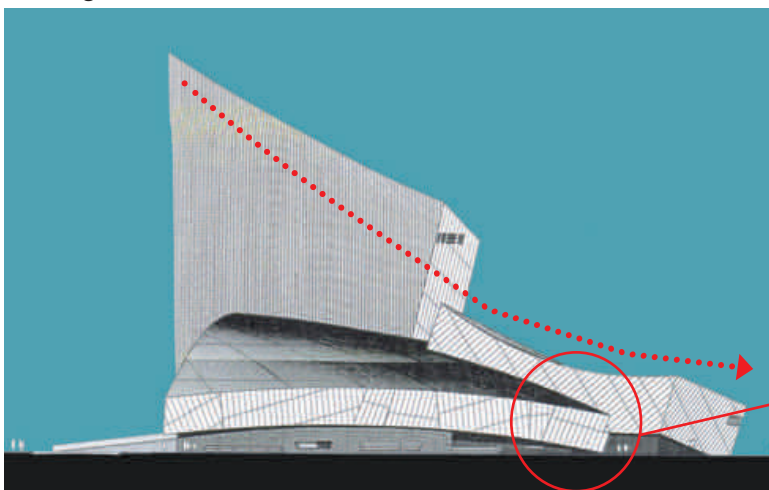
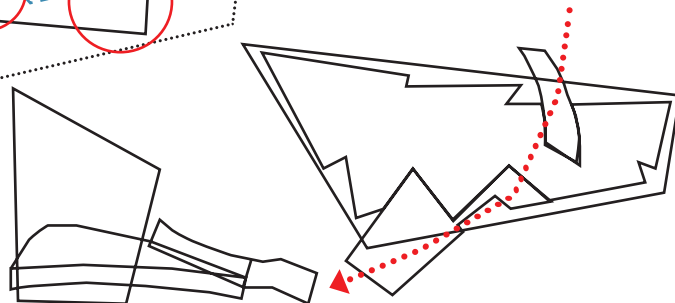


The spatial layout and planning is characterized by ideas of fragmentation. There is an interest in manipulating the building form's surface or skin into non-rectilinear shapes which serve to distort and dislocate some of the elements of architecture, such as structure and envelope.



Deconstructive geometry applied to the configuration of spaces

Configuration of curvilinear forms



Spatial Effects – Narrative Sequence in Architecture

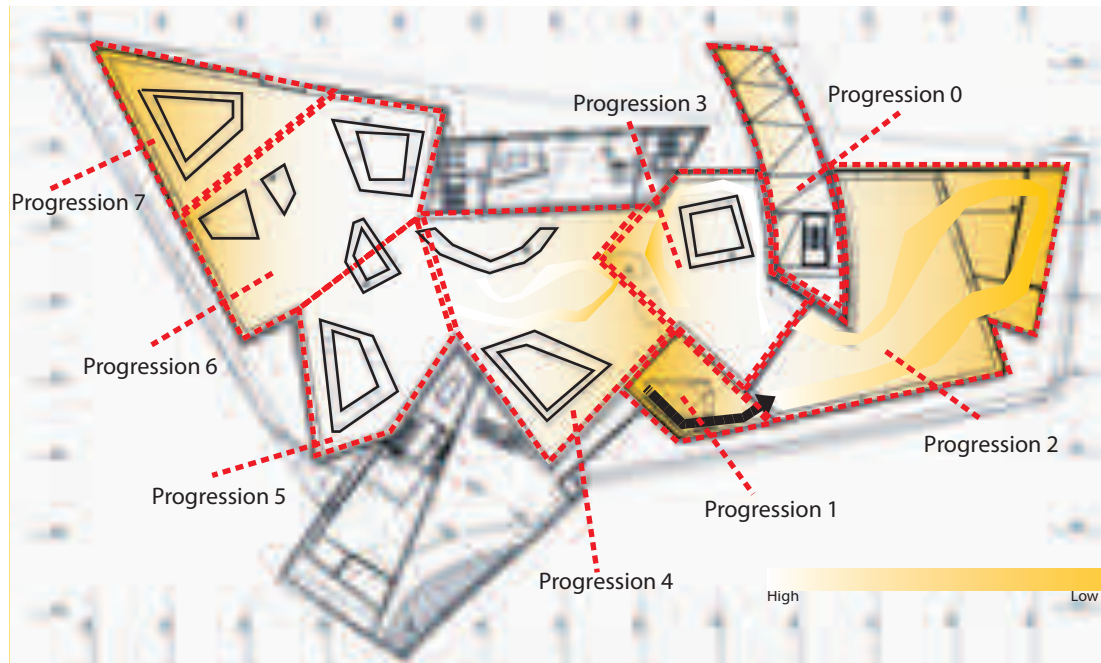
Cinematic Choreography

Curved ceiling is covered with long angled strips of artificial light: the visual equivalent of the strips of windows in Libeskind's Jewish Museum in Berlin.

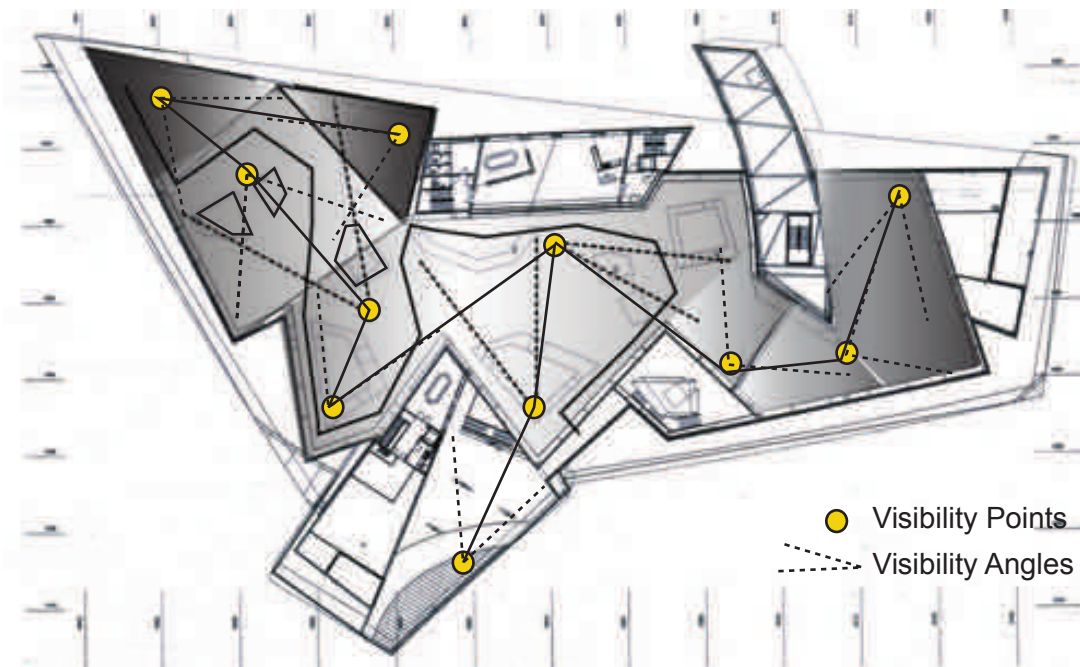


Spatial Effects – Narrative Sequence in Architecture

Narrative Sequence



Narrative Sequence experienced spatially through programmatic progression

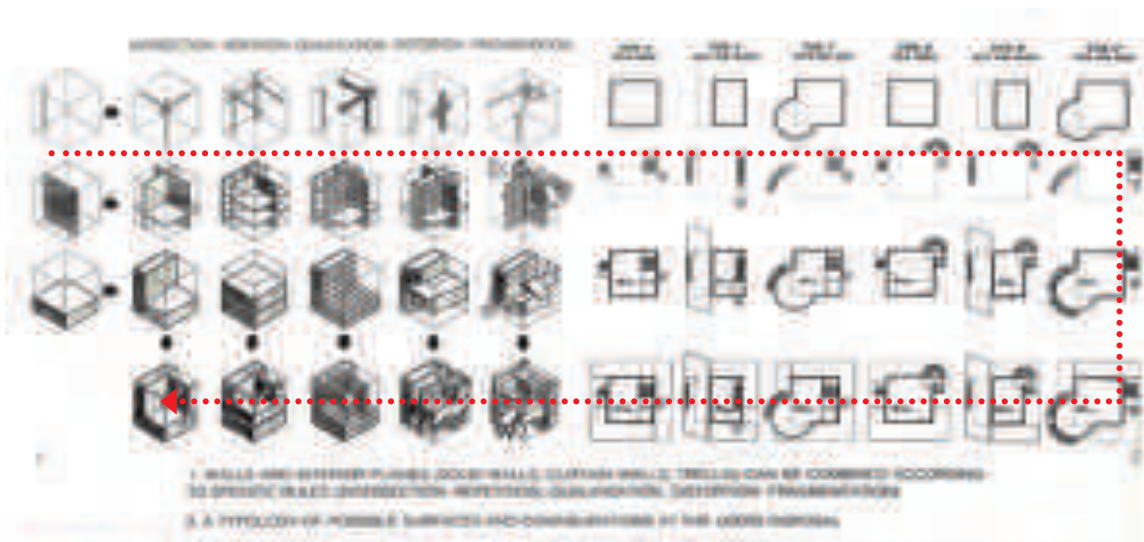


Levels of Sequential Visual Intensity

Spatial Effects – Narrative Sequence in Architecture

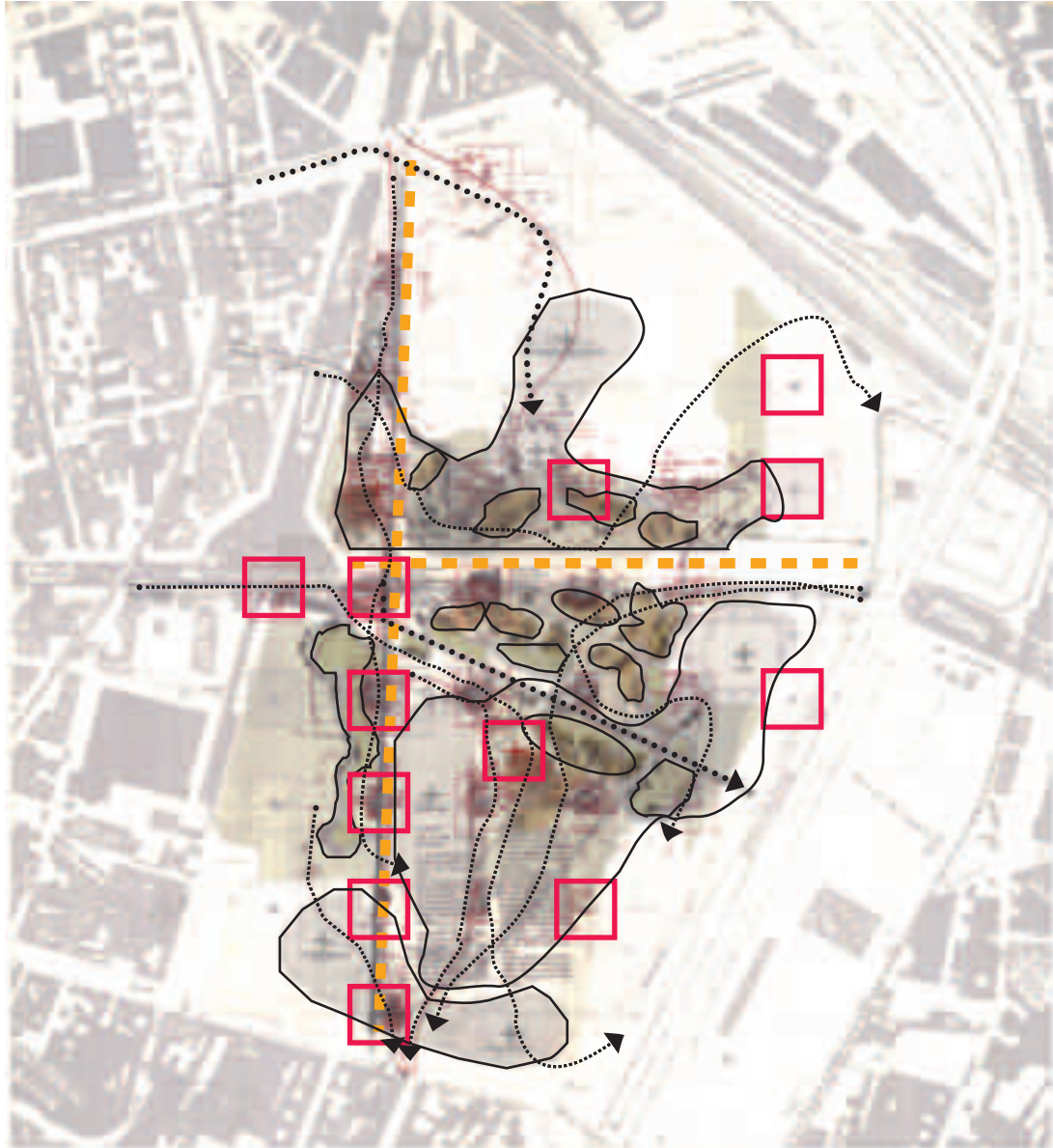
Parc de la Villette
Bernard Tschumi

Axis and Entry



Spatial Effects – Narrative Sequence in Architecture

Configuration and Pattern of Movement

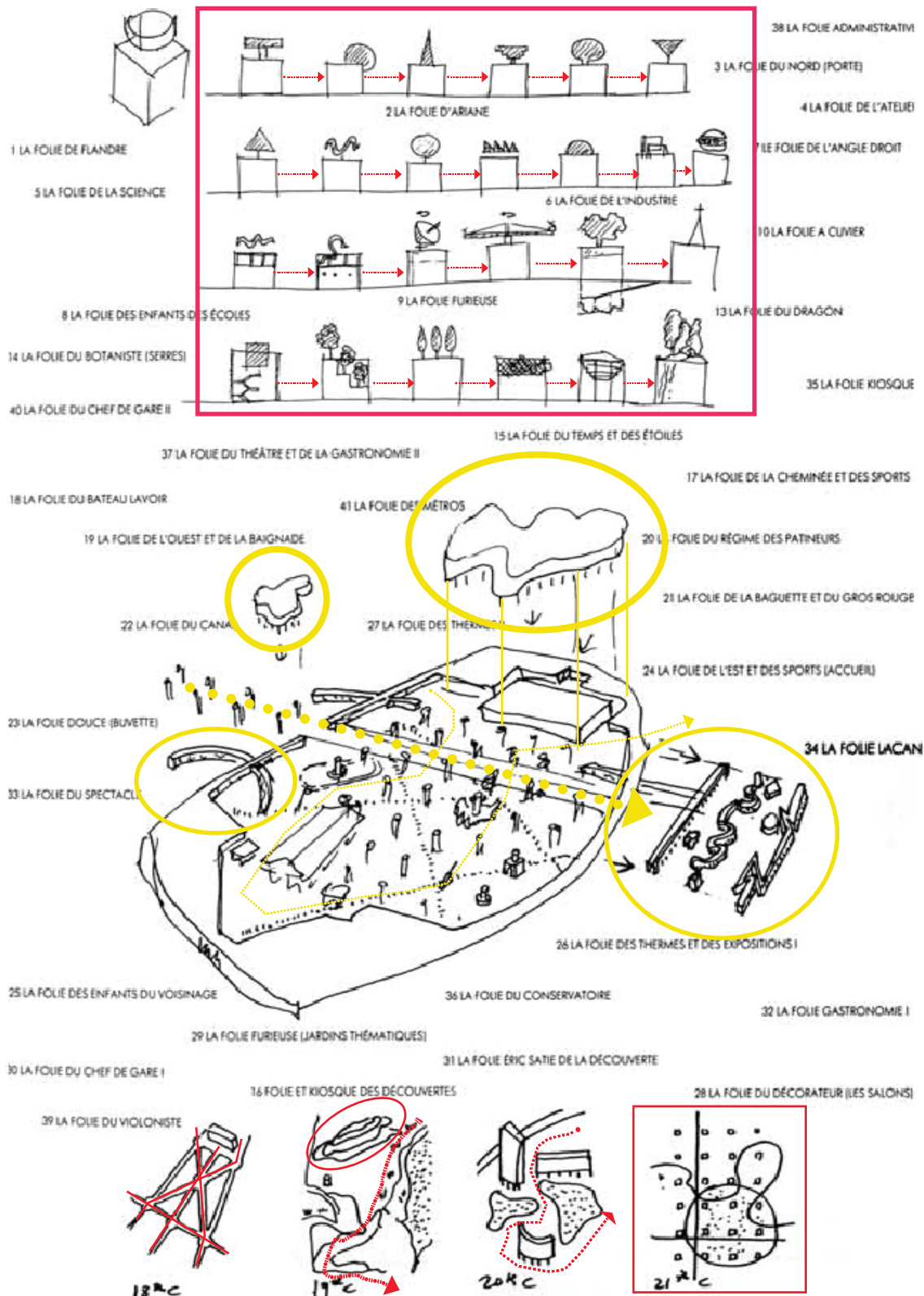


Parc de la Villette is a statement on the metaphysics of architecture and landscape (Tschumi, 1987). The grand object of metaphysics has always been to comprehend the nature of being.



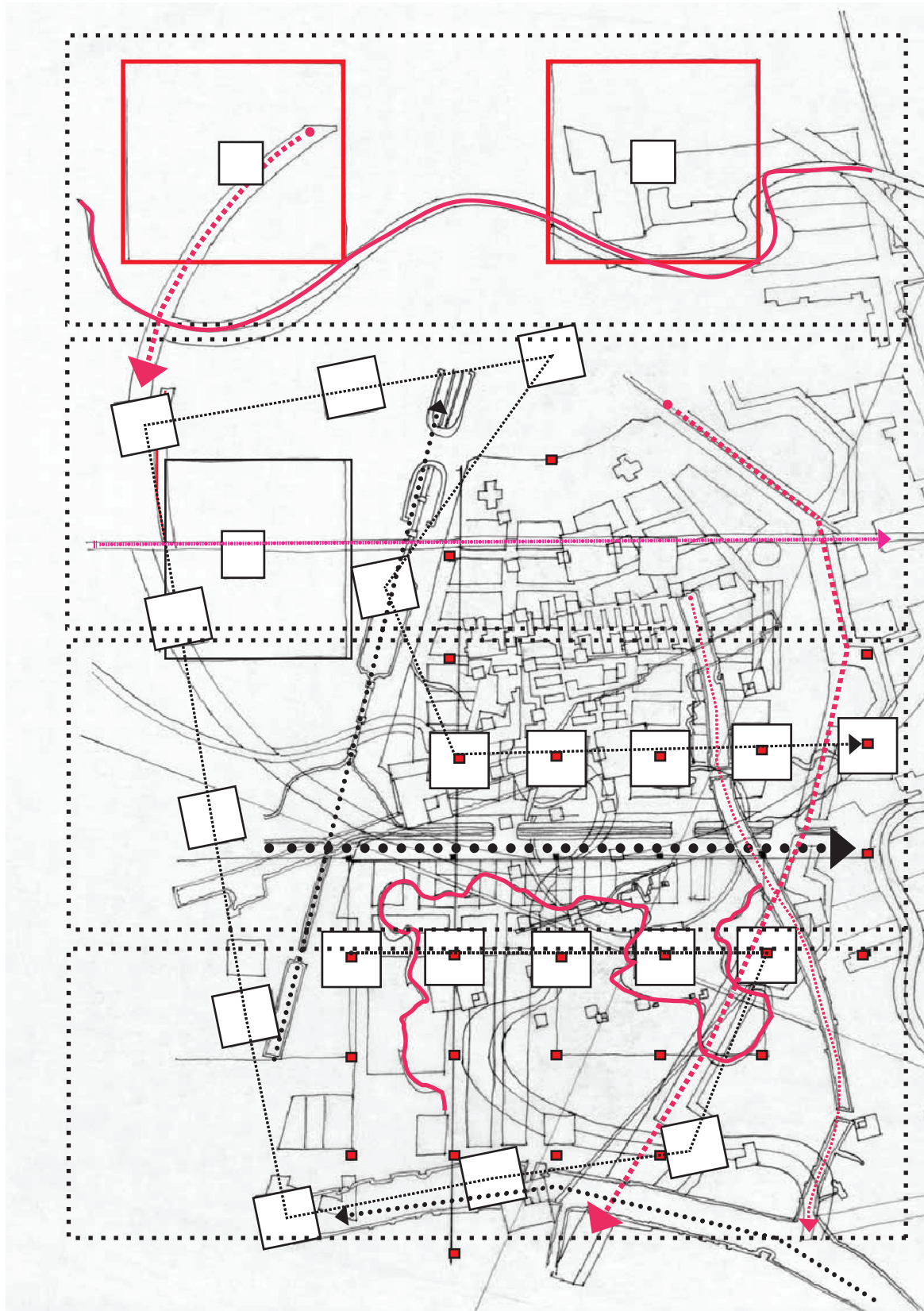
Spatial Effects – Narrative Sequence in Architecture

Conceptual Planning



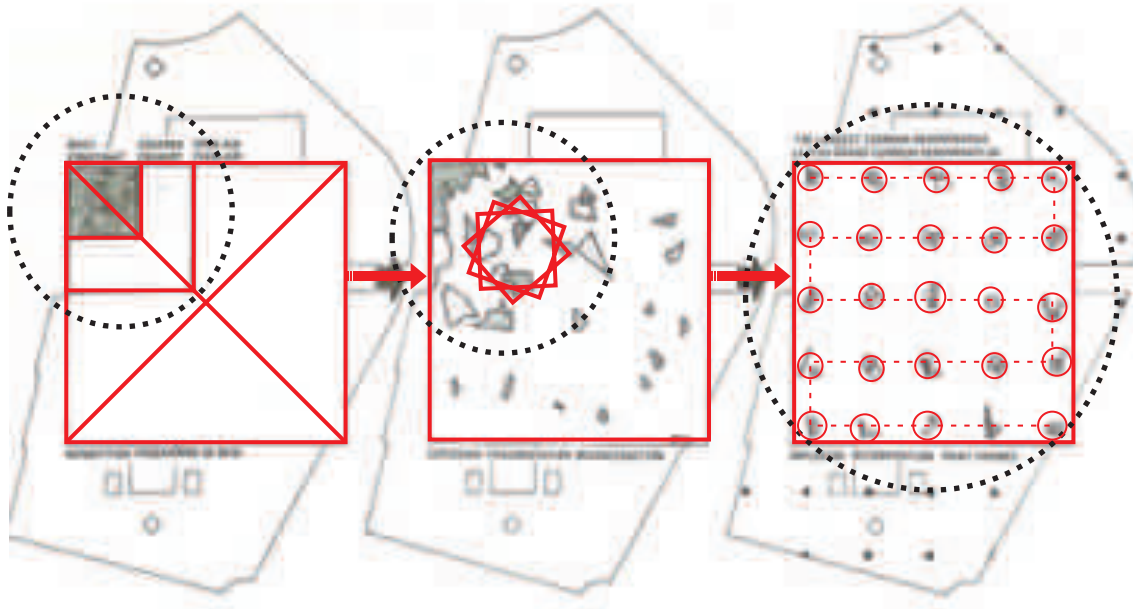
Spatial Effects – Narrative Sequence in Architecture

Sequencing - Cinegram

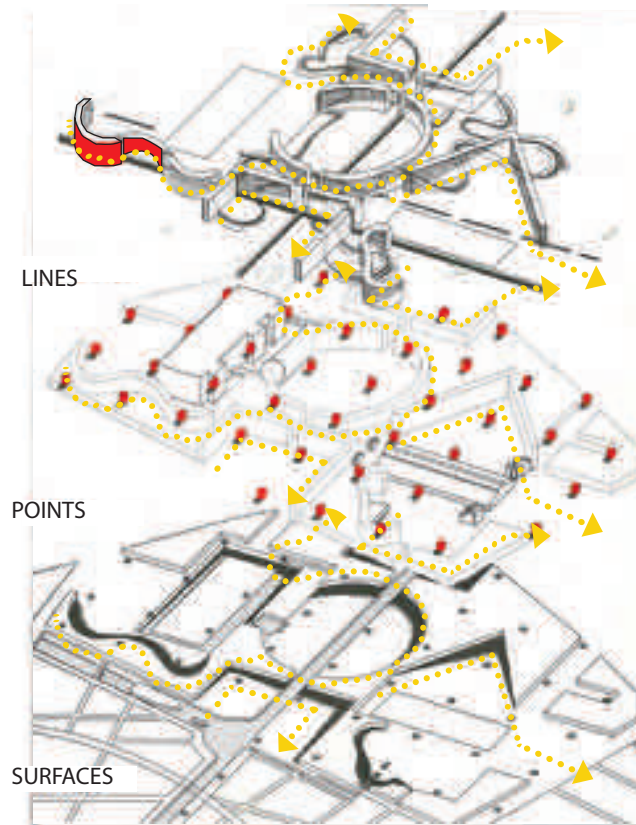


Spatial Effects – Narrative Sequence in Architecture

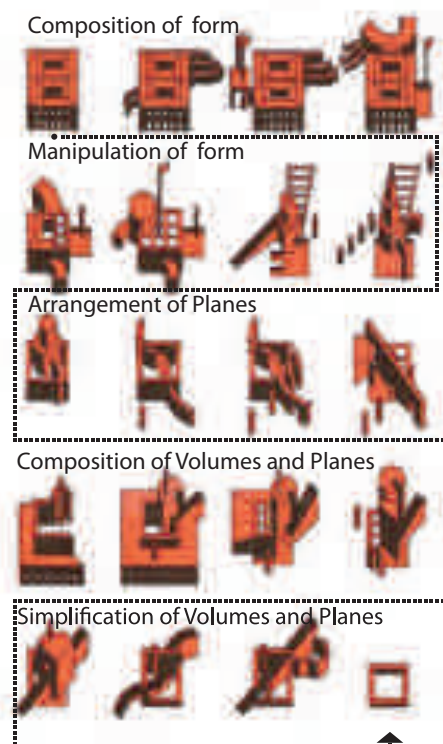
Semiotics and Language



Superimposition of Planes

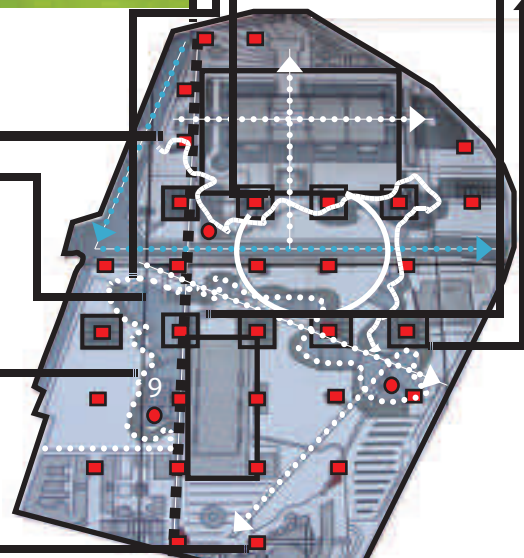
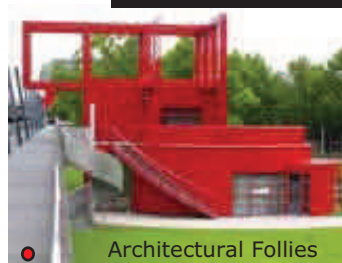
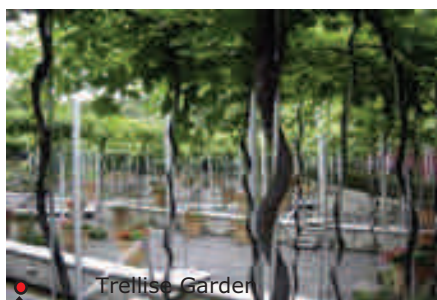
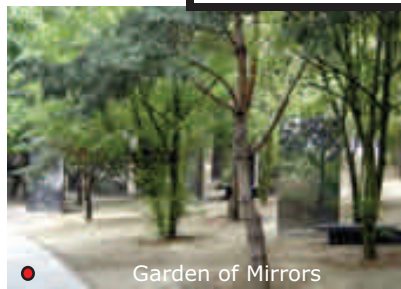


Configuration of Follies



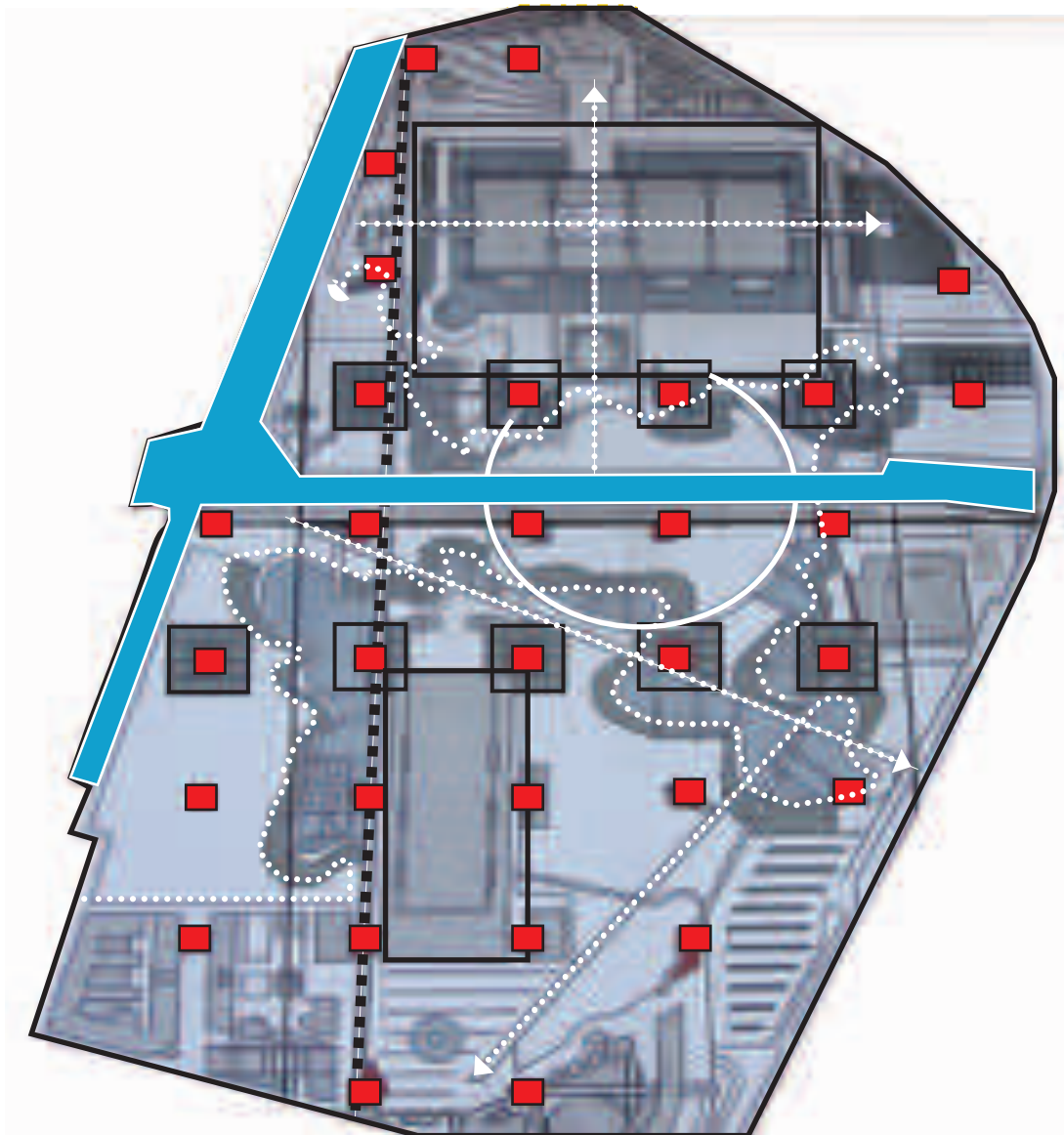
Spatial Effects – Narrative Sequence in Architecture

Cinematic Choreography



Spatial Effects – Narrative Sequence in Architecture

Narrative Sequence



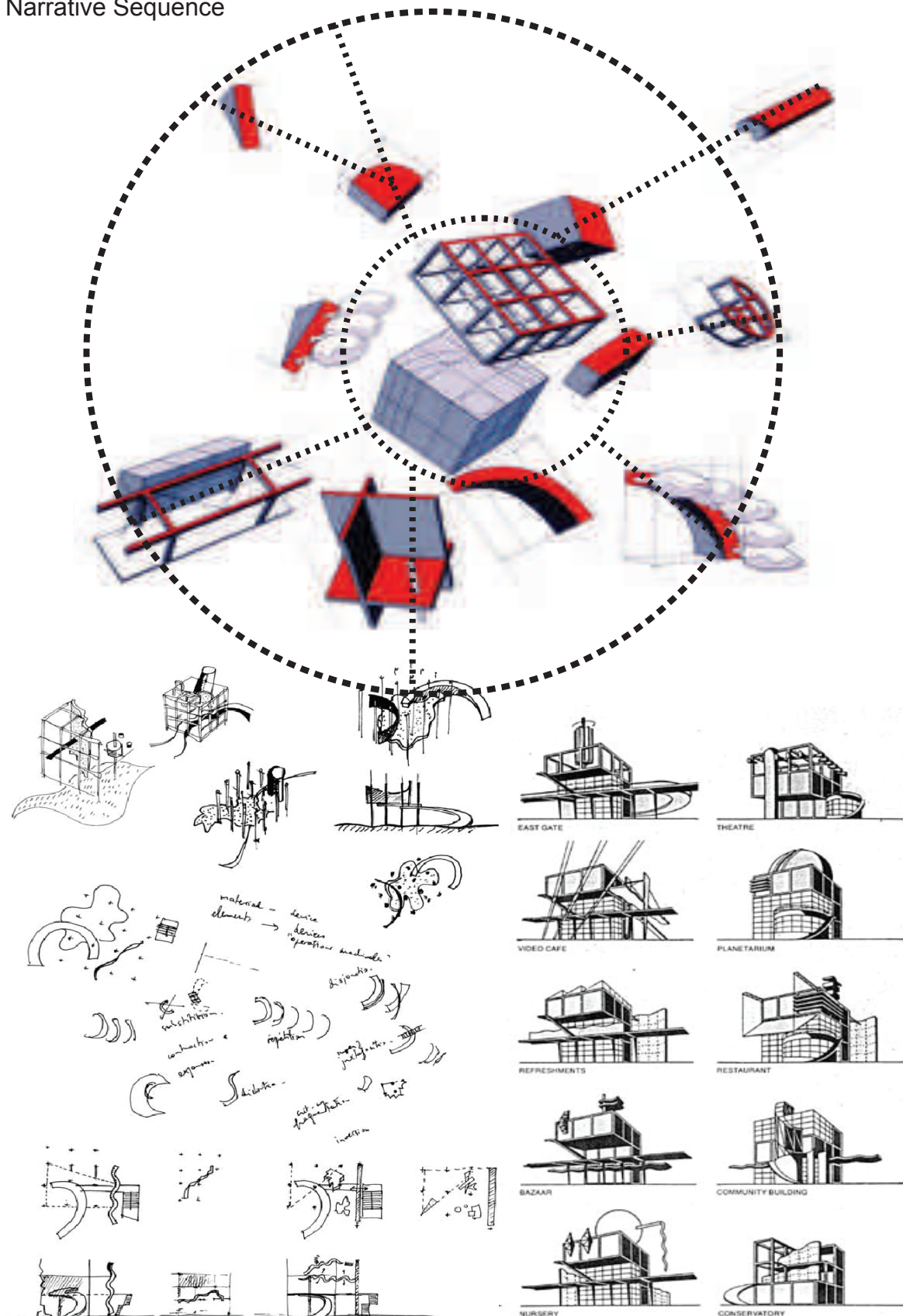
Tschumi raises questions regarding aspects of language other than graphic signs, symbols, and gestures in architecture. Through La Villette he performs a deconstructionist exercise of challenging the existence of connections between surface, language, and permanent structures. He argues in this instance that meanings are shifting and unstable as implied by the narrative sequence.



High Low

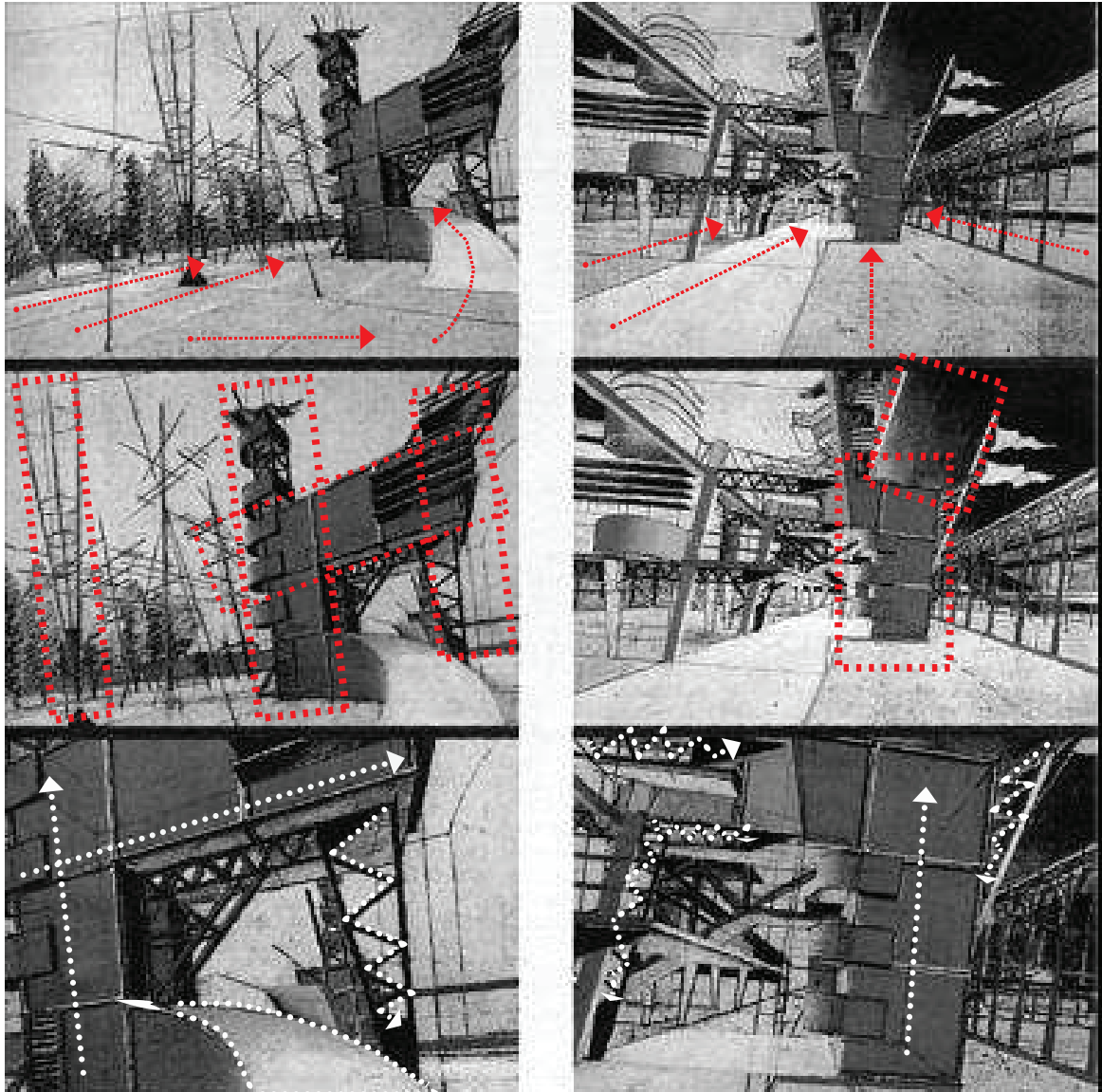
Spatial Effects – Narrative Sequence in Architecture

Narrative Sequence



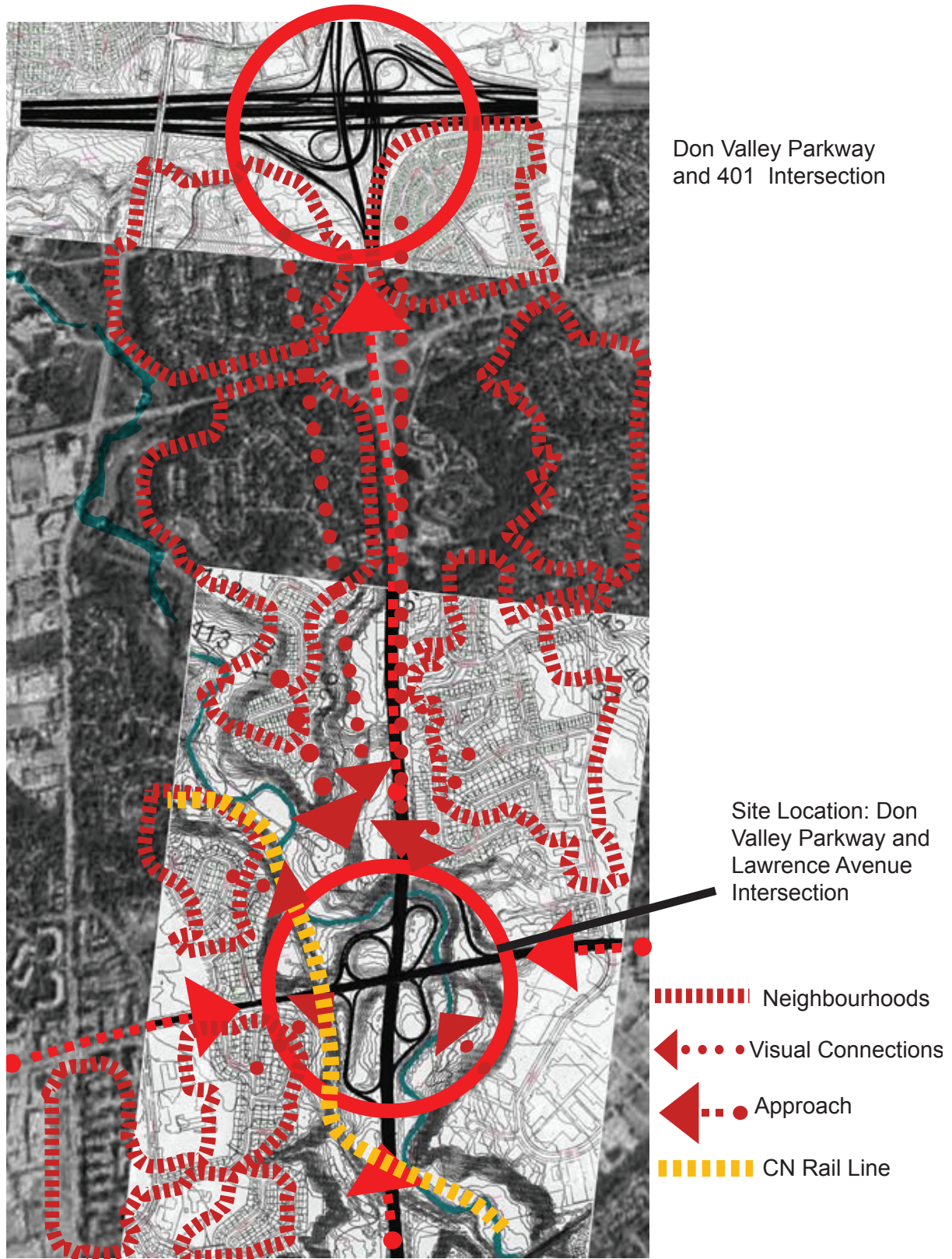
Spatial Effects – Narrative Sequence in Architecture

Narrative Sequence and Cinematic Choreography



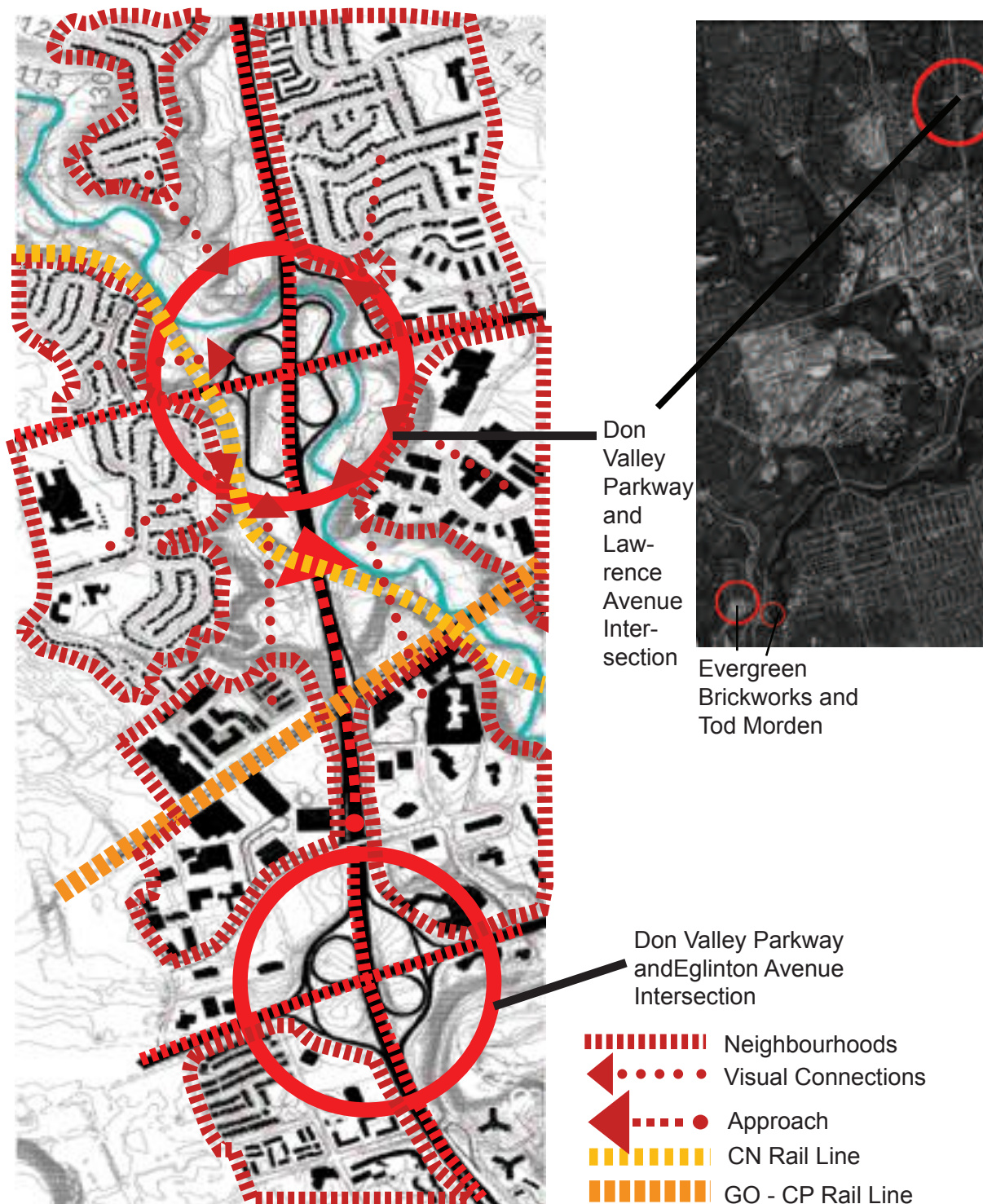
Spatial Effects – Narrative Sequence in Architecture

Contextual Site Analysis - North of Site



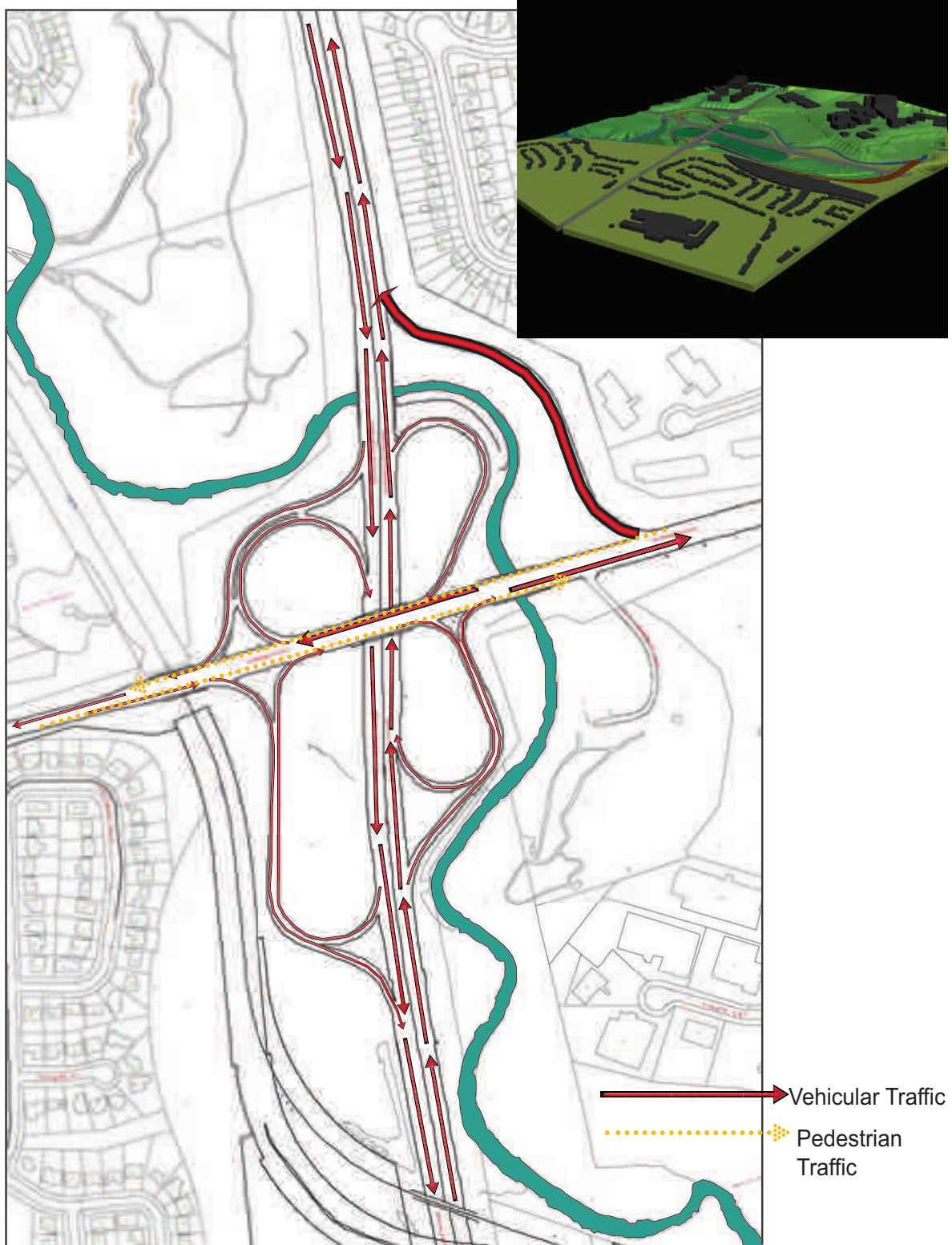
Spatial Effects – Narrative Sequence in Architecture

Contextual Site Analysis - South of Site



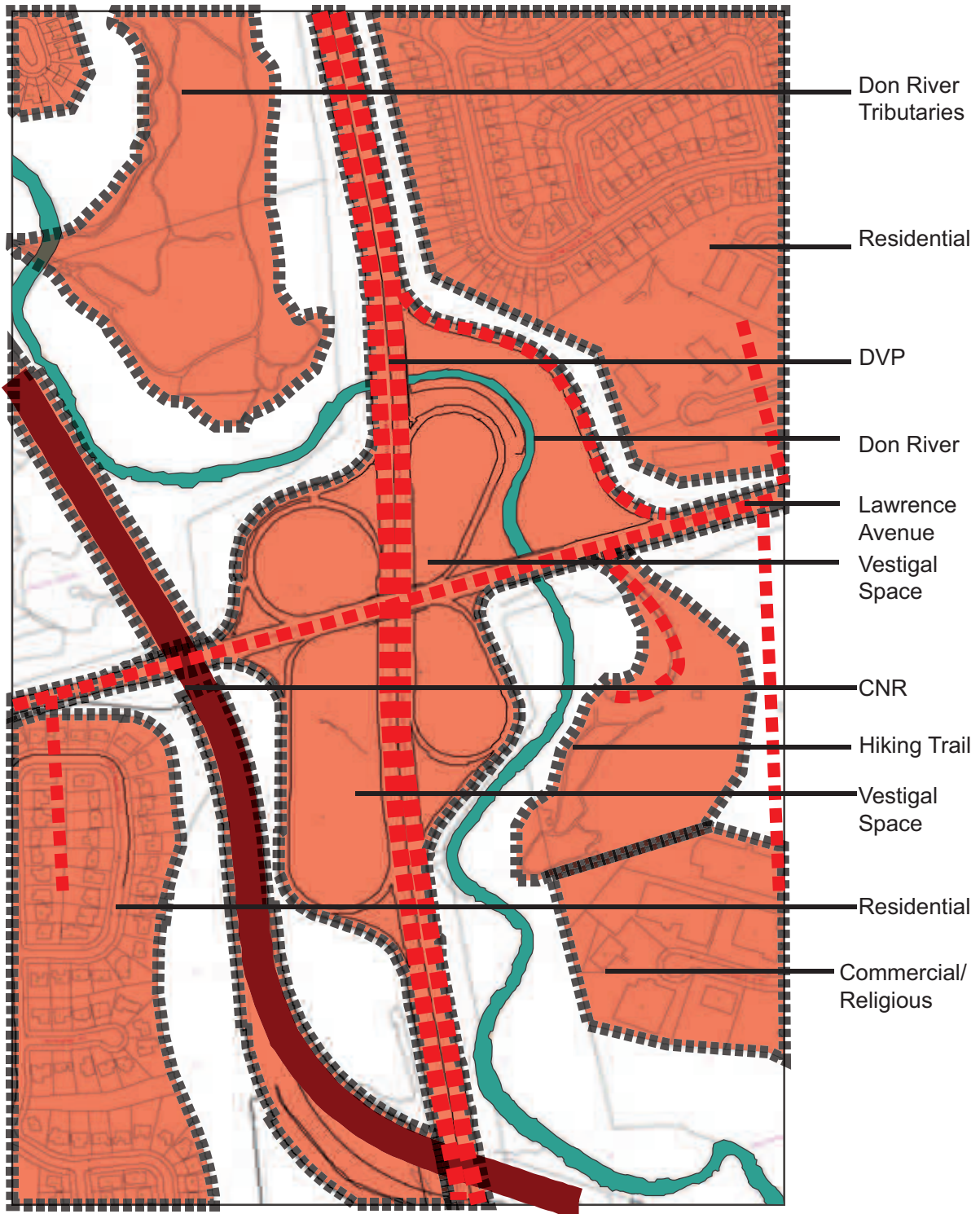
Spatial Effects – Narrative Sequence in Architecture

Approach to Site



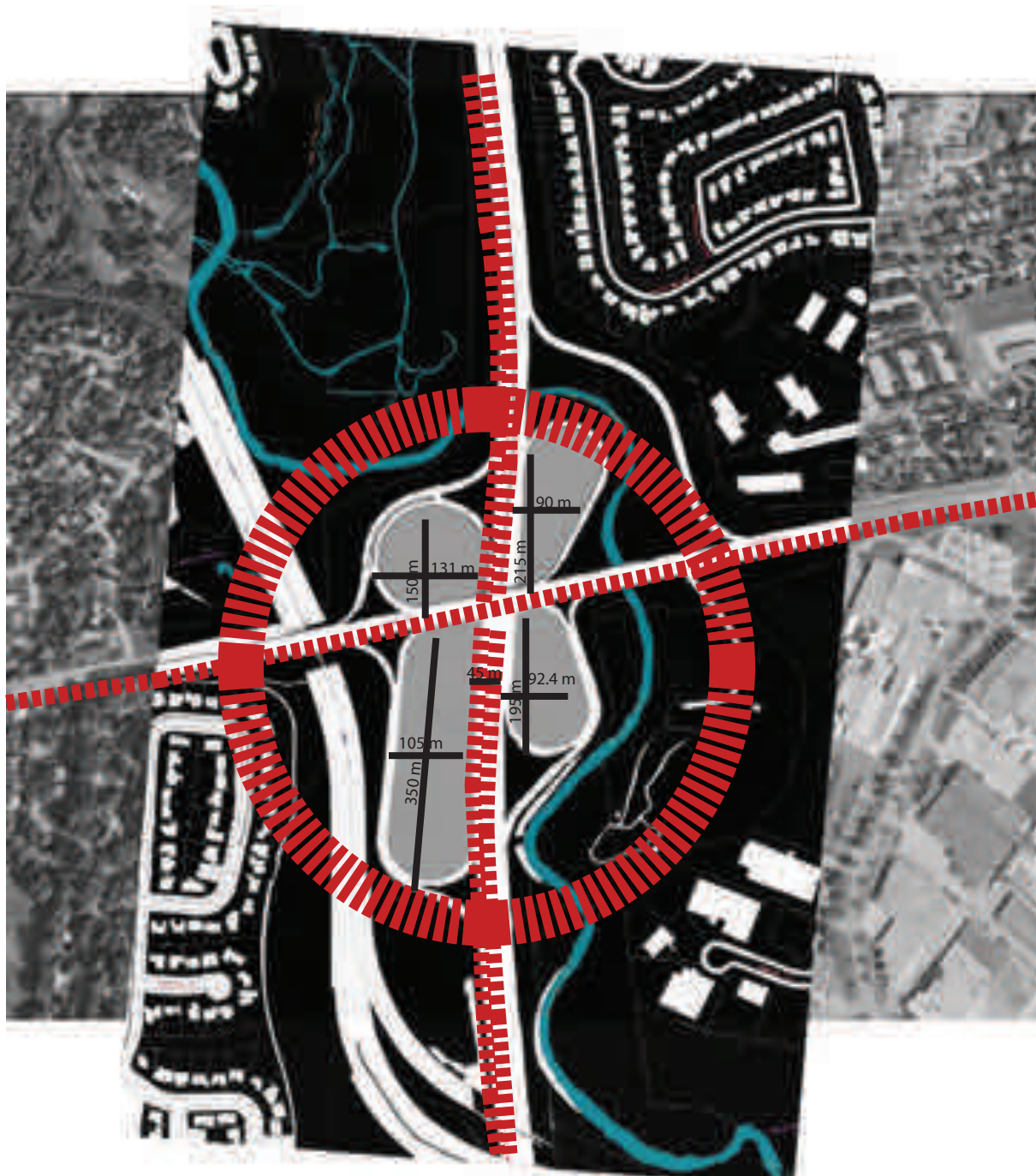
Spatial Effects – Narrative Sequence in Architecture

Objects on Site



Spatial Effects – Narrative Sequence in Architecture

Solid Vs. Void Components



- Solid - Vegetation / Parkland
- Void - Built areas

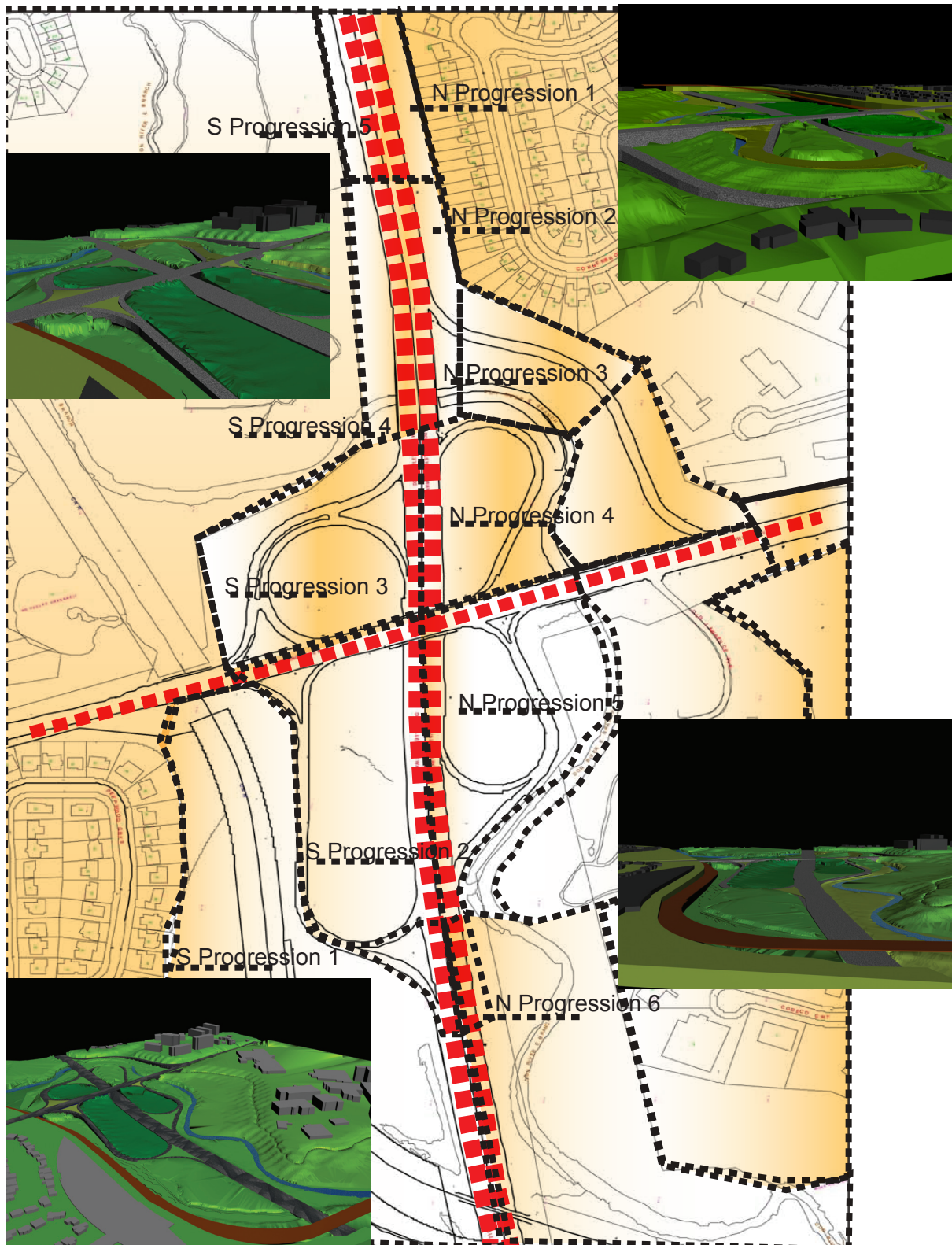
Spatial Effects – Narrative Sequence in Architecture

Contours and Levels on Site

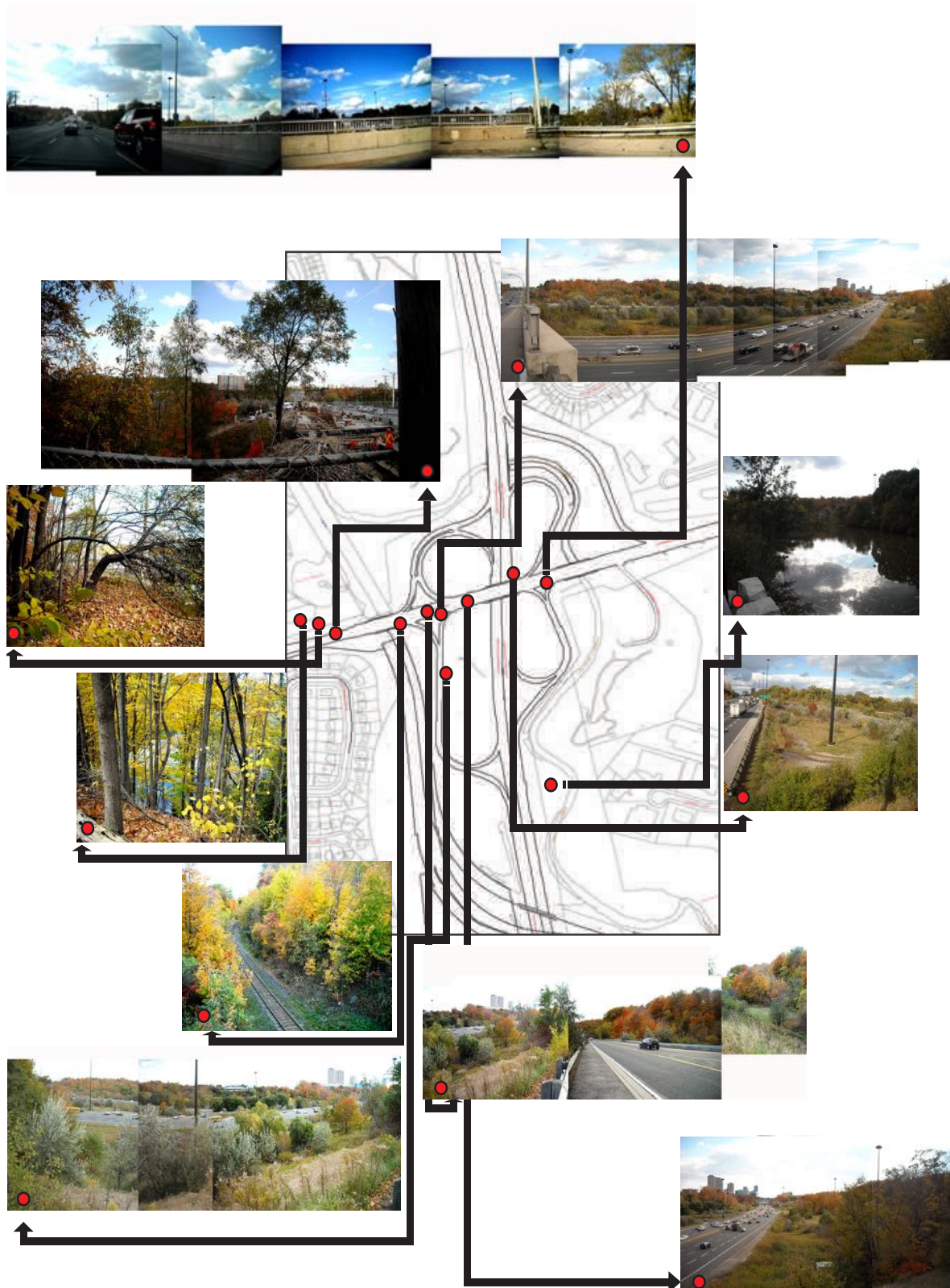


Spatial Effects – Narrative Sequence in Architecture

Narrative Progression

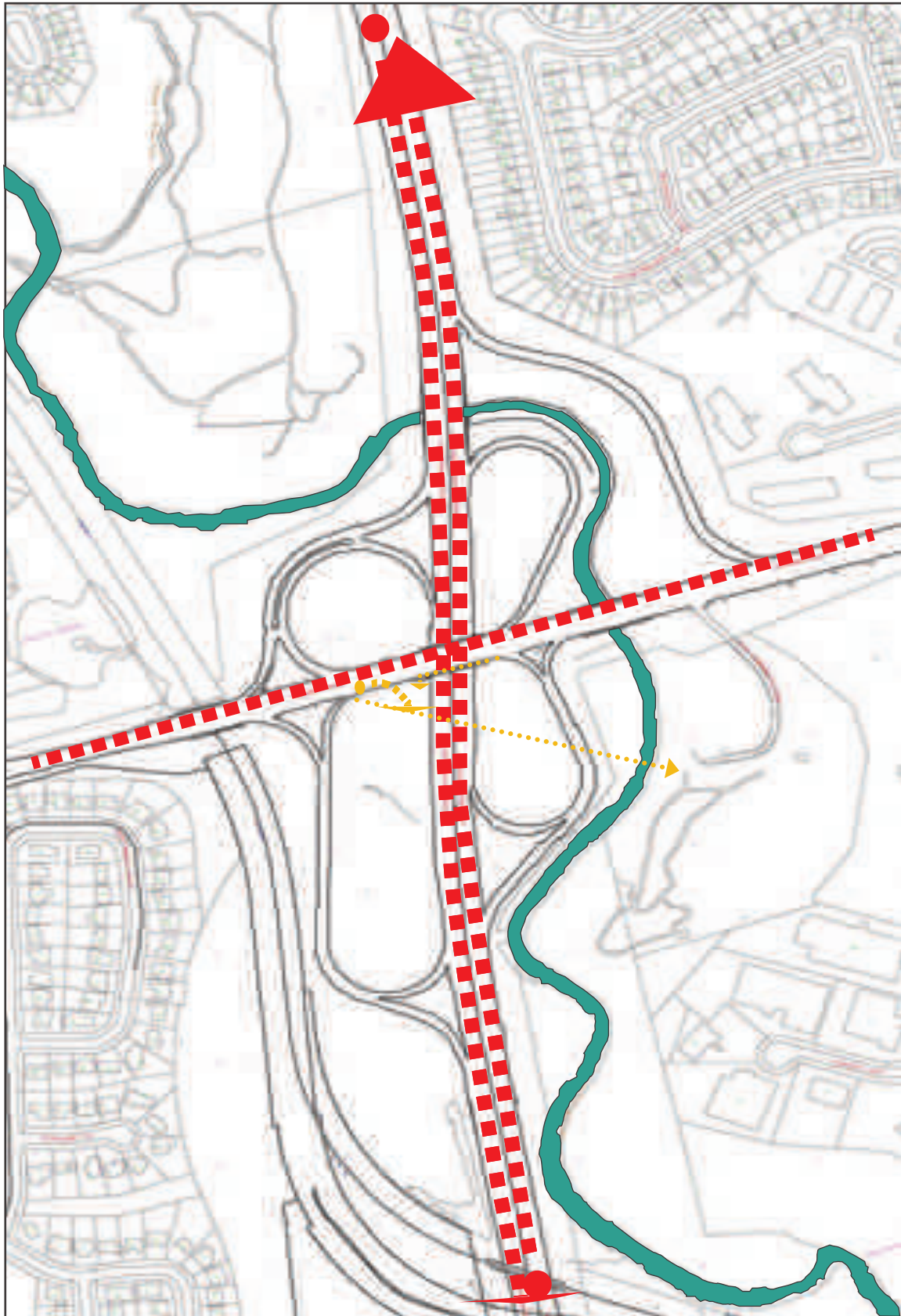


Cinematic Choreography



Spatial Effects – Narrative Sequence in Architecture

Proposed Approach to Site



Spatial Effects – Narrative Sequence in Architecture

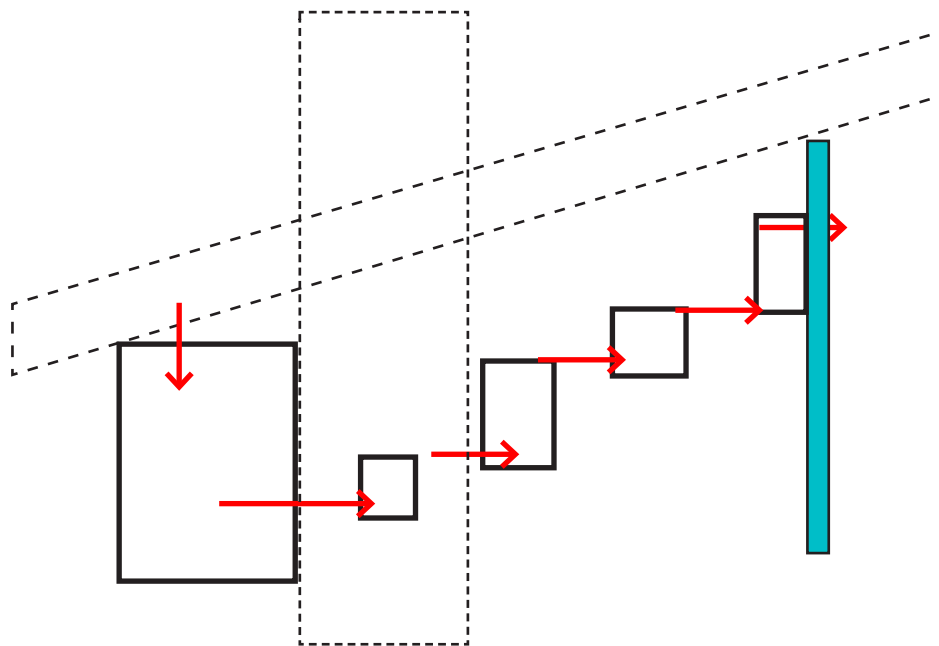
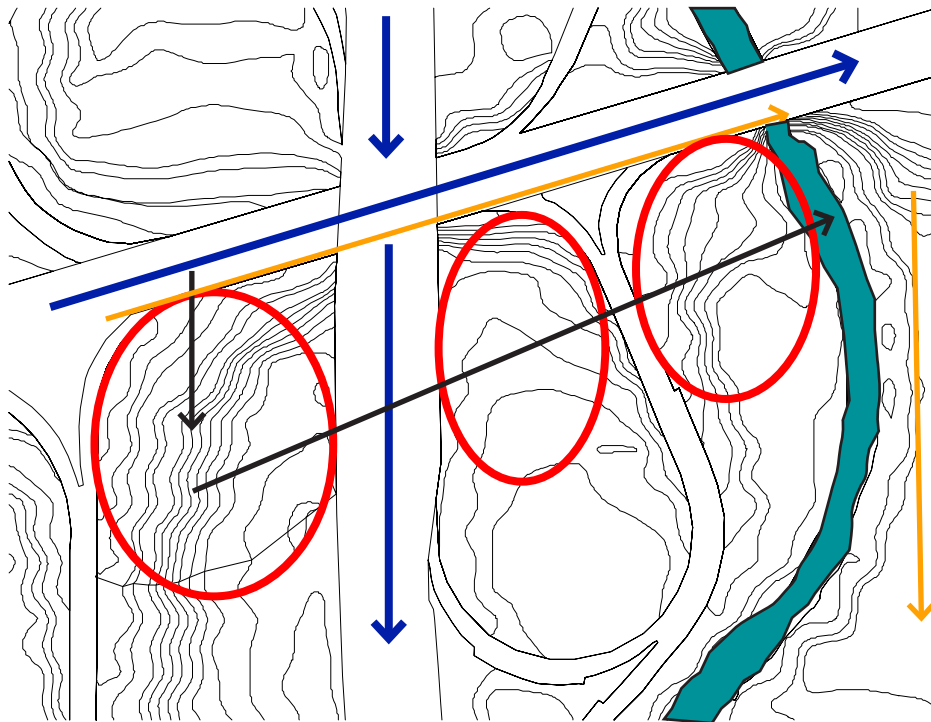
Case Studies	Theoretical Elements		
	Narrative	Semiotics	Cinematic Choreography
Parc de la Villette Bernard Tschumi	<ul style="list-style-type: none"> Program plays the same role of narrative utilizing other domains such as distortion and disjuncting. Programmatic content is filled with calculated distortions and interruptions making for a city fragment in each image. Each image reproduces an event within a space which strives towards its very concept of fragmentation, superimposition, order, and notation. Tschumi develops a strategy using a given spatial configuration for a program not intended for it. 	<ul style="list-style-type: none"> Tschumi employs a grid of red follies to articulate the planning and at the same time stress the historical motivation of the sign emphasizing its contingency and cultural fragility. Relationship between signifier and signified in architectural terms is interpreted as space and action, form and function, and codes and application. 	<ul style="list-style-type: none"> The idea of order is constantly questioned, challenged, and pushed to the edge to formulate a different pattern of order and movement. The choreographic strategy takes the form of a systematic exploration of one or more themes for instance: frames and sequences, superimposition and repetition, and symbolism and imagery. One of the goals was to investigate the concept of structure and permanence, as expressed in the respective forms of the point grid, the coordinate axes (covered galleries) and the random curve. "cinematic promenade."
Canadian War Museum Moriyama & Teshima	<ul style="list-style-type: none"> The spatial arrangement embodies the narrative and sequence of devastation, survival, rebirth, adaptation and life. The design reflects ideas of hope and solitude, inspired by stories of Canadian veterans, war poetry, and images found in photographs and paintings in the Canadian War Museum's collections. There is a strong narrative which unfolds sequentially illustrating the soldiers' experience in foreign and desolate landscapes. 	<ul style="list-style-type: none"> The design is based on the theme of regeneration, which brings to mind not only the impact of war on the land, but also nature's ability to regenerate and to recover from the devastation of human conflict. The Museum features Morse Code windows on the North peak, and other windows that spell out the Museum's initials "CWM" on the South wall. At 11 a.m., each November 11, the sun shines through the window of the Museum's Memorial Hall and illuminates the headstone of Canada's Unknown Soldier. 	<ul style="list-style-type: none"> The overall expression of the building is horizontal, with angular roof planes and tilted wall planes emphasizing the disorder and chaos of war. The memory of war is captured in the complex system of tilting planes that collide and intersect with one another leading to a sense of disorientation from within. The building expresses the ambiguities of war and sacrifice through spatial choreography and manipulation of form.
Imperial War Museum Daniel Libeskind	<ul style="list-style-type: none"> The Museum tells the story of how war has affected the lives of British citizens since the onset of the first world war. Libeskind's design style applies distortion and defragmentation to depict the illusion of war which is narrated spatially as one moves through the building. This technique manipulates conventional vertical and right angle-built geometry into free-flowing forms and asymmetric composition. 	<ul style="list-style-type: none"> Libeskind's design is a symbolic sculpture, with three curved forms shaped as shards from a broken globe, 'to reflect the way war has devastated the entire world representative of destruction in air, earth, water. The imagery of this building draws heavily on Libeskind's earlier projects Jewish museum in Berlin and the serpentine gallery - the symbolic sculptural shapes, sharp angles, metal cladding and slash-lines in the surfaces. 	<ul style="list-style-type: none"> The museum spaces have been arranged to choreograph exhibitions that illustrate in a concrete and visible form the personal histories of the people affected by war. The building form architecturally weaves the fabric of destruction and conflict while at the same time frames the aspect of hope and light through the iconic wind tower.
Jewish Holocaust Museum Daniel Libeskind	<ul style="list-style-type: none"> The building spatially narrates the brutalities of the holocaust and torture through the zig zag windows and jagged openings for light to stream down in the basement A series of void zones are created which are empty spaces about 66 feet (20 m) tall, that slice linearly through the entire building. Libeskind deliberately forces entry through the basement to narrate the spatial horrors of the Jewish victims that at the time of the Nazi regime would hide in cellars, basements, and tight underground spaces 	<ul style="list-style-type: none"> The design is a twisted zig-zag and is accessible only via an underground passage from the Berlin Museum's baroque wing. Its shape is reminiscent of a warped Star of David. The museum consists of three spaces. All three of the underground tunnels, or "axes," intersect and represent the connection between the three realities of Jewish life in Germany, as symbolized by each of the three spaces. 	<ul style="list-style-type: none"> The tall staircase visually and spatially connects all the floors. It acts as the circulation spine as well as an apparatus choreographing events as it spatially cuts through. Libeskind took inspiration from the Memorial Book, which lists all the Jews murdered in the Holocaust. The angled windows and cutouts cast ghastly shadows on the wall and have been derived by connecting imaginary lines to the addresses of famous and murdered Jews near and close to the museum site.
Yad Vashem-Jewish Holocaust Memorial Moshe Safdie	<ul style="list-style-type: none"> The building delivers a powerful narrative about the Jewish victims in the holocaust by embedding the spaces underground and dramatically cutting through the Yad Vashem site and framing views of the valley. The long vast corridor is conceived as an architectural promenade with various gallery spaces stitched into its structure narrating events during the holocaust along its length. 	<ul style="list-style-type: none"> The building is essentially an extruded prism linearly slicing through the valley and bringing in natural light to enhance the spatial quality of the dark and dimly lit spaces. The tapered cylindrical chamber is reminiscent of a circumambulatory in Buddhist Stupas. 	<ul style="list-style-type: none"> The spaces are arranged along a central circulation spine connecting to exhibition and gallery spaces narrating a sequentially choreographed event of the holocaust and Jewish victims. The progression frames the final event in a circular conical space with pictures of the victims. The end of the journey at the edge of the prismatic spine frames dramatic views of the valley.
Thermal Bath Vals Peter Zumthor	<ul style="list-style-type: none"> The architect treats the whole construction as a volume of rock, which is, hollowed out of the mountain. The spaces are arranged like geometric configurations based on Piet Mondrian's paintings. The architect has created a spiritual ambience based on a play of rough and smooth surfaces, contrast of darkness and light, and reflections on the water which appeal to the senses. 	<ul style="list-style-type: none"> The imagery of the bath resembles the dam of Zerveila. Zumthor has also incorporated the idea of excavation and the design reflects his inspiration from geology and the natural stone embankment. The building, on the other hand, is fragmented in nature but monolithic in appearance and endeavours to assert itself as a singular block of stone. 	<ul style="list-style-type: none"> The use of material and colour articulate the spatial ambience and rejuvenative qualities. The progression of spaces evokes an exploratory quality and is heightened by the visual and geometric scaling and composition. The space between the massive volumes of stone is filled with water, which enables the visitor to swim to the different areas of the bath.

Spatial Effects – Narrative Sequence in Architecture

Site Conditions	FrameworkComponents				
	Narrative Sequence	Semiotics and Symbolology	Cinematic Choreography	Pros	Cons
Approach	The Don Valley Parkway along its route towards Lawrence Avenue offers interesting views of the valley and the landscape. The sequential progression along the route and interchange frame changing views of the landscape and create a narrative as one moves through the differing levels.	The Approach is sinuous and serpentine along the Don Valley Parkway. It mimics the serpentine flow of the Don River which it cuts through.	As you approach the site either from the Don Valley Parkway or Lawrence Avenue, the site engages the onlooker with changes in levels and plains, distant objects and buildings as well as a passover for the CNR.	The approach to the site due to contours and levels provides an opportunity to play with the different heights of the landscape and build under and over the parkway in certain areas	Additional space and roads will have to be designed for people wishing to enter and exit the facility which may cause congestion problems as the Don Valley Parkway is a busy road.
Levels	The natural setting of the Don Valley Parkway offers degrees of visual narratives by manipulation of the landscape.	The levels provide visual intensities experienced through the shaping and sculpting of the valley.	By moving through the valley either on foot or in a vehicle, due to the formation of the parkway, it frames itself cinematically providing visual experience.	The site offers interesting interventions due to the changes in levels and heights.	Effectively using the contours to justify the conceptual and programmatic integration into the site may be a challenge.
Circulation	The requirement of the site and the program is to successfully incorporate a narrative structure into the overall scheme integrating the narrative of the site and the facility by means of circulatory elements and overall flows of the site.	The formation of a building language would emerge from the semiotics of the site and circulation patterns.	Through movement and circulation the functions will be choreographed to appear as part of the site.	The existing circulation may provide guidelines for designing entry and exit conditions into and out of the site.	Creating a simplistic and clear circulation system for the building may interfere with the existing circulation system.
Hierarchy	The hierarchy of building components will be established through importance of function and form. The narrative sequence will follow the importance of low to high narrative fields established through program.	The form or symbolic meaning for the building will be designed according to functional zones and will make itself clear through representation emerging out of the site context.	The spaces will be framed cinematically choreographed according to the narrative structure of the building program.	This will lead to distinguishing the important zone in the facility and formulating the building language accordingly.	The challenge is to keep a rational approach which represents the narrative structure.
Axis	Axis plays an important role both on site and the building facility unfolding the narrative sequence through movement.	The axis of the Don Valley Parkway carries a significant symbolic importance linking the 401 to the Downtown core.	The axis of the Don Valley Parkway is choreographed along the valley cutting through and sculpting, framing views through sequential progression.	The axis of the Don Valley Parkway may act as a guideline to base the design premise.	The axis may become problematic in terms of how it is designed in the facility. A component of the axis may be designed.

Spatial Effects – Narrative Sequence in Architecture

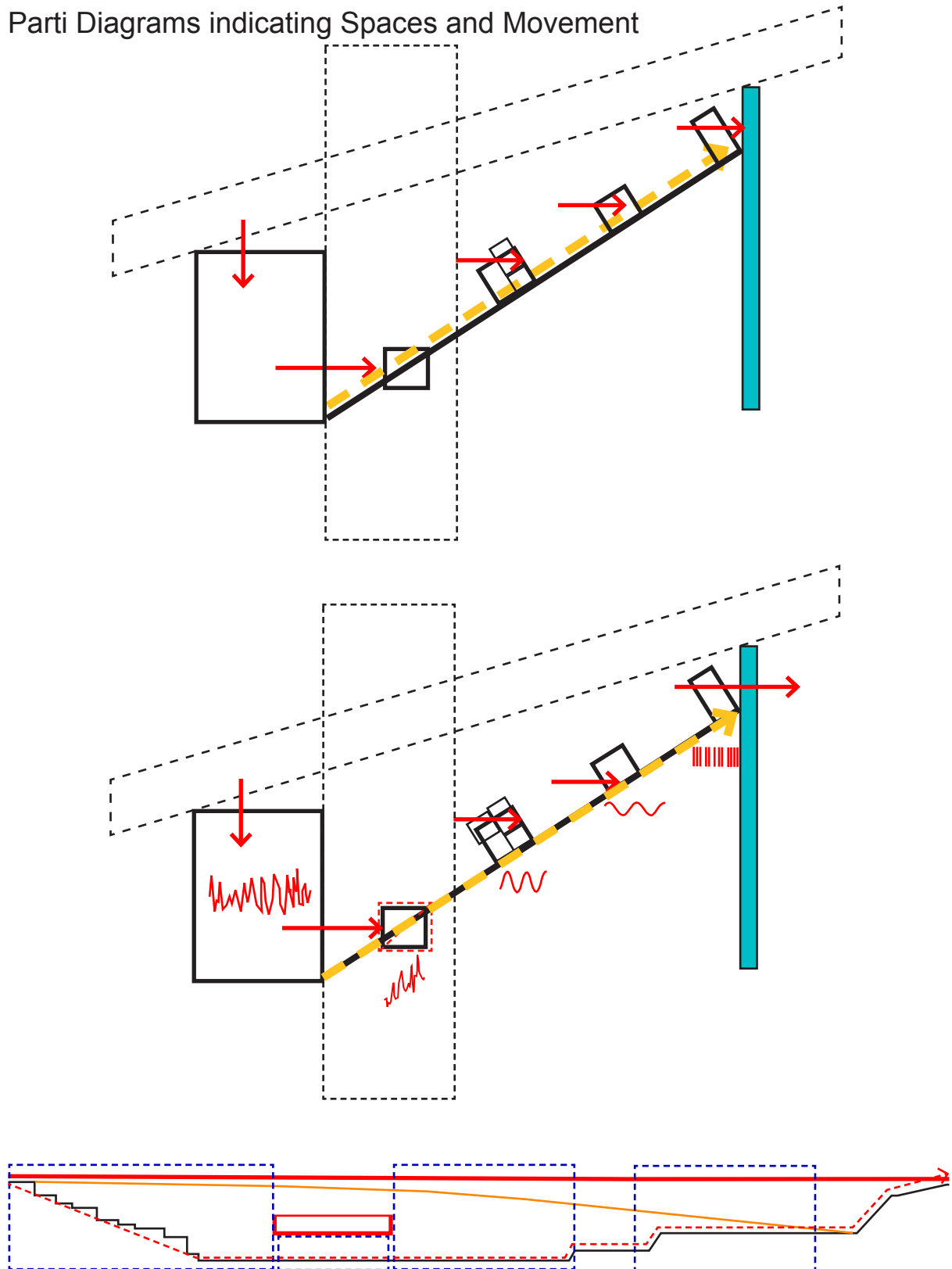
Connecting Vestigial Landscapes



Parti Diagram

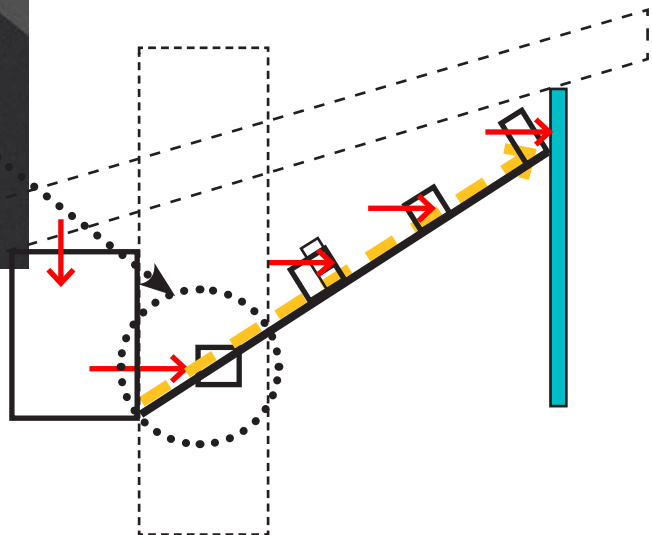
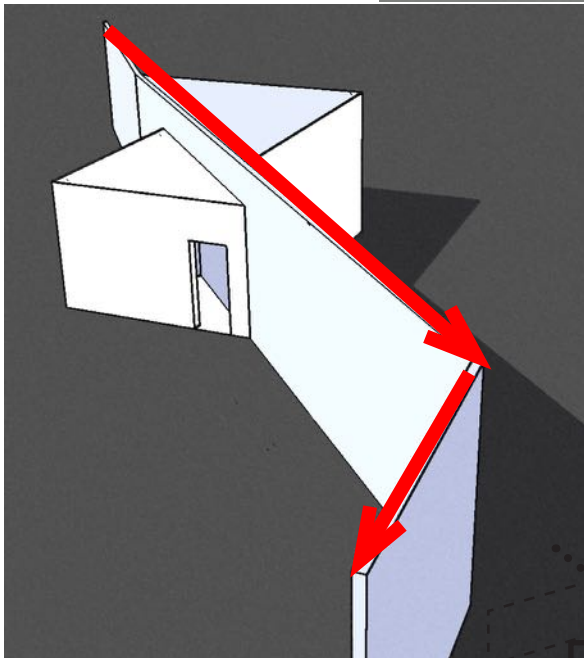
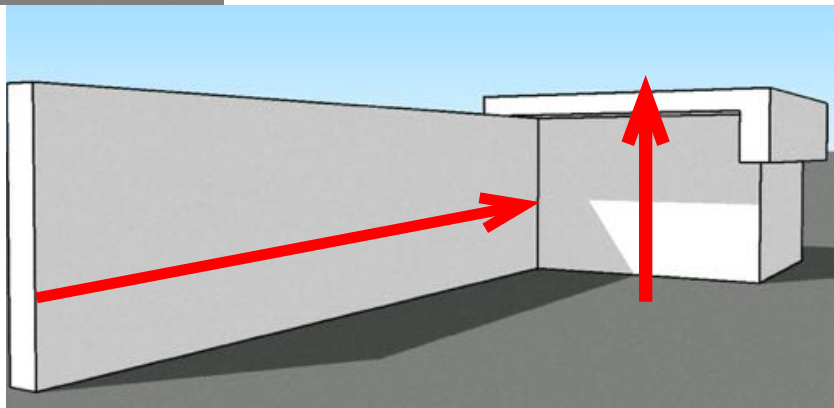
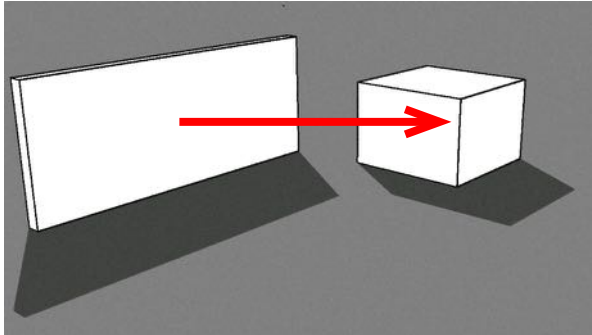
Spatial Effects – Narrative Sequence in Architecture

Parti Diagrams indicating Spaces and Movement

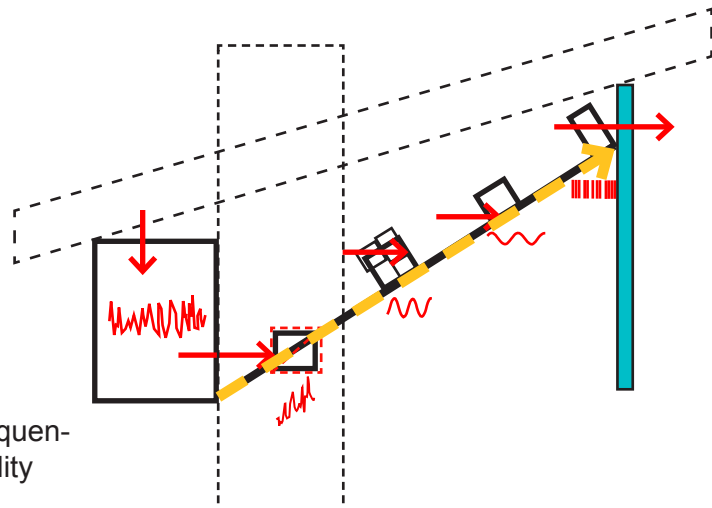
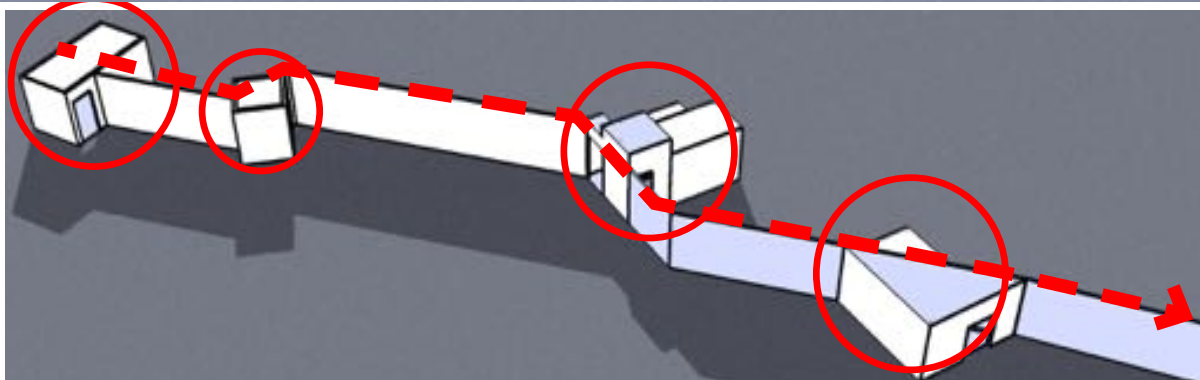
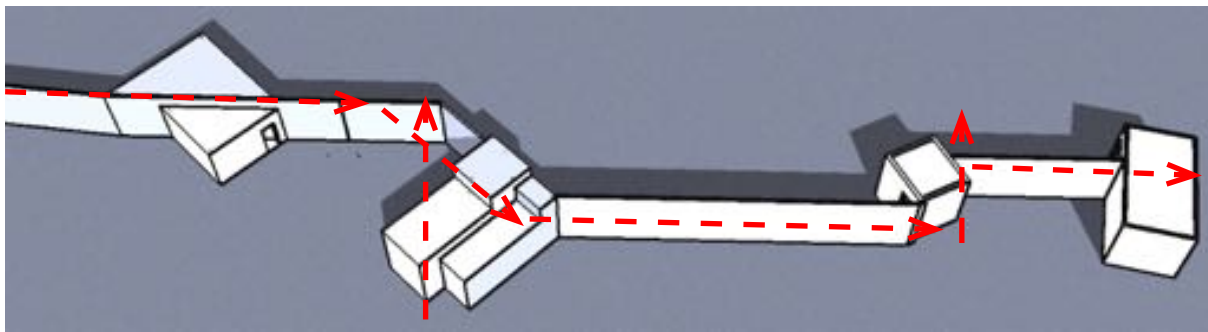
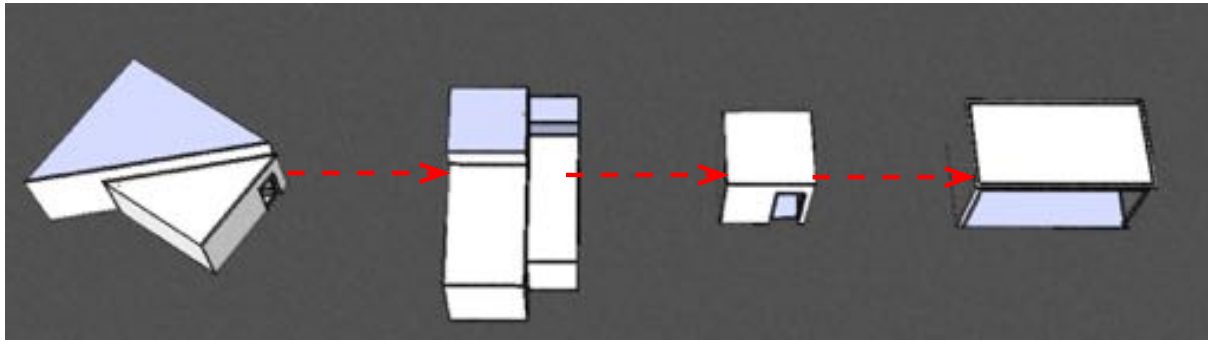


Spatial Effects – Narrative Sequence in Architecture

Stitching Volumes and Planes



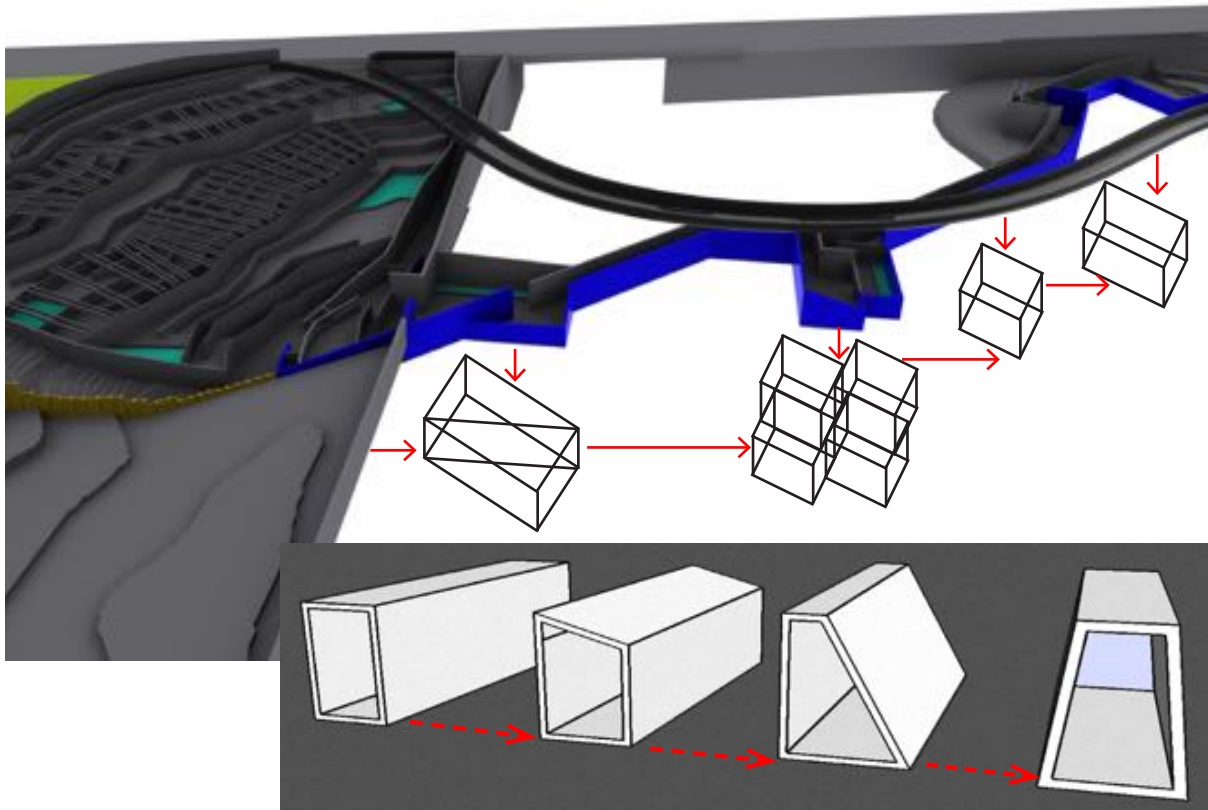
Geometric Properties of Space



Volumes and Spaces based on Frequency of Sound Waves - Acoustic Quality

Spatial Effects – Narrative Sequence in Architecture

Geometric Properties of Space

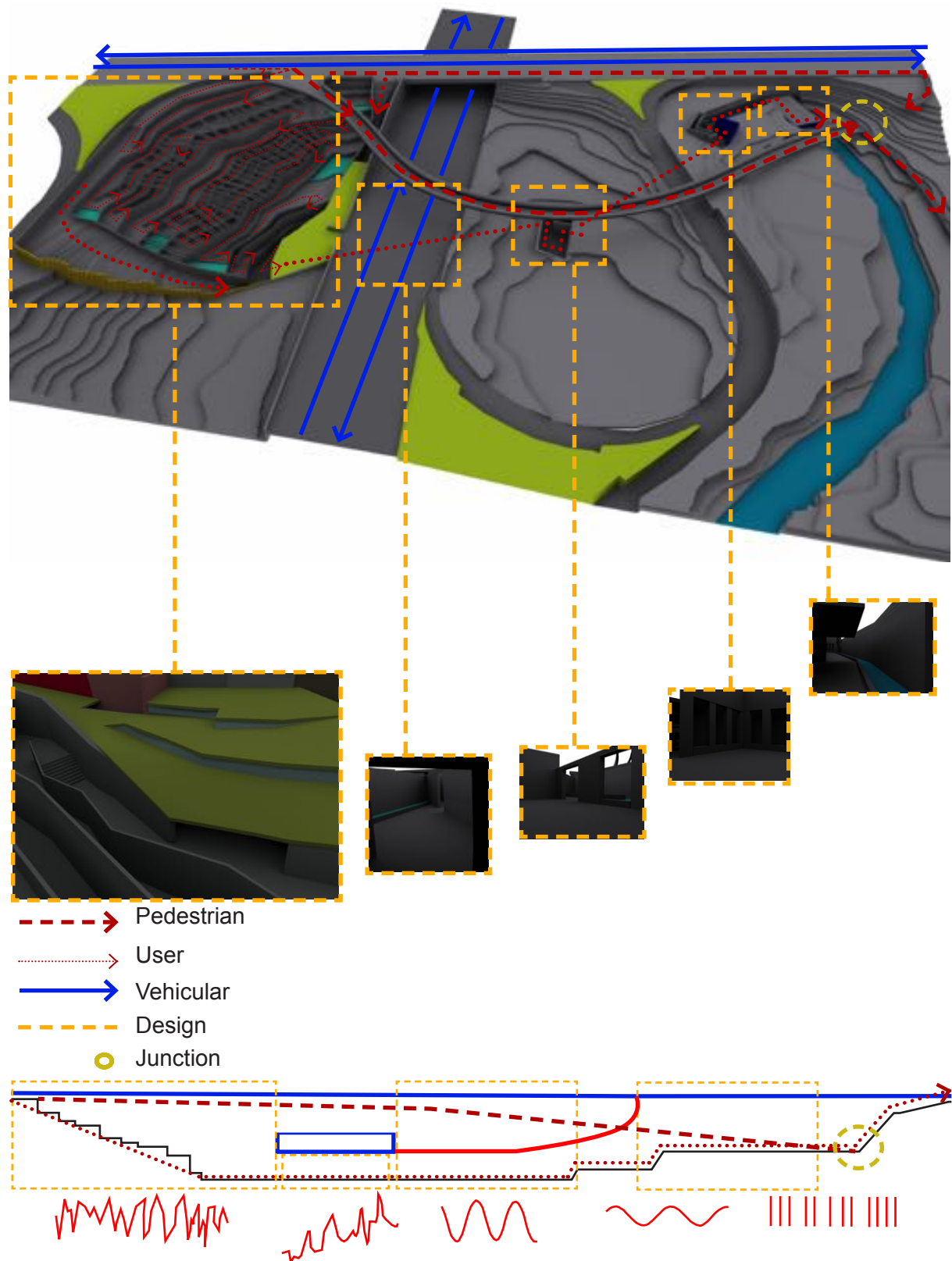


Transition Spaces



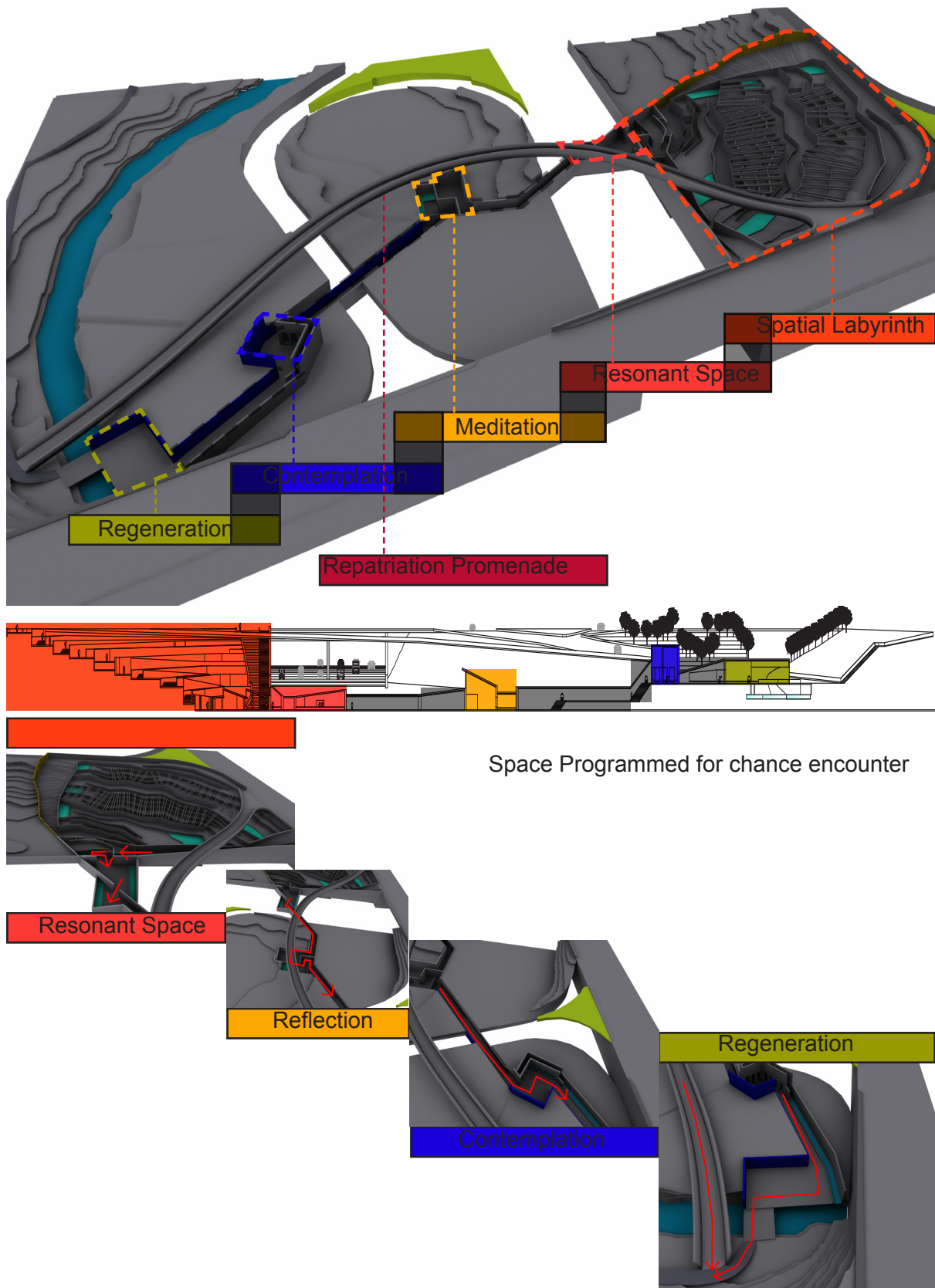
Spatial Effects – Narrative Sequence in Architecture

Narrative Intensities and Paths



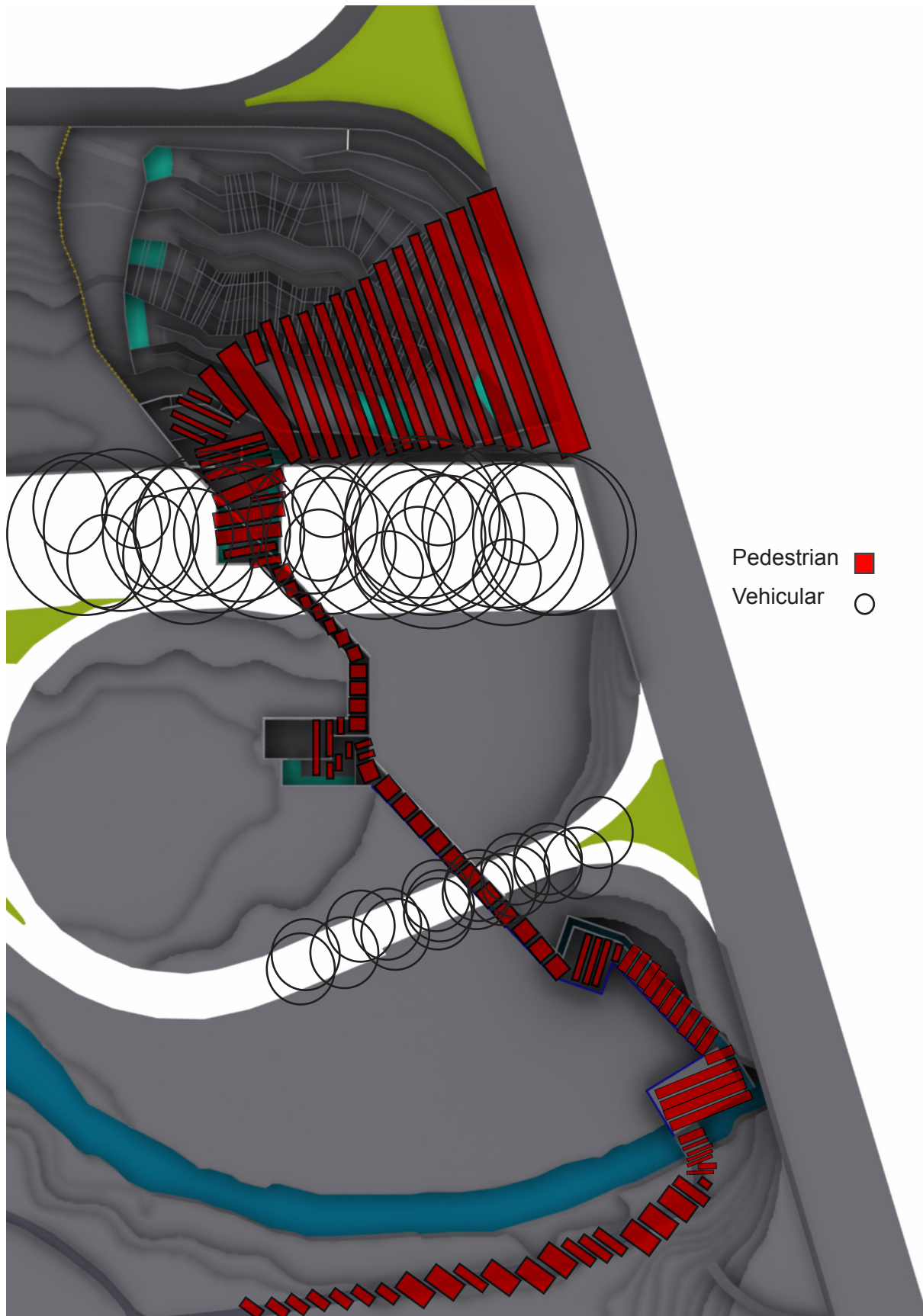
Spatial Effects – Narrative Sequence in Architecture

Program



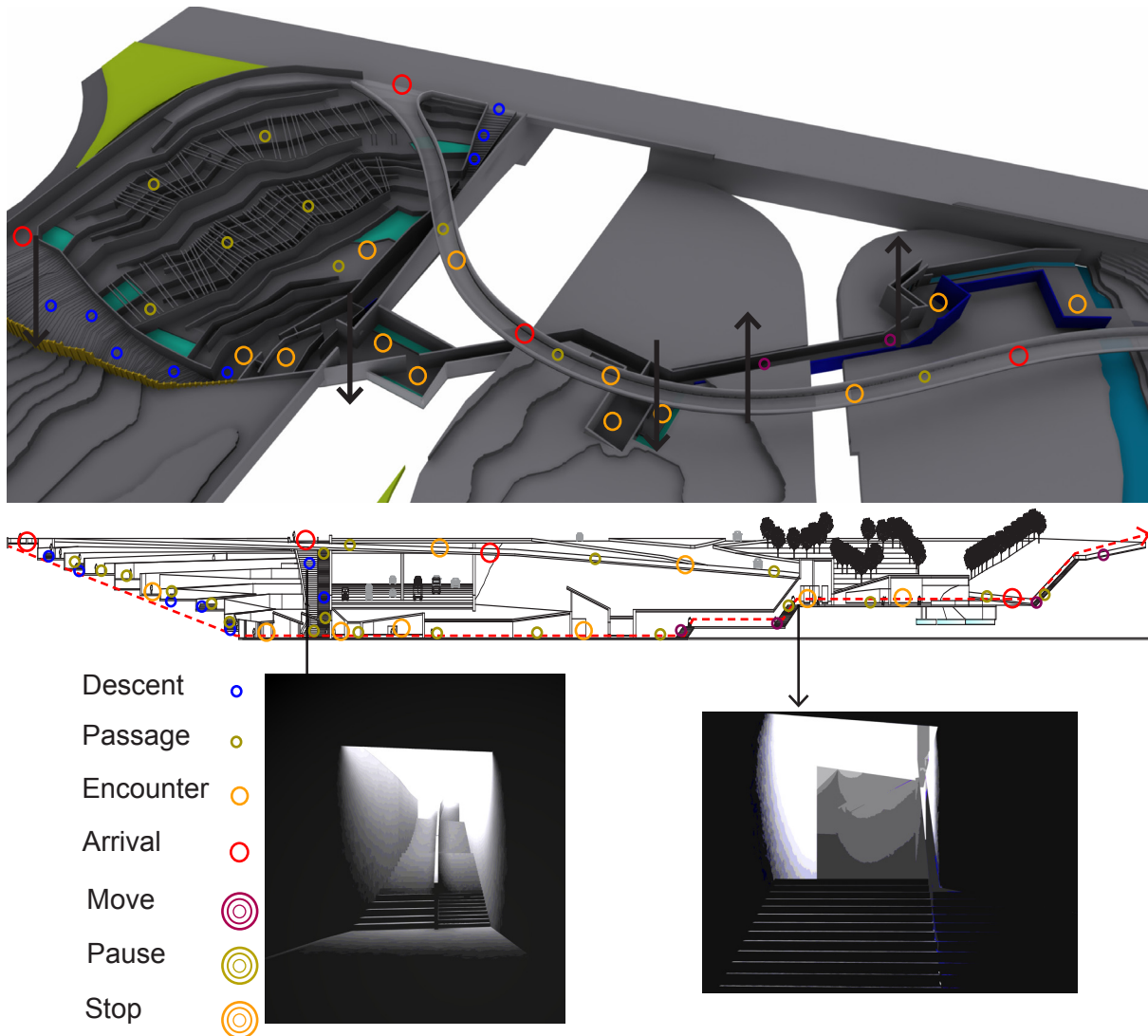
Spatial Effects – Narrative Sequence in Architecture

Traffic Flows on Site

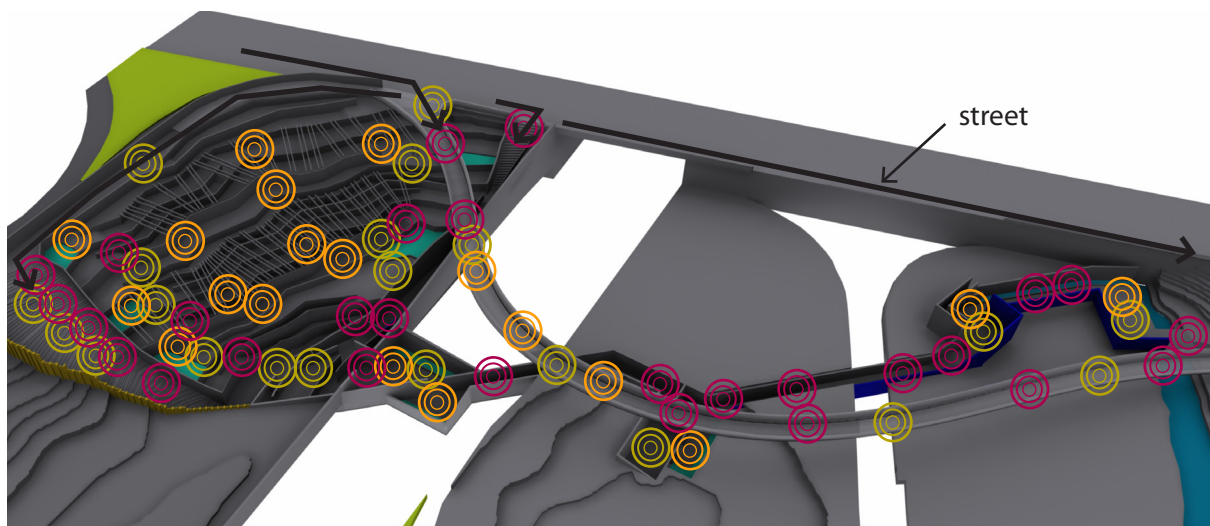


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Movement on Site



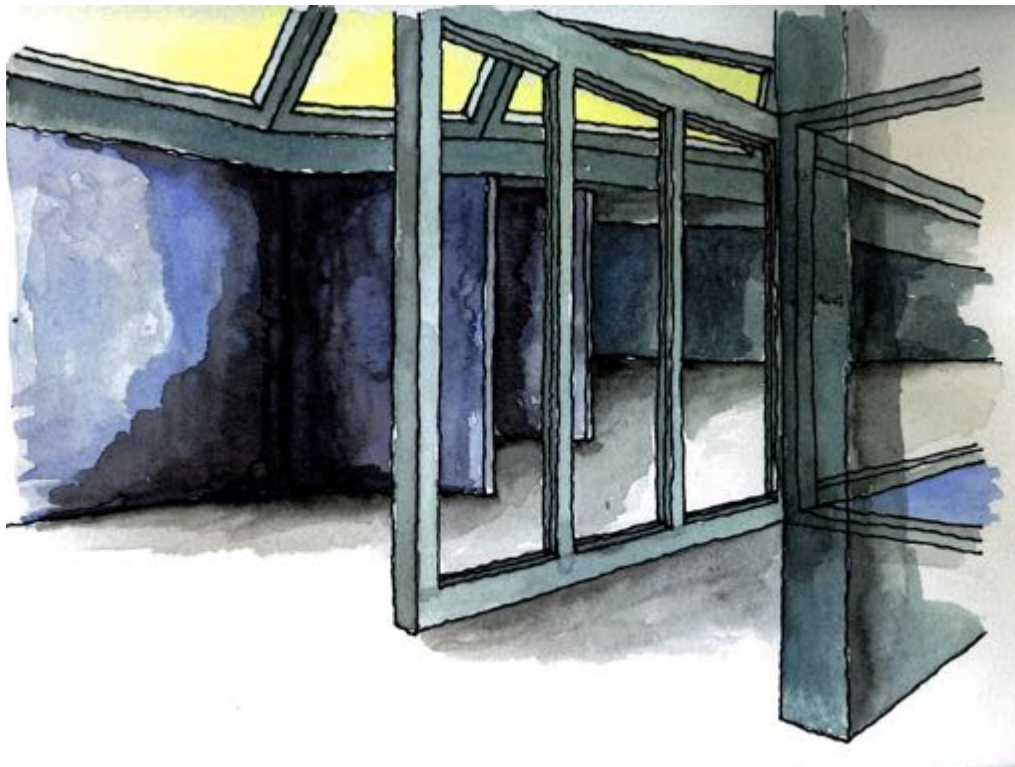
Levels of Speed



Spatial Effects – Narrative Sequence in Architecture

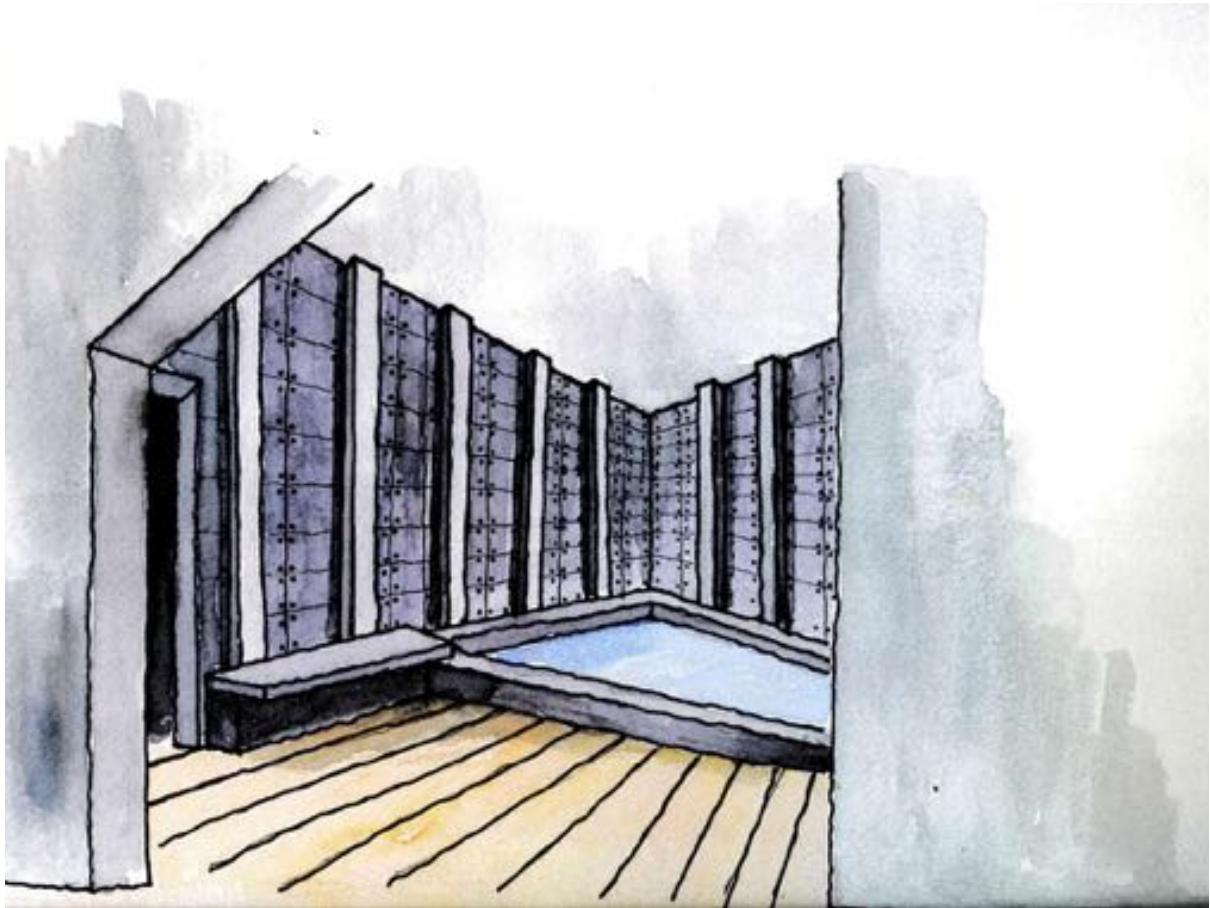
Design Process

Components	Narrative Sequence	Semiotics and Symbology	Cinematic Choreography
Structure	Geometry	Percieved Meaning	Continuity and Discontinuity
Space	Experience	Volumetric Manipulation	Spatial Effects
Time	Extension and Progression	Didactic Layering	Motion and Fluidity
Axis	Vertical and Horizontal	Fragmentation	Dynamic Movement
Hierarchy	Programmatic	Notational	Transformational
Levels	Dimensions	Representation	Transcendence
Frame	Materialization	Presence of Abscence	Event and Eventfulness
Circuits	Movement	Transparency and Opacity	Contracted and Expanded Space
Metaphors	Implied Order	Coding	Repitition and Distortion
Image	Visible Construct	Collage	Montage
Language	Anchorage	Content	Appearance



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Design Process



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Driving on the Don Valley Parkway, the site is partially visible so passersby get a fleeting glimpse.

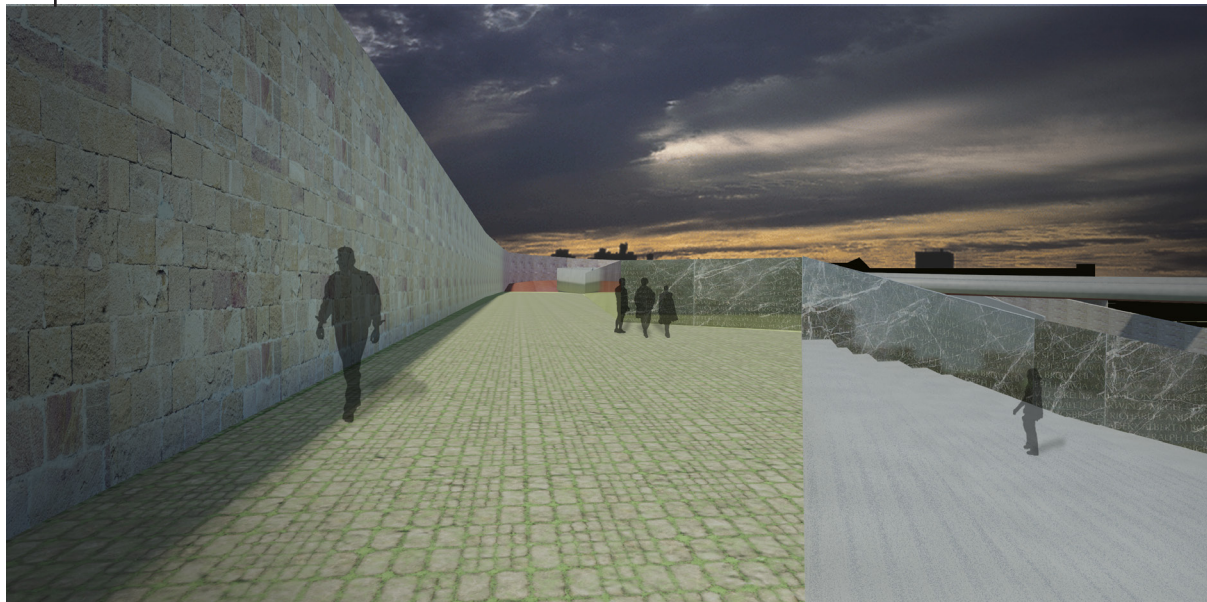


As the visitor approaches the site one encounters a labyrinthine terraced landscape, a metaphoric representation of the ravages of war.

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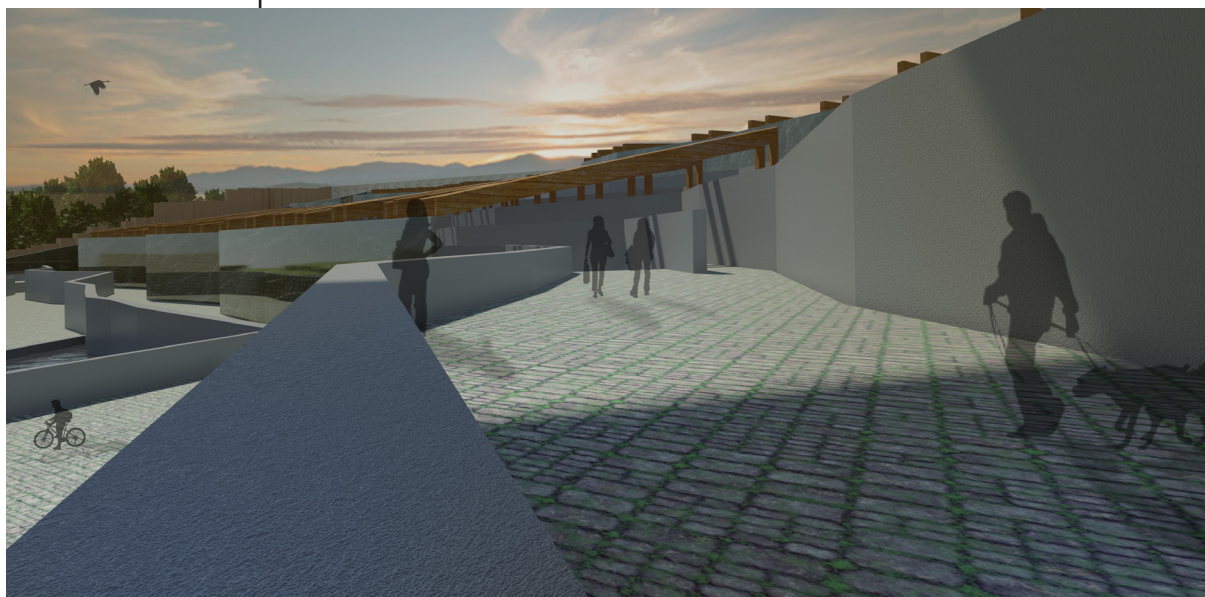
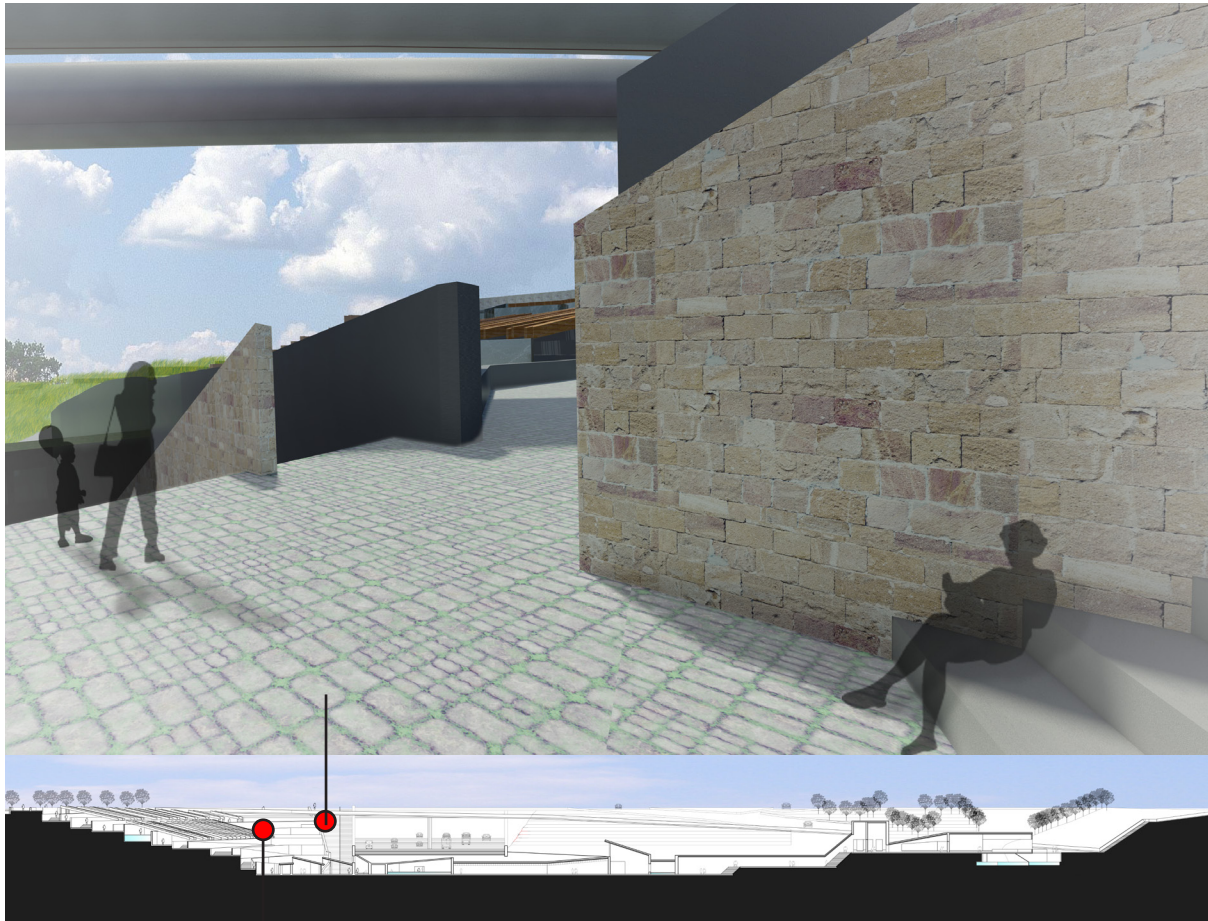


Pedestrians, Cyclists, Vehicles, and Users interact with the site in multiple levels of flow and movement.



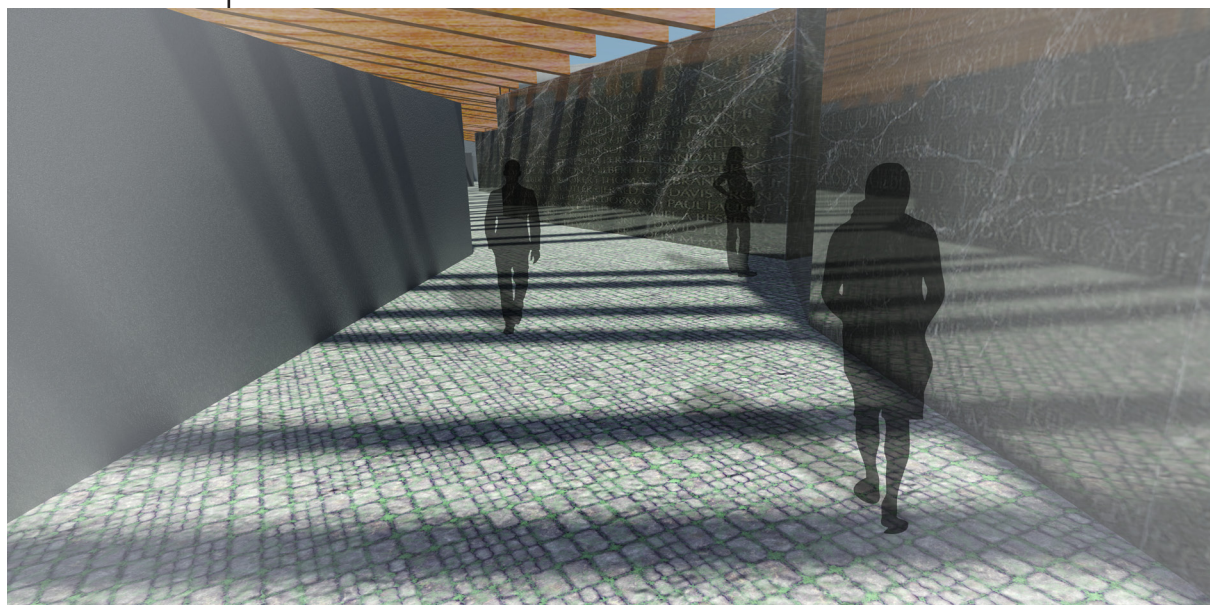
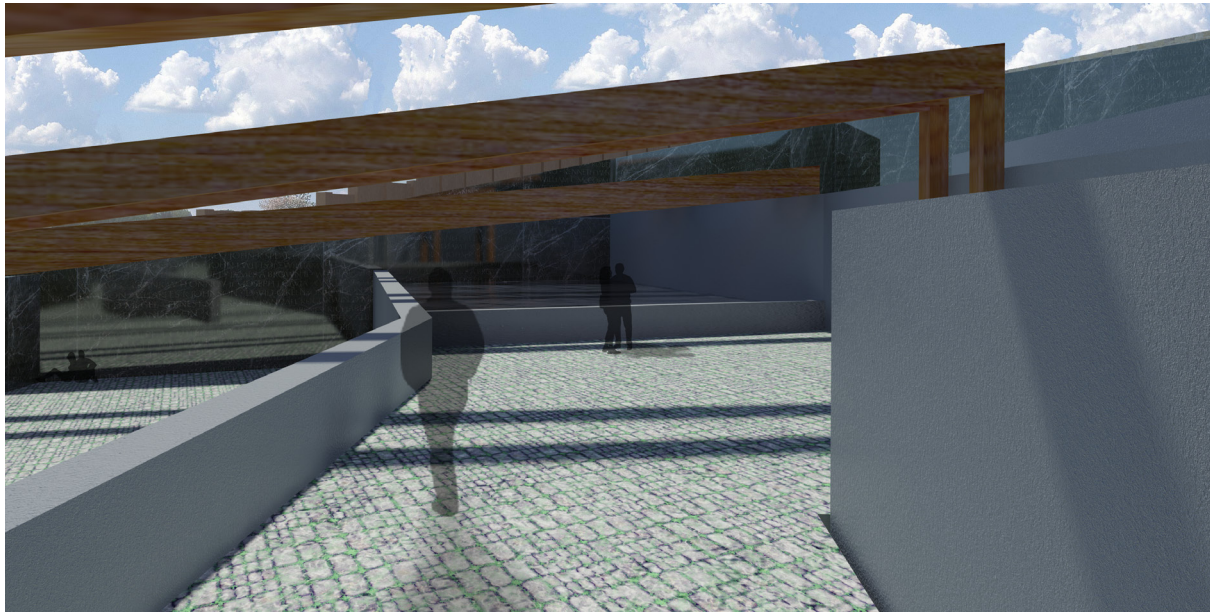
This landscape emerges from the contours of the site and comments on the geological formation of the context and the juxtaposition of the highway as it cuts through the Don River Valley.

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The narrative is set in motion where the Memorial Promenade crosses above the Don Valley Parkway and the Labyrinthine Terrace and over to the Don River. It assumes a different role or quality as the visitor moves through the spaces. From the street level on Lawrence Avenue the labyrinthine passage descends down into the earth and under the highway.

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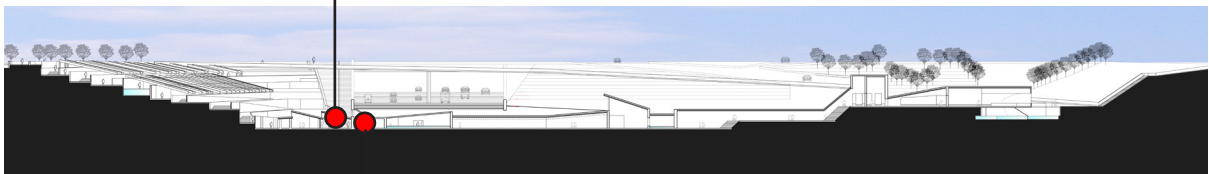
The promenade from street level splits into 2 paths; the first path takes the shape of a memorial bridge for repatriation ceremonies. The other a labyrinth emerging from the site as a terraced landscape punctured with planes of granite with names of Canadian Soldiers. These walls create an atmosphere of disorientation with pools of still water reflecting light and provide zones for thought and momentary pause.

Spatial Effects – Narrative Sequence in Architecture



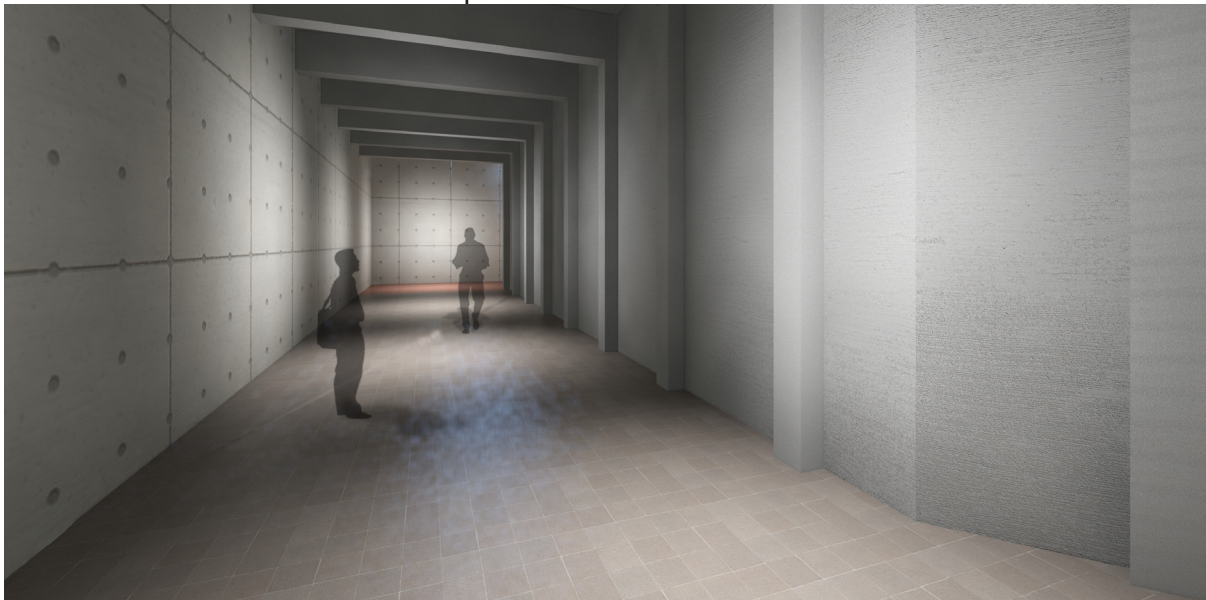
Moving through the labyrinth of these granite planes, one is reminded of foreign, alien landscapes. The terraced path brings one to a series of thresholds and passages.

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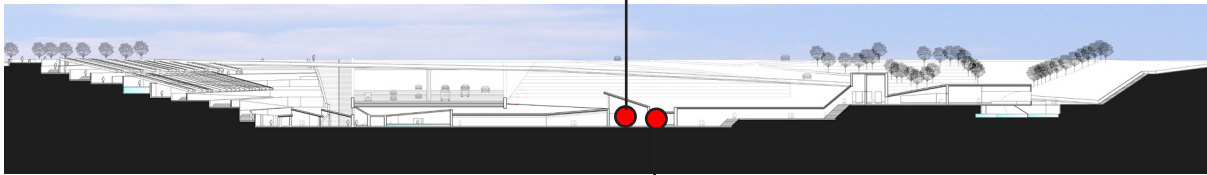
the first threshold takes one into a space lit by natural light constructed of tilted walls and ceiling planes.

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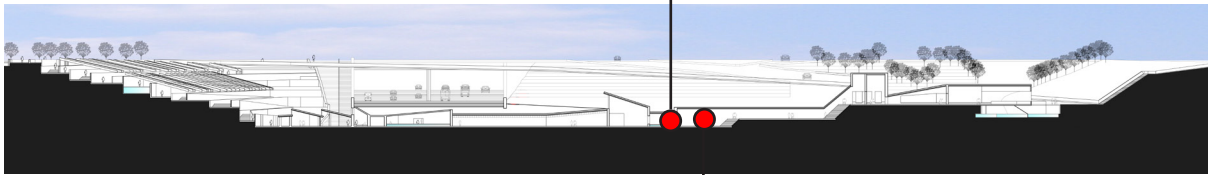
The visitor is taken through a series of spaces under the DVP that have been intersected by a continuous linear datum. The geometry of these spaces is arranged in a way that disorients and confuses the visitor with uncomfortable, tight corners and low ceiling heights. The space echoes with the reverberations of the highway as cars drive overhead. The acoustic and spatial quality of the space is reminiscent of underground bunkers in war zones.

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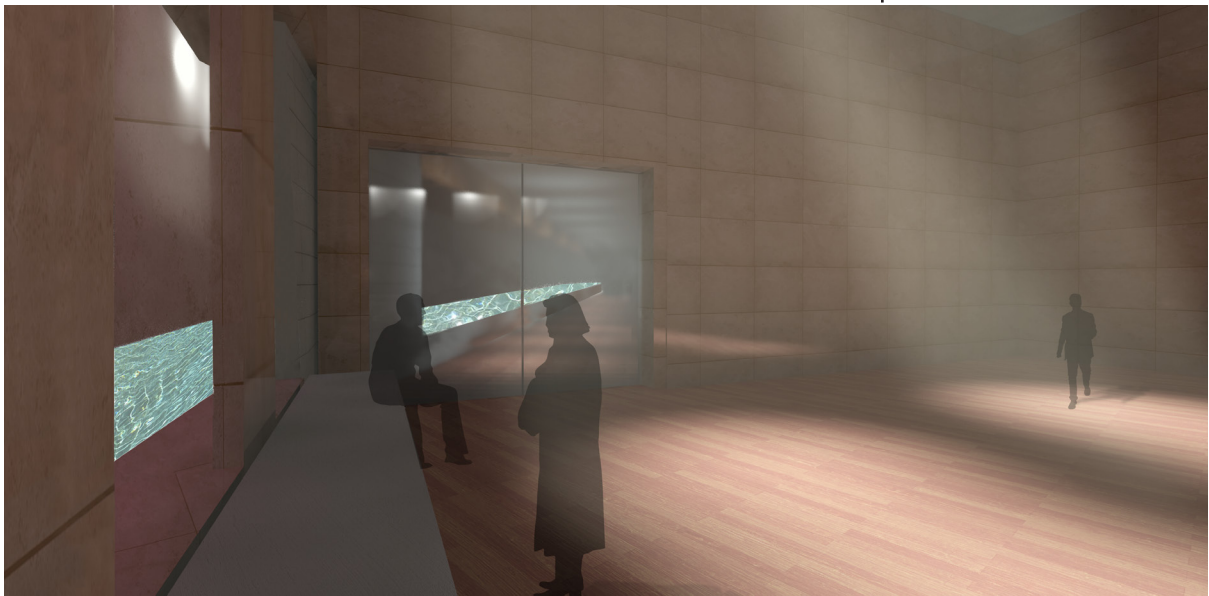
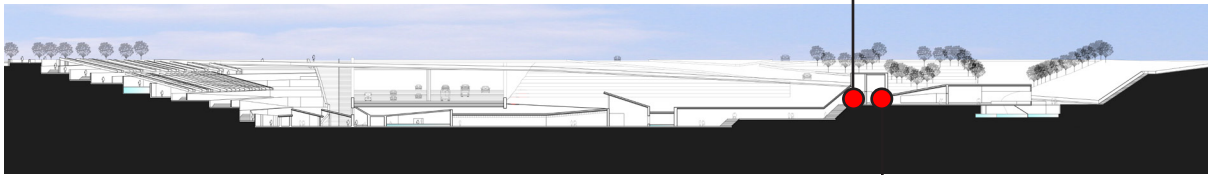
This space of discomfort takes one through a narrow dark corridor which opens into another cluster of spaces punctured with openings that bring in natural light. These spaces provide gradations of reflective qualities and foster an emotional response by architectural manipulation.

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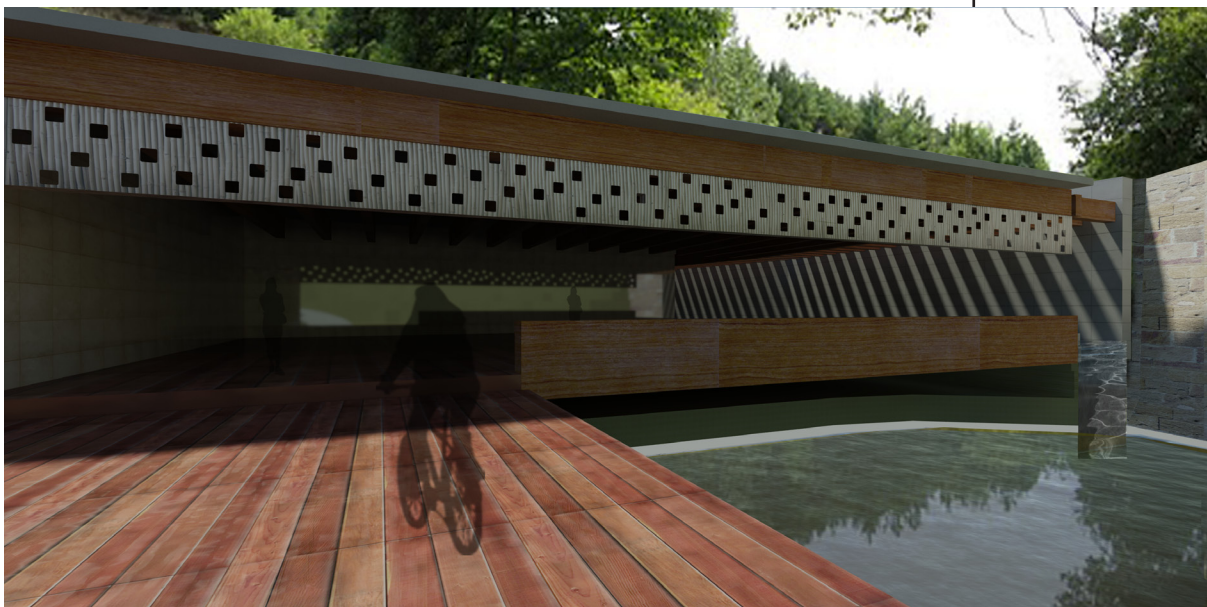
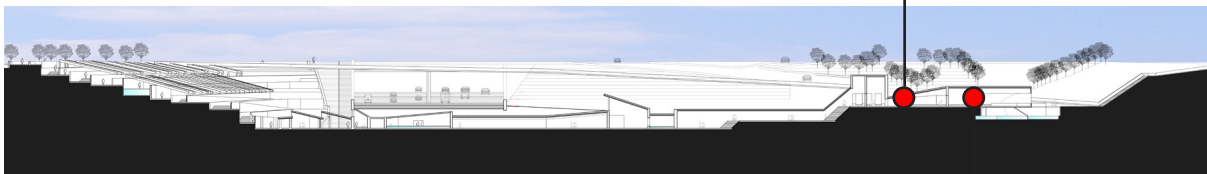
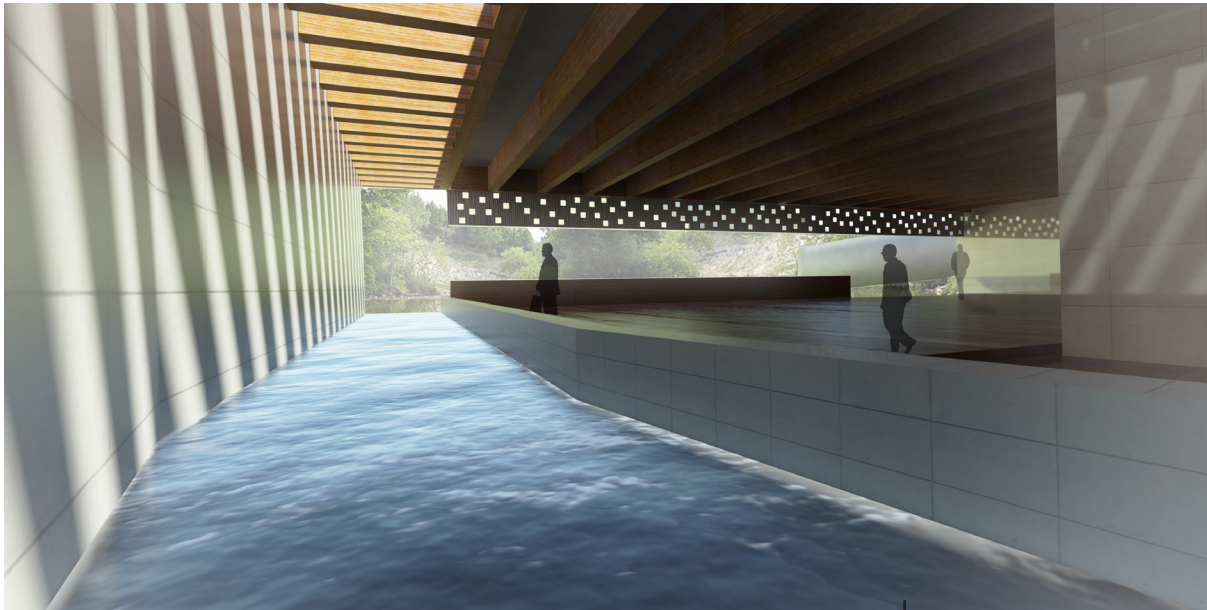
The spaces are a combination of high and low ceilings and trickling water, providing a sequence of intimate reflective zones and open areas for contemplation.

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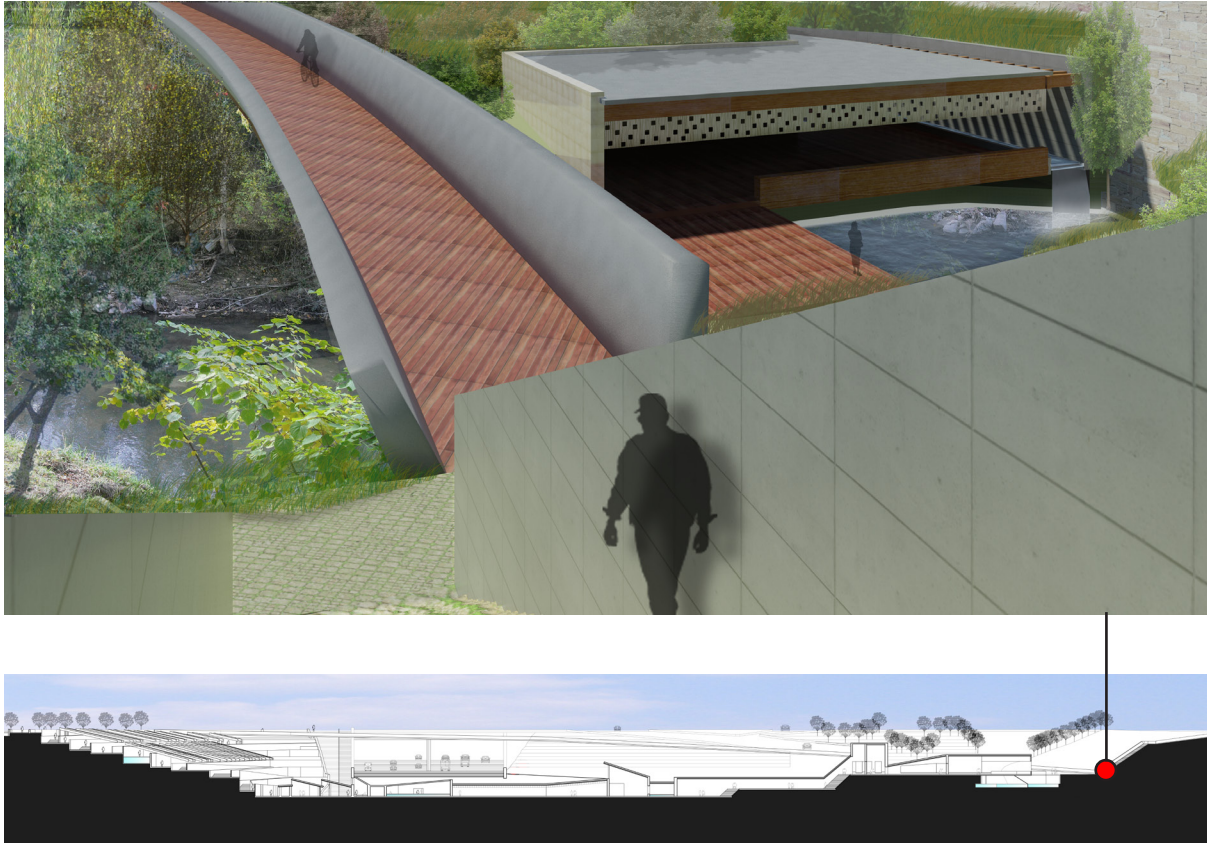
The narrative then unfolds through this cluster of zones into a transition zone which begins to change levels and ascends to the surface emerging from the ground towards a light filled room resonant with the sound of flowing water. The geometric quality of this space is generated by clean lines and the platonic proportions of a cube.

Spatial Effects – Narrative Sequence in Architecture



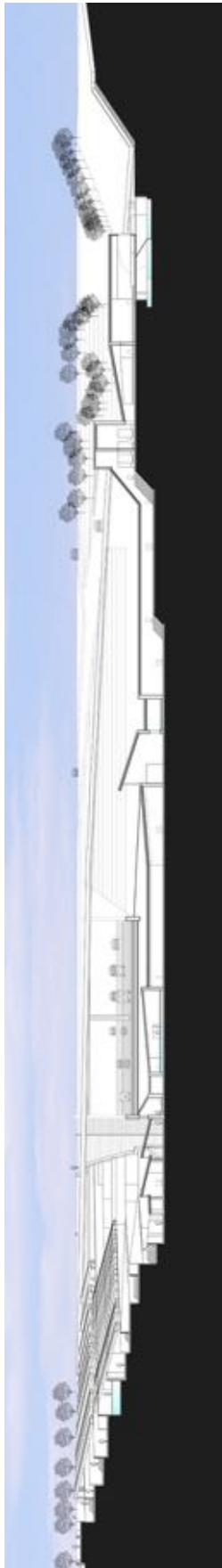
The journey unfolds through the last transition space flooded with natural light and materials. It appears as a serene natural environment. The transitory space brings the visitor to the final stage of the narrative, a space for regeneration and renewal, a place where nature and architecture become one.

Spatial Effects – Narrative Sequence in Architecture



Completely open to the elements, the narrative continues through the Milne Conservation site by crossing over the Don River and walking along the trail. By this point in the visitor's journey they have experienced a series of contemplative and reflective spaces which have provided the opportunity for the heightening of the senses.

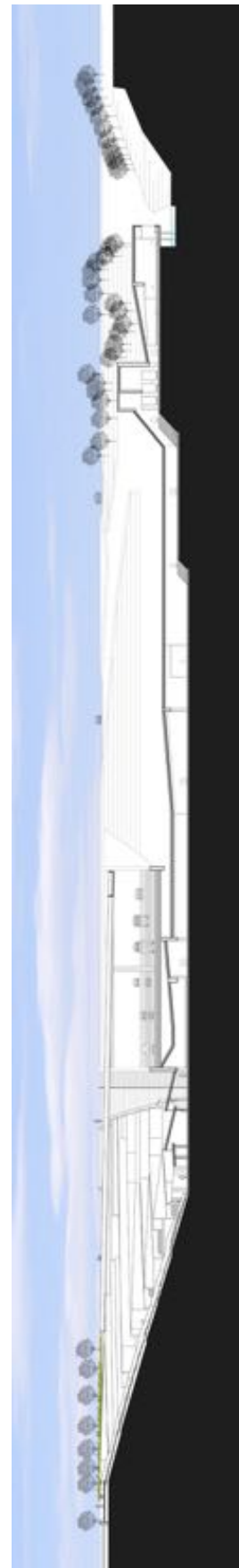
Spatial Effects – Narrative Sequence in Architecture



Section A-A

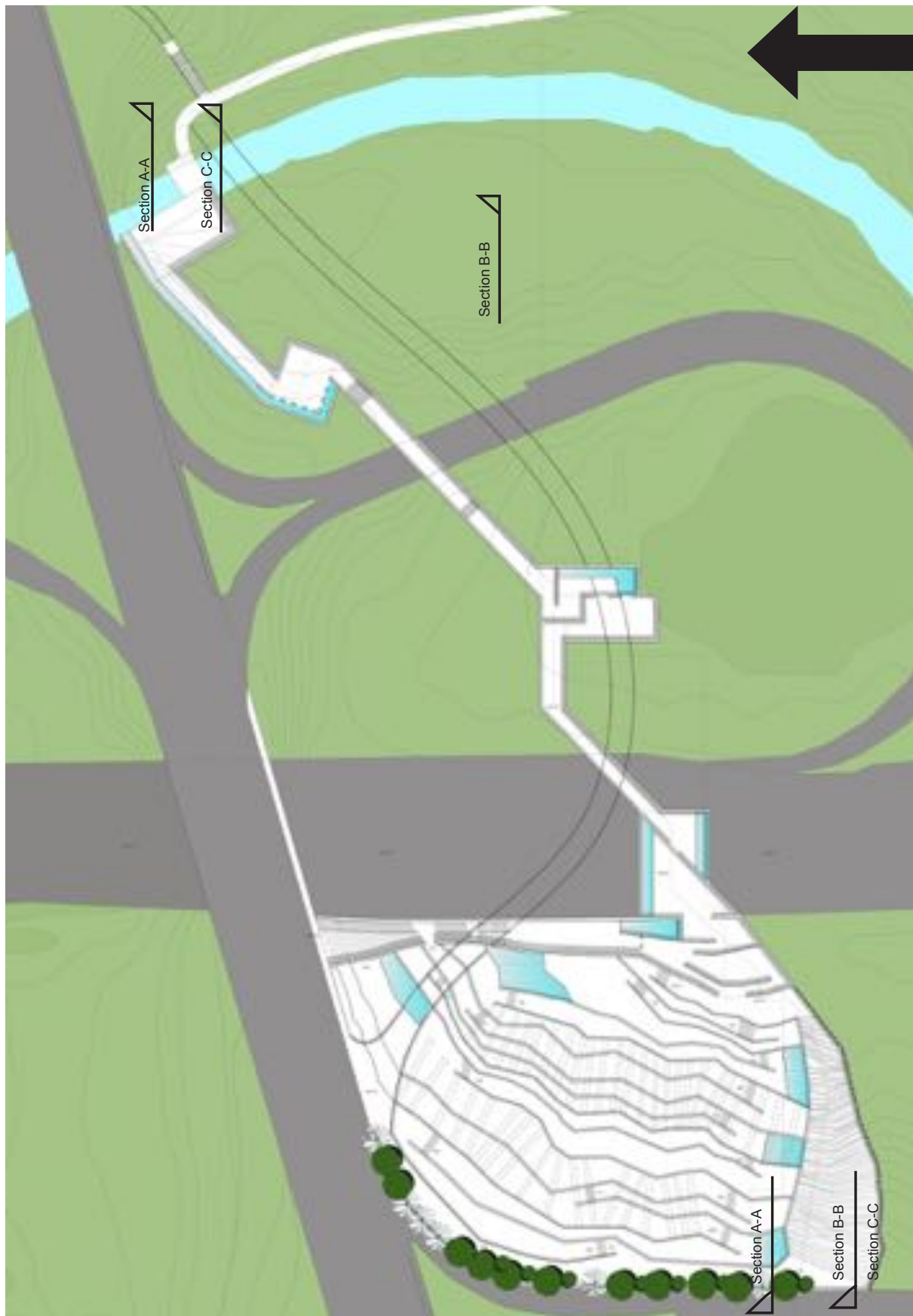


Section B-B



Section C-C

Spatial Effects – Narrative Sequence in Architecture



Conclusion

The purpose here is to illustrate the impact of narrative on creating spaces that encourage the contemplation of and reflection on the experience of our conflicts. This project demonstrates the ability of architecture to heighten our sense of shared history and generating spaces that are informed by stories of our society. Storytelling and narrative illustrate the importance of constructing meaningful and ethereal spaces that touch upon the sensorial and cerebral sphere.



Appendix

Preliminary Interpretive Literature Review

Bibliography – Key References:

Penz, F., & Thomas, M. (Eds.). (1997). *Cinema & Architecture: Melies, Mallet-Stevens, Multimedia*. London, UK: The British Film Institute.

This book illustrates the provocative relationship between cinema and architecture through multiple renditions. One of the accounts noted, is the representation of the metropolis or “the city” in earlier films and documentation of the development and transformation of the city in cinema, and in architecture. The topics outline the origin of the architectural city in cinema by reflecting on how the representation or creation of the city in cinema feeds back into architectural practice and vice versa. The topics demonstrate various alliances between cinematic and architectural vision and practice. The development of the image of the city in cinema and its representation in architecture shows a continuous relationship between the cinema and the city in terms of growth and change. The chapters have been broken down to show a representation of the metropolis in the early history of cinematography and the idea of language and meaning in regards to the notion of imageability. Through these exploratory references and complex relations between cinema and the city, the emphasis was placed primarily on the representation and perception of space rather than special effects. The author indicates that the transfer of architectural space to cinema allowed the city streets to become another sort of spectacle, through an apparatus that relates architectural form to the cinematic form. In other words, a structure composed of many patterns or fragments of language stitched together by the use of a narrative; organized in time and through space. The author also gives an account of the literary tradition of ‘story telling’, achieved by spatial movement through the built environment, which attempts to integrate sequential scenes with narrative methods. Through this approach architecture emerges from the shadowy role of backdrop to take on a narrative part, carrying on the analogy of cinema, through temporality and spatiality of the narrative structure.

Tschumi, B. (1996). *Architecture and Disjunction*. Cambridge, MA: The MIT Press.

The author articulates that ‘There is no architecture without program, without action, without event.’ This statement is the main theoretical premise of the book that maintains the notion of movement generated through bodies in space, together with the actions and events that take place within the realm of architecture. The text in the first chapter frames Tschumi’s analysis of earlier theories of architectural space. It introduces the concept of architectural pleasure as the experience of space which intersects with more conceptual aspects. The second part titled program, questions the three classical concepts in architecture; solidity, beauty, and utility, and suggests the programmatic dimension of usefulness expanded into the notion of event. The author mentions that rich and complex relations between spaces and the events that occur within expand these concepts in the form of actual buildings, and aims at presenting a proposition of a new dynamic conception of architecture. Historical analysis signifies that architecture was first and foremost the adaptation of space to the existing socioeconomic structure ‘to design the conditions’ rather than to condition the design. In the text the author states that architecture is about two mutually exclusive terms; space and its use, or in a more

theoretical sense, the concept of space and the experience of space. It is traditionally an interplay between space and activity which explores the implication that there is no cause and effect relationship between buildings and their function, or between space and the movement of bodies. The meeting of these mutually exclusive terms could be intensely pleasurable examining the trends in architecture that consider space as a thing of the mind. The book identifies three concepts in architecture that present a dematerialized and conceptual discipline, one that concentrates on the senses and the experience of space, and demonstrates the relationship between space and the nature of architectural debate that alters the paradox. 'To define space means to make space distinct and to state the precise nature of space', this provides a framework for the analysis of the relations between events and spaces, beyond functionalist notions. The author includes the importance of inculcating narrative structure that gives context and meaning to the unfolding of events in a literary stance in architecture, which inevitably suggests parallels to the unfolding of events in cinema. He further explains the character of narrative by shedding light on the organization of events in buildings, whether called use, functions, activities or programs. This leads to the idea generated by space, event and movement, and the cause and effect relationships between form and function and form and program which are now replaced by new concepts of continuity and superimposition. The author articulates that architecture among other art forms finds itself in a unique situation: it is the only discipline that combines concept and experience, image and use, and image and structure to create mentally and physically enduring spaces and places.

Psarra, S. (2009). *Architecture and Narrative: The formation of space and cultural meaning*. New York, NY: Routledge.

As the title suggests, the concept of narrative enters architecture through certain ways in which space is structured to achieve specific effects on our perception. The act of perceiving is linked with the sequential unfolding of events as we pass through space. Examining notions of conceptual, perceptual and social space, the book explores the ways in which these three dimensions interact in space and the built environment; how meaning is constructed in buildings and how it is communicated to viewers. The book investigates the relationship between architecture and meaning and looks at how architecture and meaning are conceived through abstract relations and perceived through embodied experience. One of the concepts examines how the ordering mechanisms in literature can inform the construction of experience in architecture. The author presents forth the idea of architecture as an orchestration of concepts in the mind and narrative as a perceptual condition experienced by moving in space. She further states that, spatial and narrative interactions focus on the interface between spatial and narrative codes conceptually, which are choreographed sequentially and experienced through perception. For instance in museums, architecture carries content through the arrangement of spaces, materials, social purposes and cultural purposes. Since narrative is often considered as something quite different; a story, a sequence of successive actions and events, relating visualizations of three dimensional spaces and abstract frameworks of rules, architects arrange conceptual and perceptual layers of order to define this succession and arrangement. The book is structured to explore the relationship between architecture and narrative in three ways; first by focusing on buildings of an iconic architectural status that are freed from social programme, second by analysing works where the medium is language that unfolds in a linear sequence as in the case of literature, and thirdly by examining buildings whose social purpose has a strong narrative dimension. So the discussion moves from buildings where space and form take predominance over the semantic context of function to literary narratives to examples like

museums and galleries that balance codes of space and form with those of representational narrative content.

Venturi, R., Brown, D.S., Izenour, S. (1977). *Learning from Las Vegas*. Cambridge, MA: The MIT Press.

The subject matter of the book is symbolism in architectural form and the emphasis is to reassess the role of symbolism in architecture. It depicts a world where superficial ornamentation and surface oriented treatments take on a more celebrated appearance and discover a new receptivity to the taste and values of people. The book is distributed into two parts, the first part is a description of a study of the architecture of the commercial strip, and the second part is a generalization on symbolism in architecture and the iconography of urban sprawl. It mentions that architects have preferred to change the existing environment rather than enhance what is there. The progressive, technological, vernacular, process oriented, superficially socially concerned, heroic and original content of modern architecture has been discussed that suggest that these problems arose from the modern architect's unclear iconographic preferences and was manifested through a language of form. The other point the authors make is that the content of the acknowledged symbolism of current modern architecture is pretentious and that their generation has been designing dead ducks. They mention the abandonment of ornamentation by proclaiming that, 'When modern architects righteously abandoned ornament on buildings, they unconsciously designed buildings that were ornament. In promoting space and articulation over symbolism and ornament, they distorted the whole building into a duck.' It was a substitution of a virtuous practice for a cynical distortion of program and structure to promote a duck. It is time to re-evaluate the statement that architecture is the decoration of construction, since it may be alright to decorate construction but never to construct decoration. The book inverts the ideas that many architects have based their professional lives upon. It threatens those things that the architects use to distinguish the difference between the cultured, and the obscene, and brings to light the concepts of semantics and landscapes of consumerism rendering an unauthentic and superficial lifestyle produced by the environment shaped by the 'cultured and educated' architects.

Walker, E. (2006). *Tschumi on Architecture*. New York, NY: The Monacelli Press.

The book is a compilation of a series of interviews aimed at unveiling the agenda or set concepts underpinning Bernard Tschumi's work and design philosophy. Interrogating Tschumi's work thoroughly, from the mid 1970s to the present day in essay format, the author unravels the critical ideas and theoretical concerns established by this visionary architect. The objective was to trace the way in which he has constructed an argument through his work and articulated or redirected his conceptual agenda. In other words, the interviews have been intended to trace the development of Tschumi's theoretical program as it had been refined and redefined through practice which integrates film theory as a device.

Vidler, A. (2000). *Warped Space: Art, Architecture, and Anxiety in Modern Culture*. Cambridge, MA: The MIT Press.

Anthony Vidler, more than any other contemporary writer, has taken up an analysis of space and representation to contribute to the "history" of space. Beginning the book with an inquiry into spatial modernism, his writings are inclusive of theorists Georg Simmel, Siegfried Kracauer, and Walter Benjamin, among others. Warped Space as articulated by the author is

psychological space as a repository of phobias and anxiety. They became incorporated into the media and arts, in particular the spatial arts of architecture, urbanism, and cinema. This "spatial warping" is now being reshaped by digitalization and virtual reality. He is concerned with two forms of warped space, the first, a psychological space, which is the repository of phobias. This space is not empty but full of disturbing forms, including those of architecture and the city. The second kind of warping is produced when artists break the boundaries of genre to depict space in new ways. In this book the author explores the anxious visions of the modern subject caught in spatial systems beyond its control and attempts to make representational and architectural sense of its predicament. The idea that space is the essential ingredient of architecture is so commonplace we forget that it emerged relatively recently, in the nineteenth century. As it emerged, according to this book, it cast a shadow, the fear of space, taking various pathological forms, most obviously agoraphobia and claustrophobia. The author is not interested in the positive, liberating potential of architectural space; he is interested only in the dark shadow, the 'fear, anxiety and estrangement' associated with the experience of space in the modern world. The first half of the book traces the path of this shadow through psychiatry, literature, philosophy, film-making and architecture. The emphasis throughout is on written accounts and theories so that spatial experience is presented at one instance.

Klingmann, A. (2007). *BRANDSCAPES: Architecture in the Experience Economy*. Cambridge, MA: The MIT Press.

Today, brand and experience management are at the forefront of contemporary architectural theory and practice. This book presents an insightful perspective on the emerging trend of viewing buildings as brands and creating experiences generated from this development. The author takes the idea of experience economy as the essential premise to show how to create places that are authentic and engaging. Klingmann argues that public architecture should be a series of engaging spaces, by challenging the design. The experience economy as the title suggests, attempts to link the fancy of themed environments with thoroughly rationalized market strategies, as various strata of space making become increasingly reliant on branding as symbolic capital. The author states that in the twenty first century, we should look at cities not as skylines but as brandscapes and at buildings not as objects but as advertisements and destinations. The book presents forth several questions; such as how can architects use branding as a means to differentiate places from inside out and not as current development practices seem to dictate, from the outside in. The author argues that architecture can use the concepts and methods of branding, not as a quick and easy selling tool for architects but as a strategic tool for economic and cultural transformation, where architecture brings together ecology, economics, and social well-being to help people and places regain self sufficiency.

Venturi, R. (1966). *Complexity and Contradiction in Architecture*. New York, NY: The Museum of Modern Art Press.

The author advocates embracing "contradiction and complexity" in order to create valid, vital works that are rich in meaning and language. He also touches on the concept that richness can contrast with clarity, and urges architects to leave the tenets of traditional Modernism behind in pursuit of "truth in its totality," a sort of organic messiness that he perceives as more real and useful than overly planned, highly logical modernist constructions. The chapter, "Complexity and Contradiction vs. Simplification or Picturesqueness" criticizes "orthodox Modern architects" and their treatment of complexity. Venturi feels that diversity in architecture represents a type of sophistication that is lost in the works of the modernists. He criticizes Mies's famous dictum

'Less is more' for its exclusion of complexity for purposes of expression, though he admits that their "selectiveness of content and language" is both a strength and weakness in Mies's buildings. However, he continues, this type of simplicity does not always work, because it often results in an architectural "blandness." Here, he is also careful to make a distinction between "simplicity" and "simpleness" before retorting that "less is a bore." In his discussion of "Contradictory Levels," Venturi explains that challenging the observer actually enhances his/her experience with the architecture because the work becomes "more vivid." He talks about "complex architecture" as a "both-and" scenario rather than strictly "either-or," which is not inclusive. "Both-and" architecture promotes hierarchy within it, which leads to contrasts, layers and levels of meanings. Additionally, Venturi seems to appreciate the double meanings that can result from traditional forms of architecture or architectural elements, which derive one meaning from their original/historical context and those associations, and new meaning from its contemporary function or context. He asserts that the altering or breaking of order enhances the deeper meanings of architecture.

Giedion, S. (1967). *Space, Time, and Architecture: The Growth of a New Tradition*. Cambridge, MA: Harvard University Press.

This is an influential resource for the understanding of how modern architecture is written about in the first half of the twentieth century. The author presents three concepts of space which he views as representing the epitome of western architecture, starting from the ancient civilizations of Egypt and Mesopotamia, and continued through the design of the Greek temples. Emphasis was on the volume in space and the interplay between volumes. The second concept is the development of the interior space and the third is a fusion of the first two which inter-relates the space emanating powers of volumes in space and the sculptural form of interior and exterior space. The book was developed as a model illustrating and narrating the history and theory of modern architecture. These three concepts have contributed to the conception of space in present day architectural practice and instigate the evolving tradition. From architectural icons to architectural cities to modernist monuments, the book documents a historical timeline of the different periods of architectural representation. Throughout the periods, the observation has been the growth and change in the architectonic organism and especially the development of these constituent facts.

Fleishman, A. (1991). *Narrated Films: Storytelling Situations in Cinema History*. Baltimore, MD: The Johns Hopkins Press Ltd.

The term narration is often used to describe the process by which films communicate their stories. The author examines the idea of narrative, types of narrative and the state of narration in cinematography. In narrated films, the author challenges the prevailing assumptions attached to this term in favour of a more concrete sense: spoken and written storytelling and the situations in which they are delivered. The author begins with theory and proceeds to history, surveying the changing narrational practices in cinema from its beginnings to the present. The various chapters indicate several avenues of inquiry, especially the relation of cinematic narration to modern novelistic techniques. The book explores the way certain films narrate the textuality or perspective of their own storytelling ability.

Schwarzer, M. (2004) *ZOOMSCAPE: Architecture in Motion and Media*. New York, NY: Princeton Architectural Press.

This book investigates how architecture from modernism to post modernism is experienced since the industrial revolution and machine age, and consequently through the birth of representational technology; how architecture is encountered. The author argues that our perception of architecture has been fundamentally altered by transportation and camera technologies. He asserts that we experience buildings, neighbourhoods, cities, and landscapes as we ride in trains, cars, and planes, and as we view photographs, movies, and television, we perceive places at high speeds across great distances, in states of distraction, and through edited and multiple reproductions. The author documents the aspect of cinema transcribing tremendous ways of perceiving the built environment. It explores the impact of mechanized transportation and camera reproduction on the perception of architecture. Seen within temporal frames architecture is experienced as a graphic and pictorial treatment of space.

Morin, E. (2005). *The Cinema: Or the Imaginary Man*. (L. Mortimer, Trans.). Minneapolis, MN: University of Minnesota Press. (Original work published 1978).

The author states that, 'we experience cinema in a state of double consciousness, an astonishing phenomena where the illusion of reality is inseparable from the awareness that it is really an illusion. The cinema then is the world, but half assimilated by the human mind, but actively projected into the world in its work of elaboration and transformation of exchange and assimilation. The cinema allows us to see the process of the penetration of man in the world and the inseparable process of the penetration of the world in man. This process is first of all one of exploration; it begins with the cinematograph which places the unknown world within arm's reach or rather within reach of the eye. The cinema pursues and develops the exploratory work of the cinematograph. The author suggests that the cinema is a multidimensional or according to present day language a complex phenomenon.

Elsaesser, T., Barker, A. (1990). *Early Cinema: Space – Frame – Narrative*. London, UK: British Film Institute.

This book is a collection of essays which demonstrate the development of cinema from its early years of representation related to architectural representation showcases the first steps towards the projection of classical narrative cinema. It traces the history of the development of cinema and its various forms of storytelling and how it evolved into a complex art form. This is an incredibly informative and interesting collection of essays exploring the beginnings of cinema from a mixture of perspectives. While attention is paid to social history and the material conditions of early films, apparatus and venues, most of these essays also theorize the cinematic narrative established in these films. Often, books on silent film offer only a contextual and historical analysis, often because early cinema is thought to be primitive, rather than dissecting the classical and traditional tenets of cinematography to reveal the ideal notions of what cinematic narrative could and should be which the author achieves quite effectively in this book.

Martin-Jones, D. (2006). *Deleuze, Cinema and National Identity: Narrative Time in National Contexts*. Edinburgh, UK: Edinburgh University Press.

The book explores how philosophy can be used to analyse national identity across a range of different cinematic narratives. It focuses on narrative time to combine a Deleuzian approach. The book significantly broadens the field of work on philosophy and cinema. It is concerned with the manipulation of narrative time. Many of the films discussed in this book are non linear narratives in paradigm but are characterised by a fragmented, disjointed, jumbled, multiple or reversed structure. It introduces the different definitions of time, movement-image and time-image, at a moment when temporal discontinuity is fashionable in both independent and industrial cinema.

Rosen, P. (1986). *Narrative, Apparatus, Ideology: A Film Theory Reader*. New York, NY: Columbia University Press.

The author documents that over the course of the past ten years a number of films, from a range of diverse origins, have engaged in conscious manipulations of narrative temporality through the use of reversed, fragmented or paralleled story lines. While the formal similarities between films might suggest the codification of a certain global aesthetic in each case, these experimentations with narrative structure bear a highly specific relation to questions of identity. Gilles Deleuze's philosophy of temporality, in particular his work on cinema, provides the foundation for the study, which explores the complex, and often contradictory, ways in which time, space and historical memory intersect in these films

Lamster, M. (2000). *Architecture and Film*. New York, NY: Princeton Architectural Press.

The author draws parallels and commonalities between the architect and film maker as orchestrators of complex productions and immense projects, which impose a personal vision on an often unreceptive world. Film makers insert architecture into their films to provide a framework for the cinematic narrative. Architecture sets a scene, conveying information about plot and character while contributing to the overall theme of the movie. They use the environment to make statements metaphorically on a variety of subjects. Likewise film has had a profound effect on both the way the architects envision their work and the way the public consumes architecture. The book explores creating on screen architecture and highlighting the effects on the way we perceive our environment. It also focuses on how film makers have used the built environment to reflect their ideas about the societies in which they live.

Pallasmaa, J. (2007). *The Architecture of Image: Existential Space in Cinema*. Helsinki, Finland: Rakennustieto Publishing, 2ND Edition.

The book explores the shared experiential ground of architecture and cinema through the notion of existential space. The Architecture of Image opens up an unexplored territory of architectural expression, while simultaneously revealing the essential role of architectural image of cinematic expression. Through analysis of films by Alfred Hitchcock, Stanley Kubrick, Michelangelo Antonioni, and Andrei Tarkovsky, the writer illuminates the directors' use of architectural imagery in evoking and maintaining specific mental states. Whereas the actual built architecture presently tends to confine emotional response to the realm of utilitarian rationality, the writer suggests that the architectural imagery of painters and film directors could sensitize the architectural profession to the inherent narrative essence of architecture. The book weaves architectural and cinematic experiences with images of paintings, literary descriptions as well as philosophical views in this fascinating area of contemporary theory. Much variety comes with each director's unique way of telling a story, their formal qualities, techniques, lighting, settings,

and other inherent film variables. The influence and overlap of different forms of expressions is ultimately what the book suggests. His emphasis is on the shared qualities of architecture and film, and, as an architect, what the former can learn from the latter towards an increased quality of our existence. The author discusses the nature of narrative in cinematography applied in an expressionistic approach; he mentions a dramatic logic in order to create a fully controlled narrative tension.

Tschumi, B. (1994). *The Manhattan transcripts*. New York, NY: St. Martin's Press.

The Manhattan transcripts are different from most architectural drawings as they propose to transcribe an architectural interpretation of reality. They use a particular structure indicated by photographs that either direct or witness events. They are an illustrative device with a rational coherence, and their explicit purpose is to transcribe conditions normally removed from conventional architectural representation, namely the complex relationship between spaces and their use; between the set and the script; between type and program; and between objects and events. The occurrence between meaning and being, movement and space, and man and object is not coincidental and is the starting point of this conceptual premise. The transcripts offer a different reading of architecture in which space, movement and events are independent.

Tschumi, B. (1997). *Architecture In/ Of Motion*. Rotterdam, Netherlands: Netherlands Architecture Institute.

Here Tschumi speaks about the experience of architecture taking place between ideal space and real space that occur as two mirrors. The theoretical framework for his design philosophy first crucially scrutinizes the principles behind the form or idea. This is the central argument in his discourse, which is the overlapping and connecting position of the in-between which is consciously governed by the two streams, one is knowledge and the other is emotion. The physical world provides us with real knowledge since all perceptible objects are constantly changing. The use of film images originated in Tschumi's interest in both sequences and programmatic concerns. He takes cinema as his source of inspiration through the formation of a framework that structures the storyboard which utilises essential components in architecture and cinema. Since it contains rich narrative and formal techniques he draws parallels with current architectural works and aims at developing a contemporary set of architectural narrative tools.

Colomina, B. (1994). *Privacy and publicity: modern architecture as mass media*. Cambridge, MA: The MIT Press.

The author argues that architecture through the origin of media and entertainment has become immune to the influence of mass culture. Since architecture is continuously influenced by mass media and culture it is now represented as advertising and photography. The buildings should be understood in the same terms as drawings, photographs, writing, films, and advertisements; not only because these are the media in which we more often encounter it, but because the building is a mechanism of representation in its own right.

Venturi, R., Brown, D.S. (2004). *Architecture as Signs and Systems: For A Mannerist Time*. Cambridge, MA: The Harvard University Press.

Symbolism and Iconography; popular culture, the everyday landscape and generic building type are among the many ideas that have been championed in this book. The study of how

significations are produced and communicated in and by the city and urban semiotics is conceived of as a complex semiotic process involving three sign systems: the built environment, the patterns of social interaction, and the means of communication. These interacting patterns change along historical time and from culture to culture. Urban semiotics comes under the authority of cultural and spatial semiotics. It includes sub disciplines such as semiotics of architecture, social behavior, and specific communicative media such as fashion, food, advertisements, design, and language. The goal of urban semiotics is to investigate the cultural signs produced in the city, as well as specific processes through which the interaction of the three semiotic systems give the city its specific cultural profile. Although the specific signification of such a complex system varied from one culture to another, its basic semiotic structure persisted until the dawn of the modern urban structures.

Preziosi, D. (1979). *The Semiotics of the Built Environment: An Introduction to Architectural Analysis*. Bloomington, IN: Indiana University Press.

The book is concerned with the analysis and description of the built environment as a semiotic system, a system of meaningful signs. It seeks to establish some of the principal ways in which architectural agents are created as architectonic systems, which are similar to spatial codes and signs yet different from other forms of symbolic communication. The architectonic code is essentially a system of relationships in which significant entities are defined in terms of their relative position in a multidimensional network of relationships. An architectonic integrated framework for the study of the built environment has become an inevitable and necessary result of the ongoing overlapping and convergence of many different perspectives on the environmental structuring. A built environment is a complex spatiotemporal framework for human action and interaction whose components are less like building blocks and more like patterns of potential signification.

Giedion, S. (1971). *Architecture and the Phenomena of Transition: the Three Space Conceptions in Architecture*. Cambridge, MA: Harvard University Press.

This work is the author's last literary project where he presents three concepts of space. In these concepts he observes the great stages of western architecture throughout history. The first idea originating in Egypt and Mesopotamia and continues through the Greek and Roman period. Here the emphasis was placed on the volumes in space and on the interplay between volumes. The second idea was established as the development of interior space, formulated in Rome and reached its full glory in the Gothic Cathedrals. The third idea emerged in the twentieth century which was a fusion of the first two ideas, which integrates the space emanating potential of volumes and the sculptural form of interior and exterior space. The author in this book speaks about the phenomena of transition which is the linkage of one concept to the other and the examination of the fundamentals of modern construction, structural possibilities and spatial form achieved from new building materials.

Bordwell, D. (1985). *Narration in the fiction film*. London: Routledge.

The premise of this book outlines the development and origination of narrative and narration in cinema. The author is interested in establishing the relationship between narrative and cinema by compiling the in segments and articulating questions as to how narrative is adapted and translated on screen. The book also presents types of narrative devices and approaches to

narration. The author outlines three approaches to narrative, first as representation, second as structure, and third as a position.

Cobley, P. (2001). *Narrative*. London: Routledge.

This book traces the ways in which human beings over the centuries have used narrative to represent time, space, and identity. The author puts emphasis on storytelling and placing the world into narrative form. He argues that even the most seemingly simple of stories are embedded in a complex network of relations. This book covers a range of narrative forms and their historical development from early oral and pictorial forms to cinema and new technologies. The book is arranged as an essential introduction to the history and theory of narrative.

Debord, G. (1994) *The Society of the Spectacle*. New York, N.Y.: Zone Books.

The book is aptly titled as it presents a boom in market economy and rise in the development of architecture as spectacle and extravagant spaces. The spectacle has thus continued to reinforce itself, to spread to the furthest limits on all sides, while increasing its density in the center. It represents a transformation not only in the formation of landscapes but the human psyche and interpretation of space.

Brosnan, J. (1976). *Movie Magic: The Story of Special Effects in the Cinema*. New York, N.Y.: St. Martin's Press.

This book focuses on films which are still vital in the history of visual effects today. The author talks about the pros and cons of special effects and its treatment to the presentation of films.

Ehrat, J. (2005). *Cinema and Semiotic: Peirce and Film Aesthetics, Narration, and Representation*. Toronto, ON.: University of Toronto Press.

The author eloquently presents essential concepts relative to the formation of meaning and symbology. He states that meaning and its representation in cinema is very complex as it shifts and changes in each frame per second. The book is divided into three central areas, narrative enunciation, cinematic world appropriation, and cinematic perception. The author further demonstrates how a semiotic approach grasps the nature of time, in a cognitive approach, and provides a new understanding of the particular cinematic sign process that relates a sign to the existence or non-existence of objects.

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Jacobson, B. R. (2002). *Constructions of Cinematic Space: Spatial Practice at the Intersection of Film and Theory*. Retrieved on 26/08/2010 from: <http://cms.mit.edu/research/theses/BrianJacobson2005.pdf>.

This thesis is based on space and the relationship between film, architecture, and the city. It structures an argument which is developed in relation to existent film theory on movement, time, and space. The analysis operates as a kind of mediation between an active set of spatial theories –a mediation of traditional techniques constructed to represent cinematic space. This construct implies a common ground for the setting up of a series of conditions that mark the potential for the birth of an architectural cinematic language that comprises a more abstract theoretical plane.

Laure- Ryan, M. (n.d). *Media and Narrative*. Retrieved on 26/08/2010 from: <http://users.frii.com/mlryan/mediaentry.htm>

The author suggests that narrative is not in essence, strictly a language-based idea, but a mental construct which can be created in response to various types of signs and symbols. Roland Barthes argued that narrative is present in written literature, oral conversation, drama, film, painting, dance, and architecture. Upon closer examination, however, the definition of the concept of medium is far from evident. It is a combination of several ideas which intersect and co-relate within the stream of narrative construct such as cinema and architecture.

Forest, D. H. (2002). *MULTIPLE NARRATIVE STRUCTURES; in contemporary cinema*. Retrieved on 12/08/2010 from: <http://www.euronet.nl/users/mcbeijer/dan/mns/index.html>

The author suggests that the classical film structure is directly derived from a short story. Classical narrative structures defines the popularity and celebration of establishing several narrative threads to create interest which stems from the idea of a series of short stories framed together to create a disjointed narrative structure. It is therefore surprising to learn that films structured like *collections* of short stories have never been given any serious critical attention. The author looks at films which construct a single meaning from three or four separate narratives to deliver the essence of the short story.

Watson, J. (2006). *NARRATIVE STRUCTURE*. Retrieved on 12/08/2010 from: <http://johnwatsonsite.com/MyClassNotes/Topics/Narrative/NarrStruct.html>

Narrative structure is about the order of events or series of sequences; it is also about the perspective from which the events of the story are revealed, and conflict which highlights the climax and attempts to bring about a resolution of events amongst the crises. The events along this pathway make up the structure of the narrative which may not necessarily be chronological but are strung together in a rather interesting way to narrate the events rationally.

Barranha, H. (2006). *Beyond the Landmark: the effective contribution of museum architecture to urban renovation*. Retrieved on 12/08/2010 from: <http://johnwatsonsite.com/MyClassNotes/Topics/Narrative/NarrStruct.html>

Here the author proposes to bring to light the processes of urban renovation promoted by museum architecture and documents that over the second half of the 20th century, museum architecture achieved an unprecedented popularity, assuming a central role in the redefinition of urban iconography. It was compared with cathedrals, and often became the landmark with the capacity of attracting crowds of visitors. The author looks at the impact of museum architecture on the public, the display of artefacts and the urban landscape.

Albrecht, D. (1986). *Designing Dreams: Modern Architecture in the Movies*. Santa Monica, CA: Hennessey + Ingalls.

The impact of modernism as a movement in architecture was promulgated primarily because of cinema. No other vehicle or medium has been more effective and widespread as cinema due to the exposure it has provided to architectural imagery as an organizing device used to shape cities and cultures. Even more significantly it helped create a potent new iconography for architecture. The cinematic adaptations of modern architecture created by moviemakers of the 1920s and 1930s not only provided a glamorous visual mise-en-scene but also supplied movie goers with an optimistic view of the workings of society. The cinema of the 1920s and 30s thus offers a challenging new perspective on modern architecture as well as how mass culture assimilates radical visions in the arts.

Vogler, V. (2008). *Architecture as Brand Communication: Cathedrals of Modern Time*. Retrieved on 05/08/2010 from: <http://verenavogler.wordpress.com/2008/08/12/architecture-as-brand-communication-cathedrals-of-modern-time/>

The author proclaims that buildings that communicate a message are the continuation of the centuries old tradition of religious architecture. Decorative columns and architraves, bell towers and domes, the impressively decorated palaces built by the nobility in bygone centuries and equally the modern skyscrapers, represented as cathedrals of capitalism, have always been, and are still designed as a statement of social status, not purely as practical considerations. Religious buildings were designed with inherent codes or patterns revealing important information through the insertion of symbols and geometric formation of space; since they have always intended to send a message. Today buildings literally incorporate the expression of a brand which is the manifestation of lifestyle choices through the intermediary of products and services.

Oosterwijk, J., Van den Brand, W. (n.d.). *Architecture, Ornament and Crime*. Retrieved on 05/08/2010 from: <http://home.wanadoo.nl/woutervandenbrand/portfolio/Architecture,%20Ornament%20and%20Crime.pdf>

This article begins with a famous quote by Adolf Loos' in 'Ornament and Crime', "*The evolution of culture marches with the elimination of ornament from utilitarian objects.*" The authors point out that in modernism to add ornamentation to buildings was deemed a crime and an immoral thing. It was considered a waste of time by adding on useless objects to clean straight architectonic forms. The authors question their readers as to where this concern in architecture is heading towards. Whether or not ornament on buildings is still considered a crime, is falsified since gradually more and more architects are using ornament; but in the beginning of the nineteenth century, there seemed to have been a gradual paradigm shift in thought about the

ornament after the writings of Adolf Loos. The decorative and narrative ornament, was losing ground, and died out completely during the high tides of modernism, because the great architectural thinkers of those days were, completely in line with the thoughts of Adolf Loos, removing ornaments from architectural designs, but with the resurgence of postmodernism and complex structures the idea of ornament as structure has revived.

Harris, Y. (n.d.). *Architecture and Motion: Ideas on Fluidity in Image and Space*. Retrieved on 25/07/2010 from: <http://www.yolandeharris.net/wp-content/uploads/2009/12/ArchMotion.pdf>

The relationship between image and architecture through space, time and movement has become a very significant theme in contemporary thought. This can be seen to stretch back to the Futurist manifesto and the emergence of film and the moving image at the beginning of the twentieth century.

(2010). *Brand patterning: place making and architectural treatments in branded environments*. Retrieved on 5/08/2010 from: <http://www.girvin.com/blog/?p=4181>

The author looks at the critical concept of how a brand manifests itself in a meaningful place creation. Any brand, concerning the acknowledgment of the interior design scheme needs to consider how, and why, a participant in a particular space, recognizes the sense of presence. Presence is the balance between intentional experience and experienced attention, if the intention is fully realized, and then a participant will be able to have a meaningful experience in that environment.

Thornton, S. (2010). *Fiction and nonfiction Narratives in architecture: A manifesto for a new paradigm in architecture*. Retrieved on 26/07/2010 from: <http://fictionarchitecture.wordpress.com/2010/05/05/fiction-and-non-fiction-narratives/>

In Fiction Architecture, the author proposes that, the architect adopts the same strategies, such as literal representation, and shifts in scale, but the themes and narratives are independent of the purpose, function or physical context of the building. As in novel writing, it is the development of the author's ideas which becomes the primary concept.

Rieser, M. (1997). *Interactive Narratives: A Form of Fiction*. Retrieved on 26/07/2010 from: <http://www.martinrieser.com/Interactive%20Narrative.pdf>

The article takes a look at the nature of narrative structure as a literary framework in cinema and architecture and indicates a continuous transformation and reinvention both in its form and through increasingly sophisticated interface conventions in the future. Its development resembles the early days of cinema and the consequent application of architectural narrative to provide a framework to this form of fiction.

Harris, Y. (2000). *From Moving Image to Moving Architecture*. Retrieved on 26/07/2010 from: <http://www.yolandeharris.net/wp-content/uploads/2009/12/MovingImArchitecture.pdf>

This essay attempts to trace the progression of the ideas of space-time over the course of the twentieth century through a selection of works from different disciplines. This presents us with

the ability to create new multidisciplinary spaces that combine light, sound, motion, structure and location into an entirely new environment, potentially depicting movement in architecture.

Kappelhof, H. (n.d.). *Narrative Space – Plot Space – Image Space*. Retrieved on 12/07/2010 from: http://www.hermann-kappelhoff.de/01/images/stories/narrative_space_onlineversion.pdf

The concept of narrative space provides a succinct summary to what has long determined the cinematic theoretical discourse: the question of the ideological function of the cinematic apparatus, and the question of the effect of reality on the perception of space. This concept of narrative space is based on a hypothesis that marks a decisive turn in this article: the insight that the illusionary realism of cinema cannot be apprehended by only looking at the cinematographic apparatus. It is rather the process of narration that first transposes cinematic representation into a form that corresponds to the perception of reality. It is this process that allows the breaks and ellipses of cinematic montage to become the seams of an image in which the spatial parameters of cinematographic representation coincide with the space of everyday perception and with the experience of the spectator.

Norberg-Schulz, C. (1971). *Existence, Space and Architecture*. New York, NY: Praeger Publishers.

The author speaks about the concept of space and the discussions on the concept of architectural space and perception; he addresses this issue by stating that the space concept is particularly suited for the analysis of the human environment, based on the theory of existential space. In the book he takes a position regarding architectural space perceived as a concrete set of images of the environment, which orients a person and forms an idea of the surrounding. He works with concepts such as the concept of space in architectural theory and the relationship between architectural and existential space.

Kostof, S. (1995). *A History of Architecture; Settings and Rituals*. Oxford, U.K: Oxford University Press.

The author talks about the history of architecture tracing back to its origin of pictorial representation and cave art. He suggests that buildings are often developed through images and remain alive in the form of images. The architectural history is among the built riches of the past, put in order, illustrated and preserved. Literary evidence is crucial because it provides a substantial indication to the birth of most structures and assumes a narrative sequence unfolding the mysteries behind their construction through the existence of written documents.

Preziosi, D. (1976). *Architecture, Language and Meaning: The Origins of the Built World and its Semiotic Organization*. The Hague, The Netherlands: Mouton Publishers.

The aim of this book is the elaboration of a semiotic perspective on the problems surrounding the origins and evolution of the built environment. The current concerns regarding the nature and organization of human semiotic activity is in the understanding of architectonic theory which is a set of methods and perspectives for a systematically significant organization of the built environment. The book is presented with layers of semiotic meaning revealing more clearly the place of language in communication, the study of non verbal communication and in particular the analysis of visual communication. The architectonic and linguistic codes conceptually

appropriate the world in its totality, and in a mutually implicative fashion they topologically incorporate each other.

Giebelhausen, M. (Ed.). (2003). *The Architecture of the Museum; Symbolic Structures, Urban Contexts*. Manchester, U.K: Manchester University Press.

This is a study of the museum in relation to the city. This volume examines the meaning of museum architecture in the urban environment and the narrative structure of spaces that ties it together. A series of essays put together that looks at the construction of an intrinsic relationship between the city and the museum.

Mandler, M. (2008). *Body. Architecture. Narrative*. Retrieved on 12/07/2010 from: <http://proquest.umi.com/pqdlink?did=1601525311&Fmt=14&VType=PQD&VInst=PROD&RQT=309&VName=PQD&TS=1283270245&clientId=79356>

This thesis explores human interaction with space, the architecture of space, concepts of community and the constant passage of time signified as mediums of containment. The author looks at the depiction of narrative when it is not contained and is separated from the structure.

Aquilon, M. G. E. (1999). *Narrative, Film, Architecture*. Retrieved on 12/07/2010 from: <https://dspace.ucalgary.ca/bitstream/1880/42481/1/48247Aquilon.pdf>

This thesis presents forth an analysis of the relationship between Architecture, Film and Narrative. Narrative is the action or the fact of being recounted. The author looks at the nature of events that drive the architectural narrative and generate action; he demonstrates the act of narration since it is already articulated in signs, patterns, and symbols. The author suggests that action is always mediated symbolically and in this way, narrative is made up of actions, happenings, signs, rules, and events in a connotative order to establish plot and story, which conveys a message to the participant. Narrative is fundamentally based on time, place, memory and interaction with space.

McGrath, B., Gardner, J. (2007). *Cinemetrics: Architectural Drawing Today*. West Sussex, U.K: Wiley Academy.

This illustrative book reconstructs the Architectural graphic systems by integrating the cinematographic symbolism. Graphic representation of spatial temporal themes in architecture narrating cinematically inspired themes. The book displays new ways of seeing architecture as framing flowing matter.

Neumann, D. (1999). *Film Architecture: Set Designs from Metropolis to Blade Runner*. New York, NY: Prestel.

The book is a compilation of essays which is devoted to architectural representation in early films and its subsequent development. It is devoted to cinematic imagery of films like Cabinet of Dr. Caligari, Fritz Lang's Metropolis, King Vidor's The Fountainhead, and Jacques Tati's Playtime. Each film, the authors argue, further explores the psychologically charged spaces that Dr. Caligari first created, and each eventually incorporates the look of actual cities within its urban visions.

Fletcher, B.; Cruickshank, D. (1996). *Sir Banister Fletcher's: A History of Architecture*. Oxford, UK: Architectural Press, 20th Edition.

Sir Banister Fletcher's *A History of Architecture* is the first major work of history which includes architectural achievements of the 20th Century. This unique reference book places buildings in their social, cultural, and historical settings to describe the main patterns of architectural development, from Prehistoric to the International Style. Again in the words of Sir Banister Fletcher, this book shows that 'Architecture ... provides a key to the habits, thoughts and aspirations of the people, and without a knowledge of this art the history of any period lacks that human interest with which it should be invested.'

Ryu, J. H. (N.D.) *The Cinema of Special Effects Attractions and Its Representation of Reality: The Comparison between the Early Tricks and Digital Effects*. Retrieved from: <http://www.thanhouer.org/Research/Jae%20Ryu%20%20Early%20Tricks%20and%20Digital%20Effects.pdf>

The author presents an interesting argument on the development of special effects technologies, from Edison's Kinetograph to digitally composited films of recent Hollywood blockbusters, which have transformed modes of filmmaking and has changed the audience's aesthetic perception.

Mahlab, E. (2005). *Architectural Representations of the City in Science Fiction Cinema*. Retrieved from: <http://catarqsispfccarlos.blogspot.com/>

The author in this paper talks about the emergence of production values in the history of cinema and the transformation of simple backdrops to digitally configured landscapes and the rise of special effects. He suggests that architecture presently draws heavily on science fiction and new technologies resulting in strange landscapes and architectural spaces.

Nielsen, J. N. (2009). *Fear of the Future: Grand Strategy: The View From Oregon*. Retrieved from: <http://geopolicraticus.wordpress.com/2009/03/21/fear-of-the-future/>

The author presents the fears of the future where machine dominance and mechanization of life will be the norm thus leading to dehumanization

No Author. (N.D.). *Dystopia and Its Discontents*. Retrieved from: <http://www.artandculture.com/categories/244-dystopia-and-its-discontents>

Dystopia and cyberspace are society's growing paranoia, while cyberspace allows mass communication and the democratization of information; it can also rob people of their privacy, dignity, and humanity.

Prince, S. (1996). *True Lies: Perceptual Realism, Digital Images, and Film Theory*. *Film Quarterly*.

The author talks about the implications of production values and the importance of storyboard, editing, and computer manipulation of images.

Sontag Susan (Ed.). (1966). *'The Imagination of Disaster', Against Interpretation.* New York: Farrar Straus & Giroux.

The book is based on banality of space and inconceivable terror which is the current trend in science fiction and disaster films. The fantasy to be discovered in science fiction films does both jobs. These films reflect world-wide anxieties, and they serve to allay them. They inculcate a strange apathy concerning the processes of radiation, contamination, and destruction.

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