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RICE UNIVERSITY

PHENOMENOLOGICAL PROCESS IN MAPPING THE CITY: PROJECTIVE AND REPRESENTATIONAL ALTERNATIVES

by

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE MASTER OF ARCHITECTURE

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ABSTRACT

Phenomenological process in mapping the city:

Projective and representational alternatives

by

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In the process of delineating an ideological territory for lived experience and rational structure, the very nature of experience sometimes eludes our sensibilities. Event and memory are constantly being redefined, reconfigured, rediscovered. These intersecting realities alter our perceptions of the world and we are forced to further reconsider our understanding of it. The disjunction between lived experience and our understanding of it necessitates the imposition of a 'rational construct' upon reality.¹ The search for representational perfection has however, negated the relevance of the construct. The loss of meaning derives not from the devaluation of the framework, but the drift from reality, or more accurately, the discrepancy between the construct and its represented double. In the fissure between associative memory and the rational construction thus, lies that which holds prospect for enlightenment.

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PREFACE

The thesis is intended to mark a beginning; part manifesto, part proving ground for a series of ideas. As such, both the thesis as well as the document remain as sites in which a range of experiments are allowed to occur and associational manipulations to propagate, assembled as in a pseudo-scientific journal of research and method. This journal is a continuing inquiry into projective and representational relations as a cognitive venture to which will later be applied to the conceptualization and design of architecture. Noted is an initial thematic assumption for an ideological work to begin, that of ‘Projective space’, intentionally non-defined, but to be addressed through a series of notes and experiments. The notes take the form of a journal of loose associations and topical preoccupations. These sections are linked chronologically, if not thematically as possibilities for thought and action, some executed, most not. It is also intended as a constant self-critique that begins consolidate evaluation between the individual and the subject, thereby addressing one and the same issue simultaneously. Ideologically, this constant reexamination of fundamental paradigmatic conditions would reveal fissures into the assumptions laid down by precedent inscriptions. These precedents have been and are currently being challenged in their validity and relevance to the contemporary condition which may sufficiently question the pedagogical helm of architectural education.

As noted, the journal will follow a chronological trajectory, starting from work and ideas first encountered almost three years ago, and through thought, time and work, reveal how those initial ideas have evolved. It is important to note that the evolution of ideas through critical thought in the production of architectural knowledge is held paramount above all
else, and will be reflected in that which is sought after. The most important shifts are usually expressed in the form of questions, often raised during juries and conversations. These conceptual shifts mark various levels of theoretical engagements that attempt to justify the reasons for action.
INTRODUCTION

“... what is first in order of nature may be last in the order of explicit knowledge.”

Brand Blandshard

Section 941228.1235 hypothesis

The primary theme in this scope of work is the desire to engage aspects of site, program and space at a phenomenological level. Through repeated experiments and manipulations, these phenomenological discoveries should begin to foster an understanding about the prevalent conditions that affect a design project. The findings should reflect a set of conditions that can later be applied towards various architectural operations. A major point of consideration rests in a conscientious resistance towards preconceptions in the experimental process but also in taking a critical look at the heuristic devices involved in the process as well. Always under consideration is the question of whether the development of a methodology for design is able to offer revelatory potential sophisticated enough to preclude a programmatic exclusion.

A second and related theme addresses urbanism directly as a failed vision. Success of urban scaled planning hinges on a coupling of traditional planning with a more important phenomenological approach to design. An urban analysis of both physical and non-physical occurrences may be better analyzed through perspective than diagrammatic abstractions. Perspective places design from the point of view of the perceiver, opposing

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directly ease of geometry in large scale planning. This would include an increased understanding about function, event and place through “soft” programming. If we accept Houston as an evolutionary archetype of the anti(e)-city, should not the urban condition require alternate models of analysis and interpretation? Following a path laid out by traditional means of urban planning would seem a little naive and might find the process in want. It may be more beneficial in examining the latent contradictions of the city; its causes and be-causes, to seek solutions with stronger and with more direct implications to the city.

Definitions

Perception: The power of apprehension, observation, discernment, mental image, concept; a result of perceiving; awareness of the elements of environment through physical sensation; reaction to sensory stimulus; physical sensation as integrated in the light of experience; appreciation insight, direct or intuitive recognition.

Perspective: A picture or figure that looks distorted except when viewed from a particular point; the interrelation in which parts of a subject are mentally viewed.

View: Aspect of an object and thought from a particular standpoint; vista; configuration; appearance to the eye of objects in respect to their impression of distance.
PRECURSORS

This section describes the main *modus operandi* in work executed between Summer 92 - Fall 94. It represents conceptual, ideological and physical work executed in 3 studios over a period of 2 years. The focus of the work is process oriented, which necessarily raises several concerns to its validity, to be constantly evaluated against the probing of architectural issues.

**Beginnings: a collaboration**

Ironically, the first steps in a lengthy process originated from several collages that aroused an interest to research alternate modes of architectural production. The collages had images from Duchamp’s *Three Standard Stoppages*, Albrecht Durer’s woodcut *Drawing of a Woman* (1525) and the nine square house modeled loosely after Palladio. These collages offered the primary theoretical basis for a project titled “Plotting in Perspective to Inhabit the Landscape”, a collaborative effort involving a faculty member, Charles Waldheim and four or five other students. Preliminary work called for the design of a house for a Gardener and an Other at Hadrian’s Villa but was cut short due to an untimely departure to Berkeley. During the first week of conceptual development, the proposal involved capturing the site photographically, as a way of recording the existing environment in the usual way of pasting together a montage of snapshots of the site. In this case, the method of photography was limited to three horizontal rows of photographs forming a 360° panoramic view. The three rows were segmented into 36 equal vertical sections, each section representing a 10° cone of vision. The process that was to follow
were a series of projections which I had received instructions about but never had the opportunity to follow up on. Separate projections were to occur, one originating from the landscape, the other from the site. Soonafter, I began to think about these two steps as tools for site analysis. Firstly, about how architects usually perform site analysis through simple snapshots to surrogate their experience at a particular site, to which I found was somewhat lacking if one were to utilize these photographs as evidence towards design. Secondly, I found the notion of perspectival projection intriguing, with the prospect of designing from perspective as opposed to designing in perspective.

**Experiment 1: first independent venture (June 92 - August 92)**

"Phenomenology reintroduces architecture to its content: experience. If a spatial and temporal experience is the essential outcome of architectural practice, that experience should be approached directly and from the very beginning of the design process. More specifically, architecture should then design, at the same time, space and event."\(^3\)

The interest in phenomenology as an approach to architecture originated from a project for a research facility at the University of California in Berkeley. The program seems less important now as to the design idea being addressed at that time. The concern with lived experience as a method for design seemed to make more sense than traditionally accepted modes of architectural conceptualization. Using Steven Holl’s *Porta Vittoria* project in

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Milan as precedent, I began exploring the possibility of experiential design. 

Phenomenology became the working concept for the method of design. Unfortunately, phenomenology did not offer much of a platform for objectivity. Holl speaks of phenomenology as an intuitive, psychoanalytic model that subsumes the conscious theoretical framing of discourse and definition. It questions the realm of overt as opposed to the realm of implied - presence in absence. Encourages free association by stepping into the surreal through the lens of its own making. The experience of space and time is held contrary to the experience of objects. In the Porta Vittoria project, traditional urban strategies were rejected; the grid because it had the tendency to “render everything as a measure of block by block infill.” More importantly, traditional plan to three dimensional form design was also rejected. Instead, perspectival space was derived first, with plans to be reconstructed from that:

“Perspective sketches of spatial conditions are cast backward into plan fragments, which are then reconciled in an overall layout. By its nature the perspective drawing implies associations between elements. These spatial configurations are taken as evidence of a particular activity, clues for reconstructing a program. Images of human activity, collected from diverse sources, are held alongside the perspective views to provoke the analysis.”

The perspectival exercises were developed partly as a novel concept, partly an interest but always an intuitive understanding of the shortcomings of the plan-section or more traditional methods of design. Recent exposure understanding with urbanism further reinforces the futility of the ‘master schemes’, which seem reminiscent of the utopic vision

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of modernism. The perspective methods are merely meant to augment the more accepted views of planning. I feel a critical connection between drawing as representation and drawing as idea severely distant, possibly because this alternate mode of design would mean a great deal more thought put forward into the detail of design and clear visions of the spaces. Somehow, it is always more convenient to return to the comfort of graphic aids to design an planning. This idea is not new, just neglected although in the recent years, there have been much interest in generating alternate modes of architectural production. Maybe the profession, being its current (impoverished) state, does elicit a reexamination of our profession, its participants, systems and perhaps most pertinent. This is not taking an anti-urban view, but trying to reinforce that urban planning is not under the purview of the architect. It should be, but it isn’t. We can understand the forces and might even play a few hands, but planning is not practical unless we can reclaim that much which can return to influencing how the city is shaped. Holl continues,

"Phenomenology as a way of thinking and seeing becomes an agent for architectural conception. While phenomenology restores us to the importance of lived experience in authentic philosophy, it relies on perception of pre-existing conditions."\(^5\)

In these “pre-existing” conditions, he sees architecture acting on the indefinite dimensions of reality - excesses in confused information, multiple and latent intents, programmatic ambiguity, the plenitude of options in material, forms etc., and architecture can begin to reaffirm its regard in the physical environment by engaging these indefinite tangencies.

The built banality of the physical world has resulted in an architecture impoverished by the workings of Modernity. That which had granted architecture its opportunity for ascendancy has now folded in upon itself, a transformation that now excludes its perpetrator. This calls for a reexamination of the Source - an ephemeral, spiritual condition, zone or territory that preclude the act of thought or the process of creation; a search for an emotional dimension that would begin to suggest a 'psychological space'. This psychological space induces experiments in light, vision and perception for which that would be the datum we can begin to transform - it narrowly focuses on the fusion of sensation and thought and begins to address the emotional and psychological tendencies that is at once evocative and intellectual.

The experiments in Berkeley Summer 92 - Departing from the traditional site plan analysis, the process began by using the camera as a device for recording the physical environment. The resultant image qualified as a representation that is objective in the process of recording with the nature of selection, interpretation etc. remaining within the realm of the observer/recorder. The photographs were then aligned and taped together, similar to the way one would normally approach site work conventionally. The first in a series of abstractions were made through a photocopy and the second in a charcoal drawing of the photocopy. The next step was a line overlay that identified the virtual (observed, not measured) vanishing points, perspectival contours and shadow delineations as an attempt to compress the depth offered in a photograph to a two dimensional plane in some cases emphasizing the dominant lines and in other instances marking dormant (implied or subliminal) lines. In this line abstraction, the following step follows a perceptual
intervention that employs an intuitive interpretation and a memory of the site that
combined, lets one project either a) self into the space of the drawing or b) allows spatial
configurations (in perspective) to emerge. Following this line drawing are trace overlays
that begin to further define these perspectival configurations that give it form. The final
step in the drawing process involves transferring these line drawings onto
stonehenge/strathmore paper for rendering. This step is critical in perspectival space as it
infuses the drawing with a tangibility of light, surface, shadow etc. From this, models
were constructed, both perspectival models and a reconstructed plan. The reconstruction in
model occurred simultaneously with the drawing that attempts to reconstruct the plan from
the rendered vignettes.

Analysis - Certain problems arose from using images from the photograph. The nature of
the photographic image, its literality, representational quality makes for a difficulty in
abstraction the image. Even so, the abstractions remain within the domain of a two
dimensional object. The second problem is the fairly intuitive act of interpreting the line
drawing that defines the structure of the spaces. Its psychological, occurs within the mind
that makes it almost impossible to critique the nature of the decision (do we want to? What
about the nature of phenomena? Can it apply here?) but it remains very much as arbitrary
as the Rorschach ink blot test whose actual recording of a process is hidden and only the
result from the decision are apparent.

Fiction - A person is experiencing walking along a street in a city and observes the
surroundings. Around that person are a number of residential townhouses and apartments
that the person is consciously aware of. Even subconsciously, the urban landscape filters
through consciousness as an subliminal imbibe/infusion, and quickly becomes part of the person’s being. There is a small lane paved in concrete, and the person turns into it as it meanders into a courtyard and an open space. The street is not visible anymore, but the sound of activity is audible, and the person knows the city lies beyond the walls and hedges that now, obscure the physical city. Beyond the courtyard lies a maze and being curious, the person enters it. Suddenly, the person is lost, unable to attain bearings in relation to the city. Finally, the person reaches a room unlike the other rooms in the maze and the room is unique because the person realizes where he/she is in relation to the city and ‘sees’ that beyond the opaque wall is the image of the city he/she saw earlier while walking in the street. There is a latent urban picture suggested by the configuration of the room. The person feels comforted to be in the city again. But he/she is still in the maze.

**Experiment 2 : temporal inclusion, video technology (January 94 - May 94)**

The working methodology here is revived after several unsuccessful attempts to address the studio program of ‘Crash City’. With the introduction of the video camera filming a progression through a site, images were extracted at every 200’ intervals and these images were imported into Photoshop and manipulated to only retain the edges of the lines present in the image. These manipulated images were then printed onto transparencies. Drawings were made of these transparencies (frames) and models made that were the projection of the edges from one transparency to the next, thereby recording in this temporal section cut, the projection of on edge to another over 200’.
Experiment 3: cartographical inclusion (September 94 - December 94)

The working methodology involves taking the imposed grid from the initial site map (given) and on intersecting grid lines perpendicular to the edge of the strip site, assume a procession along the grid line from one intersection to the next in the direction of East-West. The main instruments of measurement would be the camera (film), a camcorder (video) and a compass. The results from the observations would hopefully inform further inquiries and provide alternate avenues for exploration. This process is in a way attempting to identify the elements to an experiential procession, a perspectival methodology that if fruitful, can hopefully be used as a aid to conventional methods of site analysis. However, with the at the present stage in development, it would seem like a time to embark on a less representational mode of experiment - the images from the cameras being too direct and literal; provides little room for abstraction and analogous activities to precipitate. Although this exercise has engaged certain phenomenon on site, the formal structure that can be applied to the site is derived from not the data collected and presented, but the experience from physical engagement at the site. Several conceptual ideas that can begin to form a workable thesis for a process over the next two weeks:

1. That the experience going through the site could not retain a linear sequence due to the nature of the terrain - topological incursions that at greater elevations that force a empirical ‘best guess’ to determine the assumed datum, hindered the overall formation of a spatial schema that one can mentally map out the city. Datum is negated in real world but body in space establishes this reference; body measuring device that ties to the memory of the city (experience with perceptual reference).
2. Related to the idea of mental disjunctions that change with altitude is the densities that
differ along with the terrain.

3. The edge of the city defined by the Promenade des Anglais that marks a clear beginning
between various different identities in the city that are delineated by strips running East-
West.

The approach to design is a concurrent development on 4 fronts, purposefully ambitious
with intent of explorations and issues left open for further development and perhaps
resolution in thesis semester:

Firstly: The physical site is considered in the conventional method of analysis
encompassing a program for a park / open space. The present site remains an opportunity
to focus the city’s activities, although right now it is fragmented in its usage and spatial
definition and circulation is temporally discontinuous. Basic ideas -
1. remove existing amphitheater to free the space and initialize edge conditions, and
2. define and connect circulation and visual axes.

Secondly: Develop on ideas relating to the abstraction of the video - image based
manipulation. This process remains one offering the least possibilities and as such being
the most problematic as the images are merely representations, although abstract, but in so
far as two dimensional visual information that at best becomes an abstract representation
rather than a representational abstract, or a recording.6

Thirdly: Three dimensional representation of the experience - models that are regularized from a derivative experience and constructed with moving views and shifting spaces that is to suggest the spatial/temporal disjunction between cartography and phenomena. This has offered further ideas - a full scale installation at the staircases and a full scale model of a cruciform box that induces perceptive projection while disabling mental placement of a spatial coordinate. Adding to the temporal element is a video / television installation that begins to displace a person in time, to invoke the psychological mechanism that relates the perceived with the real, and extended over a course of several weeks, manipulate that schema that is essential to memory and spatial/object retention and understanding.

Critique - These models originally were developed as an antithesis to the perspectival process developed during the previous semester. The problem still remains with the immediacy of the image; too representational and pushed up front to the picture plane that it defies the attempt to designate a frame(work) as its meaning, narrative and overall coherence is held within itself. So the same mistake was almost made. If I did do it, it would have remained the most literal interpretation of order (the transparencies) where last semester was not; it was the result of an investigation. So the leap right into the small models, each representing an interpretation of the experience of the site; too complete and dead-ended. Also, even though its an interpretation, its still a representation and not a recording, a leap too far, too fast to preclude solution and preconceive final form. It becomes a personal journal, unable to be linked to anything, decontextualized. You don’t want to do that - you would want to abstract the conditions, urban or otherwise, and use that as a device to operate, manipulate. Abstract an idea of the experience densities (activities), strips (form), and mental schematic disjunctions between map and reality. But
now I have a personal journal of the applied experience, not reality. Only reality in so far as it happened, but not reality because its not a phenomenon. So its an experiential grid, arbitrary, imposed and recorded. Is that where the map comes in, the grid redefined, and the linearity of experiences that weave through the map. Mapping an experience is quite contradictory.

**Memory / cartography (a theater of the city)**

This experiment in Nice is intended to further a design proposition for reconciliation of lived experience and its representation. Initially a graft of several related ideas; to explore the disjunction of the grid and the city, perspectival abstractions that began to define a system of visualization and the construction of an instrument that will address the nature of how a mental schema forms its spatial relationship and object associations. This mental schema has cartographical roots, but the act of encoding that reality as a methodology of design should remain within its phenomenological boundaries. That act of encoding reality represents an autonomous process through which one constructs a phenomenological space ("The conversion of our implicit, common experience in space to the constructs we group under the general heading of ‘spatial knowledge’, and the fundamental way in which these constructs relate to the activity of mapping..."\(^7\)). As maps function primarily as abstractions that surrogates a referent, I would pose that certain failings in contemporary work are a result of the inability in determining a strategy in successfully bridging representational space and perceptual space. Using the memory theater as a means of engaging preliminary site work, a box developed as a heuristic device which would

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simultaneously inform design development on the site. A preliminary program proposed a new amphitheater and cafe to be located within the site. The conception of space through mapped drawings of arrangements of objects in space; spatial relationships are generated through proximity.

"Projective space... begins psychologically at the point when the object or pattern is no longer viewed in isolation, but begins to be considered in relation to a 'point of view'. This is either the viewpoint of the subject, in which case a perspective relationship is involved, or else that of other objects on which the first is projected. Thus from the outset, projective relationships presume the inter-coordination of objects separated in space, as opposed to the internal analysis of isolated objects by means of topological relationships.""8

"Memory" : Giulio Camillo

Tried to define a system of topical knowledge through the construction of a ‘memory theater’ *(Theatro della Memoria)*, which is somewhat of a misnomer, but exists as one of the most fascinating works from Veneto Renaissance.

"His aim was to develop a memory system, an edifice-machine in which the entire universe human thought could be embodied. This was a fabbrica, ie a theater, where the mnemonic powers of topical images would activate the imagining. The theater of memory was a genre of corporal time-machine where the past, the present and the future were architecturally related through memory.""9

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8 Ibid., p95.
Intention was to organize an epistemological encyclopedia arranged as a human body within the analogous structure of a theater. It consisted of 49 cabinets (drawers) arranged heptagonally that represented a physical projection of the construction of human memory. A “shadowy theater as a corporal tool for topical imagining.”

“The lack of student inquiry that is directly architectural and particularly historical seems related to an expanding belief that such inquiry is more or less irrelevant to the process of designing. This attitude accompanies a general hostility to a priori architectural thinking and theory and to modes of learning that may be analytic or informational in nature... Substituting for the gathering of didactic material, for the expansion of a knowledge base as a spring point for design, is a growing faith in intuition and certain hackneyed notions of creativity... Intuition has become a rallying point for a new expressionism, accompanied by exercises that value design process and its beguiling but entropic products...”10

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The accumulation of ideas from past projects now leave more questions and uncertainties towards further development. Firstly, there were notions of perspective and how that could more closely model a psychological consciousness for design. Secondly, the phenomenological definition is juxtaposed with the problem of representation. Urban and programmatic implications emerged. With the added time element in questioning the map, the conceptual focus begins to blur as to whether it had more to do with the map or perspective. The two concepts are very much linked at an intuitive level, forcing an expansion in the scope of the project. Much like the experiment in Nice, in order for one to re-establish the self in the city, one must engage the city at the phenomenological level - perceptually first hand, real-timed and recorded that it might yield evidence of and for interpretation.

Section 950112.2 positing
What is the next logical step in the process? Previous studies explored mental schemas and projective space; city is always engaged visually and temporally in Crash Studio. The problem of representation was compounded with the introduction of cartography in Nice Studio. A critical examination of the solutions and their shortcomings determine a course of redefinition. Film studies inspire an inquiry which result in a direct relation to the city at large through the eye of an ‘other’. Understanding is reduced to episodic occurrences and disjunctive vistas, flashbacks and allegorical evocations, always escaping the grasp of objective determination. How one interprets the city is a function of one’s own lifestyle. Through the cinematic eye, non-sequiturs, transience, sprawl and chance encounters are
assembled and spliced together- texts and objects lose their permanence but recover the quintessential character of the city. On maps and mappings that are derived from the city but have inherent interpretative value that lend that revelatory potential to inform analysis and programmatic definition. But the connection between the map and the objects/container; is it a storage device for the mapping of a city? How can those relations be expressed in an abstracted three dimensional form? Referring to the Egyptian Jukebox and ten constructed sites (drawers) which frames a cartographical arena for the manipulation of its fictions. The typology of a post-industrial city alters our awareness and definition of the city but it also modifies our notion of domesticity and the resultant public/private realms are transformed. The site(s) for are our own personal space, within our locus of control.

**Section 950118.1445 departures**

Conversations on 950117 - on drawers (containers, arenas, mapping devices etc.) and possible jump points.

1. the mapping of the city - a. 610 loop and b. main street
2. analysis of movie and novel
3. continuation of Nice project of mental mapping and
3a. programatically complete the garden/cafe on the site chosen
4. catalog of drawers of 9 individuals
5. programatically develop an apartment
Originally conceived of as a way of designing buildings through the conception of pure space, the notion of phenomenological design has expanded to include the problems of urban analysis. Now, it must adopt a flexibility to address contemporary urban issues. Initially, the process of perspective design was to allow for the traditional method of urban analysis to be shifted to a notion of “urban design”. Through a series of abstracted drawings, one can begin to use the drawing as a filter for existing phenomena in the city. Preexisting conditions were projected inwards to form tectonics, independent of use. The initial step was through perspective, create space and form from a ‘memory’ of surrounding context, after which, the program and architecture was then reconciled to a building.

The intention is that with cities becoming less historically and precedent based, there must arise alternatives to understanding and interpreting the cities. Houston, an example of the post-industrial city, retains the paradoxical difficulties of categorization and analysis: Generic city - the identity of the city remains amorphous due to its rapid growth which lacks of historical precedent. Anamorphic city - the creation of understanding from a single point in space to which perception from all other points remain distorted. The experience of an automobile city starts to alter perception through speed. Speed - in its convenience of driving and parking, proximities are redefined from time-distance to time-speed. As our use and experience of the city now becomes point to point as opposed to processional.
**Experiment 4 - inside the 610 loop.**

The initial part of the semester will be focused on examining several different 'sites'.

These 'sites' occur as a cursory receptacle for stored objects and documents that could well be categorized as an individual's systematic schema of retention. Through a series of casts and drawings, residual products can be derived from the exploration. These products will then constitute a constellation of mappings to which translates to the site(s) within the 610 loop. The larger part of Houston and downtown will be gridded off into a number of cartographical sections. Each of these sections will then be engaged empirically under the assumption that all within the 610 loop is somewhat representative of the disparate conditions, multiplicities and heterogeneity of the city. Each of these sections will then be dissected in terms of its zoning characteristics and certain iconographic conditions (social, political, economic) identified and emphasized and abstracted in a series of constructs that operate analogously to "mappings". Since the grid is arbitrary and discrete, it cannot possibly represent all conditions and events of the city, nor should it attempt to. However, with the grid, one can now begin to identify dominant patterns and although reductivist in scope, is able to isolate certain patterns or conditions unique to that particular sector of the city.

With these sections, "site models" models will be made in the form of drawers, either cast or constructed or both, but with each drawer representing a single or unique condition previously identified. The drawers now serve as a working analogy towards the production of an apartment building for Houston dwellers. These drawers are the most critical part of the assignment for its metaphoric content as well as the architectural product.
Experiment 4.1 - main street.

Since main street has traditionally been identified as the archetypal thoroughfare for circulation and activity, it remains a representative cross section of the city along its entire route.

Experiment 4.2

In dealing with the storage device, the domestic collections that operate phenomenally as well as analogously to a map. The process requires taking a sample of 9 people and identifying cataloguing their personal memory theaters; here, the utility drawers (cabinets, shelves etc.) function as sites that relate hypothetically to Houston. Its prominence and invisibility, its haphazardness, convenience and utility should function as a non-conscious preoccupation within the domestic realm. Construct/cast a map of these containers of anonymous ubiquity.

Experiment 5 - the mental mapping of a city in texts.

1. “Alice in the Cities”. In this Wim Wenders film, a girl is lost in a different part of the country and is trying to find her way back home with the help of a man who has ‘volunteered’ to help her locate her home. Without the aid of addresses or phone numbers, the search can only take place on an experiential level, relying only on the girl’s past memory of landmarks, events, spatial configurations and temporal distances. The search goes from initially attempting to locate the right city in West Germany to finding the correct residence within that city.
2. “In the Labyrinth”. In this novel by Alain Robbe-Grillet, a soldier is wandering through the ruins of a war torn city to deliver a package in fulfillment of a wish from a dying comrade.

Both analyses focuses on the perception of the city. In order to engage the perception of the city at an experiential level, it would be necessary to determine a method whereby one can either map the city out perceptually or have the city mapped empirically, while temporarily suspending pre-knowledge of the map. The process will be to construct a device which enables the city to be mapped as an experience. The automobile will function as a cartographical instrument by which one can navigate through Houston, chosen here for its obvious pervasiveness and convenience. As one must approach the problem of spatial understanding at a phenomenal level, the abstraction of street maps should be avoided.

Site(s) - The construction of a ‘cartographical arena’ from empirical evidence. Ten sites will be chosen by someone else, and meticulously catalogued and described through photographs and text. However, the parameters for site selection will be carefully outlined to render it consistent with the program (introduced at a later date). Site selection parameters would be like -

1. Each site has to be visible from the previous one and also to the next.
2. The route to Site 1 has to pass a
   a. Stop and Go
   b. Require 10 minutes of freeway drive time and
   c. Be within sight of the TransCo tower.

Program - an apartment unit for 10 one-room apartments with provision for public space - garden, landscape. Programmatic details -
1. construction to augment phenomenon.
2. construction to augment awareness.

Section 950430.1825 on realization.1

It became essential for the prevailing process of exploration to engage the real world; to enable the surface of perception. The exercise of critically observing, analyzing and recording phenomena resulted in the construction of a recording platform situated in passenger seat of an automobile. This was an attempt to link the previous notions of: temporally measured perspectival process, dissemblance between the map and its reality and the production of the artifact as evidence. These three concerns have a common phenomenological denominator, seating them within the realm of the observed or experienced. As noted previously, that realm now offers the resource in conceptual formulation. Through this construct, several of these concerns were addressed simultaneously; the mapping machine that would make a indexical recording of a journey through the city.

The platform is constructed with four laminated sheets of half inch thick 14”x14” medium density fiberboard (MDF) with a 22 gauge cold rolled steel finish fastened by four inch long 8-32 machine bolts on each side. The major parts involved a fan motor that attached to the side of the platform that during operation, rotated slowly to pull a roll of graph paper across the platform. Elevated slightly above the platform is a track that ran a pen holder for a black plotter pen. This was attached to a cable that ran through two eyelets along an adjustable arm pivoted along the left side of the platform. The left end of the cable, following roughly a ‘Z’ configuration, attached itself to a flat bar slipped into the diameter
of the steering wheel while the right end of the cable was anchored to a spring fixed on to one of the two legs that held the platform to the car chassis. This enabled the pen holder to slide along the track in reaction to the steering wheel while the spring kept the pen holder centered along the track whenever the steering ran true. The other pen was attached to the end of a rod that had a pivot slot in the middle allowing for a translational pivot. The left end of the rod held a rod end that clamped onto the gear shift.

The operation of the machine involved having the motor to be turned on to allow the graph paper to be pulled across the platform. When the vehicle is in motion, both the arm that is attached to the transmission and the steering cable reacts in the manner according to how one is driving, with direction and velocity information being transcribed from the driver’s perception to manual operation of the steering and transmission which in turn, indexes the physical motion onto the constantly advancing paper.

Two other modes of recording were employed. Firstly, a video camera positioned slightly behind the driver and looking through the front windshield, enframing the windshield and the rear view mirror as well. This, along with the mapping device, accentuated the role of the automobile as a ‘static frame’. The landscape will appear to shift around the automobile rather than the other way around. It is only with our experience that we know it otherwise. More importantly, the framed inclusion of the rear view mirror attempts to address the spatial fragmentation of ‘high speed’ motion.\textsuperscript{11} With the rear view mirror, fragmented space can be partially reassembled through the simultaneity of projective reference. It lets us view space diminishing behind us as we move forward. Secondly, a

\textsuperscript{11} ‘High Speed’ here refers to the context in which Richard Ingersoll describes how urban space has essentially been affected by the advent and proliferation of the automobile.
35mm camera was set up to take photographs out the side window every 45 seconds. Two separate configurations were used, one which included the side mirror within the photograph and one that did not. Not all the journeys to and fro used the setup described above. Understandably, the first few trial runs were mapping machine tests and configuration runs to note the 'bugs' and to subsequently correct them. These 'bugs' and inconsistencies are noted below under each trial run.

Section 950215.1535 first review

Comments: To re-establish oneself in the city. Community vs Constituents. Strategic vs Tactical. Fragmented reality. Orientation, recognition and recollection are not functions of a social consciousness, rather an independent belief system that powers an implicit motivation. The notion of community does not exist in Houston. Political and social systems are broken down into discrete elements, all existing as agglomerations within the same localized sprawl of the city. Each individual’s own spatial understanding. But the intent is not to define the individual’s extent of the city, but insert spatial fragments (loosely termed ‘landmarks’) into the background of the city.

I seem to be interested in the experience of architectural space. Having since been wary of the architectural paradigm of having to produce buildings through the figure/ground analysis that, although now recognizing its relevance only if interpreted judiciously, have been a convenient motivator towards the design of buildings. There should exist alternate or at least supplemental methods by which we can decode latent and preexisting conditions within a given context. There are latent conditions. This fueled three separate experiments, all of which attempted to attack this amorphous conceptual unit of latent “space”. But
perhaps the outcome of which only causes a realization that the approach would have to take the form of analysis.

There is a person that does not understand the city through maps. This person should have a different understanding of the city perceptually and conceptually. Speculation: Their spatial schema is ‘stronger’ or at the least, defined differently. For her, the city appears to be a series of translations to nodal points. The memory of the city is phenomenal and not mediated by a mapped abstraction nor a representational image. Knowledge is empirically based and experientially accumulated. The city has therefore different visual vistas, perceptual densities and varying degrees of transparencies based upon the spatial schema that is established. The spatial schema is unique to the individual. This third point of transparency becomes not so much a literal ‘layered’ notion of opacity but rather an awareness that is more spatially and hence temporally related. The temporal dimension only serves to augment the perceived depth and distances between the subject and her surroundings.

The tenuous connection that needs to be made between the mapping device for the accumulation of experiential evidence in the city and the 10 individual drawers (containers, arenas, mapping devices etc) - the mental mapping of a city is precluded by the spatial understanding of one’s immediate environment. If perspective is a form of mapping; a filter to which visual information is absorbed, processed, analyzed and categorically stored, the essential link needs to be established between the micro concerns of the mapping devices of domesticity and the macro issue of spatial schemas within the city. The selection
of site(s) and subsequent design of the apartment can occur within the scale shift of the two.

**section 950216.0210 first review questions**

What are you trying to accomplish?

Is there a resistance, an avoidance of architectural issues in this probe for things undefined?

What is the main focus of the nature of exploration?

Shouldn’t you be wary of process oriented architecture? Should not that have been learned three years ago?

What is the most consistent theme that threads the past 4 studios’ work?

What was uncovered? What was successful and what was not?

How does this relate towards the production of a building?

What is projective space?

How does it relate to the map?

If perspective is another form of mapping, how would you effectively express that without the aid of representative tools?

Is the method of designing from experience relevant? Is it the core of architectural expression? Or should expression arise from alternate intellectual propositions?

**Section 950221.0239 architectural promenade in Houston**

The most obvious architectural convention analogous to the passage through the city would be the architectural promenade, to which Le Corbusier says,
"You enter: the architectural spectacle at once offers itself to the eye. You follow an itinerary and the perspectives develop with great variety, developing a play of light on the walls or making pools of shadow. Large windows open up views of the exterior where the architectural unity is reasserted... Here, reborn for our modern eye, are historic architectural discoveries: the pilotis, the long windows, the roof garden, the glass facade. Once again, we must learn at the end of the day to appreciate what is available."

This still holds true for Houston.

Section 950221.0339 crash city revisited

On site(s) selection: ten separate sites visually linked (or linked through some other relationship) within the 610 loop? Or one site visited 10 times. Presently, the experiment encompasses issues of experiential procession in an automobile from conceivably, one point to another. Therefore, it would be logical to select a site most suited to facilitate such an event. This puts the emphasis on journey rather than destination. How should the building (architecture) be worked into this? The building would almost seem incidental and episodic; temporary in its inhabitation but not in physicality. An apartment seems almost antithetical to the conditions required. But the fundamental preconception may be the key. Should it not be a random site to which these principles can be applied to rather than that of an urbanistic grand scheme; a 610 de la Villette folly solution or superstudic-edge-of-city gesture that imposes a self conscious grandeur. So site selection should have certain parameters; an urban attitude.

Preliminary iconographical sites/anti-sites -

1. freeway
2. gas station
3. convenience store
4. shopping mall
5. enclave/suburb
6. transmission tower
7. vacant lot
8. drive through
9. billboard
10. industry

Are experiments getting more diffused? Previous experiments built upon the original premise from *designing experience*. Crash studio moved through the site. It reproduced the architectural promenade from the point of perceiver while traveling in the automobile. Then with the inclusion of the grid (cartographical) and the city (phenomenal). Nice was not an experiment designed to question the validity of the grid. The Cartesian system was devised as an organizational unit, and therefore an arbitrary construction not meant to exist outside the cartographical realm. The video produced resulted in what would be the most obvious conclusion, that the grid is indeed a cartographical construct. This assumption may be true for Nice, and perhaps other cities on irregular terrain. The Jeffersonian grid has assumed the Cartesian coordinate system to be the predominant urban generator. Has this therefore, mediated the experience of the city since the transformation of the city has occurred from an anthropomorphic relevance to a representational abstraction? Moving through Stripsite 2 in Nice further strengthens the original premise and discounts reliance
of the grid in planning, the emergence of Nice being very different as noted above (see Nice text). From the observations in Nice, the premise that a post-industrial city like Houston may be at a phenomenal level be perceived like that of a traditional European city, or at least, reinterpreted from such analogues. Perhaps phenomenal analysis or reception of urban surroundings can be approached from the concept of a preexisting conditioned mental schema that is constantly being defined, re-verified and cross-referenced, even at the most subconscious level, that internalized navigational system allows us to spatially and perceptually stream a system of logic into the our awareness. That system of perception, reception, cataloging and projection relies on an inherent understanding of the city, independent from any representational or abstracted intervention.

Jumpcut urbanism\textsuperscript{13}: Some observations to the urban condition in Houston.

The absence of the traditional notion of the ‘street’. Activities do not revolve around that traditional urban typology. The closest approximation to the street has been restructured into that of the shopping mall. The strip malls that line the streetscape do not hold identical cultural and economic significance as do the shopping mall, which in effect is an internalization of the street. If the experience of the shopping mall could be assumed as an inversion of the street, it does not necessarily support the same social functions of the traditional townscape. The introduction of the automobile as an essential element of the experience focuses the specificity of a localized condition.. precluded by the dominant capitalistic system, results in an economic-political human construct rather than a social condition. The jumpcut and the rear view mirror:

"The verification that a new code of perception emerged is substantiated by two mental leaps of faith that most American consumers have to make in order to participate economically and culturally: the rear view mirror and the jumpcut. The rear view mirror splits vision so that one can see space vanishing behind them as they hurtle forward. It was introduced in the mid 1920s as a safety precaution. It is a way of reassembling the space that at high speed has fragmented... The jumpcut in cinema is the means by which the filmmaker can combine different shots in defiance of spatial or temporal continuity."\textsuperscript{14}

Assuming the prevalence of preexisting "fragmented" conditions, one can begin to approach the understanding of Houston in terms of its displaced semiotic fragments. With the fragmentation of space and spatial relationships due to the expanding reach of the city, movement through the city can be approximated as an anamorphic consequence.

Anamorphosis is a sophisticated application of the principles of perspective to a picture plane to register at an exaggerated oblique angle, its invention allegedly attributed to Leonardo da Vinci.\textsuperscript{15} The anamorphic image would seem distorted if viewed from the normal perspectival viewpoint; the image would only begin to reconstruct as one decreases the angle between the viewpoint and the picture plane, while maintaining a distance from the picture plane. With the advent of the automobile and the reconfigured notion of temporal comprehension as a result of the... the experience of moving in a vehicle should not be unlike that of a conical anamorphosis, in which an image will appear in correct perspective only when the viewer looks down the apex of the cone.\textsuperscript{16} However, we do not

\textsuperscript{14} Ibid.
\textsuperscript{16} Ibid., p94.
conceive of the city as an anamorphic space, which may be a reason why we have been
dulled with the sensation of speed, even though anamorphic perception requires increased
distance. This dimensional pulling apart is precluded by the automobile’s ability to enable
us to travel further distances in less time. Anamorphosis tends to temporally alter
perception by allowing visual stimuli more time to register. If this alteration of the
temporal increment is indeed possible, our perception of space would correspondingly be
affected as well.

950301.0123

Perhaps one of the reasons our spatial consciousness is not overtly questioned when
traveling in an automobile may be due to the assumed role of the automobile in modern
culture. It has a number of iconographic and symbolic connotations, all of which are
beyond the scope of this discussion at this time. However, the automobile is usually not
considered as a construct of having a ‘spatial’ configuration or relationship, despite its
pervasive and unquestionable impact on the modern condition. Even the mobile home or
recreational vehicle (RV) is more commonly considered a vehicle first, its domestic
functions secondary. The difficulty of anchoring the automobile remains its fundamental
nature, that of being a somewhat fluid spatial progenitor, rendering quite a clear delineation
between what lies within its domain and what does not. As such, we are only beginning to
realize and accept its extensive impact on the city we live in and the morphological
emergence of its infrastructure. And sometimes that acceptance does not come easily but
nevertheless, we are forced to examine the fundamental nature of the automobile’s
influence in order to gain a more lucid definition of the city.
The notion of the rear view mirror offers a double encoding of literal as well as metaphorical significance. We move forward at a phenomenal rate, physically, as the existing city passes us by, as well as historically. The rear view mirror can be seen as the fixed constant in a state of motional flux, providing schizophrenic perspective s(paces). This space is fixed, relative to the moving vehicle, which can be defined as a cone of vision, except with the implication of the rear view mirror, acts as a vortex as well. This cone-vortex holds constantly shifting visual operations that require additional attention with the accelerated rate of automobile experience. There is essentially a double anamorphic projection; the foreground perceived as a spatial compression and the inflected vanishing past.

“Camillo’s “theater” is dedicated to the cone of vision in a more direct way. It literally transects the view with a surface divided into compartments for contemplation. It is both a cone and a vortex, in imitation of the ecstatic “ascent into the heavens” of the soul.”

The preceding cone of vision could then be held analogous to an anamorphic compression while the immediate inflected space would read as a dopplered past.

process .2

1. How this corresponds to the recording of experience.

2. This begins to deviate from the notion of the architectural promenade and circulation.

The difficulty begins in having to maintain an abstracted reference to the conceptual

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visuality of experiential phenomenon. A tenuous connection can be drawn from the cone-vortex as a conceptual manifestation for the rear view mirror and projective space (from the car). The cone of vision, having been a thematic element in the development of Camillo’s memory theater, can address the notion of transparency within the city, in this case a mnemonic function, and as an archetypal definition of a theater. But should not the notion of transparency remain a universal concept, capable of application integral to experience? Even if historically conceived in the development of a memory theater, its principles are no less contextual.

Section 950320.0022 Monday morning.

Post review questions again.

1 week - working on indexical recording presentation, parking garage data, contact prints being developed.

2 weeks - working on subsequent Amy runs over the next few days. Spring break.

3 weeks - just got car back from mechanic Thursday, completed Nice project today. First Amy experiment, night run, no image documentation.

4 weeks - working on the machine still.

6 weeks left... this is getting serious. Hoffman and Makstutis articles inform this next decision. Despite the ongoing work that is directly linked to maps and mapping, the underlying theme seems to always revert back to a process of recording and its phenomenological and physical effects.

Maps made are not maps. They are ‘charts’ or ‘indexes’ or ‘recordings’ although they are frequently referred to as “maps” but do not possess the representational (both syntactic and
symbolic) information needed for the interpretation of conventional maps. They are recordings of a phenomena and is an act of interpretation in themselves that has produced evidence.  

"Recording is an operation of means, and as such has a temporal dimension. Like the phenomena that it registers, a recording must occur over time. It is this variability of the temporal dimension that sets recording apart from measurement which finds its origin and point of reference in space rather than in time."  

"The [cinematic] image keeps us from believing what at the same time it affirms [over time] just as a description keeps us from seeing what is showing."  

Section 941103.0330 conceptual (a)bridge

The possibility of invoking imagery between interior space and exterior surroundings; establishing a place for an interior space

An inquiry into the structure of mental schemas: Plotting projections to apprehend the disjunctions between cartography(map) and place(phenomena)

Experience: immanence

Event: phenomenal

Memory: representation

Simulation: analog

The psychological mechanisms that relates the perceived with the real

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19 Ibid., p11.
20 Ibid., p11.
Section 950429.2203 on realization.2

Commentary on -

1. Institutionalized mode(s) of architectural production.

2. Resurgence in socio-political awareness ("total" architecture) which now becomes polemicized between the macroscopic and microscopic functions of the profession and its education.

3. Drawings as concepts.

The first 'experiment' took place on the 27th Feb 95 from the loop at Valhalla to Amy's Ice Cream on Shepherd Plaza. This route was originally selected purely as a test site but was eventually adopted for the rest of the experiments. A '.1' suffix indicates a trip from Valhalla to Amy's while a '.2' suffix represents a return journey (Appendix).

From the results gathered, drive 10.1 was used as the 'model' in subsequent steps in the process. Drive 10 had all three recording devices working throughout the entire journey which provided a complete sample of data for one journey. Also, the time taken for the journey was an average over the ten samples and would offer a good median indicator for extrapolation of data. The recordings, taken as a group, now begin to show differences, some quite extreme, in clock times needed to complete an identical representational (not phenomenological) route. Although each journey was similar in start, end and route, the temporal irregularities are much more apparent in their representations as recordings than perceptual ... The recordings now offer visual evidence of an experience, and the comparison of these recordings reveal a temporal disparity our sensibilities may not have previously noticed, or noticed differently. In themselves, the indexical recordings dissect
reality only partially, now presenting a set of data requiring alternate means of interpretation. That act of interpretation however, resides within the empirical realm, inseparable from the experience now in the past. The only tangible references are within the electronic memory of the video recording, and the photographic stills of 45 seconds. From an experiential point of view, the bridge between experience and its phenomenological product had already occurred through the indexical recordings. The recordings now present just that - recorded experience. However, recorded experience seldom have interpretative datums as they lack a certain quantifiable or discrete structure. Since the recordings are temporally based, the datum by which any interpretation could follow would have to conform to clock time. A 45 second indicator was made uniform and noted on all the recordings. This indicator coincided with the camera shutter intervals, giving a temporal structure to the recordings. From there, we note that repeating patterns between similar journeys fall into different time segment intervals, and within the patterns themselves exist discrepancies.

The assault on the map became most apparent when the results of the recordings were overlayed onto an existing topological map. Essentially, the empirical knowledge was then used as a template to which an existing piece of information was to be altered. This directly challenged the map as a representation source as terminal truth, to which it only represents one version of truth, such that it had been accepted widely enough to construe a common language to which reality is reflected. The existing map was altered based on several simple ‘rules’.

This was probably the most important step in the process as it now showed how perception is inadequately delineated and almost always excluded in mapped
representations. Through this process, the evidence gathered begins to affect the preconceived and directly question its conditioned relevance. The map now has been stripped of a translatable dimensioned scale, that enabled conventional maps to be a diminutive reproduction of its original. However, this modified map is scaled according to the temporal sequence of the journey through the site. In that sense, the mapped space is still a direct transformation of the referent space, that space being drive 10.1 8 march 1995 14.. Robinson makes an important distinction here; if map space is always a .. of its referent, no matter how discreet or extreme that transformation may be, the map is space. He goes on to mention, “... Although this may seem obvious, it is important: it is unlikely that even disinterested map viewers will not react in some fashion to map space, and by definition map percipients will interact with it. How they do so, of course, is a function of fundamental human concepts of space.” That fundamental concept had been concluded from an experiment that concluded that spatial experience is the basic experience. So the transformation from experience to the representational universe must consider the nature of spatial knowledge itself, both as a cognitive operation and as a construct. Robinson admits that it is quite a difficult body of knowledge because “everything that is “known” about spatial knowledge must be derived from observations of external behavior.” It follows that further knowledge of spatial understanding must be inferred.

“Consequently, statements about the nature of spatial constructs and spatial understanding, at best, must be made in an “as if” form; behavior can be explained as if the individual behaving in a particular way has a particular internal spatial schema, as if he has a particular spatial image, or as if he has a particular body of

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beliefs about relations in space. As the comparison of mapping and verbal language has shown, there can be no direct or simple translation from images to words; consequently, since our concern with spatial concepts relates largely to presentational forms, even the development of a vocabulary to conduct discourse about it is a formidable task.\footnote{Ibid., p86.}

Spatial knowledge is therefore obtained empirically through behavioral observation.
EPILOGUE

Section 950504.0041 post notes

Unfortunately, thesis review took place less than a week ago and we always seem to be battling time. The nature of the product always leaves a little more to be desired and my personal expectations to have habitually exceeded my grasp. In this case, my ambitions have foreshadowed the breakthroughs I have received, an invaluable lesson in framing parameters, timewise or other.

Fortunately, this document reflects a larger part of the conceptual development that has evolved, with questions continually persisting through the loop of resolution and revival. Still, it remains a volume of ideas, processes and concepts best left as a collection to be accessed, informed and transformed through future projects.
BIBLIOGRAPHY


APPENDIX

Notes on Mapping Experiments

Drive 1.1 950227
Route - Anderson Hall to Amy’s via Rice loop road - Exit 13 - Rice Boulevard - S.
Shepherd - Farnham Road - Amy’s parking lot.
Notes - Preliminary test of mapping machine. No video camera, no still camera.
Start - 23:15

Drive 1.2 950227
Route - Amy’s parking lot - Greenbriar - Rice Boulevard - Exit 13 - stopped at Mudd
parking lot.
Notes - Drawing only. No video camera, no still camera.

Drive 2.1 950301
Route - Anderson Hall to Amy’s via Rice loop road - Exit 13 - Rice Boulevard - S.
Shepherd - Farnham Road - Amy’s parking lot.
Notes - Drawing only. No video camera, no still camera.
Start - 16:29:25 End - 16:36:10
Time elapsed - 6’45”

Drive 2.2 950301
Route - Amy’s parking lot - Greenbriar - Rice Boulevard - Exit 13 - Rice loop road -
stopped outside Anderson Hall at Valhalla.
Notes - Drawing only. No video camera, no still camera.

Drive 3.1 950301
Route - Anderson Hall to Amy’s via Rice loop road - Exit 13 - Rice Boulevard - S.
Shepherd - Farnham Road - Amy’s parking lot.
Notes - Drawing only. No video camera, no still camera.
Start - 16:49:20 End - 16:54:50
Time elapsed - 5’30”

Drive 3.2 950301
Route - Amy’s parking lot - Greenbriar - Rice Boulevard - Exit 13 - Rice loop road -
stopped outside Anderson Hall at Valhalla.
Notes - Drawing only. No video camera, no still camera.
Start - 16:55:45 End - 17:05:10
Time elapsed - 9’25”
Drive 4.1 950302
Route - Anderson Hall to Amy’s via Rice loop road - Exit 13 - Rice Boulevard - S.
Shepherd - Farnham Road - Amy’s parking lot.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer. It is raining.
Time elapsed - 6'40"

Drive 4.2 950302
Route - Amy’s parking lot - Greenbriar - Rice Boulevard - Exit 13 - Rice loop road -
stopped outside Anderson Hall at Valhalla.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer. It is raining. Video terminates on return (out of battery).
Start - 17:03:40     End - 17:13:57
Time elapsed - 10'17"

Drive 5.1 950302
Route - Anderson Hall to Amy’s via Rice loop road - Exit 13 - Rice Boulevard - S.
Shepherd - Farnham Road - Amy’s parking lot.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer. It is raining.
Start - 17:21:25     End - 17:28:30
Time elapsed - 6'40"

Drive 5.2 950302
Route - Amy’s parking lot - Greenbriar - Rice Boulevard - Exit 13 - Rice loop road -
stopped outside Anderson Hall at Valhalla.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer. It is raining. Out of film on return.
Start - 17:33:04     End - 17:43:37
Time elapsed - 10'33"

Drive 6.1 950302
Route - Anderson Hall to Amy’s via Rice loop road - Exit 13 - Rice Boulevard - S.
Shepherd - Farnham Road - Amy’s parking lot.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer. It is raining.
Start - 17:50:47     End - 17:56:52
Time elapsed - 6'05"

Drive 6.2 950302
Route - Amy’s parking lot - Greenbriar - Rice Boulevard - Exit 13 - Rice loop road -
stopped outside Anderson Hall at Valhalla.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer. It is raining.
Start - 18:01:35     End - 18:11:05
Time elapsed - 9'30"
Drive 7.1 950306
Route - Anderson Hall to Amy’s via Rice loop road - Exit 13 - Rice Boulevard - S. Shepherd - Farnham Road - Amy’s parking lot.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer.
Start - 16:16:20 End - 16:24:10
Time elapsed -

Drive 7.2 950306
Route - Amy’s parking lot - Greenbriar - Rice Boulevard - Exit 13 - Rice loop road - stopped outside Anderson Hall at Valhalla.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer.
Video terminates on return (out of battery).
Start - 16:36:10 End -
Time elapsed -

Drive 8.1 950306
Route - Anderson Hall to Amy’s via Rice loop road - Exit 13 - Rice Boulevard - S. Shepherd - Farnham Road - Amy’s parking lot.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer.
Start - 17:04:10 End -
Time elapsed -

Drive 8.2 950306
Route - Amy’s parking lot - Greenbriar - Rice Boulevard - Exit 13 - Rice loop road - stopped outside Anderson Hall at Valhalla.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer.
Start - 17:22 End - 17:31:17
Time elapsed -

Drive 9.1 950307
Route - Anderson Hall to Amy’s via Rice loop road - Exit 13 - Rice Boulevard - S. Shepherd - Farnham Road - Amy’s parking lot.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer.
Start - 16:12:25 End -
Time elapsed -

Drive 9.2 950307
Route - Amy’s parking lot - Greenbriar - Rice Boulevard - Exit 13 - Rice loop road - stopped outside Anderson Hall at Valhalla.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer.
Start - End -
Time elapsed -
Drive 10.1 950308
Route - Anderson Hall to Amy’s via Rice loop road - Exit 13 - Rice Boulevard - S.
Shepherd - Farnham Road - Amy’s parking lot.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer.
Start - 16:04:39 End -
Time elapsed -

Drive 10.2 950308
Route - Amy’s parking lot - Greenbriar - Rice Boulevard - Exit 13 - Rice loop road - stopped outside Anderson Hall at Valhalla.
Notes - Paper reset. Still camera perpendicular to automobile axis on 45 second timer.
Start - End -
Time elapsed -