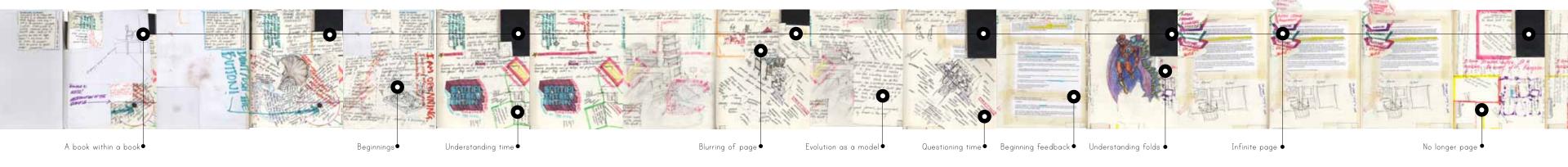




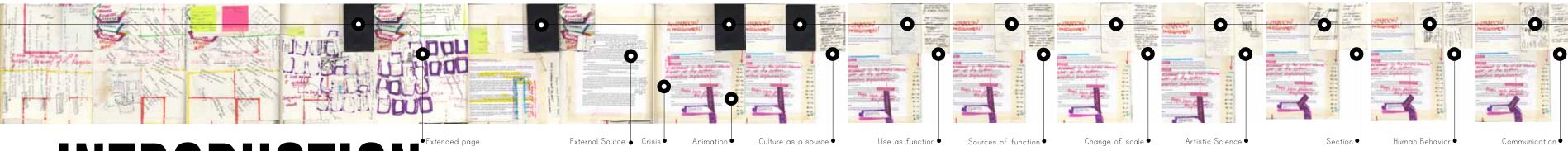
EVOLUTIONARY FUNCTIONALISM

A STUDY OF THE COMPLEXITY OF FUNCTION DIRECTED BY HUMAN USE AND BEHAVIOR

ELIZABETH GRABOWSKI I MASTERS OF ARCHITECTURE I UNIVERSITY OF DETROIT MERCY SCHOOL OF ARCHITECTURE I ARCH 5100 I ARCH 5110 I ARCH 5200 I ARCH 5210 I WLADEK FUCHS



CON	NTENTS	047	DISSECTION OF OBJECT STORY OF THE FORK
001 003 001 A	INTRODUCTION TO PROCESS PROCESS MAP SKETCHBOOK	051 055 057 081 A	STORY OF THE DOOR SUPER DOOR DEATH BY ARTIFACT SKETCHBOOK
005 009	INTRODUCTION TO CONCEPT NOTES FROM A BIOLOGIST	061 062	DISSECTION OF BUILDING THE FIVE WAYS
013 021 A	A CONVERSATION IN THE POOL: A BIG JUMP SKETCHBOOK	066 0101 A	THE MUNDANE SKETCHBOOK
015	INTRODUCTION TO BOOK PHYSICAL MANIFESTATIONS OF IDEAS	069 070	DISSECTION OF CITY COLLECTIVE IDENTITY
023 041 A 025	INVESTIGATIONS OF THE BOOK SKETCHBOOK INTRODUCTION TO DIAGRAM	071 0121 A 073	CHICAGO SECTION SKETCHBOOK INTRO TO APPLICATIONS
033 037 061 A	EXAMPLES OF THE FEEDBACK LOOP AN EARLY DIAGRAM SKETCHBOOK	0141 A 079	SKETCHBOOK CONCLUSIVE BEGINNING



INTRODUCTION THE BEGINNING TO THE BEGINNING

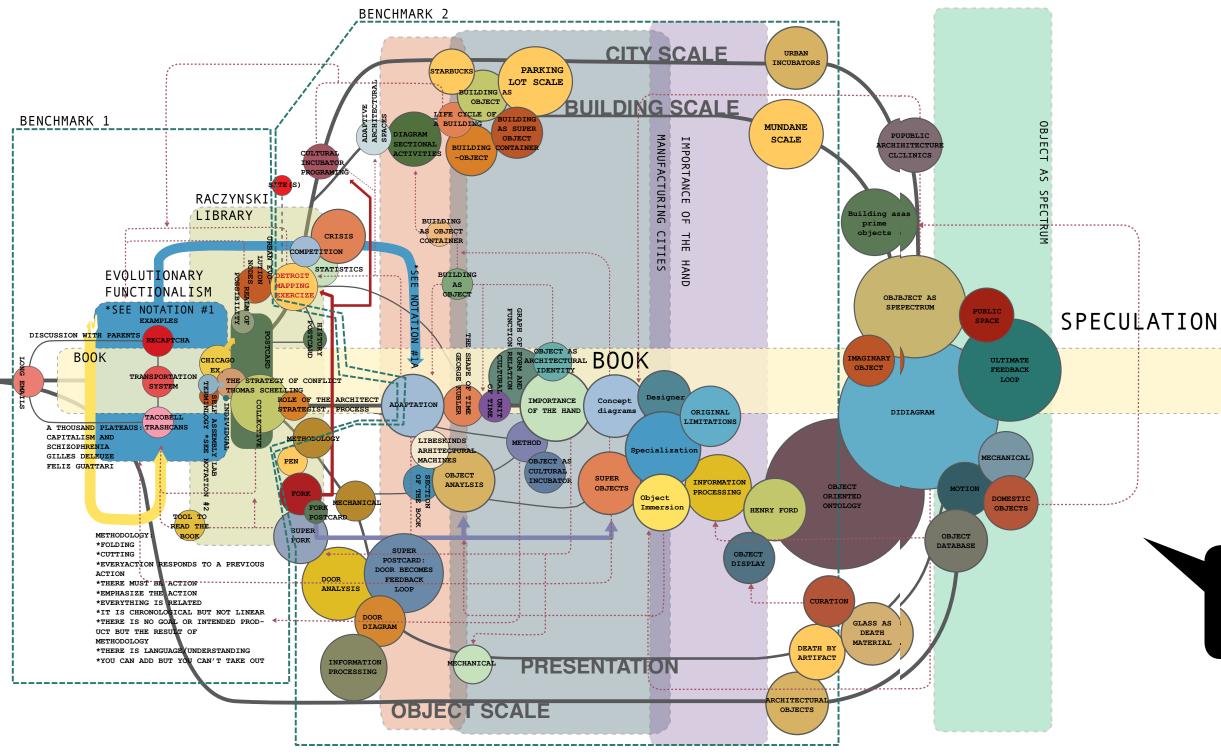
In simplicity there is complexity, and in curiosity there is design, which is driven by the process. The process is a series of questions that enlighten an unending path of guestions. There is no end to questioning, and therefore no end to the process. The process is chronological, not linear and a manifestation of the human condition. By enveloping themselves in process, the designer is exposing themselves to the reality of the human condition. They are exploring what it means to be and create. With intention, but not expectation, the designer seeks to learn what potentiality exists in this world. The designer is suspended in space, accepting what time has created, what the present accepts and what the future looks to become. The object is the product of design and the process. The object is the manifestation of the human condition, created through the hands of the designer. What we make is what we are and what we are is designed.

This thesis is a catalogue of ideas, objects, and designs that are all connected with one over arching concept developed through out the academic thesis: evolutionary functionalism. Before this idea is dissected, it is necessary to understand the manner in which it was observed. This thesis is a theoretical foundation for this concept that explores its application for designers, curators, and all those that exist in a world of man made "entities". The product is an extensive research based process, not a conclusive space or guideline, and a theoretical foundation for practical application towards designing for human use. The foundation for this concept was created through experimentation, which in this case means that hypotheses were tested without a clear, direct goal, and instead initiated through questioning. That is to say the project did not lack control, but that the project naturally developed through unanticipated

exploration, intentionally. The final product is not known, the method is not known, and the results are not known. What emerges is a pattern, or logical connection between man made space and things and their relation to the human condition. The unpredictable nature of the process leads to further theoretical development, as it causes the hidden qualities of spaces, objects, and concepts to naturally reveal themselves.

Therefore, the product, this book, may appear to be a collection of seemingly sporadic investigations, but is really the result of the process creating a certain complexity that allows for patterns and realizations to emerge. For this reason the process develops chronologically, meaning one can trace why events occurred and how they effected other decisions, but the results are not linear. Tracing this project, which will be explored in a later section, would not

result in a simple, easily interpreted path. So, how does one speak about the development of an idea with such a complex path? By traveling the path chronologically, but not linearly, interpreting the investigations and their apparent meaning or observed phenomena, and exposing the complexity of every decision which wove the next step of investigations. When continuing beyond this page, note this process and how it has influenced this snapshot of a final product. A process in constant flux, morphing with every new discovery, is difficult to capture. This project continues forever, asking more questions, clarifying more details, adding more complexity, but this is where it ended for this academic thesis, in this time and place. Reflect on this thesis as a foundation to an impermanent end, and an introduction to the introduction of the future of design thinking.



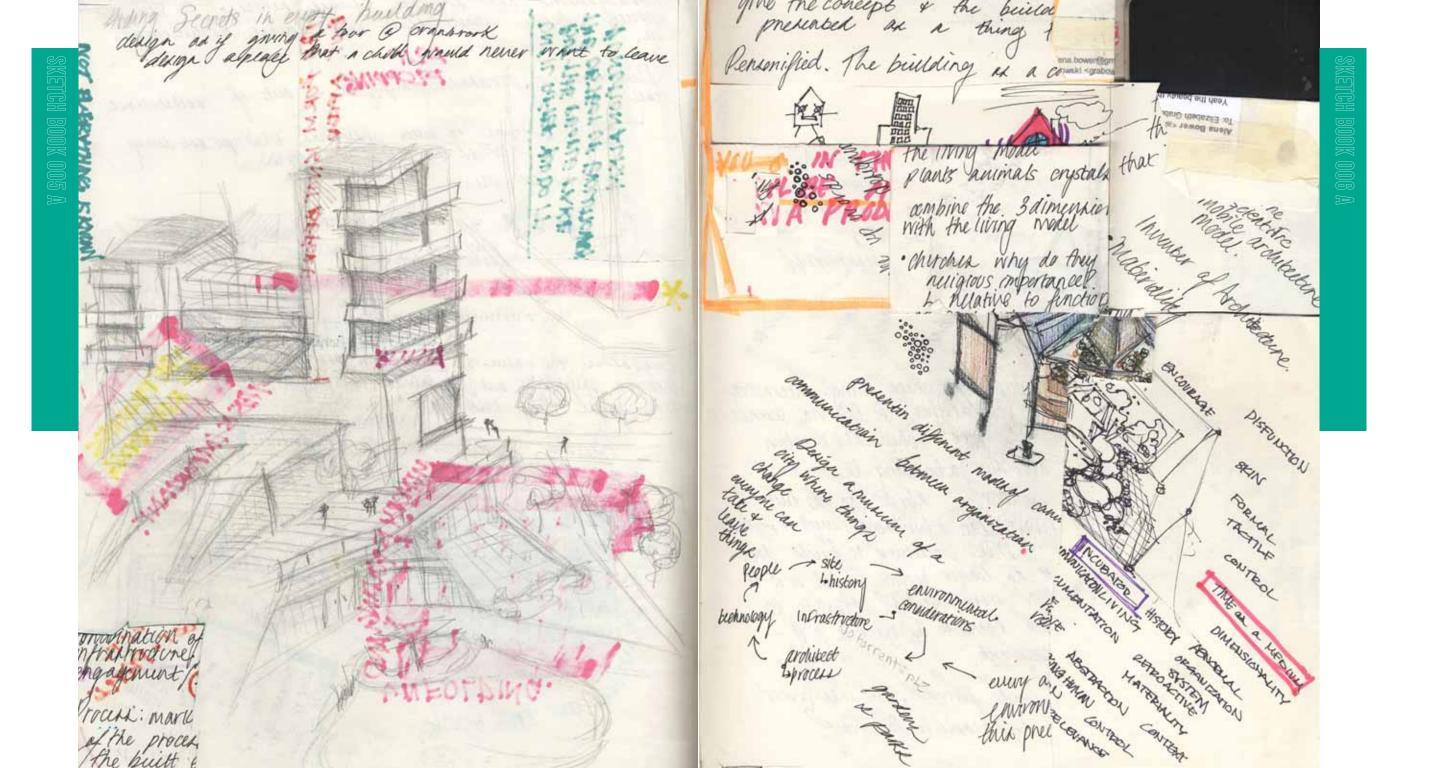
PROCESS MAP

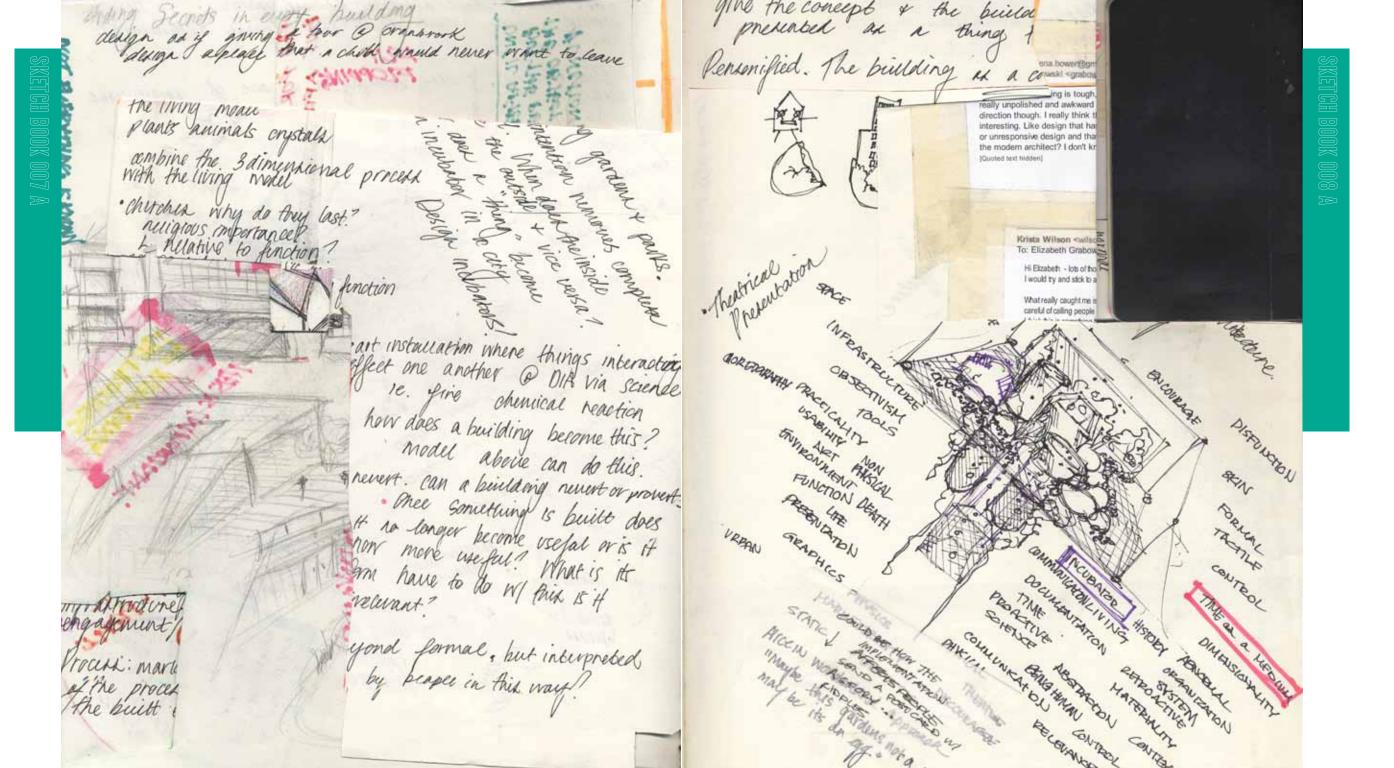
- #1: [WHEN AN OBJECT BECOMES MORE THAN IT'S OBJECTIVE QUALITIES ACCORDING TO ITS SOCIAL CONTEXT.]>[DESIGNING FUNCTION FOR THE POTENTIAL VALUE IN COLLECTIVE HUMAN ACTIVITY]>A[AN ADAPTATION TO AN OBJECT THAT GROUNDS THE OBJECT IN ITS SOCIAL CONTEXT IN ADDITION TO THE PROBLEM IT IS SOLVING][BEYOND SURFACE QUALITIES]
- #2: [HUMAN INTERACTION, EXPERIENCE, COMPLICATED FUNCTION, RATIONAL BEHAVIOR, POTENTIAL FORCE, EFFICIENCY, CRISIS, RUPTURE, ABSTRACTION OF BEHAVIOR, ICON, STANDARDS OF CONSISTENCY, MUTUAL DEPENDENCE]

"INSTEAD OF BEGINNING WITH RADICAL DOUBT WE START FROM NAIVETE."III GRAHAM HARMAN THE QUADRUPLE OBJECT

[1] Harman, G. (2011). Introduction. The Quadruple Object (5). United Kingdom: John Hunt Publishing Ltd.







ing is tough, because it all depends on what you think is beautilit. Sometimes things that are really unpolished and awkward can be beautiful in terms of it's own honesty. I think you are going in a good direction though. I really think that some sort of conversation about adaptive or responsive architecture is really intensiting. Like design that his a direct reciprocal dialogue with it's users. Maybe you're simply critiquing static or unresponsive design and that potentially grows into a bigger conversation about obsolescence and the role of the modern architect? I don't know... just throwing stuff out there.

Krista Wilson <wilsonkri@udmercy.edu>

Wed, Am 19, 2013 at 11:54 AM

To: Elizabeth Grabowski <grabowskielizabeth ggmail.com>

Hi Elizabeth - lots of thoughts you have going on.

I would try and stick to a few sentences -like where you ended off and think of all the other writing you did as part of the process.

What really caught me is what you defined as the role of the architect and how an architect communicates with humans in general (I would be careful of calling people "norms" - what is norms?).

redia - how does this impact communication and relationships with the architect and the population? You could defantly do a lot of models and tests of making staff to see what the best ways of communicating are. Part of your thesis year could be using a communication process you develop to design a space that is "immeasurable". Is the product better? Is the architect and the people who designed it a reflection of the process yet still beautius?

In regards to the role of the architect and the measurable and the immeasurable (meaning the person and their interactions with the architecture is what makes it meaningful). Louis Khan wrote about this... quote below. If you research this quote you will find a lot of writings on this topic.

"A great building must begin with the unmeasurable, must go through measurable means when it seems to perfect the second is being designed and in the end must be unmeasurable."

those are just some things that come to mind now...I guess I would look into reading some of Loius Khans work and see if that spurs anything.

Im always interested in the thesis year as a way for you to test a new process of working. I think the process of working is something that can be carried on past your thesis.

We can talk more about this later or if you have any questions. Thanks for including me in your search for feedback! continue the good thoughts...

(Quilled text Hidden)

Anthony C Martinico <martinac@udmercy.edu>
To: Elizabeth Grabowski <grabowskielizabeth@gmail.com>

Sat, Jun 22, 2013 at 3:15 PM

Hi Elizabeti

A very nice addition to your thesis idea. It contextualizes your thinking well, but I don't know if it narrows down fid like to discuss your thesis ideas in person.

I think I will have a meeting either Tuesday or Wednesday next week; the timing is still up in the air at this point. Would it be possible to meet Thursday? I have a dentist appointment in the morning but I think I can make it to the university by 12:30 or so? Does that work for you?

Tony



gauzatich

systems, ever changing a people use What do around the was solving to solve and thought the dichoost or into the signing. Agrice . for animal . han a lachotimen her can you made arraided and un compositable lisio " Berrds! Crustes. THEM alleys Ant To 3/10 Checke

Best regards.



Time in flux













EVOLUTION THE BEGINNING

Syllabification: ev·o·lu·tion Pronunciation: / ev lo oSH n /

NOUN

1. The process by which different kinds of living organisms are thought to have developed and diversified from earlier forms during the history of the earth. The idea of organic evolution was proposed by some ancient Greek thinkers but was long rejected in Europe as contrary to the literal interpretation of the Bible. Lamarck proposed a theory that organisms became transformed by their efforts to respond to the demands of their environment, but he was unable to explain a mechanism for this. Lyell demonstrated that geological deposits were the cumulative product of slow processes over vast ages. This helped Darwin toward a theory of gradual evolution over a long period by the natural selection of those varieties of an organism slightly better adapted to the environment and hence more likely to produce descendants. Combined with the later discoveries of the cellular and molecular basis of genetics, Darwin's theory of evolution has, with some modification, become the dominant unifying concept of modern biology

2. The gradual development of something, especially from a simple to a more complex form: the forms of written languages undergo constant evolution

- 3. Chemistry the giving off of a gaseous product, or of heat.
- 4. A pattern of movements or maneuvers: silk ribbons waving in fanciful evolutions
- 5. Mathematics, dated the extraction of a root from a given quantity.

"SOMETIMES THE PROBLEM IS A RATIONAL ONE AND SOMETIMES IT IS AN ARTISTIC ONE: WE ALWAYS MAY BE SURE THAT EVERY MAN-MADE THING ARISES FROM A PROBLEM AS A PURPOSEFUL SOLUTION." 121

THE SHAPE OF TIME

Origin:

Early 17th century: from Latin evolution(n-) 'unrolling', from the verb evolvere (see evolve). Early senses related to physical movement, first recorded in describing a tactical "wheeling" maneuver in the realignment of troops or ships. Current senses stem from a notion of "opening out" and "unfolding," giving rise to a general sense of 'development'. []

AUTHORS NOTE

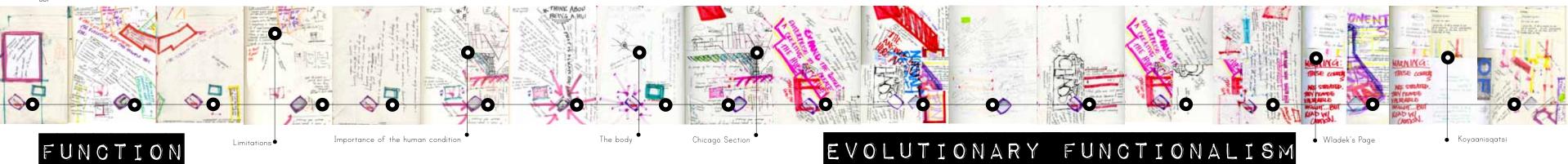
Evolution: the process by which things change as they are subjected to environmental and physical pressures





- [1] "Definition of evolution in English: evolution." Oxford Dictionaries. N.p., Web. 27 Mar 2014, http://www.oxforddictionaries.com/us/definition/american_english/evolution?q=evolution
- [2] Kubler, George. The Shape of Time. United Stated of America: Yale University, 1962. 7. Print. >.





Syllabification: funcition

Pronunciation: / f NGkSH n/ NOUN

- 1. An activity or purpose natural to or intended for a person or thing: bridges perform the function of providing access across water. Vitamin A is required for good eye function
- 1.1 Practical use or purpose in design: building designs that prioritize style over function
- 1.2 A basic task of a computer, especially one that corresponds to a single instruction from the user.
- 2. Mathematics: a relationship or expression involving one or more variables: the function (bx + c)
- 2.1 A variable quantity regarded in relation to one or more other variables in terms of which it may be expressed or on which its value depends.
- 2.2 Chemistry: a functional group.
- 3. A thing dependent on another factor or factors: class shame is a function of social power
- 4. A large or formal social event or ceremony: he was obliged to attend party functions **VFRB**
- 1. Work or operate in a proper or particular way: her liver is functioning normally
- 1.1 (function as) fulfill the purpose or task of (a specified thing): the museum intends to function as an educational and study center

Origin:

mid 16th century: from French fonction, from Latin functio(n-), from fungi 'perform'.



AUTHORS NOTE

Function: the designed intention or human use of an entity

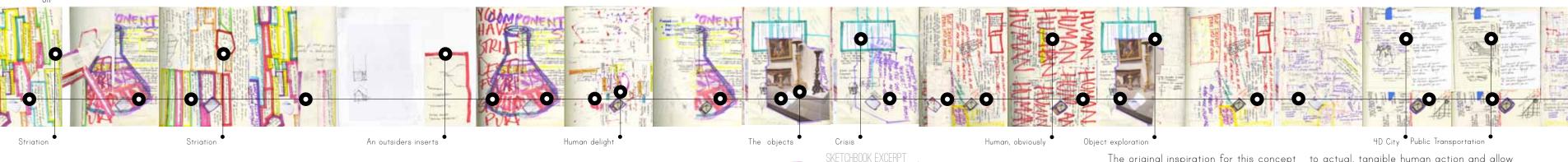
Dictionaries. N.p., Web. 27 Mar 2014, http://www. oxforddictionaries.com/us/definition/american_english/

The particular design process discussed in this thesis has been termed evolutionary functionalism, which is the recognition and interpretation of existing habits of human behavior that influence the designer to explore the potentiality of human action. Organisms evolve in an ecosystem according to different environmental conditions under greater pressure to change in order that pressure or demand change. The process of evolution is chronological, but not linear. This means that the evolution of an organism occurs in time, but does not occur at a designated rate of change or with a preordained outcome. Scientists can only predict the future evolution of organisms and trace the results of past conditions to adaptations. Evolution is also site specific because conditions of one environment might affect an organism to change differently than if it was in another environment. An organism is subject to evolution based on whatever environmental pressure presents itself. There is no goal or ideal form in evolution; it is simply a physical response to environmental conditions. For

clarification consider the following scenarios:

In a stable environment, organisms may slowly evolve as different conditions present themselves. There is no immediate crisis that requires the organisms to adapt quickly. However, in the event of a significant change to the ecosystem the organisms are to survive. For example, an ice age or a new species introduced to an environment disrupts the ecosystem's rate of change. The organisms within the environment either live or die depending on their physical attributes, and the surviving organisms pass on their genes and create an adaptation. Therefore, not only is the rate of evolution dependent on the conditions that present themselves, but it is also simply a formal and functional response to different conditions, not an effort to be an ideal organism.

have longe 2975 organism a publicle species bosic structure/function 1. metabolism reprodu 100 hentre, museum) Tocompley ways or fleppers niche in intove that change The envir chaye nysicality, theate objectivism, obscurity I see you niche in ho



Evolution as a model can be applied to the design process through the exploration of the existing functions of spaces, objects, and other man made phenomena; hence, evolutionary functionalism. The experiments documented in this thesis attempt to apply this theory through architectural process.

The function of a designed entity is subject to certain external environmental pressures, primarily human expectations and use. The form and function of objects has developed throughout history based on a variety of pressures, which will be explored throughout this thesis. Objects evolve by the hand of the designer as they respond to these pressures. Designers can recognize these pressures as an opportunity for innovation, to encourage a design to evolve more relative to its environment and function.

you have been thinking of experience as one human? Bung What does it mean to be a part of a group? mutual understanding. Vanutionary Functionalism: ALT N When does watering

The original inspiration for this concept was developed from a computer program called ReCAPTCHA. CAPTCHA is a computer program that distinguishes users as human or computer. The original developers of CAPTCHA used distorted images of text as data input that could be interpreted by a human user, but not by automated programs typically created to generate spam. Every day approximately two hundred million human users spend roughly 10 seconds interpreting CAPTCHAS adding up to a total of 150,000 hours of human use [1].

ReCAPTCHA is an effort developed by Luis Van Ahn and the School of Computer Science at Carnegie Mellon University to channel this human effort towards a greater good. The innovative redesign of a CAPTCHA allowed human interaction to become more productive by digitizing and archiving books, newspapers, and old time radio shows through the interpretation of blurred text by users, making this information accessible world wide.

If how humans "use" things can be applied to non-physical human action on the inter web, it could also potentially be applied

to actual, tangible human action and allow designers to create objects and architecture to be more impactful based on the use of humans

Hence, evolutionary functionalism became an exploration into the existence of everyday objects and spaces, explored as a design method allowing the human condition to be illuminated further through the hands of the designer based on their observation of real world users. The key to designing for this condition is not to create a completely new design, but instead to create an evolution of the original existing context. Much like the evolution of CAPTCHA to reCAPTCHA. the identity of the "thing" is still intact, but the way in which humans interact with the online system was analyzed as a design asset. In the case of reCAPTCHA, the design could be considered crowd sourcing or taking advantage of the actions of a mass quantity of people. However, evolutionary functionalism can be examined on multiple scales, including individual use. How one individual interacts with a single object can influence the objects purpose and be used as a design asset.

A CONVERSATION IN THE POOL: A BIG JUMP

EB: Do you remember those examples I gave you...

MOM: No.

EB: :-/ Well the first was ReCAPTCHA, which is a code that proves you are human to the computer software, but someone made more than what it is: blurred passages from books, radio shows, magazines are interpreted by users and turned into an online database.

DAD: Huh, that's interesting.

EB: Yeah, what I am doing is something like that but more some how. The second example was an imaginary transportation system that requires bricks as tickets of passage. The station would be in an area that needs demolishing. As people used the station the buildings would be demolished. The third is trash cans at Taco Bell...

MOM: Oh! I get it! The ones that talk back when you throw things out?

EB: :-O YES! (This never happens... MOM never knows what I am talking about when I describe my projects... I had to take advantage of the situation!)

MOM: And everyone cleans up and throws things out because it is fun?

EB: :-O YES! But what I am doing is all three examples combined but some how more...

MOM: Yeah...yeah...I got it.

EB: So then let me explain this. I am reading a book. It talks about potential. Say I have a pen. The fact that I define it in itself limits its potential. This one thing can be linked to thousands of other ideas. It is much more than a word or a writing utensil. Anything can come from it beyond what we think it should be. The pen with one word and one purpose is striated [1]...the grid... the one controlled existence. But when that pen becomes more and is subjected to unlimited possibilities, that thing moves beyond the grid and becomes smooth!

MOM: Huh. I think striated.

EB: But do you get it?

MOM: Yes. Its very cool.

EB: So what am I doing?

MOM: Your making something more than it is... its... its function.

EB: What would you call it?

DAD: I think its evolution. (DAD is a biologist) The things you are changing are doing so because of the environment they are in and there is pressure for them to change. Its like adaptations.

Evolutionary Functionalism.

EB:

[1] Deleuze, G., & Guattari, F. (1988). A thousand plateaus. London, New Delhi, New York, Sydney: Bloomsbury.

ANIMATION!

death, usability, physical, tools, place, "the people".

The process of the architect is in fact the deciphering of the design through experiment communicating with "the people." This is not a strict, outlined, repeatable occurrence, that if done correctly, is a link between the past and the future.

What is "communication"?

Maybe this garden is not a garden, maybe it is an egg.

The architect is not only communicating with "the people" but also with scale; object to an entire city. The architect must communicate with the system. It is an under abstract substance of design. Not everyone is an architect because not everyone can reand no architect reads the system in a similar manner and not every architect makes spaarchitect knows there is not an answer to a problem and anyone can become an architect.

The architect communicates by relating to a subject. Similar to an artist, the architect must see the existent has new way to ensure any project's validay. The project must be truthful, and the architect knows and first when it is not

ice. But every

Communication is concrete, abstract, and personal to the archaect and the project and the system. Communication is verbal as well as a physical experience. By communicating with people and with the site the architect's influenced, influence is then interpreted into a physical form. That form has been thurby the next be untureful. Any lower of expression, particularly ones that release control are good methods. A glain painting, videography, performance, etc. The process of the architect is communication which is a journey.

What is "functionality"?

It is possible to hide behind aesthetics. But this is a hollow architecture. It has no substance and it is not a part of humanity but a fleeting functionality. The architecture should be living. It should breathe from the system once the architect gives it life. The building changes and is what "the people" need. What function thould this be then? I am not sure what function the people life. I'm not sure if there should even be a function.

I have looked at churches as a research basis on how to coming the formula of contains remnants from many different architectural periods. It is among the formula of the f

Notes:

I am interested in potentially working with nature as it is a medium lacking between I do not want to design a park but perhaps an "incubator." An incubator is

TWILL ALL COLLE

Pubmission I have decided to attempt organize my thoughts from my sketch book presentable concept. I have many questions and am not interested in searching for I am interested in designing experiments to help me find the answer and using this — From this point I plan on creating a diagrammatic representation of my thoughts lates to the other. This Sound'S GREAT! | WOULD CANTIEN TO BE REGORDES IN

YOUR PROCESS THOUGH... MAKE SURE EVERYTHING YOU PRODUCE HAS
INTERNY & PURPOSE . SARH INVESTIGATION SUBJECT SOME THINKS
CONSTRUCTIVE Architecture: WILL BE DISCARDED, WHEREAS OTHERS WILL SERVE AS
A BASIS OF MODEL FOR PUTPLE INVESTIGATIONS TODULOUPING.

y to apply the architectural design of space to a building or city or object to that if one were to single handedly inspire a population to reconstruct a city by advantage of their already existing habits and implementing a design process? Setting up a loal, the architect recognizes a problem and designs with the community the people.

goal, the architect recognizes a problem and designs with the community/the people/ the population/ the existing context as the solution to that problem. For this discussion, I will call them "The People." The architect would not have a specific intentional outcome but would instead create a social experiment utilizing "the people's" habits and however the architect decides to communicate with them.

YOU SHOULD WATCH THIS VIDEO: ALASTAIR PARVIN "MECHITECTURE FOR THE PROPER"

BY THE PROPERTY

The people become part of the architecture whether intentional or not. They cannot be defined but only estimated. You can assume that if you plant an architectural element in a specific area research would suggest a certain demographic would use it. However, over time that demographic would change and that architecture may or may not be relevant.

The architect loses control. All the architect can do is create a potential plot line. People can remake or demolish the building as they use it.

For example, say in some pretend world there is a transit system that requires everyone pay to use the public transit with a brick. The stations for this transit center would be located near abandoned spaces. Young professionals, kids, old people, everyone, would take a brick from an abandoned building and use it as a token for transport. As the transit system was used the people would be demolishing abandoned buildings and removing a monetary strain on their pretend government. Once the area was clear of abandoned structures, the function of the station would change. It would either be mobile and move to the next plot of demolition, or it would become a beautification station. Now instead of a brick as a token, riders must place a flower.

What is "process"?

Who are "the people"?

CONSTRUCTIVE A HARRYTINE POR YOUR

The architect cannot control "the people". The architect must not try to control "the people".

Instead the architect becomes a negotiator and communicator between design and the people. The architect's process does not belong to them. The architect must admit that they have little control. However, this does not mean that the architect is weak. An intentional system is developed for "the people" to be a part of. This includes many things: the infrastructure, materiality, dysfunction, form, control, time, dimensionality, abnormality, history, incubation, organization, systems, retroaction, context, documentation, science, humanity, relevance, physicality, theater, discouragement, static, marketability, graphics, presentation, urban, physics, objectivism, obscurity, life, art, environment,

Instea archit Howe people

Bratest Part

I am interested in maximizing the profitability of the architectural process.

I am interested in making as much as I can. I want to push the limits of what it means to present architecture. I also want to reevaluate process by making GIANT site paintings, GIANT site models that are decomposing plant like material that changes through time and can be an ignited experiment.

I am interested in modeling process in 3 dimensions.

Next Steps:

I would like to read some books. Any suggestions??

I am going to make things.

IN GENERAL. THINK IT'S GOOD TO BE THINKING ABOUT PROCESS & TECHNIQUE, BUT I WENCON'T LET THAT DICTATE THE PROJECT. IN OTHER WORDS, USE WHATEVER MEDIUMS NORE BEST OF MAKE THE MOST SCHOOL IN COMMUNICATING YOUR IDEA(S). KEEP WRITING & DEACHY THROUGHOUT THE SUMMER & ATTEMPT TO NARROW YOUR CURIOSITIES INTO A RESERVEN TOPIC/THEMS OR A QUESTION/STATEMENT THAT SITUATES YOURSELF IN A BROADER CHITEXT.

> I have had a bit of mental clarity. I and this to the end of my

libed I was solving too dayly problems. If given a

was not going to one complying, including world

I don't want to cut or remove any of the issues I choose of a major issue I am most interested in

ecided donce my these year I want to have as much

> follow but that is where I will bee

ntervention fun to benefit a space. Just a though perbage cans

> How can every scale of design influence people in the way from an

> the space > as well, A way to control this issue is to compecificate rely on

observation and measurables but to include immeasureables and
 communication and balance them. Also to realize as an architect I do

> control of the result of my process.
> I want the small actions of many to influence and be a part of the objective of the building. The architecture becomes a tool to the flublic. The function of the building is trembre to utilize the [Quoted taxt hidden]



a tool to more a rinclude people in their use and I will need to inderstand wast they are from other sources. Making an architecture reathers might inspire people to keep an area clean. (I

be dea from the taco ball garbage cans that spoke. An little kild I seculdithrow our every place of garbage in the whole from to hear the garbage can.

Scientific method

From Wikipedia, the free encyclopedia

The scientific method is a body of techniques for investigating phenomena, acquiring new knowledge, or correcting and integrating previous knowledge. [1] To be termed scientific, a method of inquiry must be based on empirical and measurable evidence subject to specific principles of reasoning. [2] The Oxford English Dictionary defines the scientific method as: "a method or procedure that has characterized natural science since the 17th century, consisting in systematic observation, measurement, and experiment, and the formulation, testing, and modification of hypotheses. [43]

The chief characteristic which distinguishes the scientific method from other methods of acquiring knowledge is that scientists seek to let reality speak for itself, supporting a theory when a theory's predictions are confirmed and challenging a theory when its predictions prove fitse. Although procedures vary from one field of inquiry to another, identifiable features distinguish scientific inquiry from other methods of obtaining knowledge. Scientific researchers propose hypotheses as explanations of phenomena, and design experimental studies to test these hypotheses via predictions which can be derived from them. These steps must be repeatable, to guard against mistake or confusion in any particular



An 18th-century depiction of early experimentation in the field of chemistry.

experimenter. Theories that encompass wider domains of inquiry may bind many independently derived hypotheses together in a coherent, supportive structure. Theories, in turn, may help form new hypotheses or place groups of hypotheses into context.

Scientific inquiry is generally intended to be as objective as possible in order to reduce biased interpretations of results. Another basic expectation is to document, archive and share all data and methodology so they are available for careful scrutiny by other scientists, giving them the opportunity to verify results by attempting to reproduce them. This practice, called full disclosure, also allows statistical measures of the reliability of these data to be established (when data is sampled or compared to chance).

Overview

See also: History of scientific method and Timeline of the history of scientific method

Scientific freellod has been promeed in some form for a cert are thousand year and other process by which science is carried out. He Because science builds on previous knowledge, it consistently improves our understanding of the world. The process of the world in the process of the process

The overall process involves malayed at the strong out times (hypotheses), deriving predictions from them as logical consequerating from the carrying out experiments based on those predictions to determine a constant original conjecture was correct. [14] There are difficulties in a formulaic statement of method, however. Though the scientific method is often presented as a fixed sequence of steps, they are better considered as general principles. [15] Not all steps take place in every scientific inquiry (or to the same degree), and not always in the same order. As noted by William Whewell same degree), and not always in the same order.

What are aesthetics?

Beauty is immeasurable. It is an aesthetic quality. Another word which has a somewhat negative connotation in the field of architecture. Aesthetic is a function and a necessary part of design.

Technology is changing our perspective of aesthetic. As technology advances objects are less. and less dependent on form. For example, the I-phone does not have to be the shape it is. It could be round, triangular, anything. In fact, its form is almost dysfunctional, as it only mildly conforms to the human form. Compared to the phone's of historical times, the form of today's phones is potentially more attractive, but less useful. But the objects function, not related to its appearance is more advanced and complex than the phones of the past.

Is it possible to assume that as society

evolves it becomes more dependent on aestneut

Aesthetics is immeasurable as it differ

event. If something is made according on. I from person to person and time to time. Architecture is an soon as that moment passes it is irrelegand to the conditions it was made in at that very moment, then as rant. Then how do we make architecture relevant?

Designing with simply words is a super concept is also a superficial method of

licial method of design. Creating space according to a ruling concept and any human can provide a hany pdesign. Any human being in the entire world can create a relevance beyond the moment it was keer, I inique concept. But what gives that concept validity and se threated in? Beyond style?

Reason in today's society always wins ne equ

over emotion.

Tattoos are beautiful. Wrinkles are beining. unique. Modernism affected architect.

ven frautiful. Flowers are beautiful. Every perception of beauty is what would a punk rocker say to that me the into thinking that clean lines and white is beautiful. But What makes one thought more impogral into Dirt and grime and complexity are beautiful.

inmen ant than another?

What is time?

Time is a measurable. It can be quantiill relefied. However, it is considered linear according to an individuals perception of events. It is other humans life in that instance ancous of not linear. What happened to me at one instance relates every last. If a single string where to connecte space to what the earth is at that instance. One thing defines the one defined event, it would not be a but to that single moment to everyone in the world as it relates to rchitectine but a tangled ball of organized events.

perspective of your dog?

Time also defines aesthetics. Time all old church as discussed in submission

make things irrelevant. Time also makes the old iconic. An maintains its relevance to the culture one is a novelty when it is created. Because of its function it dialects of each time. What was irreleublic. The supports. That church, as time passes, collects the aesthetic I of the vant is only relevant because of its home.

What if history were written from the use of t

This book is a vessel of thought. In

artistic expression as a medium to influence "the people's" effect on design."

Understanding humanity and art as a method of communication through the architect.

Architecture is a combination of immeasurables and measurables. Is art/aesthetics/immeasurables the key to relevance in designing for human behavior?

Next Steps:

What do normal people like? Why do normal people care?

Design experiments of human behavior. How do you make architecture uncomfortable or comfortable?

Graphics.

How do you allow "the people" to become part of the design process?

Try an artistic expression communication.

Look at cases of extreme measurability and immeasurability.

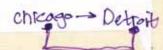
And then I realized I was solving too many problems. If given a year to explore, I was not going to solve everything, including world hunger. I had a mental cleansing. I don't want to cut or remove any of the issues I stated, but instead choose the major issue I am most interested in and then let the rest of the questions naturally filter into the equation. That's when I decided during my thesis year I want to have as much fun as possible designing.

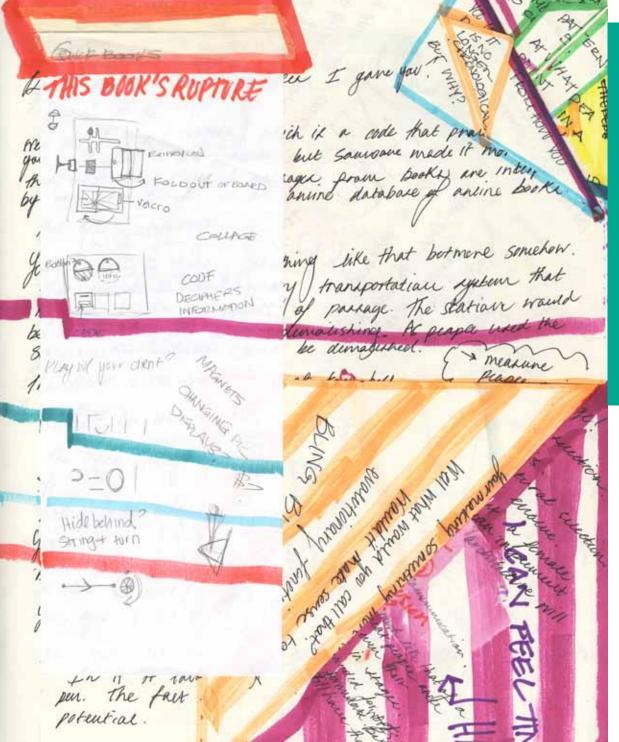
My entire thesis has been driven from the initial concept of a captcha being utilized to decipher illegible images of text to turn them into online databases of books. I am most interested in learning how a building or architectural intervention can utilize the daily habits or interaction of people within it to benefit the environment. There it is. The rest will follow but that is where I will begin.

I have mentioned beauty, which is still relevant. It is a tool to motivate or include people in their use.

I was timid at first because I am nervous of creating an architectural dictatorship. I want the people who use the space to benefit from the space as well. A way to control this issue is to not specifically rely on observation and measurables but to include immeasureables and communication and balance them. Also to realize as an architect I do not assume total control over the result of my process.

I want the small actions of many to influence and be a part of the objective of the building. The architecture becomes a tool to the public. The function of the building is therefore to utilize the people it serves. It becomes the tool of the public and in doing so involves them in its being. The architecture itself also adapts to the use of the people.







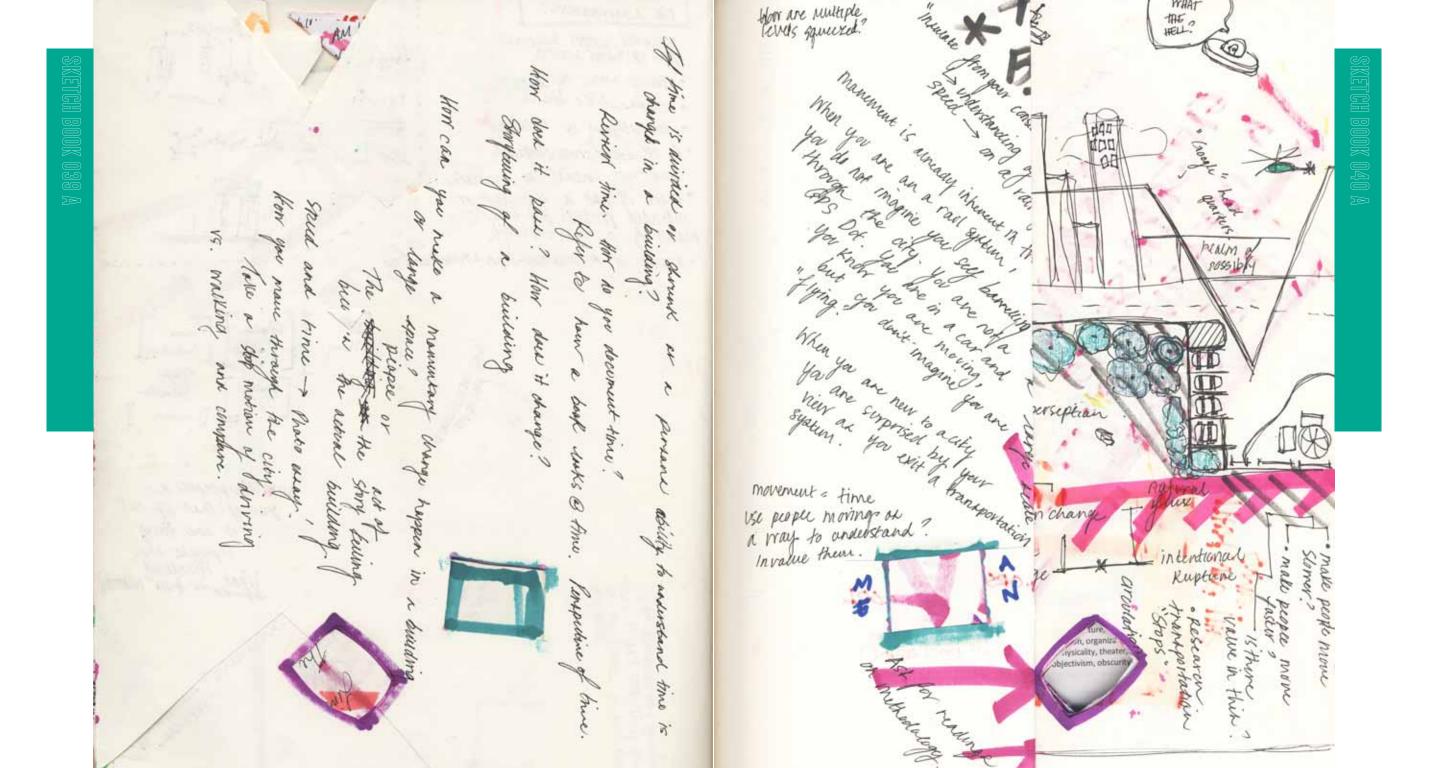




Diagram of process

INTRODUCTION AS A TOOL BOOK

Although evolutionary functionalism seems empirical thus far, the process of understanding and utilizing human habits is very complex and subject to human sentiment. Therefore, designers should embrace both the objective and subjective interpretations of this has been driven through the sketchbook, design process. The process is a series of questions that enlighten an unending path of questions. There is no end to questioning, and therefore no end to the process. There is no beginning, middle or end to this project; it is driven by process. This book is simply a frozen provides opportunity for the designer to see "snapshot" of where the questioning existed at this exact moment in time and place. It is an idea that has been brought forth through architectural investigation and is nurtured through the curiosity and intuition of the

We create in a world of great

designer.

complexity, and to understand where we exist within it we must open ourselves to its depth.

This process is driven by the designer. It is not linear, but there is a chronological pattern to the events that occur. The process and as such is experimental and propelled by discovery. The designer is unaware of what will happen next, or what the results of experimentation will be. This is an imperative component to this process as it beyond their own intuition. This process may appear unsophisticated, but it provides naive observation and intimacy with an architectural, spatial, or cultural relationship, resulting in insight for innovation related to human action.

By participating in this process, the designer's role is to reveal the potential in

the complexity of human existence, including seemingly mundane experiences. Nothing about this process is perfect. In fact, frequently in the details of imperfection are where the greatest leaps of process occur.

This page was important

The sketchbook was realized as a tool early in the process that illuminated these imperfections of human existence and became a source of information in and of itselfbecoming the very thing that was attempting to be achieved.

The sketchbooks of creatives are interesting objects as they exist without being subject to this design process- they are books of wandering imaginations, frozen thoughts on paper, capturing the mind better than any formulated words possibly could. They are uninhibited, loose, free and bound in a documented, consolidated format. They

can be referred to in the future, and always hold some sort of forgotten surprise. However, designers do not often realize what their creative energy is experiencing as they quickly jot their ideas which spill out as ink on paper. This creative bliss could be exaggerated far beyond the quick seconds of furious scribbling, and could become much more than purely a documentation process. It became a strategy of process, in which the designer could be aware and take advantage of these leaps in process.

Self organizing material

It became clear that the sketchbook of this process was no ordinary sketchbook, and will be referred to from now on as "the book." It would be used as a tool to not only document the project, but to propel it, taking advantage of the creative energy as it happens and to be aware of it as a designer.. to make it physical.

The sketchbook became "the book" in an unforeseen moment, during a meeting, while the designer was casually scribbling on a scrap piece of paper. She was thinking of the project and began drawing. The sketchbook

already existed, but was not in the near vicinity. The ideas that became physical on the scrap piece of paper belonged in that sketchbook- she could not forget them. Later after that meeting, she taped the scrap into the sketchbook and realized it was now "the book." All ideas regarding the process were interrelated and should become a physical manifestation in the book. That moment was the books rupture, (*see page 45) when it became more than a sketchbook

From then on "the book" was treated as more than a book and observed, analyzed and teased, pulling information from every action that the designer fed it. No longer was it a surface for writing, but instead a collage of actions: folding, cutting, stamping, taping, painting, ripping, etc. No prior intention, like the rest of the process, was created for the books desired form, for if there was a preconceived image, the results were quickly found to be unnatural and shallow, tainted with forced perspective.



PHYSICAL MANIFESTATIONS OF IDEAS

Ideas manifest themselves in the book in a variety of forms. As stated, no preconceived notion was used to create the idea. It simply happened, and afterwards was analyzed and noted to create "crisis" (* see page 044). The idea was no longer simply a method of physical documentation, it was brought to the forefront in the form of a new physicality which could not be looked over. Examples of common physical ideas and methods of using "the book" are included to depict the many different forms of ideas.



A SKETCH BOOK WITHIN A SKETCH BOOK

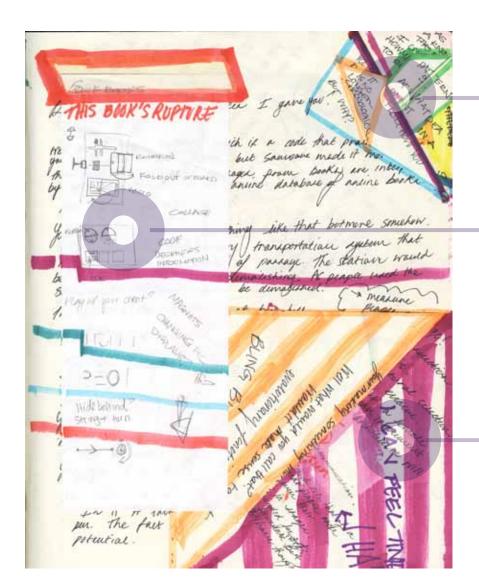
It was noted that many sketchbooks that had been created in the past had similar ideas that aligned or led to the process. They were then added to "the book."

WRITING IN MULTIPLE DIRECTIONS

Typically "the book" was used while participating in other activities like reading, listening, talking, or watching. This resulted in quick, spontaneous note taking and often caused many overlapping text styles and directions.

A FOLD TO ANOTHER PAGE

Often times the ideas of one page were connected to the ideas of the previous. Pages were folded to attach these ideas and look for results or further meaning in the connections.



FOLDS ON FOLDS

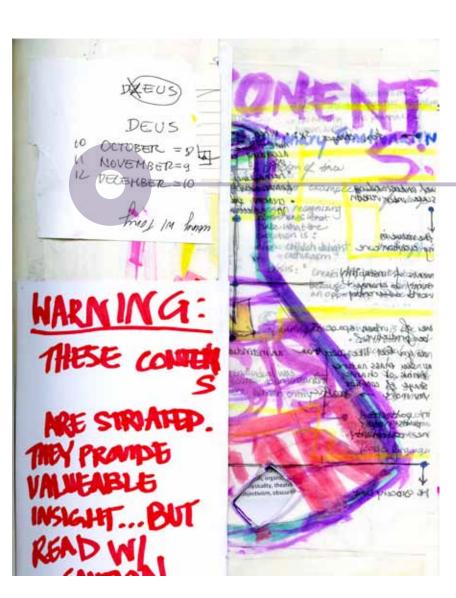
Folds were created in the midst of thought and often resulted in the physical representation of thought as the project progressed. As the folds layered the pages were lost amongst themselves.

EXTERNAL MATERIAL

Many components of "the book" were added, particularly outside notes created in spontaneity. Everything created in reference to the project was documented and woven into the book.

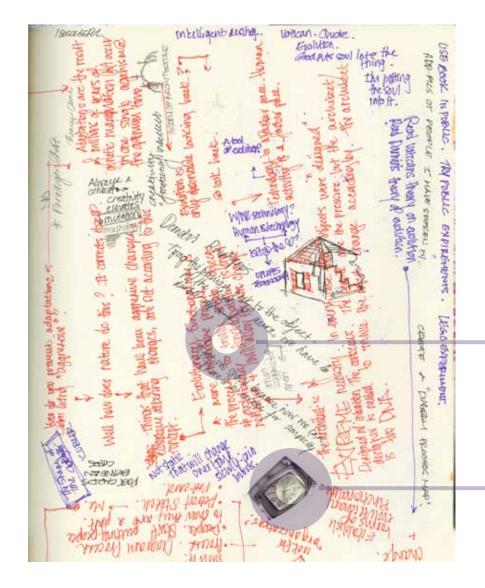
COLORS AS THOUGHT

The process of interacting with "the book" whilst in thought was often brought about when reading. To take advantage of the thoughts that surfaced, they were documented in folds, and then the fold was emphasized in an effort to define the thought and create hierarchy or show importance.



EXTERNAL SOURCES

Multiple times during the process, advisors, mentors, and curious spectators would write in "the book" in the heat of discussion as they frantically searched for a pen to jot a thought. This did not happen often, but when it did, it was collected and emphasized. This is Wladek's page.

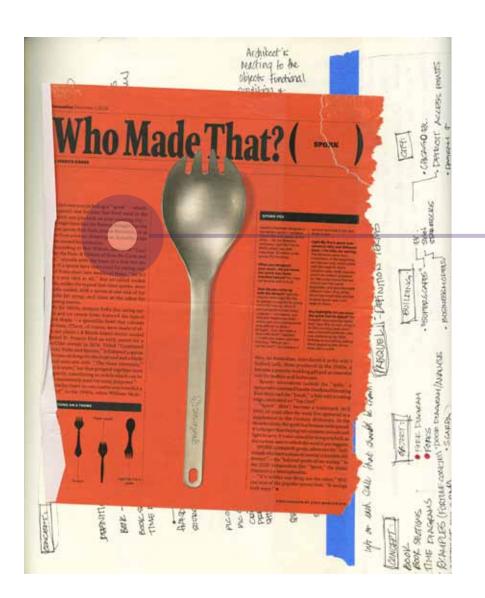


OVERLAPPING CONTENT

Thoughts often overlapped other thoughts, creating complex overlays

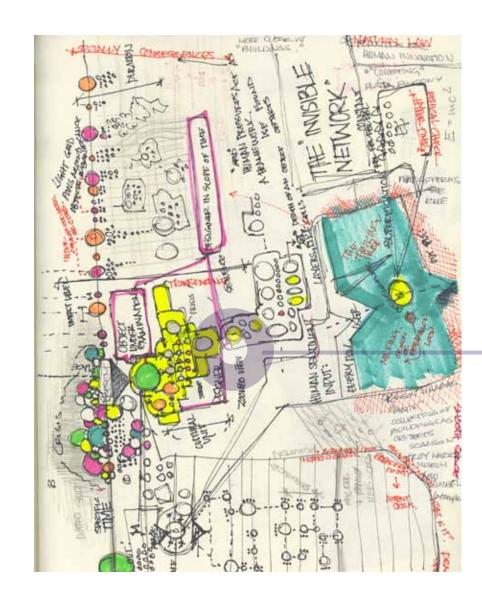
OBJECTS

When they proved important, objects themselves were mixed within the book, which became both a way finding tool and a reminder.



EXTERNAL SOURCES

External sources- pictures, articles, etc.- were often added to "the book."



DIAGRAMMING

"The book" became a method of working through diagrams in their early stages, which constantly evolved and found themselves reentering "the book."

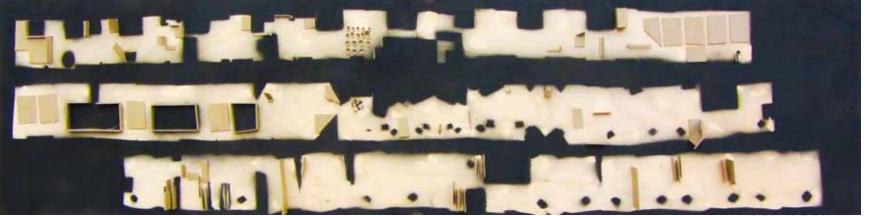
INVESTIGATIONS OF "THE BOOK"

The curious nature of the development of "the book" showed interesting sectional qualities and were investigated in the following sketch problems. It was concluded that not only did this project develop more quickly in section, but working in section also illuminated other steps of the process.





In order to understand the spatial development of thought within "the book", a section was created by following the folds of each page. The result was a very spatial, building like tectonic. This observation illuminated the importance of sections towards the development of the process of evolutionary functionalism as they are the best graphical representation of time and place, as well as the most dynamic form of documentation. After this observation, designing and observing in section became a point of interest.

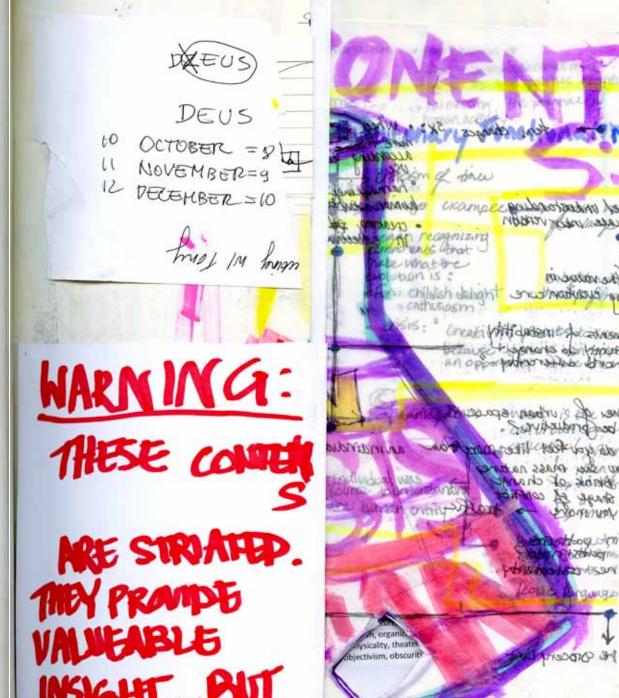


SECTION OF "THE BOOK"

Creativital desent de discussion totales de la company de

new of simbanne

HE CHOCER





INSIGHT... BUT





Koyaanis qatsi:

SOYON

Ko. yaa. nis gatsi

OCTOBER = 9 Life in turmoll 3) Life

OCTOBER = 9 Life in turmoll 3) Life

OCTOBER = 9 Life balance 4) (Life disintegrating

NOVEMBER = 9 Linother way of living 12 PEREMBER = 10

this I be from



WARNING:

THESE CONTEN

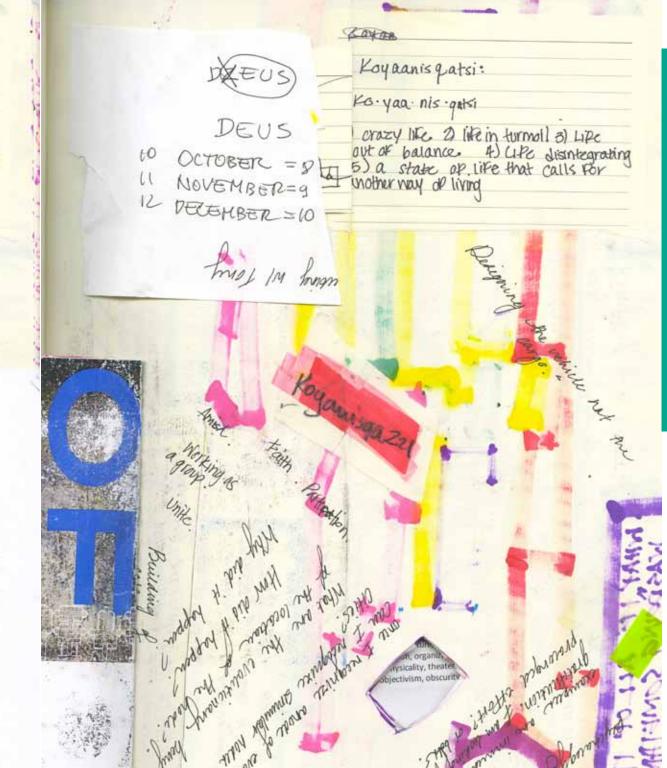
ARE STRUATED. MEY PRAMPE VALUEABLE INSIGHT...BUT

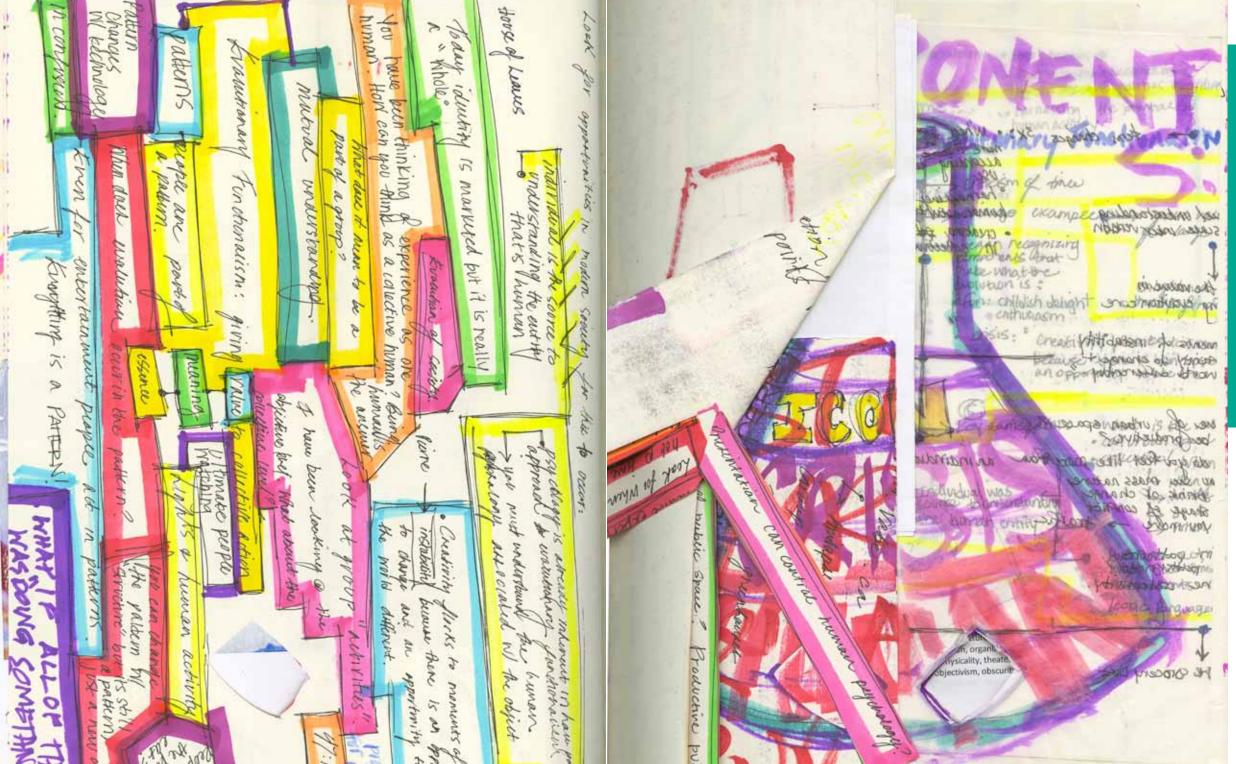
DEADINE

· · >suadsau · Provides dechnical.

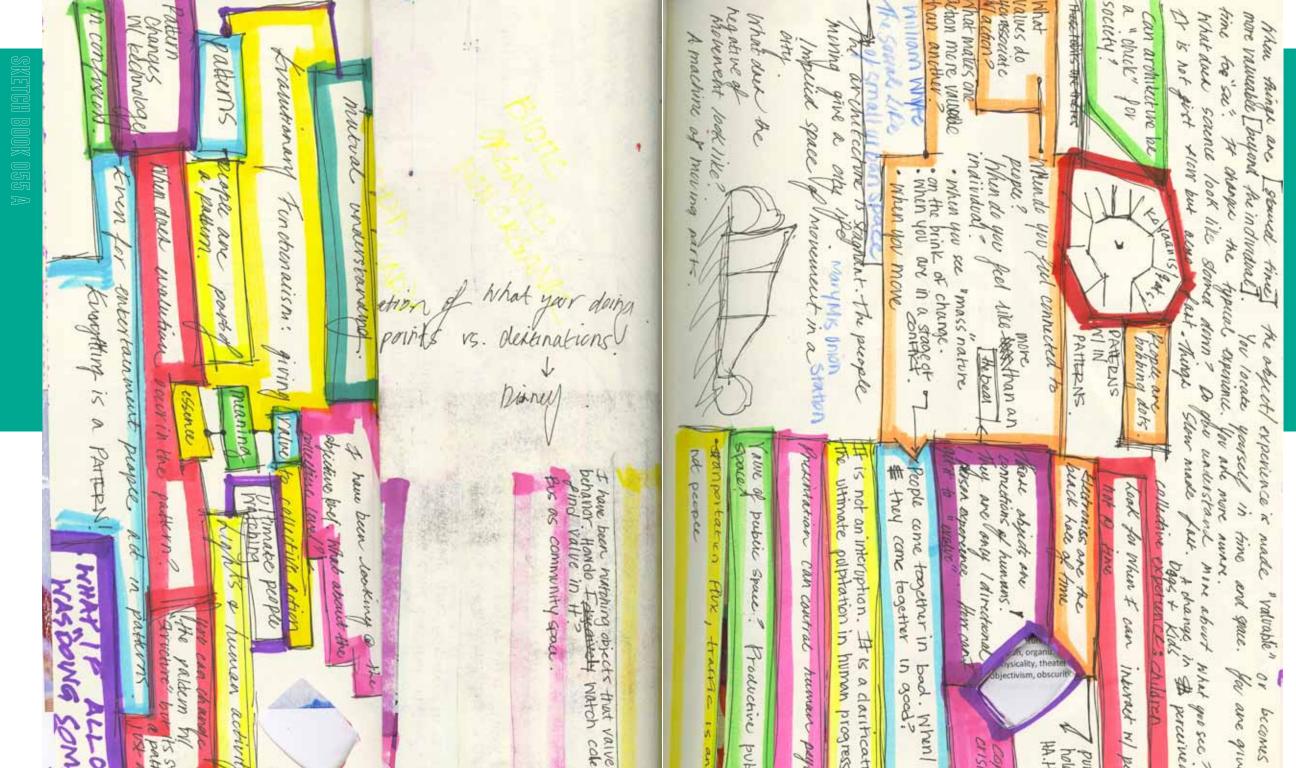
DOMESTIC V that the Midubelt is not Amo Decement

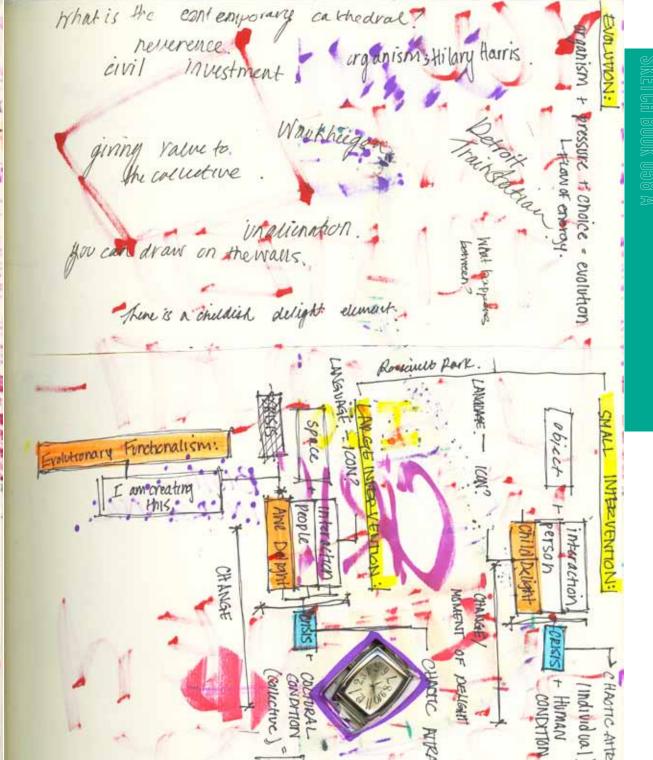
of ## a people I collective Hungaro +05/burzmobion 41





KETCH BOOK 056 A









INTRODUCTION TERMINOLOGY DIAGRAM

In order to study the evolution of the functions of man made things, it became necessary to investigate the interrelation of things in time and space to understand what conditions affect change and to observe what factors contribute to an object's existence. Through this investigation, a set of terminology and graphics were developed to understand and communicate these relationships.

"CONSIDERING EVERYTHING MAN HAS MADE- THIS WE MAY ACHIEVE SOONER BY PROCEEDING FROM ART RATHER THAN FROM USE, FOR IF WE DEPART FROM USE ALONE ALL USELESS THINGS ARE OVERLOOKED, BUT IF WE TAKE THE DESIRABLENESS OF THINGS AS OUR POINT OF DEPARTURE, THEN USEFUL OBJECTS ARE PROPERLY SEE AS THINGS WE VALUE MORE OR LESS DEARLY."

GEORGE KUBLER THE SHAPE OF TIME OBJECT

44

NOUN

Syllabification: ob ject
Pronunciation: / äbj kt /

- 1. A material thing that can be seen and touched: he was dragging a large object small objects such as shells
- 1.1. Philosophy A thing external to the thinking mind or subject.
- 2. A person or thing to which a specified action or feeling is directed: disease became the object of investigation
- 2.1. A goal or purpose: the institute was opened with the object of promoting scientific

study

- 2.2. Grammar A noun or noun phrase governed by an active transitive verb or by a preposition.
- 2.3 Computing A data construct that provides a description of something that may be used by a computer (such as a processor, a peripheral, a document, or a data set) and defines its status, its method of operation, and how it interacts with other objects.

Pronunciation: / b jekt /

1. Say something to express one's disapproval

of or disagreement with something: [NO OBJECT]: residents object to the volume of traffic

[WITH CLAUSE]: the boy's father objected that the police had arrested him unlawfully

Origi

Late Middle English: from medieval Latin objectum 'thing presented to the mind', neuter past participle (used as a noun) of Latin obicere, from ob- 'in the way of' + jacere 'to throw'; the verb may also partly represent the Latin frequentative objectare. [1]

[1] Kubler, George. The Shape of Time. Unites States of America: Yale University, 1962. 7. Print. >.

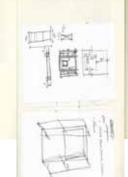
|1| "Definition of object in English: object." Oxford Dictionaries. N.p.. Web. 18 Apr 2014. http://www.oxforddictionaries.com/us/definition/american_english/object?q=object



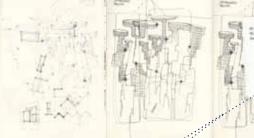


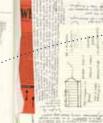






















The term **object** is typically assumed to refer to a small entity that can be held with human hands containing a certain set of physical qualities which identify it and contribute to its purpose.

The term object is in fact much more complicated than this simple definition suggests. At what scale does an object no longer become an object? The term object and the application of the study of evolutionary functionalism to such entities is scalable, and is not determined by the criteria of size. Instead the idea of an object presents itself as an identity related to other objects that exist in a **spectrum of objectivity**. Within this spectrum, there are a variety of scales and conditions that redefine objectivity.

On the urban scale, an entire city can be recognized and declared distinct by its building forms and functions. skyline. Does this mean that the skyline is an object?

One interesting characteristic of architecture in regards to the urban and building scale, is its analysis through drawings and models. Designers draw and create "object

sized" models in order to analyze the spatial qualities of cities and buildings. Through the objectification of space, architects are able to criticize or make physical the qualities they are investigating.

In addition, there are smaller objects that can affect an entire building or form of the city. For example, if a trash can were designed so that everyone were encouraged to throw out trash more frequently, the entire city scape would be affected by improved sanitation.

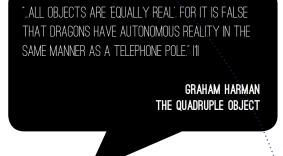
Materiality is one of the most influential objective forces that manipulates the form and function of cities and buildings. The invention of glass and the evolution of the components that are used to install it is one example that has transformed both urban and

An interesting component to the spectrum of objectivity, proving the complexity of the definition of an object, is the imaginary object. Fictional objects are described exactly the same as real objects. The imagination forms objective qualities for things that do not

The super napkin







[1] Harman, G. (2011). Introduction. The Quadruple Object (7). United Kingdom: John Hunt Publishing Ltd.



Quotes from authors

exist in real time and place. A horse can be described exactly the same as a unicorn.

Not only is the term object scalable, but objects themselves are comprised of multiple objects. Each object may consist of many smaller objects, and that object may be part of a larger component, creating a hierarchy of objects. For example, if a door was the object under investigation (hierarchy 001) in the image on the right, it would consist of smaller parts like screws, hinges, door knobs, panes, etc. It would also be part of a larger wall assembly, held within framing, perhaps with molding, a header, and the rest of the wall, which would be a component of the building itself.

OBJECTS ARE UNITS THAT BOTH DISPLAY AND CONCEAL A MULTITUDE OF TRAITS." III

GRAHAM HARMAN THE QUADRUPLE OBJECT

OBJECT HIERARCHY 004 OBJECT HIERARCHY 003 OBJECT HIERARCHY 00:

OBJECT HIERARCHY 001

EIDETIC IDENTITY

The basic identity of what the object is, which evolutionary functionalism attempts not to affect. Pure innovation may.

COMPLEX MANIPULATABLES

The complex qualities of an object's use and existence. Ex. a fork exists in a complex social setting, thou can it further contribute to this experience

SURFACE QUALITIES

Basic physical qualities that may not affect functional performance, i.e. color, form, etc.

EVOLUTIONARY FUNCTIONALISM

Evolutionary functionalism occurs by working with the object's complex manipulatable qualities.

Object specialization occurs on this level, although it may affect the surface qualities.

[1] Harman, G. (2011). Introduction. The Quadruple Object (7). United Kingdom: John Hunt Publishing Ltd.

OR JECT SC

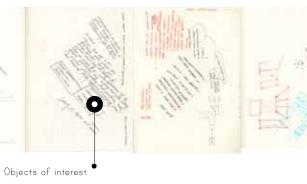


Notes from MCD students









EIDETIC IDENTITY

"Instead, we approach what Husserl calls the eidos of an object...For in the first place the object does not need its accidents, which can be shifted nearly at will without affecting the character of the object. Yet the same is obviously not true of its essential features, which the object desperately needs in order to be what it is. And in the second place, the accidental qualities lie directly before us in experience, but eidetic ones do not." [1]

The **eidetic identity** of an object is presented in the graphic on the page prior to this as the inner core of the object. It is the pure, definable identity of what an object is despite its physical qualities. It is the perceived notion of what makes that object what it is despite its size, color, texture, etc. The eidetic identity of an object may remain through history, although the physical qualities of the object may change.

SURFACE QUALITIES

Diagram of time and place

"...Numerous different causes can yield the same object, which suggests that the object is something over and above its more primitive elements." [2]

What Graham Harman refers to as primitive elements in this statement taken from "The Quadruple Object," is represented by the outer skin of the sphere of the graphic shown on the previous page. These qualities are referred to as **surface qualities**, as they are what users directly experience in the world. They are the shape, color, size, etc. of the object being observed. These are the object's displayed traits.

COMPLEX MANIPULATABLES

"Objects are units that both display and conceal a multitude of traits." [3]

The concealed traits of objects are defined within this thesis as complex manipulatables. These qualities are not observable through simple experience, but require a much deeper, conscious analysis of their existence. It is complex manipulatables that designers work with to affect the eidetic identity of an object. In turn, the complex manipulatables may affect the appearance of the surface qualities.

The complex manipulatables are not simply defined traits, but instead are complex, changing traits which are made evident by observation of the object in use. For example, a fork is a very simple object that acts like an extension of the hand to control food. Typically, forks are used as part of a social experience: dining. How could the recognition of this use of the object in a social setting contribute to its functional design?

SUPERFICATION

Superfication is when an object is designed to encompass more of its complex manipulatables. Through superfication, an object responds more directly to how a user interacts with it.

In the case of the fork, a designer may recognize the opportunity for a fork to provide entertainment when dining in a social setting. Another example of a super fork, would be a fork that detects the food allergens of the user before food is consumed.

The original inspiration for this thesis, ReCAPTCHA is the superfication of the CAPTCHA's original use.

FEEDBACK LOOP

The **feedback loop** is a form of self reflection where the designer seeks outside influence to confirm their assumptions of the observation of an object. The feedback loop originates on the most intimate level of the designer's relationship to an object. With a process that develops naturally and organically, it is necessary to maintain control of its direction by verifying that the observed conditions of the object's existence are truly what occurs according to the user.

The feedback loop is a check ensure that the actions of the designer's process are applicable to the object being observed. It also acts as an ethical check. When influencing the evolution of things in time and space, it is important to gain an in depth knowledge of an object's existence so that the designer can speculate the future consequences of changes. If everything became a super object, how would society be affected? Would people rely more on the function of things? Would objects lose

their cultural value? If the knowledge of superfication became applicable to weaponry, would the everyday object become a threat? The feedback loop acts as a method of creating questions outside of the individual's process that help to illuminate the societal implications of affecting an object.

Finally, the feedback loop acts as an additional source of information for objects under investigation. No single designer, no matter their talent and natural intuition, can think of every possible application of evolutionary functionalism to an object. The feedback loop encourages further exploration outside of the individual architectural process In reference to evolution, it acts as a form of natural selection, confirming traits of observable traits which may be passed on to the next form.

[1] Harman, G. (2011). Introduction. The Quadruple Object (27). United Kingdom: John Hunt Publishing Ltd. [2] Harman, G. (2011). Introduction. The Quadruple Object (16). United Kingdom: John Hunt Publishing Ltd. [3] Harman, G. (2011). Introduction. The Quadruple Object (7). United Kingdom: John Hunt Publishing Ltd.

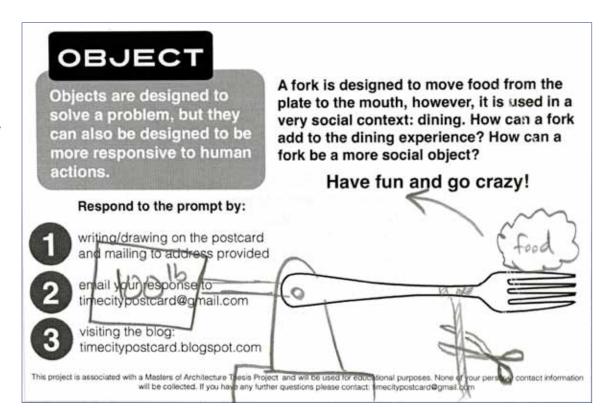
EXAMPLES OF THE FEEDBACK LOOP

There is no formula for the creation of a feedback loop. Initiated by the designer, the feedback loop should be implemented before conclusions are drawn about an object's existence. This allows the designer to progress beyond their own understanding of an object. The feedback loop can take many forms and is determined by the object under observation, the designer's method, and the way in which people use the object. A few examples of the forms in which feedback loops were initiated in this thesis are provided below.

The first feedback loop created was a series of postcards that were distributed in public places to individuals from a variety of backgrounds. The postcards included a prompt and an image which could be drawn on. The results were very successful, providing multiple new directions for the process to develop.

One of the most successful responses in this case, was a super fork that detected the allergens of a user before they consumed potentially harmful foods.

A few of the responses for this study are provided in the following pages.



OBJECT

Objects are designed to solve a problem, but they can also be designed to b more responsive to humar actions.

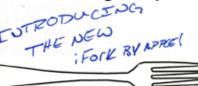
Respond to the prompt by:

- writing/drawing on the postcard and mailing to address provided
- email your response to timecitypostcard@gmail.com
- visiting the blog: timecitypostcard.blogspot.com

This project is associated with a Masters of Architecture Thesis Project, and will be used for educational purposes. None of your personal contact information will be collected. If you have any further questions please contact: timecitypostcard@gmail.com

A fork is designed to move food from the plate to the mouth, however, it is used in a very social context: dining. How can a fork add to the dining experience? How can a fork be a more social object?

Have fun and go crazy!



DON'T ASTE WHAT THE FORK ON TO FOR YOU, DIK WHAT YOU CAN TO FOR THE FORK!"

OBJECT

Objects are designed to solve a problem, but they can also be designed to b nore responsive to huma ections.

Respond to the prompt by:

- writing/drawing on the postcard and mailing to address provided
- email your response to timecitypostcard@gmail.com
- visiting the blog: imecitypostcard.blogspot.com

OBJECT

A fork is designed to move food from the plate to the mouth, however, it is used in a very social context: dining. How can a fork add to the dining experience? How can a fork be a more social object?

Have fun and go crazy!



SWIEF EXTENDER/STARER COPD

This project is associated with a Masters of Architecture Thesis Project, and will be used for educational purposes. None of your personal contact information

OBJECT

Objects are designed to solve a problem, but they can also be designed to b more responsive to human ctions

Respond to the prompt by:

- writing/drawing on the postcard and mailing to address provided
- email your response to timecitypostcard@gmail.com
- visiting the blog: imecitypostcard.blogspot.com

A fork is designed to move food from the plate to the mouth, however, it is used in a very social context: dining. How can a fork add to the dining experience? How can a fork be a more social object?

Have fun and go crazy!

Salad fork w/built in dressing

Respond to the prompt by:

writing/drawing on the postcard and mailing to address provided

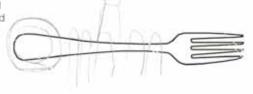
live a problem, but the

an also be designed to b

- email your response to mecitypostcard@gmail.com
- visiting the blog: timecitypostcard.blogspot.com

A fork is designed to move food from the plate to the mouth, however, it is used in a very social context: dining. How can a fork add to the dining experience? How can a fork be a more social object?

Have fun and go crazy!



OBJECT

Objects are designed to solve a problem, but they can also be designed to be nore responsive to human

Respond to the prompt by:

writing/drawing on the postcard 353 and mailing to address provided



visiting the blog:

A fork is designed to move food from the plate to the mouth, however, it is used in a very social context: dining. How can a fork add to the dining experience? How can a fork be a more social object?

Have fun and go crazy! Respond to the prompt by:

writing/drawing on the postcard and mailing to address provided

OBJECT

Objects are designed to

solve a problem, but they

can also be designed to be

more responsive to human

email your response to timecitypostcard@gmail.com

visiting the blog: timecitypostcard.blogspot.com

OBJECT

actions.

Objects are designed to

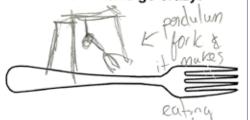
solve a problem, but they

can also be designed to be

more responsive to human

A fork is designed to move food from the plate to the mouth, however, it is used in a very social context: dining. How can a fork add to the dining experience? How can a fork be a more social object?

Have fun and go crazy!



OBJECT

Objects are designed to solve a problem, but they an also be designed to be nore responsive to human ctions.

Respond to the prompt by:

writing/drawing on the postcard and mailing to address provided

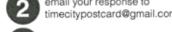
email your response to timecitypostcard@gmail.com

visiting the blog: timecitypostcard.blogspot.com

A fork is designed to move food from the plate to the mouth, however, it is used in a very social context: dining. How can a fork add to the dining experience? How can a fork be a more social object?

Have fun and go crazy!

ADD SPIEAKERC FOR ENTER TAIN MENT! O.O - TOUS OFSUR

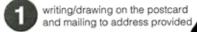


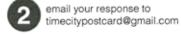
visiting the blog:

A fork is designed to move food from the plate to the mouth, however, it is used in a very social context: dining. How can a fork add to the dining experience? How can a fork be a more social object?

Have fun and go crazy!

Respond to the prompt by:







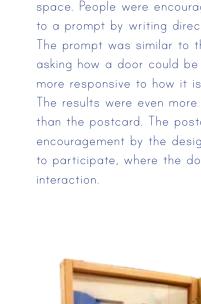
This project is associated with a Masters of Architecture Thesis Project and will be used for educational purposes. None of your personal contact information

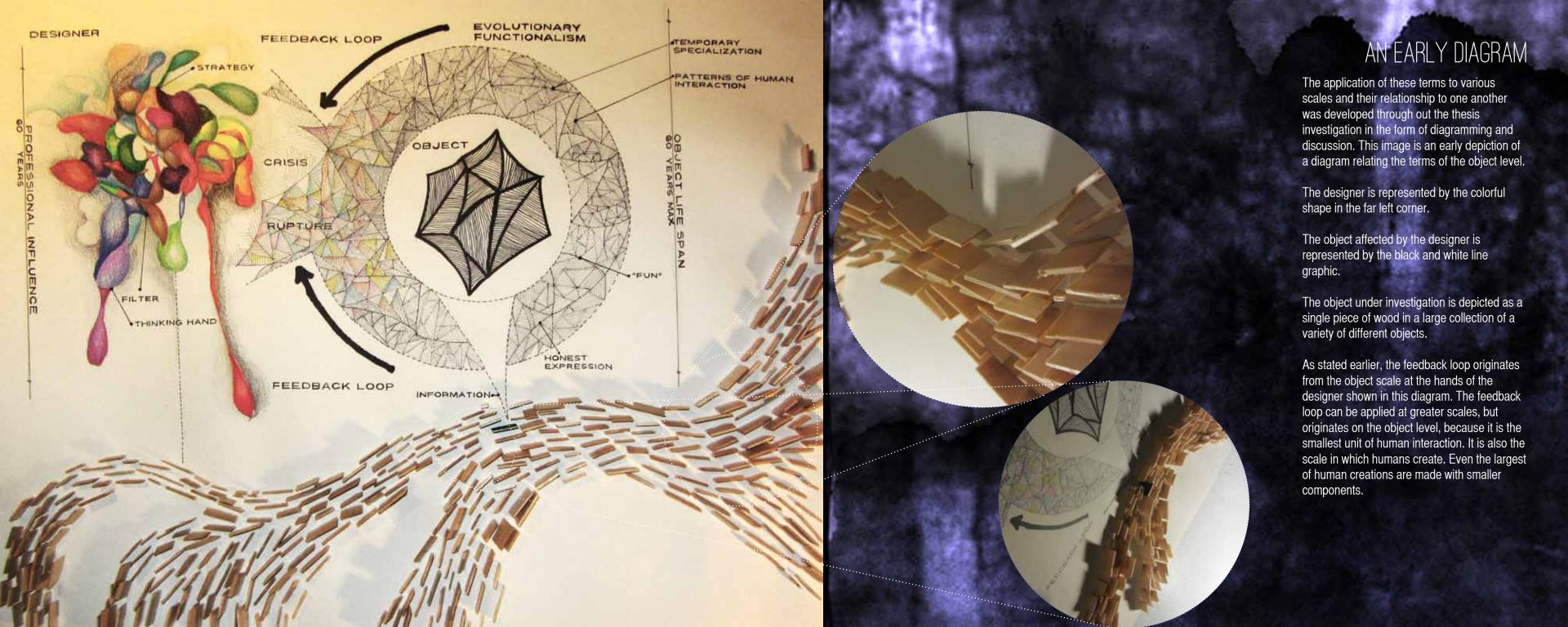
The second feedback loop created was a functioning door that was placed in a public space. People were encouraged to respond to a prompt by writing directly on the door. The prompt was similar to the postcard, asking how a door could be designed to be more responsive to how it is used by people. The results were even more successful than the postcard. The postcard required encouragement by the designer for people to participate, where the door itself inspired



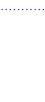








Questions and Replies About Today's Trends, Talk





Object dissection

THE INVISIBLE NETWORK

The invisible network is a term used in the article, "Can objects talk?" by Kristen Gallerneaux, the curator of communications and information technology at the Henry Ford Museum. The invisible network refers to the interconnected relationships of objects in time and space. Although formally and functionally some objects may seem unrelated, they are in fact developing under the same environmental conditions.

In order to more deeply understand an object's existence, the object can not be observed in isolation. There is value to understanding an object's place and its importance to other objects. Seemingly unrelated objects may provide information on an object under observation.

> [1] Gallerneaux, K. (2014, January 1). Can objects talk?. The Henry Ford Magazine, January-May, 7.



of eternity, and you just float along."

The objects in my curatorial care are essentially

a huge collection of "black boxes" -- a concept that

means the more seamless and successful a tech-

nology is, the more mystifying and opaque its inner

another exciting task is to figure out a way to reveal

the invisible networks among the collections, to al-

low patrons to see communications and IT devices

and think beyond their sleek shells (or messy tubes

and wires) and understand how they relate to ideas.

functions become to the everyday user. And so,

they form, and the variety of angles they can be looked at from. Part of the challenge of studying the history of media, information and communication is in knowing how to draw scattered data back together again, and how to weave a story out of it, to make it accessible and interesting - all the

while rooting it to the object in question. The microlevel details and histories of objects can be coaxed into connecting to big ideas. For example, the same "never look" gaskets used in the modest Star-Rite electric toaster were also used in the engine of the Spirit of St. Louis airplane. So stories, invention and to themselves — as users.

DED YOU KNOW? /

Jeannette Piccard's husband, Jean, was used as inspiration when naming Capt. Jean-Luc Picard of Star Trek.

her bushand. Jean (penter) researcher Dr. William Francis Gary Swann (in hatch) and Henry Ford Ford Airport. The Henry Ford has a number of artifacts from the flight (far left) in its collection

GALLERNEAUX

is the curator of communications and is also working toward. a Ph.D. in Art Practice at the University of California at San Diego and writes about the histories of architecture media, craft and dealers. On the weakends, you can find her playing the part of "object meets and back rooms "stuff." In the spirit of knowing a little bit about a lot of things. she would like to recommend Steven Connor's Paraphernalia The Curious Lives of Magical Things.

THE GRAND SCALE

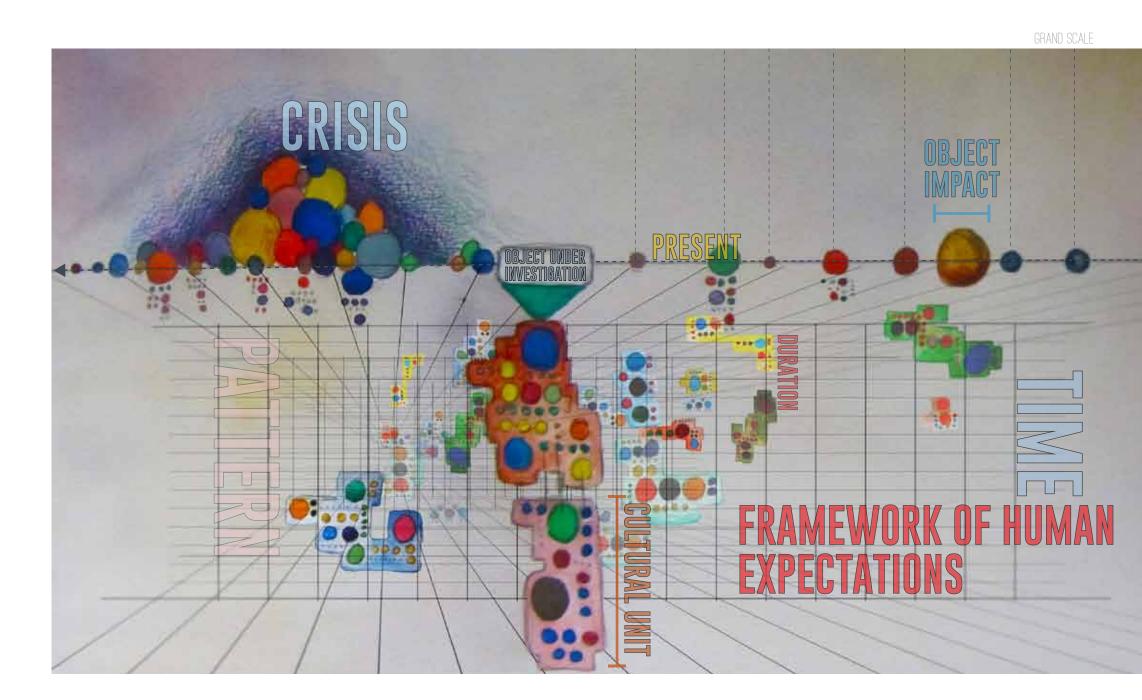
In an attempt to diagram the invisible network, the grand scale was created shown in the image to the right. The grand scale is a zoomed out view of the object scale, showing how objects interrelate to one another through place.

terminology developed that was applicable to the larger scale.

The colored spheres represent objects, containing all of the information and terminology of the object scale described in the previous pages. The larger the sphere, the greater the impact the object has on the future development of other objects and on society. The diagram is in constant flux. As time progresses the impact of objects may diminish. The objects are in groups outlined by colored shapes, representing the designer.

The designer could be a singular person or a group of people. Objects can not evolve with out the hand of the designer. The designer also learns as they interact with and create objects, suggesting that the next object they the work of designers in a particular time and create might be more sophisticated. Therefore, although the functions of the objects created While working on the grand scale, new may not be similar, they are interrelated because of the knowledge the designer has gained. For example, a designer may create a pair of scissors and discover hidden qualities related to its use. If the next object the designer creates is a bike, by association, the bike will be improved based on the designer's discovered knowledge of scissors.

> The X-axis is time and the Y-axis is place. The diagram was created in section to show the depth of objects that exist in past and present.



Time is an inherent component of

change and evolution, presenting itself as a

variable of progression. Using evolution as a

precedent, the rate of evolutionary change

in an organism is based on the potency and

critical impact of the pressures that present

themselves in an environment. In addition, the

amount of time that requires certain change

to occur is not always an exact quantity nor

is it an exact ratio. Designer's exist within a

complex spectrum of social influence from

both the dogma of the past and the vision

system, and their creations are a reaction

to the time and place in which they design.

When they enter this system and what is

happening within it is much greater than

the designer, however greatly he/she may

affect it. "The Shape of Time: Remarks on

the History of Things" by George Kubler, an

art historian, is concerned with the evolution

place. His approach towards time is more of

an observation of emergent patterns than a

is intermittent and variable. Every action is

definition time itself. "Historical time, however,

more intermittent than it is continuous, and the

intervals between actions are infinitely variable

in duration and content. The end of an action

and its beginning are indeterminate." [1]

of form in art and its relation to time and

of the future. They are woven into an existing

PATTERN

Objects and spaces do not have a traceable DNA, however we can interpret them based on their historical lineage and the time and place in which they were created. Kubler suggests that a more complex understanding of time is necessary in order to understand the development of "things": time is not the designation of a period, a categorization, or a biography, instead it is a complex whole of different clusters of events, people, and

objects that are all interrelated.

Each object or work of art has a sequence of prior works that can be traced or have some link of influence to its development. Kubler critiques the typical archival, systematic nature of understanding history, and instead suggests a more comprehensive and realistic method of understanding "things" in time. The historian depicts patterns in time from man-made "things" that emit signals or meaning that can be related to one another to develop sequences or common traits of their emergence in time.

CULTURAL UNIT

Kubler describes a **cultural unit** as a length of time determined by investigating the circumstances in which the object was created by the designer. For example, the typical designer's influence is relative to their professional life, which is usually about 60 years comprised of schooling or an internship, the development of a concept, the critique of the concept, and the refinement of the concept. Therefore, the emergence of ideas and change are relative to a cultural unit of 60 years due to the pattern presented by professional influence.

However, Kubler's perception of a cultural unit is dated. Due to the collective nature of modern society, objects are no longer created through the hands of one designer, extending the cultural unit far beyond 60 years. Instead of slowly passing on knowledge from the mind of a master to the apprentice, the knowledge of making has become accessible through the collective making process of corporations, entrepreneurs, and information that is more accessible to the masses through various modern data sources.

PRESSURES

The term **pressures** refers to the forces within an environment that encourage change. These pressures can present themselves with greater and lesser potency. In the case of evolution, a catastrophic event in an ecosystem results in a more direct change or impact on the organisms. In regards to design, there are a variety of pressures on human creation.

Designers do not create in a vacuum void of external influence; they are subject to the expectations of the people for which they design. Designers are not separate from the people for whom they design, which allows them to understand and respond directly to the pressures that the people of a time and place exhibit. Pressures are a collective influence over a designer when they create. This collective influence is not necessarily a voiced opinion, but more of a network of cultural implications associated with the thing which the designer is creating. How a user interacts with the designed object, the historical context of the object, a collective desire for change, and the future expectations for that object can all present themselves as pressures towards a design.

FRAMEWORK OF HUMAN EXPECTATIONS

These pressures play an important role for evolutionary functionalism. They create the **framework of human expectations** for change and create direction for the designer. To truly optimize evolutionary functionalism as a design method, understanding pressures and using them as a source of information is imperative to designing objects that are more responsive to the human condition.

At certain times and places in history, pressures present themselves with more impact, often perceived as cultural revolutions. In these times and places, the evolution of human creation exists at a greater rate. Noted by Kubler, "Whenever symbolic clusters appear, however, we see interferences that may disrupt the regular evolution of the formal system." [2]

CRISIS

These "symbolic clusters" or moments of flourishing innovation are an increase in human curiosity, referred to by this thesis as **crisis**, represented in the grand scale image by the cluster of spheres in the upper left hand corner. This curiosity is typically related to a particular way of thinking for a certain time, like the desire of painter's to explore perspective during the Renaissance. As painters in Italy experimented with perspective, the concepts spread through out Europe, resulting in a variety of techniques suggesting it is also related to a place. Crisis are more evident in urban conditions where the pressures for innovation are greater. The density of human interactions create more opportunity for pressures to present themselves because of the likelihood for creativity to emerge from collective thinking. Therefor, the urban condition is of particular interest in regards to evolutionary functionalism.

Although the term crisis is typically associated with a negative connotation, when applied to evolutionary functionalism, it promotes neutral change. The term crisis refers to a pivotal event of great intensity or impact in which the paradigm of existence is shaken. Objects, designers, people, places experiencing

[1] [2] Kubler, George. The Shape of Time. United States of America: Yale University, 1962. Print. >.

CRISIS CONTINUED

a crisis are more likely to evolve because they are under direct criticism. A crisis can exist in a variety of scales. A community could be in economic crisis, challenging its members to creatively seek a solution. A crisis may exist within the work of a design process when creating an object. An object typology itself may experience crisis when it is at the end of its usefulness as society progresses.

Experiencing crisis creates opportunity for change, and for this reason, the designer wants to put themselves in locations of crisis.

In "The Strategy of Conflict" [1] by Thomas Schelling, economist and professor of international affairs, there are advantages to interacting with cultures in crisis because of the opportunity for potential gain. "The Strategy of Conflict" primarily refers to international conflict, but the principles are applicable to design as well. Societies in crisis are less complacent and more open to propelling fast paced change. The desires of people are made more evident. A good example of a society in crisis is the green movement, or the desire of people to lead more environmentally friendly lives. This desire is motivated by the serious threat of an unhealthy ecosystem, and has manifested itself through green products, green ways of living, marketing, etc.

SITE SPECIFICATION

The meaning of place extends beyond the physical conditions of a location. The scalability of the concept of evolutionary functionalism infers that the idea of place can be found on multiple scales. This suggests that the concept is **site specific**, or relative to only one place and time.

On the object scale, a design may be site specific to one person because the design pressures created by one individual may be different than another. For example, a super fork for one person may be useless to another. A person with severe peanut allergies would need a fork that detects allergens, but to a person with no food allergies this super fork would have a useless additional function.

Culture is another example of site specification. The pressures from one culture to another may be completely different, effecting how people use objects. For example, not all cultures use forks for eating utensils. Some use their hands or other tools. Therefore it may not be necessary to design super forks for these cultures in the first place.

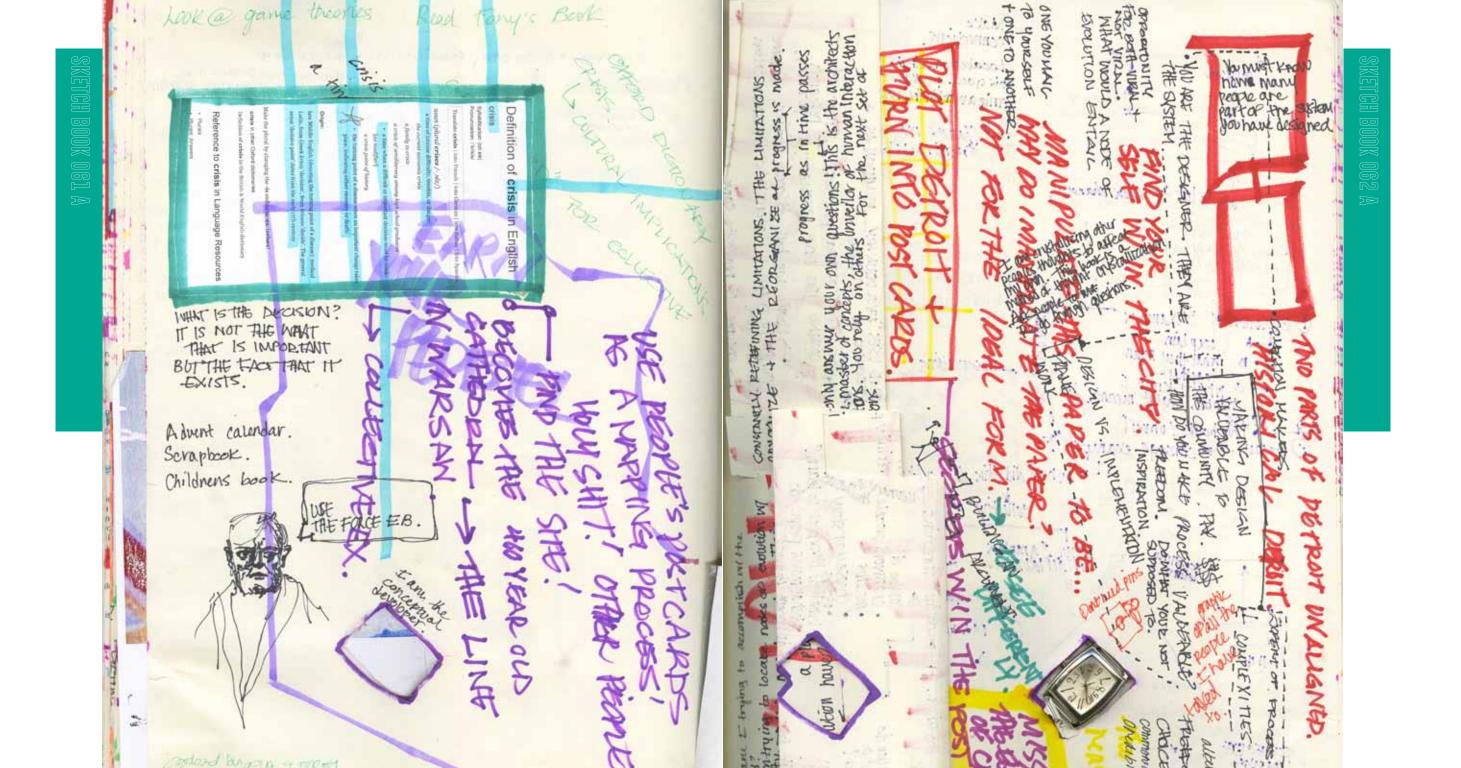
RUPTURE

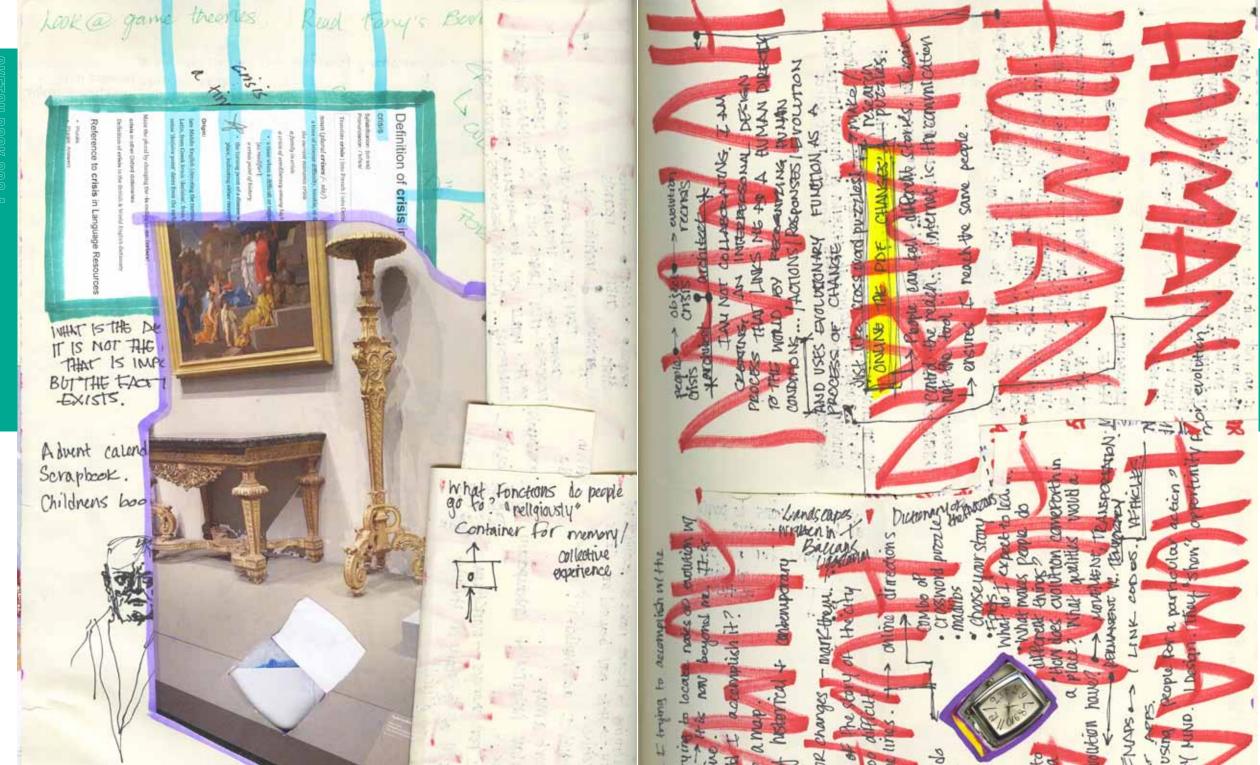
The term "rupture" [2], interpreted originally by Gilles Delueze in "A Thousand Plateaus," refers to the moment in which a crisis occurs. It is the cataclysmic moment of change. The rupture is one of the most concrete and observable terms of evolutionary function because it can be directly identified. An example of rupture for "the book" occurred when a drawing was taped to the pages. From that point forward the book was interpreted

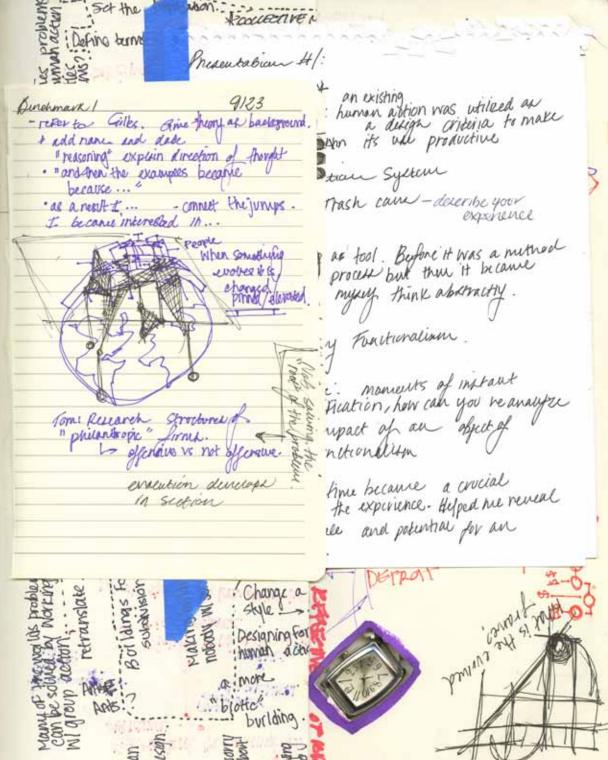
[1][3] Schelling, T. (1960). The Strategy of Conflict. Cambridge, MA; London, England: Harvard College. [2] Deleuze, G., & Guattari, F. (1982). A Thousand Plateaus. New York, NY: Bloomsbury Publishing Plc.

CARICATURE." |3|









22

DISSECT EXPERIMENT

In order to understand the application of evolutionary functionalism to the object scale and to test the terminology, a series of experiments were created to observe objects. The experiments were developed circumstantially as the process evolved allowing for modifications. As theoretical assumptions were made, the experiments enlightened the next steps of the process. The experiments were not pre planned, nor were the start and end a clear moment. Developed similarly to George Kubler's description of historical time, the experiments were performed in clusters of recognizable patterns. At the time of investigation, the patterns that emerged from the experiments were not known. The experiments provided in this section are organized based on the recognizable patterns that emerged while reflecting on the process at this point in time.



FORK

The first object examined was the **fork**. It was chosen because it is a simple object with a simple function typically made of only one material. The object was of interest because it had obvious opportunities for superfication as it is part of a complex social situation: dining. Logically, it was prudent to start with a simple object that existed in a condition ripe with opportunities for functional development so that observations would not be distracted by the complexity of the object and there would be many observable applications for superfication.



SUPER FORK



Through historical, formal, and functional investigation a general story of the fork was created in the form of a hand drawn graphic. The graphic was created without knowing what the final product would look like. It was developed in portions as different parts of the story were illuminated.



The fork, is unique in its development because unlike the spoon and knife its origin is less clear. The spoon developed from the early cupping function of sea shells and the knife from primal tools used for stabbing.

Early users of the fork were considered heathens as the utensil represented vanity and a devil's pitchfork.

Later, as the fork became more customarily used by royalty, the fork would become a political tool to encourage etiquette amongst peasants. The Catherine de Medici, Queen of England would dine in front of mass crowds displaying her use of the foreign utensil.

Once modern materials were developed during the mid 19th century, the fork began to be experimented with formally by trying out different shapes and materials, as did many other objects.

Observations:

Objects can carry social connotations of superstition beyond their physical qualities.

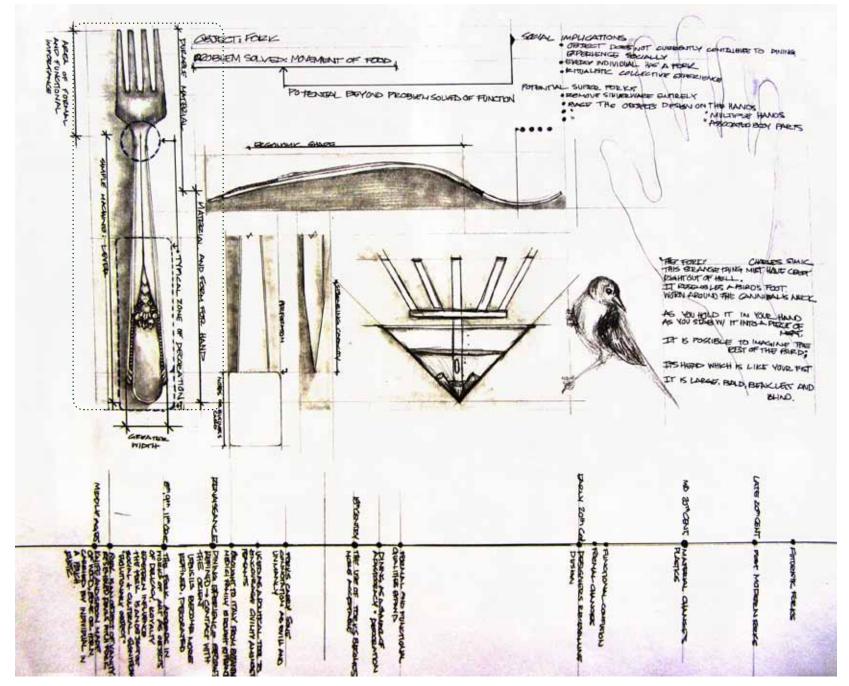
Objects can act as political tools.

Advancements in technology, particularly developments in material production, are considered a form of crisis effecting both the development of the formal and functional qualities of many objects. For example, during the mid 19th century, pressurized plywoods and plastics were experimented with a variety of every day objects including furniture, tools, kitchenware, and toys.

Information for this study was derived from the following source:

[1] Goldsmith, S. (2012, June 20). The Rise of the Fork. <i>Slate</i>. Retrieved October 22, 2013, from http://www.slate.com/articles/arts/design/2012/06/the_history_of_the_fork_when_we_started_using_forks_and_how_their_design_changed_over_time_.html





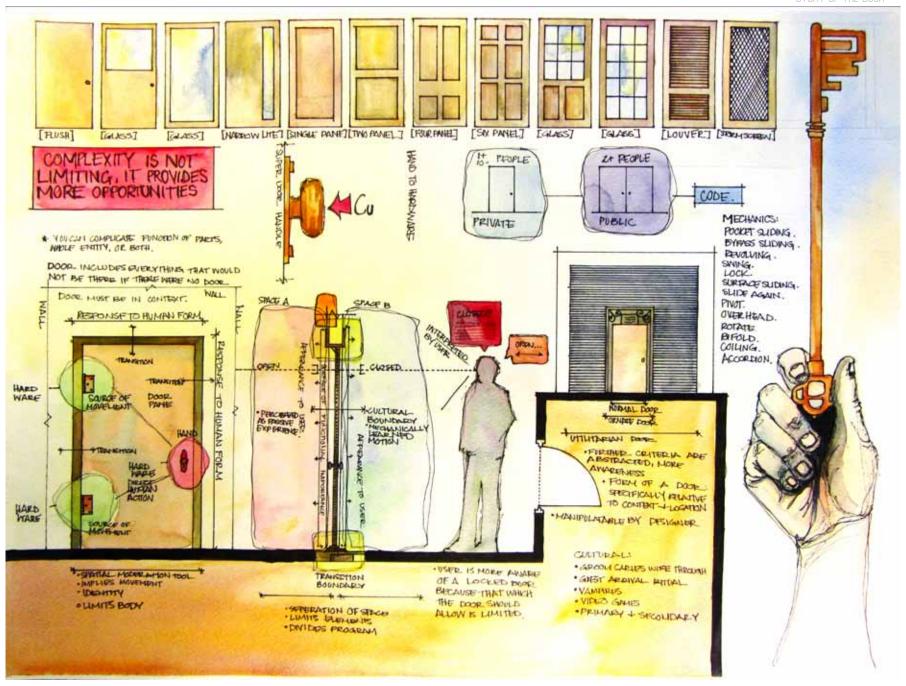
STORY OF THE DOOR

DOOR

The door was chosen as an object to investigate because it contains many different components. It was questioned whether or not an object with many parts, like a door, could undergo superfication similar to a fork, which in contrast was typically one entity with no small parts. It was concluded that the more parts an object contains, the more opportunities the object has for superfication.

The door was also chosen for its connotations and hidden qualities. Like the fork, there were many opportunities realized for superfication based on its societal importance. The door symbolizes both a gateway and a barrier. Wives are carried through doorways as a tradition of marriage, vampires are unable to pass through them with out invitation, and they are blessed in many cultures as the fortified symbol of home.



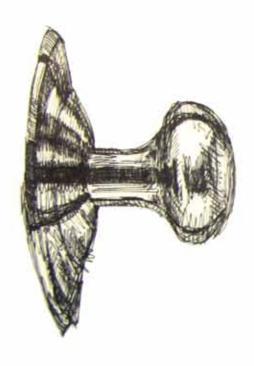


SUPER DOOR

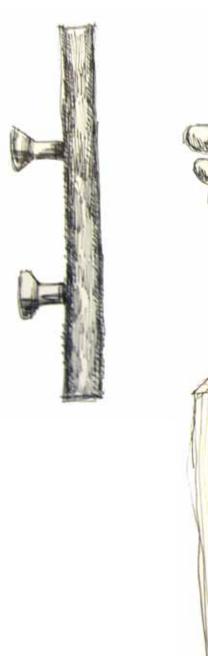
THE THINKING HAND

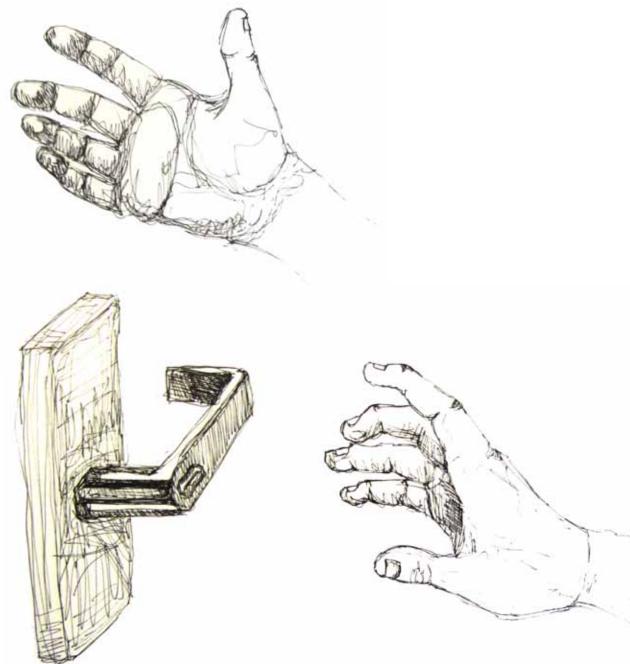
Through out the investigation of objects during this thesis, it became clear that the act of making was a method of revealing information.

What has been defined as the thinking hand refers to this process and has been shown in various forms including constructing and drawing. The physical hand has shown up multiple times in the drawings through out, unintentionally. Once the thinking hand was identified, it was acknowledged as a tool to investigate the functions of objects.









SUPER DOOR

SUPER DOOR

The superfication of a door was attempted. The result was a door that pumped water with syringes that were held within the door frame. As the door was closed and opened, water was pumped from a reserve into planters and aquariums located on the front of the door pane. This was a model that directly showed how human use could become a functional source of energy within a building. If the amount of people who passed through a door were calculated and compared to the amount of water needed to maintain landscaping, the doors of a building could become a source of water instead of a sprinkling system.





reservoir

door frame

syringes

aquarium parts

tubing

fish tanks/large water bottles

plants

weed blocking fabric filled with topsoil

DEATH BY ARTIFACT

Visits to museums were a form of investigating objects and their functions, especially when there was a lull in progress. The visit to the Henry Ford Museum proved particularly successful and inspired theories regarding the functions of museums and their relationship to object life.

Typically museums collect objects of historical importance to society like art, sculpture, and furniture. During a visit to an art museum, it was discovered, that the collection of such objects results in functional obsoleteness. Once the objects are placed on a podium and separated from the world by a pane of glass, they will no longer function as originally intended by the designer. This phenomena is defined by this thesis as death by artifact. There are however, lingering hints towards the functions of objects on display in museums. The object's past life typically determines the way in which the object is showcased. Masks are displayed at the height of a face, paintings at the height of eye level, and vases slightly above waist height.

The Henry Ford Museum is unique compared to most museums because of its origin. Henry Ford began collecting mundane objects like tools, cars, and trains that were not of historical interest at the time. Not only was his collection unique because he collected everything from buttons to houses, but he was collecting the very things his products would end. As automobiles became more accessible to the every day person and the industrial evolution began to increase the

functional development of everyday objects, more and more of the things he collected became obsolete. The collection at the Henry Ford Museum is comprised of a wide range of different objects from grain silos to old rail tracks and is vast, displaying only 7% of the entire collection on the museum floor [1].

Not only does the origin of the Henry Ford Museum collection reveal the relationship of past objects to museums, but the assemblage of so many diverse objects creates an interesting spatial tension and relationship between the objects displayed. Unlike art museums, the progression of the functional development of the objects is shown by their proximity. The following images of the Henry Ford Museum show examples of how the proximity of objects in space can reveal information on how they have progressed through history as well as how they relate in the "invisible network".



Information for this study was derived from the following source:

Interview with Kristen Gallerneaux, Curator of communication and information technology at the Henry Ford Museum. The interview was conducted by the author in person on February 11, 2014.











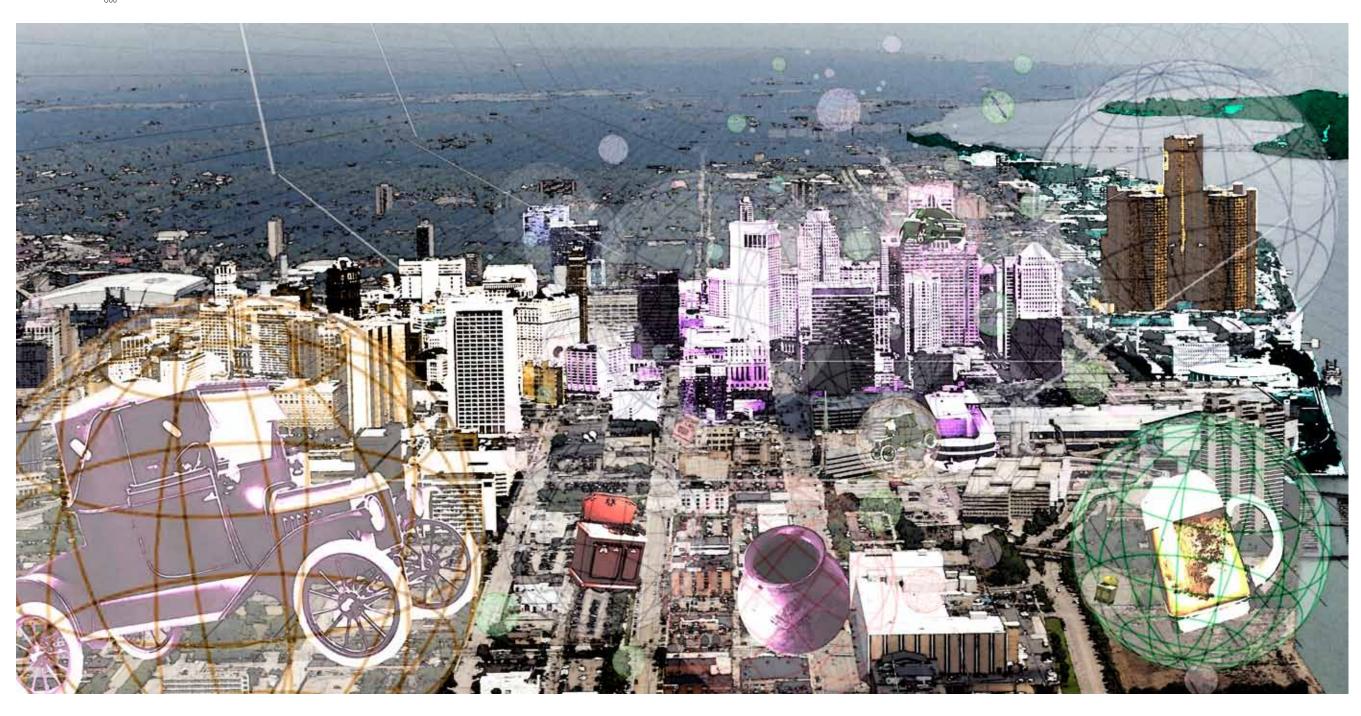


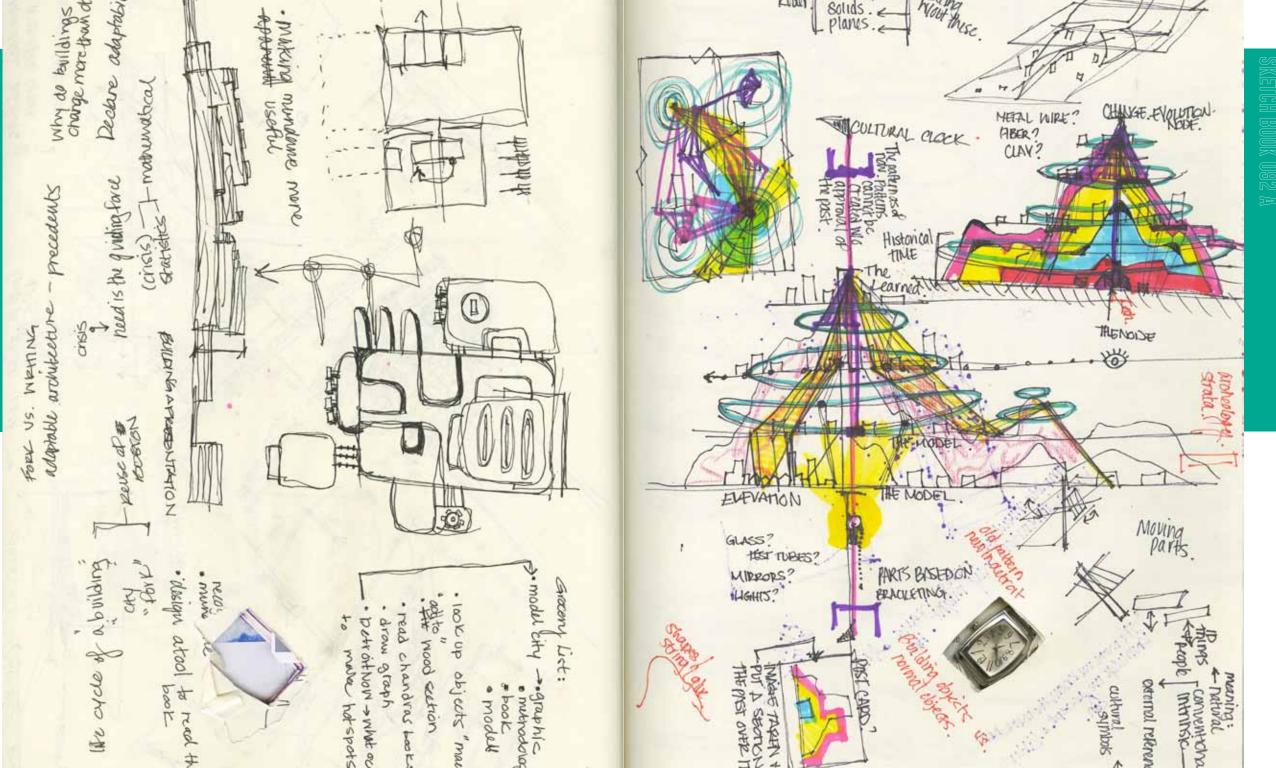






The object scale is still under investigation.





THE FIVE WAYS

There are multiple ways of observing the building through evolutionary functionalism beyond the ones described by this thesis. The five described in the following pages provide a precedent for how later investigations developed.

DISSECTION BUILDING EXPERIMENT

At first it was questionable whether or not something as complicated as a building could undergo superfication—but from the investigations with doors, it was observed that the more complicated an object gets the more opportunities it has for becoming super. The questions then became how can a designer observe such a complicated object, and how do they approach it?

Buildings are the most permanent and concrete objects of a society. Unlike other objects which can be easily lost, their permanence allows the trends of history to be traced more directly. In "The Shape of Time," Kubler claims that buildings represent the greatest number of "prime objects" [1], a term he uses to describe the unprecedented, pivotal object, or the first of its kind to lead a new series of formal developments.

"BUT THE NUMBER OF SURVIVING PRIME OBJECTS IS
ASTONISHINGLY SMALL: IT IS NOW GATHERED IN THE
MUSEUMS OF THE WORLD AND IN A FEW PRIVATE
COLLECTIONS: AND IT INCLUDES A LARGE PROPORTION
OF CELEBRATED BUILDINGS. IT IS LIKELY THAT
BUILDINGS CONSTITUTE THE MAJORITY OF OUR PRIME
OBJECT. BEING IMMOBILE AND OFTEN INDESTRUCTIBLE
OBJECTS. "121

GEORGE KUBLER

THE SHAPE OF TIME

1. The building can be viewed as a container for other objects.

[1][2] Kubler, George. The Shape of Time. United States of America: Yale University, 1962. Print. >.

2. The object can be the size of the building.



3. It is unclear whether it is a building or an object.



4. The building performs one function.



Buildings can also incubate social

phenomena, taking advantage of the particular

habits of a specific culture.

MOST CREATIVE PEOPLE

HOW CHINA'S ONE-CHILD POLICY FORCED STARBUCKS TO RETHINK ITS BELING STORES

BRANDS EXPANDING IN CHINA CAN'T IGNORE THE IMPACT OF THE ONE-CHILD POLICY. LIZ MULLER OF STARBUCKS TALKS ABOUT A NEW BEIJING STORE THAT IS AS MUCH ABOUT CONNECTION AS IT IS CAFFEINE

The effects of China's one-child policy are manifold. Studies show people raised under the program are less trusting, men are unable to find mates, and then there's the "4-2-1" phenomenon, where working young people must assume financial responsibility for themselves, their parents, and four grandparents. The policy has likely had the strongest impact on a nation's demographics of any social initiative, save genocide, in history.

More than 30 years later, the one-child policy also raises an important question for brands looking to make inroads into the country: Is there something the young adult Chinese demographic is missing on account of growing up alone? And if there is such a thing, how can we provide it?

Liz Muller, the director of concept design for Starbucks, makes it her job to answer these sorts of questions. She's the mind behind some of Starbucks's most creative flagship stores. As the brand expands internationally, each of her far-flung creations aims to introduce customers in Europe and Asia to the Starbucks take on the subjects of coffee and service in a way that makes sense in their culture.



She has, for instance, replaced the brand's homogenous retail stores with a friendly coffee-and-cookie bar in a former bank building in pastry-loving Amsterdam, and plans to help open Starbucks lounges aboard two intercity trains in rail-travel loving Switzerland, a first for the brand.

"The one-child policy also raises an important question for brands looking to make inroads into the country: Is there something the young adult

Her most recent completed projects are two flagships in Beijing: a coffee tribute store in the Kerry Centre meant to introduce home brewing methods to a well-traveled, affluent demographic, and a 24-hour store in Taikoo Li Sanlitun geared toward the young adults who the onechild policy left relatively companionless. Though the two stores are just a few miles apart, the differences are significant, and the Taikoo Li site is the one that caters

To investigate the superfication of the architectural scale, experiments were conducted with spaces with simple functions and mundane existence. Mundane spaces were used for the same reason the fork was chosen initially: a lack of complexity and opportunity for superfication.





Downtown Detroit is filled with parking lots which create gaping holes in the urban fabric. The parking lots remain undeveloped because they make more money functioning as a parking lot than if a building were developed. To create a greater sense of space and

respond to the current corporate downtown culture, this proposal is a super parking lot which collects energy through sun panels during the day and can be projected on at night by companies that would rent the parking development on the parking lot site. surface and host a corporate drive in movie

night in the office, looking down from their head quarters. This could potentially increase real estate prices around the parking lot, drive up the land value, and promote future building

THE MUNDANE

[1] Detwiler, J. (2013, October 30). How China's One-Child Policy Forced Starbucks to Rethink its Beijing Stores. <i>Fast Company</i>. Retrieved December 5, 2013, from http://www.fastcompany.com/3020859/ most-creative-people/how-chinas-one-child-policy-

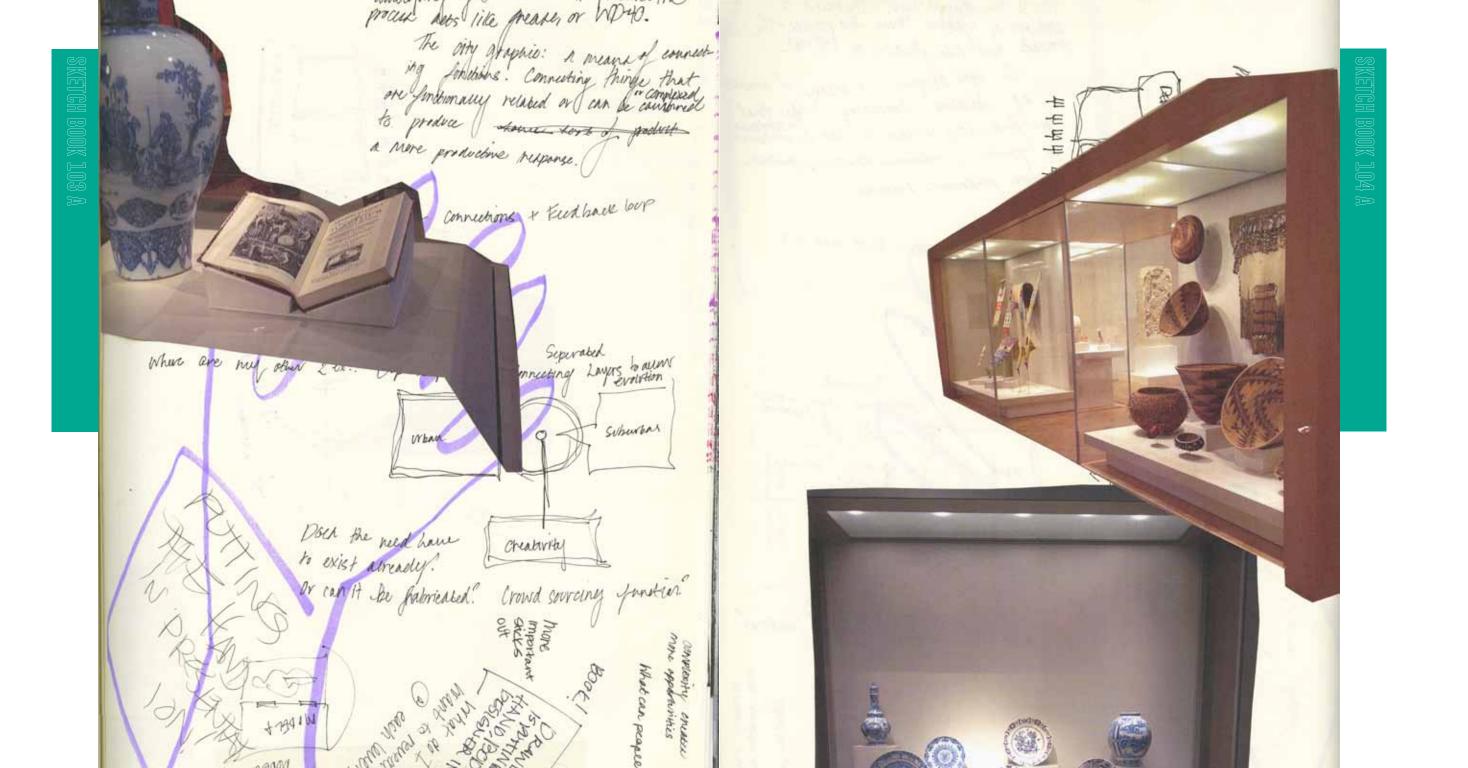
forced-starbucks-to-rethink-its-beijing-sto







The building scale is still under investigation.



dead objects objects that stare at the

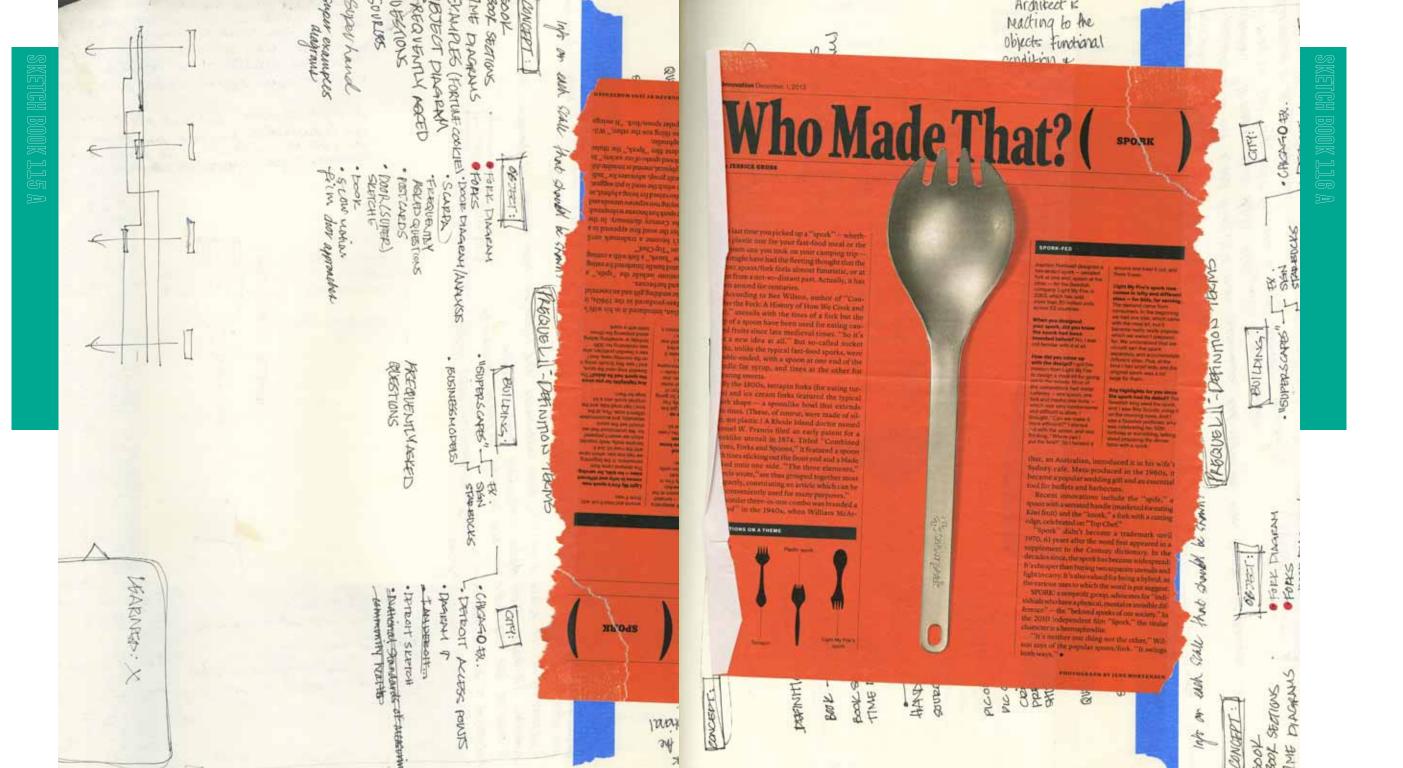
haraetur of reporposin

lesigner broader like into object

aked the object is the superior. Sound Monday Salvan Nove to xu Maynor So as Manne M, So of. D. William

Supp wars some agains

Jandarausen and if we examine the term would all the term would intered on an abject to allowed the desire the absences.



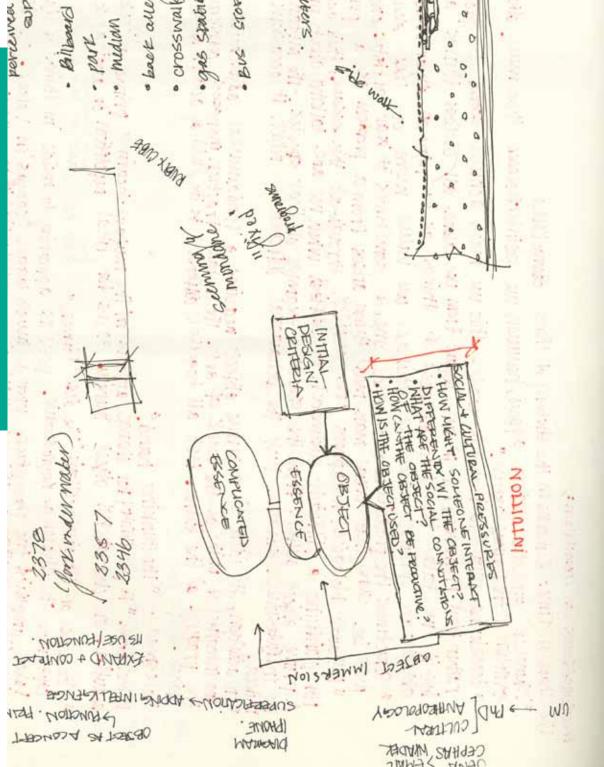
of things hange appears r the number of th which whore Fraction impo Andamuutal ADVALHAGE action assumed While

Hue

idee

colu

to



DISSECTION CITY EXPERIMENT

The city is the most mystical scale to objectify as it is an extremely complex and unpredictable system reliant on many different inputs and variables. Instead of creating a theoretical foundation for what the objectification of a city is, different parts of the city were identified as potential areas of superfication.

The city can be viewed as a whole, and it can be viewed as a series of parts. Even very small objects can affect the form of a city. Trash cans, sidewalks, pubic transportation, and lighting all affect the formal evolution of a city.

COLLECTIVE IDENTITY

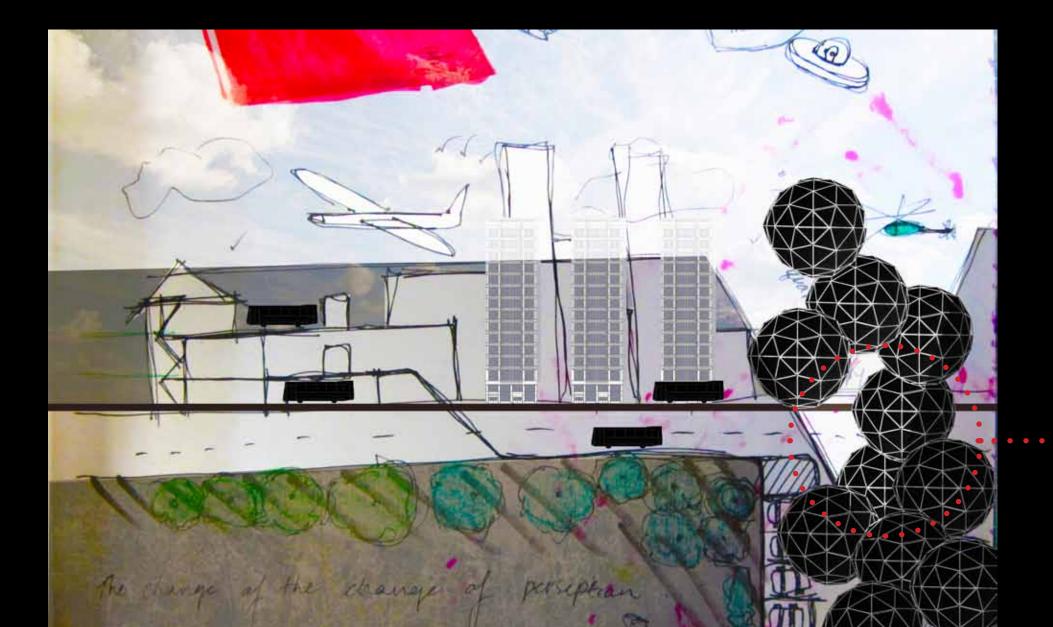
One thing can be certain about the objectification of the urban form: it is collective.

The urban form was first recognized during this thesis as a collective identity when the designer watched the 1975 film, KOYAANISQATSI [1], which means life out of balance. In the film, vibrant urban life is contrasted to the still calm of nature. The film is recorded in fast and slow motion, distorting the perception of the viewer and drawing attention to conditions beyond the everyday experience of the single human. Koyaanisqatsi captures the urban collective identity through two scenes in particular. A slow motion view of a crowd meandering down a side walk creates a sea of vibrating bodies. In real time, the actions of the crowd seem normal, but in slow time, they slowly sway as a mass. The second scene is a view of night traffic in fast motion. The city is stagnant but the motion of traffic creates shapes of light surrounding the buildings, giving the city form and life.

The city scale is still under investigation.

CHICAGO SECTION

An interesting experience while using the Chicago transportation system lead to the development of a potential area of superfication.

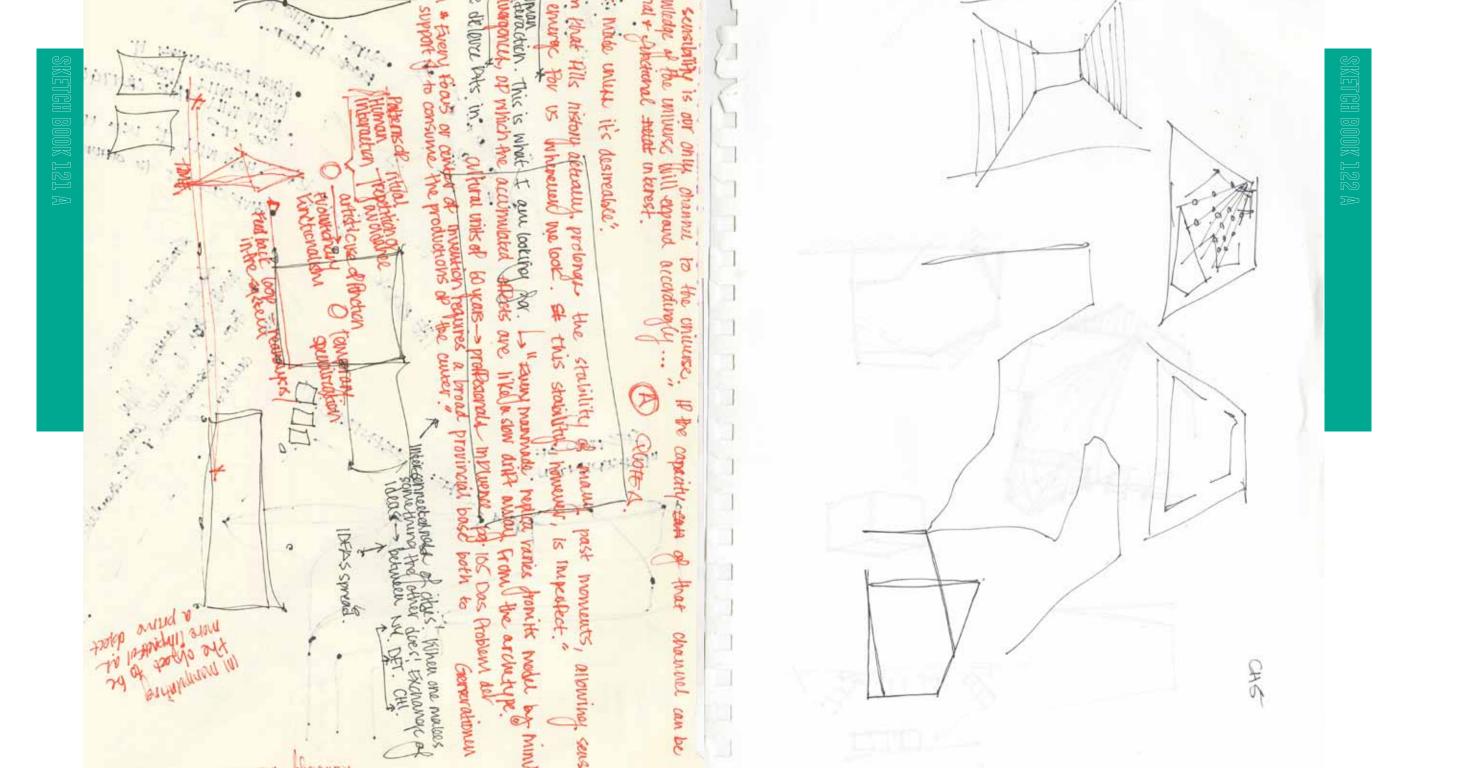


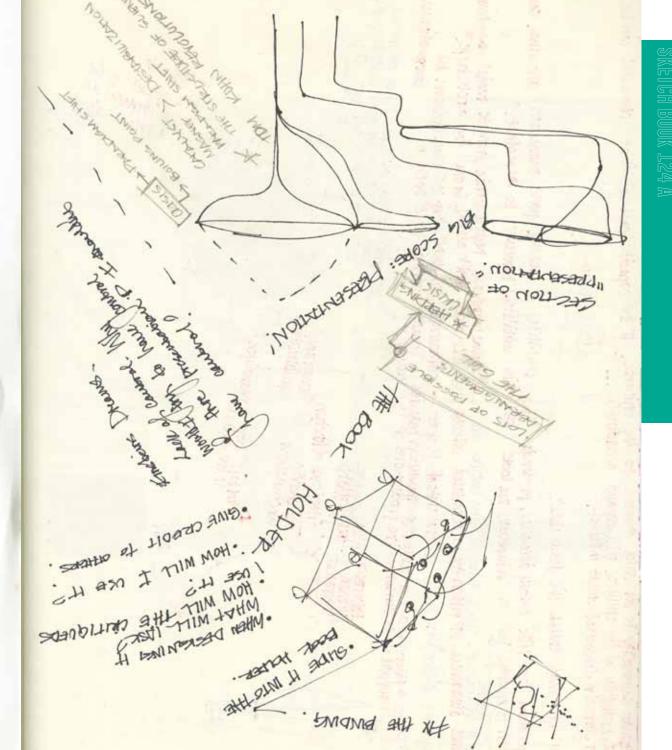
"My boyfriend lives in Chicago and I often visit him. I am pretty familiar with the city, but for some reason no matter where I am, if I go underground I can no longer find my way. Instead of viewing myself as a dot moving through the city while using the CTA, I see myself as a person in a tin can barreling through who knows what and who knows where in Chicago.

I like this experience, because when I come up out of the ground I am lost. I have to hold my boyfriends hand though, because I walk at a much slower pace than the rest of the people as I look all around trying to figure out where I am. This makes sure I keep up. But he doesn't look around and I wonder if he has ever experienced this phenomena.

This experience is valuable. In that moment of lostness I am opening my mind to creative opportunity. That moment right there is where someplace like google would want to be, capitalizing that instance of creativity, right in the middle of lost, making everyone, even people who live there, lost."

Google Headquarters.





TITITI

THE BIG CEPTIQUE IF. NOTHING

CONCEPT SCALE: DIAGRAM, BOOK TABBOOK! -> PUTIT IN THE MIDDLE.

CITY SCALE: UTOPIAN ONER EAY I COMPLEX DIAMENLING OF OITY (UNDER DECIGNATING FOT SPOTS BOSOD ON CRITTON

PENTASSON: CRITIQUE. EXERYTHING!

Nothing about this project/process is perket votting about this process is continues in the documentary of andoness, there is insight for related to Kumair adolon

THE PROPERTY PARTY Stood Assess Cata logue as Ocagnate types of statements.
Whatkinds are there? tedback Design preency men-endedness moral w PROCES & Pronoctions

You need a user group! There is no general.

3 11 Particular

Ideas in Action

A Sampling of Cool Inventions and Crazy Notions

DESIGN FOR SOCIAL GOOD

Can design create positive social impact? Women have played an are playing a catalytic role in cor munities with projects, product and ideas that are evoking societal change.

TRASH TO TREASURE

Deepa Gangwani had the MBA from Stanford and the high-profile job. but when she looked at her country's poverty all around, she wanted more meaning in her life. So she engineered a bidenergy system in India that turns food scraps and agri waste. into ethanol and animal feed. The system can help generate more stable sources of energy and provide the many trash collectors in India (mostly women) with a more dignified line of work and way of life.

tanginhal.org

PEDALING WITH PURPOSE

MIT alum Jodie Wu knew that most smallholder farmers worldwide only have a hoe for playing and their hands for pulling weeds. The cozy costs quickly Electricity is scarce.



COUNTERY OF JODES WILL

She created a design to fill a need - a bicycle add-on so that when you pedal your bike, it can also remove corn kernels from the busk. And that was just the start of it. Now she is shifting gears from just selling bike accessories to setting a portfolio of products designed to improva village life all over the world.

gesta.com

COAT OF MANY

CAUSES New Frontier Award recipient and design student Veronika Scott. was spending a lot of time doing research after, she and fellow in homeless shelters student Alex Cabunoc when she came up with built the GiraDora, an idea for a coat that a human-powered converts in seconds washer/spin dryer you into a sleeping beg can sit on and pump a foot pedal to agitate. took off and are now clean, rinse and dry being given to homeyour duds. It may look less people all'across like a humdrum plastic the country. The bigger drum, but the GiraDora innovation: Scott is is erganomic and creating jobs for efficient, can increase women in shelters health by wiping out - transforming all that back-breaking them into trained scrubbing and can help seamstresses with generate income in special purpose. off-the-grid areas and

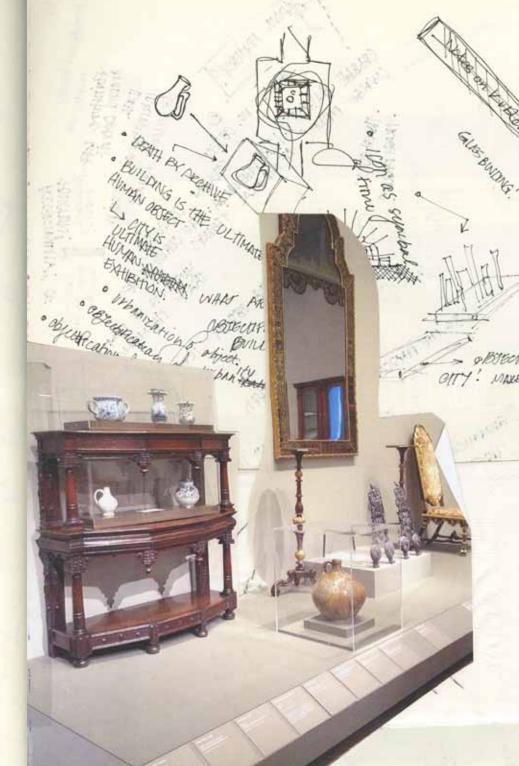
LIKE MAKING THINGS? Subscribe to THY OnMaking at thehenryford.org/enews -

developing countries. idss.org/giradora-safeagua-washer-and-spindryer-0



and Nobel Prize-winning scientist and mother Marie Curie knows if military surgeons could ust see where the bullet lodged, the shrapnel scattered or the bone broke on the battlefield - if X-rays were on the front line - soldiers would be saved. She convinces the French government to suport her cause, gets body shaps to convert. vehicles into mobile medical trucks, begs manufacturers to donate equipment, learns how to drive, trains her daughter as a radiologist, and the two make their way into war zones in the "petite Curie" and start taking pictures that will change





DESIGN FOR SOCIAL GOOD

Can design create positive socia impact? Women have played and are playing a catalytic role in cor munities with projects, products and ideas that are evoking societal change.

TRASH TO TREASURE

Deeps Gangwani had the MBA from Stanford and the high-profile job, but when she looked at her country's poverty all around, she wanted more meaning in her life, So she engineered a bigenergy system in India that turns food scraps and agri waste. into ethanol and animal feed. The system can help generate more stable sources of energy and provide the many trash collectors in India (mostly wamen) with a more dignified line of work

and way of life. taoglobal.org

PEDALING WITH

PURPOSE MIT alum Jodie Wu knew that most smallholder farmers worldwide only have a hoe. for plowing and their hands for pulling weeds. Electricity is scarce.

COUNTRY OF JODE WAY

She created a design to fill a need - a bicycle add-on so that when you pedal your trike, it cari also remove corn kernels from the busic And that was just the start of it. Now she is: shifting gears from just selling bike accessories to selling a portfolio of products designed to improve village life all over the world.

gests.com



When LA design

developing countries.

dryer-0

student Ji A You was

THE EMPOWERMENT PLANS

COAT OF MANY CAUSES

special purpose.

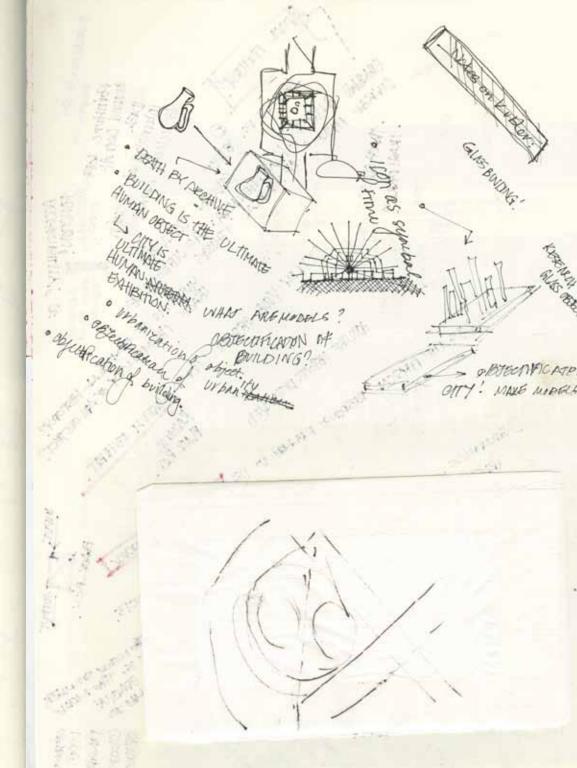
LIKE MAKING THINGS? Subscribe to THF OnMaking at thebenryford.org/enews -

working in a water-poor area outside Lima, Peru, she watched as New Frontier Award families spent up to six recipient and design hours per day - three student Veronika Scott to five times a week was spending a lut of washing clothes. Soon time doing research after, she and fellow in homeless sholters student Alex Cabunoc when she came up with built the GiraDora. an idea for a cost that a human-powered converts in seconds washer/spin dryer you into a sleeping bag. can sit on and pump a The cozy coats quickly foot pedal to agitate. took off and are now clean, ringe and dry being given to homeyour duds. It may look less people all across. like a humdrum plastic the country. The bigger drum, but the GiraDora innovation: Scott is is ergonomic and creating jobs for efficient, can increase women in shelters health by wiping out - transforming all that back-breaking them into trained scrubbing and can help seamstresses with generate income in

ONE LOOK



It's 1914, World War I and Nobel Priza-winning scientist and mother Marie Curie knows if military surgeons could ust see where the bullet lodged, the shrapnel scattered or the bone broke on the battlefield - If X-rays were on the front line - soldiers would be saved. She convinces the Franch government to supoff-the-grid areas and ort her cause, gets body shops to convert idsa.org/giradora-safevehicles into mobile agua-washer-and-spinmedical trucks, begs manufacturers to donate equipment, learns how to drive, trains her daughter as a radiologist, and the two make their way into war zones. in the "petite Curie" and start taking pictures that will change



INTRODUCTION APPLICATIONS

Evolutionary functionalism is particularly applicable to modernity because we are currently in a state of technological crisis. Technology has advanced to the point where humans are accustomed to objects performing at higher levels of functionalism, meaning one object can perform many tasks. All objects are exposed to a heightened sense of functionality and enduring criticism from societal expectations.

Evolutionary functionalism, particularly superfication, allows the designer to operate at a higher level of creativity because of the open and observant process. In "The Science of Human Innovation: Explaining Creativity," R. Keith Sawyer provides a list of reasons for why creativity is becoming increasingly important to current society. These reasons directly correlate to the societal conditions that make evolutionary functionalism applicable to modern culture.

Creativity will continue to increase in importance, due to several broad societal and economic trends:

- 1. Increasingly globalized markets result in greater competitiveness, even for industries that historically had been protected from significant challenge.
- 2. Increasingly sophisticated information and communication technologies result in shorter product development cycles.
- 3. Jobs that don't require creativity are increasingly being automated, or are moving to extremely low-wage countries.
- Increasing wealth and leisure time in advanced countries have increased the demofor products of the creative industries.



OBJECTS OF INTEREST

Through out the process it became clear that certain objects and conditions provided greater opportunity for superfication across multiple scales of the spectrum of objectivity. They have been defined as **objects of interest**. In the speculated future of this thesis, these objects become sources for additional experimentation.



Certain objects are naturally charged with stigmas given to them by societal expectations. These objects can act beyond their original function as a source of political motivation. Further investigation into the source of the additional connotations would prove an interesting study. An example of a political object would be a bra to the feminist movement.



Marketing

For reasons that have not yet been illuminated, results of experimentation often lead to marketing or branding.



Collective Objects

Objects that interact with large amounts of people tend to show opportunities for superfication because they create dynamic social situations. Objects in these situations typically have the capacity to contribute beyond their original function. Particular objects of interest for this application include public space, furniture, and games.

Object Interaction: •

The formal and functional criteria of the design of an object are often the result of how and where the object interacts with the body. For example, the two most formally and functionally developed areas of a fork are the handle, which interacts with the hand, and the prongs, which interact with the mouth. The area of objects that interact with the body typically have some sort of signifier, distinguishing it as an area of importance. Door panes have plates or knobs where hands are meant to interact with the surface. The potential for harnessing human action in objects is relative to where and how they interact with the human body.

ST CREATIVE PEOPLE

HOW CHINA'S ONE-CHILD POLICY-TO RETHINK ITS BEIJING STORES

BRANDS EXPANDING IN CHINA CAN'T IGNORE THE IMP, LIZ MULLER OF STARBUCKS TALKS ABOUT A NEW BELJ ABOUT CONNECTION AS IT IS CAFFEINE.

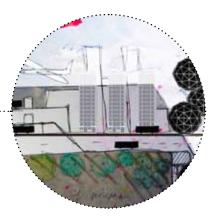
BY JACOUELINE DETWILER

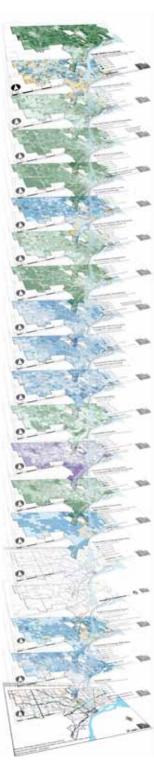
The effects of China's one-child policy are manifo under the program are less trusting, men are unather 42-21 phenomenon, where working young responsibility for themselves, their parents, what dhe strongest impact on a nather than the program of the phetrory.



Motion:

Motion provides potential energy for an object to harness, while also providing the designer with additional information that can be applied to the object. The way in which humans move objects and the objects that humans use to move themselves create a dynamic condition. Public transportation is of particular interest.





DETROIT: COMPLEX DATA SYSTEM Images compiled from Data Driven Detroit. [1]

Complex Information:

Complex systems provide a plethora of opportunities for connecting unforeseen relationships. Cities are filled with so much complexity that there are bound to be potential applications for systems to combine or affect one another. For example, if city systems were designed according to cultural habits, they might become more efficient. What would the superfication of a septic system look like and how would it effect the urban condition?

Scholarly Database:

"Object, Object, Object" is a scholarly database which publishes essays on the investigation of the hidden qualities of specific objects. A similar database, particularly for designers, would be beneficial for understanding the design forces acting on objects under investigation and provide a collective feedback loop.



[1] Data Driven Detroit: Maps. (n.d.). <i>Data Driven Detroit</i>. Retrieved April 14, 2014, from http://datadrivendetroit.org/data-mapping/maps/

[2] Hankinson, W. (2014, April 9). Object Lessons - Essays. <i>Object Lessons</i>. Retrieved April 11, 2014, from http://objectsobjectsobjects.com/essays

Object Oriented Ontology:

Object oriented ontology is a branch of philosophy that investigates the existence of objects that have a peculiar presence for humanity. Philosophers practicing object oriented ontology typically analyze, in depth, the objects use, its peculiar qualities, and its meaning in time and space. Since these objects have already been so thoroughly investigated, they would be good starting points for superfication.

"Paraphernalia: The Curious Lives of Magical Things," by Steven Connor is an example of an in-depth study of objects ripe for superfication. The objects he lists in his writing have "curious" qualities which exceed their functional design because humans have given them additional meaning.

Steven Connor's Curious Objects:

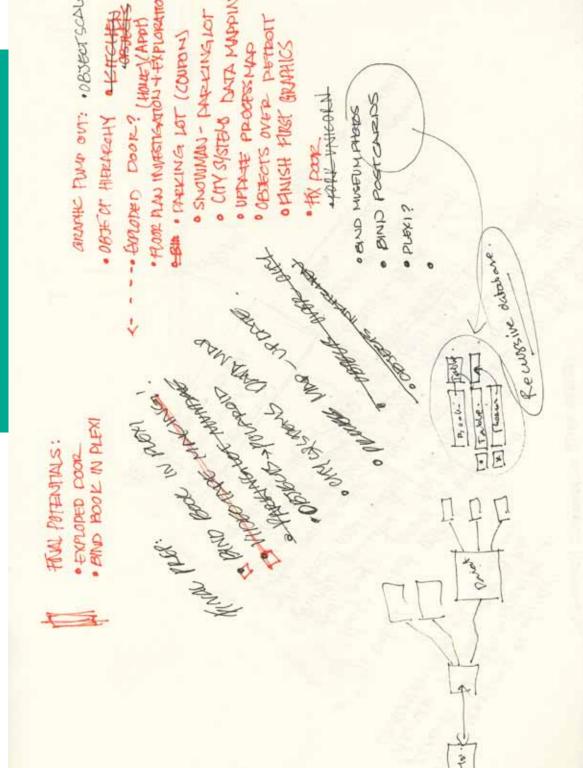
- *Bags
- *Batteries
- *Buttons
- *Cards
- *Combs *Glasses
- *Handkerchiefs
- *Keys
- *Knots
- *Newspaper
- *Pills
- *Pins
- *Pipes
- *Plugs
- *Rubber Bands
- *Sticky Tape
- *Sweets *Wires

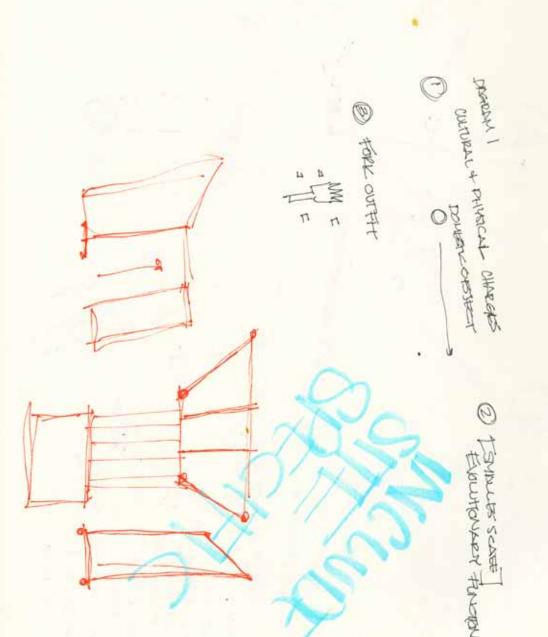
"A DIFFERENT KIND OF OBJECT..SEEMS TO ESCAPE ITS OWN FINITUDE, ITS DOURLY OBJECTISHNESS BEING-THERE, TO GO BEYOND, OR SPILL TO THE SIDE OF WHAT IT MERELY IS OR DOES... ONE WAY OF PUTTING THIS IS TO SAY THAT SUCH OBJECTS ARE INVESTED WITH POWERS, ASSOCIATIONS AND SIGNIFICANCES, THAT THEY ARE THEREFORE NOT JUST DOCILE THINGS BUT SIGNS, SHOWINGS, EPIPHANIES. "121

STEVEN CONNOR PARAPHERNALIA: THE CURIOUS LIVES OF MAGICAL THINGS

[1] [2] Connor, S. (2011). <i>Paraphernalia: The Curious Lives of Magical Things</i> London, England: Profile Books.

SKEIGH BUUK 150 A





CONCLUSIVE PHYSICAL DIAGRAM BEGINNING

The process has paused at this time and place in the form of a physical diagram including the entirety of the project. This moment is the rupture of space. Previously, the process had developed primarily in the form of graphics. The three dimensional proximity of these graphics provided additional information for their relationships to one another.

The physical diagram has also provided a new method of engaging the thinking hand. By enveloping people in the project, they too become the thinking hand, and the critique becomes a feedback loop. The designer has created a new term: **spatial crisis**. The designer is able to create and control tension in space for the process and for others.





