design intention: theory

Figure 72: *The chronicles of Narnia*.

design generator

The storyboard

In filmmaking, the storyboard is developed during the pre-production phase to act as a visual sequence complementing the script. The storyboard represents the narrative element of the film in the form of a collected series of simple sketches. Therefore, storyboards are used for the conceptualization of what the film intends to be. Laybourne (1998:103) defines the storyboard as a tool for working out a project's core idea and structure.

In film production, the function of the storyboard is similar to that of concept sketches in architecture. A parallel can be drawn between designing a building and producing a film. The film process allows the producer to design fragments of the film, consequently working with the general and the particulars at the same time. Similarly, the architect uses sketches, photographs, models and 3D renderings to visualize what the building would be.

Hermeneutics can be defined as the study of theories for the interpretation and understanding of text, or the "theory of interpretation" (Compact Oxford English Dictionary, 2005). However, the concept of "text" extends beyond a written document to any object subject to interpretation. The Hermeneutic Circle illustrates that the understanding of text as a whole derives from the reference of the individual parts, and the understanding of the individual parts derives from the reference to the whole (Waever, 1996). Therefore the meaning of the text can be found in its context. In the same way the storyboard allows the producer to design parts of the film. An understanding of the film only comes when these parts are combined to form a complete motion picture.

In the process of interpretation the interpreter, or in the case of a film, the viewer, becomes important. Hans-Georg Gadamer (1989) argues that people have a "historically effected consciousness". Consequently, since people come from different backgrounds and they can not remove themselves from their background, culture, gender, language etc., that background influences their interpretation. Gadamer's concept of "Fusion of Horizons" rejects objectivism; when interpreting text, a fusion exists between the history of the text and one's

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Figure 73: Storyboard.
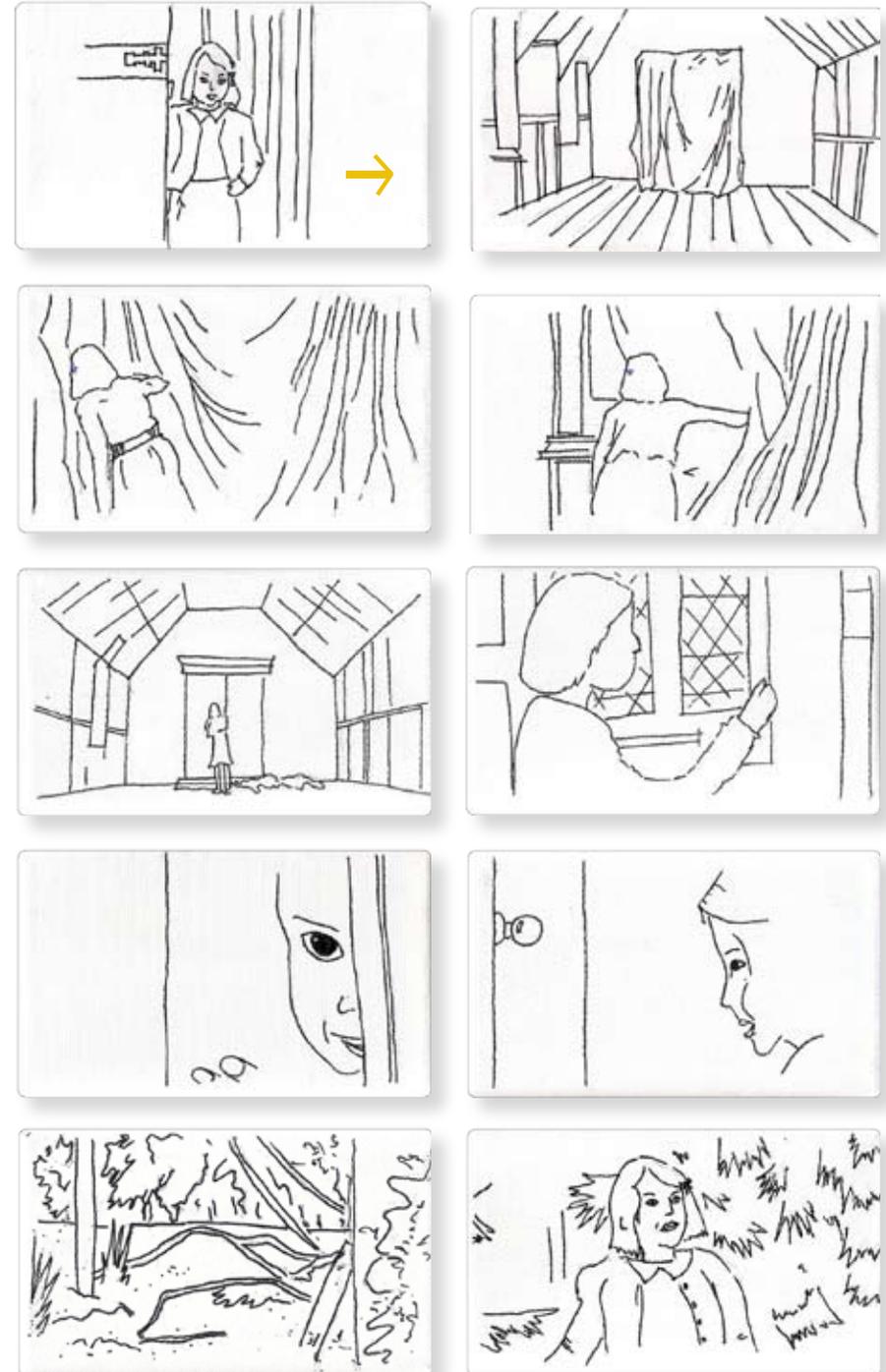
own background. Each individual watching a movie or exploring a building has a unique interpretation of it and therefore a unique experience.

The touchstone

The Oxford Dictionary (2005) defines a touchstone as a standard or criterion by which something is judged. Professor P.G. Raman concludes that a touchstone for a thesis project is "something abstract to represent its theme" (Raman, 2008).

As a touchstone for this design dissertation the author conceived a storyboard of a scene from the movie "The Chronicles of Narnia". Based on the book "The Lion, the Witch and the Wardrobe" by C.S. Lewis, the movie tells the story of four children who journey to a fantasy world called Narnia. The chosen scene for the storyboard starts where Lucy hides in the wardrobe. As she steps back into the wardrobe, her hand touches the branch of a tree. She turns around to discover a magical world at the back of the wardrobe.

The composition of the scene focuses on adventure and discovery. In a similar way, a building should evoke excitement and imagination and stimulate a desire for exploration. Lucy's transition from the room into Narnia is a transition from the real world into the imaginary, or from the tangible to the intangible.

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architecture and film

A sequence of frames

A film is often called a "movie" or a "motion picture", since the narrative is conveyed through a rapid succession of images giving the illusion of continuous movement.

The architecture of Bernard Tschumi is inspired by cinematic terms and techniques. Tschumi's Parc de la Villette in Paris is an urban park designed with consideration of the temporal quality of space, and the spatial quality of time derived from movement.

The Cinematic Promenade is regarded as a film strip composed of "a montage of sequences and frames" (Tschumi, 1987:8). Successive frames of individual gardens represent the image track, and connecting pedestrian walkways represent the sound track.

Tschumi (1987:VI) argues that a cinegram is created by the rapid succession of frames, and therefore exists as a superimposition of independent parts. The relationship between the independent frames and the whole is essential in the understanding of the film, and the sequence of events becomes important.

Space, moment and events

The word "cinema" originates from the Greek word "kinema" which means 'movement' (Compact Oxford English Dictionary, 2005).

The Manhattan Transcripts is a series of drawings coordinated by Bernard Tschumi to illustrate an architectural representation of reality. In this representation a relationship is established between space, movement and events.

Figure 74: Tschumi's Parc de la Villette, Cinematic Promenade.

SEQUENCE OF EXPERIENCES

OBJECTS
MOVEMENTS   } ARCHITECTURAL
EVENTS   EXPERIENCE

Figure 75

Figure 76: Alfred Hitchcock's *Young and Innocent*, 1937.
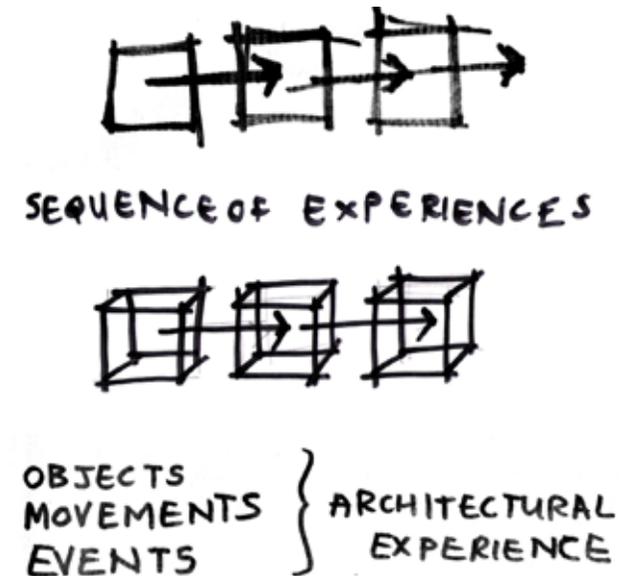
"The Park" consists of a series of photographs and drawings illustrating the account of a murder. Photographs direct action, plans reveal the architectural manifestation, and diagrams indicate the movements of the main protagonists. The attitudes, plans, notations and movements are linked and together they define the architectural space of the park.

Tschumi (1994:9) states that "in their individual state objects, movements, events are simply discontinuous. Only when they unite do they establish an instant of continuity". The relationship between objects, movements and events formulates the architectural experience. These form three levels to which the element of time is introduced in the form of moments, intervals and sequences.

The chief characteristic of the Transcripts is the sequence. Tschumi (1994:10) defines the sequence as a "composite succession of frames that confronts spaces, movements and events".

In order to gain the complete experience the succession of one frame after another is necessary. "The Transcripts are thus not self-contained images. They establish a memory of the preceding frames, of the course of events, their final meaning is cumulative; it does not depend on a single frame but on a succession of frames and spaces" (Tschumi, 1994:11). Similarly, movement through a building should be experienced as a sequence of events stimulating a sequence of experiences.
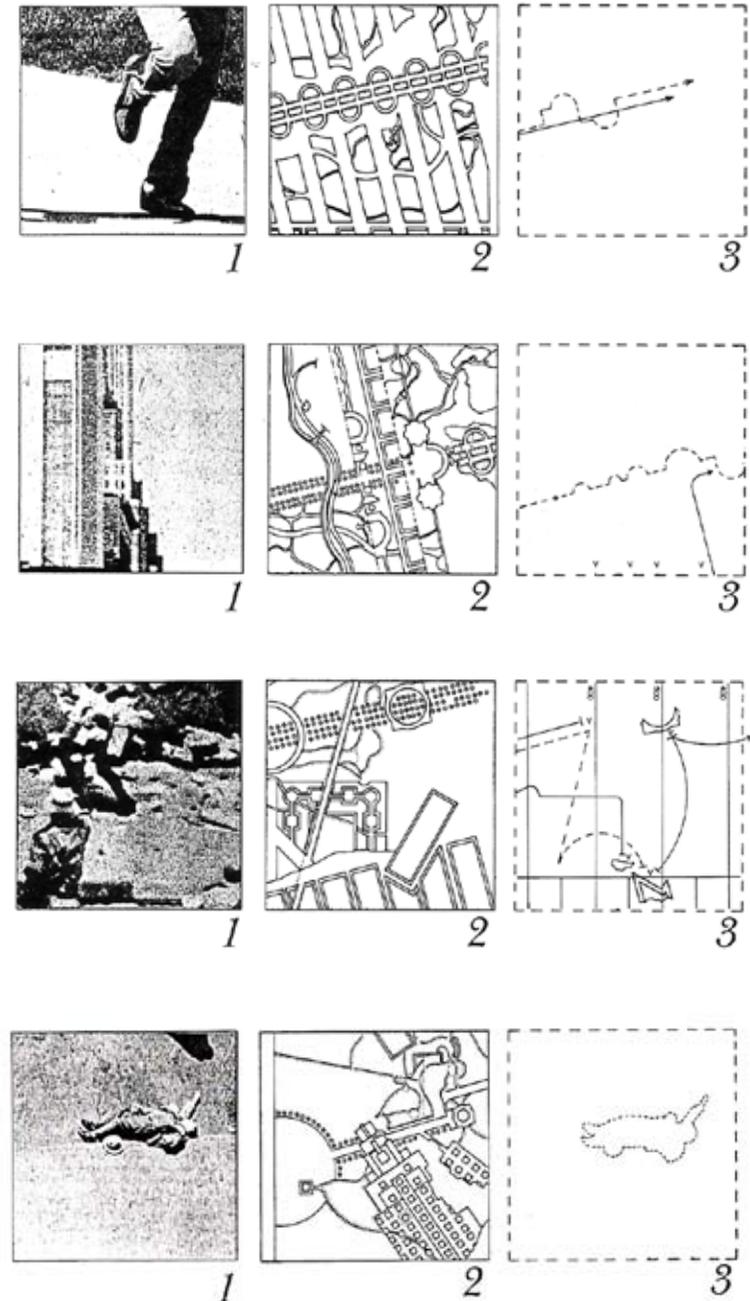
Figure 77: Tschumi's Manhattan Transcripts, The Park.

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Individual experience

Yi-Fu Tuan's (1977:5) argument about space and place is narrowed to a single perspective: experience. Space allows movement, whereas place demands pause. "Each pause in movement makes it possible for location to be transformed into place" (Tuan, 1977:6).

Tuan (1977:8) defines experience as "a cover-all term for the various modes through which a person knows and constructs a reality". These modes of experience include:
Sensorimotor
Tactile
Visual
Conceptual

Emotions influence all human experiences; therefore experience can be defined as "a compound of feeling and thought" (Tuan, 1977:10). The mind often expands the experience beyond that which the senses perceive and into the world of the imagination.

Juhani Pallasmaa (2001:35) expands on these ideas by explaining that a master artist makes the viewer think, see and experience things different to those that he is actually exposed to. Catherine Breillat makes a similar comment about the power of the invisible imagery in a film. "The work of a director is a way of hypnotizing: the viewer has to be made to believe to see even that which he is not seeing" (Pallasmaa, 2001:36). A female viewer of the film "Parfait Amour", by Catherine Breillat, complained of excessive bloodiness in the final scene. In reality, however, there was no blood projected on the screen. The blood was only in the imagination of the viewer.

Pallasmaa (2001:9) argues that our experience of reality is a result of our individual perceptions. Consequently, the perception of an image is influenced by imagined and remembered images in the mind of the observer. All arts are engaged in the same issue: the expression of human experiences. Similar concepts are formed in relation to space as perceived through cinema or architecture. The experience of architecture is a combination of the physical realm of architecture and the mental world of the observer.

According to Walter Benjamin (1968:217-251), both architecture and film present objects for simultaneous collective experience. Images stored in the memory influence how one experiences space. Space in architecture is experienced in a kinaesthetic way, or through movement.
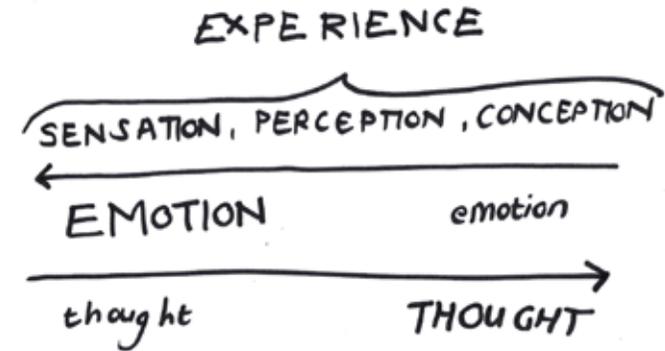
Figure 78: Tuan.

Experience = space + mind

Individual perception

Space = real + imagined

Figure 79: Pallaasma.

Space is experienced through movement

"I can no longer think what I want to think. My thoughts have been replaced by **moving images**."

Figure 80: Benjamin.

top 10 F/X (digital effects) scenes in movie history

1. "Star Wars" (1977)

Motion controlled photography was used where a computer controls a series of camera movements.
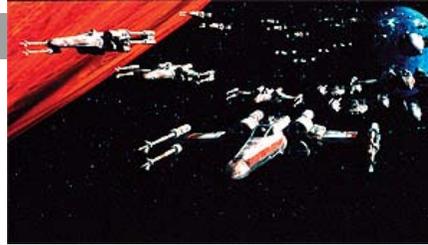
6. "Forrest Gump" (1994)

Digital archival footage was used to compose Tom Hank's character into historical film clips.

2. "Tron" (1982)

First film to use computer imagery to create a 3D (Three Dimensional) world.

7. "The Perfect Storm" (2000)

The organic qualities of water are hard to regenerate in software therefore a new benchmark was reached when the film's CGI water appeared real.

3. "Terminator 2: Judgment Day" (1991)

"Morphing" was used to generate the liquid-metal robot's humanoid texture which was layered onto a CG (Computer Generated) model.

8. "Lord of the Rings" (2001)

For the enormous battle scenes a computer programme called "Massive" was created to generate crowds of artificially intelligent individuals who "make their own decisions".

4. "Cliffhanger" (1993)

The actor was held up by wires that were later digitally removed introducing the green screen to the world of film.
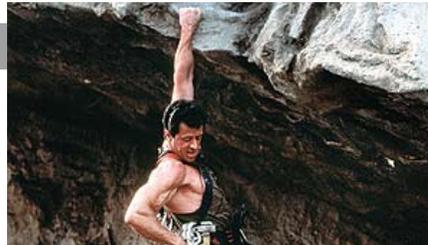
9. "The Polar Express" (2004)

A large motion-capture stage with up to 200 cameras was used to gather data from the actors' performances. Animators used this data to create digital versions of the actors.

5. "Jurassic Park" (1993)

Digital dinosaurs pioneered CGI (Computer Generated Imagery) live animals with realistic movements and textured muscles.

Figure 81: Movie images.

10. "The Day After Tomorrow" (2004)

More than 500 photos of New York City were scanned into a computer, providing a 3D, photorealistic model of the city (McCarthy, 2007:49).

theoretical influences

Henn Architects… for transparency of the process and approach towards the public
VW Transparent Factory
Dresden_ Germany
2000-2001

The Transparent Factory was not built in an industrial zone, but in the centre of the city, within walking distance of the main square (Baumeister, 2007:244).

Both optical transparency and transparency of production is achieved through the design. The factory walls are made almost entirely out of glass and the experience of car production is made visible to the outside world. Manufacturing processes which are usually hidden are revealed to the public. Approximately 250 visitors, including tourists and customers, explore the factory each day (Markus, 2003).

Glass bridges offer views of the work floor and theatre spot lights are mounted high above the workers (Patton, 2002). The automation process is revealed to the passing visitor in a theatrical manner.

The factory handles the final phase of car production, namely assembly. Painted car bodies arrive by truck while other parts are brought by a tram which runs on the public transport tracks. Completed cars placed in a glass storage tower are visible from the outside.

Figure 82: VW Transparent Factory.

Figure 83: Factory located in the city centre.

Figure 84: Physical transparency and transparency of process.

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precedent study

Jean Nouvel… for framing views to the outside
100 11th Avenue Residences
New York_ USA
2007

Construction work has started on Nouvel's new glass and steel landmark building. 100 11th will be a 23 storey apartment building in Manhattan, located on the Hudson River (100 11th Ave Residences, n.d.).

Design themes used throughout the building include amplified, direct and reflected light, and carefully framed views of the outside world. A curved curtain wall containing different sized panes of colourless glass forms the building's southern façade. Each window pane is set at a unique angle and provides a slightly different degree of transparency, designed to frame specific views. This creates visual excitement for the viewer within. The curtain wall also captures daylight patterns which change throughout the day and year.

The black brick cladding of the north and east façades contrasts the southern curtain wall. These façades refer to the masonry characteristics of the industrial architecture typical of the area (Fairs, 2007). Different-sized windows are punched out of the solid façades, creating dramatic frames for outside views.

At the building's base, a seven-storey glass street wall reflects fleeting images of the life on the streets beyond the building (Fairs, 2007). Without using complicated technology, Nouvel has succeeded in creating an interactive public face for the building.

Figure 85: Manhattan context of the 100 11th Ave Residences.

Figure 86: Glass curtain wall on south façade.

Figure 87: Communal spaces along the north façade.

Figure 88: Tilted window frames.

Figure 89: Views from within.