

Articulating Things Into Existence

By: Ann Stewart

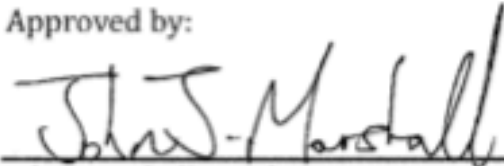
Bachelor of Fine Arts, Auburn University, 2005

Thesis Submitted in Partial Fulfillment of the Requirements of the Degree of Master of Fine Arts

School of Art and Design
University of Michigan
Ann Arbor, Michigan

August 18, 2009

Approved by:



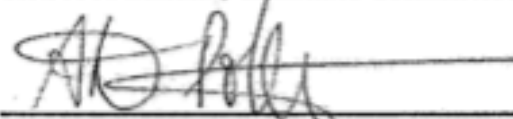
John Marshall, Graduate Committee Chair



Jim Cogswell, Graduate Committee Member



Robert Pachella, Graduate Committee Member



Alex Potts, Graduate Committee Member



Brad Smith, Associate Dean for Graduate Education



Bryan Rogers, Dean, School of Art & Design

Date Degree Conferred: August 2009

Abstract

Through the act of drawing, the researcher explores the process of making sense of making sense as well as the relationship between seeing and knowing. Pulling from the disciplines of art, cognitive science, philosophy, and architecture, this thesis looks at how the artist observes, constructs, and analyzes her surroundings as well as the artwork she creates from her investigation. A meticulous mark making and process driven working practice is the foundation for her work, which aims to give permanence to the fleeting process of perception.

Keywords: art, perception, sense-making, drawing, installation, pattern recognition

Acknowledgements

I have been very fortunate to have numerous wonderful experiences throughout my graduate career due to the generous support of the School of Art and Design.

Thank you to the faculty, staff, and my fellow graduate students.

A very special thanks to my thesis committee, John Marshall, Jim Cogswell, Bob Pachella, and Alex Potts. Your insight, advice, and encouragement have been invaluable to me.

And finally, thank you to my family for all of their love and support.

© Ann Stewart 2009

Table of Contents

Introduction.....	6
Site/Sight of Information.....	7
Infinite Genesis.....	9
[Sense-Making].....	11
Coming to/Taking Leave of Sense.....	12
Tools for Measuring the World.....	13
Mapping.....	13
Patterning.....	15
Naming and Notation.....	16
Constructing Data: Form Finding Structures & Bottom Up Construction.....	17
Results.....	19
<i>Cognizance</i>	20
<i>Apophenia</i>	39
Contradictory Process.....	57
Conclusions.....	58
Image Credits.....	59
Bibliography.....	60

Introduction

There is the world.
Here am I.

So what?

How do I know what I know?

I have always had a persistent curiosity in trying to figure out how people make sense of things, how people ‘attend to phenomena’¹. How does what I see become what I know and how can I visualize this translation? As a visual artist, I make work that documents this process.

In this document, I will present the research questions that drive my interest in examining the frustrating and fulfilling process of making sense of making sense. The results of my investigation are reflected in the artwork I make.

Drawing has been the foundation for my work since it is the most direct manner for me to inscribe and encipher my interaction with the world. It is how I write over and convert the world into my own code. Drawing can be the physical act of putting pencil to paper or be understood in the metaphorical sense of retrieving something (information) out of something else (the world). Graphite pencils and Post-it notes have been my drawing tools for my most recent bodies of work. These physical materials were used to embody the invisible process of how vision converts fragments of the external world into an internal body of knowledge. Through drawing, I am giving materiality to thought. In my final year of graduate school, the two main projects I completed, *Cognizance* and *Apophenia*, attempt to answer the same question from opposing vantage points. How can I visualize the link between seeing and knowing?

Cognizance was an experiment I executed in the summer of 2008. For this project, I mapped my knowledge of a space by labeling an empty studio with Post-it notes. The results of my investigation yielded an installation where the density and implied movement of almost 38,000 yellow pieces of paper alluded to biological formations.

Apophenia was a series of drawings I completed in the winter of 2009 for my MFA thesis exhibition. In this body of work, I drew small clusters of architectonic forms emerging out of a considerable amount of negative space. This series of work

¹ Brenda Dervin, *Sense-making Methodology Reader: Selected Writings of Brenda Dervin*. (Cresskill, N.J.: Hampton Press, 2003) p. 7.

envisions how through the act of perception the structure of objects fades into and out of existence.

In my research, I draw inspiration from the disciplines of art, cognitive science, philosophy, and architecture. Each of these fields provides me with methods to make sense of and create structure in the world. A process of gathering information and constructing models allows me to create order. By closely observing the world as it is, as I see it, or as the accumulation of marks I make, I am diagramming how I articulate things into existence through drawing.

Site/Sight of Information

There is the world.
Here am I.

So what?

What's out there?

Perception is the ability to become aware by “acquiring, interpreting, selecting, and organizing sensory information.”² This process collects fragments of information to obtain the spatial and causal order of my surroundings. Psychologist Michael Leyton describes perception as a means of deciphering shapes to reveal a record of time, causing the world to be seen as memory storage³. It is how I can look at a collection of shards of glass, a puddle of water, and flowers on the floor and reassemble the mess back into a vase. Becoming aware involves the process of rearranging those shapes in my mind and comparing it to what is in front of me.

Perception uses the senses to align what I know with external events. The majority of the time, this process occurs effortlessly in my mind. I readily accept experience as seamless and it takes a concerted effort to be aware of what tasks I perform as second nature. For example, I am not consciously checking to see if the ground is underneath me or if I am breathing oxygen. By looking at how I separate myself from the world, I can better understand how I create the ‘things’ around me.

Things in the world are derived from narrowing my attention away from the innumerable stimuli to specific details, which in turn allows me to understand whole objects. For example, something small, fuzzy, four legged, and barking would be understood as a dog, which I would separate from the green, short, spiky, leaves of grass in the lawn that dog was standing on. By limiting my focus, I establish

² Antonio Fernandez-Caballero, “Pattern recognition in interdisciplinary perception and intelligence” *Pattern Recognition Letters*. Volume 29, Issue 8. p. 1021.

³ Michael Leyton. *Symmetry, Causality, Mind*. (Cambridge, Mass.: MIT Press, 1992) p. 2.

borders between objects and experience. I am watching the world fall into form equally as I am giving it that form. Ultimately, as described by the father of forensic science Alphonse Bertillon, I only see what I pay attention to.

However, this limiting of attention is not only seeing what I look for. Thousands of details thankfully go unrecorded because it is impossible to fully comprehend everything all the time. Therefore, there is an economy of perception. The senses divvy up mental resources restricting the amount that can be comprehended at one time.

Artist Robert Irwin considers the primary role of art is to bring a conscious awareness to the shaping of perception. What do we actually see, why do we see things that way, and what can we know? In his essay *Notes Towards a Model*, he discusses the relationship between perception and knowledge as a process of compounding abstraction in which we move from undifferentiated sensations to universal categories that stand in place of an original phenomenon and control behavior. To more clearly illustrate his point, he offers a diagram of his steps of developing cognition.

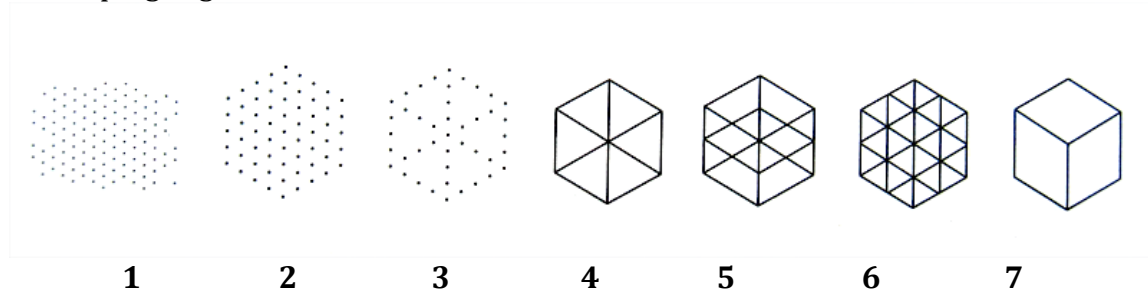


Figure 1: Robert Irwin's diagram of the process of compounding abstraction

I will explain the following example to more clearly present Irwin's dissection of cognition. Following the diagram from left to right, 'warm, bright, and yellow' (step 1 & 2) are perceived as undifferentiated sensations, which are only understood as sensations since linguistic terms are not recognizable yet. Nonetheless, the presence of something is still recognizable; it is how Irwin describes "we know the sky's blueness even before we know it as 'blue', let alone as 'sky'."⁴ These sensations coalesce into a circular object above my head (step 3), which I identify as the sun (step 4). In those steps, I separate myself from the sensations and designate parameters around objects, which results in my assigning a name to the object. I understand that if the sun is up it must be day, as opposed to night (step 5), which shows that I am aware of relational patterns. Since the sun is directly over my head, I know it must be noon (step 6) because I have accepted the standardized notion of quantifying time with clocks. If it is noon, it is time for the traditional second meal of the day, lunch (step 7). My behavior has been altered to follow the standardized measurements of time.

⁴ Robert Irwin, Robert Irwin. (New York: Whitney Museum of American Art, 1977) p. 25.

However, this is not a linear process nor is there a hierarchy. I might have been hungry first and then realized the positioning and physical qualities of the sun. Everything happens all at once in a continuously looping process that jumps around between steps. As described by filmmaker Jean-Luc Godard, every “story should have a beginning, a middle, and an end but not necessarily in that order.”⁵

The first three steps, which Irwin labels perception, conception, and form, are most relevant to my own work. I am most concerned with what occurs in between the separating and the naming, since in this area I can give something a presence and watch the construction of its structure. Delaying the naming allows me to place a higher value on experiencing since to define something detracts from the phenomenal.

Infinite Genesis

There is the world.
Here am I.

So what?

Why won't it stay put?

The importance of perception is not in establishing fixed viewpoints but rather as experiencing a dynamic event that “stands at the utmost point of creation.”⁶ Perception brings things into existence. For example, gazing around the room, as I shift my eyes from the table to the picture on the wall, all the features of the table fade and the picture springs into focus. When I glance back to the table, the objects on top instantly appear again. Through a process of looking, I create the world. However, this is not magic. The world does not disappear as I look away. Everything remains in its place, but as I scan the room I have different intentions influencing what I see.

Psychologist A. L. Yarbus studied the eye movements of subjects in order to find the correlation between the intention of subjects to the direction of their eye movements and the duration of time they rested in each area. First, he would ask a viewer to study the painting *Unexpected Return* by Ilya Repin without any prompting. Then he would ask the viewer to think about a specific question as they were looking at the image. These questions dealt with properties of the scene such as what clothes the figures were wearing and where the furniture was placed. He also asked questions that asked the viewers to analyze the relationships in the

⁵ Daniel Chandler, *Semiotics: the Basics*. (London: Routledge, 2002) p. 114.

⁶ Elizabeth M. Kraus, *The Metaphysics of Experience: a Companion to Whitehead's Process And Reality*. (New York: Fordham University Press, 1998) p. 5.

painting. For example, one of the questions was to guess what the characters had been doing before the unexpected arrival of the new guest.



Figure 2: Results of A.L. Yarbus's experiments tracking eye-movements of subjects viewing Ilya Repin's *Unexpected Return*

- 1. Examining without prompts**
- 2. Estimating the economic level of the people**
- 3. Looking at ages**
- 4. Guessing what they had been doing before the arrival of the visitors**
- 5. Remembering their clothing**
- 6. Remembering their position and those of objects in the room**
- 7. Estimating how long it has been since seeing the family**

Comparing the images above, it is possible to see that the eye creates a new understanding of the space each time. Some of the paths may overlap in a similar manner but they never exactly match up. Each time I look at an object, it is a completely new experience. Therefore, perception infinitely overturns experience, creating a world that is best understood as a process instead of a collection of facts. The work I create attempts to trace and reconstruct the connections formed by the fluid process of looking rather than just present static representations.

[Sense-Making]

There is the world.
Here am I.

So what?

How did I get here (from there)?

Through the act of looking, I find the world. What do I make of the information I gained and how do I rationalize what I find? Things are rarely just as they appear or entirely more than they appear. [Sense-Making] is a field of research that studies how communication occurs, especially in ambiguous situations. In order to avoid confusion, I will use square brackets to differentiate [Sense-Making], which is a methodology, from the colloquial expressions sense making and making sense, which recognizes something as justifiable or intelligible. [Sense-Making] is concerned with the meta-level understanding of perception since it attempts to merge the gap between experiences. Perception is based on experience and [Sense-Making] is based on the observation of that experience. In this field, the most prominent researchers are Karl Weick and Brenda Dervin. Weick, who distinguishes his methodology of [Sense-Making] by using an alternate spelling 'sensemaking', is more concerned with how communication occurs in organizations and in future-oriented trajectories. Dervin researches [Sense-Making] on the personal level and her investigations have a present centered focus on current situations. In my research, I have spent more time investigating Dervin's work since her approach not only relates to how an individual makes sense but her methodology is also more philosophical and encompasses a wider variety of experiences. According to Dervin, [Sense-Making] is the never-ending quest to fix the real and create meaning in a world that is always ontologically incomplete, discontinuous, and ambiguous.⁷ It is how people make sense of things that do not always make sense. [Sense-Making] observes the places where order is constantly shifting.

[Sense-Making] does not seek to establish a strong divide between order and disorder. The world is neither a clearly organized structured whole nor a chaotic mix of unrelated parts. Understanding experience is not a binary between clarity and confusion but rather a cyclical process where one is constantly making and un-making sense of things. As explained by artist Tom Friedman, it is circular logic where solving something involves taking things apart while putting them together.⁸ This process is akin to the hermeneutic circle, where the parts cannot be understood without the whole and the whole cannot be understood without the parts.

⁷ Dervin, p. 11.

⁸ Bruce Hainley, *Tom Friedman* (London:Phaidon, 2001) p. 13.

The hermeneutic circle has a particular importance to my research because its main focus is examining the impact of the interpreter on the interpretation; how one makes sense of making sense. Dervin extends this process to the quadruple hermeneutic⁹. To try to explain this, I will use my project *Cognizance* as an example. In this project, I observed a room (first hermeneutic). The premise of the project was to observe how I observed the room (second hermeneutic). By writing this document, I am interpreting how I observed myself observing the room (triple hermeneutic). Finally, as a reader analyzes what I write, they are observing an observation of an observation of an observation.

The significance of this dizzying process is to pin point what level of perception I am standing in. When I am inside the hermeneutic circle, I only have one system of interpretation. When I step into the other circles, more systems are piled on top of an original experience and I am getting further away from the world. The problem with interpretation is that the measurer gets in the way of the measurement skewing what the researcher can really know. Since the observer and what is being observed become intertwined, being able to gain a nonbiased interpretation would be as difficult as trying to jump over my own shadow¹⁰.

All of this relates back to Irwin's primary question of what can I really know? As described by philosopher Martin Heidegger in his essay *What Calls for Thinking?*, meaning and thought are constantly withdrawing from me. I am attracted to this withdrawal, which results in a force that is simultaneously an attraction and repulsion, like magnets of the same polarity being pushed together. Therefore, finding meaning can also be found through forcing the world into sense¹¹ instead of the world just passively making sense. This creates a tension between seeing things as they really are or adding a second surface to what may or may not exist, highlighting the question of the possible discrepancy between how the world appears and how it is understood.

Coming to/Taking Leave of Sense

There is the world.
Here am I.

So what?

Is this logical or non-sense?

⁹ Dervin, p. 147.

¹⁰ Hannah Arendt, *The Human Condition*. (Chicago: University of Chicago Press, 1958) p. 10.

¹¹ William Kentrige Lecture, Detroit Institute of Contemporary Art, March 17, 2009

[Sense-Making] is indifferent to the means for bridging the gaps in experience since this process assumes a simultaneous grounding of events in reality and departing into the realm of the imagination. The responses of “I asked a friend”, “I followed my heart”, or “I received divine intervention” are all valid responses to [Sense-Making]. As a result of this, [Sense-Making] can occur even if there is a departure from logic. I create a means of putting up with incomprehensibility that is not necessarily complete or correct. Within [Sense-Making], I am not confined to finding ‘truth’ but rather I can build contraptions for understanding, which stand in as a set of guidelines that are more or less useful in a given situation.

In making my artwork, I am like the metaphysicians of Tlön in Jorge Luis Borges’ short story, *Tlön, Uqbar, Orbis Tertius*, who constructed an imaginary world on top of the real world. They were “not looking for the truth, not even an approximation of it; they were after a kind of amazement.”¹² I can respond to what is given or not. Intuition is just as sound as an approach to making sense of things as tested logic. Through [Sense-Making], I am probing the world but I am not trying to prove it.

Tools for measuring the world

There is the world.
Here am I.

So what?

What implements do I use to put the world in order?

For perception and [Sense-Making] to occur, not only must there be a way to retrieve the raw data but there needs to be a set of tools for finding it again. These are the tools for holding things in the mind. Mapping, patterning, and naming all offer a temporary structure in a constantly changing process.

Mapping

There is the world.
Here am I.

So what?

Where am I?

¹² Jorge Luis Borges, *Borges, a Reader: a Selection From the Writings of Jorge Luis Borges*. (New York: Dutton, 1981) p. 116.

Geographer Yi Fu Tuan coined the term *topophilia*¹³, which is man's unrelenting desire and love of the creation of place. If experience is the mode upon which a person knows and constructs reality¹⁴, mapping serves as a way to secure order. As our eyes move around the room, we search for points of rest; creating places out of ambiguous spaces.

Mapping can be used for navigation (planning a route), orientation (finding the relationship between things), and place marking (establishing territories). I am most interested in mapping as a way of collecting the traces of the local environment and the subtleties of experience. This process emphasizes the significance of mapping as

“...a method for articulating the existence of things—an operation causing chosen features to rise like newborn islands from the chaotic welter of experience, fixing them in time-space and bestowing (or foisting) upon them a significance that allows these features to be found again, to be approached from new angles while still holding them in the context of previous encounters. Maps index reality in layers.”¹⁵

Mapping in relation to ontology is the creation of being, a way of articulating things into existence. It is not necessarily leaving a trail of breadcrumbs back to an original event but rather it is a way of making rules and boundaries to understand how things appear. By establishing borders around what appears to be there, mapping creates a pattern of things. Mapping is the visualization of the instantaneous configuration of positions. It is like playing a three-dimensional game of connect-the-dots.

The work I make is exactly this visualization. It is the image in between the state of things evolving and things snapping into place, the place between incomprehension and recognition.

¹³ Yi-fu Tuan, *Topophilia: a Study of Environmental Perception, Attitudes, And Values*. (Englewood Cliffs, N.J.: Prentice-Hall, 1974) p. xii.

¹⁴ Yi-Fu Tuan, *Space And Place: the Perspective of Experience*. (Minneapolis: University of Minnesota Press, 1977) p. 8.

¹⁵ Francis Richards, “Utterance is Place Enough: Mapping Conversation,” *Cabinet*. Issue 2. Spring 2001. <<http://www.cabinetmagazine.org/issues/2/utterance.php>>. 10 August 2009

Patterning

There is the world.
Here am I.

So what?

Didn't I see that before?

If mapping is a means of establishing appearance, patterning is a method for finding a set of rules for how things work. To pattern can either be to match something to an ideal model, to give something an intelligible form, or to have consecutive repetitions of an element. It is the way we come to learn, understand and remember objects. Patterning begins as soon as I lay eyes upon something. The eye moves around a specific scanpath, which is a pathway that is repeated each time an object is viewed¹⁶. This process allows us to create internal representations of objects. After all, "pattern is the mother of all remembering".¹⁷

Similar to [Sense-Making] and perception, the significance of patterning lies not only in an end product but rather its process of formation. Patterning is a way of pausing the movement of experience. According to process philosophy, "things are never more than patterns of stability in a sea of process. Like a wave pattern in water they are simply pending configurations in a realm of change."¹⁸ For example, a leaf on a tree could be on a branch today, on the ground tomorrow, and part of a bird's nest a week from now.

The correlation of pattern recognition with pattern generation is what allows me to make sense of my surroundings. According to architect Cecil Balmond, patterning is a catalyst for action. He considers pattern to be the pathway through which structure emerges. By finding the codes of what exists (pattern recognition), it allows the mind to extend into and invent new forms and associations (pattern generation). Ultimately, patterning is an agent for finding and producing connectivity.

Pattern and patterning influences my own work. By performing a repeated set of actions, I generate forms. As I draw, I am also looking for patterns, a series of marks that seem logical. I switch from looking for connection between marks (pattern

¹⁶ David Noton and Lawrence Stark, "Eye Movements and Visual Perception", *Scientific American*. Vol. 224. June 1971. p. 35.

¹⁷ Dave Hickey, *Air Guitar: Essays On Art & Democracy*. (Los Angeles: Art Issues Press, 1997) p. 38.

¹⁸ "Process Philosophy", *Stanford Philosophy Encyclopedia*. 9 January 2008.
<<http://plato.stanford.edu/entries/process-philosophy>> 22 July 2009.

recognition) to creating connections between shapes (pattern generation), both finding and fabricating forms in the drawings.

Naming and Notation

There is the world.
Here am I.

So what?

What is *that*?

As I observe phenomena, there needs to be a way of recording what is found. If mapping establishes 'where' and patterning is the 'how', naming is the 'what' in sense making. Everything begins with the name or more precisely the giving of that name. Naming is what draws things out of the world into consciousness.

In order to move from the realm of undifferentiated sensations to a world of categorical objects, naming is the key component. Language and the naming of parts is the essence of thought. It is the shift from sensing to symbolizing. Naming also gives a sense of force in the world. Lorraine Daston describes in *Things that Talk*,

“Imagine a world without things, it would not so much be a empty world as a blurry frictionless one: no sharp outlines would separate one part of the uniform plenum from another, there would be no resistance against which to stub a toe, test a theory, or struggle stalwartly.”¹⁹

Naming stands in as a place marker that allows objects to be “anticipated in their absence, controlled in their presence, and communicated to others.”²⁰ It gives an object a cluster of capacities while giving focus and direction to thought. This enables me to relate to objects and experiences (communicating with the world) as well as converse with other people (communicating information about individual conversations with the world).

¹⁹ Lorraine Daston, *Things That Talk: Object Lessons From Art And Science*. (New York: Zone Books , 2004) p. 9.

²⁰ Kraus, p. 6.

Constructing Data: Form Finding Structures & Bottom Up Construction

There is the world.
Here am I.

So what?

How does structure build itself on the material level?

*Material arises out of energy
Connectivity out of materiality
Geometry out of connectivity
Structure out of geometry
Form out of structure
The void out of form²¹*

Architects Benjamin Aranda and Chris Lasch consider architecture to be an endless process of formation. By implementing a bottom up approach to design, minor actions create more complex objects, such as how stacking a group of bricks forms a house. In this approach, materials have agency because they “carry information within them about how to behave grow, combine, assemble, and proliferate.”²² In their practice, they utilize simple algorithmic processes, which involves applying a limited set of rules to a material in order to design structures for architecture, furniture, and artwork. Repetitive codes create one of a kind patterns and templates. They are looking at how forces and elements interact on a micro level to give way to macro structures. In this process, cohesive structure arises out of an undifferentiated primordial phase. Information arranges itself into a system making data autonomous and animated²³ instead of an inept collection of fragments.

Aranda and Lasch are not modeling the universe but rather the collection of actions that form the basis of the universe. The functions of spiraling, packing, weaving, blending, cracking, and flocking are the means they use to articulate things into existence.

As the Shannon information theory explains, information is the measure of the decrease of uncertainty. Like the process of naming, the application of these rules creates a logic of construction and rules of engagement that shifts undefined matter

²¹ Cecil Balmond, “Element”, *Lotus International*. Volume 3. 2008. p.106

²² “Rules of Six”, *Design and the Elastic Mind*. The Museum of Modern Art. 2008. <www.moma.org/interactives/exhibitions/2008/elasticmind/#/226>. 29 July 2009.

²³ Benjamin Aranda and Chris Lasch, *Tooling*. (New York: Princeton Architectural Press, 2006.) p. 7.

into recognizable structures. In particular, the final forms that result from these rules in Aranda and Lasch's work allude to natural phenomenon and living systems. The processes they utilize examine how flocking uncovers order through entropy²⁴, blending stands in as an act of negotiation²⁵, weaving creates strength²⁶, packing begets stability²⁷, and tiling amasses a patterned tectonic²⁸. The interaction of information with forces is what creates objects.

As form-finding structures continue to generate themselves, they will ultimately encounter new information from other sources. As self-organization meets manipulation, changes occur in the architecture. When information collides with existing structures, signification occurs.

“Meaning exists (or not) exclusively within systems. It exists to the extent that input (incoming information) resonates within the structure of the system. The resonance can either enforce the existing architecture (conformation), destabilize it (cognitive disequilibrium), or construct new features in the architecture (learning)”²⁹.

This interaction results in the continuous bolstering, breaking, and rebuilding of structure. As Balmond explains, “Order is really latent chaos.”³⁰ Creation, destruction, and reassembly are what shape the forms I draw.

²⁴ Aranda, p. 62.

²⁵ Aranda, p. 40.

²⁶ Aranda, p. 32.

²⁷ Aranda, p. 22.

²⁸ Aranda, p. 74.

²⁹ Guy Hoelzer, “Re: [Fis] Re: info & meaning”. FIS Discussion Archives. *Foundations of Information Science*. 2 October 2007.

<http://fis.icts.sbg.ac.at/c_10_s_42_list_mailings_page_2115.html>. 11 August 2009.

³⁰ Balmond, p. 106.

Results

There is the world.
Here am I.

So what?

What did I make?

The main question that began my exploration for this body of work dealt with investigating the link between seeing and knowing. Perception serves as a kind of crime scene investigation, producing order from the disorder left behind. My goal was not to separate objects from the original phenomena of trying to make sense of things but rather to give that phenomenon a greater presence.

A meticulous mark making and process driven working practice is the foundation for my work. If perception and [Sense-Making]'s main goal is to establish borders and positions for objects and experiences, mark-making is the way I give permanence to a fleeting presence. While *Cognizance* uses direct observation and recording to fix perception of a real space, *Apophenia* uses my imagination to fabricate the formation of perception.

While perception serves as a medium in both projects, there is a distinctly different approach to how perception operates in actual and illusory spaces. *Cognizance* follows a strict rule based approach while *Apophenia* is driven by instinct. This distinction comes from how I respond to real physical objects and to those that I invent in my mind, just as there is a difference between thinking about a real rabbit and the Easter bunny. Also, the story of their creation is different. *Cognizance* had a linear progression where I did not back track from previous actions. *Apophenia* lacks a clear hierarchy of the steps I took since I draw and redraw forms numerous times. Each layer responded and related to previous steps making it difficult to determine where one phase of development ends and another begins. This difference in execution influences how I think about and relate to the work. How I write about *Cognizance* is more cerebral while the writing for *Apophenia* is more intuitive.

Cognizance

There is the world.
Here am I.

So what?

How did I map my perception of real space?

I spent the majority of my 2nd year of grad school trying to make my work about the perception of place. By the end of the year, I realized that I was not really interested in a sense of place. I was concerned with a sense of order or the meta-level understanding of space.

At the end of each semester, I gathered all of the notes from my sketchbooks and organized the information into concept maps. This was a way for me to document and see the development of my thought processes. It allowed me to find connections between what I am reading and what I am thinking.

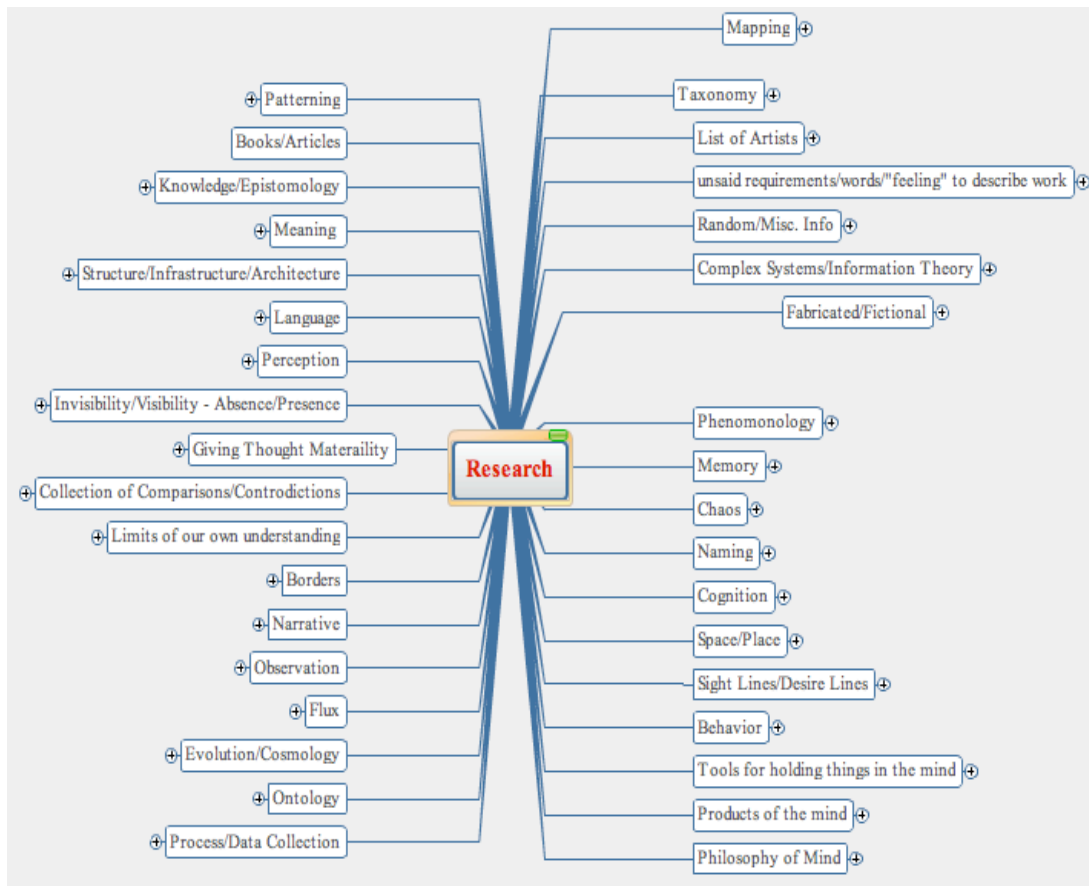


Figure 3: Collapsed concept map of my research

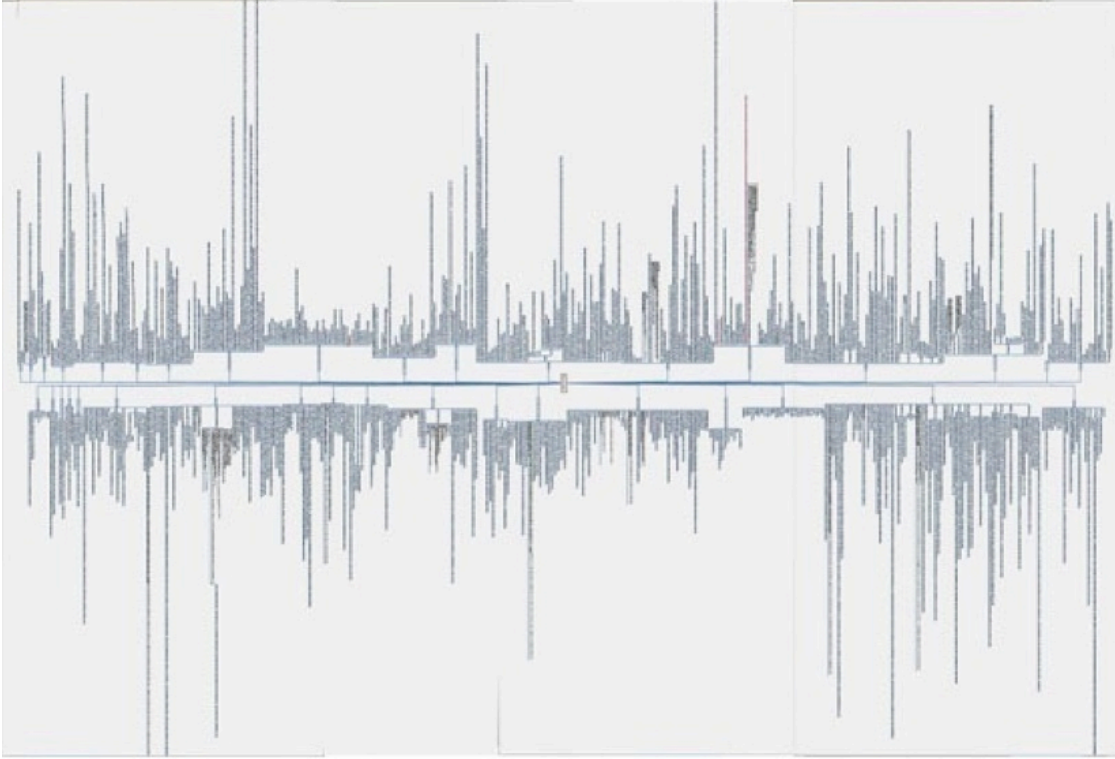


Figure 4: Expanded concept map of my research



Figure 5: Desk in my studio

In the beginning of summer 2008, after analyzing my sketchbooks and concept maps, I compiled a list of questions that I wanted to pursue for my thesis. The most relevant of these were:

- What is the connection between seeing and knowing? Between seeing and understanding?
- How can I give physicality to these relationships?
- Through my actions, am I documenting or (re)creating perception?

In an advising meeting, my advisor and I were trying to figure out how to turn the list of questions I came up with into a project. While we were trying to make diagrams out of my terminology, my advisor pointed to the back of the room and asked me to describe what I saw. I started naming off random features of the room such as the quantities and qualities of objects and architectural features. He proposed that this is what I need to do for my next project. Since I am always talking about visualizing how what I see becomes what I know, it was time to actually do that in a real space.

I needed to find a space with twenty-four hour access as well as an area that I could make a mess without getting in anyone's way. One of the unoccupied studios in the graduate studios fit this description. The space was very sparse. I wondered if there would even be enough in the space to work with. The studio, which was seventeen feet by twelve feet, had a steel frame with homasote panels that were painted white and screwed into the beams. Along the bottom edge of the panels, there was a grate made of chicken wire. A desk with a door panel on top, two file cabinets with a door panel to serve as a second desk, a refrigerator, a chair, a flat file, a storage cabinet, a trash can, and a clock were the only items in the room. On the wall there were a collection of pushpins and straight pins scattered about, two electrical outlets, a small picture on the back wall, a small printed label on the side wall, and two coat hooks next to the door.



Figure 6: Studio view from front left corner on June 4, 2008



Figure 7: Studio view from back left corner on June 4, 2008



Figure 8: Studio view from back right corner on June 4, 2008



Figure 9: Studio view from front right corner on June 4, 2008

After the space had been determined, the next question dealt with what materials I would need. The ideal material would be non-permanent and adhere to any surface. Out of convenience, Post-it notes were chosen since they could quickly be attached, removed, and relocated. For writing implements, I bought pens to write on the sticky notes and washable crayons to draw on the wall. String, pushpins, and tape were also added to the list as potential materials.

I was unsure of the method I was going to use to map the room. My original intent with this project was not to set out to create 'art'. Rather, I was performing an experiment. I considered myself as having the role of an observer or scientific investigator instead of a creator. This viewpoint also coincides with the objective of my research questions. I was not trying to make a statement but rather watching the world and trying to make sense of it. I wanted to observe where order exists, where it was fabricated, and what did I really learn from looking.

Previously, I had done a similar experiment in my studio. Since drawing has been my primary medium, I have thousands of pushpin holes on the wall from moving pieces of paper around. I have always noticed how all of the holes congregate next to each other. Out of curiosity, I decided to fill all of the pushpin holes with toothpicks. By marking the holes, I was able to see where clusters and patterns formed. Since I haphazardly stuck the toothpicks in the wall, there was a subtle variation in the angles the sticks protruded from the wall, giving the toothpicks the appearance of flocking and migrating.

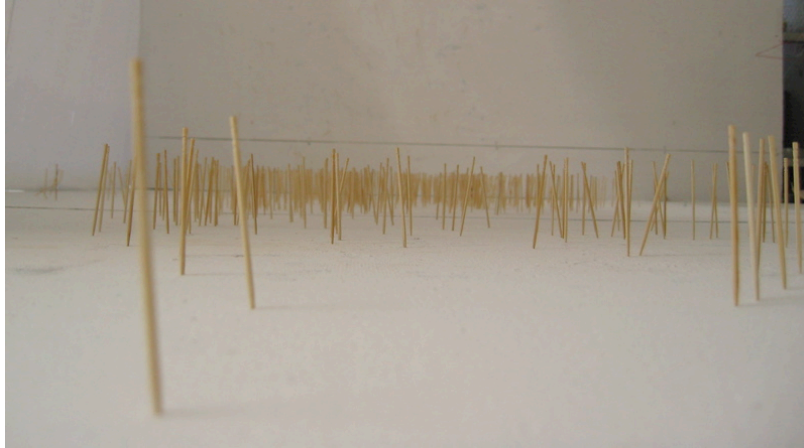


Figure 10: Side view of toothpick-pushpin experiment



Figure 11: Front view



Figure 12: Three-quarters view

Upon entering the studio space for the first time, I decided to start by marking off all of the pushpin holes with washable crayon. The walls looked like they had a bizarre rash, but it did not offer any information about how I understood the space. The circles lacked a feeling of intentionality. They were too subtle and could have been easily misconstrued as marks that were part of the original space. I took out the Post-it notes and started wandering around the room labeling whatever caught my attention. The first thing I noticed when I walked into the space was a small picture that the former tenant had left on the center back wall. The small black square stood out against the white wall.



Figure 13: First Post-it note, June 7, 2008

Besides a brief description and an arrow pointing to what caught my eye, I numbered each sticky note in order to quantify my activity. Like an hourly wageworker, I kept a log of the number of hours I spent in the space as well as the number of labels I used each day. This allowed me to keep up with my progress and to calculate error. Often I would lose track of numbers by daydreaming, forgetting what the last number I wrote down, or repeating numbers. Later, counting became a form of entertainment. To avoid being consumed by the monotony of the task, I would compete against myself to see how many I could get done in an hour. Ideally, the numbers also provided the viewer the ability trace my path throughout the space.

Date	Hours	Start Number	End Number
7-8-08	2 hours	14,700	14,944
7-9-08	2 hours	14,945	15,242
7-10-08	5 hours	15,242	16,061
7-20-08	4.5 hours	16,062	17,863
7-21-08	6 hours	17,864	19,134
7-22-08	4 hours	19,134	20,912
7-23-08	5.25 hours	20,913	21,943
7-24-08	4 hours	21,944	22,275
7-25-08	2.25 hours	22,275	22,533
7-26-08	8.5 hours	22,533	23,741
7-27-08	9 hours	23,741	24,851
7-28-08	5.5 hours	24,852	25,511
7-29-08	10 hours	25,511	26,870
7-30-08	3 hours	26,870	27,274
7-31-08	12 hours	27,275	28,756
8-1-08	2 hours	28,757	29,018
8-1-08	5.75 hours	29,019	29,781
8-17-08	9.75 hours	29,782	30,916
8-18-08	11.25 hours	30,916	32,275
8-19-08	11.5 hours	32,276	33,624
8-20-08	11 hours	33,625	35,241
8-21-08	11.5 hours	35,241	36,942
8-22-08	7.5 hours	36,942	37,912

Date	Hours	Start Number	End Number
6-5-08	3.5 hours	794	790
6-7-08	5 hours	791	790
6-8-08	3 hours	791	790
6-9-08	4.5 hours	791	790
6-10-08	5 hours	791	1211
6-11-08	3 hours	1212	1597
6-12-08	3 hours	1598	2000
6-13-08	3 hours	2001	2379
6-14-08	2.5 hours	2380	2866
6-15-08	2 hours	2867	3142
6-16-08	3.5 hours	3143	3709
6-17-08	3 hours	3710	4107
6-19-08	3.5 hours	4108	4615
6-21-08	7.25 hours	4616	5668
6-22-08	7.75 hours	5668	6742
6-23-08	6.25 hours	6742	7720
6-24-08	8 hours	7721	8761
6-25-08	8.5 hours	8762	9588
6-26-08	4 hours	9588	10,168
6-27-08	5 hours	10,162	10,736
6-28-08	9 hours	10,737	11,751
6-29-08	9 hours	11,752	12,666
6-30-08	4 hours	12,666	13,206
7-1-08	8 hours	13,207	14,401
7-2-08	1 hour	14,402	14,588
7-7-08	1 hour	14,589	14,699

Figure 14: Time Sheet

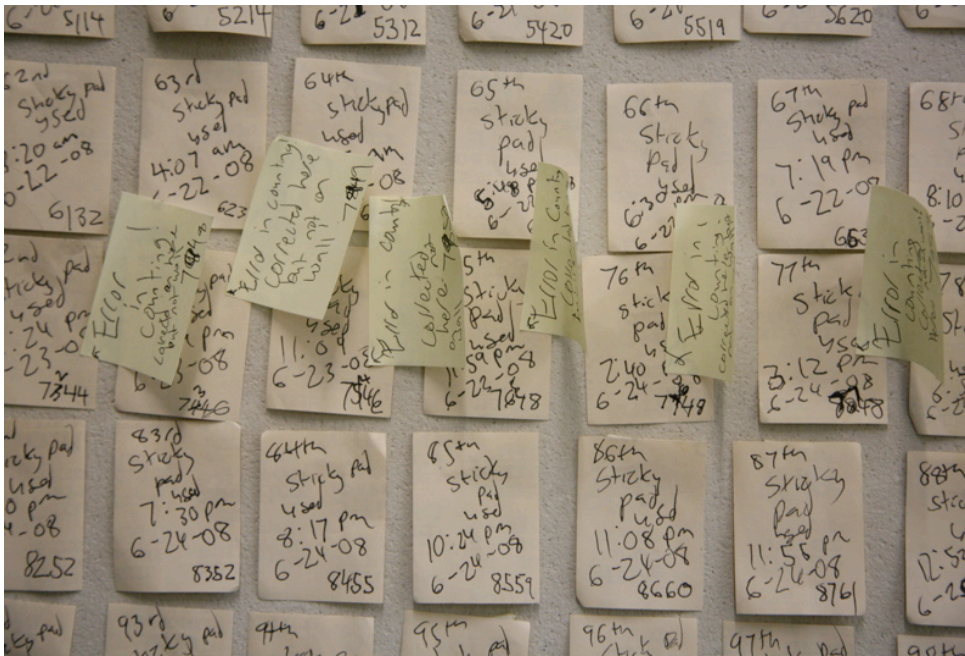


Figure 15: Last page of sticky pads with date, time, and number counted

I developed my labeling method as I worked. The primary question was deciding what had enough significance to be tagged. How far do I go with describing something? How much information do I really need to know? For example, how would I label the flat file? Do I label every drawer? Do I open them to see what's inside? Do I label every handle and screw? Is the type of screw important? How important is it to know the distance from the door? To the table? What are the material qualities and texture of the surface?



Figure 16: Flat files on June 9, 2008

How do I address the elements that change in the space? Do I mark the shadow of the sunlight every time it moves? Every hour? Every minute?

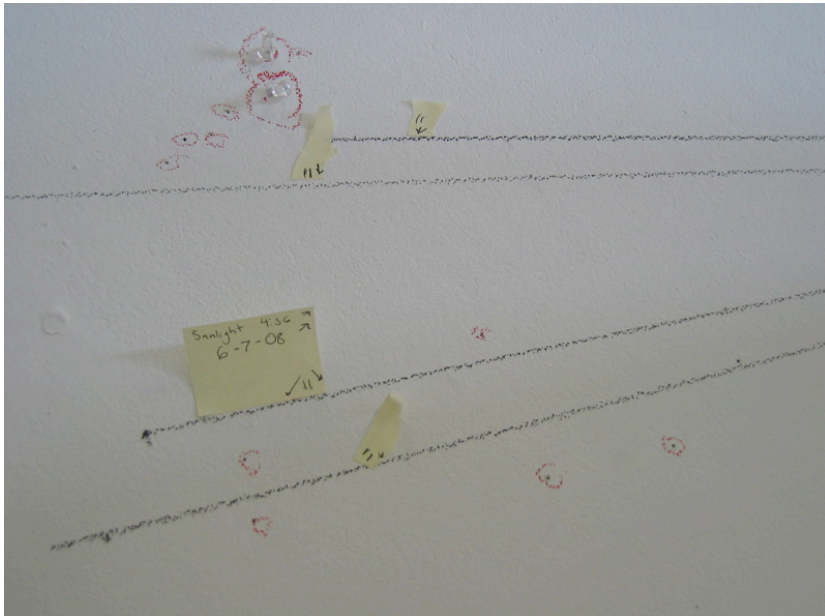


Figure 17: Line indicating the change of sunlight on June 7, 2008

Which architectural features were important? When am I just overstating the obvious?



Figure 18: Labeling architectural features; where the edge of the panels meet and noting that it is uneven on June 7, 2008

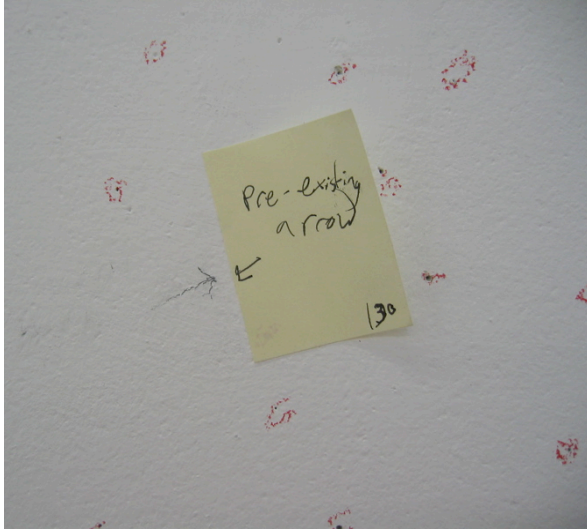


Figure 19: Labeling symbols; arrow on June 7, 2008

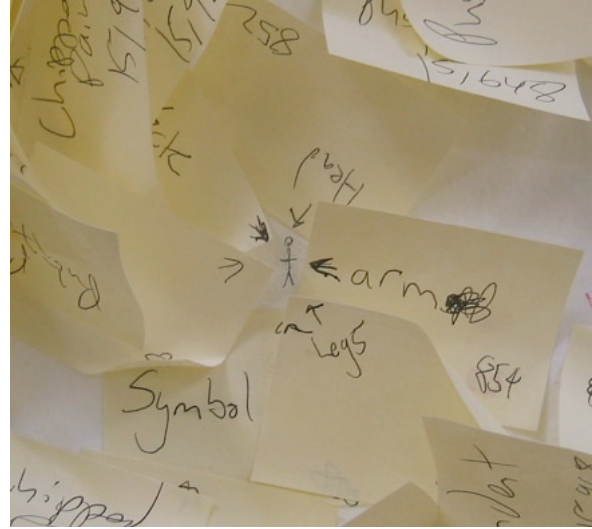


Figure 20: Labeling symbols; stick figure on June 10, 2008

When I started the project, I also mapped my movement around the space. If I stood or sat in a space for an extended amount of time, I traced the outline of my body in that place. I marked the changing positions of the supplies on the desk as well. I eventually decided to remove this from the system since it was too difficult for me to simultaneously observe the room and then observe myself observing the room. I also knew that if I was able to continue mapping both systems, at some point they would collide and one would eventually overtake the other. For instance, once I started tagging the floor, I would have to label all of the lines I drew from where I was seated the first time. Then I would have to draw lines on top of the sticky notes of the new space where I was seated and then label those. This would continue in a never-ending circular process. I was gladly stepping away from the double hermeneutic since I had enough that needed to be done with solely observing the room.



Figure 21: Labeling the floor and the outline of where I was seated on June 8, 2008



Figure 22: Outlines of supplies on the desk on June 9, 2008

Ideally, I wanted the viewer to be able to check the validity of what I was labeling. If a viewer approached the wall, they could see that Post-it note #376 pointed to *that* specific pushpin hole. For this reason, I chose not to lay the notes flat, but rather fold the paper to have only a small portion of the adhesive strip touching the surface of the item being tagged. The sticky notes were closer to perpendicular instead of parallel to the wall. This allowed more of the original surface of the room to be visible as well reducing the material associations of Post-it notes, which are conventionally applied flat.

Just like the toothpicks, the subtle variation in the angle that the papers folded out from the wall conveyed a sense of motion. When the notes began accumulating next to each other, the paper would curl, ripple, and wave. It appeared as if the sticky notes were migrating towards each other and pushing each other out of the way. I also chose not to line the papers up in straight lines or a grid. Therefore, they seemed more chaotic and organic. As the notes formed clusters, they looked more like biological formations than office supplies.

For the first few days, I didn't have a particular path I was following. I would tag a few items and if I looked up and saw something across the room, I would relocate and map that space. My attention span and level of focus for the day influenced how long I could label something. Sometimes I moved locations since I lost interest. I would get bored with the monotony of labeling the same feature over and over again. Other times I would run out of things to label in a spot since I had tagged all of the predominant features and anything else felt like splitting hairs. For example, if I was labeling a piece of tape, I could simply tag it as 'tape' or I could add other qualifiers such as 'clear', 'one inch long', 'half inch wide', 'flat', 'top edge angled', 'bottom edge straight', 'non-functional', 'on left corner of desk', ad infinitum.

However, five days into the project I switched from a random to a sectional approach. On that day I started labeling a small patch of pushpin holes on the wall. When I stepped back from my work, I noticed the notes appeared to be blooming, fluttering, and migrating. By working, in continuous sections, the sticky notes would reach the critical mass necessary to transcend their materiality. The room began to look like it was swarming with insects or like a yellow algae was slowly creeping around the walls. To achieve this quantity of labels increased my attention to detail. Instead of just push pin holes, I labeled chipped paint, indentions, pen marks, smooth spots, rough spots, plaster, paint discolorations, nail holes, etc.



Figure 23: Three-quarters view of back wall on June 10, 2008



Figure 24: Front view of back wall on June 10, 2008



Figure 25: Back wall on June 10, 2008



Figure 26: Back wall on June 13, 2008



Figure 27: Back wall on June 18, 2008

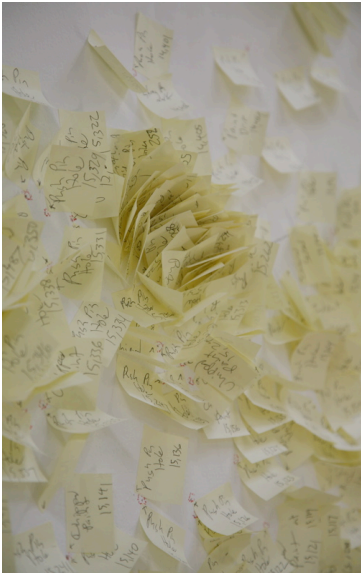


Figure 28: Side wall on July 9, 2008



Figure 29: Side wall on June 20, 2008

Since I wanted to have the room completely filled, I continued to look for nebulous details to tag. After the walls, I moved to the chicken wire grate that lined the bottom of the studio. I stuck notes in between the wire spaces, which made the grate look like honeycombs. This was the only feature that could be seen from the outside of the studio space.



Figure 30: Chicken wire grate on back wall on July 19, 2008

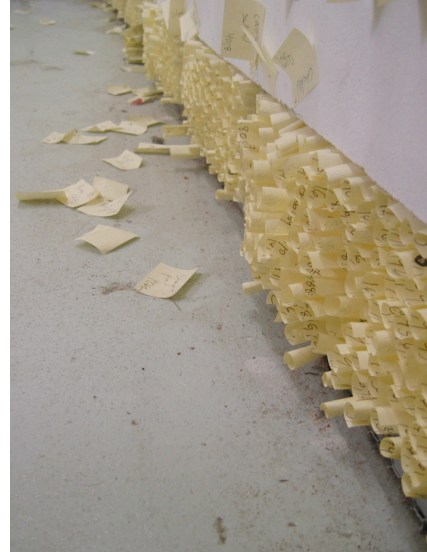


Figure 31: Chicken wire grate on back wall on July 20, 2008



Figure 32: Hallway outside of studio on July 21, 2008

From the chicken wire, I moved to covering the floor. The floor looked like rippling waves that appear to change direction as a viewer walked around the space. The wave-like pattern was prevalent on the floor since I was unconsciously placing the tags around me in a semi-circular manner as I worked. This is different from how the Post-it notes accumulated on the walls. The majority of the sticky notes were more centered on the wall since that was the height that the former occupant hung their work. On the floor, it was not only my actions but also the physical presence of my body contributing to the rippling forms.



Figure 33: Floor facing the front wall on August 20, 2008



Figure 34: Floor facing the back wall on August 20, 2008

What I found most surprising was that the implied movement changed as I finished the floor. When only the walls were covered, the implied movement of the post-it notes felt like they could fly from one side of the room to another. Once the floor was covered the Post-it notes seemed like the lining of the inside of a box. This shift in perspective was due to the connection points of the wall and with the floor. When only the walls were covered, the paper smoothly moved between surfaces. The transition was not as clean from the walls to the floor since the sticky notes in the chicken wire created a dividing border. Because their shape was distinctly different from the patterns on the floor and on the wall, this broke the illusion, bringing awareness back to the original structure of the room.



Figure 35: Back of studio on August 22, 2008

The viewers who visited the space were most impacted by the shift in perception. As in Irwin's diagram, each viewer was able to enter a different part of the process of cognition and they would constantly loop through the process. When they looked in from the door, they responded with mild curiosity of why there were so many Post-it notes on the wall. Upon entering the space, their jaws dropped in astonishment from the phenomenal experience. The first thing that would come to mind was 'yellow' and then field or waves. It took a few moments before the viewer would move away from the perceptual to the cognitive realm and begin to read the notes. Only then would they realize the importance of the original structure as a 'room'. They mentioned that it made them think about the amount of irrelevant information

they encounter daily as well as the ephemeral nature of ordering. One viewer described how they felt like the space was shedding a skin of information.

While in the space, no one rested in one area. Their comments suggested that their attention moved from the tiny insignificant details into the overall volume of labels in the room and back to the details as the relationship between the figure and ground constantly rotated in their minds. The viewer shifted from trying to draw a distinction between the original space and my actions in the space and where those spaces overlapped to become an all-together new entity. As I watched them wander around the room, I could see viewers were trying to determine how I made sense of the room versus how they made sense of the room, what was factual versus what was fictional, where the materials took precedence versus where my actions shaped the materials, and what was the necessary versus the overstated information about the space.

Since I had to clean out the space in order for the new student to move in, I was unable to finish the entire room, leaving the furniture uncovered. The final statistics were:

Number of Post-it notes: 37,875

Hours spent labeling: 286.25

Distance in post-it notes if lined end to end: 1.19 miles



Figure 36: Entrance to studio on August 23, 2009



Figure 37: Back wall on August 23, 2008



Figure 38: Front wall on August 23, 2008



Figure 39: Side wall on August 23, 2008



Figure 40: Side wall on August 23, 2008



Figure 41: Post-it note pile after cleaning up on August 25, 2008

After I finished the project, I chose *Cognizance* as its title; a term is denoting knowledge gained through perception, a process of becoming aware. This described the intent of my investigation.

After completing *Cognizance*, I intended to create another installation. However, I ran into difficulties finding a new material and location. I experimented clear labels and different types of price tags, but no material offered anything more than what Post-it notes already offered. I also tried tracing and outlining the imperfections on my studio wall but this was not visually intriguing. The marks appeared to lack purpose as well as the marks failed to give the viewer any information about the perceptual ordering of space.

The second challenge was finding a space to work in. Since the thesis exhibitions are located outside of the graduate studios, I needed a space that I could work in for a couple of months and then be easily disassembled and reassembled at the exhibition site. It was important to me that the viewers have access to the original working space since photo documentation was a poor substitute for the direct phenomenal and visceral experience. I built a six-foot plastic cube where I drew the features of the room from the inside. Besides having difficulty seeing outside of the space, I was unable to find anything worth labeling. I also tried building a room out of paper and drawing and cutting on the surface. However, the space lacked a history for me to respond to and therefore my perceptions were completely fabricated. I decided that since I was not be able to create an authentic working space for the second installation, I would resume my exploration in the two dimensional picture plane where I was not concerned if I was making things up. By choosing drawing, I would happily not be constrained by the limitations of the real world. This move opened up new possibilities for advancing my larger project of investigating and visualizing perception because drawing left me with more unknown territory to explore.

Apophenia

There is the world.
Here am I.

So what?

How did I map my perception of illusory space?

Two-dimensional work has always been my primary creative practice, especially drawing since I prefer the more precise line control that it offers. For my MFA thesis exhibition, I created a series of graphite drawings in which small clusters of marks and forms emerge out of a considerable amount of negative space. All of these drawings have a limited tonal range and a consistent line weight. In half of the drawings, the drawn patch doesn't expand past ten inches. While there are some curved lines, the majority of the marks are angular.



Figure 42: Gallery installation of *Apophenia*



Figure 43: Gallery installation of *Apopenia*



Figure 44: Gallery installation of *Apopenia*



Figure 45: *Contracted Expansion*, 2009, graphite and matte medium on paper, 60" x 67"



Figure 46: *Contracted Expansion* (detail)



Figure 47: *Always Hanging on the Edge of Becoming Something*, 2009, graphite on paper, 59" x 65"



Figure 48: *Always Hanging on the Edge of Becoming Something* (detail)



Figure 49: *Drifters*, 2009, graphite on paper, 30" x 30"



Figure 50: *Untitled*, 2009, graphite on paper, 25" x 30"



Figure 51: *Rift*, 2009, graphite and matte medium on paper, 47" x 60"

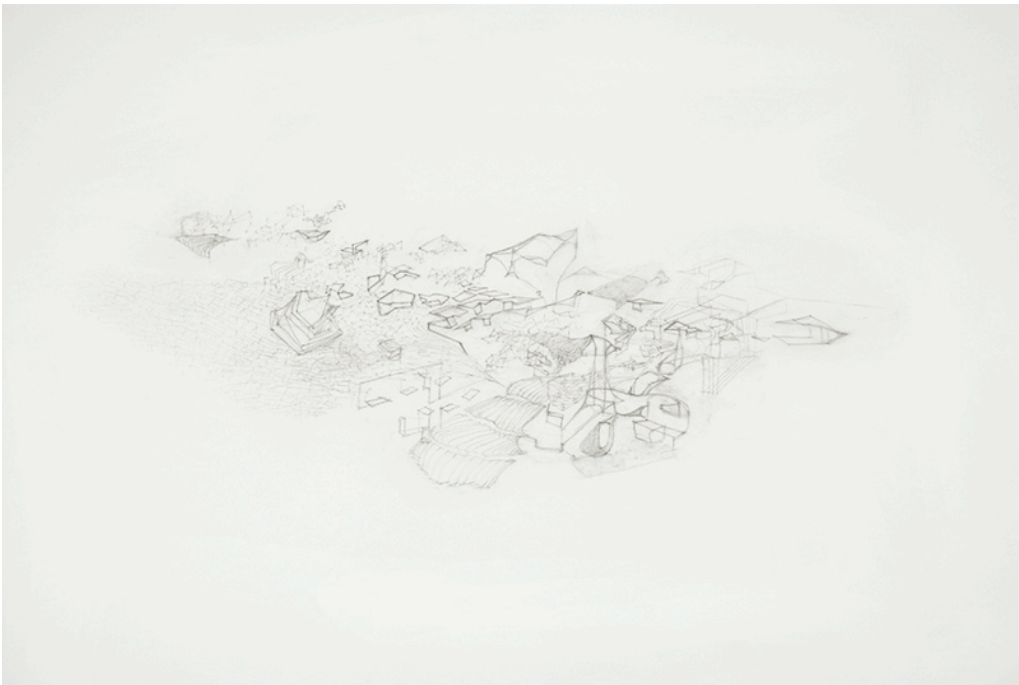


Figure 52: *Rift* (detail)



Figure 53: *Looking for a Doppelganger*, 2009, graphite on paper, 60" x 60"



Figure 54: *Looking for a Doppelganger* (detail)



Figure 55: *Highly Calculated Mistake*, 2009, graphite on paper, 67" x 59"



Figure 56: *Highly Calculated Mistake* (detail)



Figure 57: *Untitled*, 2009, graphite on paper, 47" x 60"



Figure 58: *Untitled* (detail)



Figure 59: *Unraveling*, 2009, graphite on paper, 20" x 59"

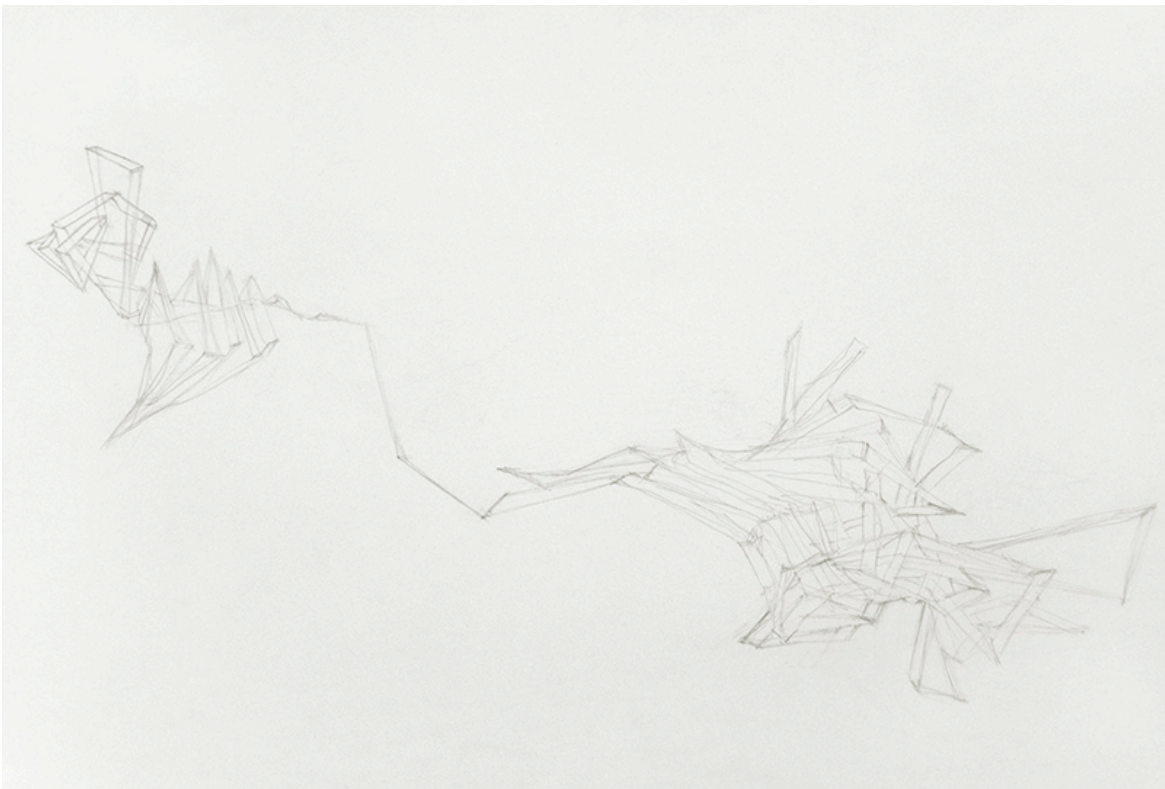


Figure 60: *Unraveling* (detail)



Figure 61: *Looking for a way in/out*, 2009, graphite on paper, 30" x 30"

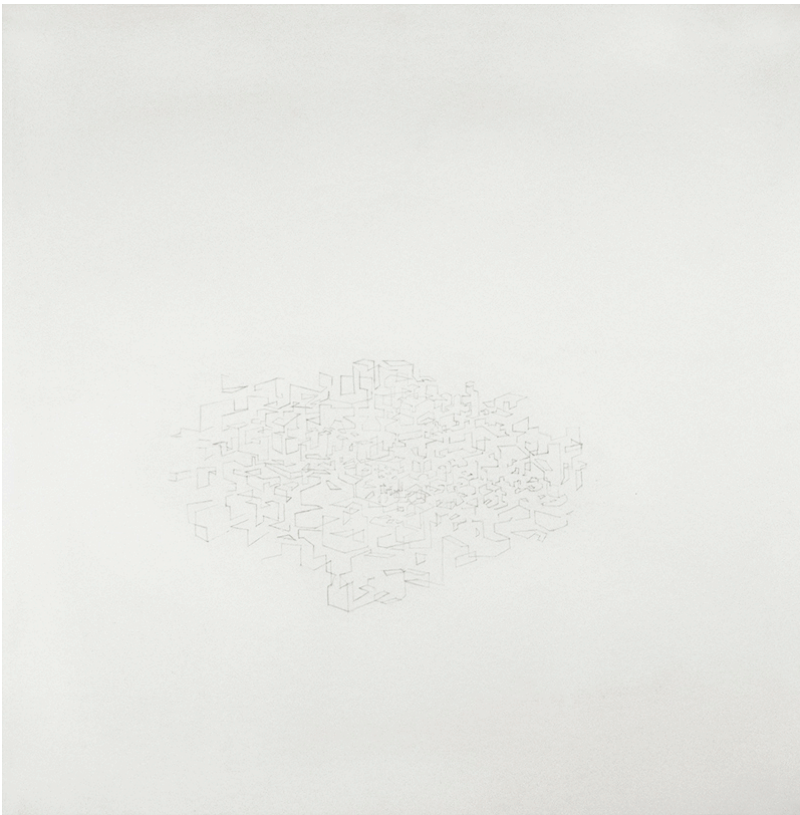


Figure 62: *Static Assembly*, 2009, graphite on paper, 47" x 47"

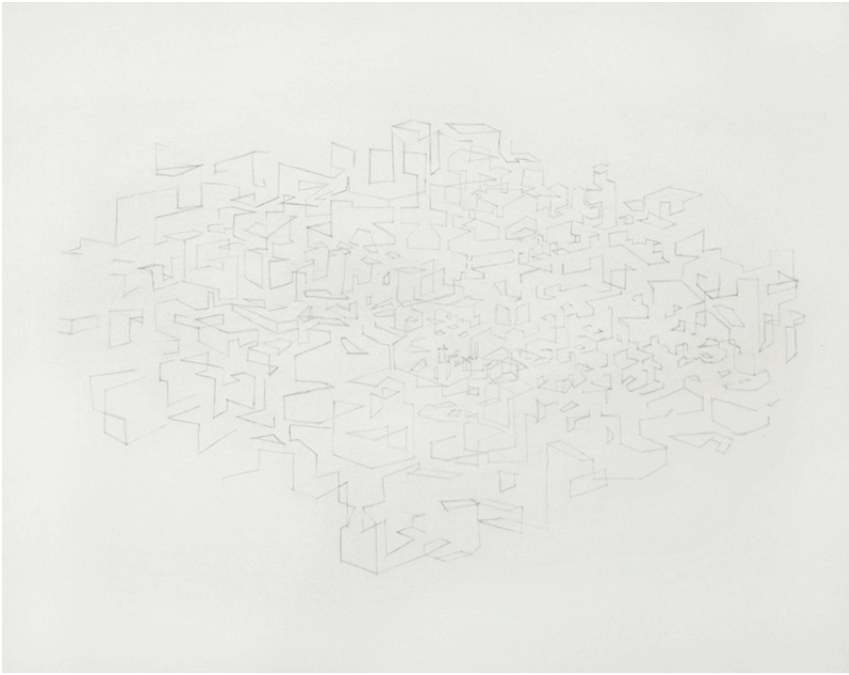


Figure 63: *Static Assembly* (detail)



Figure 64: *Strange Inversion of Reason*, 2009, graphite on paper, 60" x 60"

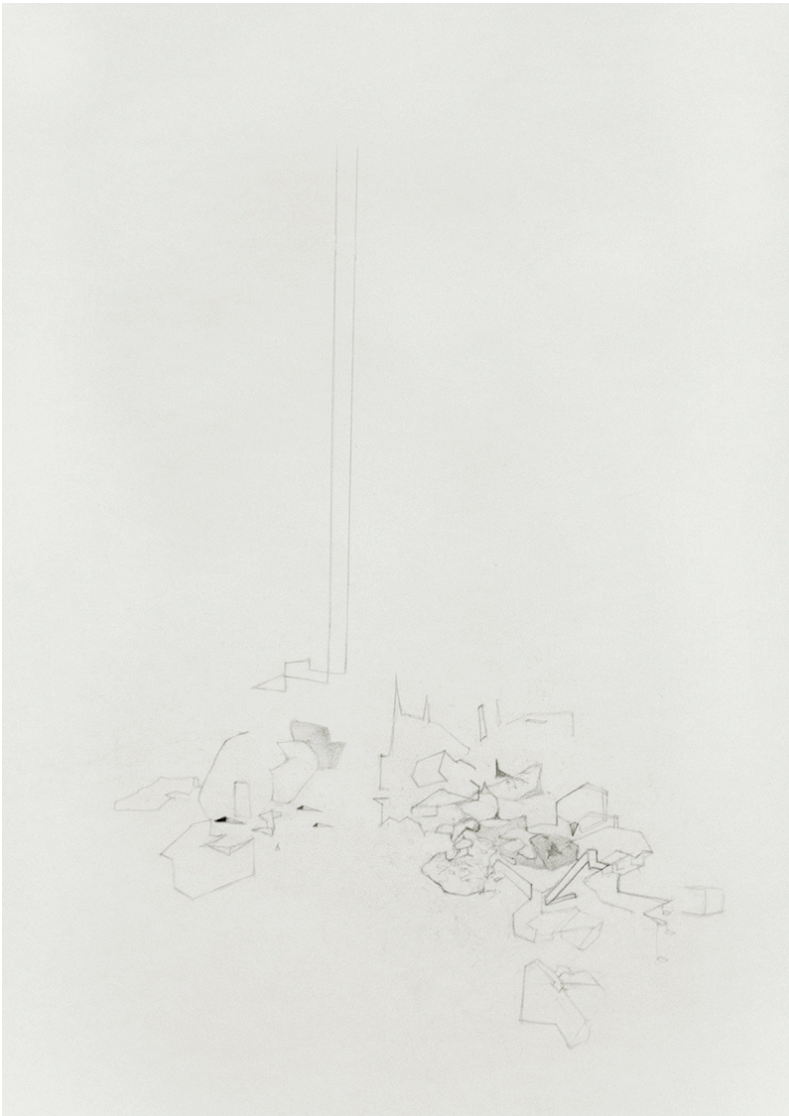


Figure 65: *Strange Inversion of Reason* (detail)

The forms I produced have indirect architectural, topographical, and biological references. The method of looking at these drawings is similar to reading the diagram of eye movements in Figure 2. What a viewer sees is not a static representation of an object but rather traces of a process. For example, in the diagram, when the subject was asked to remember the clothing of the guests, the scanpath did not mirror the outline of the coat. Rather, it is possible to see how the eyes jumped around the space to try and recreate the shapes and angles in the subject's mind. In my drawings, it makes more sense to see the elements in the space being acted upon by forces instead of standing in for specific imagery. The drawings show fragments in the process of becoming 'things'. For example, some of the elements swarm, merge, multiply, and divide while others cantilever, unravel, unfurl, float, implode, and explode.

As I worked on this series, I was surrounded by multiple drawings since my studio was covered floor to ceiling with work in progress. I alternated between drawings I worked on in order to avoid overworking the individual pieces. This allowed crossbreeding to occur. One fragment of an image would appear in another drawing. I swapped the physical locations of the drawings, which also caused the shapes on one drawing to indirectly influence its neighbor.

How these drawings came about is not a logical process. Staring at a blank piece of paper, very faint complex shapes appear in my mind, which I transcribe to the paper. Through multiple small acts of adding and subtracting marks, I create an armature of lines that shape transparent spaces. I negotiate the boundary between randomness and structure until a pattern appears. I continue this process of pattern generation and pattern recognition until I have created an emergent form whose structure intuitively feels correct.

For me, the process of drawing is not necessarily about the addition of marks. I spend the majority of my efforts erasing, tweaking, and revising. Without an eraser, I would be immobilized. The process of removing marks is not solely for correcting errors but rather how the structure of the drawing is revealed. By repeatedly drawing and erasing marks almost completely, I create a ghost structure that serves as a template for me to build forms off of.

The early stages of drawing move back and forth between building a skeleton inside and scaffolding around a form. As I am working, I am unaware which support I am building. Often, the bones, beams, and platforms solidify to become the form itself. I use my eraser to break structures if the form gets too tangled in the scaffolding. Erasing allows the drawings to keep a certain level of fluidity as I work.

The process of drawing for me is a game of discovery. Art historian James Elkins also equates drawing to a game. In correspondence about drawing with artist John Berger, he describes drawing as

“...a process that works to abolish the principle of Disappearance, but it never can, and instead it turns appearance and disappearance ‘into a game’ ...It’s an odd game, though, because it can never be won, or wholly controlled, or adequately understood”³¹

In this game, I am not privy to the rules, but I follow forms blindly. As I draw, the ground plane is constantly reorienting itself. Invisible forces bend, deflect, and distort the field. Objects and spaces fold into and collapse on top of each other constructing new entities.

³¹ John Berger, *Berger on Drawing* (Aghabullogue, Ireland: Occasional Press, 2005) p. 112.

Even though the drawings are two-dimensional, the areas and objects are three-dimensional in my mind. Most of the laws of the natural world exist in the space but the forces are slightly skewed. Hence, there is gravity, but not gravity in the sense that I experience in the real world. Gravity changes at will as it flips and turns in my mind. It would be like everything in the room unexpectedly flipping upside down and finding myself located on the ceiling. I rotate my drawing while I work to compensate. Often when I step back from the drawing, I realize what I drew is upside down. Gravity is not the only force in the space. Other forces turn the drawings inside out, pull things apart, and shove them back together. The continuous movement creates a complex infrastructure that is caught in between coming together and falling apart.

The drawing grows by a kind of thinking that is responding and recalling. The process is a constant negotiation rather than an accord, a state of “becoming rather than being”.³² After a structure establishes itself, the drawing process becomes a standoff. Like a game of chess where the play moves back and forth from check but before reaching checkmate, I am matching wits with the drawing. Often I feel like the drawing is taunting me, possibly even cheating somehow, changing the rules in the middle of play. Philosopher Jacques Derrida hints at this in his book *Memoirs of the Blind* that compares drawing to blindness. He recounts,

“...it is as if just as I was about to draw, I no longer saw the thing. For it immediately flees, drops out of sight and almost nothing of it exists; it disappears before my eyes which, in truth, no longer perceive anything but the mocking arrogance of this disappearing apparition.”³³

In *Drawing Now: Between the Lines of Contemporary Art*, drawing is described as performative thinking, This makes drawing a kind of tacit knowledge, information that cannot be understood in words but only through action. The following passage explains how artist Alyson Brien thinks through drawing. Her working process closely resembles how I work.

“The process of subtraction and addition in the physical act of drawing touches on the difference between what is seen and what is conceived, and again between what is conceived and what appears on the paper. The process refers, via subtraction, to what is absent as well as present to description. While Brien has an ‘idea’ of what she wants, she avoids being too clear in advance of the action. As she draws, she recognizes what she wants or doesn’t want. Her ‘ideas’ are movements and qualities, not definitive things. It’s quite clear that she is driven by what happens on the paper and that to a great extent she

³² Berger, p. 125.

³³ Jacques Derrida, *Memoirs of the Blind: the Self-portrait And Other Ruins* (Chicago: University of Chicago Press, 1993) p. 36.

is not the one in control. She expresses surprise several times at what is happening in front of her, as if independently, and uses words like 'coaxing' as though persuading the drawing to do what she wants, but at the same time acknowledging that it won't necessarily. It is evident that the inherent blindness in looking is inextricable from the mechanics of thinking, and that the act of drawing a line illustrates the point at which the ontological meets the conceptual...[it] is a particular form of thinking that can't be separated from its performance."³⁴

Like Brien, I do not start out with a specific plan of attack. By making marks and responding to what is there, I find the forms I did not know I was looking for. This further explains my lack of concrete references in my work. I am more interested in creating a sense of movement where lines and shapes interact in order to create the potential to form structures and spaces in the minds of my viewer.

The proximity I have in my mind to what I am drawing changes as I work. Sometimes it feels like walking through a landscape. Other times it feels like I am working with objects that I could pick up. I can be omnipotent in the drawing space, standing above observing something in a bubble. My role as overseer can also be a more active role like I am poking at things with a stick or rearranging things to be in their proper place.

I know for certain that I cannot completely 'see' these things without a pencil in my hand touching the paper. The shapes and spaces fade from my mind as soon as I lift the pencil away from the paper and they only appear again as I start pushing lines around with my pencil. When I step back to look at what I have drawn, it is like comparing something to a memory of an event that happened in the past, like trying to remember the last place I saw my keys when I have lost them. I rotate between trying to recreate what I remember and creating a new structure that better suits what I see on the paper. I stumble about until a structure and forms appear that feels right.

All of the actions in the drawing also move in slow motion. I might know that a specific shape needs to twist and fold down, but it takes hours of engineering and erasing to get it into its place. For example, below are some of the in progress images of *Always Hanging on the Edge of Becoming Something* (Figure 47). As I work, when I get stuck with where to move next, I take digital images of the work. By seeing the image in another context, I can disassociate with what I think is there, allowing me to see what areas need attention.

³⁴ TRACEY, *Drawing Now: Between the Lines of Contemporary Art* (London: I.B. Tauris, 2007) p. xviii.



Figure 66: Always Hanging on the Edge of Becoming Something in progress images

For this series of drawings, to limit my working variables, I chose not to use color. By only using graphite, I could focus on controlling line more without having to worry if I was using the correct color as I was drawing. When I experimented with adding color, the spaces flattened and the forms would fold into themselves and refuse to come apart. Later, I also realized that I preferred the transparency I could achieve with graphite since it is easier to see back through the layers of marks than through the opacity of painted brushstrokes.

When I began this series, I was working on smaller pieces of paper, thirty inches by thirty inches. However, feeling constrained by smaller sizes, I started using larger sheets of paper. All of the images ended up either being too centered or I would quickly run into the edges. I returned to my previous working method of using paper that is at least 5 feet by 5 feet. Standing next to a larger piece of paper, the edge of the paper is slightly outside my peripheral vision as I am drawing. This allows me to feel like I am completely immersed in the drawing field. I did not draw directly on the wall because the edges of the paper allowed the drawings to be sectioned off from the external world and the other drawings. Working bigger gave me the flexibility to change the orientation of the marks on the page since I could cut down the drawing if the original spot where I drew was situated incorrectly on the paper.

By consciously choosing to use larger paper, I increased the ratio of negative space around the drawings. Leaving larger amounts of negative space started out as an unintentional decision and then it became conscious. It was not there because I ran out of time to finish, but rather, the forms seemed to stop expanding after they reached about ten inches across. It was almost like there was a vacuum around the object defined by the expanding forms. If I were pulled into the space of the drawing, I would continue to draw over the forms, increasing the entanglement among the marks. Or the force field around the object would push me out of the space completely, leaving me with nothing to respond to. I chose to leave the amount of negative space around the object instead of cutting the paper down since it implied the possibility of potential growth. With a small object on a large surface, the mind tries to predict what will happen next. The greater space around the object implies a subtle level of mystery in anticipating how the shape will appear. Design writer Thomas de Monchaux describes the value of this kind of mysteriousness as he explains the architecture of Peter Zumthor.

“The power of a suggestive image you can’t quite understand...comes less from the satisfaction of revelation than from the elevated awareness that precedes that moment.”³⁵

³⁵ de Monchaux, pg #

Apophenia, the title of this body of work, is a term that describes the phenomena of looking for patterns in random or meaningless data. I chose this title since it describes my working process. There is a paradox in this term because randomness implies something that is without order, but randomness is actually a type of order. If order can be established, then the data is not truly meaningless. Looking for patterns can be a starting point for understanding an ambiguous situation but at a certain point it can block that understanding since so much effort can be placed in trying to make something match the mind's desire for order and logic. Ultimately, I am left not knowing if I am seeing things as they really are or how I want them to be.

Contradictory Processes

There is the world.
Here am I.

So what?

How can opposites really be the same thing?

Watching the world, I am looking at something that I can never truly know or understand, a situation in which I do not even care to comprehend fully how everything works. Once I put things together, they have already come apart. Why am I involved in documenting such highly sophisticated acts of futility?

Cognizance and *Apophenia* are on the opposite ends of the spectrum as investigations into perception. *Cognizance*, which focuses on seeing the world, as is, attempts to understand everything by submerging the viewer in a field of information. *Apophenia*, which turns its back on the world, presents an economy of perception that containing small forms with rectangle. *Cognizance* has an overwhelming sense of awe and *Apophenia* subtly hovers on the edge of invisibility. While taking divergent approaches, both of these projects highlight how making sense is a process that constantly confounds itself. In the search for what I know, I draw attention to the limits of what I can know.

In both projects, the way I use physical materials activates and gives a shape to the act of looking. To clarify this, think back to the diagram of eye movements. Through repeated viewings the painting remains unaltered. However, the process of looking that I apply each time alters the original. When I added a Post-it note or a new line, I was writing on top of the pre-existing structure. Therefore, each time I was reading the spaces I was physically re-writing them.

These projects enter into the process of making sense of making sense at different points. *Cognizance* more closely relates to perception since I am trying to understand the existing space. [Sense-Making] is more closely tied to *Apophenia* because I have a meta-level awareness of the process of drawing. I am responding to

what is there and then I respond to my response. The difference in awareness creates a different hierarchy of information. *Cognizance* employed a strict adherence to an algorithmic process in which the logic of construction could be easily deduced. *Apophenia* had no spoken rules and was based on intuition and unconscious compulsions. However, the viewer was unable to establish a clear hierarchy in either project.

Both of these projects ask if it is possible to ever reach a level of meaningful understanding. *Cognizance* invites a viewer to be able to read the space. However, the sheer quantity of notes prevents this. Even if someone were to read everything in the space, nothing would truly be confirmed since the most of the information is completely irrelevant. *Cognizance* aims to explain everything but ultimately is unable to explain anything of importance. Conversely, *Apophenia* revels in ambiguity. The drawings appear to be presenting nothing but it serves as a potential starting point for everything. Besides the circular logic of trying to make sense by taking things apart in order to put them together, another cyclical process is initiated between articulating things and obscuring them. An attempt to articulate something contributes to its obscurity, whereas recognizing something as obscure becomes the first step to articulating something into existence. To match the fluid nature of perception, the viewer applies a process of making and un-making sense of things, creating a world that hovers between chaos and control while adding tangents to the spectrum. Ultimately, these projects become inverted mirror images of each other.

Conclusion

There is the world.
Here am I.

So what?

How do I know what I know?

Through the act of drawing, I am making sense of making sense. Pulling from the disciplines of art, cognitive science, philosophy, and architecture, I cobble together a means to observe, construct, and analyze my surroundings.

By closely observing what actually exists, what I think is there, and my responses to the two, I am watching the world escape into and out of form, creating temporary structures out of the senseless and ambiguous. Using the tools of mapping, patterning, and naming, as well as receiving inspiration from bottom up construction, I produced two projects whose forms allude to living systems, natural phenomena, and architectural structures. *Cognizance* and *Apophenia*, while offering distinct phenomenal experiences, explored the tenuous relationship between seeing and knowing.

Image Credits

Figure 1:

Diagram of Compounding Abstraction, Robert Irwin, "The Process of Compounding Abstraction – Notes Toward a Model", Robert Irwin. New York: Whitney Museum of American Art, 1977. p 28

Figure 2:

A. L. Yarbus experiments in eye movements 1967, reproduced from Solso, Robert L. Solso. Cognition And the Visual Arts. Cambridge, Mass.: MIT Press, 1994. p. 138.

Repin, Ilya. *Unexpected Return*. 1884-1888. The State Tretyakov Gallery, Moscow. *The State Tretyakov Gallery*.

<http://www.tretyakovgallery.ru/en/collection/_show/image/_id/212>. 9 August 2009

Bibliography

- Abruzzo, Emily. Models. New York, N.Y.: 306090, Inc., 2007.
- Alexander, Christopher, and Sara Ishikawa. A Pattern Language: Towns, Buildings, Construction. New York: Oxford University Press, 1977.
- Aranda, Benjamin, and Chris Lasch. Tooling. New York: Princeton Architectural Press, 2006.
- Arendt, Hannah. The Human Condition. Chicago: University of Chicago Press, 1958.
- Arnheim, Rudolf. Visual Thinking. Berkeley: University of California Press, 1969.
- Bachelard, Gaston. The Poetics of Space. Boston: Beacon Press, 1964.
- Balmond, Cecil, "Element", *Lotus International*. Volume 3. 2008. p. 102 -107
- Balmond, Cecil, and Jannuzzi Smith. Informal. Munich: Prestel, 2002.
- Bateson, Gregory. Mind And Nature: a Necessary Unity. Creskill, N.J.: Hampton Press, 2002.
- Berger, John, and Jim Savage. Berger On Drawing. Aghabullogue, Ireland: Occasional Press, 2005.
- Berger, John. Ways of Seeing. New York: Viking Press, 1972.
- Borges, Jorge Luis, and Emir Rodríguez Monegal. Borges, a Reader: a Selection From the Writings of Jorge Luis Borges. New York: Dutton, 1981.
- Bowker, Geoffrey C, and Susan Leigh Star. Sorting Things Out: Classification And Its Consequences. Cambridge, Mass.: MIT Press, 1999.
- Brann, Eva T. H. The World of the Imagination: Sum And Substance. Savage, Md.: Rowman & Littlefield, 1991.
- Butler, Cornelia H. Afterimage: Drawing Through Process. Los Angeles: Museum of Contemporary Art , 1999.
- Casey, Edward S.. The Fate of Place: a Philosophical History. Berkeley: University of California Press, 1997.
- Certeau, Michel de. The Practice of Everyday Life. Berkeley: University of California

- Press, 1984.
- Chandler, Daniel. Semiotics: the Basics. London: Routledge, 2002.
- Daston, Lorraine. Things That Talk: Object Lessons From Art And Science. New York: Zone Books , 2004.
- Deleuze, Gilles, and Francis Bacon. Francis Bacon: the Logic of Sensation. Minneapolis: University of Minnesota Press, 2003.
- Derrida, Jacques. Memoirs of the Blind: the Self-portrait And Other Ruins. Chicago: University of Chicago Press, 1993.
- Dervin, Brenda, and Lois Foreman-Wernet. Sense-making Methodology Reader: Selected Writings of Brenda Dervin. Cresskill, N.J.: Hampton Press, 2003
- Eliasson, Olafur. Your Engagement Has Consequences on the Relativity of Your Reality. Baden, Switzerland: Lars Müller Publishers, 2006.
- Fernandez-Caballero, Antonio, Alberto Sanfeliu, and Yoshiaki Shirai. "Pattern Recognition in Interdisciplinary Perception and Intelligence." *Pattern Recognition Letters*. Volume 29. Issue 8. 2008. p. 1021 -1023.
- Foucault, Michel. The Order of Things: An Archaeology of the Human Sciences. New York: Vintage Books, 1994.
- Grynsztejn, Madeleine. Take your time : Olafur Eliasson. San Francisco: San Francisco Museum of Modern Art,2007.
- Hainley, Bruce, and Dennis Cooper. Tom Friedman. London: Phaidon, 2001.
- Heidegger, Martin. Basic Writings From Being And Time (1927) to The Task of Thinking (1964). New York: Harper & Row, 1977.
- Herbert, Lynn. Matthew Ritchie: Proposition Player. Houston: Contemporary Arts Museum Houston, 2003
- Hickey, Dave. Air Guitar: Essays On Art & Democracy. Los Angeles: Art Issues Press, 1997.
- Hickey, Dave. "Revision Number Seven: Formalism", *Art in America*. April 2009. p. 35 - 37

- Hoelzer, Guy, "Re: [Fis] Re: info & meaning". FIS Discussion Archives. *Foundations of Information Science*. 2 October 2007.
 <http://fis.icts.sbg.ac.at/c_10_s_42_list_mailings_page_2115.html>. 11 August 2009
- Irwin, Robert. Robert Irwin. New York: Whitney Museum of American Art, 1977.
- Irwin, Robert, and Hugh Marlais Davies. Robert Irwin: Primaries And Secondaries. San Diego, CA: Museum of Contemporary Art San Diego, 2008.
- Kraus, Elizabeth M. The Metaphysics of Experience: a Companion to Whitehead's Process And Reality. New York: Fordham University Press, 1998.
- Langer, Susanne K. Philosophy In a New Key: a Study In the Symbolism of Reason, Rite And Art. New York: New American Library, 1961.
- Leyton, Michael. Symmetry, Causality, Mind. Cambridge, Mass.: MIT Press, 1992.
- Merleau-Ponty, Maurice, and Galen A. Johnson. The Merleau-Ponty Aesthetics Reader: Philosophy And Painting. Evanston, Ill.: Northwestern University Press, 1993.
- Noton, David and Lawrence Stark. "Eye Movements and Visual Perception", *Scientific American*. Vol. 224. June 1971. pp 34-43
- "Process Philosophy", *Stanford Philosophy Encyclopedia*. 9 January 2008.
 <<http://plato.stanford.edu/entries/process-philosophy>>. 22 July 2009.
- Radcliff, Carter. "Issues & Commentary: What "Evidence" Says About Art", *Art in America*. Volume 94. Issue 10. November 2006. pp. 57 – 67
- Rajchman, John. Constructions. Cambridge, Mass.: MIT Press, 1998.
- Richards, Francis, "Utterance is Place Enough: Mapping Conversation", *Cabinet*. Issue 2. Spring 2001.
 <<http://www.cabinetmagazine.org/issues/2/utterance.php>>. 10 August 2009
- "Rules of Six", *Design and the Elastic Mind*. The Museum of Modern Art. 2008.
 <www.moma.org/interactives/exhibitions/2008/elasticmind/#/226>. 29 July 2009.
- Silverman, Kaja. World Spectators. Stanford, Calif.: Stanford University Press, 2000.
- Sokolowski, Robert. Introduction to Phenomenology. Cambridge: Cambridge

- University Press, 2000
- Solso, Robert L.. Cognition And the Visual Arts. Cambridge, Mass.: MIT Press, 1994.
- Stafford, Barbara Maria. Echo Objects: The Cognitive Work of Images. Chicago: The University of Chicago Press, 2007
- Stewart, Susan. On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection. Baltimore: John Hopkins University Press, 1984.
- Taylor, Mark C.. The Moment of Complexity: Emerging Network Culture. Chicago: University of Chicago Press, 2001.
- TRACEY. Drawing Now: Between the Lines of Contemporary Art. London: I.B. Tauris, 2007.
- Tuan, Yi-fu, Space And Place: the Perspective of Experience. Minneapolis: University of Minnesota Press, 1977.
- Tuan, Yi-fu. Topophilia: a Study of Environmental Perception, Attitudes, And Values. Englewood Cliffs, N.J.: Prentice-Hall, 1974.
- Weibel, Peter. Olafur Eliasson : Surroundings Surrounded : Essays on Space and Science. Graz, Austria : Neue Galerie am Landesmuseum Joanneum ,2001.
- Weschler, Lawrence. Seeing Is Forgetting the Name of the Thing One Sees: Over Thirty Years of Conversations With Robert Irwin. Berkeley: University of California Press, 2008.
- Weick, Karl E. "Organizing and the Process of Sensemaking", *Organization Science* July-August 2005. Volume16. Issue 4. pp. 409- 421
- Wittgenstein, Ludwig. Philosophical Investigations: the English Text of the Third Edition. New York: Macmillan, 1973.
- Wright, Alex. Glut: Mastering Information Through the Ages. Joseph Henry Press, 2007