Interstitial Readings: Visual Thinking in Time Based Digital Media

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> "For the first time in the history of mankind we possess a magical device endowed with an incredible power. More than in everyday life, we have been offered vaulting poles with which we can jump inside ourselves, break away from our everyday thought, and discover great poetry." - Ado Kyrou from Le surréalisme au cinema, 1952
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> "The essence of the matter is that in cinema we are not dealing with an event, but the image of an event. If an event is shot from one viewpoint, the result will always be a depiction of that event, and not a perception of the event capable of making the viewer experience it sympathetically." - Sergei Eisenstein from Towards a Theory of Montage, 1937

The *magical device* that the French critic, filmmaker, and author Kyrou refers to is film, an instrument whose *power* resides in its ability to capture and more importantly compose the moving image. Once a technology reserved for an elite few possessing the necessary mechanical expertise and financial backing, significant increases in computing power and shifts in film industry standards now grant a broad audience access to the production and editing of the moving image.[1] These advances over the past decade provide a laboratory setting previously unimaginable to designers that transcends our role of mere mass spectator and allows us to enter the realm of composer with a medium ideally suited for conveying space and time – architecture[2]. As such, time-based digital media exists as an analytical tool capable of expanding, or completely rethinking, existing methods of architectural representation.

An advantage of time based digital media as an analytical tool is that it allows for the simultaneous combination of several mutually exclusive variations in a single act of comprehension – a montage. Working with a flow of information, in contrast to static images, a designer is equipped with a tool that is far less constraining and closer to his or her own method of invention that advances its course through uninhibited metaphorical association. The virtual realm exists as an environment capable of easily transforming and navigating layers of information and, unlike conventional two-dimensional representational methods, it possesses the added dimension of time. It embodies a feature capable of connecting individual thoughts into an argument whose whole embodies something not legible in an interpretation of its individual parts; it provides interstitial readings (Fig. 1).

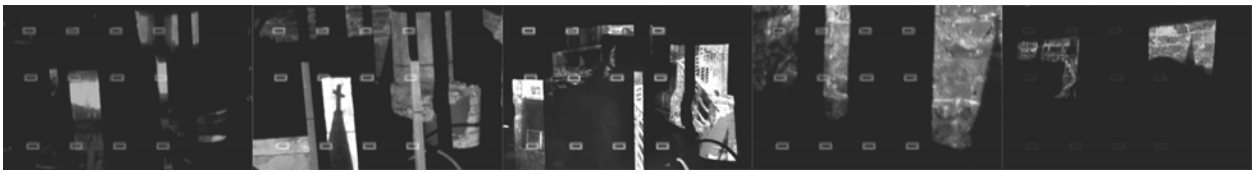

Fig. 1. *Place Elements*, Brad Province, 2006. Five frames from an analytical video of student's thesis site.

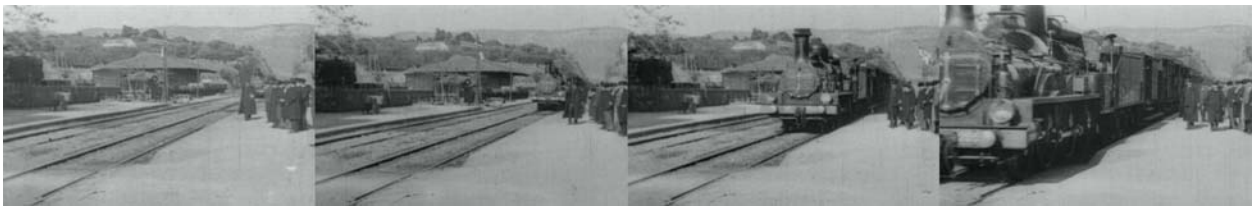

Fig. 2. *Arrival of a Train at La Ciotat*, Auguste and Louis Lumiere, 1895

Philosophical theorizing as to the nature of the still or photograph, its relation to film, and its value as an art form began the moment Auguste and Louis Lumiere premiered their new invention in the basement lounge of the Paris Grand Café on the Boulevard des Capucines on December 28, 1895. Their cinematograph captured scenes of everyday life and had audiences in a state of panic as a projected train seemingly pulled towards them into the station at La Ciotat (Fig. 2).

The technology quickly evolved from being a mere recording device perceived as animated photographs to film with its potential to relate new spatial and temporal features. "Time in the cinematograph was precisely real chronological time. The cinema, by contrast, expurgates and breaks up chronology; it puts temporal fragments in harmony and continuity according to a particular rhythm, which is one not of images but of images of action,"[3] writes the critic and social theorist Edgar Morin.

Surprisingly, the Lumieres could not imagine what the future held for their newly invented optical device. As they saw it, the cinematograph merely captured what anyone could go out on the street and see for themselves. The idea that the projected image might be considered a *re-presentation* of reality defines a critical framework by which we may understand how the moving image may serve as an essential tool for architectural design. Whether one chooses to focus on the similarities or the differences between film and what it captures, one enters into a discourse that ultimately defines the fundamental characteristics that make the captured moving image unique as an instrument for design.

John Hejduk's essay "The Flatness of Depth"[4] focuses on issues of perception and representation and serves as a useful starting point in connecting contemporary architectural thought with some of the principal critiques in film theory. The essay begins, "I come to this complex issue of photography and architecture as an architect and therefore not entirely as a stranger. The problems of conception, image, representation and realization are haunting obsessions to my mind's eye. The many masks of apparent reality have made me wonder, speculate and ponder about the revealed and unrevealed."[5] Hejduk concludes his argument by ultimately privileging the photograph as a representational form over that of film.

In his early work, Hejduk takes a highly legible three-dimensional representational convention in the axonometric and flattens it so as to generate a series of two-dimensional frames – thresholds (Fig. 3). Referencing the work of the cubist movement, he creates a visual oscillation between two and three-dimensional space. In describing the architectural photographs of Judith Turner, Hejduk writes, "Architecture is made of details, fragments, fabrications. And the very idea behind it can be captured in a fragment, a detail. And architecture is made up of two dimensions."[6] This two-dimensional reading of three-dimensional space is expanded upon in his description of what occurs when looking at a photograph of an architectural space. "Now, perhaps the most profound confrontation of all takes place – the fixed observer looking at a photograph, a single photograph, a single, still, fixed photograph, a most reduced confrontation. The mind of the observer is heightened to an extreme, exorcising out from a single fixed photographic image all its possible sensations and meanings – a fragment of time suspended, a recapturing of the very image that has been photographed."[7]

While the most obvious perceptual similarity between experiencing a work of architecture and watching a film is their temporal quality, Hejduk inverts this assumption and states that the photograph achieves something that film is

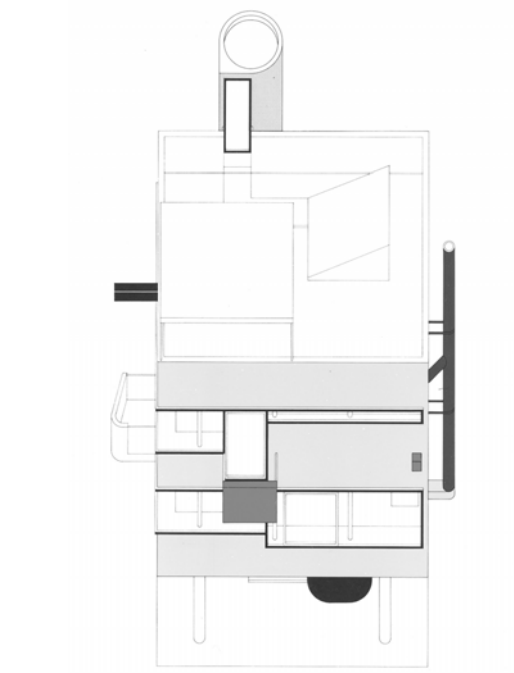

Fig. 3. Bernstein House, John Hejduk, 1968

incapable of as the photograph embodies stillness which for him engages a cognitive process linked to vision. He writes, "The moving film is in appearance never full depth, but approximately ¾-depth."[8] He goes on to state, "I have often thought that when we actually move physically in space our mind takes a secondary position to our body's tactile sensations. When we physically stop moving and become fixed, our mind takes over the primary position." Hejduk's speculation that the experience of architecture is fixed aligns itself more closely with two dimensional art forms and provides a unique reading of three-dimensional space. He writes, "I believe that full comprehension of an object involves the least physical movement of the observer. I can speculate that painting is fixed, sculpture is fixed and architecture is fixed."[9] The nucleus of this argument can be traced back to Walter Benjamin's *The Work of Art in the Age of Mechanical Reproduction*:

"Buildings are appropriated in a twofold manner: by use and perception – or rather, by touch and sight. Such appropriation cannot be understood in terms of the attentive concentration of the tourist before a famous building. On the tactile side there is no counterpoint to contemplation on the optical side. Tactile appropriation is accomplished not so much by attention as by habit. As regards architecture, habit determines to a large extent even optical reception. The latter, too, occurs much less through rapt attention than by noticing the object in incidental fashion."[10]

Benjamin further defines the nature of tactile appropriation as a path of least resistance acquired through habit and adopted by a public that desires the role of absent-minded spectator. For Benjamin, the issue of movement becomes far less important than does the nature of the consumer. While the tourist is more likely to appreciate an architecture for its artistic value and become absorbed by it in a state of concentration, the everyday occupant absorbs the work of art in a state of distraction. Benjamin's comment that, "reception in a state of distraction finds in film its true means of exercise"[11] becomes central to both arguments. For Hejduk, distraction is synonymous with movement. As an extension of methods of architectural representation, his camera represents the "eye" moving through space and attempts to literally represent reality. Benjamin's *distraction* is inherent in the masses and draws them to forms of art that require the least cognitive effort. His reference to film describes a cinema that is sensational and survives through a narrative that seduces the masses. In both of these arguments, film as a medium is logically connected to architecture and the temporal experience of space, while simultaneously, film's shortcomings are defined specifically through an examination of the perceptual experiences of the built environment.

Is it possible that neither the linear narrative of Hejduk's film that recalls the early product of Lumiere's invention nor the blockbuster formula shown to Benjamin's masses is the appropriate form for understanding the possibilities of time based media as a design tool?

What is it then about the photograph or frame, beyond just a fixed viewing position and a cognitive state of concentration, that does not translate into the cinematic model put forth by Hejduk? In defining representation, he writes "Some sort of distortion is occurring, a distortion that has to do with intuition as primal yearning, which, in turn, has something to do with the interpretation and re-interpretation of space and all the mysteries

the word space encompasses, including its spirit."[12] In this statement we understand that the role or representation is not merely the re-presentation of reality but the capturing of some *primal yearning* or *spirit.* For Hejduk, the photograph heightens the awareness of the observer to an extreme, "exercising out from a single fixed photographic image all its possible sensations and meanings."

In his essay *The Third Meaning,* Roland Barthes expands upon this concept by focusing on the work of the filmmaker and theorist Sergei Eisenstein and theorizes as to why the qualitative sensations that Hejduk finds in the photograph – the fragment – do not exist in film. Barthes articulates a difference between cinema and film. While cinema exists as a form for the masses film has far greater potential and is a medium that for him has been born technically, sometimes aesthetically, but has still to be born theoretically. He considers film to be far more than a mere form of distraction but a carefully articulated argument that operates on three levels of meaning. To explain this point, he defines three levels of meaning that might exist in a film: an informational level, a symbolic level, and a filmic or obtuse level. The informational level is one of communication and contains elements that are readily accessible as objects or signs: a bridge, a dead horse, and retreating working class as seen in the still from Eisenstein's film *October* (Fig. 4).

The second level is that of signification and relates to the sciences of the symbol and may be referential, diegetic, historical, or an internal symbolism specific to the artist; the draw bridge represents the rupture between the bourgeois ruling class and the workers and are intensified by the juxtaposition of human tragedy with the formal details of the bridge's iron structure. The third level of meaning, in contrast to the second, is not intentional by the artist. It is discontinuous and indifferent to the story and defined by a variation in the compactness of an actor's make-up, a hairstyle or complexion of one of the workers– all signifiers that possess a theoretical individuality. "The third meaning structures the film *differently* without – at least in SME (Sergei Eisenstein) – subverting the story and for this reason, perhaps, it is at the level of the third meaning, and at that level alone, that the 'filmic' finally emerges. The filmic is that in the film which cannot be described, the representation which cannot be represented."[13] The obtuseness of Barthes' third level is seldom found in a civilization of the signified. However, if Barthes's filmic lies not in the sacred essence of cinema – movement – but in an inarticulable third level of meaning, then a theory of the still again becomes necessary. Barthes suggests that we must defer to the "still" for meaning because "as yet the film does not exist; there is only 'cinema', language, narrative, poetry, sometimes extremely 'modern', 'translated' into 'images' said to be 'animated'."[14]

While ultimately privileging the still, what is important in a reading of Barthes is the possibility of an "other" that resides beyond the more obvious symbolic intent of the author and allows for indefinable interpretations. These impressions reside in the realm of intuition and closely parallel the design process. The layering of trace paper in iterations of design yields a series of frames that, while connected to each other sequentially, each yield a new reading, that psychologically situates itself between the existing mark seen through the layer of trace and the new mark that sits atop the paper. By focusing on the still, both Hejduk and Barthes negate the importance of this interstitial moment, the space that exists between two colliding thoughts and yields an understanding greater than either of the parts. Ultimately, by focusing on the still, the fragment, Barthes detaches himself completely from Eisenstein's concept of montage as it relates to film and removes his argument completely from its original context.[15]

Fig. 4. *October*, Sergei Eisenstein, 1927

Eisenstein came to film as part of the Soviet avant-garde movement of the 1920's. His extensive collection of writing and film focuses on the use of montage in film to achieve an art form that draws from the other arts but is inherently different from any existing representational systems. For the artists of this revolutionary period, photography was adopted early on to replace painting, considered bourgeois, as the appropriate art form to serve the collective needs of the new Soviet society. Artists such as Alexander Rodchenko transformed this art form of the proletariat and adopted the technique of photomontage, assembling various photographic fragments and mounting them into a single image. Photomontage assembled readymade fragments in unusual jarring combinations where size and scale were deliberately discontinuous to create new meanings. This provided an appropriate reference for artists such as Eisenstein as he began to experiment with the moving image. His films draw heavily from concepts defined by the newly emerging art form and can be understood as a synthesis in which individual shots are inscribed within a sequence to form a meaningful combination.

While the moving image consumed Eisenstein's life research, the still that Barthes examines so closely in his work remained of fundamental importance to him as the essential building block of film. The importance of the fragment as an element of montage is a recurring theme in his studies of art and literature. Eisenstein's description of the differences in traditional teaching methods in western and Japanese drawing heightens our understanding of the still's fragmentary nature and potential role when incorporated as an element of filmic montage. The western method he explains provides each student with a four-cornered sheet of paper upon which the student forces a Corinthian capital typically without engaging the frame. The Japanese approach provides the student with an already completed image and the student is asked to cut out from the whole of the image: a square, a circle, a rectangle and so on (Fig. 5). The western method forces the student to engage an artificial spatial organization in its entirety while the Japanese system provides a hierarchical understanding of visual thinking, hewing out a piece of actuality.[16] In the Japanese model, each fragment acquires a new meaning and compositional potential independent of the whole. These stills may be recomposed in unusual jarring combinations where size and scale are deliberately discontinuous to create new meanings and a greater understanding of the original object. Walter Murch describes this reductive process as one that mimics perception, a process in which objects in space maintain a certain hierarchical order that is defined by a series of moments and not a continuous homogeneous flow.[17] When these fragments are assembled, the whole takes on greater meaning than the sum of the parts.

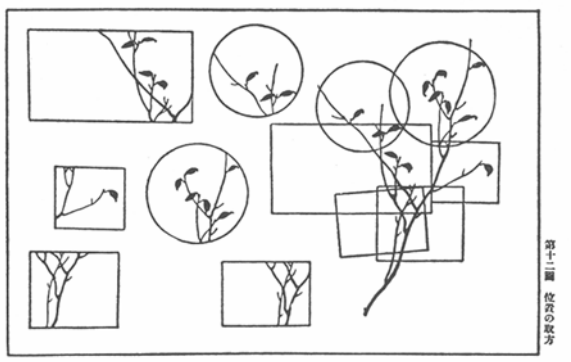

Fig. 5. Japanese Drawing Assignment from Sergei Eisenstein's *Film Form*, 1949

A literary counterpoint to this phenomenon occurs in Japanese haiku which both Barthes and Eisenstein refer to their in writing. For Barthes, haiku represents an anaphoric gesture without significant content, a description of the indefinable nature of the obtuse.

> A lonely crow
> On leafless bough,
> One autumn eve.

For Eisenstein, "These are montage phrases. Shot lists. The simple combination of two or three details of a material kind yields a perfectly finished representation of another kind – psychological… From separate hieroglyphs has been fused – the ideogram. By the combination of two 'depictables' is achieved the representation of something that is graphically undepictable."[18] Eisenstein understands haiku as the essence of film, combining shots that are depictive, single in meaning, neutral in content, into intellectual contexts and series. The haiku is a concentrated impressionist sketch. As the

Japanese artist Yone Nobuchi said, "It is the readers who make the haiku's imperfection a perfection of art."[19]

For both Benjamin and Barthes their ultimate critique of cinema is a result of the mass consumer and not of the potential of the medium. Benjamin's consumer is absent minded and Barthes comes from a "civilization of the signified." Eisenstein, one might argue, was also limited by his audience, the proletariat masses that required an obvious symbolic meaning such as the clenched fist, the worker, and the old regime. Once removed from the linear melodrama of the everyday cinema, the use of montage provides evidence as to how time based digital media, by challenging existing systems of representation, becomes an integral part of the design process.

Ironically, while Hejduk ultimately privileges the still of photography, the structure that he imposes on his text to form his argument, a fragmented prose, shares many similarities with the concept of montage, and consequently, film. His juxtaposition of phrases and ideas gives rise to a pre- or subconsciously formed intellectual image with multiple readings. Unfortunately, in privileging vision, Hejduk negates the medium in which his argument is based and presents an all too literal form for his example of film as a representational system. Hejduk's decision to include film, specifically his linear example, along with drawing, modeling, and photography places film among long standing architectural representational conventions and negates the unique temporal nature of the medium. Rather than imposing preconceived internal notions as to how the technology of film fits within existing systems of representation, we might take a Deuleuzian approach and search for ways that this new technology can transform our methods of thinking from without, to allow the machine to externally transform our thinking. Ultimately, in composing the fourth dimension, one must embrace the relations between shots – the interstitial – as much as conventional displays of forces within them.[20] The future of time based digital media as an architectural tool rests in the ability of designers to work outside of existing representational systems, to address the unique possibilities afforded by a temporal medium and the features of montage, and to ultimately focus on an audience of one – the critical designer.

Endnotes

[1] In describing the profound effect that technology has had on the film industry, Walter Murch writes that, "1995 was a watershed year in film editing – it was the last time the number of films edited mechanically equal number of films edited digitally. Every subsequent year, the digital number has increased and the mechanical number has proportionally decreased. In 1995, no digitally edited film had yet won an Oscar for best editing. Since 1996 every winner has been edited digitally – with the notable exception of *Saving Private Ryan* in 1998." In Walter Murch, *In the Blink of an Eye: A Perspective on Film Editing 2nd Edition* (Los Angeles: Silman-James Press, 2001), p. xi.

[2] Incorporated typically as a tool for presentation, the moving image is seldom an integral part of the architectural design process. Three-dimensional models or fly-throughs, as they are appropriately called, provide individuals not fluent in the two-dimensional orthographic conventions used by architects, a means of visualizing three-dimensional space. Stringing together a series of stationary fragments or perspectives at forty frames per second a linear narrative is generated that relies predominantly on previous modes of thought for its motivation. The result is a final product, trapped in existing two-dimensional static representational conventions, that does not capitalize on the potential of the medium.

[3] Edgar Morin, *The Cinema, or The Imaginary Man*, trans. Lorraine Mortimer (Minneapolis: University of Minnesota Press, 2005), p. 56.

[4] The essay originally appeared as an introduction for *Judith Turner Photographs Five Architects* by Judith Turner (New York: Rizzoli, 1980) and contained a third section specific to the Turner's work. The title to Turner's publication references the publication *Five Architects* that evolved out of the exhibit at the Museum of Modern Art organized by Arthur Drexler in 1969 and included the work of John Hejduk with the architects Peter Eisenman, Michael Graves, Charkes Gwathmey, and Richard Meier. An abbreviated version of the introductory essay *The Flatness of Depth* was published twice in Hejduk's monograph *The Mask of Medusa,* both as part of the introduction that contains only written text and again in the section titled "FRAME 4" where it is followed by a series of black and white photographs of the Cooper Union Foundation building restoration.

[5] John Hejduk, "The Flatness of Depth," in *Judith Turner Photographs Five Architects*, Judith Turner (New York: Rizzoli, 1980), p 9.

[6] Hejduk, p. 11.

[7] Hejduk, p. 11.

[8] Hejduk, p. 11.

[9] Hejduk, p. 9.

[10] Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Film Theory and Criticism: Introductory Readings*, 2nd edition, ed. Gerald Mast and Marshall Cohen (New York: Oxford Univ. Press, 1979), p. 868.

[11] Benjamin, p. 868.

[12] Hejduk, p. 10.

[13] Francesco Casetti, *Theories of Cinema: 1945-1995,* trans. Francesca Chiostri and Elizabeth Gard Bartolini-Salimbeni (Austin: University of Texas Press, 1999) p. 209.

[14] Roland Barthes, *Image Music Text* (New York: Hill and Wang, 1977), p. 65.

[15] Steven Ungar, "Persistence of the Image: Barthes, Photography, and the Resistance to Film," in *Signs in Culture: Roland Barthes Today*, ed. Steven Ungar and Betty R. McGraw (Iowa City: University of Iowa Press, 1989), p. 145.

[16] Sergei Eisenstein, *Film Form: Essays in Film Theory*, ed. Jay Leyda (New York: Harcourt Brace Jovanovich, 1977), p. 41.

[17] Murch, p. 8.

[18] Sergei Eisenstein, *Film Form*, p. 30.

[19] Sergei Eisenstein, "The Cinematographic Principle and the Ideogram," in *Film Theory and Criticism: Introductory Readings*, ed. Gerald Mast and Marshall Cohen, (New York: Oxford University Press, 1979), p. 89.

[20] Jean-Pierre Geuens, *Film Production Theory* (Albany: State University of New York Press, 2000), p. 176.