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Design Thinking for Conceptualization

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Design Thinking for Conceptualization

A thesis submitted to the Graduate School of the University of Cincinnati in partial fulfillment of the requirements for the degree of

Master of Design

In the School of Design of the College of Design, Architecture, Art and Planning

by

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ABSTRACT

Through observation in undergraduate design studios, it was found that the ability of translating ideas into concept proved to be taxing for students. This study identifies the ambiguity between idea and concept generation in the design process and proposes a solution through a design thinking methodology known as ‘Idea Propagation’.

Research began with a comprehensive examination of design thinking, pedagogy and methods through a literature review. Qualitative testing followed with three participatory rounds involving undergraduate design students and one involving the researcher through applied research methods.

The proposed design methodology known as ‘Idea Propagation’ is the result of testing, framed through investigatory phases involving reflective, semantic, contextual and aesthetic analysis. Implementing these principles in a successful comprehensive order is the result of testing analysis, thus leading to a proposed solution known as the ‘Idea Propagation’ method.

Key Words: Conceptualization, Design Process, Pre-Concept Design, Design Methods, Design Pedagogy, Design Research, Applied Research.
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Introduction

This study seeks to develop a system for pre-concept development which would result in a more comprehensive, researched foundation to design from. The identification of a lack of concept in undergraduate design projects led to an investigation of design methods. It was found there is not a clear solution to concept generation within the design process to problem-solve in a strategic way. This study proposes a system which guides an abstract idea found in the infancy of design into the generation of a concept, thus enabling the designer to approach the objective phases of the design process with more clarity and confidence.

This project researches, develops and tests the hypothesis that a constructivist process bridging idea and concept can be achieved through design thinking methods. Research and development was synthesized into ‘Idea Propagation’, a method laying the foundation for the standard structure of design process.

This study was conducted in two levels using the principles of applied research. In one tier, testing was conducted in undergraduate design studios. In the other tier, testing was a reflective practice, engaging in inferences gained from the testing through application in a personal project. Using both ‘problem-driven’ and ‘inner sense driven’ phases in concept development (Nagai, Taura 2009): this process, employs methods of idea generation, reflective thinking, trend forecasting, semiotics, historical and contextual research.

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1 Constructivist theory believes that “people learn by constructing meaning and through interpretative interactions with and experiences in the environment”. (Brown, Bettina Lankard in Applying Constructivism in Vocational and Career Education, Info Series No. 378) Columbus: ERIC Publications 1998) pp 1

2 See chapter 3 for design process.

3 Design conceptualization is classified into these two phases. In the problem-driven phase, the new concept is formed from analyzing and proposing a solution to the ‘problem’. In the inner sense-driven phase, the concept is formed through intrinsic motivation. These two phases work interdependently both analyzing and composing the components of concept generation. (Taura, Toshiharu, Nagai, Yukari in Concept Generation for Design Creativity (London: Springer-Verlag 2013) pp. 186-187)
The following chapters will begin with grounded background research defining the parameters of design in the context of this paper, the Design Methods Movement, its origins, and the contemporary influence it has on design thinking, design pedagogy and process. The research then transitions into the design problem, how it was identified and the way in which it will be tested. The research parameters are defined as a general overview; eventually leading to more in depth investigation with the description of each phase. Finally, the research is evaluated and analyzed, resulting in the proposed method of pre-concept design known as ‘Idea-Propagation’.
0.0.1 Chapter Outlines

CHAPTER 1- BACKGROUND

This chapter provides a background on what is defined as design in the context of this re-search. A brief history of modern design is explained as well as the advancement of design thinking, serving a basis of understanding for design methods, process and pedagogy.

CHAPTER 2- DESIGN PEDAGOGY

This chapter explores the institution of design education, its history and approaches. Within the chapter, curriculum styles are investigated, as well as the context of design education which the research took place.

CHAPTER 3- DESIGN METHODS AND PROCESS

This chapter defines design process with a summary of their commonalities and the identification of which phase concept is generated. Within this chapter, concept and idea are their relationship and their roles in the design process.

CHAPTER 4- CONTENT DISCOVERY AND DEVELOPMENT

This chapter identifies how the area of concept development was identified as a problem issue through the combination of teaching and reflective design practice. It also frames the beginning strategies for testing concept development.

CHAPTER 5- RESEARCH METHODS

This chapter provides an overview of research methods involved in this project. Qualitative methods of participatory and reflective design are presented. Participants, scope, evaluation, and research limitations are described.
CHAPTER 6- PRELIMINARY TESTING AND ANALYSIS

This chapter describes the case studies which explored areas of idea generation, visual language, semiotics and form. Research is described in an overview of four rounds of user testing conducted in the Fashion Department at the University of Cincinnati. Insights lead to first prototype of for secondary testing.

CHAPTER 7- PYRAMID METHOD PROTOTYPE

This chapter briefly describes the preliminary process of ‘Thought Propagation’, a design methodology to aid in concept generation. Two rounds of research are discussed, as well as the insights gained through testing. Research is conducted within the University of Cincinnati’s Industrial Design Department.

CHAPTER 8- PROPOSED SOLUTION

This chapter summarizes and analyzes the results from primary, secondary and tertiary rounds and proposes a future process model which solves some of the areas of concern in early testing rounds. The model is described in its parts addressing each phase and its coinciding activities.

CHAPTER 9- CONCLUSION

This chapter summarizes the research in its entirety, the analysis of the success of the hypothesis and a proposal for future possibilities of ‘Idea Propagation’
CHAPTER 1
BACKGROUND

1.1 The Issue
1.2 Design in this context
1.3 Origins of Design Thinking
Chapter I- Background

“The creative process of design, which is often based on tacit knowledge, intuition, assumptions and personal preferences, is often seen as a standard way of working the field- and this is often what makes design alluring to people- but this process can be improved and enhanced”

-Gjoko Muratovski, 2016

1.1 THE ISSUE

Countless methods exist to aid designers in design development. For innovation to occur, designers must evaluate their research and reflect upon the opportunities they identified so that the methodology best apt for the design process is implemented (Dorst, 2008). To approach a specific method, however, it is important to understand the design concept i.e the meaning of the product. Beyond its function, the premise and situation of the proposed design, where it exists and what role it plays, are all considerations to make in choosing the right approach to the design solution (Potter, 2002).

As a reflection of sociological and technological environments, design is a discipline which is ever changing, hard to define at any moment with its inevitable evolution on the horizon (Potter, 2002). The methods of design development are therefore heterogeneous, there is no singular approach to solving a problem (Jormakka, 2008). However, designers need to coherently identify the concept, its needs and limitations and the best way to move forward to create a working design (Aspelund, 2006). Approaches, methodologies, and strategies are often influenced by the condition of the project, its scope and constraints, but the designer ultimately chooses the direction and methods the design process will follow (Jormakka, 2008).
Without a solid concept, the designer is acting on intuition, which may or may not have positive results. The lack of vigilance on where the design is heading can lead to lost ideas, disconnectedness and design fixation (Aspelund, 2006).

A lack of clarity within the initial formation of design conceptualization has several disadvantages. The product may be created without solving a problem, turning the artefact into something merely decorative, therefore, contradicting the definition of design (Clay, 2008), such as the citrus juicer by Alessi (fig.1) (Muratovski, 2016). The artefact could be a variation of existing product, lacking any sort of innovation resulting in market saturation, ridicule and perhaps lawsuits from other firms in the industry. Lastly, without considering the holistic environment of the concept in the initial phase of the design process, factors such as time, materials, target audience and function have a likely potential to be compromised.

This project investigates the missing link between idea and concept, how it can be synthesized into a methodology, and the context of the process being taught in design education to better prepare students for articulating inspiration, concept and design research. The proposed method includes a wide scope of design and critical thinking strategies which includes qualitative research: both primary and secondary, reflective design, forecasting, semiotics, visualization and scenario planning.

1.2 DESIGN IN THIS CONTEXT

Although there may be a slight shift of interpretation based on the context and discipline, the term design will have three connotations in this paper. It can be used as a verb, such as a process or act of creating or making, i.e: look at her design that dress; or a noun such as the end result of the process of creating, i.e: her dress is a
nice design. It can also be about a specific style in a group of products, i.e out of all the dresses I like that design.

1.3 ORIGINS OF DESIGN THINKING 1960s-1980s

Victor Papanek stated in his book *Design for the Real World* “All men are designers. All that we do, almost all the time is design, for design is basic to all human activity. The planning and patterning of any act toward a desired, foreseeable end constitutes the design process…” (Papanek, 1971). To understand design methods, however, it’s important to understand its role in the context of design epistemology. As a discipline, design has arguably existed since the medieval age when apprentices would work in a guild under a master to learn a craft. Modern design, however, has evolved from the context of a rise of industry and change in philosophy of art, utility and aesthetic during the industrial revolution.

The study of design apart from artefact, however, did not become a widely investigated field until the twentieth century following World War II. Design epistemology was seen as an opportunity to understand situations which needed a direct problem solving strategy (Cross, 1991). The inquiry was heralded by scenarios such as the rebuilding of Europe and space exploration.

‘The Conference on Design Methods’, held in 1962, began what is known today as the Design Methods Movement. Throughout the decade, several consecutive lectures and conferences occurred throughout Europe and the United States, broadening the understanding of design research, methodology and problem solving through the lens of a scientific; a linear analysis resolved through a series of steps (Di Russo, 2016).

In 1969, Herbert Simon published *The Sciences of the Artificial*, a major

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4 “The first industrial design society was formed in Sweden in 1849, to be followed by similar associations in Austria Germany, Denmark, England, Norway and Finland (in that order).” (Papanek, Victor in Design for the Real World (Chicago: Academy Chicago, 1971) pp.30)

5 In *The Sciences of the Artificial*, Simon defines the artificial as objects created by man.
influential document which called for the proposed development of ‘a science of design’ in University pedagogy (Simon, 2006). Simon believed that design has set parameters based on human cognition, thus problem solving is defined within the confines of understanding (fig.2) (Simon, 1996). Because the artificial is created based on the grasp of human knowledge, Simon concluded that ‘[the] complex artificial environment that we created requires a design science that utilizes simulation techniques and a theory grounded in logic’ (Di Russo, 2016).

Design thinking as a linear mode shifted when Horst Rittel, argued that design was complex, that most problems that designers addressed were ‘wicked’ (meaning that the problem is loosely formulated and there is no true resolution or ‘stopping rule’) (Coyne, 2004). Thus, the earlier framed methods of design problem solving were too constricting and solutions could not be created based on the complexity of the existing problem (Buchanan, 1990).

In 1972, Horst Rittel outlined the characteristics of the wicked with planner Melvin Webber in the paper Dilemmas in a General Theory of Planning (fig.3). Rittel & Webber believed the rigidity of science is framed on the complexity of their problems, therefore, science is only handles ‘tame’ problems⁶ (fig.4) Although each property of ‘wickedness’ is outlined, and design thinking shifted in its focus from primarily scientific theory, a question remained unanswered. The nature of design

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⁶ Tame problems are ones which can be ‘solved with a definite solution, under finite, localized circumstances and could come to be resolved through trial and error’ Understanding the behavior of design thinking in complex environments. Unpublished doctoral thesis” Di Russo (2016).
problems being indeterminate remained elusive, classifying Rittel's theory as only a reality of design rather than a grounded theory of design (Buchanan, 1990).

The introduction of wicked problems, with the general social climate of unrest of the 1970s shifted the paradigm of the Design Methods Movement into a second phase. The proposals of methodologies and theories based on the scientific process lost popularity, seeing a dormancy in the early thinking of the movement (fig.5). A major contributor of second phase was Victor Papanek. In his book *Design for the Real World*, the industry is explained through an overview of the evolution of industrial design. He defines design's purpose through 'The Function Complex', addressing its problems through opportunities found within the model (fig.5). Within this context, he identifies major problems in the field and proposes defined solutions, serving as a blueprint for better design. Ahead of its time, *Design for the Real World* was not widely
### Characteristics of a Wicked Problem

**Horst Rittel & Melvin Webber 1973**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no definitive formulation of a wicked problem.</td>
<td>Solutions to wicked problems are not true or false but good/bad.</td>
</tr>
<tr>
<td>Wicked problems have no stopping rule.</td>
<td>Every wicked problem is essentially unique.</td>
</tr>
<tr>
<td>Every solution to a wicked problem is a ‘one shot operation’, because there is no opportunity to learn by trial and error, every attempt counts significantly.</td>
<td>There is no immediate and no ultimate test of a solution to a wicked problem.</td>
</tr>
<tr>
<td>Every wicked problem can be considered to be a symptom of another problem.</td>
<td>Every wicked problem is essentially unique.</td>
</tr>
<tr>
<td>The existence of a discrepancy representing a wicked problem can be described in numerous ways. The choice of explanation determines the nature of the problem's resolution.</td>
<td>There is not an enumerable set of potential solutions, nor is there a well described set of permissible operations that may be incorporated into the plan.</td>
</tr>
<tr>
<td>The social planner has no right to be wrong. (i.e. planners are liable for the consequences of the actions they generate)</td>
<td></td>
</tr>
</tbody>
</table>

Fig. 3 Outlines the defined characteristics of a wicked problem
In the 1980 and 90s, the second generation of the Design Methods Movement witnessed revitalization in the design research community with the growing interest in cognition, creative thinking and the science of design. In the 1980s conference held by the Design Research Society, design methods were approached in a way which viewed the field in the complex manner, addressing the rhetoric of scientizing design.

Fig 5 Illustration of Victor Papanek’s Function Complex

accepted by all in the trade, however, the themes identified are now hot topics of industry.\footnote{Topics include planned obsolescence, user-centered design, sustainability, environmental design, consumer culture and design responsibility.}

\footnote{Design: Science: Method a conference held by the Design Research Society in 1980}
and concluding that perhaps design as a field of research could provide insight on thinking and solution based advances in other fields of research such as science and engineering.

The topic of research emphasizing what Cross addressed in his paper *Designerly Ways of Knowing* and the 1987 book *Design Thinking* by Peter Rowe gained acknowledgment in research communities spanning discipline. Aside from advancements made in education models and creative strategy and planning, the practice of design has continued to flourish as an interdisciplinary practice. A

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Fig.6 Comparison of First and Second Generation within Design Methods Movement
multitude of methods and design epistemology have since emerged, influencing fields such as planning, marketing, business strategy, engineering, and information technology (Dorst & Dijkhuis, 1995).
CHAPTER 2
DESIGN PEDAGOGY

2.1 Teaching Design
*The Modernist Movement*

2.2 Design Pedagogy Today
*Current Methods*
Chapter 2- Design Pedagogy

2.1 TEACHING DESIGN: THE BEGINNINGS BAUHAUS AND ULM

The Bauhaus, founded by Architect Walter Gropius in 1919, has been credited as the first modern design school. The Bauhaus sought to create a better understanding of design of a manufactured product through a foundation of interdisciplinary studies, bridging the gap between artist and craftsman. (Daichendt 2010). This education model took influences from the guild system, approaching design teaching through the expertise of industry masters, allowing for a ‘design by doing’ experience in learning (Papanek, 2016).

With the calamity of WWII, and closure of the Bauhaus in 1933, many faculty emigrated from Germany, continuing the philosophy of learning and design. Josef Albers ended up heading to Black Mountain College in North Carolina, and later becoming design head of Yale. Walter Gropius, whom had left the Bauhaus in 1928, became a professor of architecture at Harvard University and a guest lecturer at MIT. The New Bauhaus, later becoming the Illinois Institute of Technology was founded by Moholy-Nagy in Chicago in 1937.

Following the Bauhaus, the Hochschule fuer Gutaltung (HfG) Ulm School of
Design founded in Ulm, West Germany in 1953. Although beginning with a Bauhaus pedagogy, the model for the school shifted becoming an international center for teaching, development and research in the field of design teaching and industrial objects. The legacy of Ulm and its alumni can be seen in product design such as Olivetti, Braun, Lufthansa, and Kodak’s Carousel. The curriculum model and its approaches to design methodology also created a system from which several prestigious institutions have modeled their design education after.

2.2 CURRENT APPROACHES TO DESIGN PEDAGOGY

The impact of the Bauhaus and Hfg Ulm and parallel Design Methods Movement, shifted the way design was viewed as a discipline; its implications on society and approach to learning. With the growing number of texts and research in the field of design, studies became more grounded in theory, and the focus of discipline became more defined (Lyon, 2012).

The expansion of design, its influence in other fields, and the cross-disciplinary nature of systems design, planning, and strategy saw design recognized increasingly as its own department; specializing in vocations such as Industrial Design, Fashion, and Graphic Design. These institutions, although founded within a fine arts paradigm
saw a shift after the modernist movement’s influence gained popularity among educators 8

Three paradigms exist within design education: the atelier system, the visual-literacy system and design thinking (Oxman, 2001). Atelier systems based off the apprentice programs in the middle ages occur in the studio. Students learn through doing; a professional, in this case the teacher, guides the students in through a series of steps highlighting design processes through demonstration and communication.

The second model, is a focus on visual literacy. Widely practiced in schools like Ulm, the objective of this frame of education is to ground the students in general design principles thus gaining a greater understanding of visual components. This model is less concerned with the objective of designing as it is with the fundamental guiding principles of design.

The third paradigm of design education is not one that is as widely practiced as the former two models. Although the Design Methods Movement created a large body of grounded knowledge within the field of design, the area of design cognition is one which still has wide opportunity to expand upon. With a more conceptual approach to education, the third model of design education emphasizes an understanding of the importance of domain knowledge, structures of knowledge and the exploitation of knowledge in the process of design (Oxman, 2001).

With technology advancing, the need for innovative design has never been stronger. Design as an institution for solving problems that arise from the evolution of society is continually gaining opportunities through the advancement of science and engineering (Eastman, et al, 2011). In today’s landscape, students in design need to

8 Institutions such as: DAA (Known as DAAP today, previously College of Applied Arts, design recognized 1960); National Institute of Design, India (Founded: 1961), Carnegie Mellon; PolyU Design, Hong Kong (Founded 1964); (Department founded 1967); OTIS (Department founded 1978); SCAD (founded: 1978); Kyoto University of Art and Design (Department founded: 1991); among many others are examples of schools which caught the wave of design specialized departments.
understand a deeper and wider range of interdisciplinary skills. Beyond specializing in a specific field, there must be a general skill level encompassing the fundamentals of design and a deeper approach to science and technology, art and heuristics (Friedman, 2012).
CHAPTER 3
DESIGN METHODS & PROCESS

3.1 Design Thinking Methodology
3.2 Design Process
3.3 Defining Idea and Concept
3.4 Defining Concept Phases in Concept Methods
Chapter 3- Design Methods & Process

3.1 DESIGN THINKING METHODOLOGY

Design methods provide the designer with an approach to support research, process and produce. Design thinking methodology is a system which enables designers to solve complex problems through a series of steps approached in a strategic way. Different methodologies exist for different types of design parameters, all of them serving a basis for organizing thoughts and developing product through a series of stages.

When the design brief is delivered, designers begin a reflective practice; selecting areas of the problem space in which they want to further investigate. Through this exploration, they are framing the area of opportunity within the design problem, setting its parameters, identifying areas for research and planning the process for which the solution will be resolved (Cross, 2011).

The design process is a way to make the research methods used within the context of the project easier to navigate. ‘As design processes generally flow from divergent to convergent activity, greater pushes toward convergence are more likely as design processes progress. However, design process models represent smaller waves of divergent thinking throughout the process’ (Yilmaz, Daily 2015).

3.2 DESIGN PROCESS

As identified, the design process is a systematic synthesis of design thinking used within the scope of a project consisting of methods to achieve a greater understanding of product. Much like the discipline of design thinking, there is no one approach which definitive for design. Through research, several common elements compose a process, (index 1) one of which is a stage involving concept development.
Despite this step, however, there was a universal component missing— a way to understand ideas at the very infancy of the design process and their translation into a deliverable concept.

Steps within the process may have various approaches and order, dependent on the type of outcome that is being sought. In graphic communication design, for example, there may not be a lot of concentration on physically building a product but ideations prototyping and print proofing may be more of a focal point within the scope of the research.
3.3 DEFINING IDEA AND CONCEPT

For design to be successful, there must be a concept laying a groundwork for the project. The concept is the heart of the project- a proposed solution to the design problem identified in the early stages of research (Taura, Nagai 2013). The foundation for the outcome of the project is found within the concept phase of the design process- ultimately deciding the project direction.

Concepts are formed through ideas. Ideas are formed through impressions or sensations derived from experience (Mastin 2008). Through ideation generation, designers will often take experiences or observations abstract and subjective and piece them together, attempting to form a concept. There is no empirical data which shows how creative ideas are formulated within the structures of concept generation, due to the complexity of defining creativity, and the limitations in understanding deep thought within another person’s conscious which creates a challenge in design education for teaching conceptualization.

3.4 DEFINING CONCEPT PHASE IN PROCESS MODELS

Through an analysis of six different process models [1], it was seen that there were varying phases which established concept definition; the majority of which occurred within the second step. Although concept generation can occur technically within any phase of the process, something which has been referred to as the ‘mental-gap’ or ‘a-ha’ moment (Nagai, 2009), it has also been shown that defining a concept in the early phases of designing leads to a stronger product. Despite concept generation being through the process models, there is still not exact method to generate concept in the ‘idea’ or ‘pre-concept’ phase. A lack of clarity may be where designers get lost in thinking, serving as an opportunity for further investigation in the testing.
CHAPTER 4
CONTENT DISCOVERY & DEVELOPMENT

4.1 Content Discovery

4.2 Early Establishment of Defining Problem

4.3 Beginning Solutions
CHAPTER 4 CONTENT DISCOVERY AND DEVELOPMENT

4.1 Content Discovery

In looking at concept as a matter of starting the process for which to design something from, it can be deduced that the ideas being pieced together in the infancy of generation are important to research and reflect upon. As abstract fragments of observed and learned knowledge, ideas become as individual as the people thinking them. However, there is a significantly large gap in the process to generate ideas into concepts. To re-iterate, concepts are not ideas. They are the results of ideas which have been properly identified, researched and reflected upon to determine an objective plan on which to base the design on (Taura, Nagai 2013).

Through research and observation, it was found that although there were plenty of methods for the development of design in its latent phases, idea generating exercises and creative thinking strategies, modules involving the fusion of ideas transitioning into a conceptual framework for ideation were not identified. Recalling Norman Potter’s statement that design methods could not be approached properly without an understanding of the definition of the concept, it was found that in fact, design processes, although helpful in the later phases of design they could not be useful if the overall direction or understanding of concept were unclear.

4.2 Early Establishment of Defining Problem

Through teaching it was noticed that there was a lack of confidence when it came to finding inspiration and translating those ideas into a concept which to design from. The occurrence was first noticed in a studio course, required for design students, a notion which is rooted in the pedagogical belief that sketching plays a role in promoting creative thinking and a base to communicate idea.10

The university was one which did not require portfolio for admission into the design program. Therefore, the student work was a heterogeneous mix of drawing
competency. Initially it was theorized that the problem of conceptual generation arose from the inability to accurately visualize the ideas through an inexperience in hand-eye coordination. Through a series of drawing exercises pulled from ‘Drawing on the Right Side of the Brain’ (Betty Edwards) and ‘Drawing Space, Form and Composition’ (Wayne Enstice) an effort was made to show the students alternate methods of articulating the drawing process. Although the student’s gained skill in rendering, when it came down to the finished project the content was still lackluster.

Students have multitudes of opportunity to learn about design through the other courses being taught in the department including: textiles, fashion history, construction, and modern design history. Through discussion with the students, however it became evident the problem lay in the idea generation stage in design development.

Most students did not struggle with inspiration. Investigation of their thought processes through conversation allowed me to appreciate the variety of viewpoints, experiences and voices each student had. Further investigating this pattern, it became evident that the problem point occurred at the same bottom line. “How can I translate the subjective into artefact?”

4.3 Beginning Solutions

After the design problem was identified, an array of exercises were performed in hopes of gaining understanding how ideas could translate into solid design concepts which are explained in depth in the following chapters.

10 Nigel Cross addresses the importance of the role of sketching, stating that researchers have found that “sketching helps the designer find unintended consequences the surprises that keep the design exploration going... It is not just formal or shape aspects of the design concept that are compiled by sketching: they also help the designer to identify and consider functional and other aspects of the design. Suwa, Purcell and Gero suggested that sketching serves at least three purposes: as an external memory devise in which to leave ideas as visual tokens, as a source of visuo-spatial cues for the association of functional issues, and as a physical setting in which design thoughts are constructed in a type of situated action.” (Cross, Nigel Design Cognition: Results From Protocol and Other Empirical Studies of Design Activity (2011) pp. 90).
In addition to an investigation of intuitive methods, research included a literature review of design processes, research methods, design education, problem solving, critical thinking, and reflective design which was discussed in the previous sections. The challenge was determining how to fit these methods into a standard design process, the hierarchy of the approaches, and the implementation of the later steps in the design process such as prototyping and final product.

An analysis of what intuitive and research methods could be used for concept development in a system was explored through studio exercises and reflective research. Several maps and models were drawn out, lists were made of ideation methods that practicing professional designers use, and a literature review was done on influential innovators in the field fashion design.

Moving forward with the research, it was determined that investigation in design processes, semiotics, visual language, trend and logical thinking would be further explored. The following chapters discuss the strategies taken, the research methods applied, preliminary, secondary and tertiary, testing followed by the proposed solution for a method for conceptualization.
CHAPTER 5
RESEARCH METHODS

5.1 Participants

5.2 Scope

5.3 Applied Research:  
*Practice Based and Practice Led*

5.4 Qualitative Approaches

5.5 Evaluation Methods

5.6 Limitations
Chapter 5- Research Methods

5.1 PARTICIPANTS

The participants of the research were voluntary. Subjects were design students attending the University of Cincinnati who ranged in skill, undergraduate level and discipline.

Preliminary testing was conducted in the fashion department. Secondary and tertiary testing was performed in the industrial design department. Research was qualitative, performed both at the university and the personal studio of the researcher whose background is in fashion design, product strategy and communications design.

5.2 Scope

Research with students was conducted from February 2016- February 2017. Applied personal research began in October of 2015.

The research consisted of four preliminary studies, one secondary and one tertiary round. The time and session number varied in each case and will be explained within their research descriptions.

5.3 Applied Research- Practice Based and Practice Led

The majority of the research fell under the umbrella of Applied Research, which in this context is also known as research through design. Applied research is a fairly new method, constructivist in its approach in an attempt to broaden knowledge in the field of design, not just the specific task the designer is undertaking (Muratovski, 2016).

There are two forms of applied research, both of which are used in the parameters of this study. The first, practice-based, is a method which the initial research is conducted partly to gain knowledge through experience in practice and partly to gain understanding in the practice (Candy, 2006). The second form, practice-led research
is focused on the process of the actual testing rather than focusing on the artifact. This research is framed to gain new theories which would advance the discipline of the practice.

The first level was the practice of the researcher. By examining methods which could generate better concept, a methodology addressing this topic could augment the field of professional and pedagogical design. In addition, rounds of testing enhanced inferences for the improvement of the process, leading to better methods for thought generation, which, is eventually tested, evaluated, synthesized, and tested again.

The second level is that of the user’s participating in the study. Because research involves a model which would improve conceptual process, the outcome would add to design epistemology.

![Fig 10 Thesis Research Model](image)

The research methods employed in the study are both practice-based and
practice led. The inferences gained through the testing of the method (practice-based) allow adjustments to be made through practice-led research.

5.4 Qualitative Approaches

All action research was qualitative. Testing was done in a participatory sense, meaning that the research involved dialogue with the facilitator and interaction between participants in the research. The research facilitator practiced methods of engagement such as open ended questions, constructive feedback and other means to stimulate dialogue.

All testing was project based, meaning that in addition to data gathered through observation, reflection and interview, the results of the session were also artifact based.

In the second and tertiary round of testing, qualitative feedback was also provided through a survey completed at the end of the project serving as a reflective overview.

5.5 EVALUATION METHODS

In the case of action research, evaluation methods exist both in how the participants performed and how the method performed.

The success of outcome on the participant side was based on observation, artifact, and in some cases, benchmarking of previous work conducted before the research.

The success of outcome on the method’s end was based on evaluation of participant performance, feedback gained through the qualitative survey and comprehension.
5.6 LIMITATIONS

Limitations of research included scope, sample size and development of research. The premise of the testing was conducted at the university in established studio classes. As part of the coursework, the students were more than happy to participate in the research. However, without the context of an assignment which was built into established coursework, the participants didn’t have time to volunteer taking on another project. The sample of participants were housed within fashion and industrial design, therefore limiting the insights that could have been gained from other disciplines.

Because of the nature of the research, insights gained at the end of each phase of testing led to further revision and research before the next testing model was unveiled. Therefore, time became a major factor considering that testing had to be framed within the parameters of the research deadline. When major inferences were gained in the third round, it was too late to perform a new test with the revised model.
Fig 11 Relationship Model of Research
CHAPTER 6
PRELIMINARY RESEARCH & ANALYSIS

6.1 Testing Environment
6.2 Practice Led/Practice Based
6.3 Limitations
6.4 Methods
   6.4.1 ‘The Studio-54 Fiasco’
   6.4.2 ‘The 100’
   6.4.3 ‘IKIU’
   6.4.4 Composition through Juxtaposition
6.5 Research Through Design
6.6 Inferences Gained Through Preliminary Testing
Chapter 6 Preliminary Testing and Analysis

6.1 Testing Environment

Preliminary testing consisted of four qualitative studies and one practice based investigation conducted by the PI. All research was performed at the University of Cincinnati using the three paradigms of design education through learning by doing. Participants were voluntary and ranged from novice to senior level undergraduates within the fashion department. The principles tested were based in visual language; grounded in design fundamentals, critical thinking, problem solving and aesthetics using convergent and divergent problem solving skills.

6.2 Practice-Led/Practice-Based

In these studies, qualitative research is both practice based and practice led. Behaving in somewhat of a circular method, each phase of research undergoes two phases by both the researcher and the subject. In the first phase, knowledge is gained through the action of the activity. In the second phase the product of the exercise is analyzed and gauged through the success of the research. The

Fig 12 Practice-Led/Practice Based Research

In these studies, qualitative research is both practice based and practice led.
researcher, serving as a facilitator for the testing uses the outcomes as evidence for a proposed future methodology while also applying the tested model to personal work. The synthesized results of both researcher and subject lead to further methods which are tested again, advancing the knowledge of design thinking and conceptualization.

6.3 LIMITATIONS OF PRELIMINARY TESTING

Research was limited in the population sampled. Unless there was a class in which the testing could be conducted, it was difficult to depend on the students for extracurricular participation. In two cases, students agreed to partake in research but when the semester progressed they felt overwhelmed and withdrew from the study.

It was also difficult to sample disciplines outside of fashion design. Without students wanting to work outside of class, the majority of the testing was conducted in studios that the researcher was teaching.

It was difficult to gauge the progress of some of the workshops due to time constraints. The optimal study would consist of checkups on student work throughout their progression in the design program. The principles taught in the study would ideally lead to better practices in future design projects.

6.4 METHODS OF ANALYZING PRELIMINARY TESTING

With something such as a design method, it can be hard to analyze exactly how well the tested principles are retained. However, because the testing was performed in a design studio in the context of a class, a rubric was assessed

11 Atelier system, Visual-literacy system and Design Thinking.
following NASAD standards (see index 2). Other analysis involved gathering qualitative feedback through observations and nonverbal communication conveying understanding and application throughout the testing and in some cases, an identification of visible improvement through a comparison of previous work.

![PRELIMINARY TESTING ROUNDS](image)

119 Participants, 28 Research Sessions, 94 Hours of Testing

**Fig 13 Relationship of research rounds**
6.4.1 “THE STUDIO 54 FIASCO”

Participants
62 freshman majoring in fashion design.

Location/ Context
University of Cincinnati / Portfolio Class

Duration
Four 2 hour sessions

Research Method
Qualitative: Participatory, Practice-Based, Practice-Led

Pedagogy Method
Learning through doing; Design Thinking, Design Methods

Initial Assignment
Create a mood board using Ultrasuede In Search of Halston as a start point for inspiration.

Context
First attempt at creating mood board in their design experience.

Problem Identification
Images were searched using general internet image databases. When the mood boards were presented 2/3 of the class had the same set of images as inspiration. This was the result of a generic search suing the term: Studio 54.

Proposed Solution
Upon identification of the problem area of generic imagery, the mood board was re assigned. The requirements methods of image mining shifted; framing a clearer outline for an approach to create a more effective board using more unique sources for inspiration imagery.

Method
Students were instructed to reflect upon the movie, identify what sparked an emotion from them, and use the word associations for images that would be used as a search in printed matter. Students were also instructed to randomly pick secondary books that were rich in photograph to encourage a deeper context for inspiration. Further connections were drawn between associated image and random image resulting in
a whole new visual lexicon to base the mood board off of. In addition, students were instructed to scan 25 images that they found interesting but not going to use and share them on a database for the class. Therefore, in addition to the initial personal and random image findings, the students also had the opportunity to discover other peer found images.

**Process**

1. Movie
2. Captivation
3. Word Association
4. Image Association
5. Image search + Random Search + Student Database
6. Mood Board

---

**Fig 14 Typical Pinterest Search of Studio 54**
**Primary Results**

The second mood boards were deemed successful due to the originality and abstraction of thinking; there were no image repeats in any mood boards. In addition, the students gained a greater interest in what components go into telling a visual story, and where to look for inspiration beyond the internet. In several instances, students gained an appreciation of artists and photographers discovered in their supplementary searches—leading to future sources for image investigation.

![Image of mood boards](image1.png)

**Fig 15, 16** Before (left) and after of the exersize. Completed by same student.

**Opportunities for Investigation**

This case presented an opportunity to further investigate how visual imagery could be explored to create more compelling sources of inspiration and narrative for the designer. The combination of analysis and evaluation of the first case study along with research on semiotics, led to proposed research for Case Study 2.
6.4.2 CASE STUDY 2 ‘THE 100’

Participants
18 Pre Juniors majoring in fashion design

Location/ Context
University of Cincinnati / Fashion Drawing 2

Duration
Eight 3 hour sessions

Research Method
Qualitative: Participatory, Practice-Based, Practice-Led

Pedagogy Method
Learning through doing; Atelier, Design Thinking, Design Methods

Initial Assignment
Create a 25 look body wear collection using semiotics as a mode of direction.

Context
Fashion drawing studio; first education in semiotics and critical design thinking in the application of collection development.

Objectives
To study the translation of semiotics as a visual narrative for design inspiration.

Purpose
To assess if the study of semiotics through visual research played a positive role on design inspiration in the concept phase of the design process.

Process:

1. Pick 100 images based off a theme which is creatively stimulating
2. Scale to thumbnail size, print, cut and place on a flat surface for viewing.
3. Images are assessed and grouped through interpretation of meaning.
4. Decide direction of images based on theme that is most compelling to project.
5. Eliminate images which seem out of context, repetitive, generic or dull.
6. Start combining grouped images, investigating how semiotic meaning changes with visual relationship.
7. Finalize theme- Eliminate 75% of the thumbnails.
8. Explore relationships of pictures, their nuances and visual meaning they have when grouped together.
9. Pick 5-7 images which flow as a story to base collection on; enlarge and create moodboard.

**Primary Results**

In the initial stages students had issues analyzing the patterns and themes that were visually presented in the 100. The infusion of feedback from the PI and other study participants gave subjects a better understanding of direction. It was additionally found that identifying word relationships and relating those themes back to the thumbnail groupings aided in the development of a final visual direction.

![Initial 100 images of assignment](image1)

![Final visual concept represents ‘drowning’](image2)
Opportunities for Investigation
Further interpretation of meaning through semiotic investigation which is understood at a more elementary level. Word image associations and the ability to tell stories visually. Deriving form visual inspiration.

6.4.3 CASE STUDY 3 'IKIU'

“IKIIU” Participants
Junior in Fashion Design

Location/ Context
University of Cincinnati / Independent study

Duration
13 sessions ranging in time, total 40 hours

Research Method
Qualitative: Participatory, Practice-Based, Practice-Led

Pedagogy Method
Learning through doing; Design Thinking, Design Methods

Initial Assignment
Create a menswear collection identifying with personal brand

Context
Participant felt current process was not leading him to innovation and wanted to gain better insight on his aesthetic semantics.

Process:

1. Investigate parameters, association and emotion involved with design problem through reflective writing, observation of interests and ideas.

2. Analyze journal entries- distilling insights through keywords

3. Study of semiotics through the readings of Peirce and Saussure
4. Determine visual research direction through discernment of keywords, gather 100 images; crop, print and cut

5. Categorize and apply semiotic thinking to determine deeper visual metaphor

6. Reflect and analyze the deeper semantic implications of thematic patterns; develop mind map for reference and insight

7. With better understanding of semantics, complete selection of imagery for collection direction

8. Using visual direction as a base, continue to use the same methods of semantic application to solidify conceptual framework of collection through selection of material, color and fabrication.
Fig 20 Utilization of white board to determine keywords and their meaning

Fig 21 Displays the relationship of images creating a story which supports theme through visual semantics
Primary Results
Method proved to be successful in the interpretation of inspiration and application of semantics through the growth of the student determined by PI’s experience teaching student in past. In addition student applied method to projects after testing; creating a more cohesive and richer body of work.

Opportunities for Investigation
Semantic component of visual language well developed as a process for identifying mood and direction of project; opportunity to introduce form direction though incorporation of these methods.

8.4.4 CASE STUDY 4- IDEATION THROUGH COMPOSITION JUXTAPOSITION

Participants
38 Juniors in Fashion Design

Location/ Context
University of Cincinnati / Design Communication 2

Duration
One 3 hour session

Research Method
Qualitative: Participatory, Practice-Based, Practice-Led

Pedagogy Method
Learning through doing; Design Thinking, Design Methods

Workshop Topic
Creating collage compositions translating to form based ideation

Workshop Objective
Students will gain a greater understanding of ideation through collage. Concepts will be derived through the visual language of semiotics. Process work will involve investigative thinking using both pragmatic and philosophical approaches to
design methodology. Students will be able to derive conceptual work from abstract methods of thinking.

Context
Students new to collage as a means of design communication, no previous knowledge in semiotics

Process

1. Participants were instructed to bring tools for creating collage, Various printed images of non-animate objects and images of the silhouettes from their favorite designer.

2. PI facilitates workshop by lecture and by physical demonstration. Begins with topic introduction, explaining composition, gestalt, elements and principles of design.

3. Demonstrates collage through random decomposition of images and the reinterpretation of form through the summation of cut silhouettes using the elements and principles of design as a compositional guide

4. PI introduces semiotics, demonstrates how composition created through collage can be interpreted through semiotics using word association to describe mood or feeling.

5. PI facilitates discussion on how this works in fashion through silhouette choices, styling, fabric and color choice.

6. Participants are to analyze their composition and compare visual language to that of designer they chose, determining what approaches were taken by the designer to evoke the emotion of the collection.
Primary Result
Since the testing was conducted during a workshop, there was difficulty analyzing the comprehension of the students participating in the workshop. There was no introduction to the designer’s work (which had been printed before workshop) until the composition was ready to be analyzed and compared to form and silhouette of designer garments. When the silhouettes of the designer were introduced, 2/3 of the participant’s collaged form inherently appeared to be of the point of inspiration which was not an expected outcome of the research. To fully interpret this phenomena, more test rounds would have to be conducted, which is not an objective for this current research.

Fig 22 Illustrates the phenomena of collage reflecting designer silhouette
Opportunities for Investigation

Research proved successful in the context of form and interpretation of semantics, however the need for a deeper context to understand concept was needed. The form and aesthetic of a design may have meaning but the application or place in which it was to exist in was missing as an influence. It was identified that a component of trend would be the next step toward a foundation in design concept.

6.4.5 RESEARCH THROUGH DESIGN

Participants
Researcher

Location/ Context
University of Cincinnati/ Personal Studio/ Thesis Research

Duration
One Year

Research Method
Qualitative: Participatory, Practice-Based, Practice-Led

Research Objective
To design, test and practice a method which bridges idea to concept through a series of exercises and reflection.

Primary Goals
To research, test and evaluate proposed methods of conceptualization through practice-led and practice-based research in the undergraduate design departments, eventually leading to a working model of concept generation.

Secondary Goals
To create a 5-look collection which follows the methods and process which are being tested and hypothesized, leading to a cohesive and well-read line.

Process of Primary Goals
Research conducted with students.

Process of Secondary Goals: (Extensive process work displayed in index)
1. Develop visual direction through image mining

2. Investigate semiotics and utilize methods implemented in primary research goals.

3. Define semantics of personal brand

4. Develop visual language of brand

5. Identify direction of form through collage

6. Implement semiotics into direction of materials

**Primary Result**

The first iteration for pre-concept development using methods from the inferences gained in the preliminary rounds combined with contextual exercises such as STEEP.

**Secondary Result**

A complete personal brand with visual language and semantic meaning. A collection ideated using the form created through collage and semiotics. Partial construction of toiles. (See Index)

**Opportunities for Investigation**

Semiotic and brand essence are solid, however, the collection felt like it was lacking an impactful direction. After reading Victor Papanek’s 1972 book *Design for the Real World: Human Ecology and Social Change* and seeing the political system unfold into a trajectory of consequences, it was concluded that context was missing in conceptual research.
6.6 INFERENCES GAINED THROUGH PRELIMINARY TESTING

1. Students function better with a clear directive of what is being done and why.

2. Example always works best, starting with a demo and following exercise with dialogue and feedback creates a clearer working environment, especially at the novice levels.

3. Thinking out loud and reflective practices allow for better insight on process and a greater gauge to benchmark understanding of method.

4. Semiotics are especially effective when subjects make word associations with the pictures. Language plays an important role on the understanding of visual interpretation.

5. Although visual language is a helpful tool for inspiration and meaning, there can be a lack of context based on the absence of user and ‘world’ in which the product lives in. Therefore, to create a more effective conceptual method, trend needs to be folded into the proposed process.
CHAPTER 7
PYRAMID METHOD PROTOTYPE

7.1 Pyramid Method Prototype
7.2 Secondary Testing: Pyramid Method: Design A Bag
7.3 Subsequent Stage of Testing
7.4 Tertiary Testing: Pyramid Method Revision of Trend
7.5 Research Through Design:

Inferences from Secondary and Tertiary Rounds
Chapter 7- Pyramid Method Prototype

7.1 PYRAMID METHOD PROTOTYPE

The pyramid method was developed as an initial tool for concept generation through the inferences gained in the preliminary rounds of testing with the addition of trend and user exercises. Consisting of 6 steps, the designer starts at the subjective end (as the communicator) and ends at objective end (concept for receiver). Within each phase there is a point for reflection and feedback among peers. The steps of the pyramid are named after stages of plant growth, to allow the user to easily remember the phases in concept development, as it serves as a metaphor.

![Pyramid Method Diagram]

Fig 24 Pyramid Method
I. Cultivation- Reflection of prompt; Examination of artifact and its parameters; Areas of opportunity
II. Incubation- Collect 100 images
III. Germination- Semiotic Investigation of imagery; Final images chosen
IV. Environment for Growth- STEEP\textsuperscript{13} Exercise; Scenario Planning
V. Sprout- Research collected and analyzed, materials and colors chosen
VI. Bloom- Concept Pitch; Mood imagery, consumer archetype; silhouette direction; material and color direction

7.2 SECONDARY TESTING: PYRAMID METHOD: DESIGN A BAG

Participants
4 Juniors in Industrial Design

Location/ Context
University of Cincinnati / Design Communication 2

Duration
4 three hour sessions

Research Method
Qualitative: Participatory, Practice-Based, Practice-Led

Pedagogy Method
Learning through doing; Design Thinking, Design Methods

Design Prompt
Design a bag

Research Goal
Participants are to create a design proposal for a bag concept based on the steps of the pyramid.

Context
Students are new to visual language methods; trend forecasting has never been a topic of exploration.
Process:

1. Cultivation- Stimulation created through the prompt which can be inspired by observation or experience. Solid reflection through journaling including catalyst statements distilled from writing themes.

2. Incubation- ‘The 100’ Exercise

3. Germination- Interpret group feedback from incubation stage and continue to develop idea on the foundations of visual language. Create mood board from selected 5 images.

4. Environment for Growth- Gather news articles: 3 social; 3 technology; 3 environmental; 3 economic and 3 political, summarize and discuss findings in group. Create parallels of current and historical events, analyze patterns and create a future scenario for 10 years from now. This environment becomes world for design story of product. Create a user who would live in proposed world, along with their habits and contexts.

5. Sprout- All research is collected and summarized. Swatches/Materials gathered, silhouette direction identified. Information compiled for pitch. Product is summarized.


Primary Result

Presentations were coherent, following the stages of the pyramid through a visual the stages leading to concept. During the facilitation of testing, cognitive improvement could be seen through discussion of topic, personal reflection and final selection of project manifestation as a result of the pyramid.

Because of PI’s limited knowledge of the students’ skill set, projects were evaluated with participants’ studio professor. Projects were evaluated based on participation, quality of presentation, and generation of concept. All of which received A’s.

Opportunities for Investigation

Participants also completed a brief questionnaire at project completion. Through
open ended questions, they expressed an interest in the pyramid, identifying their favorite stages such as environment for growth, or sprout; and felt they would like to spend more time on trend if they were doing it again. They also identified a need for a trend analysis class within their curriculum to understand user, market and scenario as a context for their product.

**Secondary Testing Inferences:**

Based on qualitative surveys, it was determined to switch the stages of STEEP (Environment for Growth) and image generation (Germination). The participants felt that by creating a scenario first it would be easier to contextualize images for inspiration. They also felt like learning about trends earlier on would allow them to decide on direction faster than starting with images.

The survey also identified a recommendation to explore a methodology like this in the earlier stages of undergraduate education. They proposed introducing at the early sophomore level, before co-op and after foundations design.

**7.2.3 SUBSEQUENT STAGE OF TESTING**

The second round of testing involving the pyramid focused on the general three phases involving the 100 images, STEEP and semiotics of product (Incubation, Germination, Environment for Growth, Sprout). Based on the previous testing round and concern of the participants, the trend portion of the research was re framed with more emphasis on activity and strategy.

**7.4 TERTIARY TESTING: PYRAMID METHOD REVISION OF TREND**

Participants
22 Juniors in Industrial Design, 2 Graduate students in MDES

Location/ Context
University of Cincinnati / Design Communication

**Duration**
4 three hour sessions

**Research Method**
Qualitative: Participatory, Practice-Based, Practice-Led

**Pedagogy Method**
Learning through doing; Design Thinking, Design Methods

**Design Prompt**
Design a musical instrument

**Research Goal**
Participants are to create a design concept proposal for their chosen instrument

**Context**
Students are new to visual language methods; trend forecasting has never been a topic of exploration. Instrument already selected researched.

**Process**
Day 1. Trend introduced to research group through lecture
Day 2. Students collect STEEP articles for analysis
Day 3. Students create axis of certainties from STEEP
Day 4. Scenario of future world created
Day 5. ‘The 100’
Day 6. Presentation of deliverables from testing round: Instrument research, mood board, context, user persona, aesthetic direction, possible exploration

**Primary Result:**
Participants initially resistant to STEEP exercise, not understanding how it pertained to an instrument. Facilitator and participant interchange resulted in a
comprehension of subjects as to why the exercise is used in concept development. Second phase of identifying an axis additionally presented problems. Of the 24 participants, 8 understood it despite class participation in demonstration. Through individual discussion, participants gained a greater understanding of axis and were able to translate into STEEP related axis although most still had trouble correlating with instrument. Final phase of active research involved utilizing the ‘100’. Participants understood and enjoyed component of method, able to connect a visual language to emerging trend although still slightly struggling with how it pertained to instrument. Continual dialogue of process, its purpose and relationship to design led to a more understood and less resistant acceptance to method.

Participants continued design process after test rounds completed, working under the direction of studio professor. Project still in process, however it has been noted that there is a general strength in direction and grounded approach to the steps in the process which were not evident the same studio previous years.

Opportunities for Investigation

Participants completed a brief questionnaire at project completion. Through open ended questions, and ranking it was identified that they felt that trend was important in the design process although there was a lack of understanding. They also believed the axis exercise was confusing and didn’t feel like there was enough of an understanding of the user despite the data showing the user was not as important in the process of conceptual development.

Tertiary Testing Inferences:

Based on the analysis of questionnaire and reflection of the studio sessions, it was concluded that the tested methods work, however, students feel more comfortable when they know a clear set of deliverables with reasoning as to why
the activities are being conducted. It was inferred that participants are less likely to participate in studio activity that they don’t understand, adopting solutions which are formed in their own habit. It was also found that sampled group were more interested in the final product rather than the means to get to that point, therefore, it can be inferred that conceptualization methods like the one presented need to be introduced at an early phase of design education.

7.5 RESEARCH THROUGH DESIGN: INFERENCES FROM SECOND AND TERTIARY ROUNDS

Participants
Researcher

Location/ Context
University of Cincinnati/ Personal Studio/ Thesis Research

Duration
6 months

Research Method
Qualitative: Participatory, Practice-Based, Practice-Led

Research Objective
To infuse trend methods into personal research to see if they influence the outcome of design through a contextual viewpoint.

Primary Goals
To research, test and evaluate proposed methods of conceptualization through practice-led and practice-based research in the undergraduate design departments, eventually leading to a working model of concept generation.

Secondary Goals
To create a 5-look collection which follows the methods and process which are being tested and hypothesized, leading to a cohesive and well-read line.

Process of Primary Goals
Research conducted with students.
Process of Secondary Goals: (Extensive process work displayed in index)

1. Re-Evaluation of concept
2. STEEP exercise performed
3. Historical direction
4. New ‘100’
5. Re-evaluation of context
6. Ideation Sketches
7. Print and Pattern Development
8. Fabric Produced
9. Materials Swatched
10. Garments created (still in progress)

Result

The personal brand with visual language and semantic meaning was evaluated in the context of the STEEP exercise. A new direction for concept was decided upon, reactionary to political climate and designer beliefs. Integration of trend revitalized collection direction, resulting in a complete overhaul of precious designs. Invigoration of design direction led to new print and pattern direction, silhouette and material.

Opportunities for Investigation

The nature of the collection is highly politicized due to the current environment. Collection took on one component of trend due to the scope and complexity of the research project, however following the dissertation, researcher plans on the continuation of project; expanding on method and implementing process insights into working solution of ‘Thought Propagation’.

In addition, the brand which was created, will continually be expanded upon with ventures into potential retail outlets.
CHAPTER 8
PROPOSED SOLUTION

8.1 Insights From Opportunities Determined in Testing
8.2 Final Proposed Method
8.3 Breakdown of Phases
  8.3.1 Phase I- Cultivation
  8.3.2 Phase II- Incubation
  8.3.3. Phase III- Germination
  8.3.4 Phase IV- Growth
  8.3.5 Phase V- Sprout
  8.3.6 Phase VI- Polinate
Chapter 8- Proposed Solution

8.1 INSIGHTS FROM OPPORTUNITIES DETERMINED IN TESTING

It was concluded that a process for conceptualization is effective when framing idea generating techniques in a strategic way. Through rounds of testing it was found design thinking principles are best understood through visual, linguistic and literary example. Students retention and comprehension of subject matter is better when read, demonstrated, and discussed.

Through the evaluation of testing rounds through observation and feedback it was concluded that the proposed ‘Idea Propagation’ method is explained using three principles. Ideally, the user would approach the method by first reading its components, seeing an example of how it works, and finally, participate in dialogue to clarify any questions that may have occurred.

Identifying the processes though name also proved to be an effective way of understanding the components as a whole. The second round of testing used the pyramid which named each phase whereas the third round named the step as it was. It was found that when the participants were able to identify the step they were on and recall the previous phase or next phase, the metaphor of plant growth led to easy recall.

Although the pyramid was easy to follow, it was counterintuitive to read bottom to top to top. In addition, showing the base as a visual element wider than the tip infers stronger or more important protocol which in this system is not always the case. The pyramid as an infographic has been used in many instances, however, the Eating Right Pyramid set by the USDA is perhaps the most recognizable. In the case of the Food Pyramid, there has been countless debate regarding the way the food exists in the hierarchy- how it is interpreted as good or bad based on the step it is situated in (Pearlman, 2011). To dismantle any visual misperception, it was determined that the pyramid was not the best representation for a thinking process method.

It was also found that ideas need to live in a context allowing for a better un-
derstanding of design direction. The ability to observe and analyze trend is one that takes practice. However, with a basic strategy rooted in STEEP and scenario planning principles, concepts lead designs into a more holistic existence.

8.2 FINAL PROPOSED METHOD

The proposed method model has been renamed Idea Propagation, a six step process visualized as a top down distillation method. The parameters of the system are defined top-down (prompt-ideation), (primary research-qualitative analysis), phase, and left-right (research-methods, practice and implications). Phases are named after the stages of a plant's lifecycle. Final stage, 6 has replaced bloom with pollinate (bloom gives a finality whereas pollinate leads to potential new plants, or in this case, the metaphor of ideation).

The system consists of similar testing methods which were practiced in primary, secondary and tertiary phases. However, with the evaluation and analysis of the tested methods, revisions have been made to make the module clearer and more effective in its outcome. Method order has also been revised based on the inferences found in research phases two and three.

Each stage of process consists of four actions. The first is a breakdown of the step, why it is being performed and what the deliverables are. The second is a description of the approaches of research thinking methods and how they are used. The third step is the activity which is performed to arrive at the deliverable which is the fourth step. The fifth step is for feedback from both peers and research facilitator (teacher) as well as reflection. When the fifth step is complete, the next phase can proceed.

The beginning of Idea Propagation begins at the initiation of a project when the prompt or design brief is assigned. Through the completion of each step the designer will arrive at the sixth phase (pollination) from which concept is synthesized through
IDEA PROPAGATION:
A SYSTEM FOR PRE-CONCEPT DEVELOPMENT

PHASE I
Cultivation

PRIMARY RESEARCH

OBSERVATION

REFLECTIVE

PHASE II
Incubation

EXTERNAL FACTORS

SECONDARY RESEARCH

STEEP

PHASE III
Germination

ANALYSIS/PLANNING

SCENARIO BUILDING

PHASE IV
Growth

VISUAL RESEARCH/Critical Thinking

VISUAL LANGUAGE

PHASE V
Sprout

QUALITATIVE ANALYSIS

SYNTHESIS

PHASE VI
Pollinate

IDEATION

RESEARCH

JUSTIFICATION

MOODBOARD

TREND

SCENARIO

DIRECTION

Fig. 25 Idea Propagation
the summary the 5 previous phases and ideation can begin. Thus at this point the traditional mode of process can resume.

8.3 BREAKDOWN OF PHASES

I. PHASE I CULTIVATION

Research Methods
Primary Research

Practice
Observation

Action/Implications
Reflective- Association, experience/
Investigative- Observation, Research

Learning through Doing:
Consider implications of the prompt or design brief. Write, interview, read grounded research.

DELIVERABLES:
Mind map which embodies all of the collective primary research gathered in Cultivation Phase showing relationships, areas of concentration and primary v. secondary influences. The data should be both qualitative and quantitative covering all of the key areas of topic.

II. Phase II INCUBATION

Research Methods
Secondary Research

Practice
External Factors

Action/Implications
STEEP

Learning Through Doing

Research current articles on local, national and global scope. Consider their implications and chose 5 from each category; the articles do not have to pertain to area of research, rather areas which are interesting/profound our potentially revolutionary.
DELIVERABLES:
Summary from each article with keywords/notes that state the summary of topic.

III. Phase III GERMINATION

Research Methods
Analysis/Planning

Practice
Scenario Building

Action/Implications
Current and Retrospective (Forecasing) Analysis

Learning through Doing:
Find parallel examples of historical occurrences which align with current events and list their outcomes and implications.

DELIVERABLES:
Create 5 AXIS involving key factors (and their opposites) for each area of STEEP. Research and position product/service/object category within axis. List other common product/service/object within axis showing inter relationships. From the 5 axis develop a scenario of the future context product is going to exist in. This should include consumer architype what their lifestyle consists of and what the STEEP looks like.

IV. Phase IV GROWTH

Research Methods:
Visual Research/ Critical Thinking

Practice:
Visual Language

Action/Implications:
Semiotics, visual metaphors

Learning through Doing
Collect 100 images that are inspired by mood gathered from Germination Phase. Find Imagery that is more subjective, and up for personal interpretation. Print and spread thumbnails out on table. Group imagery gather clues and interpret. Decipher metaphors by taking notes on word association. Decide on what thumbnails convey the best idea of the story the product is telling.
DELIVERABLES
Arrange 5 images on mood board, printed at full scale to use for visual interpretation.

V. Phase V SPROUT

Research Methods
Qualitative Analysis

Practice
Synthesis

Action/Implications:
Insight, Research

Learning through Doing
Discuss, Rethink and evaluate research for concept direction. Consider the factors that are playing into the role of your product category. Synthesize research together.

DELIVERABLES:
Pull together Mood Board, Trend, Scenario and Direction and vet reasoning for concept. Presentation.

Phase VI POLINATE

Practice: Concept

Action/Implications
Present/Pitch Concept Direction, ready to approach ideation stage of process.
CHAPTER 9
CONCLUSION

9.1 Design Thinking for Conceptualization
9.2 Limitations of Research
9.3 Further Development
Chapter 9- Conclusion

9.1 DESIGN THINKING FOR CONCEPTUALIZATION

This thesis serves as a way to bridge the gap between idea and concept with a proposed methodology known as ‘Idea Propagation’. This tool for conceptualizing ideas is a six step process incorporating inductive and conductive design thinking methods using principles of visual language, trend forecasting and scenario building.

For established designers, it can be a way to re-evaluate where and how design practice is being approached. In the context of design pedagogy, it is a way for instructors to implement a tool to guide students to gain better understanding on subjective cognitive thinking in a design thinking lens. For those who are new or learning design, the method exists to digest problems which in many cases seem overwhelming or ‘wicked’.

The research began with simple exercises that were used to interpret visual language, semiotics and form. Through a recognition of the efficacy of these teaching methods, research developed into a working method based on the combination of the established preliminary exercises and strategies used in trend forecasting. The use of the prototype in two studios have validated the need for a system aiding in conceptualization to accompany the traditional design methods which are taught in studios.

The qualitative studies were practice-led and practice based, meaning that its validation was dependent on learning through doing, the outcomes being the influencers of its evolution. The researcher’s investigation into the method, its modification and theory were validated through action, meaning that in addition to completing research in case studies and rounds of testing, it was also tested through direct application by means of project-certifying its usefulness in multiple paradigms.
9.2 LIMITATIONS OF RESEARCH

The major limitation of this research is time. Time effected the participatory research phase of this study due to it being in the frame of a semester. Participants were willing to engage in the research but a lot of times because of limitations of availability due to other course work it would not work out.

Time also influenced the literature review. Through research, it could be seen that this area of conceptualization and design thinking expanded beyond the limitations of this Master’s thesis.

Finally, time played a role on the ability to balance work as a researcher, designer and teacher. The scope of the project was ambitious and due to obligations, not all aspects of the study were able to be investigated.

9.3 FURTHER DEVELOPMENT

This project has opened many avenues for further research which would ideally take place in a PhD program at a University with a design department. The ‘Idea Propagation’ method would ideally be tested in other studio courses, in multiple phases consisting of several undergraduate levels to determine the impact it has on the individual design development.

The proposed research would lead to a grounded process to be tested on ‘non-design’ disciplines such as engineering, medicine and planning. Outcome of the research would be a non-disciplinary design thinking approach for concept development to be used in various modes of strategy, process and research.

The method would evolve through both research on participants and researcher- for in order to know one must do.
BIBLIOGRAPHY

REFERENCES


Appendices

Appendix I- Design Methods

Double Diamond- Design Council

The Double Diamond, created by the Design Council is a summary of design processes seen across disciplines which divides the process into four phases; sectioned within two parts- the first half to confirm the problem definition and the second to develop a solution. The double diamond, occurring at both halves of the process represent the divergent and convergent thinking which exist in the problem solving process.14

I. Discover- Insight into the problem
II. Define - The area to focus on; develop a clear plan defining design challenge
III. Develop- Potential Solutions; prototyping phase
IV. Deliver- Solutions that work; project is finalized, production phase and entrance into market.

14 "In all creative processes a number of possible ideas are created (‘divergent thinking’) before refining and narrowing down to the best idea (‘convergent thinking’), and this can be represented through the diamond shape” (2015, March 17). The Design Process: What is the Double Diamond? Retrieved from http://www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond.
The Design Method - Eric Karjaluoto

In *The Design Method: A Philosophy and Process for Functional Visual Communication*, Eric Karjaluoto approaches the design process with the perspective of a communication designer. Through his experience in the industry, Karjaluoto noticed that like the definition of design, the design process itself is just as elusive with hundreds of variants on what essentially boils down to problem solve for an end user (Karjaluoto, 2013). His design method is separated into four stages: Discovery, Planning, Creative and Application, in an attempt to streamline the process into stages which can clearly and efficiently deliver projects to clients.

**Discovery** - Data gathered and objectives of project determined through observation & analysis.

**Planning** - Key needs and issues identified. Plan is made to carry the project strategy out.

**Creative** - Conceptual options are explored for potential design direction, organizing the options into a clear vision.

**Application Phase** - Implementing the approach or concept and testing, evaluating, measuring and refining the product.

![Diagram of the Design Method stages](image-url)
The Design Cycle, created by Fiona Dieffenbacher is a method created for fashion designers who think in a non linear matter. Although many seasoned designers eventually end up developing methods which work on their own thought patterns, the approach of a designing without a guidance or process in the learning stages of design education can be problematic. This model shows the relationships between different phases of design, how they work in cycles.
IDEO’s Human-Centered Design Process

Creative agency IDEO is perhaps one of the biggest forerunners of user centered design. In their book *The Field Guide to Human Centered Design* (2014), IDEO has outlined what human centered design is and how to approach its seemingly overwhelming subject matter. The process is divided into three stages: Inspiration, Ideation and Implementation with subcategories within each. These are seen as tools to aid in facilitating the dialogue between designer and user with the goal of a greater understanding and easier synthesis of information.

I. Inspiration Stage- Involves a series of activities to build a team, identify who is the user, how to approach the design challenge and how to keep the user at the center of the research.

II. Ideation Stage- Gathering and analyzing the data from the design team, brainstorming possible opportunities and generate further ideas from which prototypes will be made. Within this stage, activities such as storyboarding, value mapping, and role playing.

III. Implementation- Designer introducing the product or service to the market as a pilot, partner with teams and resources to realize product, create a business plan, evaluate and plan for future design strategy.
D. School at Stanford- Process Guide

Based on Nobel Laureate Herbert Simon's book “The Sciences of the Artificial”, the Hasso-Plattner Institute of Design at Stanford (D.School) has framed a five step system of design thinking for teaching. Although the stages in the thinking model appear very sequential, they do not have to follow any specific order. Each module is seen as a contributing part to a project- they can often occur simultaneously within groups and be repeated iteratively (Friis, Siang 2017).

I. Empathise- In this phase the researcher approaches the design problem through observation, engaging and the combination of the two through user interaction.

II. Define- The goal of the design phase is to clearly identify the design opportunity and create an actionable and meaningful problem statement which includes possible insights or patterns learned through research.

III. Ideate- Explore the scope of ideas which have been generated through research- the goal is not to come up with a correct answer, rather more of a wide pool of iterations to pull future prototypes from.

IV. Prototype- Designing product models which can answer questions that were proposed in the early stages of the projects.

V. Test- Feedback is solicited from the models that have been created. Due to the nonlinear characteristic of the D.School model, the testing phase can also serve as a platform for gaining empathetic insights which could result in a modification of the prototype phase.
Comparison of Design Processes

In a comparison of the previous processes, it was seen that there were varying phases which established concept definition; many which occurred within the second step. Although concept generation can occur technically within any phase of the process, something which has been referred to as the ‘mental- gap’ or ‘a- ha’ moment’ (Nagai, 2009), it has also been shown that defining a concept in the early phases of designing leads to a stronger product.

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CURRICULUM AT UNIVERSITY
Fashion Design, Industrial Design

BS in Fashion Design

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Guide provided by NASAD outlining expectancies from students in fashion design at an undergraduate level.

**NASAD Competencies Summary**

**Degree:** The BFA in Fashion Design, *a professional undergraduate degree*

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**Essential Note:** Items below are excerpts from the NASAD *Handbook*. Items 1 through 5 indicate the content and natures of the competencies expected of those graduating with the above degree. Items 6 and 7 indicate recommendations for competency development.

Only the *Handbook* in its entirety contains all standards and guidelines applicable to and used by all phases of NASAD membership reviews. In the text below “H.” indicates the location of the excerpted text in the Handbook; the term “(All)” indicates standards applicable to all professional undergraduate art/design degrees including fashion design; “(Fashion Design)” indicates specific standards for that major.

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**Item 1. (All)**

**Common Body of Knowledge and Skills** *(H.VIII.B.)*

1. **Studio.** Studies, practice, and experiences in studio subjects are of prime importance in the preparation of students for professional careers in art and design. The excellence of the creative work produced by students is the best determinant of the adequacy of the studio studies offered by an institution. Creative work includes, but is not limited to, conceptualization, process, product, and critique.

Irrespective of major or specialization, students must:

a. Gain functional competence with principles of visual organization, including the ability to work with visual elements in two and three dimensions; color theory and its applications; and drawing.

b. Present work that demonstrates perceptual acuity, conceptual understanding, and technical facility at a professional entry level in their chosen field(s).

c. Become familiar with the historical achievements, current major issues, processes, and directions of their field(s).

d. Be afforded opportunities to exhibit their work and to experience and participate in critiques and discussions of their work and the work of others.

Studio work normally begins at the freshman level and extends with progressively greater intensity throughout the degree program.

There should be opportunities for independent study at the advanced level that includes appropriate supervision and evaluation upon completion.

2. **Art/Design History, Theory, and Criticism.** Through comprehensive courses in the history of art/design, students must:

a. Learn to analyze works of art/design perceptively and to evaluate them critically.

b. Develop an understanding of the common elements and vocabulary of art/design and of the interaction of these elements, and be able to employ this knowledge in analysis.

c. Acquire the ability to place works of art/design in historical, cultural, and stylistic contexts.

In certain areas of specialization, it is advisable to require that students study the historical development of works within the specialization.
Normally, studies in art and design history and analysis occupy at least 10% of the total curriculum.

3. **Technology.** Students must acquire a working knowledge of technologies and equipment applicable to their area(s) of specialization.

4. **Synthesis.** While synthesis is a lifetime process, by the end of undergraduate studies students should be able to work independently on a variety of art and/or design problems by combining, as appropriate to the issue, their capabilities in studio, analysis, history, and technology.

**Item 2. (All)**

**Results (H.VIII.C.)**

Upon completion of any specific professional undergraduate degree program:

1. Students must demonstrate achievement of professional, entry-level competence in the major area of specialization, including significant technical mastery, capability to produce work and solve professional problems independently, and a coherent set of artistic/intellectual goals that are evident in their work.

2. Students must demonstrate their competence by developing a body of work for evaluation in the major area of study. A senior project or final presentation in the major area is required.

3. Students must have the ability to form and defend value judgments about art and design and to communicate art/design ideas, concepts, and requirements to professionals and laypersons related to the practice of the major field. They are able to work collaboratively as appropriate to the area(s) of specialization.

**Item 3. (Fashion Design)**

**Essential Competencies, Experiences, and Opportunities (H.X.D.3.)**

*(in addition to those stated for all professional degree programs in VIII.B and C.)*

a. Understanding of how design elements, including color, texture, and pattern, contribute to the aesthetic, illusionistic, and practical functions of three-dimensional forms, particularly as related to principles for draping the human body and the design and construction of garments. Development of this understanding continues throughout the degree program in such areas as form analysis and integration, color, and design.

b. Knowledge and skills in the use of basic tools, techniques, and processes sufficient to produce work from draft or specifications to finished product, including skills in portfolio preparation. This involves functional knowledge of human form and function and awareness of the potentials and professional capabilities in the uses of current and developing materials, media, and technologies, including sketching, life drawing, rendering, and computer-assisted design.

c. Ability to determine design priorities and alternatives; research, define and evaluate criteria and requirements; coordinate project elements; and communicate with involved personnel at all stages of the design process.

d. Ability to design for a number of markets based on a working knowledge of the characteristics and organization of those markets.

e. Acquisition of collaborative skills and the ability to work effectively in interdisciplinary or multidisciplinary teams.

f. Foundational knowledge of the history of fashion design, including but not limited to the influences of works and ideas on the evolution of fashion design study and practice over time and across cultures.
g. Functional knowledge of professional design practices and processes, including but not limited to professional and ethical behaviors and intellectual property issues such as patents, trademarks, and copyrights.

h. Functional knowledge of basic business practices including, but not limited to entrepreneurship, marketing, accounting, and manufacturing; and basic practices associated with the overall business of fashion such as ethics, intellectual property, labor issues, and decisions associated with ecological and social responsibility and sustainability.

i. Opportunities to develop a balanced orientation to the practical and theoretical aspects of fashion design, including understanding of the profession’s connection with other design fields.

j. Easy access to studios and libraries with appropriate fashion design resources.

k. Experience in applying design knowledge and skills beyond the classroom is essential. Opportunities for field research and experience, internships, collaborative programs with professional and industry groups, and international experiences are strongly recommended. Such opportunities to become oriented to the working profession should be supported through strong advising.

Item 4. (All Professional Undergraduate Design Degrees)

**Essential Resource-based Opportunities (H.X.B.)**

Institutions must provide the following in terms of each specific specialization or field of design it offers.

1. Easy access to studios appropriately equipped for teaching, learning, and work. See Section II.F.

2. Easy access to libraries with (1) appropriate design collections in the field of specialization, (2) resources that are current and appropriate to the specific curricula being offered, and (3) reference material in other relevant disciplines, such as the social sciences and the humanities. See Section II.G.

3. Easy access to tutorials that develop software and other technical capabilities. See Section IV.B.1.

4. Easy access to appropriately equipped labs and technological support necessary for the execution of design solutions. See Section II.F.

5. Continuous regular access to instruction and critique under faculty with educational and professional backgrounds in the area of design specialization. Instruction for the number of students enrolled, and sufficient numbers of qualified faculty to provide the diversity of expertise required for a comprehensive current education in the field of specialization. See Section II.E.

Item 5. (All)

**General Studies Competencies (H.VIII.A.6.)**

a. **Competencies.** Specific competency expectations are determined by the institution. Normally, students holding a professional undergraduate degree in art and/or design are expected to have:

1. The ability to think, speak, and write clearly and effectively, and to communicate with precision, cogency, and rhetorical force.

2. An informed acquaintance with the mathematical and experimental methods of the physical and biological sciences and with the main forms of analysis and the historical and quantitative techniques needed for investigating the workings and developments of modern society.

3. An ability to address culture and history from a variety of perspectives.

4. Understanding of, and experience in thinking about, moral and ethical problems.
(5) The ability to respect, understand, and evaluate work in a variety of disciplines.
(6) The capacity to explain and defend views effectively and rationally.
(7) Understanding of and experience in art forms other than the visual arts and design.

Item 6. (Fashion Design)

**Recommendations for General Studies (H.X.D.2.)**

*(See item 5. above.)* Studies related to anthropology, business, psychology, and sociology are particularly useful for fashion designers.

Item 7. (All)

**Recommendations for Professional Studies (H.VIII.D.)**

Students engaged in professional undergraduate degrees in art/design should have opportunities to:

1. Gain a basic understanding of the nature of professional work in their major field. Examples are: organizational structures and working patterns; artistic, intellectual, economic, technological, and political contexts; and development potential.

2. Acquire the skills necessary to assist in the development and advancement of their careers, normally including the development of competencies in communication, presentation, and business skills necessary to engage in professional practice in their major field.

3. Develop teaching skills, particularly as related to their major area of study.

4. Explore areas of individual interest related to art/design in general or to the major. Among the many possible examples are: aesthetics, theory, specialized topics in art/design history, analysis, and technology.

5. Explore multidisciplinary issues that include art and design.

6. Practice synthesis of a broad range of art/design knowledge and skills, particularly through learning activities that involve a minimum of faculty guidance, where the emphasis is on evaluation at completion (see Section III.G.).

Please Note:

For specific information regarding curricular structure, see H.X.D.1. Normally, approximately 65% of a 120 semester hour program is in art/design studies to ensure that time is available to develop the requisite competencies.

For a table of contents for all standards, see NASAD Handbook.
Appendix II OUTLINE OF RESEARCH (LESSON PLANS)

Preliminary Testing Group 2

BODYWEAR EXPECTATIONS

The purpose of this assignment is to show the connection between process and product. Semiotics through imagery was to be transitioned into a cohesive collection.

The document was to be in a format that is coherent with your portfolio. Generally, projects will be able to visually tell a story without having to explain much in the way of words.

Documentation of a thought/ideation process is critical in showcasing work. It gives substance to something that can ultimately be conceived as shallow or pleasing without much articulation as to why. Process exhibits the integrity of the designer, their thoughts and journey through something that is ultimately more meaningful than what meets the eye.

BODYWEAR DELIVERABLES

A. Presentation
   i.e. does the project show a well thought layout? Is the work presented in a clean and professional format? Is there a flow that does not end or begin abruptly or confuse the viewer?

B. Complexity of Process
   i.e. how much time and effort was spent on the concept? Was there exploration on technique? Is the designer willing to change from original idea and transcend into something stronger? Is this documented?

C. Articulation of Concept
   i.e. does the research and the ideation process translate into a strong final presentation? Can the viewer of the project decipher what was originally intended? Do things make complete sense?
Preliminary Testing Group 4

Objective
The purpose of this workshop is to engage the designer in new thinking methods using techniques based in collage.

Outcomes
Students will gain a greater understanding of ideation through collage. Concepts will be derived through the visual language of semiotics. Process work will involve investigative thinking using both pragmatic and philosophical approaches to design methodology. Students will be able to derive conceptual work from abstract methods of thinking.

Further Reading
Creative Research: The Theory and Practice for the Creative Industries Collins, Hillary
Fashion Thinking: Creative Approaches to the Design Process Diffenbacher, Fiona
This Means This, That Means That: A User’s Guide to Semiotics Hall, Sean

Lesson I
Collage as a basis for idea generation
Juxtaposition of varying objects

<table>
<thead>
<tr>
<th>The Elements of Design (the tools to make art)</th>
<th>The Principles of Design (how to use the tools to make art)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Line</strong></td>
<td>A regular arrangement of alternated or repeated elements (shapes, lines, colours) or motifs.</td>
</tr>
<tr>
<td>Horizontal, vertical, diagonal</td>
<td>Pattern</td>
</tr>
<tr>
<td>Straight, curved, dotted, broken</td>
<td>Contrast</td>
</tr>
<tr>
<td>Thick, thin</td>
<td>Emphasis</td>
</tr>
<tr>
<td><strong>Shape</strong></td>
<td>Balance</td>
</tr>
<tr>
<td>2D (two dimensional)/ flat</td>
<td>Proportion/ Scale</td>
</tr>
<tr>
<td>Geometric (square, circle, oval, triangle)</td>
<td>Harmony</td>
</tr>
<tr>
<td>Organic (all other shapes)</td>
<td>Rhythm/ Movement</td>
</tr>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>3D (three dimensional)</td>
<td></td>
</tr>
<tr>
<td>Geometric (cube, sphere, cone)</td>
<td></td>
</tr>
<tr>
<td>Organic (all other forms such as people, animals, tables, chairs, etc)</td>
<td></td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td></td>
</tr>
<tr>
<td>Reference to wavelengths of light</td>
<td></td>
</tr>
<tr>
<td>Refers to hue: primary, secondary, intermediate, or amount of pigment, and temperature: warm and cool</td>
<td></td>
</tr>
<tr>
<td>Reference to tint, tone and shade</td>
<td></td>
</tr>
<tr>
<td><strong>Texture</strong></td>
<td></td>
</tr>
<tr>
<td>The feel, appearance, thickness, or stickiness of a surface (for example: smooth, rough, silky, fuzzy)</td>
<td></td>
</tr>
<tr>
<td><strong>Space</strong></td>
<td></td>
</tr>
<tr>
<td>The area around, within, or between images or parts of an image</td>
<td></td>
</tr>
<tr>
<td>Refers to perspective</td>
<td></td>
</tr>
<tr>
<td>Positive and negative space</td>
<td></td>
</tr>
<tr>
<td><strong>Value</strong></td>
<td></td>
</tr>
<tr>
<td>The darkness or lightness of a color. White added to a color makes it a tint. Black added to a color makes it a shade.</td>
<td></td>
</tr>
</tbody>
</table>
Part II- Consider the themes you have discovered- consider further compositional elements that can be drawn from these conclusions.

Lesson III- Form
Form follows function… What about function following form?
Form is the shape and structure of an item. In fashion, form is length, width and depth.

Breakout exercise C
Part I- Deriving form from silhouettes: Using tracing paper, develop a series of forms that derive from garments of chosen designer.
Part II- Begin to develop alterations of form by layering tracing paper over found object images/collage juxtapositions. Trace new form folding it into original silhouette.
Part III- Begin to consider materials, textures and colors.
(Swatches would be sourced at this time)

Lesson IV- Development of Croquis
With newly traced forms, develop a working croquis that can display the concept accurately in both mood and garment construction.
Techniques of collage will be further explored to display final concept.
**Secondary Testing**

Research Project 1 Julia Green

PROMPT: DESIGN A BAG

DELIVERABLE: A solid pitch encompassing a compelling and comprehensive concept which serves as point to design from.

DESCRIPTION: This workshop will have 6 stages with 5 mini critiques. It is divided into two phases; one for each studio day. Due to time constraints, the final pitch will be submitted digitally.

MATERIALS:
- Something serving as a journal or sketchbook
- Variety of writing utensils
- Magazines, books, paper artefacts
- Prints from CGC
- Scissors
- Glue stick

DAY 1
Today you will be using your own personal narratives as a platform for inspiration and research. This will be done in 3 steps spanning the entire studio time. Each step results in an “intervention”; a physical manifestation of process work created from that step. These interventions give you as the designer the opportunity to get an outside perspective of your strategy as well as a way to further articulate your design thinking. This serves as an opportunity to legitimize every step of your research allowing reflection to advance a solid design idea.

I. **Cultivation**
Stimulation created through the prompt. This inspiration can be observational or experiential. In this case “Design a Bag”.

* i.e. *I see these products and I love the hardware, pattern, shape or I have had to carry... In this context it benefitted me in the following ways. I carry the following... It affects me this way...

DELIVERABLES: Solid reflection through journaling which may include documentation of artifact.

INTERVENTION: Reflection, “Catalyst Statements” distilled through journaling.
II. **Incubation**

Incubation is the stage in which you start to take the reflective nature of the journaling and begin to interpret these observations through collage and image. From the journaling you will find 100 images. These should be as subjective as possible. For instance, if you find a bag cumbersome perhaps you can connect that feeling or attitude to something as abstract as a herd of elephants or a bag lady.

There is no real limitation to these images, however, I PROHIBIT WORDS OR PHRASES, ADVERTISEMENTS AFTER 1990 AND THE ACTUAL OBJECT.

DELIVERABLES: 100 images made from contact sheet, cut out and spread out on table. Images should be in color large enough to see but still at a thumbnail size.

INTERVENTION: Begin by grouping imagery and gathering clues. Explore your grouping. Beyond color or composition what else does the imagery say? Start to make one word post-its labeling what you feel like is being conveyed. Find a group of 2-3 more people. Take turns interpreting their groupings.

III. **Germination**

Germination is the stage in which you solidify the story you want to tell. Interpret what was uncovered in the group session and continue to develop your idea on the foundations of visual language. Ask yourself if your imagery could be stronger?

DELIVERABLES: 1-5 Images that strongly embody your point. INTERVENTION: Group feedback on images, further editing.

End of Day 1 HOMEWORK:

At this point you have the opportunity to go back and change any imagery that you feel is not stating your case. Homework: Continue to journal and print the images at full scale. Gather news articles for next studio: 3 social; 3 technology; 3 environmental; 3 economic and 3 political. They should be in three phases: local, national and global. News sites need to be reputable and fact based.

DAY 2:

IV. **Environment for Growth**

In order for design to be relevant to the interpreter, context must be considered. As a product designer, the deliverable is aimed for market. Understand the market and consumer boils down to reading trends and creating a situation which you can envision your product to exist. Reading the news in all aspects will help put your idea into an environment. This will help determine what adjustments need to be considered in order for it to appeal to consumers.

DELIVERABLES: News articles summarized.

INTERVENTION: In your group compare collected articles and discuss. Ask yourselves, has this happened in the past? What were the outcomes? How does
that relate to today? Because trends are basic patterns, use that knowledge to create a scenario as a group on how the future is going to look in 5-10 years. Using this environment consider how this is going to effect your design story.

REFLECTION: Chose an archetype you are designing for. Name them and find an image of who they are. Consider their lifestyle needs. Chart their day. What are their habits? What is currently occurring in their market? (If there was more time we would do a competitive analysis on the current market share.) How does this relate to your existing design aesthetic developed from Phase 1? Ask yourself what changes need to happen in order for your idea to be more compelling.

REVISION: Change any of the images that you have developed from Stage III to support your idea from Stage IV.

**V. Sprout**

This phase is purely organizational. All research is collected and summarized. Collect swatches/materials that you are proposing to use. Gather silhouette direction. Begin compiling information in comprehensive document for pitch.

INTERVENTION: In your group discuss whether or not all of the research presented is cohesive and ready to pitch.

REVISION: As necessary.

REFLECTION: In 250 words, clearly summarize the product.

**VI. Bloom** PITCH

DElIVERABLES: Process book with stages 1-5 documented. This includes scans and/or photos of journal pages.

MATERIAL AND COLOR
DIRECTION SILHOUETTE
DIRECTION CONSUMER
ARCHITYPE
MOOD IMAGERY
INDEX (includes sources from news articles)

INTERVENTION: 5 Minutes to state inspiration, concept, and direction. Feedback is critical. Participation in 20% of your grade.
QUESTIONS FOLLOWING PROJECT COMPLETION
1. What part of the pyramid did you find to be the most important? Why?
2. How much time would you ideally spend on each phase?
3. Was finding imagery helpful? How did you feel about doing word association?
4. What was the most difficult step for you?
5. In the past, what the method you would use to design?
6. What would you change on the pyramid? Are there any steps you would reverse?
7. Will you be using this method in the future? (Be honest)
8. If this was useful, when do you think this thinking should be introduced?
9. How important is it to have a journal?
10. Have you ever used any of these components in the past? In what context?

RESULTS FROM QUALITATIVE QUESTIONARIE

QUALITATIVE QUESTION PHASE 3 OF TESTING

<table>
<thead>
<tr>
<th></th>
<th>Student I</th>
<th>Student II</th>
<th>Student III</th>
<th>Student IV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most Important</strong></td>
<td>Environment for growth</td>
<td>Environment for growth</td>
<td>Incubation/ Germination</td>
<td>Incubation/ Germination</td>
</tr>
<tr>
<td><strong>Phase</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Time spent on</strong></td>
<td>Phase 1 - 30min;</td>
<td>For a semester long</td>
<td>Phase 1/2 happen</td>
<td></td>
</tr>
<tr>
<td><strong>each phase</strong></td>
<td>Phase 2 - 3 hours;</td>
<td>project 3 weeks could</td>
<td>quickly (week); Phase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phase 3 - 1 hour;</td>
<td>have been spent on</td>
<td>3-4 week; and a half;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phase 4 - 3-5 hour;</td>
<td>this. Do a couple of</td>
<td>Phase 5/6 week</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phase 5 - 1 hour;</td>
<td>phases in class but</td>
<td></td>
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<tr>
<td></td>
<td>Phase 6 - 1 hour</td>
<td>most of it would be</td>
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<td></td>
<td>done in between class</td>
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<td>and the interventions</td>
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<td>would take place during</td>
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<td></td>
<td></td>
<td>class.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Finding Imagery</strong></td>
<td>Very Helpful, liked</td>
<td>Very helpful</td>
<td>Yes, I thought it was</td>
<td>Very helpful</td>
</tr>
<tr>
<td></td>
<td>being forced to</td>
<td></td>
<td>completely necessary</td>
<td></td>
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<tr>
<td></td>
<td>expand search</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>beyond pintrest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Feeling about</strong></td>
<td>n/a</td>
<td>Helpful because it</td>
<td>Word association helped</td>
<td>Interesting, curious</td>
</tr>
<tr>
<td><strong>word association</strong></td>
<td></td>
<td>opened my mind a bit</td>
<td>understand what it was</td>
<td>to see how much it</td>
</tr>
<tr>
<td></td>
<td></td>
<td>to look past what I</td>
<td>I was looking at and</td>
<td>influenced the attitude</td>
</tr>
<tr>
<td></td>
<td></td>
<td>literally see.</td>
<td>helped to figure out</td>
<td>of my final direction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>what images related to</td>
<td>I like doing the persona</td>
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<td></td>
<td></td>
<td>each.</td>
<td>and revisiting the imagery</td>
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<td>after so they both</td>
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<td>influence the final</td>
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<td></td>
<td></td>
<td></td>
<td>design.</td>
</tr>
</tbody>
</table>

<p>| Most Difficult | Grouping imagery based off similar visual traits | The most difficult step was probably the imagery mostly because at first I didn’t quite know how to articulate the deeper thoughts and feelings behind groups of images and it was difficult to see I was going to relate back to the images. | For me it was the news articles, I think knowing where to look and spending more time looking would help me find news that I learn a lot from but is not just the news that is on the surface of every website. Digging deeper to find better more unique things you may not hear about on TV. | Trend projection- Don’t think I was as competent in extracting cues from my research that are indicative of trends. |
| What past method would you use on design | Receive prompt and jump right in creating a persona and environment would be final after the product made; not before hand like this project | Usually I would do the standard method of doing some competitive market benchmarking after establishing what I wanted the product to be then jump right into sketching. This now feels like a half-baked process. | I would research, figure out what new technology or opportunities were, look into what could be changed or improved, and then research materials / form / mood to capture the essence of the design before moving into ideation. Sometimes this process gets overlooked or some parts ignored and filled in later. | heavy focus on sketching out concepts without as much of a focus on where the ideas are coming from, I definitely look at the production methods as well as material qualities to help influence my design in a positive way by grounding it in the reasoning of current applications. |
| What you would change on pyramid | Include cultivation phase throughout project; journal more | Maybe it would be interesting to do imagery and articles at the same time and then come to class with both and discuss them both in the same class period. That way after having discussed articles, the final 5 images could have a stronger direction. | Im curious to see what would happen if we switched the order of news research with imagery. | Wait until after the trends have been analyzed to look at photos to distill qualities. Photos would be very free when initially selected but the reduction of photos would be tempered by trend analysis. |
| Will you use in future | Would love to but unsure about time due to deliverables of class- wish there was a faster way to research this much | Absolutely I would use this in the future. I think it yields a much stronger foundation for design than any project I’ve done in the past. | Yes, I will be using it. I think in this situation it works great if you are starting with a blank sheet and do not know how to get going. I usually need a sort of structure to my research so it is nice to have steps to follow. | Yes I want to expand on this project and use in future studios. Would be nice to do accompanied by a trend course. |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>When do you think this should be introduced in design education</td>
<td>I think this way of thinking should be introduced immediately. I think it’s so important to establish a real need for a product and if students can be taught to back it with tangible research and not just “I saw some things like it on Pinterest” sooner, that would create a great foundation for design research moving forward. I’m actually floored that this kind of thing isn’t really taught at all.</td>
</tr>
<tr>
<td>How important is journaling</td>
<td>The journaling was important but I didn’t find it imperative. I think it’s important to jot down any thoughts and stuff like that, but I feel like for it to actually work for me I would need to carry a notebook and pen everywhere with me.</td>
</tr>
<tr>
<td>Have any of these components been used in past</td>
<td>I mean I’ve done image research but it has been strictly product based which is good to an extent. I find that I gather it and then don’t reference it because I find it counterproductive to reference things that already exist. Otherwise this was my first time utilizing the rest of the components to this method.</td>
</tr>
</tbody>
</table>
Tertiary Testing Questionaire/Analysis

Major:
Level:

What part of the STEEP exercise did you find to be the most useful?

Would it have been more interesting/stimulating to pick articles that didn’t have any relation to your project?

Do you think it would have been easier to do trend research, axis, mood and then decide an instrument? Why?

Would it have been clearer if there was more of a structure to the STEEP research? How could it have been improved?

How did scenario planning help you in finding mood imagery?

How have you gone about choosing imagery in past assignment?

Do you find it hard to conceptualize on grounded research? I.e. knowing about an existing instrument and its implications.

If you had to switch the order of things, how would you?

What aspect(s) do you see this method being useful in future projects?

How do you think the axis could be improved?
Process Survey
Julia Green
Major:
Level:

Sometimes I design things and I can't trace it back to the idea of origin.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th></th>
<th></th>
<th></th>
<th>strongly disagree</th>
</tr>
</thead>
</table>

I find it difficult to articulate my ideas.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th></th>
<th></th>
<th></th>
<th>strongly disagree</th>
</tr>
</thead>
</table>

I consider social, technological, economic, environmental and political issues in my design process.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th></th>
<th></th>
<th></th>
<th>strongly disagree</th>
</tr>
</thead>
</table>

When I design, my concept extends beyond drawing.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th></th>
<th></th>
<th></th>
<th>strongly disagree</th>
</tr>
</thead>
</table>

I make visual connections to the ‘story’ I am telling with my product.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th></th>
<th></th>
<th></th>
<th>strongly disagree</th>
</tr>
</thead>
</table>

I read the news and follow current events.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th></th>
<th></th>
<th></th>
<th>strongly disagree</th>
</tr>
</thead>
</table>

I think about the past to understand the future.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th></th>
<th></th>
<th></th>
<th>strongly disagree</th>
</tr>
</thead>
</table>

I get frustrated because I feel like I can’t translate my ideas.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th></th>
<th></th>
<th></th>
<th>strongly disagree</th>
</tr>
</thead>
</table>

I look at existing product to design.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th></th>
<th></th>
<th></th>
<th>strongly disagree</th>
</tr>
</thead>
</table>

I often find myself uninspired or stuck.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th></th>
<th></th>
<th></th>
<th>strongly disagree</th>
</tr>
</thead>
</table>
I keep a sketchbook or journal.

I collect things I find interesting.

I consider myself an artist.

I consider myself a designer.

Number the following based on your process order.

If applicable, what areas do you feel like you don’t know enough about?

Rate what you feel confident in. (1 being not confident)

Rate what are the most interested in. (1 being most interested)

Rate the following in order of what you feel is the most important. (1 being most important)

Rate what you feel confident in. (1 being not confident)
How do you think the axis could be improved?

- I didn’t find this step helpful. I knew what I wanted before doing this. I don’t know how to improve it.
- Didn’t really help me that much. Do axis before picking instrument.
- The axis could be improved by having established areas to plot. I chose random plots and which could be better.
- It was pretty unclear as to what was supposed to be on our axis and it was too vague to just wing it guess what we should have on it.
- Maybe contain or define it more effectively. Find a concrete starting point.
- I think the axis works well.
- Do multiple.
- If we knew what to even dot on the axis.
- No idea.
- Define the axis words more.
- By identifying better controversial articles.
- Making sure to pick topics that lend to your instrument.
- Not sure.
- More specific.
- Like it as is.
- I don’t know.
- Didn’t understand it, sorry.
- I’m not sure.

Do you think it would have been easier to do trend research, axis, mood and then decide an instrument? Why?

- Well it works both ways. Doing the above method might have more chances of lead to uncharted territory.
- No, because I wanted to chose instrument first.
- Yes, I feel that it would have helped the process and discover a true need for this type of instrument.
- Sometimes it is good to let the research drive you.
- I had a hard time understanding the correlation between everything.
- Probably, having an instrument already was pretty limiting. Would’ve been easier to figure out a mood, scenario gap etc, then pick an instrument to match.
- Possibly? Easier to see where the chic is going and could be inspired by what is happening.
- Probably not, because I needed to something to narrow my ideas.
- Maybe, could be more helpful.
- I don’t think it would’ve been easier, I think research would’ve been stayed broad for too long.
- Yes because we would already have had reason for choosing the instrument.
- Yes because if you find something interesting you can apply to an instrument.
- Yes, then you would have a better understanding of all instruments and more products.
- Yes a lot of the research has not applied to my instrument.
- Yes I think the impact of the instrument and opportunity area could’ve been improved if it was chosen from research.
- Yes after doing the moodboard I think I had a better idea of what I was interested in.
- No because I feel like having a base instrument from day one guided my research. However- my final product barely resembles the base at the moment.
- No I think narrowing it down before was a good thing. I think it would’ve been too much to have nothing really to go off of.
- Not sure- I probably would have struggled making a decision as concrete as that after such conceptual research.
What part of the STEEP exercise did you find to be the most useful?

- Social III
- Technological VII
- Environmental V
- Moodboard II
- Axes of certainties and uncertainties to hone in on the gaps in knowledge/areas to focus
- Making a new world for my project
- Looking at how trends affect each other
- Needing to consider how each aspect of STEEP could apply to my concept
- Considering the world we live in and where it may go
- The most useful part STEEP was expanding the way I thought about my product. Not just from a designer/personal view.
- Gathering info from all areas and looking beyond just advancements in tech and materials
- Reading the articles that were relevant to my project. Not all were, as some design transcends some STEEP issues.
- Connecting very disparate elements like environment and instruments.

If you had to switch the order of things, how would you?

- I don’t think STEEP helped me pick a scenario/user maybe if I picked a user before STEEP
- Research, pick instrument, ideate, aesthetic/moodboard, ideate more
- I would shorten the STEEP timeline and focus on the user and product more. I need to know more bout what I am designing.
- I would extend the STEEP project
- I would ideate before deciding on an aesthetic
- Do research on instruments and inspiration before picking on instrument
- Trend, inspiration, concept/ideation, take out STEEP
- Research, then pick instrument
- If I had to switch the order I would do the axis before STEEP research
- Maybe decide on instrument later
- Research, mood board, story, concept
- Research tech, pick instrument, research style trends, ideate
- IDK
- I would condense the time frame
- Imagery could go along with scenario than after
- Research- then pick instrument
- It’s okay
- I don’t think it matters as long as you cover all the bases

Would it have been clearer if there was more of a structure to the STEEP research? How could it have been improved?

- I would have liked to have done it over a longer period of time. I found it hard to create an accurate picture of the world with 15 articles from the same week, esp because of Trump.
- I think that explainings its benefit before hand/ before we started the project... would have helped us a little?
- I just don’t necessarily think it was relevant to the project- would’ve been more relevant for soft goods which are trend based.
- I found it really hard to find economic articles. It would have helped if there was an example or two to look at.
- I think the amount of structure was good. It could have been improved by selecting parts of STEEP to dive deeper into.
- Yes we could have done topics that related more to product design (i.e. tech, environment)
- It was pretty clear, I just like the idea of STEEP honestly
- Yes, im not sure I benefited from the steep
- I didn’t like STEEP b/c I don’t like reading, so that’s why I didn’t understand the assignment
- Providing clearer written instructions instead of just verbal explanation
- Maybe, more defined outcomes?
- I didn’t understand why at first, but now I do, I think it works well for me.
- Pick letters to research based on project
- Probably. I didn’t think it was problematically unclear though.
- Not about music
- I had chosen the instrument and was initially trying to relate articles directly to it.
- STEEP was difficult to compare articles to our musical instrument
- Yes. Explained better? IDK
- By more/ Clearer examples of how to use it

How did scenario planning help you in finding mood imagery?

- I knew the vibe of what my instrument was going to be. Also the concept/ functionality.
- Not really
- ?
- I knew what was related to my area of interest in a remote sense
- I understood what the mood was from the environment.
- Having an environment audience and goal helps narrow down what appropriate moods there are.
- Helps you identify the environment you want your instrument to live in; scenario planning gave more context.
- It helped me create my story
- Helped me pick images based off scenario
- I don’t feel that it helped at all
- It didn’t
- Where you want the product to live
- It helped by finding ideas which helped with searches and finding inspiration
- Knowing your scenario defines the entire project, including its mood and aesthetic
- Helped me look for something a bit specific as to simply aimlessly browsing the overwhelming mass of imagery the internet has to offer.
- It grounded what I was looking for/ what I was trying to convey so I knew what to look for
- It helped establish an image/direction in my head so that the images were easier to select
- It gave me more context to define my aesthetic
- I didn’t have a scenario before finding my imagery

How have you gone about choosing imagery in past assignment?

- I pick a user and find imagery that suits the personality or I pick imagery after
- Based on the aesthetic I wanted to involve in my product
- I usually pick a brand or style and research their products. I also use design sites like behance.
- Hopelessly browsing pintrest for cool shit.
- From Google images, sort of going along with an aesthetic I already have in my mind
- I will always use Pintrest- its better that you think, I promise :P
- Just googling anything and keeping following pages or Pintrest
- Pintrest, LeManoosh, Magazines
- Chose imagery based on who user was
- I choose images based on the mood I want my project and product to convey
- Google
- Finding things that appeal to me or help me generate ideas
- Looking to other designers, pintrest, and other trend/tech sites
- It depends
- Functional images that explain products
- Yes
- Find inspirational images that match the aesthetic I am going for
- No
- I usually don’t. When I have, it is usually based on the form and color of image subject.
Would it have been more interesting/stimulating to pick articles that didn’t have any relation to your project?

- No V
- Probably, but it really wouldn’t have helped us with our project II
- I didn’t think the articles related to my project, at least not directly II
- YES VII
- Maybe I
- I think you should pick what appeals to you

Do you find it hard to conceptualize on grounded research? I.e. knowing about an existing instrument and its implications.

- NO II
- Yes II
- No, as long as I sort out what parameters or concepts I pick from it
- In some ways it’s more limiting, but that’s not necessarily bad. Having limits forces more creative solutions.
- Too much unneeded research that didn’t translate to something usable in terms of redesigning an instrument.
- I found it hard until I created a story
- Kind of
- Not really, its a good spring board
- Yes it is hard but being allowed to think blue sky and have our world was good.
- I feel like you need to do research in order to conceptualize.
- Yes, it was difficult.
- It was very hard for me at first to take my research and turn it into a physical thing. I am used to ideating before aesthetic refinement.
- It’s sometimes hard to stray from the original, yes.
- No, but I had ideas from before research that stick with me and probably added bias
- No, I think grounded research is good to understand, it helps define parameters to ideate from.
- Not necessarily, knowing limitations is a part of practical design. However, having no limitation opens a lot of doors.
- Yes

What aspect(s) do you see this method being useful in future projects?

- Conceptualization, marketing, design identity
- Ideation, thinkig outside box
- Axis, moodboard, steep
- STEEP
- The axis, Moodboard
- IDK
- Liked analyzing current trends/product on self made axis to see needed areas
- Creating a story/mood board
- Cargo Collective! Contact sheets
- The element of trying to connect current events to any given project, finding a common factor
- Conceptual projects
- Trend research and apply to products
- Doing research before picking a product
- The axis helped me the most- it visualized an area of interest, dont know if I would’ve found other wise. My moodboards, however, will most likely change a little.
- The way we did imagery I would repeat in future projects for sure- new for me
- The mood board and axis can be applied even to projects that don’t involve a lot of research
- It would be useful for branding projects and conceptual ideas
- 100 images- picking moodboard
- I think I will expland my research beyond just the history of the specific product and technology
I consider myself an artist

- Agree: 70%
- Disagree: 30%

I consider myself a designer

- Agree: 100%
- Disagree: n/a

If applicable, what areas do you feel like you don't know enough about?

- Moodboard Research Sketch Prototype Trend/Scenario Concept Consumer Ideations
  - 15% 29% 9% 9% 7% 7% 7% 18%

I often find myself uninspired or stuck.

- Agree: 55%
- Disagree: 45%

I think about the past to understand the future.

- Agree: 85%
- Disagree: 15%

I get frustrated because I feel like I can’t translate my ideas.

- Agree: 60%
- Disagree: 40%

I look at existing product to design.

- Agree: 90%
- Disagree: 10%

I keep a sketchbook or journal

- Agree: 60%
- Disagree: 40%

I collect things I find interesting

- Agree: 85%
- Disagree: 15%

I think about the past to understand the future.

- Agree: 85%
- Disagree: 15%

I get frustrated because I feel like I can’t translate my ideas.

- Agree: 60%
- Disagree: 40%

I look at existing product to design.

- Agree: 90%
- Disagree: 10%

I consider myself an artist

- Agree: 70%
- Disagree: 30%
Do you find it hard to conceptualize on grounded research?
I.e., knowing about an existing instrument and its implications.

How have you gone about choosing imagery in past assignment?
How did scenario planning help you in finding mood imagery?

What part of the STEEP exercise did you find to be the most useful?
What aspect(s) do you see this method being useful in future projects?

How did scenario planning help you in finding mood imagery?

Would it have been more interesting/stimulating to pick articles that didn't have any relation to your project?

Would it have been clearer if there was more of a structure to the STEEP research?
How could it have been improved?

What aspect(s) do you see this method being useful in future projects?

103
How have you gone about choosing imagery in past assignments?

- Strongly Agree
- Agree
- Somewhat Agree
- Somewhat Disagree
- Disagree
- Strongly Disagree

Sometimes I design things and I can’t trace it back to the idea of origin.

- Strongly Agree
- Agree
- Somewhat Agree
- Somewhat Disagree
- Disagree
- Strongly Disagree

I find it difficult to articulate my ideas.

- Strongly Agree
- Agree
- Somewhat Agree
- Somewhat Disagree
- Disagree
- Strongly Disagree

I consider social, technological, economic, environmental and political issues in my design process.

- Strongly Agree
- Agree
- Somewhat Agree
- Somewhat Disagree
- Disagree
- Strongly Disagree

When I design, my concept extends beyond drawing.

- Strongly Agree
- Agree
- Somewhat Agree
- Somewhat Disagree
- Disagree
- Strongly Disagree

I make visual connections to the ‘story’ I am telling with my product.

- Strongly Agree
- Agree
- Somewhat Agree
- Somewhat Disagree
- Disagree
- Strongly Disagree

I read the news and follow current events.

- Strongly Agree
- Agree
- Somewhat Agree
- Somewhat Disagree
- Disagree
- Strongly Disagree

I don’t know how to help you give direction. It didn’t make sense to look at Pinterest images to explain products after I finished the project.

- Google Answer doesn’t make sense
- Inspiration images
- Design websites
- Other kind of NO YES

Do you find it hard to conceptualize grounded research?

- I.e. knowing about an existing instrument and its implications.

How have you gone about choosing imagery in past assignments?

- Agree: 47%
- Disagree: 53%

When I design, my concept extends beyond drawing.

- Agree: 99%
- Disagree: 1%

I make visual connections to the ‘story’ I am telling with my product.

- Agree: 99%
- Disagree: 1%

I read the news and follow current events.

- Agree: 80%
- Disagree: 20%
NUMBER THE FOLLOWING BASED ON YOUR PROCESS ORDER

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RATE WHAT YOU FEEL CONFIDENT IN. (1 BEING NOT CONFIDENT)

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| consumer  | 1 (20%) | 2 (13%) | 3 (13%) | 4 (27%) | 5 (20%) | 6 (13%) | 7 | 8 (6%) |
Appendix III Research Projects

Preliminary Research

Studio 54 Fiasco

Moodboards Illustrating Problem (this page, facing page)
Completed by 4 different people
Studio 54 Fiasco - Before
Studio 54 Fiasco

Moodboards Completed After Exercise
Completed by 4 different people

After watching the Halston documentary it became clear to me that that great designer had two distinctive sides to him, one destructive and the other elegant. I combined the two sides, I wanted to capture the whole entity that was Halston.
Preliminary Research

The ‘100’

Illustrating Steps of process
dark colour palette study - was their life really as idealistic as it sounds? Photos of affection may mask a deeper truth. All lovers have their dark moments... if they don't, they are not truly in love.

traditional 70s trends + color palette combined with modern, minimalist silhouettes

these photos reoccurringly look as if they are taken during sunset, as if they wanted to show their life through a golden hour, in the "golden hour".
The colours weathers were inspired by photos viewed from my grandmother's photo albums. After and my grandfather run away to San Francisco in 1968, and in an environment of love, the craving to truly live in an environment where love is accepted and fulfilled.

Red, cream, dusty blue, moire + tan. Brighter colours were considered, however, I decided these toned down colours best conveyed the aesthetic of these USs, and will further contradict a modern minimalistic, ethereal silhouette, with a retro-pastel palette, and vintage inspired ribbed knit.
The 100

The 100 criterion is inspired by love through love. In the late 1800s, love was not that everyone desired. Nobody was mathematicians, people just trusted each other true affection and comfort. They found themselves on the open road through experiences and not through a fake agonizing world.
Preliminary Research

IKIU

I KNOW IT IS UGLY IS A LIFESTYLE BRAND INSPIRED BY THE BALANCE OF ELEGANCE + MASCULINITY MANIFESTED IN THE RELATIONSHIP BETWEEN FOOTBALL + HOOLIGANISM. COLLECTION 1 EXPLORES THE LITERAL INSPIRATION BEHIND THE BRAND.
Preliminary Research

Composition Through Juxtaposition
Composition Through Juxtaposition
Secondary Research

Design a Bag

Participant I

CULTIVATION

PART 1

INCUBATION

PART 2
ENVIRONMENT FOR GROWTH
PART 4

SOCIAL
1. ANOTHER MASS GRAVE DUG BY ISIS IN IRAQ, AND A GHOSTLY RITUAL RENEWED

With every mile of territory the Iraqi security forces retake the Islamic State, more mass graves are uncovered—yet an alarming amount. This is a representation of what has been happening during the times of Saddam Hussein’s industrial scale killings.

ISIS is the main group fueling these mass killings. In the days leading up to the killings, the Islamic State declared the deaths of hundreds of people from nearby villages to Husayn al-Abbas.


2. A LESS-FRENZIED BLACK FRIDAY AS MILLENNIALS OPT TO STAY IN

Millenials are more and more not going black Friday shopping and doing it online instead. This is creating huge problems for the shopping industry. Not only are people opting outside, but they are online shopping instead of going to the store.

People are expected to spend $52.4 billion this holiday season, which is 2% higher than last year. Yet, for the first time, more than half of the growth will come from online shopping.


3. FEELING SQUISHED? AIRLINES ARE SHRINKING HEADROOM, TOO

One of the biggest issues on airplanes is not a new problem, however, a new topic of discussion is the headroom shrinking. Seat density has increased so much in the last few years. Planes that used to have 137 seats a few years ago, now have 147.

Obviously leg room shrinking in airplanes is not a new problem, however, it is a new topic of discussion. Seat density has increased so much in the last few years. Planes that used to have 137 seats a few years ago, now have 147.

Not only is this a comfort issue, but it is also a weight issue. If someone is obese, they are going to have a more difficult time fitting in their seats than someone who weighs less. If someone is tall, they will have a more difficult time fitting in their seats than someone who is shorter.


TECHNOLOGY
1. TRYING SNAP’S SPECTACLES: LIVE WITH THE LOOK, ENJOY THE VIEW

Snapchat created their first physical product—sunglasses with an embedded camera on the frame. They sell for $150 and Snapchat views it as a novelty rather than a new piece of cutting edge technology.

When you see something interesting, if you tap the button near your left temple, you will record a 10 second video of your surroundings. Afterwards, Snapchat will have it on the app to share with others.


2. SPACE’S TRASH COLLECTOR? A JAPANESE ENTREPRENEUR WANTS THE JOB

Astroscale’s IDEA 035 Satellite is scheduled to launch next year. It will compile data on the density of space debris.

Okada is an entrepreneur with a vision of creating the first trash collection company dedicated to cleaning up the space junk: the spent rocket stages, inert satellites and other debris that have been collecting above earth since Sputnik ushered in the space age.


3. WHILE WE WEREN’T LOOKING, SNAPCHAT REVOLUTIONIZED SOCIAL NETWORKS

Snapchat has become the 5th most used app in the US, behind only Facebook, YouTube, Twitter, and Instagram. They are now considered “the next big social network. Their $130 sunglasses, live video feed, and social networks are the next big technology.


ENVIRONMENTAL
1. NEW FIVE POUND NOTE HAS UK VEGETARIANS UPSET

The new 5-pound bill was considered “stronger, safer, and better for the environment”, but it turns out they are not suited for vegetarians—they are not meat free.

The bank of England stated that 5,364 bills had to be replaced in 2015 because they had been eaten or chewed. There is a trace of tallow in the polymer pellets used in the base substrate of the 5 pound notes.


2. CHINA, COAL, & CLIMATE CHANGE

Despite global warming, China is still mining and burning coal. A lack of regulations and worries about electricity blackouts are causing Chinese officials to make a move. China’s bad response to coal scarcity exemplifies how difficult it is going to be to get them to back off the coal.

Chinese coal is the largest single source of carbon emissions from human activities.


3. ALASKA GLOBAL WARMING

With its proximity to the artic, Alaska is warming up twice as fast as the rest of the country which is creating huge problems of increased flooding and erosion. The communities have to decide to move to higher ground or to stay and lose close to $200 million.

The government has identified at least 31 Alaskan towns and cities in imminent risk of destruction.

ENVIRONMENT FOR GROWTH

PART 4

ECONOMIC

1. OIL PRICES ARE ALL OVER THE PLACE AHEAD OF KEY OPEC MEETING

Oil prices are all over the place recently due to the fact that the world’s largest oil producing countries are meeting on whether or not to curtail production.

Investors are still unsure whether the Organization of the Petroleum Exporting Countries will be able to hammer out a deal on Wednesday to freeze or cut production. Such a move would help shore up oil prices, which have plunged in a world awash in oil, but has been hampered by disagreement over who should assume responsibility.


2. PREPARE YOUR PORTFOLIO FOR ‘TRUMPFLATION’

The term Trumpflation is a result of Donald Trump being elected President starting in 2017. People are predicting that this will result in higher interest rates in the US, possible tariffs for goods being imported into the US, and the value of capital to decrease.

Bond managers have a difficult decision to make: should they hold an asset that they know is going to decrease in price?

Lower corporate tax rates should help businesses in the US and will slowly encourage investment and growth.


3. TRUMP SAYS HE’LL CUT TIES WITH HIS BUSINESSES

After being elected President, Donald Trump has claimed that he will no longer have ties to the Trump Organization. He has stated that this is in order for him to focus more on the country, even though he is not required to do it.


POLITICAL

1. CONGRESS IS ABOUT TO PASS A BILL THAT SHOWS D.C. AT ITS WORST

OxyContin was introduced as a painkiller in 1996 and is extremely addictive. 3 Purdue executives pleaded guilty in criminal charges tied to OxyContin’s marketing and agreed to pay more than $600 million in fines.

The executives did not spend prison time. The pharmaceutical industry had spent the past 10 years and billions of dollars pushing the medical community to ramp up the use of OxyContin and other opioids. By 2013, the number of annual opioid prescriptions, including short term and multi-ple, had nearly tripled, topping 200 million — in a country of just over 300 million people.

http://www.huffingtonpost.com/entry/congress-21st-century-cures_us_582c8d96e4d4d0e1d1aca32

2. TENS OF THOUSANDS OF LOW-WAGE WORKERS FLOOD THE STREETS

Beginning in 2012, the movement called “The Fight for 15” is demanding a minimum wage of at least $15 and the right to unionize. Workers included Uber drivers, childcare providers, home health aides, airport workers, and healthcare employees.

Many workers were arrested for acts of civil disobedience and strikes were in Chicago, Detroit, New York City, and Cambridge. Two states have passed legislation to raise minimum wage.

https://thinkprogress.org/work/2016/04/05/3700148/fight-for-15-unionization/

3. GEORGIA BILL COULD MAKE ISLAMIC VEILS ILLEGAL IN PUBLIC

Due to the increased issues with global warming and taxing on electricity, water, various chemicals, and gas, Fisher researched further into food waste. He found that many people do not throw away their food at the correct time. Interestingly enough, people throw their food away too soon, when they should still be able to eat it. On the flip side of this phenomena, some people want to long to throw their food away and get food poisoning because of it. The only current way people determining if their food is spoiled or not is by feeling, smelling, or tasting their produce. The product I am designing is created all out of recycled materials and a solar panel. The light installed in refrigerators needs to be a UV light that can power a small solar panel chip in the bag that the produce lives in. At the store, the consumer takes the desired produce and puts it in a “new and improved” bag. Once transported home, the user places the bag upright so that the solar portion of the bag is exposed. The strip above the panel is green when the produce is acceptable to be eaten and slowly fades to red as the produce spoils. Once the produce is either eaten or thrown away, the strip of color is replaced (it can be bought in packs of 100), and the bag is otherwise reusable.

The materials I have chosen are Pinatex (made out of pineapple leaf fibres), Mushroom Packaging (to carry all produce in protective packaging used currently for tech products, wine bottles, and glass containers), and gas, which is replaced (it can be bought in packs of 100), and the bag is otherwise reusable. The materials I have chosen are Pinatex (made out of pineapple leaf fibres), Mushroom Packaging (to carry all produce in a sustainable and durable way), recycled polyester (in order to sew in the solar panel), and the solar panel chip itself. These materials produce a low impact bag that allows the user to use it over and over again, eliminating the waste of the plastic bag, allowing the user their produce at the appropriate times, and create awareness about the lifestyle of the produce people are buying.

SPROUT

PART 5

SUMMARY

Due to the increased issues with global warming and taxing on electricity, water, various chemicals, and gas, Fisher researched further into food waste.

http://www.huffingtonpost.com/entry/georgia-niqabs-hijabs-illegal_us_582c8d96e4d4d0e1d1aca32

http://www.huffingtonpost.com/entry/congress-21st-century-cures_us_582c8d96e4d4d0e1d1aca32

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http://www.huffingtonb
MEET ASHER

It is 2025 and Asher is a 22 year old student at the University of California, Davis. He has been bagging groceries his entire life and is studying environmental science. Throughout his years working in the grocery store, he has seen firsthand the distance that food travels in order to be sold in their store, the amount of produce that grocery stores waste, and the growth of genetically modified foods. Climate change has become more apparent and all electricity, gas, and toxins have very large taxes associated with them. Due to the attention the grocery store waste is getting in the media and news, canning and preserving food has become a popular cultural norm. Asher is the local pro at how to choose and can produce that is in season. His secret, which many other frequent shoppers at his store do not understand, is knowing when food will spoil. He loves to sell cans, traveling by his bike, from house to house in the summertime. After college, Asher hopes to work on improving grocery systems to produce less waste, create a more popular local food market culture, and develop a more resourceful bagging system.

ASHER’S FAVORITE STORES

Columbia  
REI  
adidas  
TRADER JOE’S

BLOOM

PART 6

COLOR PALETTE

PRODUCT INSPIRATION

STRUCTURED for produce that could break or be smashed easily

CONFORMS to area around package to use minimal space

MINIMAL MATERIAL to ensure less waste and lightweight packaging

FLUID structure to reflect the earth’s desire to not be disturbed by humans

SECTIONS designated to hold multiple types of produce at once or produce bought at different time periods.
DOCUMENTATION OF BAG EXPERIENCES

Documenting any noteworthy experiences with bags. “Bags” can range from grocery bags to luxury hand bags and anything in between.

AMBIGUITY CONTRASTING STRUCTURE

Ambiguous compositions contrast the obvious presence of structure creating an unsettling feeling in a way where the mind can’t quite make sense of the images.
CURRENT EVENT BENCHMARKING

Social, technological, economic, environmental, and political articles at a regional, national, and global level.

SCENARIO AND PERSONA

5 to 10 year future forecasting based on the current event benchmarking followed by establishing a user within this environment.

- As politics and other social controversies become more and more emotionally driven, there arises a lack of communication and empathy.
- A millennial generation known for its connectivity and expressive nature has become reserved resulting in a decline in social media as well as overall discourse.
- People become very selective sharers.

Nicholas

- 30, Male
- Lives in Baltimore
- College degree in communication and writing
- Works retail full-time
- Lives alone; tends to keep to himself (fed up with social BS)
- Annoyed with all politics in general
- Doesn’t have Facebook anymore
- Economic and utilitarian with buying habits (would rather have fewer but nicer things)

MATERIALS

Durable materials and unconventional fasteners/buckles. Material breaks will define form.

Design a bag
SILHOUETTE DIRECTION

Urban/Everyday Bags with a focus on utility

Through imagery and current event benchmarking, I have established a trend of discomfort ambiguous familiarity and structure. Flaws in our society and politics specifically are having a larger, negative impact on the nation and its discourse. 10 years from now, when people are much more selective about how they communicate and who they communicate to, personal artifacts are going to grow in significance and use. As people interact with each other less, they will interact with their personal items more as well as notice their personal items more.

This is going to be an urban/everyday backpack with an emphasis on ultra-durability. This will be a bag that a person will not only take everywhere, but also use at home, always keeping certain items in it. This is for a person who seeks utility and durability, while also being aware that this bag will be a very close piece to their everyday routine. A neutral, earthy color palette with desaturated color accents will invoke comfort coziness and go well with most outfits. It will use ultra durable materials such as leather and nylon canvas, which is used in fire hoses. Nylon webbing will serve as aesthetic/structural details and metal quick-release buckles will add an interesting and unconventional method of fastening as well as an enhancement in durability.

THE PITCH
Participant 3

Mood Imagery:

Design a bag
Social:
Global: Fidel Castro was seen as a hero by some, and a tyrant by others. He lead a social revolution in Latin America’s, but few were able to follow in his footsteps.
National: Nationwide protest has led to arrest in Chicago, but the arrest were only due to disruption of traffic. No one resisted the arrests.
Local: Ohio people are not using their healthcare because they can’t afford the out of pocket costs.

Technological
Global: The EM drive paper has now been published by NASA, it documents a method of constant acceleration for interstellar travel.
National: UC is researching hyper-loop technology as part of a competition put on by Tesla. They have created a model that is priced right and scalable.
Local: Kroger is rolling out two new technologies. One is bag and go where you scan your own groceries as you go. The second is home delivery.

Environmental
Global: Nigerian fishermen are trying to sue shell due to water contamination. They see the British courts as their only opportunity for justice.
National: Veterans are gathering to help support the efforts to peacefully prevent the Dakota access pipeline. They are intending to bring structure to the “front line” of these efforts.
Local: Gatlinburg is suffering from a nearby fire. While the flames themselves are not currently a worry, the smoke is so far spread schools are closing down.

Economic
Global: Venezuela has experienced their currency bottoming out into hyperinflation. When the oil prices fell, having a culture framed around oil Mr Maduro tried to fix the currency exchange rate causing it to fall faster.
National: Minnesota is joining a nationwide effort to pursue higher minimum wages.
Local: Park and Vine is closing. They really enjoyed their operations, but it’s no longer an economically feasible venture.

Political
Global: The Turkish military is trying to intervene; because the Syrian government is not doing it’s people justice.
National: There have been two cases of Antisemitism threats against Jewish professors. The author tries really hard to tie it into the election.
Local: It seems like the Ohio State attack has a valid claim to religious inciting of terror.

Trend Research:
The World
In a world where hyper loops have come to stay, there is an intense transience around the idea of presence. When commute times are cut to make international travel trivial, commuting from city to city is no longer a hassle. The advancements in virtual platforms for business relations have made the need for physical presence decline.

The Person
Peyton works in IT for a small multinational real estate firm. She is a brilliant young coder, and was a pioneer in the field of virtual office interactions. As such she is quit wealthy. She has found herself in a situation where she is the only person who is necessary in the day to day functions of the office. Taking advantage of the new hyper-loop systems she commutes from her home in Dallas to Chicago for work. Her physical presence is required to ensure that all of the virtual engagements run smoothly. It is unacceptable for any bugs when the sales staff are meeting with clients.

Peyton is extremely intelligent and takes care of her body in the best way possible to ensure longevity. She is extremely interested in skincare, and does not vary her day to day equipment much. She is always looking to the future, and envisions a world that is cozy and quiet.

Persona:

Design a bag
The Bag:
The proposed bag is going to be an everyday carry that has a sense of home to it. In this way you can have a little piece of cozy qualities with you every time you are far away for the day. The bag will have a strong sense of utility, but will bring this sense of homey-ness through small clever quirks and materials. It will be made for commuters who don't have the option of making a quick stop home, they can bring the necessities as well as the fail safe items with them each day so they are prepared for those unforeseen moments.

The bag will be a back carry, with a concern for center of balance. It is not afraid to use fun colors although it does tend to be quiet more than screaming. The material choices will be guided by responsible sourcing and must be net zero in environmental impact. They have a natural sense of warmth and may contain many recycled materials. The bag will be waterproof, and have a protective pocket for a laptop (shockproof), as well as a special pocket for electronics and cords. The overall sense of the bag will be looking to the future while taking great care for the present.

Bag Description and Silhouette Direction:

Participant 4

I. CULTIVATION

STIMULATION | OBSERVATION | INSPIRATION

Carrying a bag to the field when playing a sport. Soccer bags could not class materials along with soccer practice gear. Supplies would get dirty / no separation of pockets

Fitting bags into lockers, standard locker size doesn't fit gym bag / duffel well

Shopping bags, paper and plastic. Plastic do not hold form well and paper disintegrate in the rain

Fanny packs are convenient and practical yet do are not in style

Shower / toiletries bags getting shampoos and product all over the inside and then being very hard to clean

Lunch bags that do not fit well in backpacks and are not an accessory used often

Taco bell / fast food bags

Ziploc bags thrown away in large numbered

Laptop protection on bottom of backpacks, waterproof
Design a bag
### IV. ENVIRONMENT FOR GROWTH

#### CONTEXT CONSIDERED

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<th>TECHNOLOGY</th>
<th>ENVIRONMENTAL</th>
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| Following the attack on Friday, Ohio State held an event to bring the community together.  
http://www.bbc.co.uk/news/tech-46182513 | Cincinnati air quality among worst in US  
http://www.bbc.com/news/business-46240054 | Cincinnati school levy passes and will aid in funding for schools, while providing additional revenue for the general fund.  
http://www.wral.com/article/Students-adapt-to-new-schoo-levy/5653074 |
| NATIONAL | NATIONAL | NATIONAL | NATIONAL | NATIONAL |
| Hamilton has best week of Broadway show ever as $3.3 million  
https://www.eolitics.com/2016/11/10/ue/get/brugt.html | Peugeot is donating $13m to saving the planet / Black Friday sales  
| Punk music memorabilia being burned in London by lot of Six  
http://www.what.com/arty- ca/9x9-get-what-ge-punk-music-me- morabilia-burned-in-london-836 | Japan’s car in a bag is lighter and more portable than overhead case  
http://www.bbc.com/news/technology-36020110 | Top 17 best covered places to read in the UK is here to read about other detectives and set whodunit scene  
http://www.independent.co.uk/travel/detec- tive-best-great-cotswod-readers-at-7417-189.html | Other detectives and set whodunit scene  

#### V. SPROUT

**ORGANIZATION**

### DIRECTION

**UNRECOGNIZABLE FAMILIARITY IN FORM AND AESTHETIC**

A RISE IN VIRTUAL REALITY CONTENT PRESENTS OPPORTUNITY

**INTRIGUING COLOR CHOICES THAT EVOKE CURIOUSITY**

CONSUMER THAT USES THESE ADVANCES TO EXPERIENCE THINGS HE/SHE COULD NOT USULLY EXPERIENCE
VR BAG PITCH

CONTEXT

In the future, virtual reality advancements have an opportunity to change lives. It can allow people to feel as though they are somewhere they are not, and are doing something they cannot. This initially could serve as entertainment but could also be used for interactions/meetings. Being physically required to be somewhere is no longer a requirement. This could be taken a step further to psychologically benefit people with disabilities, disease, and physical inabilities. This could be done by enabling them to feel as though they could walk again, or an amputee using his arm again. This could help through emotional therapy.

PRODUCT

A bag that could live in a virtual reality space, be interacted with, and used in different situations depending on what application or environment it is being used in.

FORM / MOOD

COLOR

UNRECOGNIZABLE FAMILIARITY
Tertiary Testing

Design an Instrument

Participant 1
The harp is one of the oldest instruments in existence, dated back to Egyptian royalty 5500 years ago. It was based off the bow and arrow, plucked like one would pluck a bow, with the fingers. In time people would associate it with angels due to its beautiful music sounding so heavenly. Even later on people began experimenting with different string layouts, developing new harps and new technologies. The harp most people think of is a pedal harp, and is used in orchestras.

What does the future hold for the harp? Creating a scenario and persona.
“I THINK THE DEVELOPMENT OF FULL ARTIFICIAL INTELLIGENCE COULD SPELL THE END OF THE HUMAN RACE”
STEPHEN HAWKING - PHYSICIST

“POTENTIALLY MORE DANGEROUS THAN NUKE$”
ELON MUSK - CEO OF TESLA AND SPACE X

“I DON’T UNDERSTAND WHY SOME PEOPLE ARE NOT CONCERNED"
BILL GATES - FOUNDER OF MICROSOFT

THE YEAR IS 2237
ARTIFICIAL INTELLIGENCE WAS DEVELOPED IN THE 2000’s, AND CONTINUED TO BE PERFECTED.
ROBOTS BECAME MORE AWARE AND SOPHISTICATED, UNTIL EVENTUALLY THE ROBOTS DID NOT NEED US ANYMORE.
THE ROBOTS KICKED ALL LIVING LIFE FORMS OUT OF THE CITIES, AND ONLY COME OUT TO STOP HUMAN REVOLTS.
HUMANS ARE NOMADS.
PLAYING MUSIC AND TRYING TO SURVIVE IN
HERDS THAT TRAVEL BETWEEN THE HIGHLY
SOFISTICATED CITIES THE ROBOTS HAVE BUILT
AROUND OUR OLD CITIES.

WHY THE HARP
A HARP IS WELL KNOWN FOR ITS HEAVENLY
SOUND, AND AS NOMADIC HUMANS TRAVEL,
THEY OFTEN SEEK HEAVENLY PLACES.
MOUNTAINS, VALLEYS, PLAINS,
PLACES UNTOUCHED BY TECHNOLOGY.
SO A HEAVENLY HARP TO PLAY IN A HEAVENLY
PLACE IS THE DREAM OF THESE NOMADIC
PEOPLE.
IT IS A PARTICULARLY COMMON MUSICAL INSTRUMENT OF THE DEMOCRATIC REPUBLIC OF CONGO AND THE SHONA PEOPLE OF ZIMBABWE. IT IS ALSO OFTEN AN IMPORTANT INSTRUMENT TO BE PLAYED AT RELIGIOUS CEREMONIES, WEDDINGS, AND OTHER SOCIAL GATHERINGS.

MBIRA CAME TO PROMINENCE AFTER THE WORLDWIDE STAGE PERFORMANCE AND RECORDINGS OF THOMAS MAPFUMO, WHOSE MUSIC IS BASED ON AND INCLUDES THE MBIRA.
STEPPED TECHNOLOGY

USING NOTHING BUT YOUTUBE TUTORIALS, WOMAN BUILDS HOUSE FROM THE GROUND
http://www.digitaltrends.com/home/youtube-tutorials-women-build-houses-from-the-ground/

Woman would watch YouTube videos and tailor them to her needs to build house. Resources were a challenge so this was an opportunity to do a job without hiring any outside help. Experience helped her gain a deeper connection with her family and work through a difficult time in her life.

STEPPED SOCIAL

AN INSIDE LOOK AT HOW DIY ARTIST BECAME 2017 GRAMMY NOMINEES

They understand that there is no process, and no set of rules in the modern music industry (much like politics in 2017). They fix their eyes on seemingly unattainable goals, and set out to accomplish them. They don't rely on others, exist outside the establishment and become jack-of-all-trades.

Chance the Rapper, Snarky Puppy, King

SEEING MUSIC OR TASTING NUMBERS? HERE'S WHAT WE CAN LEARN FROM PEOPLE WITH SYNAESTHESIA

FROM TEXAS TO DC, INTERNET TROLLS HAVE TRIED TO GET DIY ART SPACES AROUND THE COUNTRY SHUT DOWN BY CALLING IN BOGUS SAFETY CODE VIOLATIONS

DIY music venue and community space discovered that the anonymous complaints had come from anonymous internet trolls looking to exploit concerns about safety in the wake of the Ghost Ship fire to target DIY arts spaces. The troll campaign against DIY music venues and live/work artists' spaces that caused the closure of 1919 Hemphill emerged from /pol/, a 4chan message board coined Right Wing Safety Squad — They found lists online of DIY spaces across the country and scoured Facebook for venue names, addresses, and, in some cases, images of specific venues, using the information to call in anonymous complaints in an attempt to get spaces shut down over

THE BASSLET PUTS A HAPTIC SUBWOOFER ON YOUR WRIST
https://www.engadget.com/2017/01/06/the-basslet-puts-a-haptic-subwoofer-on-your-wrist/

Basslet looks like a watch, but it actually houses a transponder that converts the low frequencies of your music into vibrations that "feel" like bass. It doesn't vibrate like a phone, though; it matches the music, so if bass rises from low to high pitch, you feel that sweep. It enhances sound in a way that headphones could never, ever do, this is something you're going to love.

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STEEP

ECONOMIC

THE US MUSIC INDUSTRY CROSSED A THRESHOLD IN 2016

Nielsen recently released its Year-End Music Report for 2016 and it details a pattern of music consumption in the United States that has never been seen before. Album sales in every format save one are down from 2015. Downloads of digital songs are down. And yet, overall music consumption was up 3%. The reason? On-demand streaming took over the music business. Total music streams (audio and video) were up 39.2% year-over-year.

HOW DIY CULTURE IS THRIVING IN THE UK

Although the cost of living in London gets to be too expensive at times, DIY culture continues to thrive. One space, DIY London has created a sustainable, collectively run space to put gigs on, hold meetings and building a communal infrastructure. Popularity is rising because people are more likely to want to function in a space they believe in rather than be a part of something mainstream that may compromise their ethics.

IT’S NOT ALL ABOUT DIGITAL MUSIC: AN OLD VINYL RECORD FACTORY GETS A NEW LIFE

Final Vinyl record factory, founded in Opa-locka in the 1970s by Jamaican reggae producer Joe Gibbs as his base of U.S. operations, is reopening for business under a new name. SunPress Vinyl, a vinyl record pressing plant the facility will also offer complete packaging services such as labels, single or gatefold jackets and inner sleeves. “Bring us an audio recording and your artwork and we’ll give you a vinyl record,” says music producer Dan Yashiv, president of SunPress Vinyl. SunPress has already entered a partnership with Tuff Gong International, the Marley estate’s Jamaican music label. The company will reissue Bob Marley albums and third-party releases using the Miami facility.

STEEP

ENVIRONMENTAL

ABBREY ROAD GOES GREEN AS UNIVERSAL UK PARTNERS WITH GREEN ENERGY PROVIDER

Green company Ecotricity is to take over as its power supplier. Recently acquired by Universal Music, it now falls under the umbrella of the sustainability initiative they are taking. Ecotricity is the world’s first green energy company and now supplies almost 200,000 customers across Britain with electricity generated by wind and solar power.

THIS IS WHAT SYNTHS MADE OF REPURPOSED TELEPHONE SWITCHBOARDS SOUND LIKE

Musician Lori Napoleon, was the first to realize that she could breathe new life into the obsolete switchboards of the 1900s by repurposing them as DIY modular synthesizers. She now creates electronic music on her instruments by the name of Antenes.

MUSIC RISES FROM THE GARBAGE HEAP IN THE STIRRING DOCUMENTARY ‘LANDFILL HARMONIC’

In the impoverished edges of a landfill near Paraguay’s capital, a group of kids have been taught to play violins, cellos, flutes and drums, all crafted from garbage. The matter of the group’s financial survival, poverty and environmental degradation is documented.
**STEEP**

**POLITICAL**

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**STEEP**

**AXES**

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STEEP
AXES ANALYSIS + MOODBOARD

DIY - Action
Experiential
Scientific Method - Exploring Sound
Curiosity
Visual Sound
Connectivity/Simplistic Engineering

PERSONA

Meet Cooper, 27

Cooper is studying his bachelor's in Anthropology part-time at the University. He loves to explore people and culture, travelling to over 25 countries at a relatively young age. Cooper is writing his thesis on the indigenous peoples of Oceania and works at the public Library. Cooper has always been a fan of music, and even though he has had no formal training, loves to experiment. He found out about 'TouchTones' through a blog he read on modern acoustics and ordered it online.
The product would exist during an economic downturn - making music with things that exist already, once the tool is procured, the user has an entire world at his disposal to explore sound with. The product fits in with the Slow/Sustainable/DIY movements which all gained momentum because of the failures of the traditional models of economy. The instrument would appeal to millennials who are known to be drawn towards experiential products. The product also appeals to younger generations because it reflects the DIY aesthetic, requires little monetary investment, and is highly mobile.

**MATERIAL BOARD**

**TONEWOOD**  ALASKAN SPRUCE/RED SPRUCE

**THERMOPLASTIC**

**STAINLESS STEEL**
Appendix IV

Preliminary Research

Index contains work from research phase 1, 2, and 3. Fourth stage is not included yet because of time sensitive material.
OBJECTIVE

This is an analysis of the components of the brand Halcyeti, its icon the yeti, and the contexts, inspiration, and aesthetic vision which direct the label.
That with music loud and long,
I would build that dome in air,
That sunny dome! those caves of ice!
And all who heard should see them there,
And all should cry, Beware! Beware!
His flashing eyes, his floating hair!
Weave a circle round him thrice,
And close your eyes with holy dread
For he on honey-dew hath fed,
And drunk the milk of Paradise.
HALCYETI

hal-cy-on

haisean
adj. Denoting a period of time in the past that was idyllically happy and peaceful.
synonyms: happy, golden, idyllic, carefree, blissful, joyful, joyous, contented

yet-i

ˈyedee
n. A large hairy creature resembling a human or bear, said to live in the highest part of the Himalayas.

THE ICON

An amalgamation of eastern and western religions, philosophies, cultural and universal contexts allowing the meaning of the icon to be interpreted in new ways.
The sacred-profane dichotomy is an idea posited by French sociologist Émile Durkheim. In his theory, the sacred represented the interests of the group, especially unity, which were embodied in sacred group symbols, or totems. The profane, on the other hand, involved mundane individual concerns.

Seen often in religious iconography, Dieties, gods and saints all are idealized representations of the human form. They are the quintessential depiction of the fantastic; sensationalized through ornate detailing, bright colors and a heavenly use of light.

The irony of these religious artifacts or icons contextualized in modern societies are what Halcyet’s compositional elements are based off of. The plants that compose the yeti head are all idealized to the point of looking plastic. The glow that surrounds the headdress has an artificial glow to it. The head is placed in context of symbols that denote extreme materialism in some instances and the wild tropics in others. The symbol of the brand is the $$. These juxtapositions are not only based on the iconography we encounter regularly, but also on the fact that often we find ourselves worshiping things that hold no spiritual significance- in this case the clothing label Halcyet’s.
Nowadays the world is becoming increasingly materialistic, and mankind is reaching toward the very zenith of external progress, driven by an insatiable desire for power and vast possessions. Yet by this vain striving for perfection in a world where everything is relative, they wander even further away from inward peace and happiness of the mind.

- Dalai Lama

Money is a vehicle to obtain material goods. The significance of wealth is to show status and power - a false security of happiness. Possessions are obsolete in the fact that they will never quench the desire for more. Securing desirable things become a primary source of joy - a temporary fix to fill the void.

Throughout Halcyon there is a theme of outdated trashy luxury. Representations of a false wealth; obscene at times. The paradox exists through time. Although momentarily material goods provide satisfaction; they are an irreverent artifact of personal identity made possible through planned obsolescence.

Two forms of currency are represented; the British Pound and the Chinese Yuan. I wanted to take a monetary symbol removed from American culture. The dollar has been used so many times it holds its own meaning that it would dilute the context in ¥ ¥ ¥ and £ £ £ are used.
‘The only paradise is paradise lost’
- Marcel Proust

Paradise is mentioned in several contexts within religious scripture. Although tropical places exist, true paradise is not within the earthly realm. Heaven is a place where things are ideal, an eden that was lost when Eve took a bite of the apple.

Humans have deforested some of the most idyllic places- in its place a concrete jungle of neon and false happiness; a managere of vice. The yetlives in a heavenly sphere, a Shangri-la.

Haclyeti is a representation of the false paradise, a beautiful illusion of an erroneous happiness.
PROCESS

PHOTOGRAPHY
Original photographs taken at Krohn Conservatory. Botanics were selected based on their significance and/or potential with color and texture.

IDEALIZATION
Isolated plants to a more objective nature. Artificialized/idealized through color, texture, contrast and symmetry.

ORNAMENTATION
Explored methods of visual emphasis based on visual design principles such as pop out, color harmony and scintillation.

COMPOSITION
Superimposed compositional elements; arranging by trial and error on top of existing. Yet to create a stronger visual presentation.

MATERIALS
Tools used: Camera, Wacom, Collage, Pen and Ink.
Software used: Photoshop, Illustrator.
CREATING ORNAMENT

PROCESS
HALCYON DAYS

WALT WHITMAN

Not from successful love alone,
Nor wealth, nor honor’d middle age, nor
victories of politics or war;
But as life wanes,
and all the turbulent passions calm,
As gorgeous, vapory, silent hues
cover the evening sky,
As softness, fulness, rest,
suffuse the frame, like freshier, balmier air,
As the days take on a mellower light,
and the apple at last hangs
really finish’d and indolent-ripe on the tree,
Then for the teeming quietest,
happiest days of all!
The brooding and blissful halcyon days!
CAGED JUNGLE
A WORK IN PROGRESS
The point in which the direction of the project changed. The collection is time sensitive, so work will be published after the entirety of the collection is done.