The Kino-eye in Digital Pedagogy

Cameron Campbell
Iowa State University
http://www.arch.iastate.edu
cameronc@iastate.edu

“I am the kino-eye” states Dziga Vertov in his classic movie The Man with the Movie Camera (1929). The relationship of the cameraman, the subject, and audience is a dynamic that he investigates through cinema. It is also a dynamic that inspires an innovative way for advanced digital media to be explored in architecture pedagogy. This paper is focused on three ways to translate the cinematic relationship developed in Dziga’s work to digital media in architecture: the way designers capture and manipulate digital media to make architecture; how the discourse of film and architecture can be informed by an understanding of the manipulation of digital media; and the role of digital media production as a form of research for architecture.

The film is noteworthy because it is not a typical narrative screenplay, rather it is a visual experiment. In standard films the perceptions of space are manipulated through the camera and through other means, but the audience is rarely aware of it. However, Vertov is acutely aware of this dynamic and engages the audience by self-consciously using what would otherwise be considered a mistake – the viewer is aware that the camera looks at his/her own relationship with film not just the relationship of camera and scene. The translation of this into the classroom is that the same tools allow designers to be critical of their relationship with the medium and the way media is used to make architecture. This concept can be applied to any medium, but in this class it is applied to how students relate with produced motion images and editing that into a video production.

The three elements described in this text are key aspects of not simply producing short films, but an opportunity to actually be introspective of architecture through an alternative media. Student projects include video montages that develop a cultural perspective on design and projects that are self-conscious of technology and how it impacts the production. The film-work necessary to achieve these productions is simultaneously conscious of the way in which the author relates to the scene and conscious of how that scene is edited in the context of the production.

Keywords: Pedagogy; video; hyperspace; film.
**Film as an architecture laboratory**

The architecture of film is the laboratory for the built world. According to Anthony Vidler in his book *Warped Space* this laboratory is built upon the range and genres of works that constitute what is known as film. Film anticipates the future, accentuates the present and archives the past. However film, while depicting the built world, should not be confused for being a replication of the built world when considered as this laboratory. Its replicating qualities – by literally filming space – merely touch the surface of its true relationship with architecture. Furthermore, the power of film to tell stories provide wonderful narrative ways to relate architecture to culture but is not yet the laboratory of which Vidler writes (99-103).

The laboratory of film as it relates to architecture is that space between frames, while not physically present it is perceptually rich. It is not the individual frame which we see but rather it is the how the mind links the series of frames in time – this is how one enters and engages film and thus internalizes it. Walter Benjamin argues that the link between film and architecture is its relationship between space perception and the perception of linked frames. One does not look at the city, it is perceived as an experience of linked events, what Anthony Vidler refers to as the “optical unconscious” (Vidler 81). Or as Benjamin states that architecture much like art “is received in a state of distraction (267-268)”. Film therefore is an apt replacement for anticipating the experience of architecture because of the way it is received.

Tracing lines through these various perspectives on the relationship of direct spatial perception and the experience of film one can follow two logical pathways when dealing with film; one is the relationship of the designer with the medium when making such media and how that relates to architecture; and the second is the interpretation of such media when consumed and how that becomes architectural in experience. I argue that those two sides are inseparable for a designer – that the two are bound in order to make architecture.

**The dimension of understanding**

An important distinction that one must consider – both through the theoretical underpinnings of architecture and the teaching of architecture – is the role of dimensionality when working with representation. Life and physical experience are made-up of, at least (Brian Greene writes that the universe has many more dimensions in his book *The Elegant Universe* pp. 187-188) four dimensions: three-dimensional space plus the dimension of time. One-dimension is the line as commonly understood in architecture, two-dimensions are the sheet-based representations such as plans, drawings, and other prints. Physical models represent the three dimensions of objects as defined by width, depth and height – however, the experience of objects must also include the dimension of time because one can constantly change positions relative to the object and an ambiguous dimension of translation (the process where one translates the scale model into full scale when perceiving the object or alternatively translates his or herself into the scale of the object). The role of the computer and works of film represent even more dynamics to the concept of dimensions. Indeed, film and computer representations are made up of a flat screen (much like a print) but that two-dimensional perception can change over time and it too is translated like the object in perception – furthermore, there is the dimension where film is manipulated by the director, but internalized as one’s own experience, and it must constantly be rescaled by the viewer. Hence, our perception of the space that we understand between time and image become deeply saturated with spatial translations operating in multiple dimensions – some term this “hyperspace” – simply put, it is four or more dimensions (Vidler 101-102).

Architects, students and even filmmakers tend to work in the realm of hyperspace when using various forms of media, but do not intuit that experience as such. Rather, they perceive themselves as working in “3D” (the software modeling program 3D Studio Max even calls itself that). Sometimes, the individual
frames become the subject of manipulation – such as keyframing or simply considering the sequence of still frames. But the product is the time-based delivery of images that are no longer simply still images. The product is a moving image both literally and perceptually.

Anticipating and understanding the shift that occurs through time-based perception has compelling implications. Everything is in transition and nothing can be viewed as an individual frame. The following figure and subsequent figures are still captures for the purpose of publication but the actual production cannot be perceived unless presented in motion. The following still frame capture from a short film is an experiment in shifting the time of a single sequence:

The technique used to create this production is not very complicated, however the simple shift of time for each frame results in a very rich perception of motion as it relates to time. One can see in the top left corner the most current action while the shift time delay spans the entire frame through a series of moving images and allows the viewer to see what has happened in the context of what is happening and many steps in between. The wave-like perception is further amplified by the content of images and the student was able to draw graphic conclusions as well as spatial conclusions from this montage.

In another example, the same student experimented with an historical use of Moving Pictures. Simply taking the still image series artwork created by Eadweard Muybridge, Bruce Nuaman, and Duane Michals and sequencing them allows the viewer to see the images as if played in real-time. What is strange about these works is the fact that they were not created with the intent to be viewed in motion but rather as single frames. When these subjects of still frames are returned to motion the viewer is acutely aware of the space between frames and the awkward transitions occurring between the frames.

These examples make present the role of hyper-space in understanding the viewer’s relationship with video. These video “shorts” are also a different way to consider short film production. Rather than making stories, students are encouraged to make motion montages. The history of making such montages is rich and one of the earliest notable precedents is the work by Dziga Vertov in the silent film The Man with the Movie Camera.

**Dziga Vertov’s kino-eye**

The difference between narrative film and experimental film is much like the difference between classical music and jazz. While classical music has creativity built into interpretations of a set score, jazz has creativity built into performance where the rules are merely guidelines and the results are not known.
Narrative films are metaphorically similar to classical music in that they historically tell a “classic” story with varied interpretations. Dziga Vertov knew his contemporaries of the 1920’s and their rules of engagement for making these narrative films, he was also well aware of the mass consumption of narrative films and their increasing popularity. However, Vertov rejected these films because they merely told stories – no matter how well the story was told, the powerful experience of this “hyper-space” was not fully realized. Much like jazz music, Vertov preferred working with and reacting to reality and creating compositions that were not driven by story, but created a story from the relationship of the medium with the subject.

It is important to acknowledge that Vertov has a political motivation, but that is not the focus of this paper. Suffice to say, Vertov was a Constructivist and his film subject matter intended to give people access to art as an “agent of human perfectibility.” It is well established that his method was rejected by many of his peers, but he denounced those critics who made the story films as being “coated with rubber (Michelson 25).” As if to say that they were insulated from reality and impervious to other opportunities of the medium.

Many of Vertov’s themes including the theme of *The Man with the Movie Camera* were about the working class – the working class was simultaneously the subject and the audience. It is noteworthy in his film that he chose not to tell a melodramatic story about the working class but rather he became a part of the mechanism of the camera. Metaphorically this is much like the working class participants in the film were a part of the machine of the industrial revolution. He filmed many machines in operation and consequently the timing and pacing of the film operated like a machine. Everything in the film related the machine and the working class. The dynamic of the machine starting up like daybreak unfolding linked the industrial revolution, the aesthetic of the machine, and the cadence of life – even the machine of the camera itself was considered in the film.

The production of this film was the product of experimentation. From angles of view, to the speed at which he cranked the camera all influenced the story and editing of the film. The speed at which one cranked the camera determined the playback speed of the film – thus cranking fast resulted in slow action and alternatively cranking slow created a fast-paced playback. “Kino-Eye means the conquest of time (the visual linkage of phenomena separated in time). Kino-Eye is the possibility of seeing life processes in any temporal order or at any speed, inaccessible to the human eye” (Michelson 16).

The editing itself was an opportunity to explore how the film could be manipulated. While the narrative relies on simple cuts between sequences typically, Vertov’s film was cut in such a way that action montages were created. These compositions provide a unique relationship with the film because time can move forward and backward or simply stop and statically look at an image and see it motionless. At times the viewer is conscious of his/her third-person relationship with the film when actually viewing the editor editing the film while watching the very same film being edited. These are not simply film acrobatics, but rather operate as an important tool to manipulate perception, develop the conceptual position of the film, and engage the viewer.

Another odd twist to the film that one can appreciate is the relationship the film has with the audience...
as previously mentioned. It begins by showing the theater filling with people – the very same theater that the film first played. Typically, a film does not acknowledge its audience. But this immediately set the stage for the audience to not be passive observers, but rather active participants in the film.

These various strategies of manipulation and execution provide the foundation for the use of technology and the role of non-narrative work as a source of creative work. Architects working with this mentality consider the way they make digital media and that in-turn creates the story rather than the concept being the product of their story. Digital video production serves as the best example and most evocative way to communicate non-narrative work. The material is not limited to live action filming and includes animations, collages, and motion studies. Incidentally, it is also important for architects to work outside of the strict confines of typical architectural media to gain a better understanding of how they use media when designing.

**Experimental video**

Vertov’s work can be translated into design and the classroom differently from the way narrative works enter the discourse. By instilling a sense of experimentation into film-making, designers see the work and the media they create in an entirely different way. Indeed the story is the result of manipulation and experimentation, not a trite trick of the medium. Students in the following example work are encouraged to explore how the technology informs their work rather than simply telling a story about their respective project.

“Unit 7” serves as an apt example of the use of the medium to consider the way the media perceptively influences a designer. The short film is not only a composition of the many ways one can render a space, but it is a fluid state of transition that never rests on a certain identifiable form – it is always in transition, existing in hyperspace. The student took an example project from a previous studio and used various forms of media to comprehend the space – a graphite sketch, a Cinema 4-D rendering, a vectorized drawing, a Flash animation, and raster images. All of these forms of representation are blended through transitions so the audience is in a constant state of change and never sure of what time, scale, or specific form of media is the intended focus. Thus, the audience is forced to perceive the work in hyperspace. The student, in-turn, was also able to realize the certain assets and liabilities of each form of media. Each form of media tells untold lies and idealizes its privileged mode of communication. Blending them removed the singularity of a specific form of media.
“Big Box” is a different twist on the constant state of change where effects are used to compress very obvious everyday architecture into graphically designed compositions. The student filmed the ubiquitous forms of big box architecture – filming the open ceiling plane with high-bay lighting. The slightly canted and sometimes close-up views were used to find compelling compositions. Rather than fixing on a single view, motion video was used to set the video in a constant state of change. The student paused the film and manipulated specific moments with effects to introduce layers and other graphics into the palette. The result is a high contrast montage that is both spatial because the viewer sees space in motion and two-dimensional because single moments are broken-down into compositions.

The series of installations made by the student in “Threshold” are inspired by the construction of scenes and then the breakdown of scenes through editing and collage manipulations in Vertov’s work. The audience is further engaged in the concept of threshold by the uncanny juxtapositions of the doors without walls creating artificial thresholds, but also by the manipulation of the video to change the interaction of people and space.

Each of these student examples provide an interesting framework for a deeper architectural issue. Whether it is the relationship of media and design, or sourcing design inspiration from the most benign spaces, or even the complex issue of threshold, the productions are fertile soil for idea generation and concept development.

Discourse of architecture and film

Story film is the subject of much consideration in the poststructuralist analysis of architecture. The concept of the Kino-Eye is not entirely anti-story, but deconstructing the storyline is based on a way to interpret narrative material. By deconstructing stories from historic and contemporary works, one can render creative interpretations that result in generative ideas. It has a successful history of providing rich material, but is not the place that Dziga Vertov’s work gone nor the focus of this paper.

Instead, the discourse in the class as it relates to architecture is the time-based perception and the media manipulation that is necessarily digital. The experiments themselves can garner design material and provide rich understandings of how one works, or the implications of one’s designs. Another example of this from the class is the use of this medium to analyze the experience of time itself:

In this work, time is manipulated to understand the relationship of space and experience. Flip-book images are used as one centered experience in a frame that depicts another experience – the person relative to environment and time. Certainly, the “pacing” of

Figure 6
“Threshold” Brett Burkhart

Figure 7
“Pacing” Todd Spangler
Vertov's film serves as a precedent, but the product of the student relates to his own situation and social circumstance.

The short films are a product of digital manipulation and ultimately the product results in a storyline. This storyline can be deconstructed in a postmodernist way. But the discourse is perhaps more useful to engage the student in direct application. Another way to see this is in the following example:

Similar to time and environment is the process of design itself. Tenniel Liu uses motion video to explore how ideas are generated. In the film, idea blocks literally chase him around from studio, to library, and so on. It is a self-conscious look at how he designs but also a metaphor for how the production itself was designed.

Figure 8
"On [Process]" Tenniel Liu

Erwin Panofski writes that “These unique and specific possibilities [of exploiting the medium of film] can be defined as dynamization of space and, accordingly, spatialization of time. This statement is self-evident to the point of triviality but it belongs to that kind of truth which, just because of its triviality, is easily forgotten or neglected (96).”

In practice it is difficult to separate a linear delivery from a story about a building, but indeed it is necessary because animations of a product only show the product but do not provide any greater understanding of the way it is designed or even the cultural relationship of the design.

Awareness of architecture as a motion experience trivializes video when understood as a simple pan or zoom through a space. In “Day in Life” Wilson Lewis positions a camera relative to himself and records all the various spaces he encounters on a given day. Then he presents it as a series of compressed events. The end result is highly spatialized but compressed into the “optical unconscious” of everyday experience and only comprehended when made apparent by the video experiment. In the spirit of Dziga’s work, these montages provide an opportunity for students to experiment with single ideas and develop them into cogent frameworks to form their own architectural discourse.

Figure 9
“Day in Life” Wilson Lewis

Film architecture and pedagogy

As an educator, scholar and architect, the collateral use of my research is applied in the classroom as well as in practice. This valuable element of the scholarship of teaching and learning allows me to witness the application of film as it relates to architecture generation. I am interested in how one makes media and ultimately how that media informs the work. Not by simply being made well, but by being made with a further understanding of the product.

It is often difficult for students to make the jump from the accepted form of narrative story delivery – even eighty years after Vertov’s work. This culture is barraged with narrative expressions. Making the jump from using media to tell a story to manipulating media to make a story is the difference between showing a product and understanding the product.

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References


