Introduction

Architecture, spaces, cities... are not static but rather dynamic and ever changing entities. The city, which is composed of activities, interactions, patterns of use, changes, is dynamic and temporal. As James Corner states in The Agency of Mapping: Speculation, Critique and Invention; "The experiences of space cannot be separated from the events that happen in it" (1). Mapping practices, which have evolved from the experiential to the pictorial to the mathematical and abstract, more often have failed to combine these various important aspects which describe a place. Michel de Certeau in Walking the City argues that the plan-like image of a city as seen from above is nothing else but a "viewpoint... a picture, whose condition of possibility is an oblivion and a misunderstanding of practices". He argues for the experience of wandering through the city as a "process of appropriation of the topographical system" (2). Lucia Nuti in Mapping Places: Chorography and Vision in the Renaissance describes the ongoing attempt during that period to balance the qualities of the "intellectual and mathematical" with the "pictorial and sensual knowledge" (3). Trui Vetters in 'Night on Earth': Urban Practices and the Blindness of Metatheory argues in favor of a more immersed experience with a vivid description of the taxi ride in Jim Jarmush's 1992 film Night on Earth. She describes the taxi in this film as a "paradoxically mobile point of stability" within the film containing and transmitting networks of relationships. She states: "The random encounters that take place in this confined space between places, which is usually invisible to all but its occupants, are fleeting and transitory, yet meaningful and in some cases life-changing" (4). And again like de Certeau, she argues against the all encompassing view from above, as removed, singular and totalizing.

The above examples present the various aspects of the understanding of place that have been explored in my work and the work of my students. The audio/video camera has been employed as a medium with which to combine these various characteristics of place. For us it has been important to be both immersed as well as removed, to be both realistic and abstract, to be picturesque and analytical. In addition, we have experimented with the merging of two vocabularies: that of architectural drawing and that of moving image as a way to rediscover both vocabularies and as a way to achieve readings of place that are inclusive of the already mentioned seemingly contradictory characteristics. We are dealing with perception and measure and we are

Immersive Drawings in Audio and Video

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In my work and the work of my students, the audio/video camera has been employed as a medium with which to combine the various characteristics that make up place. It has been important to be both immersed as well as removed, to be both realistic and abstract, to be picturesque and analytical. In addition, we have experimented with the merging of two vocabularies: that of architectural drawing and that of moving image as a way to rediscover both vocabularies and as a way to achieve readings of place that are both qualitative and quantitative. In this essay, various mappings and notations of cities done through the exploitation of the audio/video camera as a mapping medium will be introduced.

dealing with time. We are trying to combine the experience, the vivid images, the measurable and the ever changing in one document. In our fascination for ephemerality as a reality, we also favor a view(s) which presents multiplicities of relationships and engagements. The issue of time is of utmost importance here. As James Corner continuous in his description of space, he says; "It is remade continuously every time it is encountered by different people, every time it is represented through another medium, every time its surroundings change, every time new affiliations are forged" (5). In this essay, various mappings and notations of cities done through the exploitation of the audio/video camera as a mapping medium will be introduced.

Sections - Dissection of Time/Space

The idea of the section-cut a typical architectural analytical drawing has been explored with various audio/video studies as a way to bisect, enter, view inside -- in this case to view the irreplaceable and ever changing moments of a place over time. A student took the various activities and daily rituals on an imaginary line in Ann Arbor, Michigan and played them alongside each other (Figure 1). Like in a conventional section-cut drawing, we are able to view and understand the adjacencies of spaces, their configurations and relative proportions, etceteras yet more importantly because of the ability of the camera to record activities in time, we are able to understand the fluctuation of programs that are happening across this section of the city over a period of time. This study which he entitled Living Section study achieves what Bernard Tschumi refers to as the "tripartite mode of notation... (events, movements, spaces)...for all inevitably intervene in the reading of the city" (6). However in this case it is drawing which is influencing our understanding and use of the moving image. And while the inspiration for this study comes directly from a common drawing convention, a similar condition can be found visually in the film; The Cook, The Thief, His Wife, and Her Lover directed by Peter Greenaway where the camera pans slowly across adjacent spaces and between walls revealing the activities happening within and along the indiscriminate line that traverses the building from a parking lot, through a kitchen to dinning room (7).

Similarly this occurs with audio in the film Delicatessen by Jeunet and Caro. We hear the various spaces of a building playing against each other as sounds that originate in different spaces permeate each other or disappear into wall cavities (8). Another student makes section-cut which fluctuates between being a drawing

and being a movie while being both a way to describe both the qualitative and quantitative characteristics of the place under analysis. This drawing/movie both represents the spaces, their configurations, adjacencies and exact dimensions and presents a story containing moving images and activities as they occur within the measurable document (Figure 2). In NY AV, an audio/video mapping of New York City (Figure 3), 236 stationary video shots zooming north on the city on Broadway Street are taken. As if CAT scans of the city, these numerous section-cuts which are connected into one continuous zoom, allow us to get inside, to understand the city in its entirety as a physical entity that lives, throbs, changes. The ubiquitous Broadway Street, the only street deviating from the grid while traversing the entire island, is this line - the section-cut. Instead of looking into the cut perpendicular to its length as one would on a conventional section-cut drawing, we inhabit and travel this line. The process of collecting the footage takes seven days. Each day, the investigator, through the viewfinder, is entranced by a different story, by a different place as the various personalities of the city are experienced. Like Italo Calvino's recount of Venice in Invisible Cities, each day along this line, as we travel the city, is as if a different place - as if a different story has taken place (9). By this trajectory, we inhabit seven places in seven days, yet remain in one place.

Scale - Slow and Fast

As Allen Lightman writes in one of his fictional theories of time in his novel Einstein's Dreams, "And just as all things will be repeated in the future, all things now happening happened a million times before" (10). Each interaction is the same yet it is unique. In the film Smoke, the character Auggie photographs his corner cigar store at exactly 8:00 a.m. every day (Figure 4). A friend flipping through the thousands of photographs remarks that they are all the same. Auggie agrees but also corrects him, pointing out that each is completely unique (11). Only by slowing down one may understand the uniqueness of each moment and the many stories told with these images captured. The contradiction of Auggie's story embodies the two distinct scales that can be revealed in two different speeds. By speeding up the footage, we are able to see and understand the patterns both physical and ephemeral of a city - the transformations of the configuration of the street, the way the light moves through the city, the topographical changes, the movements of people and cars. Slowing down the footage or better yet collecting the footage - diligently entranced by what is framed within

the viewfinder, allows us to become absorbed with the irreplaceable details of each take, the particular activities, the various populations, what they are wearing, saying, looking at, their expressions and attitudes, the individual interactions that are taking place at each moment collected - the fleeting moments, the temporal.

These are as Sigfried Kracauer states in Theory of Film, "movements of so transitory nature that they would be imperceptible were it not for two cinematic techniques: acceleratedmotion, which condenses extremely slow and, hence, unobservable developments...and slow motion, which expands movements too fast to be registered" (12). Changing speeds with video like changing scales in a drawing allow for different information to be articulated. These two extremes of speed is a duality similar to that which is evident in the two perceptions of Auggie's photographs. In the study of a place extreme slow motion exposes the subtleties of what may be considered banal everyday interactions, slowing down reveals the gestures that would usually remain unseen at normal speed. Like Bill Viola's video/sound installation, The Greeting (13), which takes the real-time 45 second encounter of two women and stretches into a slow-motion encounter of 10 minutes (Figure 5). This document is in a zoomed-in state, achieving a kind of possession of time. It is a moment so slow that it is "arrested, rendered, stretched, and compressed, in short articulated, we can state that we have possession of it, that we are approaching a new vocabulary of space-time", as stated by L. Moholy-Nagy in Vision in Motion (14).

Audio/Video as an extension of our bodies - a drawing apparatus

In our experiments, the camera has also been embraced as an extension of the human body to allow us to detach ourselves from the dominance of our vision and to more objectively discover aspects of place otherwise hidden from our perception. Side Walk, a recording of New York City's ground plane, is done by taking a walk through the city with a wide-angle video camera draped over one shoulder, casually on the side of ones body not unlike the way one carries a shoulder bag (Figure 6). Forgetting about the instrument being carried around, it then also on its side and pointing downwards, a 3-hour side walk took place. Upon viewing, the color, the texture, the materials, marked the changes that are constantly taking place on the ground plane beneath us as we walk to reveal the passing through districts and the everyday activities of the city as if subtle cues and guidance on the city's ground plane.

A student documents a 2 1/4 mile run at dawn by placing a light on one of his hands. The light emerging from the moving body describes the revolutions of this repetitive activity as a line which becomes literally drawn on the surface of the video image. This emerging and transforming line allows us to understand the changes in topography and even the exhaustion of the runner in time. A secondary image is collected with the camera attached to the arm of the jogger. This one collects the same pattern of movement as a distorted landscape which describes the rhythm of the activity. These two documents are combined with added numerical information which measures the activity over time (Figure 7).

A student in one of his studies positions the camera in his luggage, pointing outwards and recording. Upon viewing, we experience the various speeds and movements of the space between the car and the plane (the airport), the clumsiness and discomfort of carrying heavy bags, and even the camera as an active, almost alive instrument caught for a moment in the x-ray machine as the security personnel inspects it. Unknowingly to them, it (the camera) also inspects them. Can the video camera, in its capacity to record continuously without our instructions at every moment or our eyes at the viewfinder, become also an objective observant, analytical, removed, yet intimately connected to us?

By-pass examines the auto-centric urbanism of Atlanta, a planning idea of bypassing the city that has occurred with the construction of arterial roads that never connect to the center and constantly defer arrival while simultaneously acting as seed of growth for these cities, one based almost entirely on the car. This investigation examines this condition - the space of the by-pass by exhaustively documenting the city over a continuous 24hour shoot, looping around Atlanta, Georgia, on the various interstates that constitute the ring (Figures 8 and 9). By mounting multiple cameras to the car, the car is blurred into a mobile video apparatus which captures a day in the city. Via choreographed viewing apertures the space around the car is examined through the windshield, the rear and side mirror, mounted to look into another car, the speedometer, the driver. The camera as an extension of the car, this time twice removed from the body of the investigator, captures the characteristics of this space, the characteristics of this condition that we so often inhabit - a place where time moves in many speeds and where our perception of where we are fluctuates continuously.

Again, what is choreographed here is the set up. The apparatus itself, the body/car/camera, in its trajectory captures, studies and measures this intangible place. This was further explored by asking the students to develop their own audio/video car apparatuses, instruments for reading and measuring the city. They were asked to choreograph these documents as a kind of section through the city where the section, the line drawn is the trajectory of driving/drawing. This car/body as a measuring tool of places in transition encompasses the various scales mentioned. The car and the city are dissected as a way to understand organizational patterns over time and over distance. The body is also understood as intricately connected to the city via the car as we realize its involuntary reactions to the trajectories. The movements of our eyes fluctuate as needed as guided by the signage of the city or by the maneuvers of other drivers; our hands and feet react as needed. This is amplified through video editing as a way to measure the temporal city. In the example below (Figure 10), the video footage - a crosssection of the city moves as if pushed by the speed of the car.

Life-size Documents

This process of collecting the information, these trajectories for reading the temporality of cities, are as if life size drawings defined and collected with the movement of our bodies/camera as if giant instruments with which we inscribe and measure the city. Likewise, we have also experimented with the representation -- the assemblage of the information as temporal, lifesized and inhabitable. In NY AV, the presentation of what was collected four years prior inhabited the place that it captured as a four-dimensional document spanning a seven-day cycle, describing a four year change. A container inscribed with information about Manhattan and pulled by a truck traveled the length of Broadway Street up the island, as a cross section through the city and a cross section through time (Figure 11). The container encapsulated the information collected as projections, sounds, movements, pauses. It as a map contained and organized the information collected and also presented and disseminated it. The container which was occupied by the city also occupied the city, transforming slightly or boldly the individual spaces where it rested, also marking and revealing, and engaging the activities occurring or inviting new activities. Making itself evident or assimilating itself into the city's texture and materials. A visitor of the installation noted that "the reflections on the polycarbonate panels of the container dematerialize it and suddenly its heaviness is

lifted and there it is, captured like a mysterious hologram, appearing here and there, never still!" (15). Grounded each day of the seven-day cycle at a different park or square along the trajectory of Broadway, the container allowed the readers of the map -- the everyday inhabitants of the city, to enter and experience a day in the history of the city four years ago. In this process the passerby interacted, read, added, altered -- in other words actively participated in the reading and recording of their city.

The document in New York City extended traditional means of representation by allowing the inhabitants of the city to actively participate in the reading of the map in the process reflecting and becoming aware of their relationship to their ever changing environment. Like a visitor noted, the project is "a great reminder of time and how things seem to never change and yet how quickly what we have seen changes" (16). This again refers to the idea of scale described earlier. In this case, it is the distance in time that one is removed from the experience that allows one to understand the changes. It is a way to look objectively from outside at that which you inhabit, at that which you are immersed in. The document was fleeting - it came and went, one day per site, a week on the island. It, like what it represented was ephemeral, moving and changing. This map is vivid, realistic and temporal possibly to be compared to the huge life-size map of Jorge Luis Borges's tale which was so large it had to be folded and unfolded so many times that it disappeared (17). While this maps attempts to be life like and also to be on the territory that it describes as the map Borges describes, NY AV is also diagrammatic and abstract, quantitative and measurable.

A more recent and quicker experiment mapped the activity of an event during the period of a week. The project was inspired by Parallel, a "space-time synonym" as described by Moholy-Nagy in Vision in Motion (Figure 12). In this 1937 photograph the mosaic pattern of a swimming pool's bottom in its distortion reveals the movement of a swimmer as it interfaces the body of water. This led to a project called Motion Mappings (Figures 13 and 14). By using 18 miles of string threaded and hanging from laser cut panels with a pattern of varying densities a thickened penetrable fluid space was formed. This space was made luminous and also measurable by the projection of slowly changing colored light and moving horizontal lines which penetrated the space at different densities marking time at three different rates. The volume of string and the projected lines were

deformed by the movement of people as they passed and engaged with the work embedded within the string volume and playing on two small LCD screens. These deformations were captured with daily video recordings and re-projected into the volume during each following day in a layered process which developed a video drawing of the motion and activity through the space in time over the course of a week. Visitors who came to see the student work imbedded within were drawn to the silky tactility of the surface of the volume, quickly disappearing into it while others already inside would suddenly reemerge while interacting with the disappearing and reappearing ghosted projections of the previous users of the space. The light and colors of the projection filtered through the various densities of moving string creating from without a luminous inviting solid and from within; an experience like that of being submerged in water. This effect which was phenomenological for the visitors, took the experiment back to the Moholy-Nagy "space-time synonym" example that inspired the work. The string volume experiment while being a mapping through the revelatory deformations of a mass is also like water as an experience. The project submerged people into a space of refraction, light, color, depth, movement and fluidity.

Conclusion

The projects presented here and which constitute a variety of mapping and representation experiments capture and amplify temporality. These documents which take the form of videos and installations visualize the ever changing qualities of place and/or activity. They take the perceptual and life like and combine it with the abstract, the sectional to create documents that are attempting to be more encompassing of what constitutes a place and therefore more precisely informative of the possibilities. These various documents attempt to be immersive and not the one fixed all encompassing point of view allowing us to experience space in time and sequence. The projects are simultaneously explorative devices and representations and as such are documents in transition - moving, changing and transforming and in so doing also temporal and alive. In addition, by using video through the lens of analytical drawings we are merging the vocabulary of the moving image with the vocabulary drawing. This has allowed us to challenge both mediums and to come up with new kinds of documents, new ways of reading place and more opportunities to see and consider temporality. We believe that addressing time in our studies will give us a more meaningful and complete understanding of place and therefore we will also be more sensitive in our proposals.

Notes

1 Corner, James. The Agency of Mapping: Speculation, Critique and Invention. In Mappings, edited by Denis Cosgrove, 211-252. London: Reaktion Books, 1999, p. 227 2 de Certeau, Michel. Walking in the City. In The Practice of Everyday Life, Trans. by Steven Rendall. California: University of California Press, 1988, p. 93 3 Nuti, Lucia. Mapping Places: Chorography and Vision in the Renaissance. In Mappings, edited by Denis Cosgrove, 90- 108. London: Reaktion Books, 1999, p. 91 4 Vetters, Trui. 'Night on Earth': Urban Practices and the Blindness of Metatheory. In The Urban Condition: Space, Community, and Self in the Contemporary Metropolis 343- 357. Rotterdam: OIO Publishers, 1999, p. 349 5 Corner, James. The Agency of Mappings: Speculation, Critique and Invention. In Mappings, edited by Denis Cosgrove, 90- 108. London: Reaktion Books, 1999, p. 91 6 Tschumi, Bernard. The Manhattan Transcripts. New York: St. Martin's Press, 1994, p. 9 7 See The Cook, The Thief, His Wife, and Her Lover directed by Peter Greenaway 1989 8 See Delicatessen by Jeunet and Caro 1992 9 See Calvino, Italo. Invisible Cities. Trans. By William Weaver. San Diego, New York London Harcourt Brace Jovanovich, Publishers. 10 Lightman, Alan. Einstein's Dreams. New York: Pantheon Books, 1993, p. 11 11 See Smoke by Wayne Wang 1995 12 Kracauer, Sigfried, Theory of Film: The Redemption of Physical Reality. Oxford University Press, 1965, p. 52 13 See Viola, Bill. Bill Viola Whitney Museum of American Art, New York 2000, p. 122 - 123 14 Moholy-Nagy, Laszlo. Vision in Motion. Chicago: Institute of Design, 1947, p. 247 15 Octavia, Speranza, comment from New York visitor - Day 6 Mitchel Park, June 4th, 2004 16 Lorisia Clevenger, from the NY AV guest book - day one Bowling Green May 30th 2005

17 Moholy- Nagy, Laszlo. Vision in Motion.

Chicago: Institute of Design, 1947, p.

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