NANCY WANG
MASTER OF ART + DESIGN / 2012 / PRODUCT DESIGN

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Thesis Title	Living with Less - The documentation of a personal journey		

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THANK YOU

First of all, I would like to thank my project supervisors Andrew Withell and Stephen Reay for guidance and advice on the project, knowledge and support throughout the year.

I would also like to thank AUT University School of Art & Design for providing the Postgraduate research stipend.

Special thanks to Stephen Hartley from the Engineering department for helping me with the technical aspects of the design outcome.

I hereby declare that this submission is my work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of a university or other institution of higher learning, except where due acknowledgement is made in the acknowledgements.

October 7th 2012
Nancy (Lunanzi) Wang

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INTRODUCTION

This practice based design research project explores the idea of [living with less] and the role of design in contributing towards this way of living. I am intepreting my understanding of designing for minimalist living through an ongoing experiment of role playing within a minimalist setting.

The nature of this research project takes on a different approach in comparison my previous research projects. It uses the experiment as its main method of data collection. I am placing myself at the center of this research and viewing it as a personal explorative journey as opposed to solving a defined problem. My purpose in this research is to explore the design of everyday utilitarian objects that defines our home, and how they could help contribute to create a minimalist living environment. The outcome does not seek to become a resolved and correct answer, but will articulate and speak of my thoughts in undertaking this experiment.

This thesis captures the journey through the structure of a artist's journal, it is loosely structured with the experiment as a center ground where creativity and reflective thinking takes place from the early unknown to identifying design opportunity and development towards a clear concept direction.

How can the design of everyday objects contribute to a minimalist way of living?

The documentation of a personal journey

As the world continues to expand in every measure, pressure in its sustainability also rises (Lam, 2007; O'Brien, 2010). There is a need to change our mentality from "Bigger is better" towards "Less is more" (Hayden, 2010 ; Hoak; Kiviat, 2009; Koch, 2009). Currently, majority of objects in the home exist within a complex network that includes other things. The acquisition of products that satisfy our specific needs often necessitates the purchase of additional ones. Thus our need for individual things often is in fact a need for a network of objects that are dependent on each other (Boradkar, 2010). This in term has led to the panorama on majority of today's home interior dominated by an invasion of useful and useless objects which block out all perception of space (Bertoni, 1998). The practicality of living a minimalist life becomes questionable even if it is underpinned by a strong philosophical value.

The nature of this project focuses on the concept of minimalist living. It involves an exploration and documentation on my personal understandings of minimalism and dematerialization as I explore into the role of everyday utilitarian objects in contributing towards minimalist lifestyle.

// PRODUCT DESIGN HONORS

My Honors project involved a research into the subject of small space living. I decided to explore this topic after the previous project, which was revolved around fostering connection between urban dwellers and nature. Upon realizing the increase in number of people moving into urban compact homes in recent years, this project focused on the need to design for family units living with children – A group of small space dwellers that was on the rise but whose needs are often neglected by designers and architects. It was interesting for me to explore into this area because the idea of dwelling in a small space has been mostly associated with individuals, transient renters whom are seeking an economical way of living, and seemed to have a less appropriate association with family living with children. From a spatial perspective, the design of a home layout itself affects significantly on how people can organize their space. Restricted space means that furniture and layout options are often limited, which could have serious implications for people with changing needs, thereby undermining the concept of a lifetime home for a family unit whose needs complex and dynamic.

The intention of this project was really about enabling everyday objects to function in a way that transforms home space into a flexible and adaptive environment that is able to respond to the changing circumstances of its occupants. With specific focus on child's play, my objective was to enable play in a context with little access to stimulating environments or open space. The outcome of this research was articulated through the design of a coffee table that can also become disassembled to provide raw play materials for a child. By integrating play elements into the existing environment, children's need for play is not fulfilled through additional toys, but through everyday objects that transforms itself during play.

// SUMMER STUDENT RESEARCH

During the summer of 2011, I was given an opportunity to explore the subject of activating office workspaces by designing a series of retrofitting office furniture for their new work space of which they are moving into in June 2012.

The project began with a realization that most office space nowadays involves computer based work where workers remain in a sitting position throughout the day with little physical movement. We wanted to change people's sedentary behaviour by reconsidering conventional objects of which defines an office space.

Through observation and user interviews, we realized that although the office is computer task oriented, people's needs are dynamic and changes on a daily basis. Currently, most offices resembles a permanent feeling space filled with fixated objects unable to easily adapt to the dynamic spatial requirement of its user. User's behavior are determined by the fixed layout of the office as they become "anchored" to their own workstation. We believed that in order to encourage movement in the office, the space its self need to have a sense of user controlled fexibility. Therefore our challenge was to question whether design can transform the working environment into an adaptive space that meets user's dynamic work and spatial needs.

The purposed solution was the design of a series of mobile standing desks that can be easily reconfigured to adapt to different work tasks or spatial arrangements. Both single and double desktop rests on the same mobile base unit and can be easily grouped together to create clusters of large working spaces, at the same time can also be separated to become individual island of standing workstations.

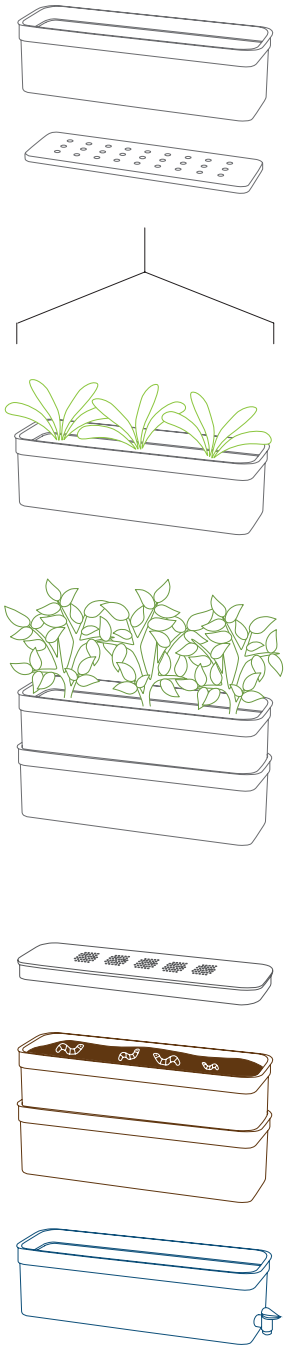
Although the two projects were set in different contexts with different outcomes, both demostrated how much we are bound by our physical posessions. Restricted space has often been considered less appropriate for family units with frequent change of needs, thereby undermining the concept of a lifetime home. Similarly, behaviour of office workers are often determined by the fixed layout of their workspace. By enabling flexibility in the use of an object, a dynamic working/living environment is able to adapt to one's change of need as opposed to meeting different needs by building on top of each other. The integration of play and everyday object not only provided a 'space saving solution' for family living in small

spaced homes, most importantly, it challenges our conventional definition of everyday things that fills up the home in the first place. The design of coffee table could perhaps reduce the need of having additional toys, many of which are relatively short in functional use, often fails to sustain their interest and becomes obsolete after a certain period of time, while a piece of furniture is fixated most of the time and is only truly functional when it is being used. Similarly, by allowing flexibility in the configuration of workspaces, the “invisible burden” of office workers is removed. Work tasks and activities are able to take place within the same area of space as islands of workstations forms and parts away as spatial needs change.

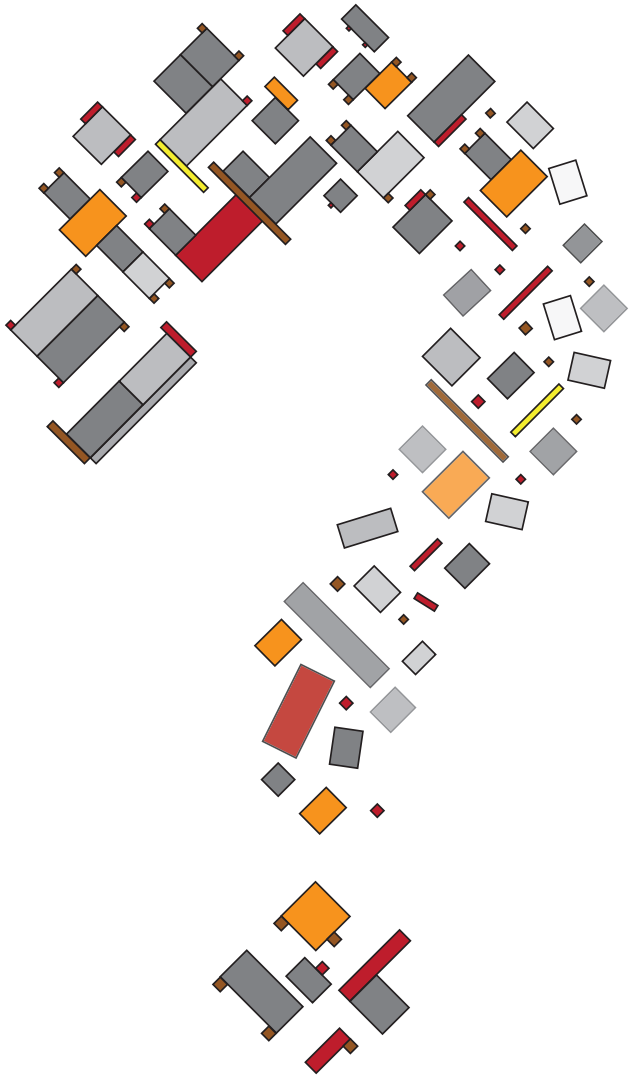
Reflecting upon last year’s project, one of the most interesting thing I noticed as I explored through designing for small space living was how many products there are which was based on clever storage solutions. Even though I fully acknowledge the importance of incorporating clever storage systems in contexts where space might be limited, I also think that as designers, perhaps it is more important to minimize the need for storage in the first place.

This idea of designing adaptability and integration was also reflected in my earlier work of Mobile Ecosystem, where a modular planter is designed which enables apartment dwellers to grow food with different root depths as well adapting to the use of a worm bin. In doing so, the set of of components were able to adapt to multiple use based on its user’s needs.

Such idea of using design to enable adaptability and enabling more with less is an interesting concept to me. It also made me question whether this project is really about designing for small spaced homes, or the idea of designing to live with less stuff? This direction of thinking has also set a foundation to my research as I became further interested in exploring the role of everyday objects in enabling the idea of living with less.



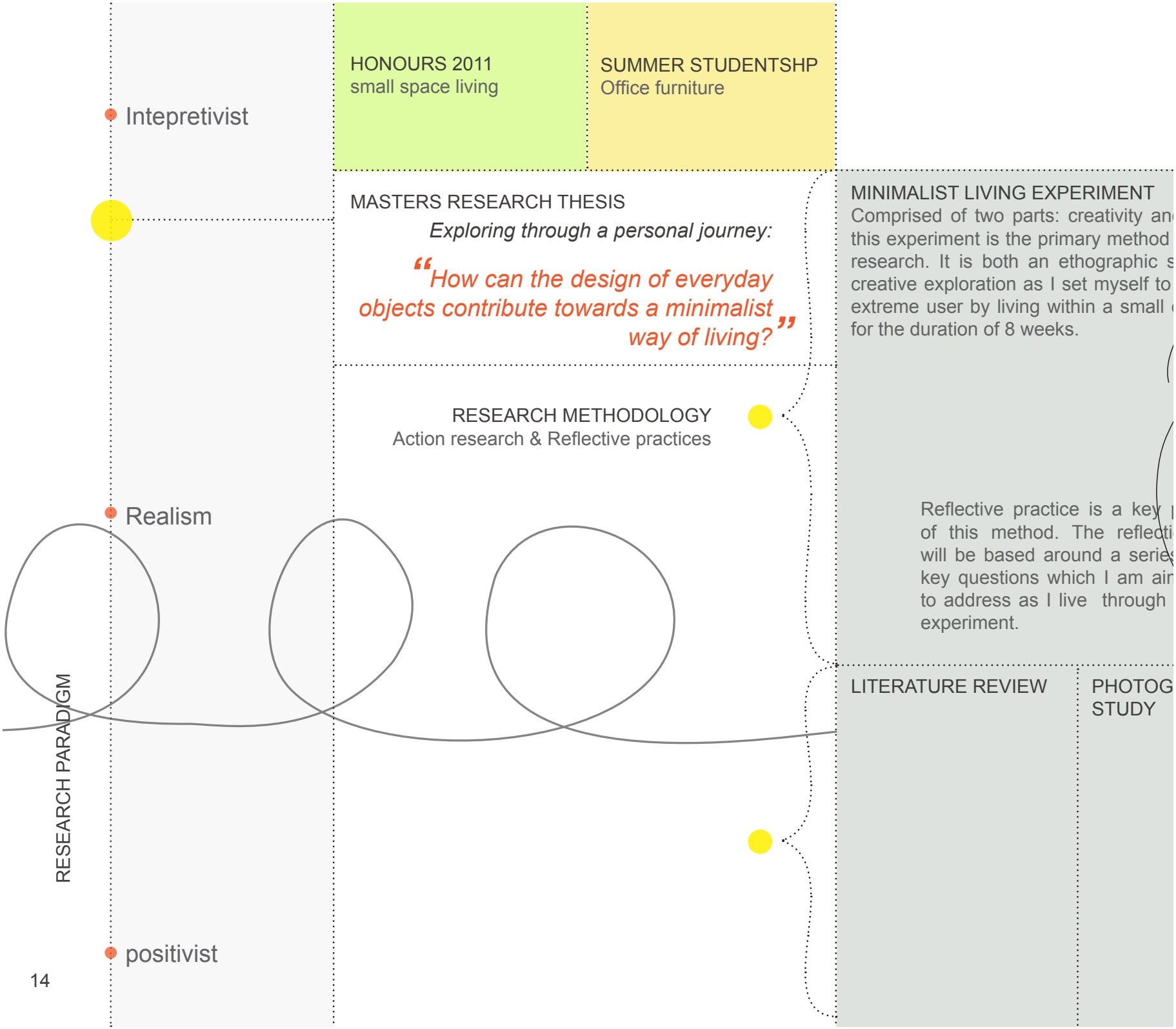
EARLY PROJECT IMAGE ABSTRACT

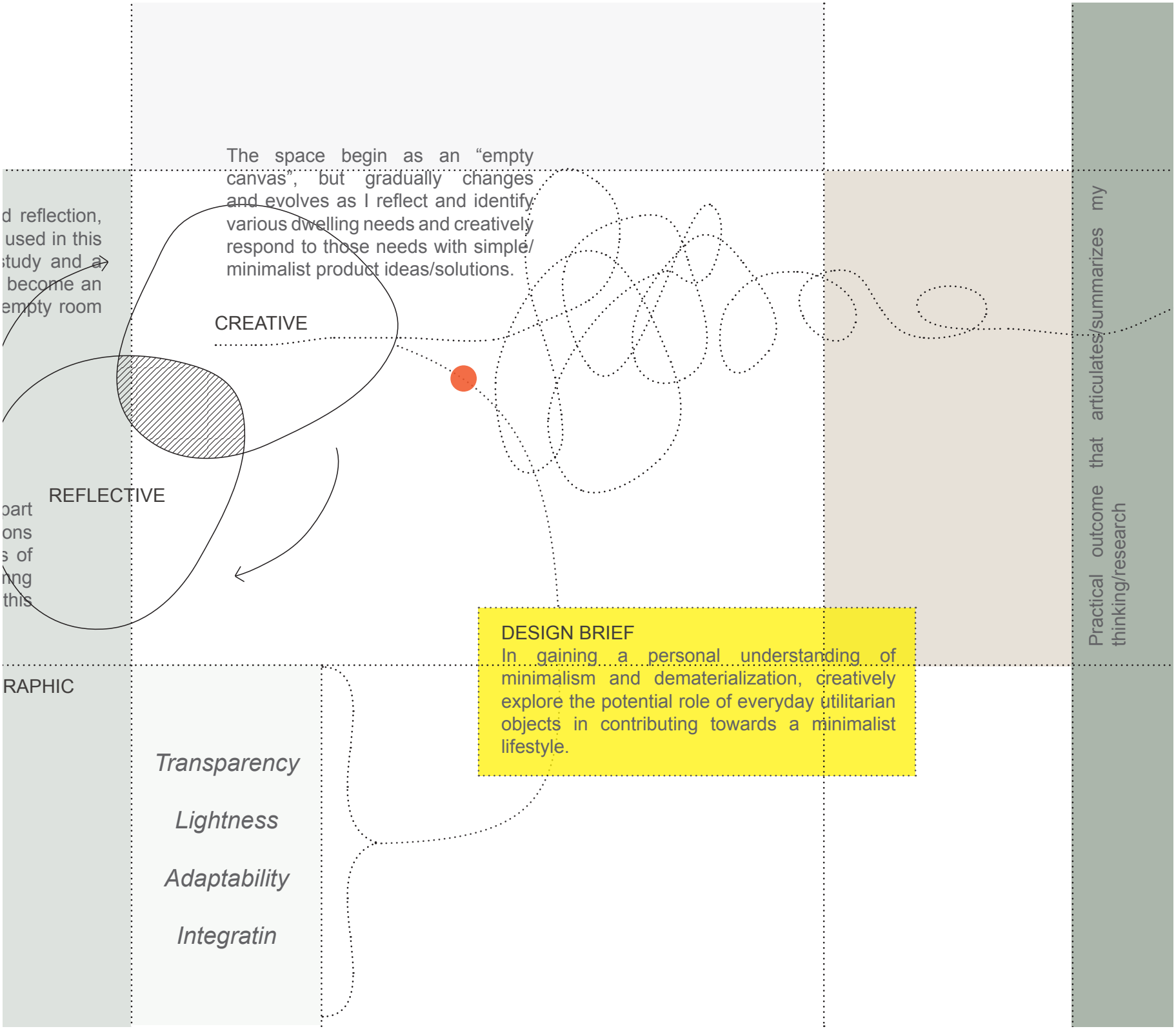


PERSONAL GOALS

As the final year of my post graduate study, this year for me personally is also about exploring my interest as a designer, and uncover a field of design that I would like to work towards beyond my study. Throughout my study I have gradually developed a strong interest in designing domestic objects for daily living, ranging from small wares to furniture in the home. I became strongly interested in the way we interact with these living tools that fills up our space and define our individual home. In this research project, my key objective is to explore the idea of minimalist living and how objects in the home may contribute towards that.

SIMPLICITY
HOME
TOOLS


HONOURS 2011
small space living
SUMMER STUDENTSHP
Office furniture
Intepretivist
MASTERS RESEARCH THESIS
Exploring through a personal journey:
"How can the design of everyday objects contribute towards a minimalist way of living?"
MINIMALIST LIVING EXPERIMENT
Comprised of two parts: creativity an
this experiment is the primary method
research. It is both an ethographic s
creative exploration as I set myself to
extreme user by living within a small
for the duration of 8 weeks.
RESEARCH METHODOLOGY
Action research & Reflective practices
Realism
Reflective practice is a key
of this method. The reflecti
will be based around a series
key questions which I am ai
to address as I live through
experiment.
LITERATURE REVIEW
PHOTOG
STUDY
RESEARCH PARADIGM
positivist


d reflection,
used in this
tudy and a
become an
empty room
The space begin as an “empty canvas”, but gradually changes and evolves as I reflect and identify various dwelling needs and creatively respond to those needs with simple/ minimalist product ideas/solutions.
CREATIVE
REFLECTIVE
part
ons
s of
ng
this
RAPHIC
Transparency
Lightness
Adaptability
Integratin
DESIGN BRIEF
In gaining a personal understanding of minimalism and dematerialization, creatively explore the potential role of everyday utilitarian objects in contributing towards a minimalist lifestyle.
Practical outcome that articulates/summarizes my thinking/research

RESEARCH PARADIGM

Qualitative research involves a mixed use of research strategy but is also influenced by the kind of research paradigm adopted by the researcher (Gray, 2009). The nature of this research project operates within the interpretivist paradigm. A paradigm can be thought of as a lens through which we view the world. Different lenses necessitate different assumptions about the world and the ways in which we should attempt to understand it (Collins, 2010).

Interpretivism operates at the opposite end of positivism. Positivists holds that only empirically verifiable ideas can be counted as true knowledge (Collins, 2010). In contrast, interpretivists choose to understand the world in a subjective way as it is experienced and made meaningful by direct human experiences. Interpretivism believes that reality is not objectively determined, but is socially constructed through placing people in their social context and allowing them to develop perceptions through their own activities (Kelliher, 2005). In addition, an interpretist researcher would reflect critically upon received understandings within their own and others' experience, and would actively engage in the production of new meaning (Collins, 2010).

In the context of this project, instead of objectively seeking for a defined answer, I am exploring the research question in the form of a personal and artistic journey/ experiment. The research will reflect the identity of both the researcher and the research subjects. What is minimalism, minimalist living, and the role of design, are all primarily explored through my own experience, thus the claims made from this research will also lean more towards subjectivism. However the flexibilty of this approach also provides me room for creativity and allows me to capture in-depth reflexive and self critical accounts into my own thoughts, which is a critical aspect working within this paradigm.

While interpretive research is recognized for its value in providing contextual depth, any research that simply aims to capture or retell individual subjective accounts has been criticized in terms of validity, reliability and the ability to generalize (Collins, 2010; Kelliher, 2005). However, such subjectivism also allows me to develop my own view and philosophical position as a designer/researcher, which is one of my primary learning objectives for this year.

The adoption of strategies and data collection methods in qualitative research tends to be flexible and often involves the combination of several strategies and methods within a research design. This research project employs a mixed use of data collection methods and strategies. The next section discusses the methodology and strategies employed in detail.

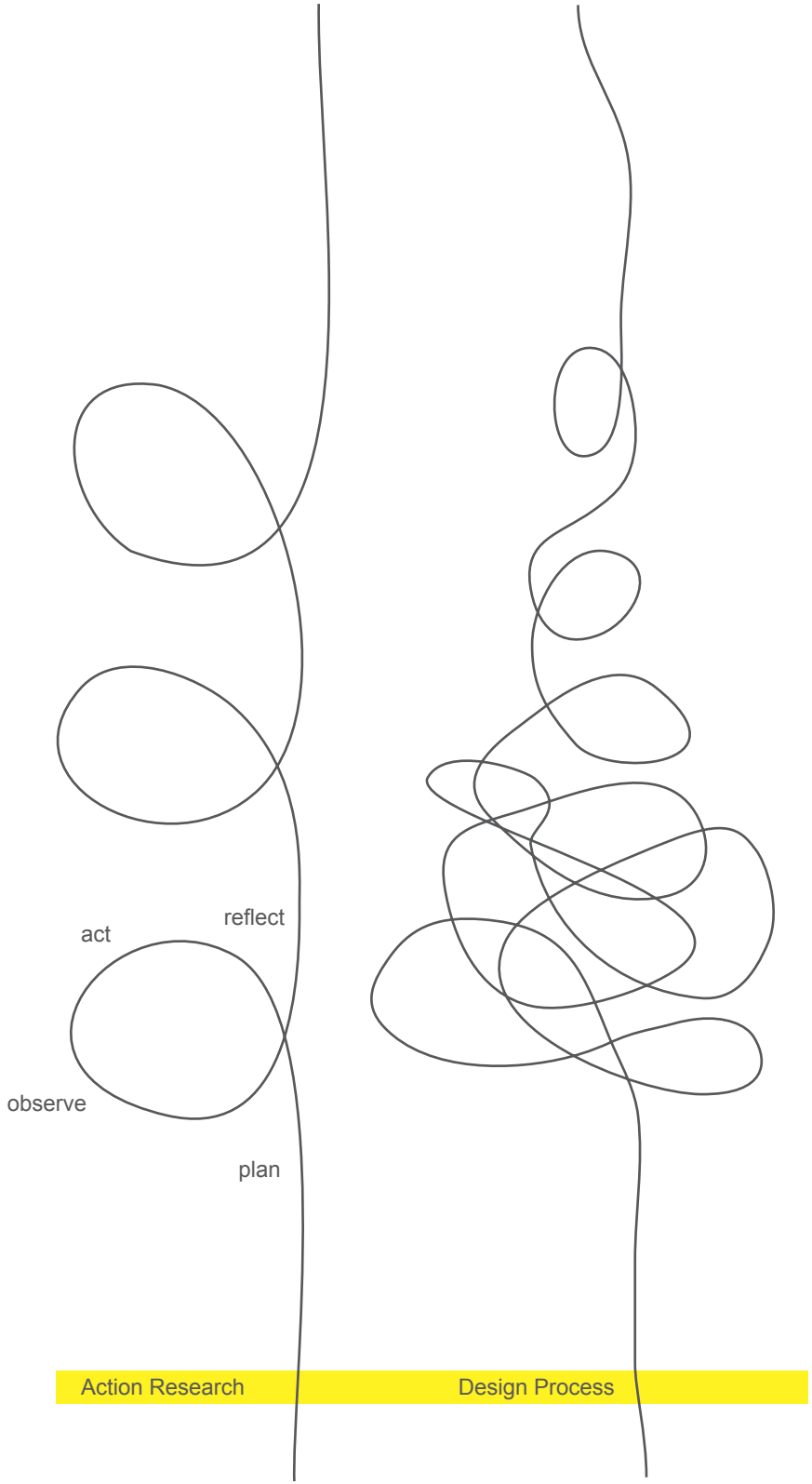
RESEARCH METHODOLOGY

Practice-led research is a mode of enquiry in which design practice is used to create an evidence base for something demonstrated or found out. The key role of a practice-led researchers is to elicit and communicate new knowledge and theory originating from their own design practices (Pedgley, 2007). In this situation, a practical researcher must become an 'adjunct ethnographers of own or related circumstances', fulfilling multiple roles of self-observer, analyst and reporter(Zimmerman & Wieder, 1977). This is done through experiencing living within a minimal setting, which is the primary method employed in this research and will be further discussed in the next section. The synthesized outcome not only serves as an object designed to be used, but also a physical provocation which directly addresses my research question and thinking. In the following section, I will discuss the role of Action research as the overarching methodology of this project and the two modes of research applied, both of which are mutually supportive to Action Research.

Participatory Action Research

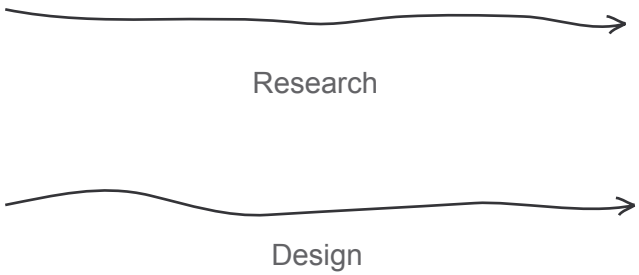
Action research is a participatory research methodology that focuses on both practice and research simultaneously. In action research, a democratic relationship is involved between the research subject and its researcher, data is generated from a direct involvement or action of the research participants (Gray, 2009).

Action research is applied as an underlying framework for this project, it involves a cyclical process based on the four stages of planning, achieving the plan, observing process and outcome, and lastly reflect upon the process and plan the next step (Gray, 2009). In the context of this project, the cyclical stages of action research is synonymous with the iterative cycles of a typical design process, where each stage leads forward based on constant evaluation of the previous act (Michel, 2007).



The following discusses two modes of research which are inherent within this project.

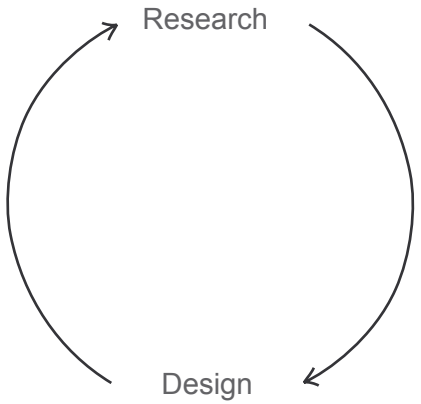
[Research through Design]



Design research takes a middle ground between disciplinary ‘basic’ research and practical application (Michel, 2007). There are various approaches in design research. According to ... ...The early phases of the design methods movement described problem solving as a sequential activity, where one must define a problem in order to solve it. However in reality, the designer always refers to a vague goal image in their mind as early as the beginning of a project. These images supply the designer with the primary nucleus from which the actual structure develops, the image manifests itself at some degree of abstraction, which only evolves and unfolds itself as the project develops. (Arnheim, 1993). The underlying structure of this project works in a similar way, where research and design work together simultaneously and is constantly feeding off each other. The research is set within a design process, however I am also exploring research through the act of designing and prototyping, which in itself is a potential generator of knowledge (Michel, 2007).

Research through design will involve conducting visual research i.e. photographic ethnography, prototypes and other expressions such as sketches, quick model making, CAD. These are the core means by which this project builds the connection between knowledge and the development of product. Prototyping is the essence of the term ‘Research through Design’ and is encouraged to begin at an early stage of this project. My thinking will be communicated through the forms of sketches and actions of model making and prototyping. Prototypes will serve to instantiate hypotheses from contributing disciplines, and to communicate principles, facts and concepts by realizing prototypes and evaluating them (Michel, 2007).

[Reflective Practices]



Reflective practice emphasizes on the improvement of practice through reflection on experience, and is inherently integral to action research (McMahon, 1999). One of the main characteristic of practice-led research is that it is often personal, being centered on the creative practices of the self. Therefore its credibility must come from substantial reflection, analysis and theorizing on one’s design activity and design outcome (Pedgley, 2007). Perceptible activities such as sketches and prototypes can have a limited standalone value, thus only by eliciting an account of inner thoughts and reflection from the originator can the nature of the design activity and its perspectives be revealed.

Reflective practice plays a key part in the context of this project. It involves a deliberate pause in action to make critical comment on the period of activities that has passed. In this situation, entries of reflection are documented in the form of a journal as I live through my research experiment. According

to Pedgley (2007), the use of journal as a design research tool has not been common, but is becoming an increasingly valuable approach in practice based research projects. Reflective entries will be documented at least 2 times a week, the broader theme of each entry will revolve around answering my research questions, this will be done through the discussion of any notable experiences, key observations, drawings, and my development of thinking over the course of this project.

SECONDARY RESEARCH
· LITERATURE REVIEW.
· MINIMALISM.
· DESIGNING FOR SUSTAINABILITY. ← FRAMEWORK
DEMATERIALIZATION.

REFLECTIVE PRACTICE

OBJECTS FOR MINIMALIST LIVING.

KEY RESEARCH METHOD → PESONAL EXPERIENCE. — RESEARCH/ DOCUMENTATION BASED ON PERSONAL JOURNEY.

RESEARCH METHODOLOGY.

PRACTICE BASED. ACTION RESEARCH

REFLECTIVE PRACTICES.

LIVING A MINIMALIST LIFE.
& DOCUMENT & REFLECT.

~~EXP~~ DURATION OF EXPERIMENT.
8 WEEKS

PRIMARY.

WHY AM I DOING THIS.

· GAINING ~~PERSONAL~~ INSIGHTS INTO THE IDEA OF MINIMALIST LIVING. THROUGH PERSONAL JOURNEY, EXPERIENCE.

· ⇒ RESEARCH ← LIVING A MINIMALIST LIFE.

DESIGN.

(CREATING ITERATIVE SOLUTIONS BASED ON NEEDS, WHICH ~~NEEDS~~ BACK INTO RESEARCH

~~UNDERSTANDING~~ NEEDS.

OBJECTS/ UTILITARIAN THINGS ASSOCIATED WITH MINIMALIST LIVING.

~~CONSTANTLY~~ CREATING NEW CONCEPTS / IDEAS. ~~BASED~~ THAT MUST FULFILL NEEDS FOR LIVING SIMPLEST/ MINIMALIST FORM.

Design a minimalist living unit with utilitarian tools

THE LIVE (COMFORTABLY + MINIMAL AMOUNT OF THINGS. ?

Set up ⇒ context.

Begin experiment (current room space.

LOCATION:

My room.

Begin experiment with an empty space. dwell within the space for 8 weeks. and build/develop on minimum needs basic.

(including activities. the documentation of there)

Flexible camera holder

SEQUENCE OF EXPERIMENT.

HOW WILL I ACHIEVE THIS.

VIDEO CAMERA. DOCUMENTATION.
TIME LAPSE PHOTOGRAPHY.
(during
that documents (captures ~~this~~ cat
that happens / takes
pola

WHAT LIVING ACTIVITI
WHAT DOES THIS INVOLVE
THE CONTEXT OF THIS RES

SLEEP

EAT

- PROTOTYP
- SKETCHES
- MODELMA
- TESTIN

KEY RESEARCH METHOD

MINIMALIST LIVING EXPERIMENT

The experiment of role-playing in a minimalist living setting is the primary data collection method of this research. It is both an ethnographic study and a creative exploration of a minimalist living space as I set myself to become an extreme user by living within a small empty room for the duration of 8 weeks. The space will begin as an “empty canvas”, but will gradually change and evolve as I identify various dwelling needs and creatively respond to those needs with simple/minimalist product ideas/ solutions. During this experiment, I am an ethnographer of my own circumstance, fulfilling multiple roles of the practitioner, observer, analyst, as well as designer. Through this experiment I am aiming to:

1. Explore the potential of a minimal setting and challenge our current ways of living through becoming an extreme user.

3. Creatively explore a range of concepts based on the identified needs

3. Reflect on the role of design in terms of contributing towards a minimalist lifestyle (living with less).

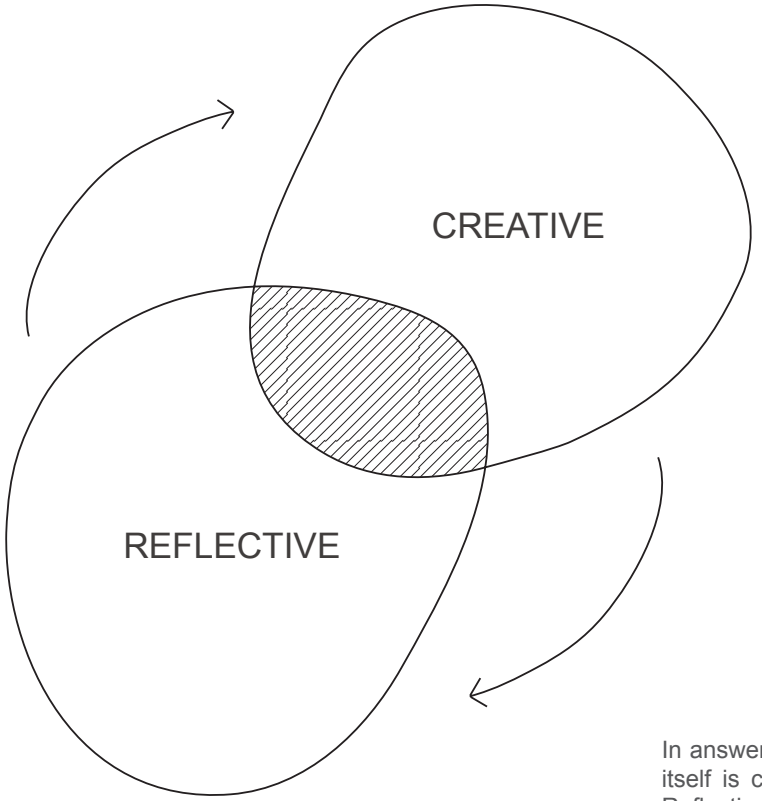
This research experiment plays a dominant role in the design process of this project. The experience of living in the space is documented in the form of ongoing reflective entries and serves as a tool to identify design opportunities, a stimulus towards idea generation and used to validate the concept models. Concepts are generated based on identified needs and will be prototyped and tested in the form of working models and prototypes. Placing these objects into the space and demonstrate through using them will in term feed back into the iterative cycles of action research.

1. Identify design opportunities

2. Idea generation

3. Concept Validation

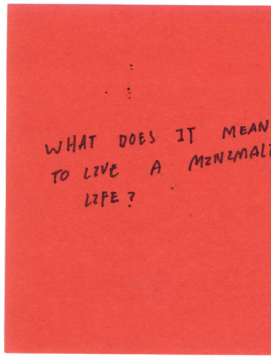
This experiment will be documented through a wall mounted digital camera. The camera will automatically capture images and videos during set intervals as various tasks and activities take place. It will be presented in the form of a time-lapse video with selections of images presented in the thesis. This documentation will cover an evolution of activities that takes place within the space from the removal of existing possessions, recreating the space as I began to acknowledge various needs, and the natural evolution within the space as needs change. A separate journal will be kept to record my thinking and reflections.

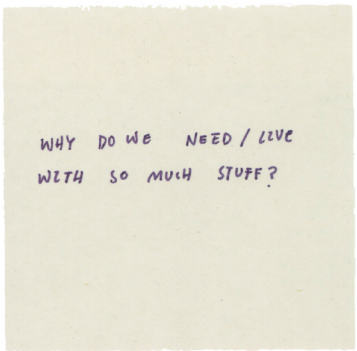


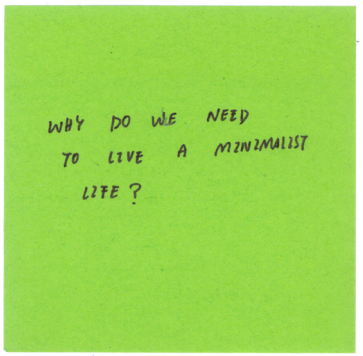
In answering my research question, the experiment itself is comprised of two key parts: Creative and Reflective. Creativity takes place as I begin to generate conceptual ideas and manipulate elements within the minimal setting. Every act will lead to the development of new thoughts, thus it is critical that these actions are always followed by entries of reflective thoughts, which in term feeds back into creativity vice and versa.

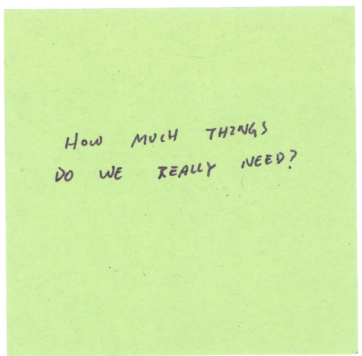
What do I want to explore from this experiment?

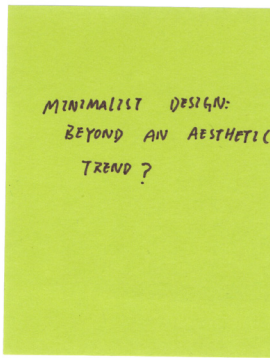
I have grouped clusters of relevant questions that I am aiming to seek answers through this experiment. Development of thoughts around these questions will be documented throughout the project in forms of reflective entries.











How minimal is too minimal? Before sacrificing comfort?

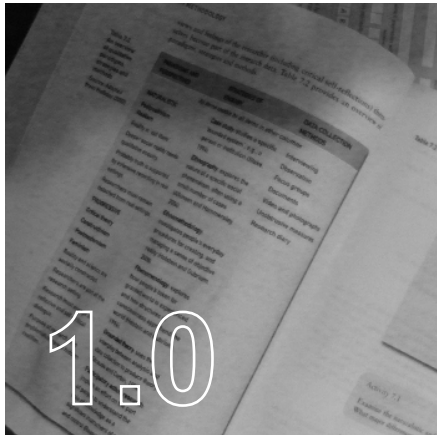
What is our hierarchy of need for physical / material things?

How can we live comfortably with minimal amount of possessions?

What is the role of design in enabling a minimalist life style?

Can design act as a enabler / a catalyst towards minimalist living?

If minimalist living is underpinned by a strong philosophical value. What is the role of design in this?



[Literature Review]

Literature review summarizes, interprets and evaluates existing published material, in order to establish current knowledge of a subject, it discusses, evaluates, as well as demonstrates an interconnection between key topics that might be relevant to the subject (Collins, 2010). In context of this project, the purpose of literature review is to.

1. Provide the audience background information in response to my research question

2. Establish the importance of the subject with supporting evidence that backs up my thinking

3. Developing and refine a personal view upon gaining an understanding towards the subject, which in term helps to form a more specific design brief and objective.

Literature review is conducted by reviewing a number of published books, journal articles, dissertations, and empirical studies of areas that are relevant to the topic. Journal articles cited in this literature review is obtained through advanced searches on academic websites. Citations linked by existing literature will also be further explored if relevant.

[Photographic Ethnography]

Photographic ethnography is a human centered research method primarily used to understand a culture or people from within. The photograph taken provides a visual evidence to uncover patterns of behavior and perceptions related to a particular product or context (Collins, 2010; IDEO, 2003). The advantages of method is that a still photograph represents the raw evidence that captures the reality of daily life or behavior in an unmediated and unbiased form, the meaning of the image is dependent on the lens of which we chose to see through (Schwartz, 1989). In the context of the project, this method is inherently connected to reflective practices, where the captured subject will also lead to critical analysis and reflection. The following summarizes several key roles of this method.

1. Identify: What is the current role and function of furniture in our domestic environment

2. Uncover patterns of habits and behaviors around the way we interact with domestic furniture

3. Provide contextual inspiration to stimulate creativity and design ideas

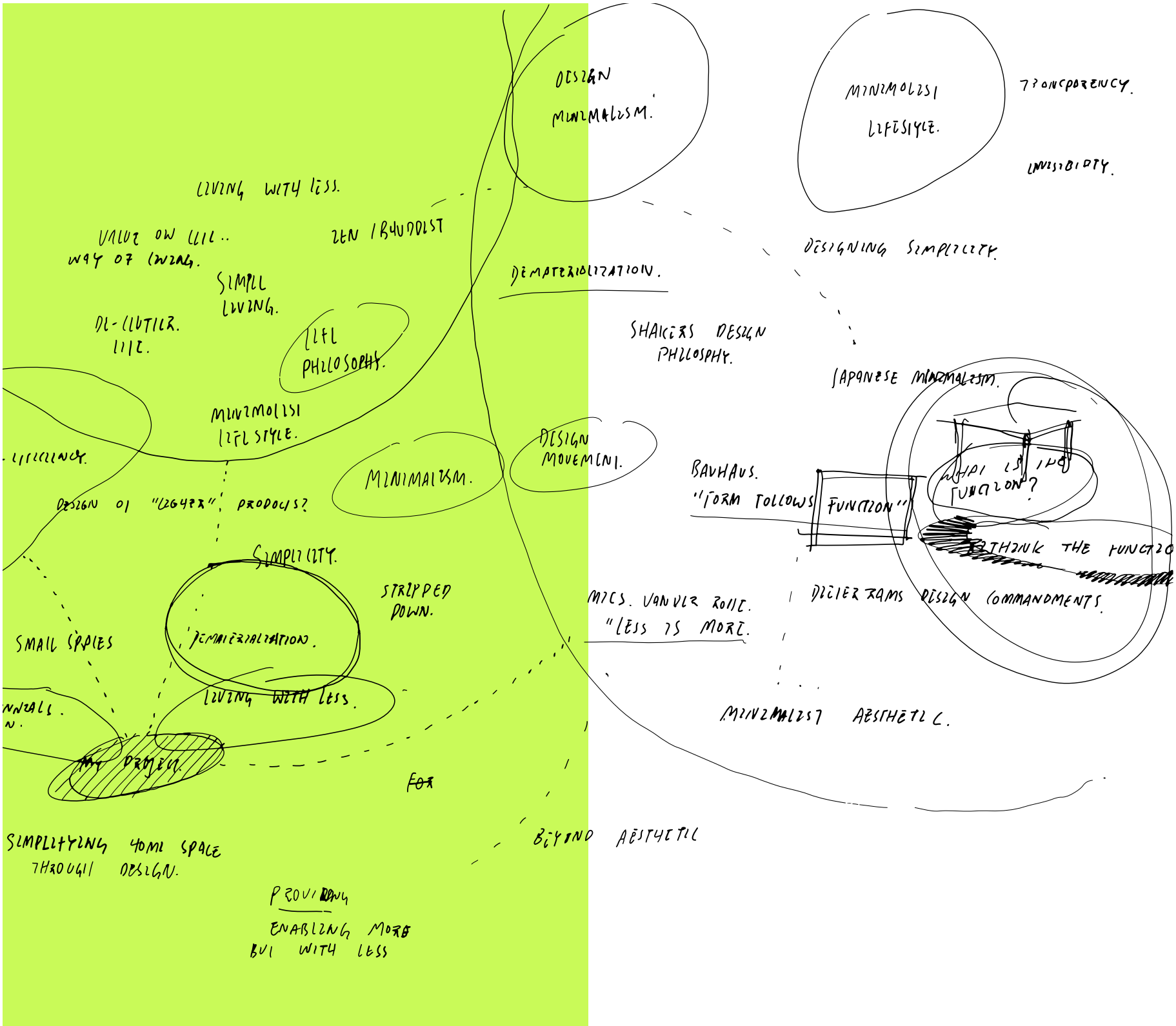
[Character Profile]

4. Contextual inspiration to further explore potential role and function of furniture

This method will be conducted through photographically capturing unplanned/unscripted scenes of furniture's existence in a real domestic context. Photos obtained through other sources will be fully referenced.

The nature of this research project is constantly changing and evolving. Although it primarily began with the self, the designed outcome of this research is intended to be used by others. A market niche of potential user began to emerge during the later stage of the research/design process.

Character profiles are general characteristics and archetypal information to represent a group of people (IDEO, 2003). It is useful in terms of communicating user archetypal information to the designer and is frequently referred to throughout the design process. In this situation, creating a set of fictional characteristic becomes a useful tool in allowing the designer to forecast its potential user, as well as to engage with their characteristics and needs.


DESIGN
MINIMALISM.
MINIMALIST
LIFESTYLE.
TRANSPARENCY.
INVISIBILITY.
LIVING WITH LESS.
VALUE ON LIFE..
WAY OF LIVING.
ZEN BUDDHIST
SIMPLE
LIVING.
DE-CLUTTER.
LIFE.
LIFE
PHILOSOPHY.
DESIGNING SIMPLICITY.
DEMATERIALIZATION.
SHAKERS DESIGN
PHILOSPHY.
JAPANESE MINIMALISM.
MINIMALIST
LIFE STYLE.
DESIGN
MOVEMENT.
MINIMALISM.
BAUHAUS.
"FORM FOLLOWS FUNCTION"
WHAT IS THE
FUNCTION?
RETHINK THE FUNCTION
DESIGN OF "USAGE", PRODUCTS?
SIMPLICITY.
STRIPPED
DOWN.
DIETER RAMS DESIGN COMMANDMENTS.
MIES. VAN DER ROHE.
"LESS IS MORE.
SMALL SPACES
DEMATERIALIZATION.
LIVING WITH LESS.
MINIMALIST AESTHETIC.
FOR
BEYOND AESTHETIC
SIMPLIFYING HOME SPACE
THROUGH DESIGN.
PROVIDING
ENABLING MORE
BUT WITH LESS

LITERATURE REVIEW

A. LIVING WITH LESS

Background on today's housing and sustainability

In its simplest means, living with less is a moral and philosophical perception, a voluntary lifestyle that emphasizes the freedom and essence of living itself surrounded with material possessions that one truly need or cherish, rather than following a culture of materialism and consumption (Pierce, 2000). It encompasses various aspects of simplifying one's life, from reduction of physical possessions to increasing in self-reliance. This simple philosophy is becoming a predominant movement in today's society as pressures around sustainability grows with land and resources become increasingly scarce, operating energy costs are also reaching to a premium (O'Brien, 2010). There is a growing consciousness in the reduction of individual 'footprint' and the redefinition of what is truly necessary (Hudson, 2010).

With housing being an essential measure and aspect towards the quality of life, nowadays is also a significant contributor to sustainable development (Winston & Eastaway, 2007). It is widely felt that residential decisions on how to live greatly affects the environment, land, resource use, and habitat loss (Howley, Scott, & Redmond, 2009). According to Andrew Lam (2007), we are contending with far smaller living spaces than those of previous generations. Owning a spacious house is becoming an unattainable dream for the upcoming generation as they are faced with a growing gap between their incomes and the price of homes (Hayden, 2010 ; Rivero, 2012). This is seen for the first time as newly built homes are built smaller with a more sensible approach in order to adapt to this demographic shift in the housing market (Koch, 2009; Quarter acre dream all but over for Aucklanders, 2011; Wotapka, 2011).

Between the 1950s and the 2000s, house size increased dramatically in many developed nations even though household sizes have decreased (Hill, 2011; Johanson, 2011; Wilson & Boehland, 2005). As standards of living increases, our needs for things has also increased, such need brought the rise of a new booming industry called personal storage (Hill, 2011). And although house sizes became bigger, we now require even more space as we fill our homes with stuff ranging from basic necessities to multiple forms of entertainment (Wilson & Boehland, 2005).

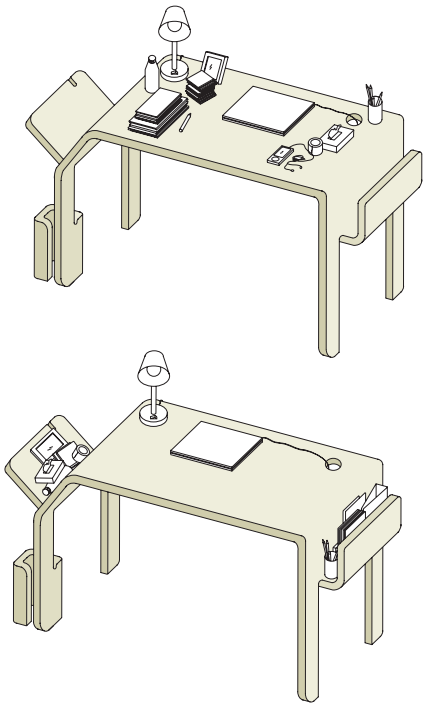
In recent years however, the trend is starting to reverse, as for the first time in a decade, there is a shift in our mentality from "Bigger is better" towards "Less is more" (Hayden, 2010 ; Hoak; Kiviat, 2009; Koch, 2009). Apart from the growing awareness of sustainability, this change is partially due to the demographic shift in society. For the upcoming generation of home owners also known as the Generation Y, the ideal of owning a spacious home is now increasingly difficult as issue of affordability becomes a major barrier (Koch, 2009; Lam, 2007). Until two decades ago, the idea of decreasing floor space was not perceived positively by majority of public; attitudes have changed considerably since then as people in their 20s and early 30s are starting out simple by putting minimal space to efficient use rather than seeking large, move-up suburban homes. Living in a digitized age is another factor that is creating a cultural shift in today's society. The integration of technology is in a sense, creating a new type of minimalist living as it replaces many physical commodities that clutter our homes (Danzico, 2010 ; Jeffries, 2011).

Living with less?

Returning to the context of this project, If minimalist living is in essence a moral viewpoint that involves society's change in perception of value, what is the role of design in this?

In essay - The elimination of furniture by Adolf Loos (1924), Loos addressed that architects should build houses in which every item of immovable furniture must be concealed inside the walls. In reality however, the panorama on majority of today's home interior is often dominated by an invasion of useful and useless objects which block out all perception of space (Bertoni, 1998).

Here I would like to make reference to one of my previous projects while studying undergraduate – Valet. The original intention of this project was to explore meanings derived from the word 'valet' and generate design direction for a piece of domestic furniture. Upon understanding what the word meant, my research was based around the disorder and clutter around people's desk at home and how I could explore a solution that eliminates desk clutter to provide a clear working platform. The outcome was articulated in the form of a desk that literally catches clutter. I was inspired by the intuitive thought of wanting to sweep everything off during times of stress so that a clear working platform is provided instantly.



Although fully unaware at the time, this illustrated idea of a desk seems to be a perfect example of our homes today. Revisiting this idea through the lens of this project also made me view it differently. The way the desk catches clutter did not exemplify a good solution with regards to eliminating studd in the home, but merely demonstrates the reality of how much things we own and our occasional desperation to eliminate it from our lives. In the context of this project, the desk serves as a metaphorical inspiration. Rather than designing a temporary solution of 'sweeping' away clutter, perhaps it is fundamental to re-evaluate the usage of a desk and how it may be simplified while still fulfilling needs.

In book Designing Things by Prasad Boradkar (2010), He mentioned that all things we own exist within a network that includes other things. The acquisition of products that satisfy our specific needs often necessitates the purchase of additional ones. As quoted by Boradkar in one of the chapters:

> *"The desktop computer lives with an environment that contains other essential objects – a keyboard, a mouse, a write support, a mouse pad, an external hard drive – that constitute a network of computer accessories. This network intersects another. The desk, the ergonomic chair, the footrest, the partition and task lamp constitute the overlapping furniture network. The task light belongs to yet another network – lighting – which also includes overhead lights and indicator LEDs."*

It is inevitable that the need for individual things is in fact a need for a network of objects that is dependent on each other. Thus it is not difficult to imagine today's homes cluttered with a complex network of interconnected things that we may or may not need. This also raises questions in the practicality of living a minimalist life even if it is underpinned by a strong philosophical value.

The nature of this project focuses on the concept of living with less in two ways, as its primary purpose as well as a principle inspiration for design. This project by no means suggests that we should dwell on a single object that fulfills our universal needs. But rather it aims to explore the role of everyday objects in enabling a minimalist living environment, and perhaps forms a challenging expression towards the design of our current network of things.

Figure 1.0 shows the mapping out the network of domestic utilities that fulfills our living needs, the diagram does not include every essential item in a home but merely demostrates the complex network of things that coexists with each other.

B. MINIMALISM

In a traditional sense, minimalism is a term symbolic of an artistic movement/ approach to strip down all elements to its purest quality and simplicity through eliminating all non-essential forms, features, or concepts (Bertoni, 1998; Malan & Bredemeyer, 2002). Minimalism has influenced countless designs from architecture to industrial products, and has been associated with some of the most symbolic design clichés of the 20th Century such as “Form follows Function” and “Less is more”(Rawsthorn, 2009).

Being a concept deeply embedded within the Japanese culture, minimalism is not only a dominant principle in designs from tangible objects, to intangible services and experiences, but also a moral perspective that transmits into the freedom and essence of living itself. Culturally rooted by Zen and Buddhist philosophy, the Japanese aesthetic tradition has been noted for its sensitivity and appreciation of the quintessential character of an object. This attitude gives rise to a guiding principle of design that articulates the essence of an object, material, or subject matter rather than the unnecessary(Saito, 2007). This is particularly exemplified through Japanese Architecture, where emptiness or open space is conveyed through reducing all elements down to its most essential quality and innate character (Bertoni, 1998).

Similar philosophy is reflected through the work of The Shakers, a 19th Century self-sustaining religious community that virtually designed and supplied all tools they needed to survive based upon their Utopian beliefs. Although the Shakers were unaware of any modernist terms associated with minimalism, their philosophy contained phrases such as “beauty rests on utility”. To them, the idea of simplicity is not all without ornamentation, but believing the aesthetic beauty of an object rests upon its utilitarianism (Intention of use, adaptation to needs, durability), honesty (material of techniques), humility (absence of pretence and adornment), and purity (a sense of pure form) and that an object that has in itself the highest use, possesses the greatest beauty (Cross, 1979).

Minimalism = A dematerialized approach

An emerging culture within many of today’s designed products is that sense of transparency through erasing its physical existence. In a way, the concept of dematerialization is interently a form of minimalism. Austrian architect Adolf Loos was an advocate for design and minimalism in the early 1900s, he believed that the evolution of culture is synonymous with the removal of ornament from utilitarian objects. According to Loos, Most functional objects should be designed to disappear, mentally if not physically. Furthermore, he emphasized that objects of which forms a space should be quiet, restful and unnoticed, that only came to life when it is needed, rather than a zoo of extraordinary animals all clamoring for attention (Loos, 1998).

Such minimalist thinking is also celebrated through the works of Dieter Rams. ‘Good design is as little design as possible’, is a well known quote by Dieter Rams. Similar to the design philosophy of Loos, Rams addresses that that a well designed product is so good that it is barely noticeable. By removing the unnecessary, the essential elements come to the fore (Lovell, 2011).

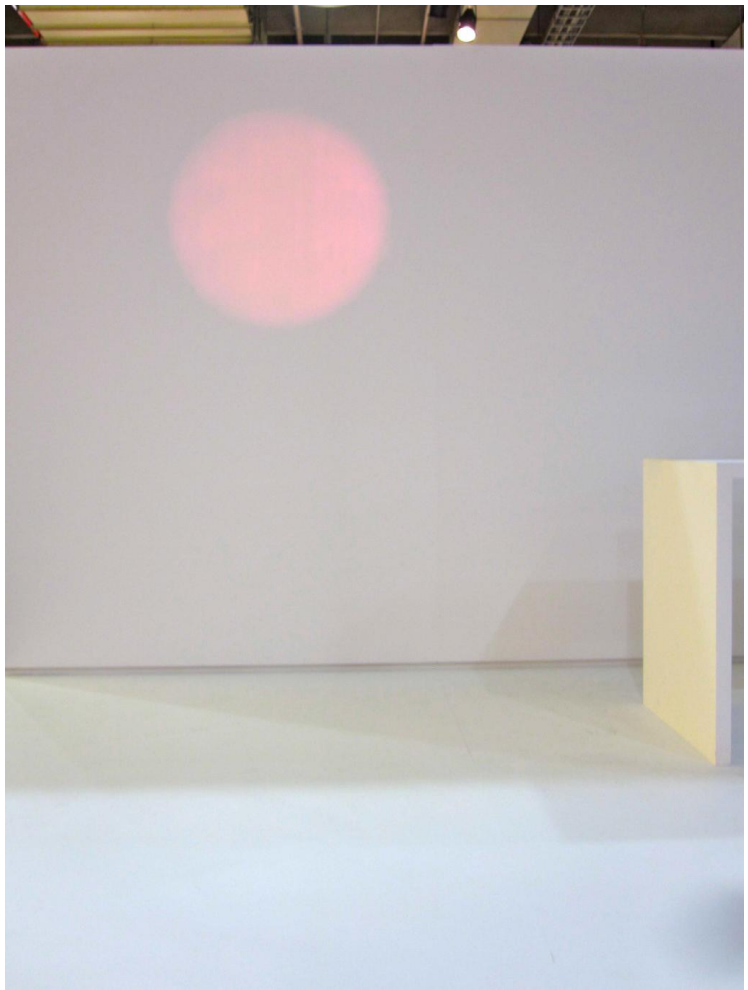
Perhaps the one of the most symbolic example of minimalist design today would be the design motifs of Apple. On the very surface, Apple products are designed no bigger than it needs to be, or with parts that are used strictly for ornamentation and serving no purpose. As quoted by Jonathan Ives himself in documentary Objectified (Hustwit, 2009)

> *“A lot of the things we do in designing a product is actually getting design out of the way, when forms develop with a reason and not just arbitrary shapes, it feels almost inevitable, it feels almost undersigned.”*

Minimalist thinking and Sustainability

In a modern context, the increasingly predominant issues around sustainability that spread together with higher living standards, ecological issues have permeated into economic and political agendas. Many products have been

redesigned, their eco-efficiency raised and they have in general turned out to be “lighter” in their ecological “weight” (Vezzoli & Manzini, 2008). The reduction in the amount of materials and energy in a solution will reduce, sometimes dramatically – the impact it has on resources and environment (Shedroff, 2009). And although designing “lightness” alone is not a sufficient precondition for sustainable solutions, it is more than ever an indispensable condition. According to Vezzoli and Manzini (2008), a sustainable society can only be an outcome of structural changes, but in the end it has to be supported by a new generation of products, which without doubt have to be “light” products.



One thing I'm intrigued by is the fact that my project is constantly evolving as I continue to research and clarify its context. At the moment my thinking is becoming quite different to what my initial thoughts were in the beginning, which was mostly about designing modular furniture components for small spaced homes. My thinking has developed since then and I feel clearer about the purpose of this project. In this reflection I want to discuss on the idea of minimalism and my reflective thoughts on what it means in relation to this project.

I came across the word 'dematerialization' as I was reading through a book by Naoto Fukasawa, in this book, he talked about erasing physical existence of things through dematerialized thinking. In this particular example of tiled light, he thought rather than designing light as a visible feature of a room, he became interested in the possibility of erasing its physical existence by incorporating it into a single tile on the wall, so that the light becomes visible when in use, but goes back to being a tile when not on.

Dematerialization is a word that fitted perfectly between this project and the idea of minimalism. And although interpreted in a less sophisticated way, the word also reflects my project of last year, where the physical existence of a toy is integrated as part of utilitarian object. In an age where most of our homes are cluttered with material things, many of which we don't even remember, perhaps it is important understand our generation's core needs/interactions in terms with objects in our home and designing for the essence of our behavior? The intrinsic link between dematerialization and minimalism also reminded me of a quote by Jonathan Ive on the design of Apple products (Hustwit, 2009).

> *"It's really important in a product to have a sense of hierarchy about what's important and what's not important, by removing those things that are all vying for your attention. An indicator has a value when it is indicating something, but if it's not indicating, it shouldn't be there."*

In reference to Fukasawa's light, erasing the physical existence of a light enabled a space with one less physical object, yet the light did not fully disappear, but only came to life when it is required.

Seeing through a "dematerialization lens" allowed me to begin questioning some of the objects that has been in my home. I live in a small house and it is cluttered with stuff. One morning as I was brushing my teeth, I looked down on the weighing scale which was beside me on the floor. The scale was in a perfect square and it a floor tile immediately came to my mind. Perhaps I was influenced by Fukasawa's tile light, but nevertheless, in that moment the scale was not being used at all yet it is taking up a portion of the floor space (In fact, its only function is to indicate weight). So I wondered what if the simple technology of an electronic scale could become fully integrated as a tile on the floor? So that when it is useful, the user stand over that particular area on the floor and an indication of weight would appear, but when not in use, it is returns back to being a floor.

Unsure of the feasibility of this idea, however it seemed to be a perfect analogy/metaphor of how design could enable dematerialization. The usage of a weighing scale is merely a few seconds every now and then, yet its physical existence remains within the space permanently. By incorporating it as part of the floor in a way dematerialize its physical existence, yet retains its core functionality, which only becomes visible when it is needed.

Hustwit, G. (2009). Objectified United States Plexifilm.
Saito, Y. (2007). The moral dimension of Japanese aesthetics. The journal of aesthetics and art criticism, 65(1), 85-91. doi:10.1111/j.1540-594X.2007.00240.x

esc
tab
caps lock
shift
control
option
command

3

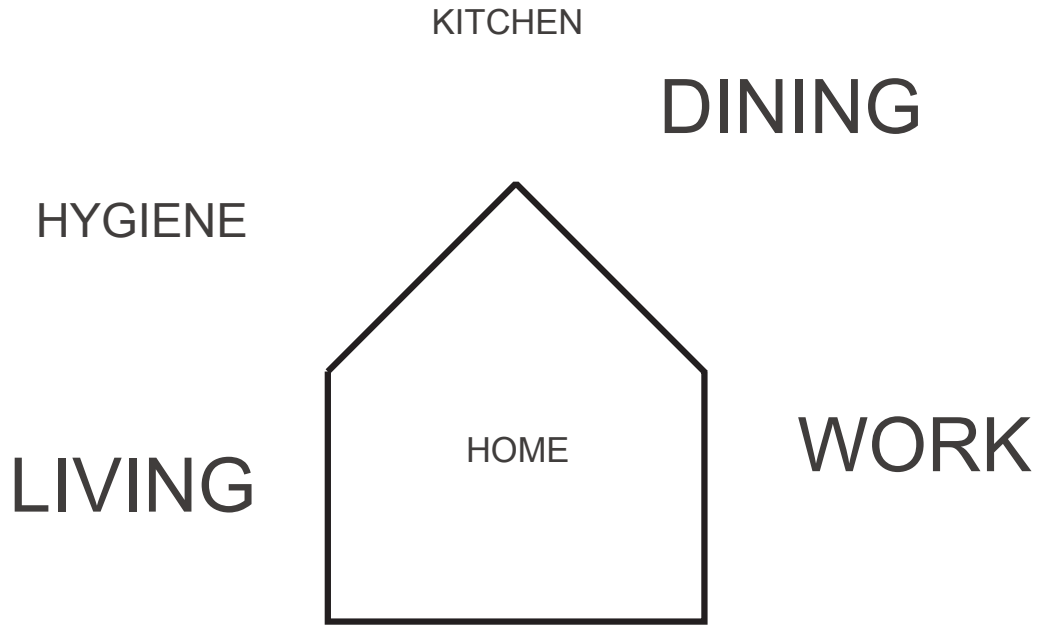
I opened up our garage this morning to find it full of things, many of which I have either forgotten, never seen before, or rarely used. Originally designed to park cars, now it is invaded by mountains of clutter. Looking at this scene made me realize how much we are anchored by material things, and how much frustration there is around keeping them, in this situation, most of the stuff here I have rarely used, yet is too wasteful to throw away, and so they are thrown into the garage instead. It seems that our garage has become a semi dumping site for rubbish that might be “difficult” to throw away.

Acknowledging that the expected outcomes of my project will not eliminate the existing clutter in my garage, but I do wonder that apart from the unsustainable production and consumption of society, what is the role of a designer in preventing things becoming obsolete? Is there a way to minimize the end user’s future build up of clutter during the design process of a product? Maybe it has a customizable second life, or maybe it is dematerialized enough that it becomes physically non-existant?

I think to me personally, minimalist living is not necessarily about living with nothing at all, but about learning to appreciate the basics, it is about having an attitude of thinking carefully before making a purchase, and owning an appropriate set of posessions that we truly value. So rather than filling the home with objects that would otherwise become obsolete over time, perhaps it is about having a set of objects that is able to withstand the test of time and use, both aesthetically and functionally.

On the other hand, objects should be designed with better considerations and critical questioning around its need. Rather than creating complex networks of products, perhaps designer should aim to fulfill needs through its simplest manner

IF MINIMALIST LIVING IS UNDERPINNED BY A STRONG PHILOSOPHICAL VALUE. WHAT IS THE ROLE OF DESIGN IN THIS ?



PHOTOGRAPHIC STUDY

Photographic ethnography was an exercise conducted through capturing or gathering unscripted photo scenes of different areas in people's home. I began this method by mapping out the common spaces and utilities of which a home must provide. Multiple images of different scenarios suggested trends of habits in the way people perceive or use their furniture. The study of these images included asking the following objectives:

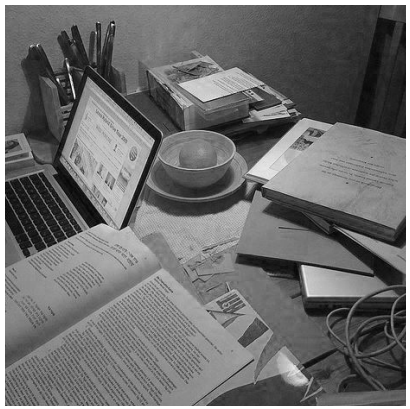
1. Understand the current role and function of furniture in our domestic environment

2. Uncover patterns of habits and behaviors around the way we interact with these domestic objects of which forms our living space

3. Provide contextual inspiration to stimulate creativity and design ideas

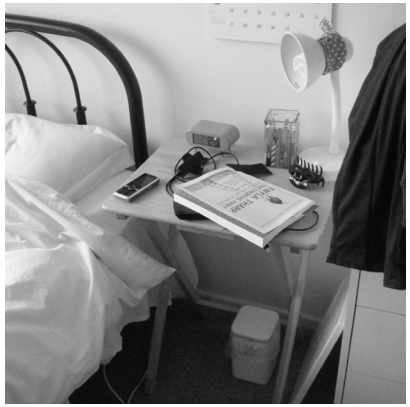
Homes in most circumstances, are formed by a complex networks of things, which are housed within several key pieces of furniture. E.g. cabinets and draws, tables and chairs, sofas and beds, it seems that the characteristic of these furniture only comes to life when it is used, whereas it is actually the continuous growth of these small tools for living that eventually builds a cluttered home space. So in a way, it is arguable that majority of furniture in the home are really used to house our complex networks of possessions.

Perhaps minimalist thinking or dematerialization in design should not only begin from the very object itself, but start by seeing the dependent network of things around it, the ways it is used, common habits and behavior around its usage, and then question: how can I use design to dematerialize/simplify this network of possessions?



what defines a workspace in the home was a very interesting subject that came out as I looked through these photos. It is clear that the development of technology is in itself creating a new type of minimalism. In this situation, the flexibility of a laptop nowadays has enabled people to work anywhere in the home. i.e. Dining table, floor, or even bed.

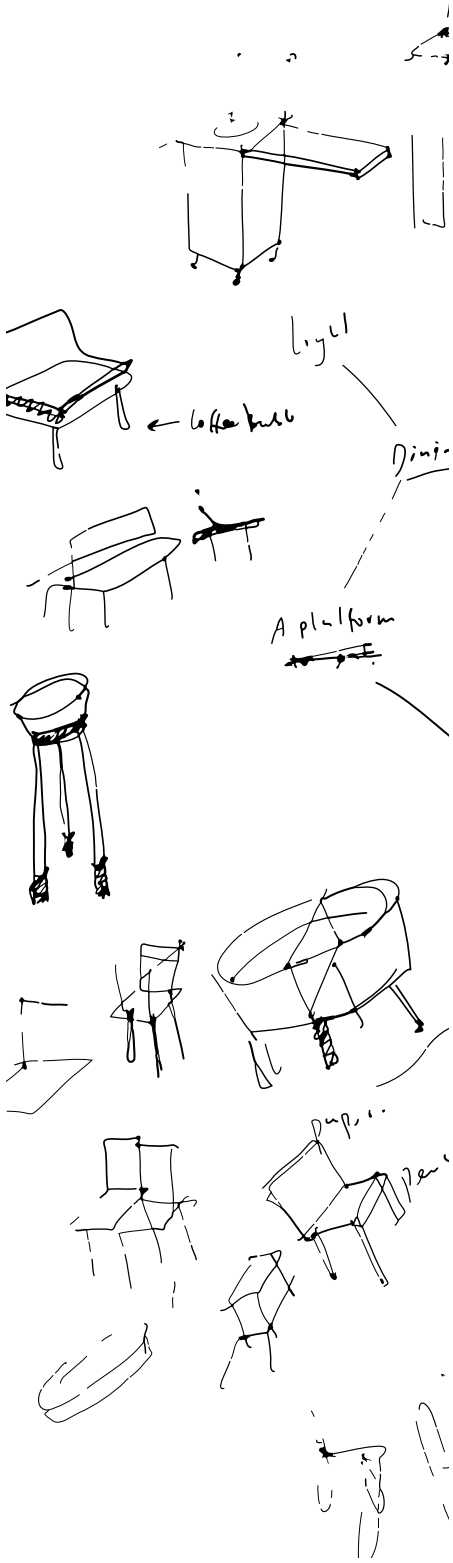
In many situations, furniture in the home plays a different role than it is originally intended. For example, this photo was taken in a kitchen, the table here, clearly designed for dining, is transformed by its user into a office desk with one chair that is rarely used as it is seen storaged against the wall, while the other chair is used as a hanger for wet towels.



The bedside table was a good example to study as it is a clearly defined cluster of things that commonly exists in several different domestic contexts. Although it is only a small element in the bedroom, it infact involves multiple number of items, the table itself is merely used to house additional things. So how can this be simplified while still providing its function?

CONCLUSION

If domestic utilitarian needs are fulfilled through a complex network of things that are dependent on each other, perhaps in order to design for one to live with less, it is important to understand the essence of common habits in how we live today, and apply dematerialized thinking based the essence of our needs. For example, are our daily tools for living designed to adapt to today's living? For example, It seems that the convenience of technology has removed the physical burden of many things and provided flexibility such as the way we work, in this situation, is there a need for multiple tables/desks in the home?



#4

Group Brainstorming Session

On monday afternoon, we formed a group brainstorming session in the quad area in between Albert Park and the City Art Gallery. The purpose of this brainstorming session was to help each other's projects in a relaxing context outside the studio.

We began by each explaining our project contexts which in term led to the subject of brainstorm. Upon conducting photographic ethnography, I became interested in the idea of living with less through removing physical existance of small items in the home, while maintaining its functionality. So I asked everyone to map down the common utilitarian things based on six areas in the home: Living, Dining, Work, Sleep, Hygiene, and Cook.

Reflecting upon this session, it would have been a much more useful session for me if I had structure the brainstorm question much more clearer and specific. Such exploring other people's ideas on minimalist living. However, overall it was a good session as it gathered both the Masters and the Honours students in discussing each other's project.

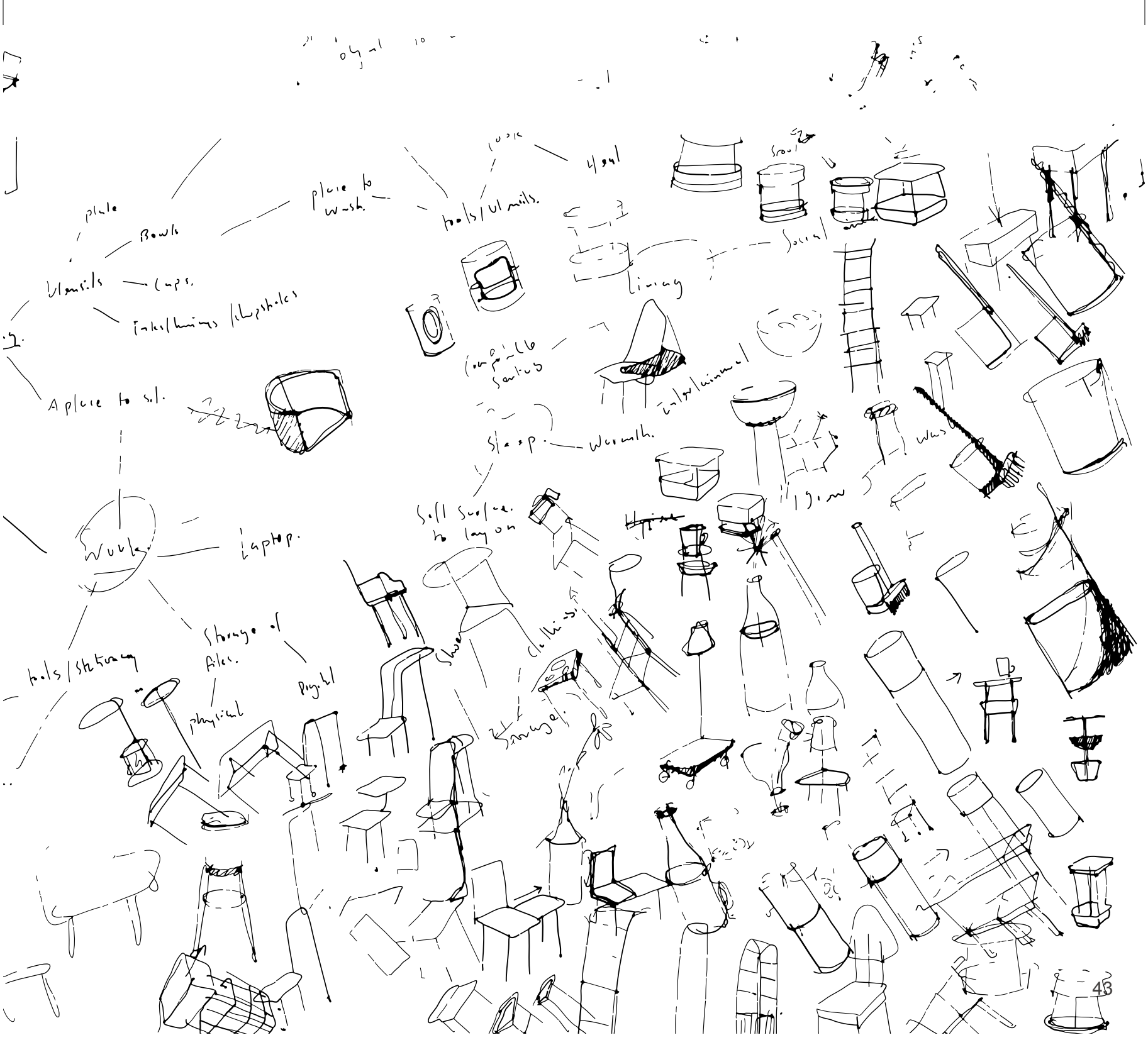
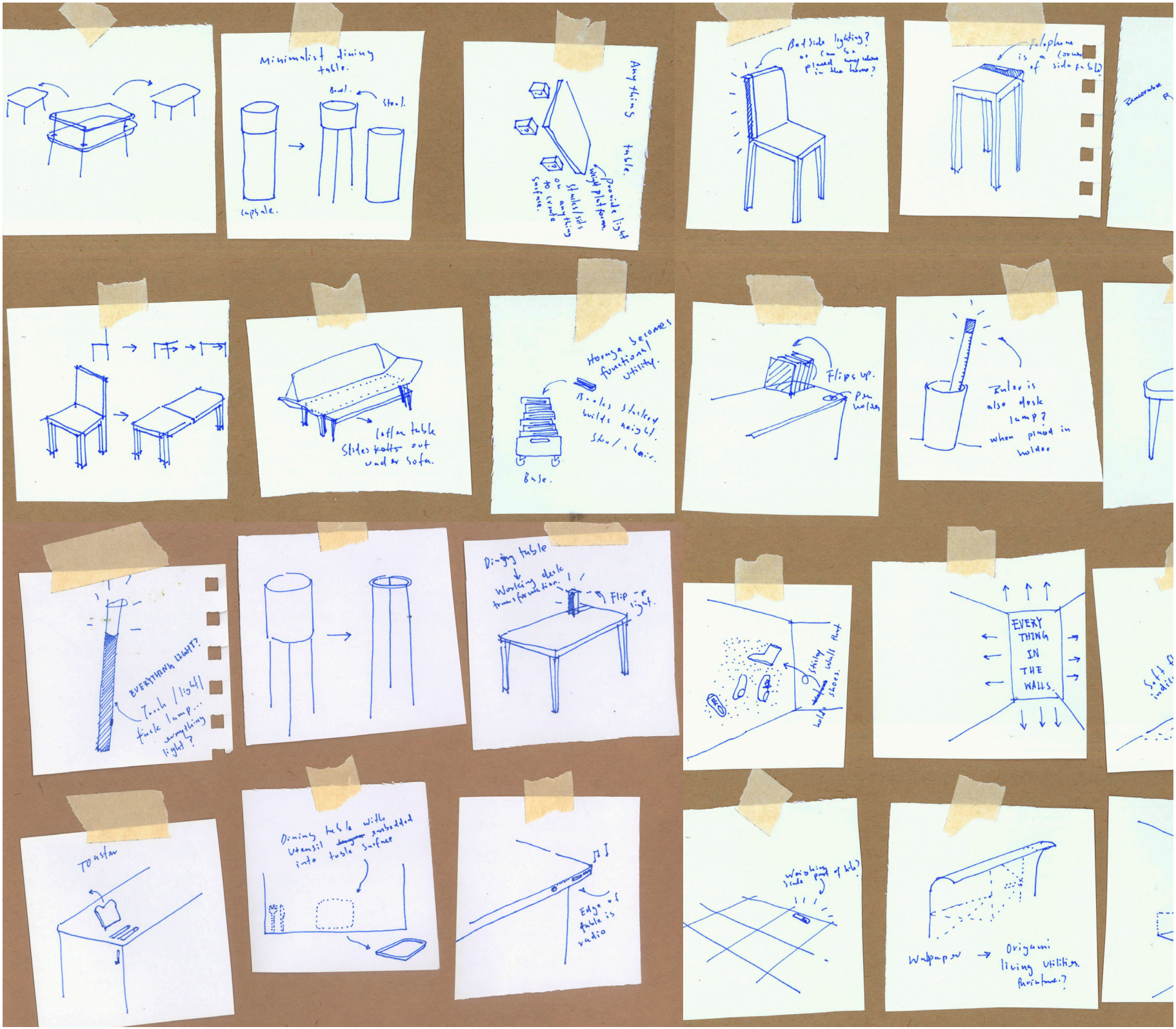
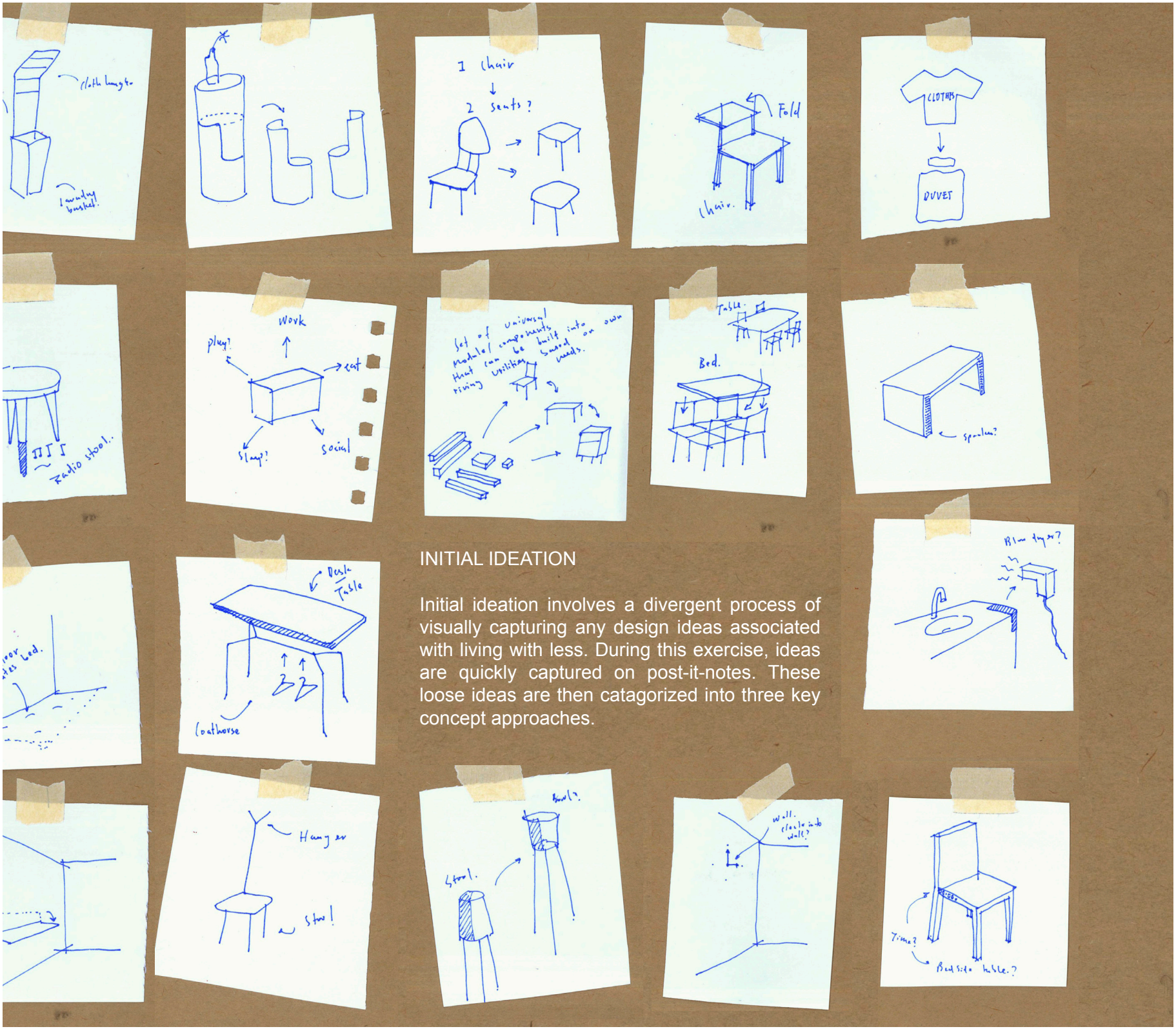


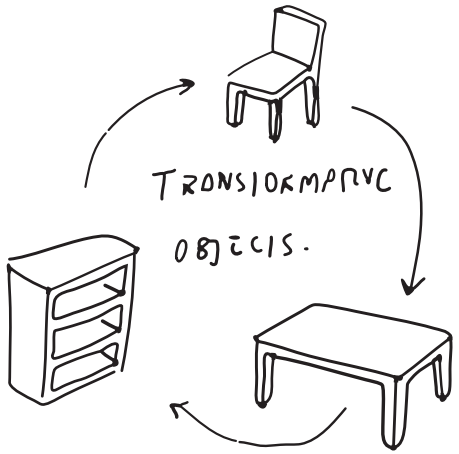
plate
Bowls
place to wash
tools/utensils
Heat
Stool
Utensils
Caps
Inks/linings/chopsticks
Living
Social
Comfortable Seating
Entertainment
A place to sit
Sleep
Warmth
Wash
Soft surface to lay on
Work
Laptop
Storage of files
tools/stationary
physical
Digital
Storage

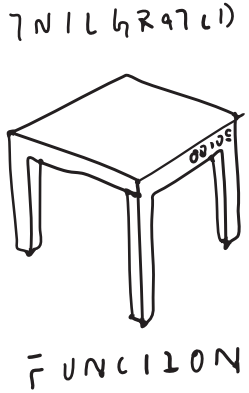

Minimalist dining table.
Bowl.
Stool.
capsule.
Anything table.
Provide light
Wight platform.
Stacks/sits on anything to create surface.
Bed side lighting?
or can be placed anywhere in the home?
Telephone is a corner of side table?
Remember
Coffee table
Slides out under sofa.
Storage becomes functional utility.
Books stacked builds height.
Stool / chair.
Base.
Flips up.
Pen holder
Ruler is also desk lamp?
when placed in holder
EVERYTHING LIGHT?
Torch / light / task lamp...
everything light?
Dining table
Working desk transformation.
Flip up light.
Sticky wall that holds shoes.
EVERY THING IN THE WALLS.
Toaster
Dining table with Utensil embedded into table surface
Edge of table is radio
Weighing scale part of tile?
Wallpaper → Origami living utilities. furniture?



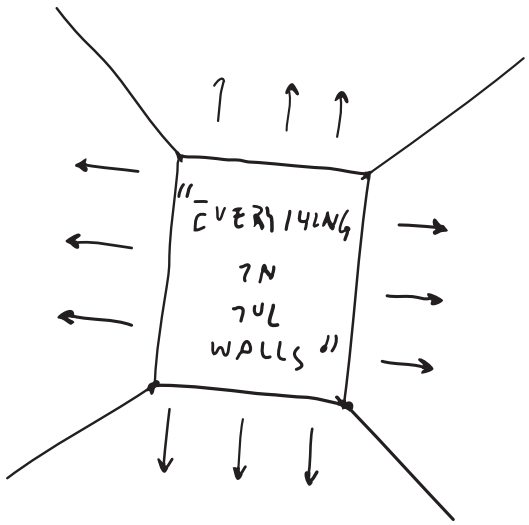
INITIAL IDEATION

Initial ideation involves a divergent process of visually capturing any design ideas associated with living with less. During this exercise, ideas are quickly captured on post-it-notes. These loose ideas are then catagorized into three key concept approaches.





The raw ideas was grouped into three broad concept approaches, each reflects of how design can create solutions towards minimalist living. The three concept approaches also reflects the key design considerations that are identified during early stage of research: Designing transparency, adaptibility, lightness, and integration.



My bedroom was selected as the location for this experiment to take place. Day 1 of the experiment involves setting up the space by removing all existing items that were in my bedroom at the time. This process was documented and presented as a partial time-lapse video where a photo was taken every 40 seconds.

The entire process took around one and half hour to complete. As previously expected, the presence of large quantities of loose items, such as books and clothes was much more difficult to deal with than the key sets of furniture that were in my room at the time. Several problem were identified as I move each item to the living room.

Both drawers and the bed were particularly frustrating as they were large in size, difficult to move and required two people. The bed was constructed of multiple components laying on top of each other, this included the steel bed structure, a matress, a heat blanket, woollen bedding underlay, bed sheets, duvet and pillow. In a way, I think the design of the bed epitomizes a single need that is fulfilled through a network of things The supposedly short journey of transferring bed to the living room required a complete disassembly of the bed itself as it simply could not pass through the door. Surely there must be a must simpler approach in designing a place to sleep.

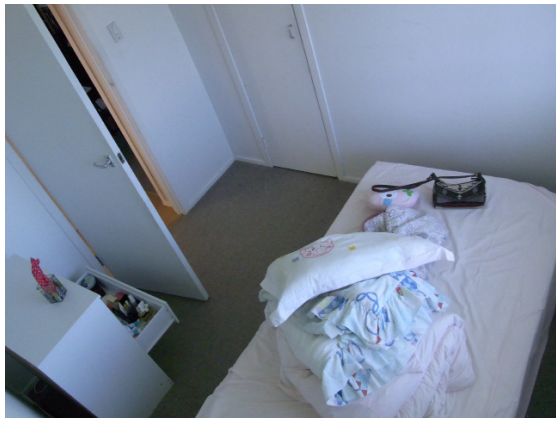
Moving the clothing drawer was also difficult. The design of this particular drawer was definitly not user centered. In addition to the storage of clothes within the drawer, the fact that it is made with MDF makes it extremely heavy to lift. there were also no handle to support the lifting action. In the end, the drawer was partially disassembled with each level of drawer moved separately.

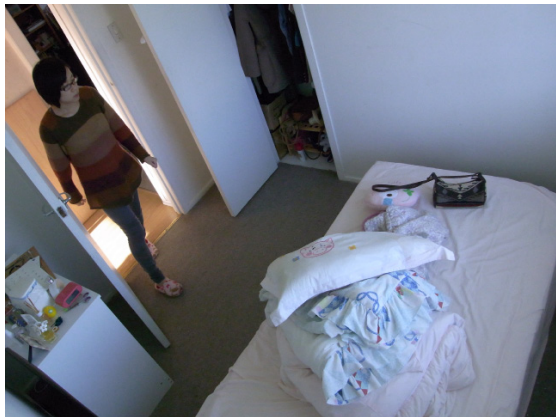
Emptying the closet was an interesting experience,. Taking everything out from the closet reveals our excessive amount possessions that is normally disguised. It made me acknowledge that I had much more “things” than what is typically seen on the outside.

I find the storage function itself paradoxical to the topic of my project, which is about using design to enable a minimalist way of living. Having a closet can be extremely functional as it stores away all my clothes and many personal things that are rarely accessed or reluctant to throw away. However, the very idea of storage and disguise seems to be supporting people to own more stuff, I think this is true not only in this situation, but majority of today’s storage utilities, whether it is built in or designed on its own. Although I agree that storage is an essential function for living. However, has design enabled too much storage in today’s homes?

The following key points were summarized in this entry and should be reinforced/acknowledged:

- Designing for minimalist living should encompass dematerialization beyond an object itself, but its surrounding network of things.
- Storage Utilities - Finding a balance between enabling essential storage and excessive storage



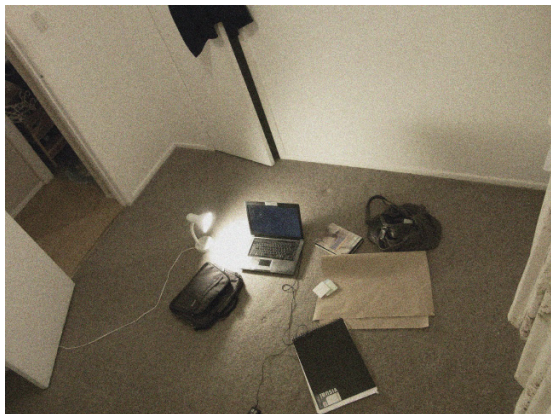


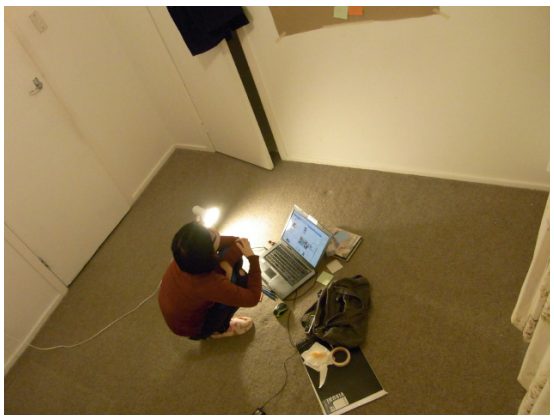
Time lapse camera capturing every moment as I cleared out my bedroom space .

I spent the first evening working in the room with the following items: my laptop / desktop lamp / bag pack / hot water bag (to provide warmth) / usb + hardrive / Sketching journal

I sat on the floor for three hours without any tables or chairs. Although it was achievable, working in this position became extremely uncomfortable after a while.

At the time there was already a standard ceiling light in the room, I needed a more focused light on the floor to assist me while working on notebooks and sketches. This led me to think about the network of various lighting products that utilizes our home. From a practical stand point, it is clearly justifiable that we need various different types of light for different uses. However, this also made me think about the possibility of a single light object that is able to adapt to different uses and needs.



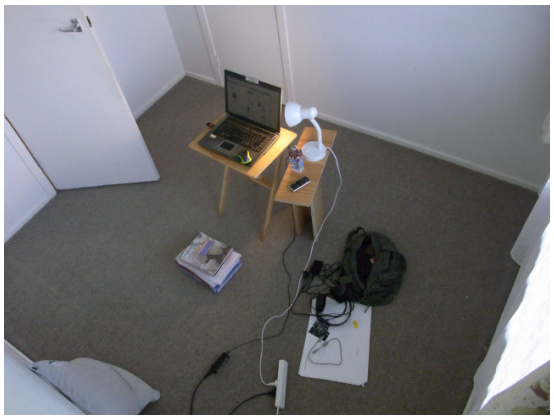


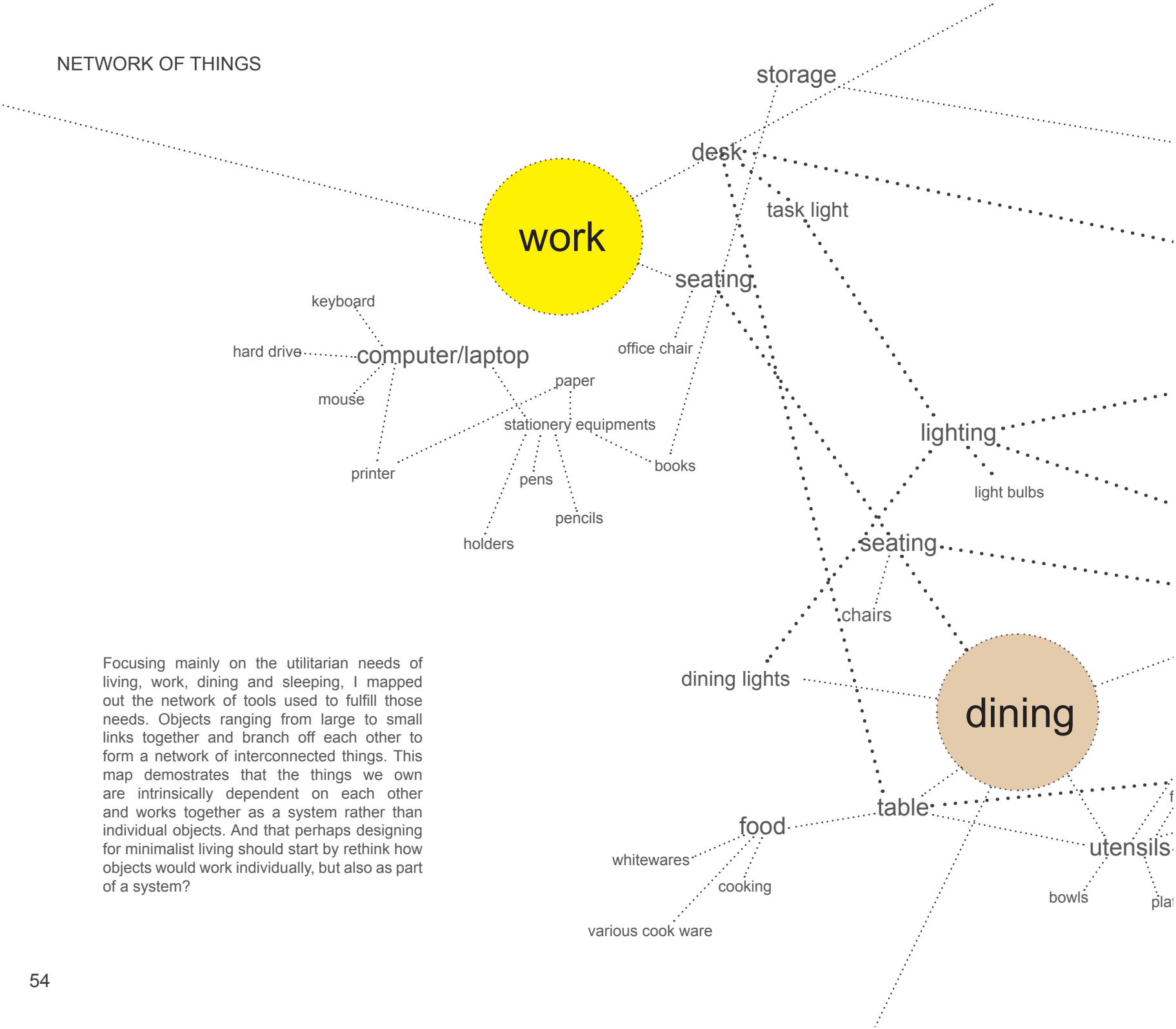
I think it is critical for me map out my essential needs as I start to live in this space. It will be very interesting to see the gradual changes as this space evolve over time.

This morning I decided to make a few basic changes as I have been working in this space quite often in the past few days. It was extremely uncomfortable to work on the floor for a long period of time. So I quickly brought in a small side table and stacked a pile of books to form a temporary work station.

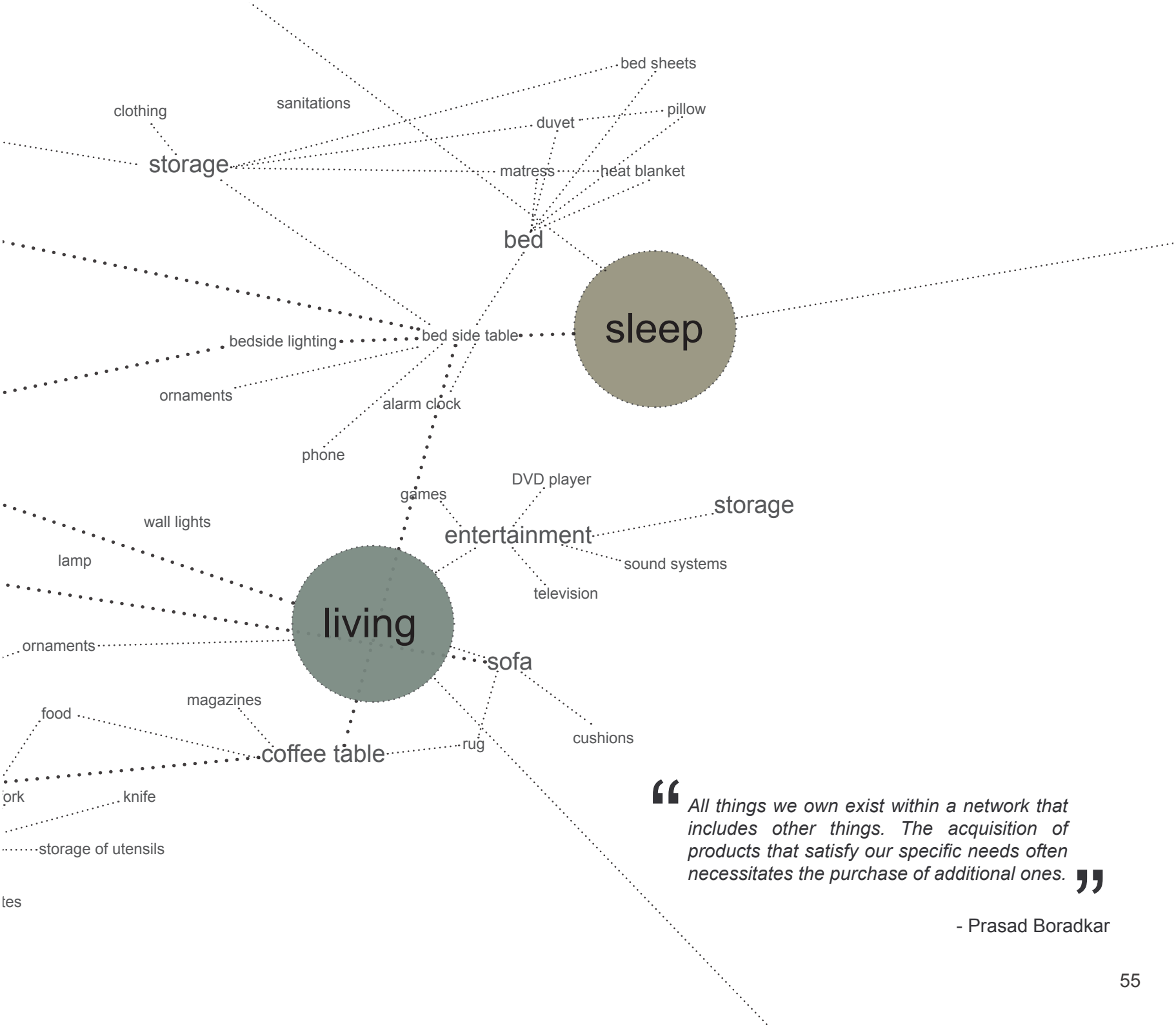
Although this quick mockup of a working area seems crude and unconsidered. There was something very simple and minimal about stacking a pile of books to form a seat. It's almost like I am intuitively solving problems with immediate solutions as I realize them. In this situation, having a stacked pile of books as seating solutions adjusts a seat to my height, as well as making use of objects that would have been otherwise stored away. On the negative side however, this seat was extremely uncomfortable and not suitable for long term sitting. There were several other moments where I modified the space intuitively/unconsciously as my needs change. i.e. Changing of functional purpose from working to dining.

I sat down and mapped out the key items that I will need. Cooking and toiletry needs were excluded as they were outside the limit of this experiment. The three most basic needs identified here was tools/equipment for working, dining, and sleeping. Although the three needs were fairly lbasic, fulfilling each need involved a hierarchy of interconnected things. For example, a work space leads to a desk and a chair, which houses a storage of files, various electronic devices, lamp, pens and papers. Design for minimalist living, in this situation, would mean the need to enable these needs in the simplest manner. Similarly, a dining area is associated with tables and chairs, food, and various utensils, and our sleeping need is fulfilled through another system of objects.





Focusing mainly on the utilitarian needs of living, work, dining and sleeping, I mapped out the network of tools used to fulfill those needs. Objects ranging from large to small links together and branch off each other to form a network of interconnected things. This map demostrates that the things we own are intrinsically dependent on each other and works together as a system rather than individual objects. And that perhaps designing for minimalist living should start by rethink how objects would work individually, but also as part of a system?



> *All things we own exist within a network that includes other things. The acquisition of products that satisfy our specific needs often necessitates the purchase of additional ones.*

- Prasad Boradkar

Summarized through early research and reflective practice, several key design principles of dematerialized thinking are identified, many of these overlap and are synonymous to each other, in the following I will explain the meaning of the terms and its use as fundamental design considerations in the context of this project.

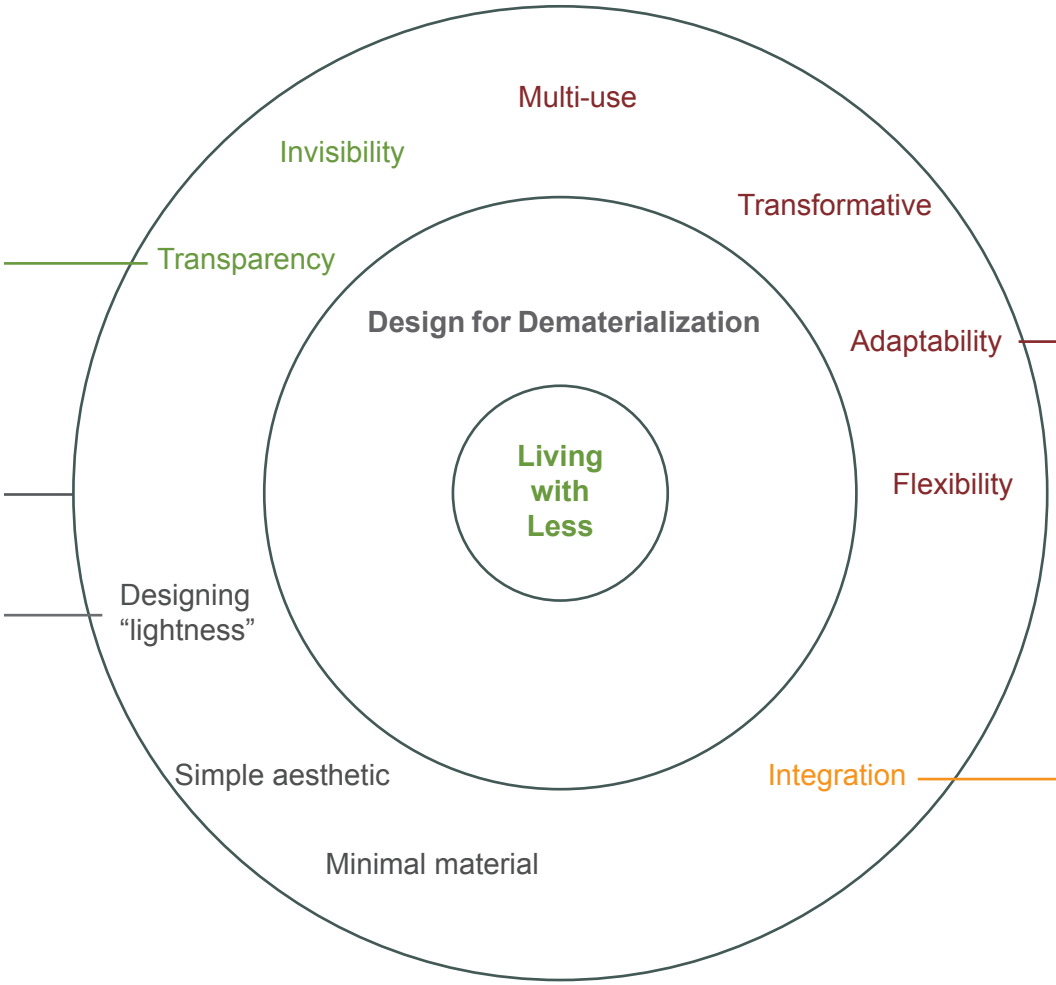
Upon gaining a personal understanding of minimalism and dematerialization, creatively explore the potential role of everyday utilitarian objects in enabling a minimalist lifestyle.

Transparency

Most functional objects should be designed to disappear, mentally if not physically. The objects of which forms a space should be quiet, restful and unnoticed, that only came to life when it is needed, rather than a zoo of extraordinary animals all clamoring for attention (Loos, 1998). In the context of this project, rather than designing objects that blocks out our perception of space, a key principle revolves around designing objects that are transparent, that only came to life when needed.

Lightness

Designing "lightness" aims to maintain a minimalist visual/ aesthetic as well as ecologically lightweight product. According to Shedroff (2009), the reduction in the amount of material and energy in a solution will reduce, sometimes dramatically - its impact on resources and the environment. In this situation, designing "lightness" not only involves exploring minimalist aesthetic, but also refers to principles from the C2C framework i.e. the use of pure material components and easy disassembly process.



Adaptability

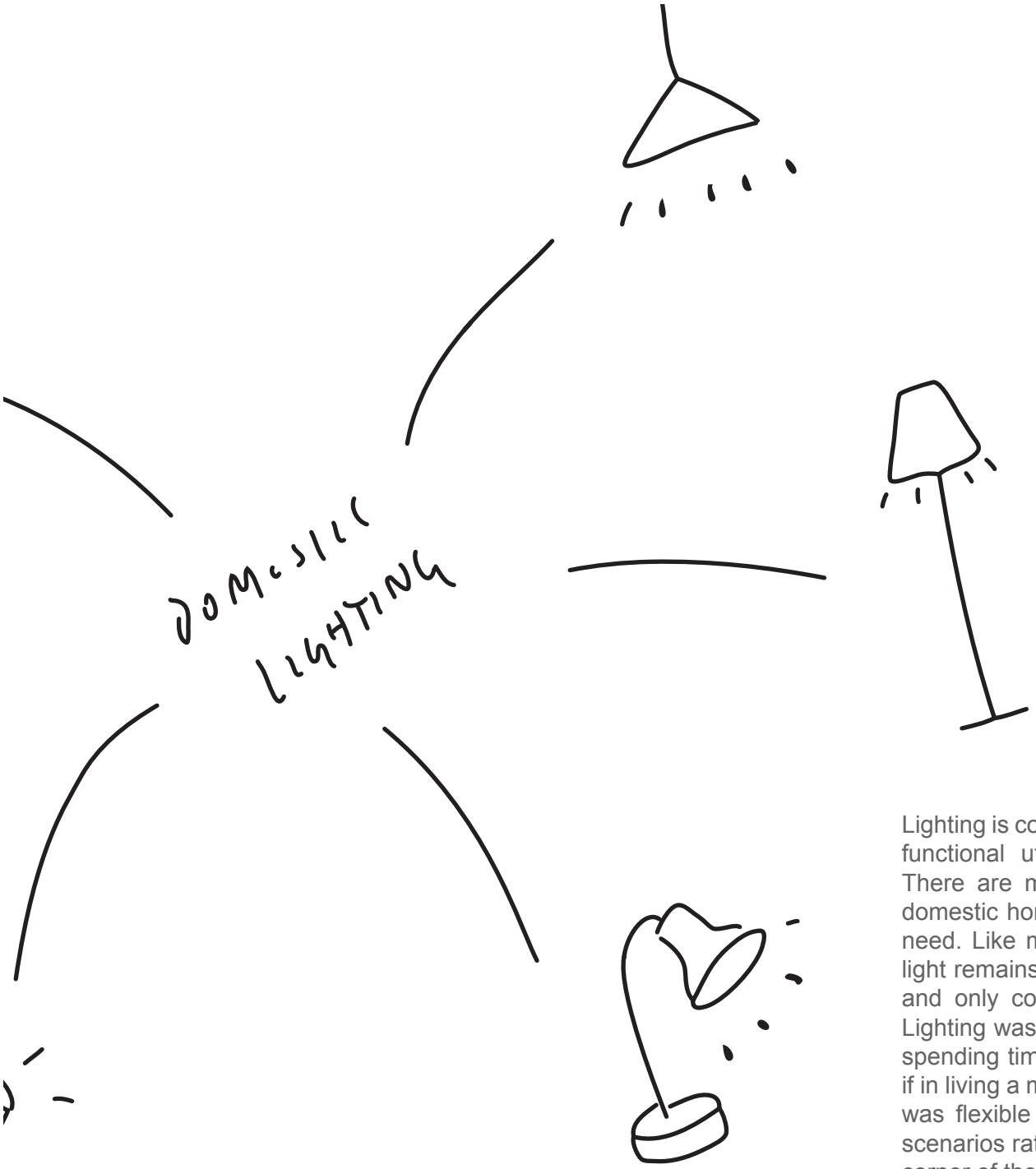
Our needs are always changing, regardless if it is throughout the day or over a period of time. Can an object be designed flexible enough, so that it understands and is able to adapt to the constant changing dynamics of its use, rather than recklessly building on top of each other to fulfill various functional needs.

Integration

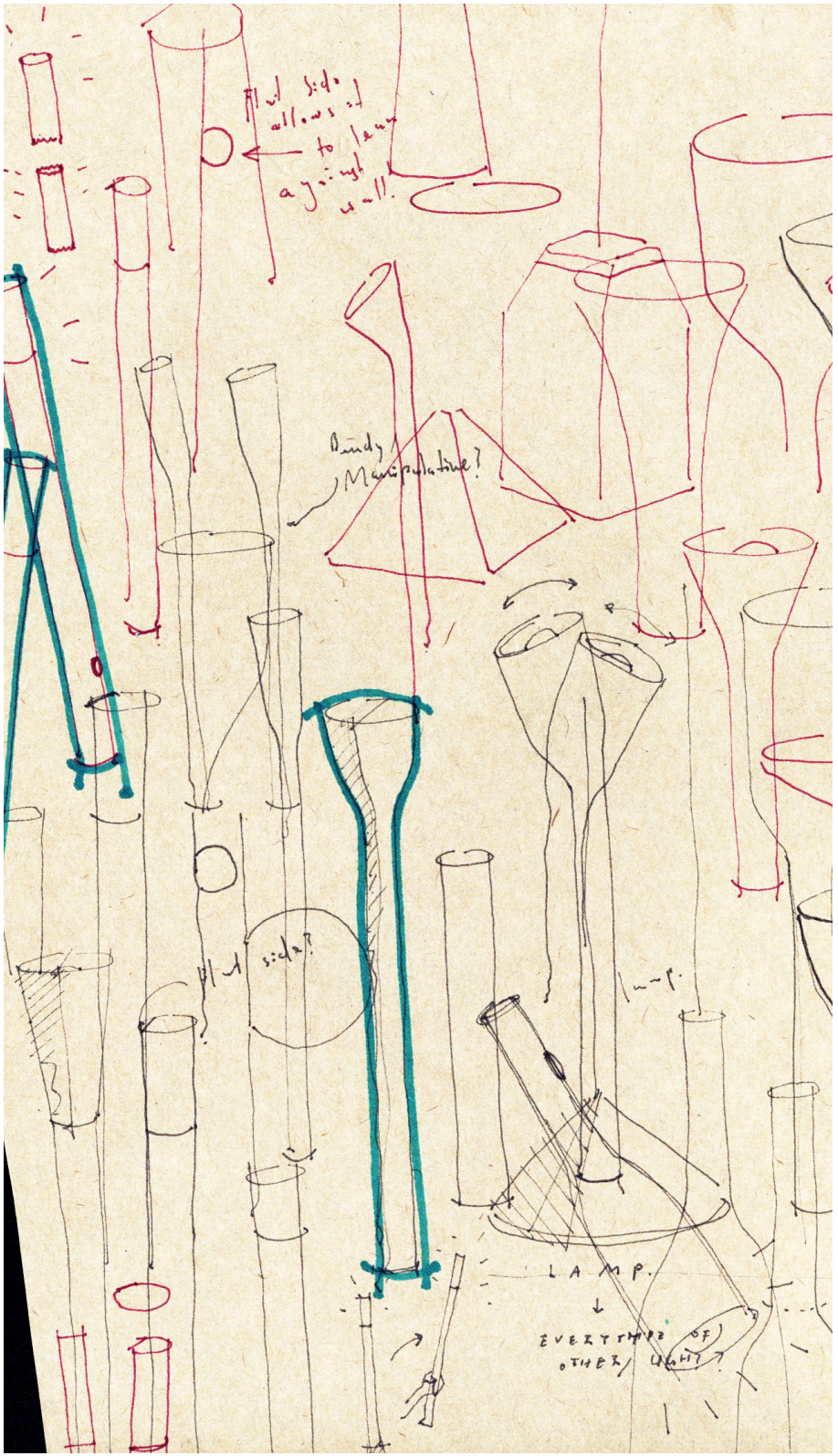
Acknowledging that the acquisition of domestic products that satisfy our specific needs often necessitates the purchase of additional ones. The need for an individual item is often in reality a need for a network of things that is dependent on each other. In this situation, perhaps designing for dematerialization involves designing integration to minimize the physical presence of everyday utilitarian things while maintaining its functionality?

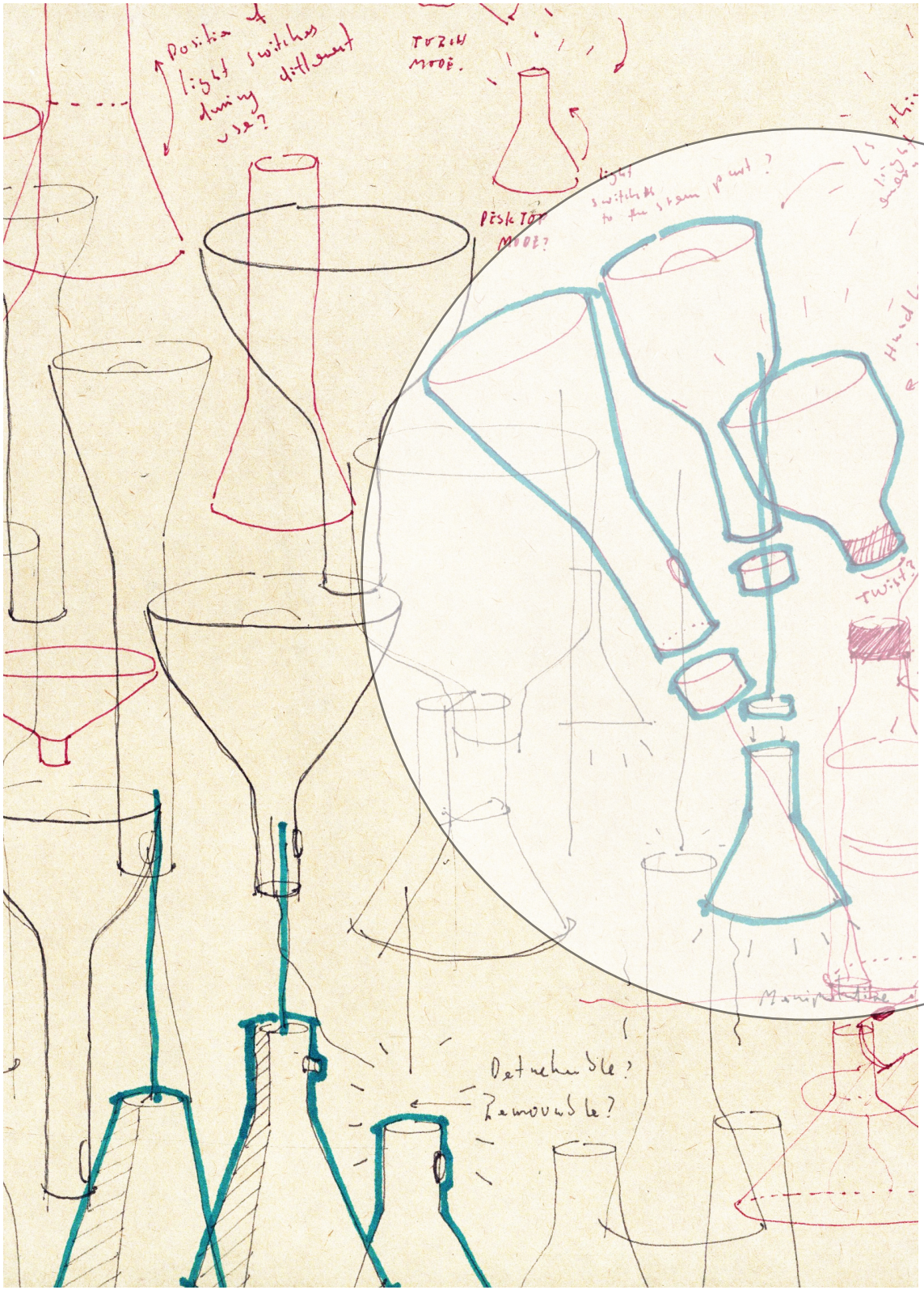
1.0

Designing a light that is able to adapt to various circumstances and uses?

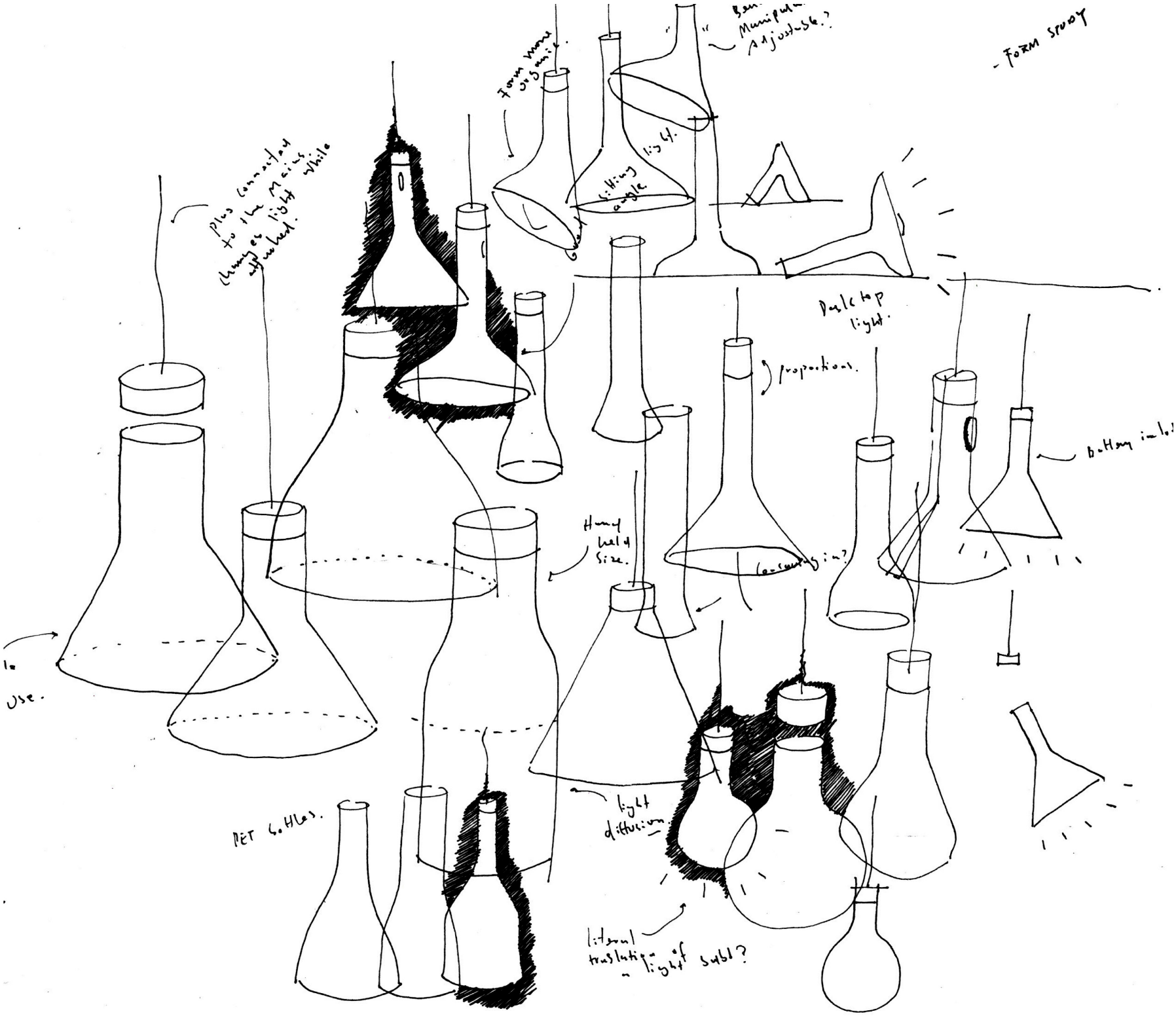


Lighting is considered asone of the most essential functional utilities in a domestic environment. There are many types of light that exists in a domestic home, all designed to fulfill a particular need. Like majority of other domestic objects, a light remains in a dormant state most of the time and only comes to life when it is being used. Lighting was one of the first identified need while spending time in the minimalist setting. I felt that if in living a minimalist life, I needed an object that was flexible enough to provide light for various scenarios rather than being fixated to a particular corner of the room.

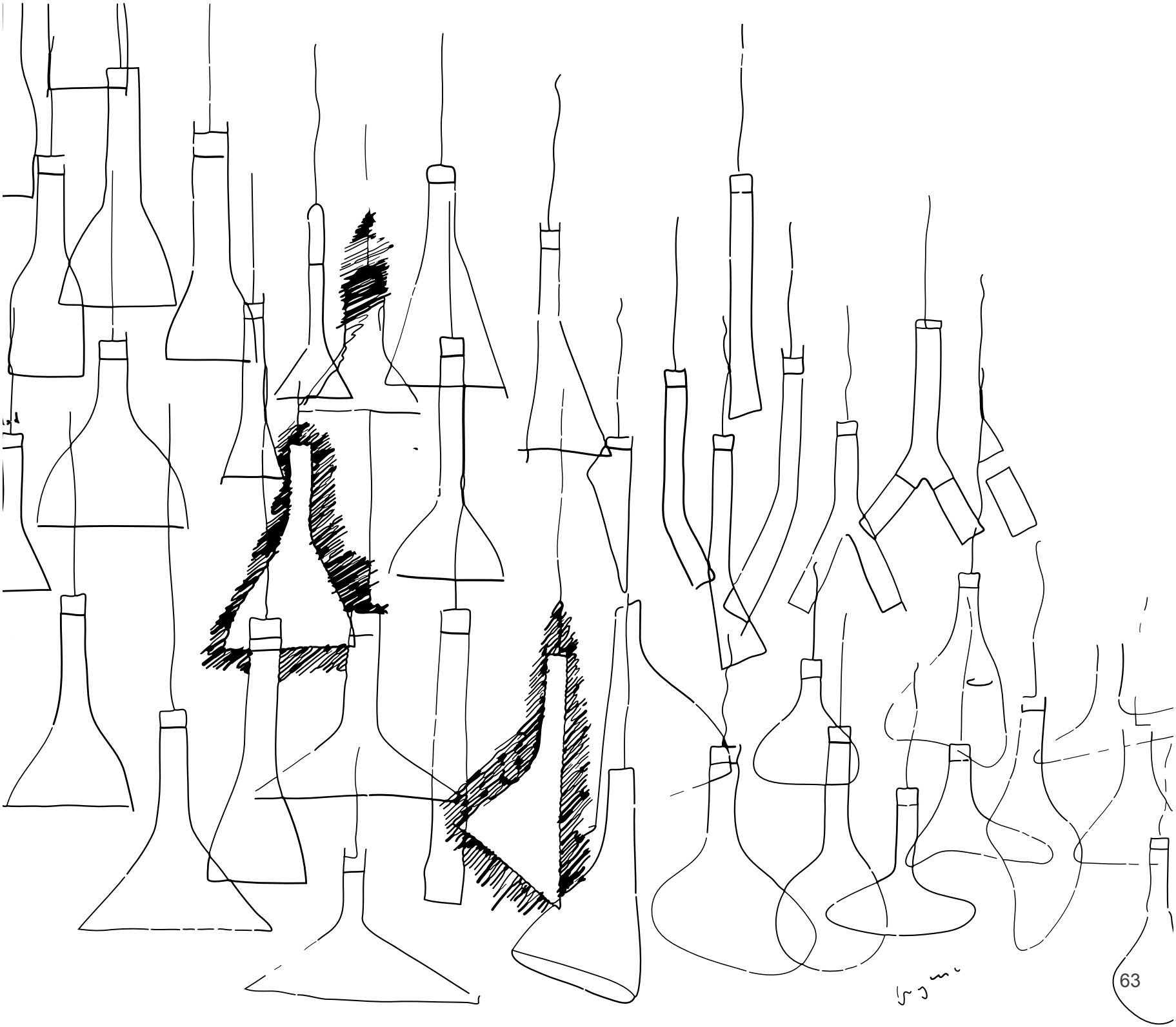

flat side allows it to lay against wall.
Body Manipulative?
flat side?
LAMP.
EVERYTHING OF OTHER LIGHT



This concept shows that perhaps a typical ceiling light can also be detached from its plugged in base and can be further used for localized purposes such as a hand held light, a desktop task light, or even a standing lamp?



- FORM STUDY
Adjustable?
Form more organic.
sitting angle
light.
plus connected to the mains changes light while attached.
Desktop light.
proportions.
Battery inlet
Hand held size.
Consuming in?
Use.
PET bottles.
light diffusion.
literal translation of a light bulb?



What does the research question mean to me?

How can the design of everyday objects contribute to a minimalist way of living?

It is in no doubt that minimalist living is underpinned by a strong philosophical value that contradicts with the idea of obtaining more stuff. This raises a paradoxal question to the nature of my research and perhaps even to design in general. Because if the ultimate goal is to change the materialist culture of today's society, then is it still appropriate for me to produce another tangible outcome for this research?

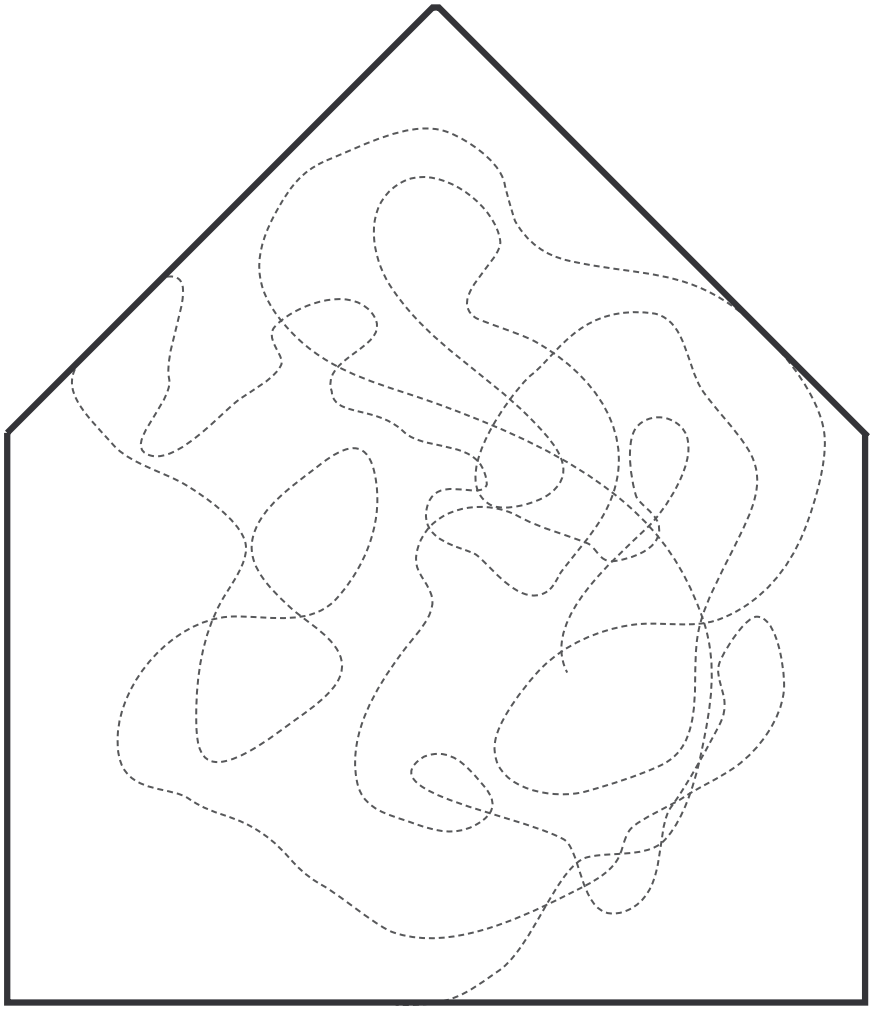
Even if the idea of minimalist living is fundamentally backed by having non-materialistic values internally. It is inevitible that the external world will continue to reveal new products. The role of designers is critical in the creation and decision making process of a new object. Cynically speaking, we are partially responsible for the endless number of things resting in our homes today, many of which we need and most of which we don't.

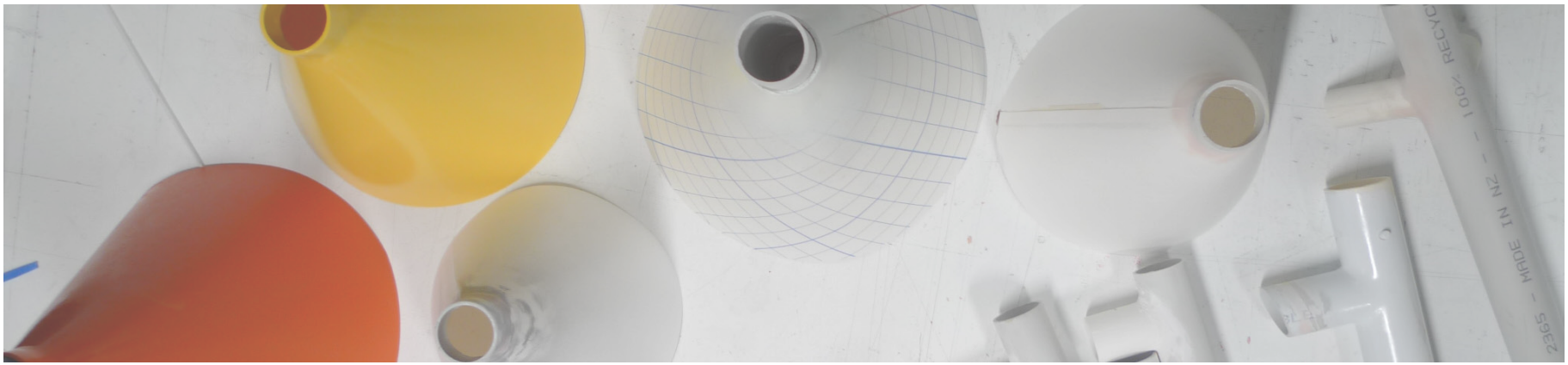
I see minimalist living as a I believe that minimalist living is a two way system, fundamentally it must start internally, but is also encouraged through changes in the external surroundings. This research explores within the external world and how designers can create objects that leads to a minimalist lifestyle. I used the word "contribute" rather than "enable" in the question, as I am fully aware that the ultimate enabler must first come from changes in the individual self. However, I also believe that there is a role for designers to contribute towards such way of living. Not directly but by the way objects could be designed to be used.

How is this experiment going to help answer this question?

The experiment is at the center of my research methodology, it takes on a different approach compared to my previous projects, which has been very much based around solving problems. In the context of this research however, instead of using design to solve a problem, the purpose of this research is more about exploring an alternative way of thinking everyday objects, and how they can be designed enable a minimalist/ dematerialized way of living.

This experiment mimicks a typical living space, which is intuitively/subconsciously built by the user to suit their individual needs and continues to evolve everyday. We have been identifying needs based on our experiences, obtaining objects and tools to fulfill our daily needs for living. In a way, setting up an empty space for the purpose of this experiment is synonymous to providing a plain canvas for a painter to paint with a set of constraints. Eliminating everything within the room provided room for creativity, I was able to sit down and map out the tools I need to perform various tasks and re-explore them in a minimalist way.
This experiment is both structured and unstructured at the same time. In a way I want to celebrate the looseness of this method, rather than having a structured linear process, I am viewing this project as a creative journey, I have built a box of which articulates the purpose behind this experiment, and now I am exploring it in a loose and free manner, constantly creating and reflecting as I go.





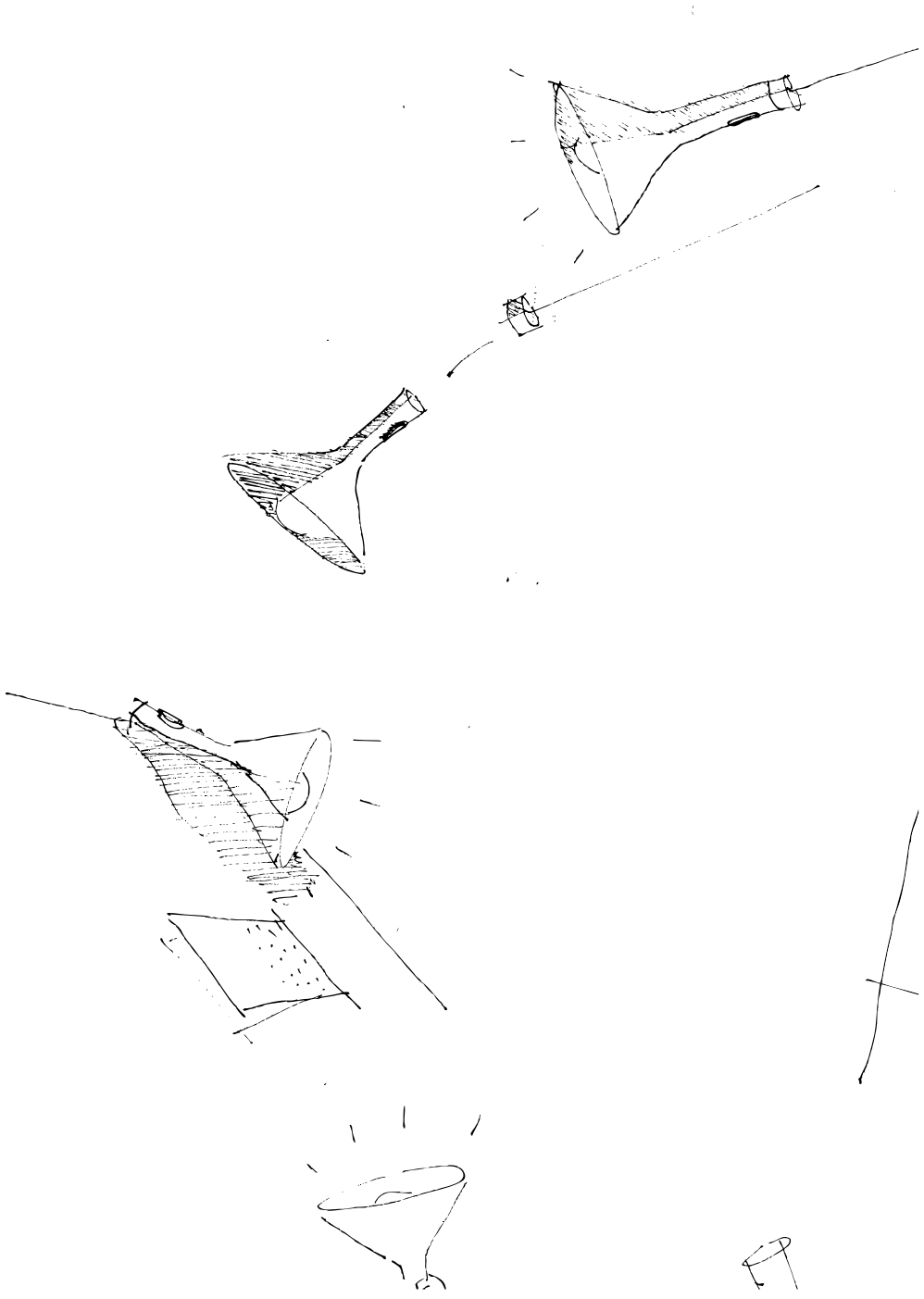
QUICK MOCK UP

1. Object functions as a ceiling light when plugged into base charger , which is connected to the mains.

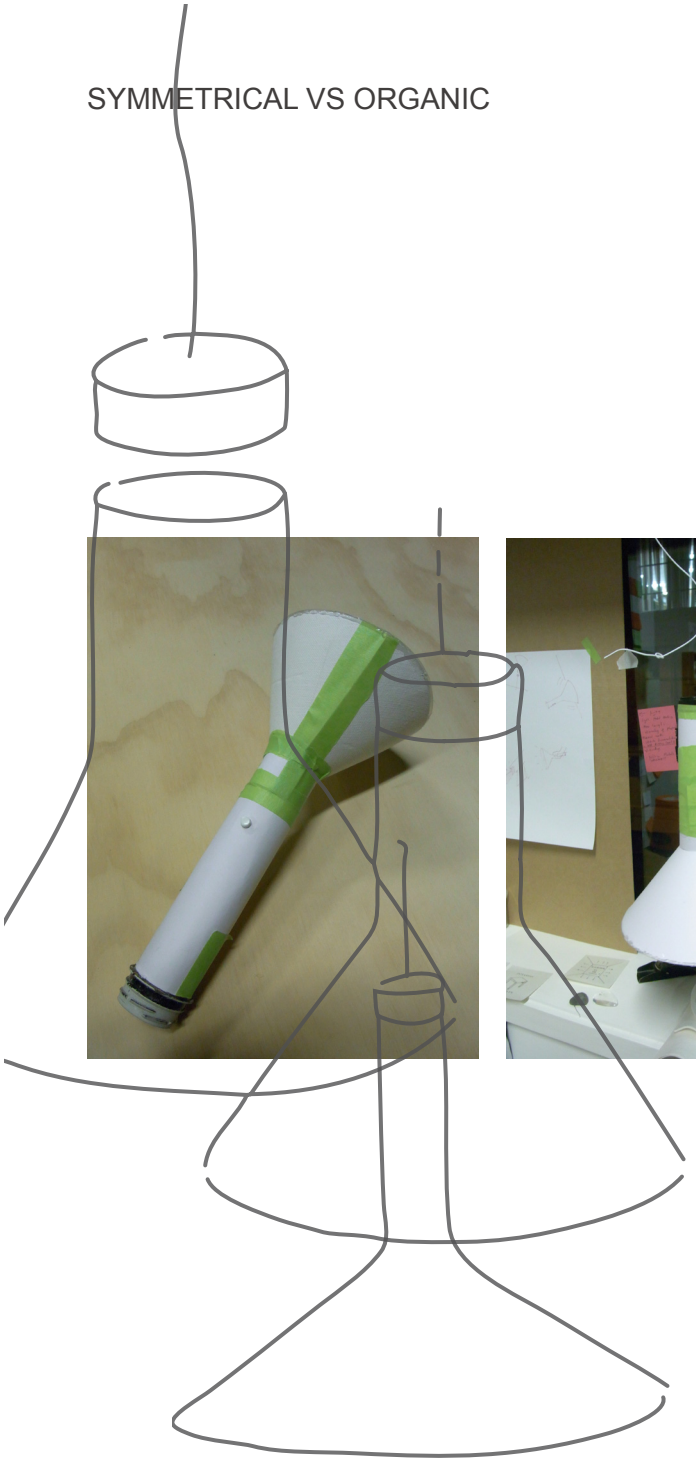
2. Light operates on battery when detached and can then become used for various purposes.

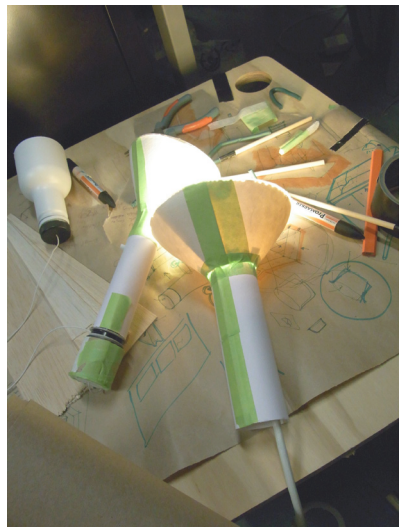
3. Once separated from base charger, the light becomes easily portable and can perhaps be used for different situations.

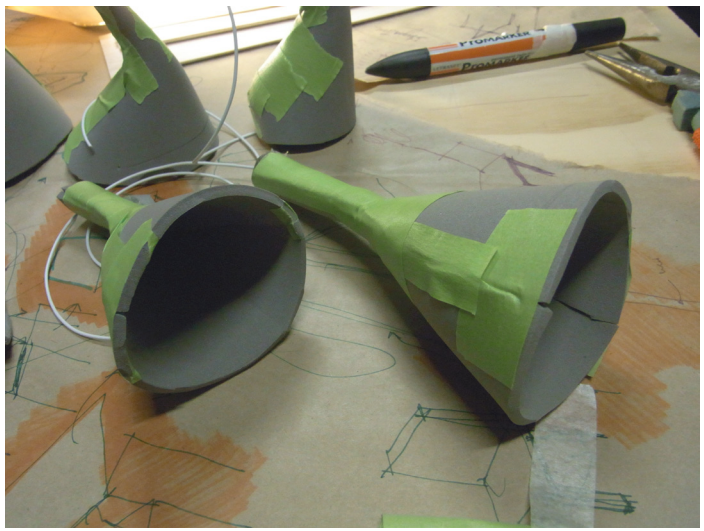
SCENARIO SKETCH

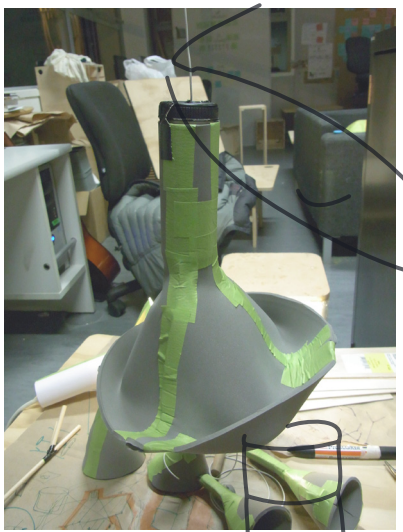


SYMMETRICAL VS ORGANIC

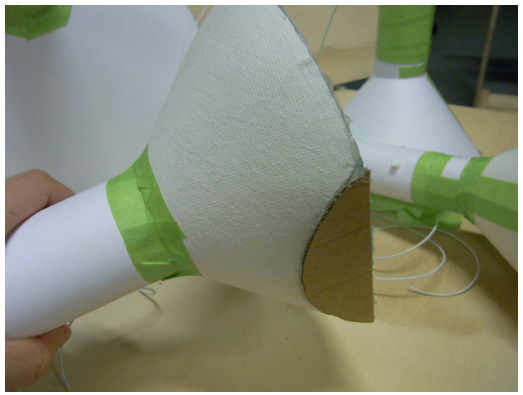




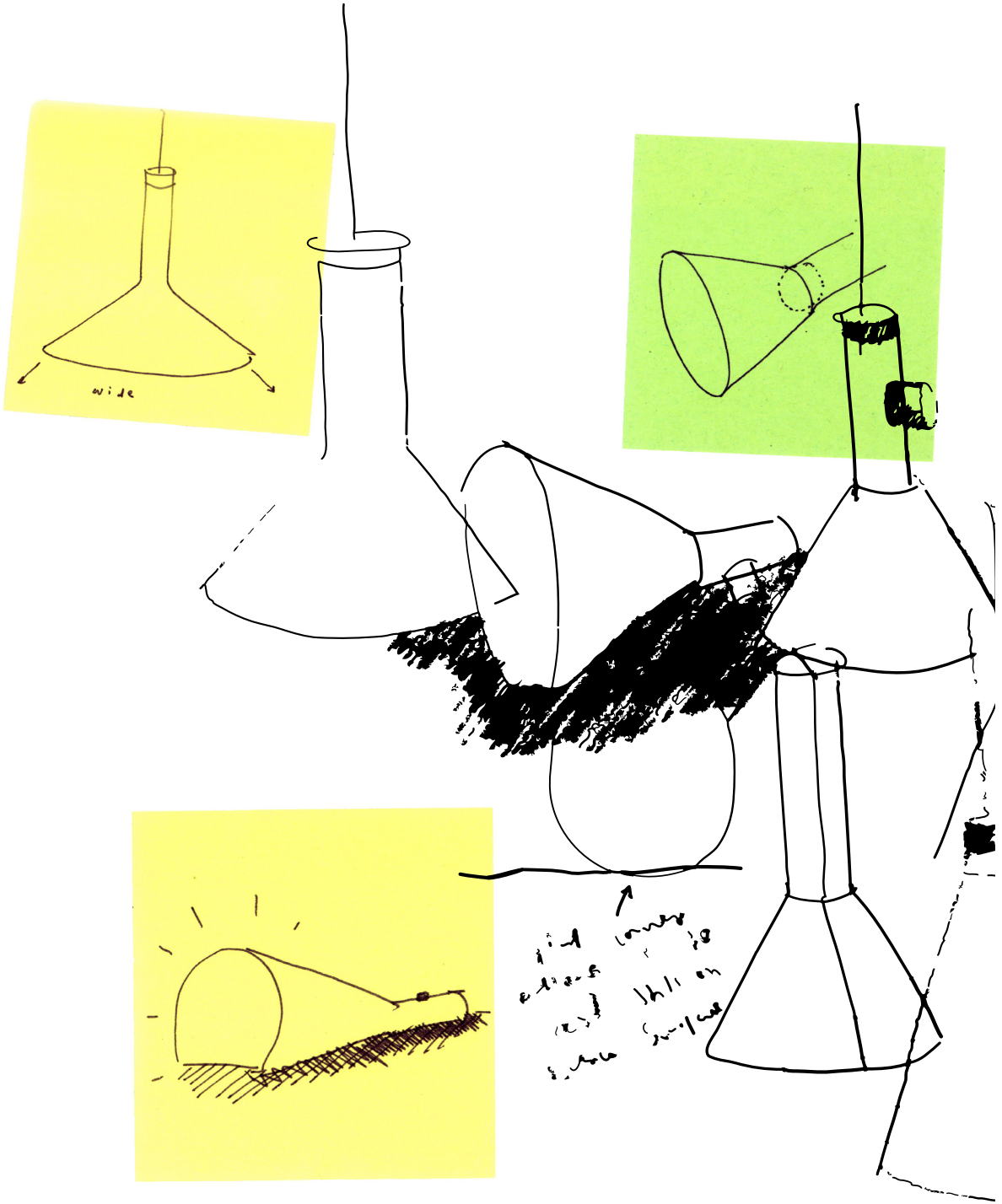


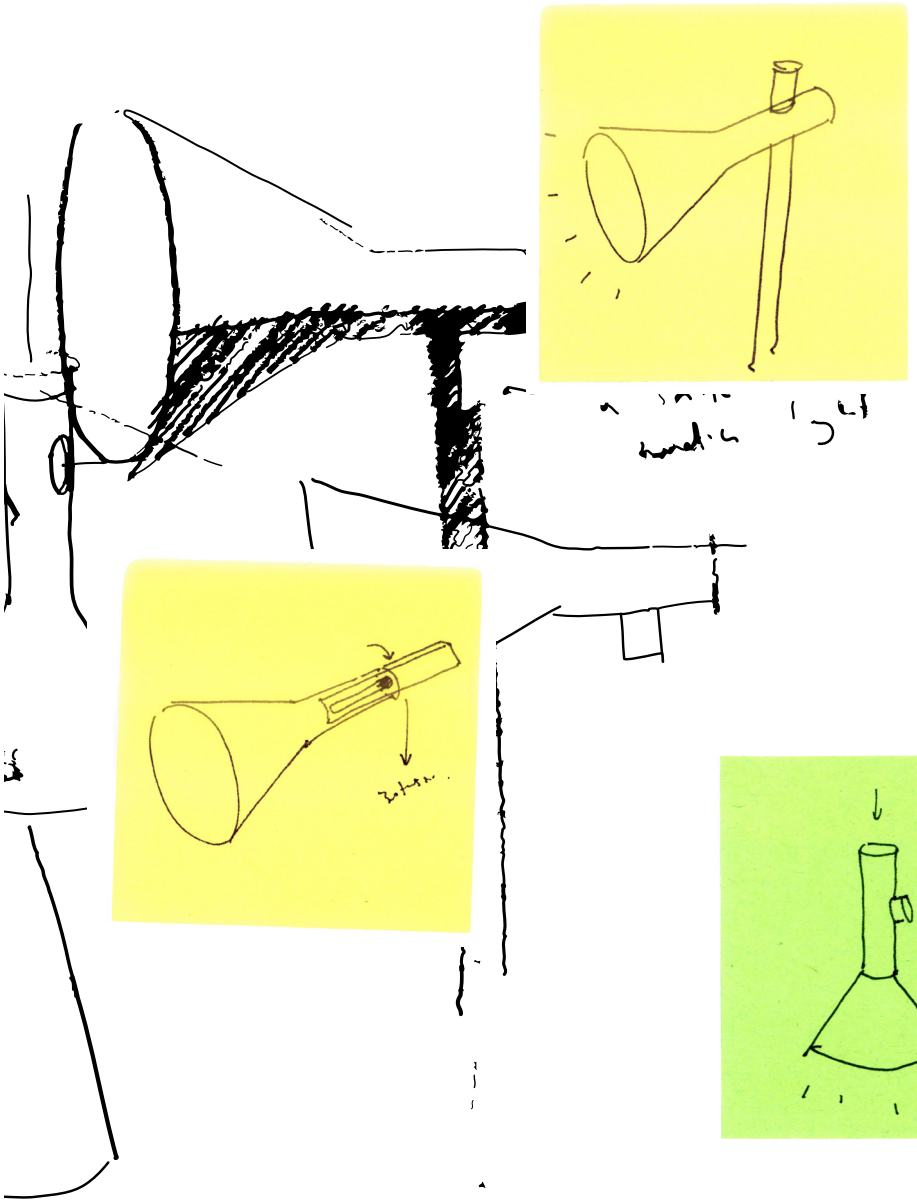


I began to explore both symmetrical and organic forms, although I liked the soft and assymmetrical effects of the organic forms, there is something aesthetically simple/pragmatic and honest about the geometrical models of the light which I think also somewhat reflects the general idea of minimalist living.

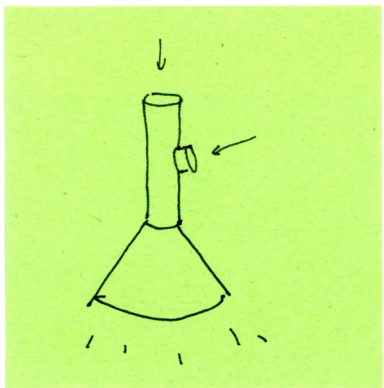


Having a flat edge on one corner of the cone prevents the light from rolling while resting on a surface, while also gives a subtle visual cue suggesting the possible ways that it can be placed/positioned/used.





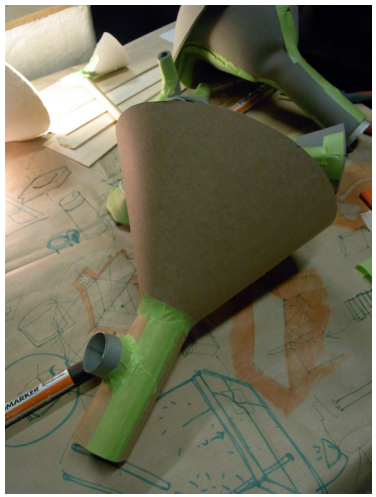
Perhaps the light is designed to have a stem branching off the side so that it easily transforms into a standing lamp

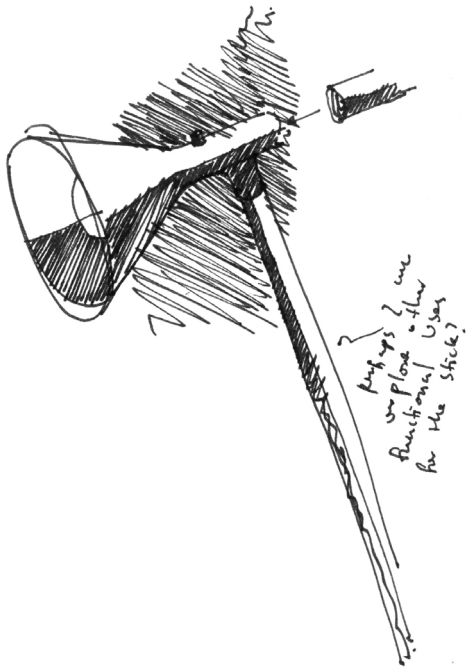


Having a switch allows the light to be easily turned on and off once it becomes separated from the base charger.

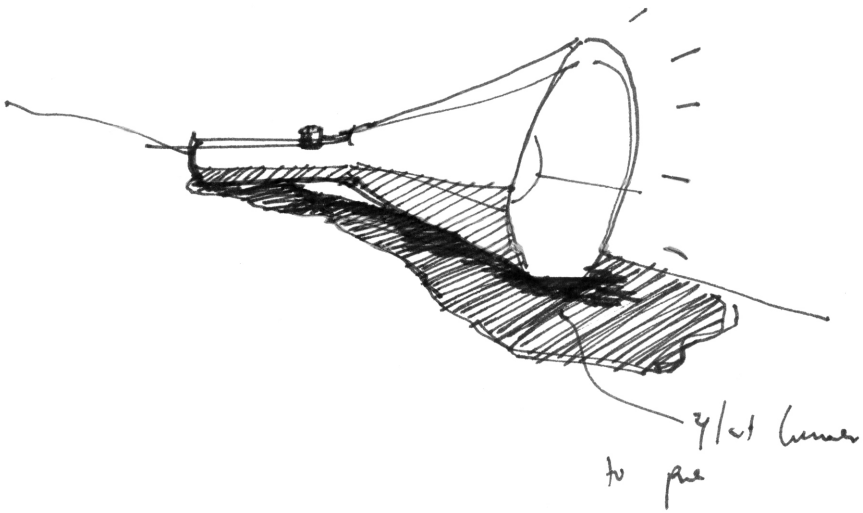
The concept is comprised of two parts: the body and base charger. Like most other lights, this is primarily designed to be suspended from the ceiling however with base charger connect to the mains. The light automatically charges itself as it plugs into base when providing an overall room light. When detached, it is able to last for several hours to provide a handheld, more localized lighting.

During the making of this prototype, I used a long wooden stick to hold up the light when it is used as a floor lamp. But perhaps the wooden stick itself also has an independent function and is able to provide other uses such as a coat hanger?

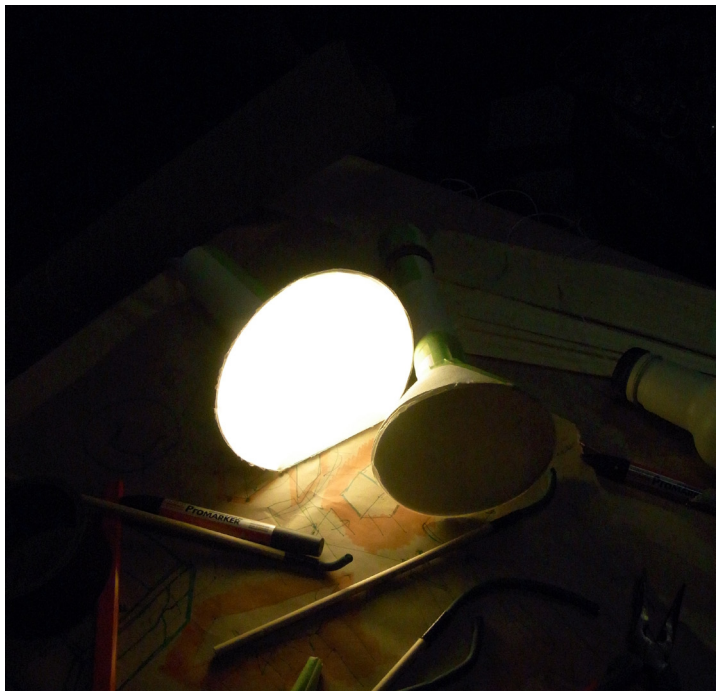


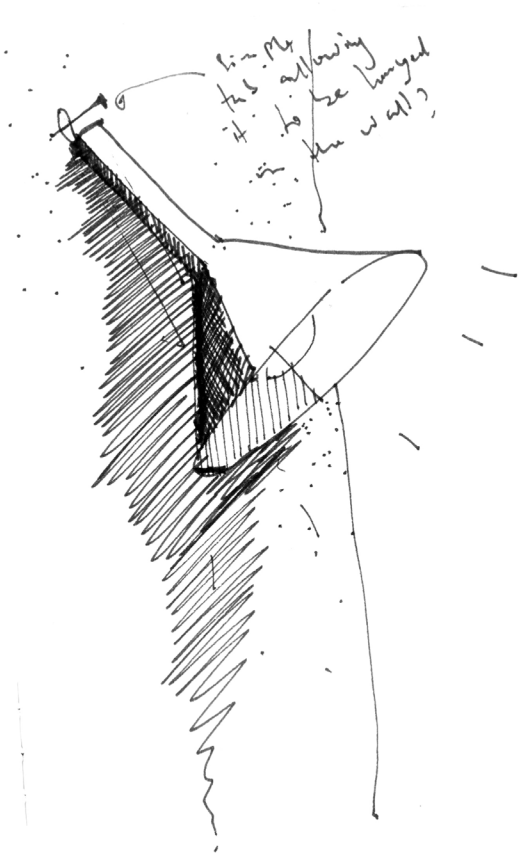


In a way, minimalist living can be achieved by enabling a flexible living environment. the idea behind this light somehow captures this direction of thinking. It does not confront users that we should dwell on a single light, however it challenges the fixed uses of conventional lighting, and the possibility of multiple lighting needs fulfilled through a single object. In this situation, the ceiling acts as a base for the light to return to, once charged it is able to detach and travel to various places/ fulfill various needs. The charging capability means that it is able to function for several hours without a electrical cord. Photograph on the left demostrates the light being inserted into the end of a broomstick to become a standing lamp.

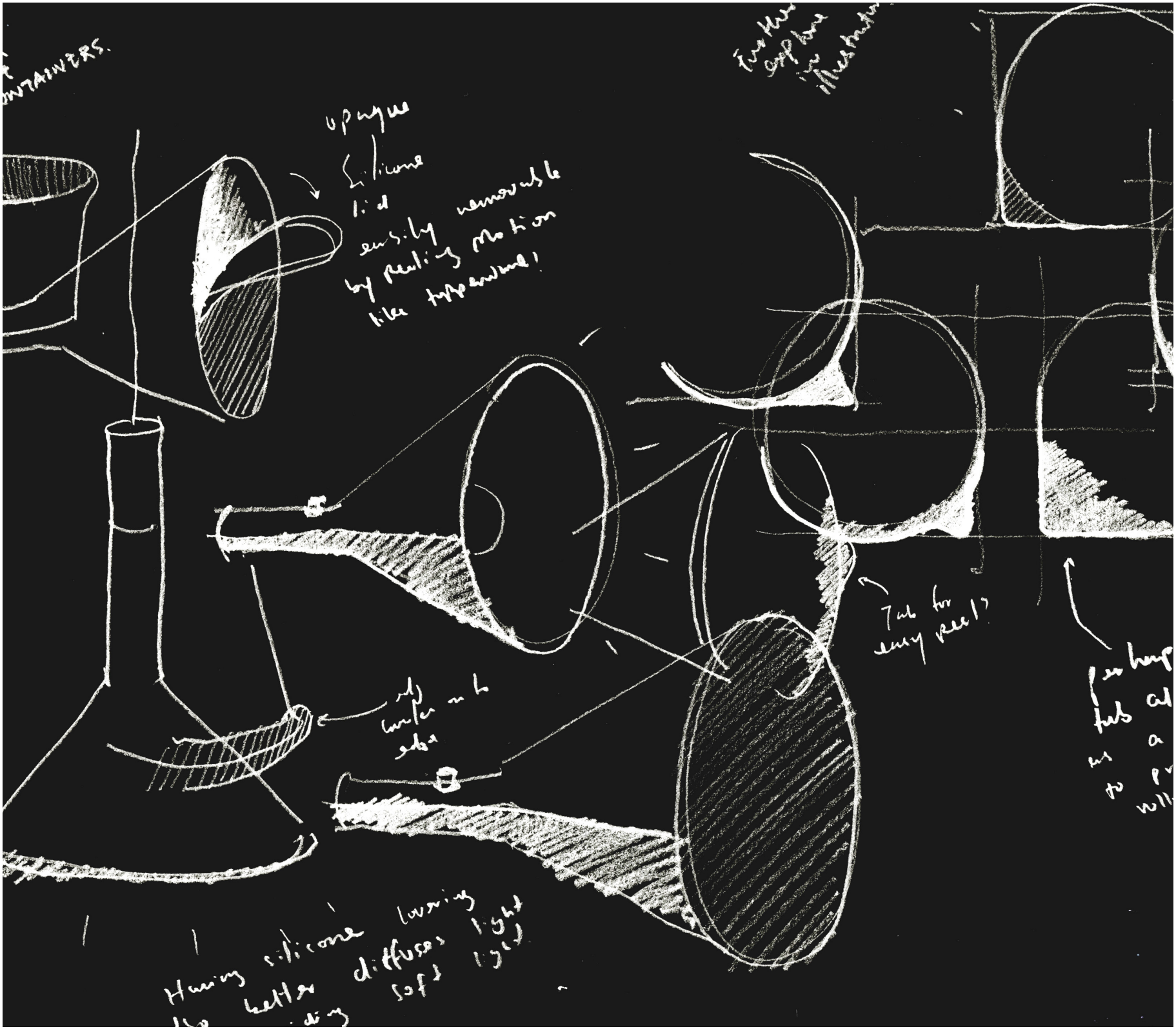


Having a flattend corner on the cone provides a subtle visual cue for the light to rest on a horizontal surface. Upon experimenting with various sized cones, it seems that having a wider angled shade projects the light at a rational angle, i.e. 45 degrees. In this situation, the light can be used either as a desktop light, or perhaps a floor lamp projecting light from the ground.



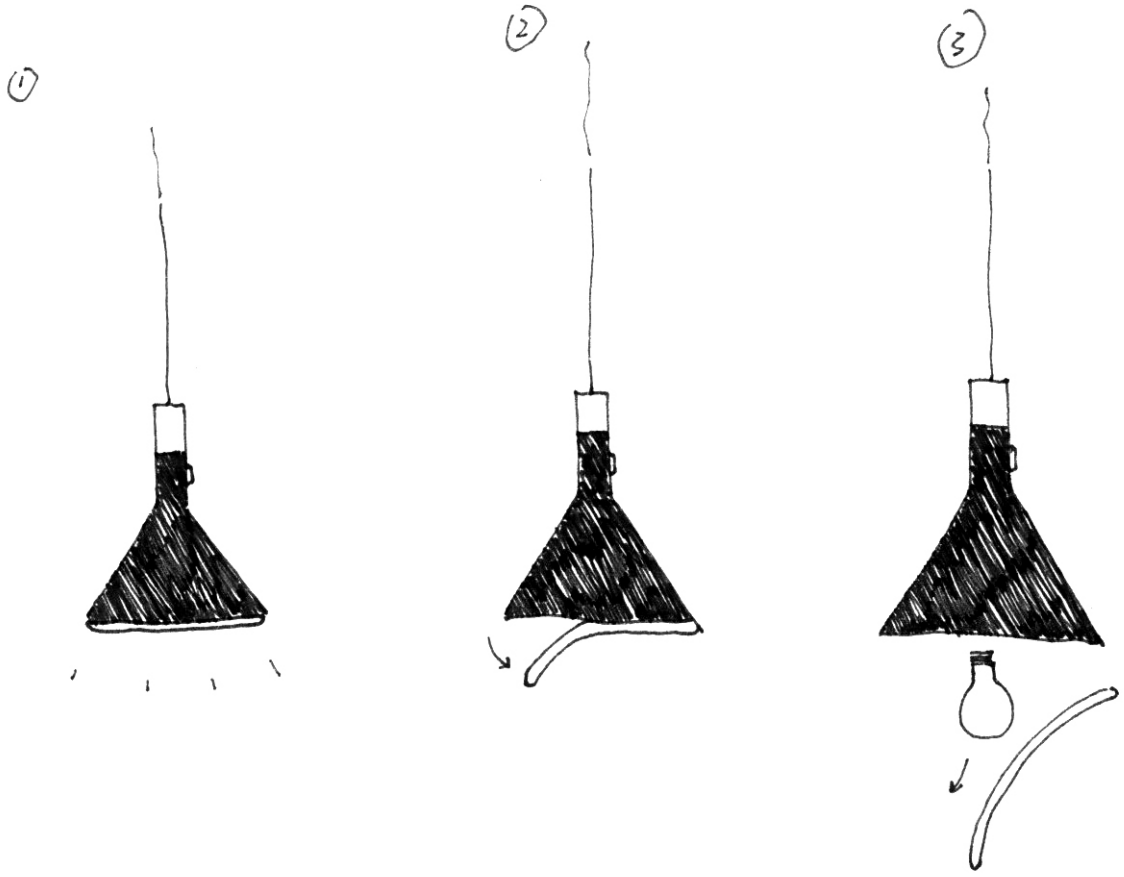


This is an interesting way of using the light discovered during prototyping, it shows that the flat corner on the cone also speaks to its user the possibility of hanging on the wall. Perhaps incorporating a simple tab/hook at the tip of handle would further allow it to easily hang on to the wall?



opaque silicone lid easily removable by peeling motion like tupperware!
Tab for easy peel?
Having silicone covering
better diffuses light
soft light

One of my quick mock-up models demostrated that having a opaque covering creates softer light and better diffusion. This led me to began further explore the detailed designs of the covering. A key issue raised with regards to usability was the difficulties of user changing light bulb if it had a cover. In searching for a solution, I became inspired by the plastic containers with lids. Above photographs demostrates the idea of peeling away the silicone lid to access light interior. Surprisingly, the opaque silicone diffused the light very well. Peeling away the lid also had a level of satisfying playfulness which I really liked.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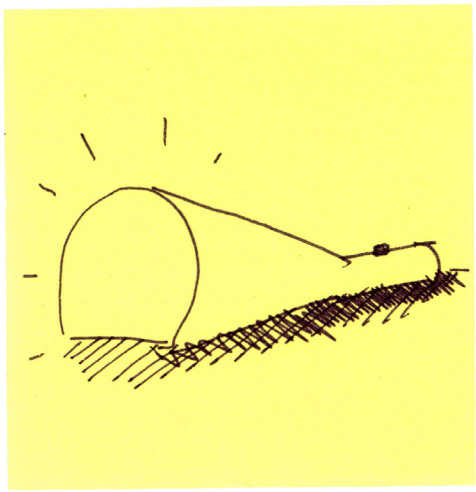
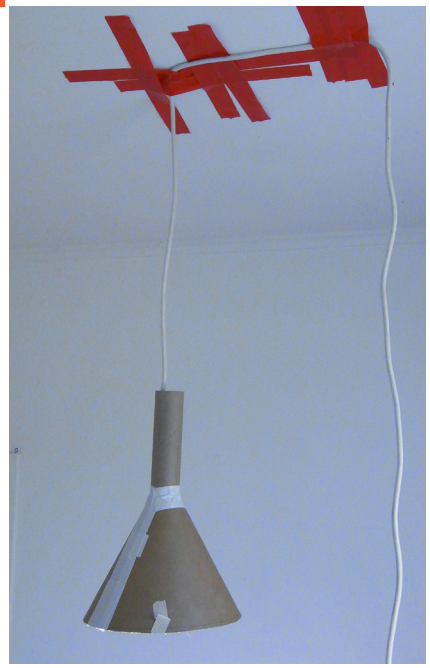


One of the ideas that came up during prototyping was designing the stopper into the silicone lid. Perhaps rather than having a flat corner/changing the form of the cone. Having a subtle tab on the lid would not only prevent the cone shape from rolling while resting on horizontal surface, but also act as a visual cue for removing/peeling away the covering.



A. Contextual view of light when installed to a ceiling

B. Detached light inserted onto a stick to become standing floor lamp

MOCK UP TESTING & CRITIQUE

I decided to test out some of the early quick cardboard mockups by placing them in the space. With this concept I want to articulate the story of a typical suspended light being able to be detached from the ceiling and used for other purposes. Several issues were pointed out during the roleplay of these mockups which needs to be further addressed.

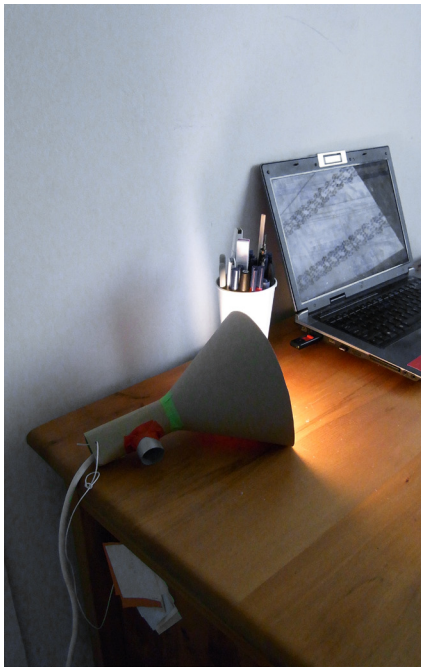
Although designed as a light flexible enough to be used for various circumstances, I think it is critical to map out a hierarchy of use for this light and make design decisions based around its functional hierarchy.

Functional wise, having the light primarily rooted to the ceiling means that it is quite difficult to access frequently and would requires a chair in order to reach. Does the light have to be homed in the ceiling, if so is there a way to allow an easier access?

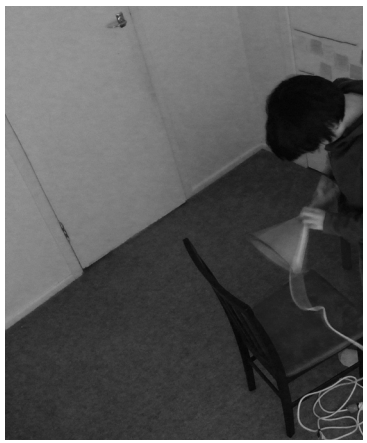
The angle of light shade requires further exploring, it is critical to find a balanced shade angle to cater fir the two contrasting uses, providing overall light for the room versus providing a more localized lighting e.g. desktop task light.

Light can be quite sharp when it is used as a desktop task lamp, therefore having a silicone lid is helpful in terms of providing a softer ambient light.

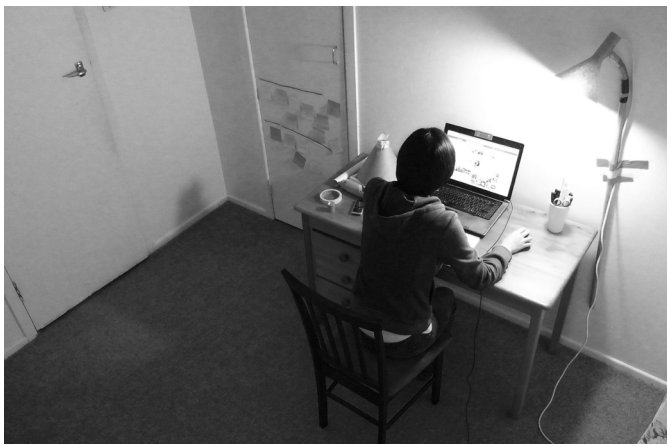
Further explore the purpose of the stick, perhaps the it is not only used to hold the light but could also have other functional uses such as a hanger for clothes?

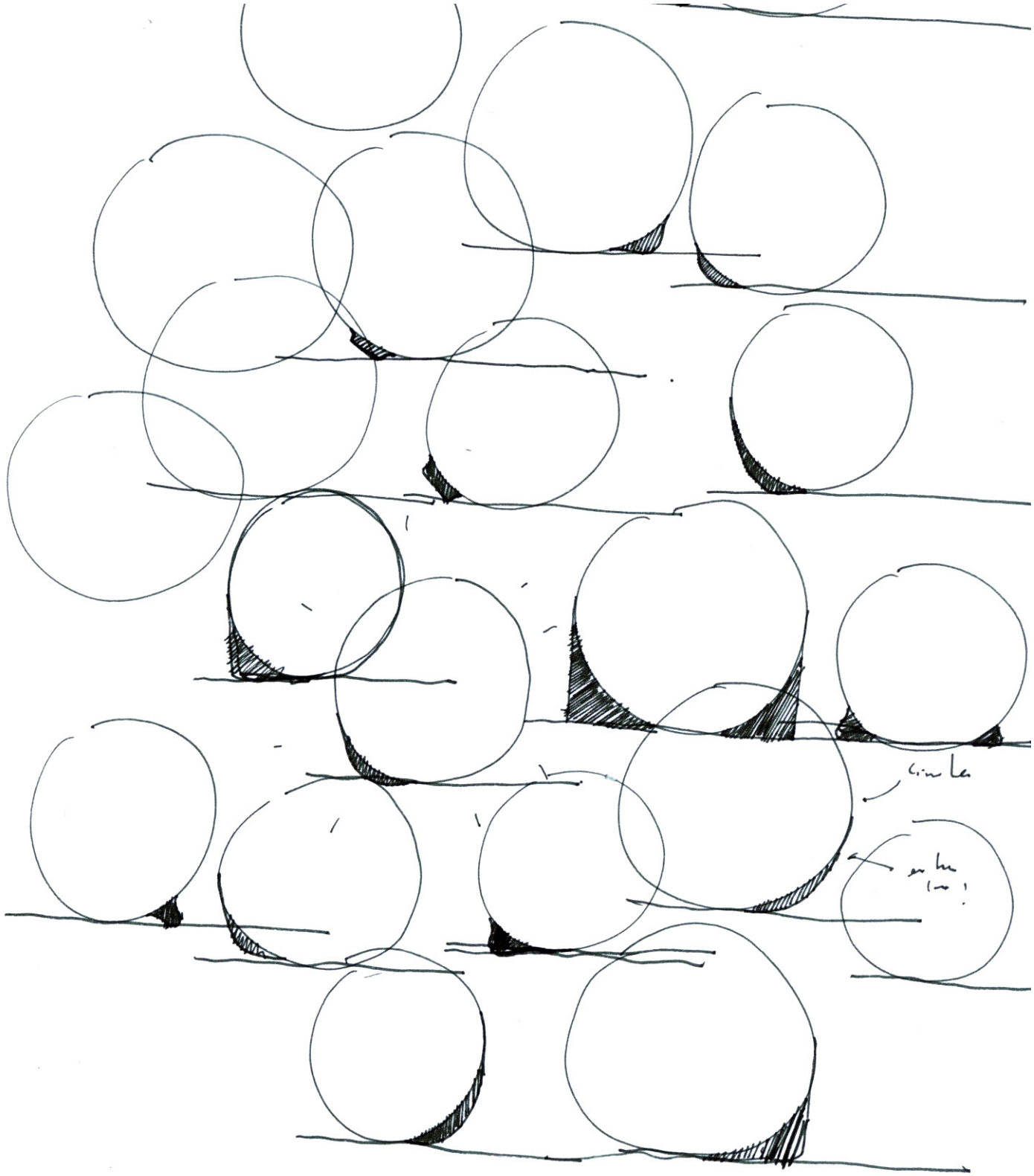


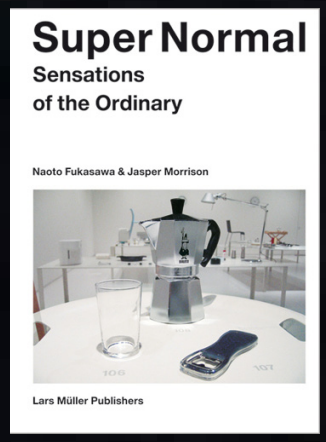
C. Desktop task light



Installation of light mockups and test using them within the space.







Super Normal - By Naoto Fukasawa and Jasper Morrison

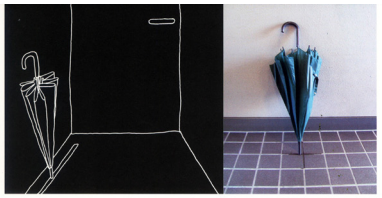
> *A super normal object is the result of a long tradition of evolutionary advancement in the shape of everyday things, not attempting to break with the history of form but rather trying to summarize it, knowing its place in the society of things.*
>
> - Jasper Morrison

AESTHETIC APPROACH
minimalism and an archetypal aesthetic approach

In book Super Normal, author/designer Naoto Fukasawa and Jasper Morrison exhibits and discusses the beauty and design thoughts behind common everyday objects, incredibly functional things that we have taken granted for, yet are also the tools for living of which we cannot do without. I became heavily inspired by this way of seeing and appreciating everyday things, objects that may appear aesthetically simple and mundane, but comes to life when it is being used.

The aesthetic approach behind the context of this project is synonymous to the key ideas expressed in this book. In a way, I want to emphasize that a having formal signature of aesthetic is not what design should be about, but instead I want to celebrate the archetypal shapes of everyday objects, forms that are stripped down with a sense of common familiarity, yet obtains individual uniqueness through its subtle details of design, which perhaps is only realized through actual use. This approach of aesthetic design reflects my understandings of minimalism particularly in the context of this project.

minimalism belongs to contemporary, flexible way of



friends who were visiting Japan at the time – Bill Moggridge, founder of IDEO, the American company where I formerly worked, and Bill Verplank, a pioneer in the then-emerging field of interactive design – what they thought about this: 'Someone comes inside and, finding a tiled floor and no umbrella stand, merely props his umbrella against the wall with its tip in the 7 mm grouting between tiles, a very common unconscious act if there ever was one. What words would you use to express that sense of unconscious behaviour?' Both replied at once, 'Without thought'. 'What about "thoughtless"?' I asked, not quite sure of my English nuances. No, they told me, that implied an inconsiderate, even unkind attitude. Very well, 'Without Thought' it was – yet at the same time, I found myself imagining that a similar 10 mm groove in an entry-hall floor about 15 cm from the wall would make a fine umbrella stand. Visitors would come in and, short of any obvious receptacle, plant the tips of their umbrellas almost automatically there in the groove. One could design an umbrella stand that would allow people to stand their umbrellas without the customary cylindrical apparatus. With design and purpose accomplished, the physical object disappeared – which in turn led to the next design workshop, 'Design Dissolving in Behaviour'.

In such dematerialized design thinking, a groove can be an umbrella stand, and that umbrella stand might literally dissolve in the course of people's actions. The functional provisions for those actions might not be immediately apparent, but quickly come to the fore when people perform those actions without thinking. Thus, handholds on branches and rocks grabbed unawares while climbing a steep mountain trail get polished smooth, since most hikers grab the same places. Within the given circumstances, the position of branches and rocks in the environment offer identical advantages to everyone. These points unconsciously become foci of awareness, nodes in the flow of activity. I believe that design consists in searching out those common points, where beautifully fluid, unthinking activity and awareness concentrate as they pass through, then finding the optimum shape to be placed there.

While many today aspire to stimulating design, too much stimulus is not a good thing in anyone's life; stimulus inevitably interrupts the unconscious flow of activity by provoking conscious attention. Rather, in my view, an unconscious, harmonious accord of people and things is best conveyed 'without thought'.

Grasping the catalyst

I've conducted numerous workshops over the past ten years. If you include those that made up lessons at universities and those conducted as projects for companies, then they account for a large proportion of the activities outside my regular designing work. Rather than 'teaching' design, these workshops are more about discovering truths while thinking and experiencing things together, or like grasping the catalyst for finding an answer to something.

For me, doing these workshops was also a chance to ponder my own experiences. Prompting questions like 'Why did I think this?', 'Why did I hit on that idea?', it was like doubling back and analysing avenues of thought, the experiences that had led me to the ideas. And I wanted to share the kind of feeling I got when I first hit on an idea, or the instant that I was able to see something, with both workshop participants and students. These feelings were there every time individual designs were generated, and they became more pronounced after I'd broken free from the world of regulated design that I'd followed for so long. It felt as if I'd broken free from not knowing the logic of things and assuming falsities were truth, and had finally grasped the real truth. Looking at it from the point of view of a philosophy rooted in the logic of nature, it was a feeling like having escaped from a world full of discrepancies, a world where artificiality and a sense of wrongness could not be cast aside while attempting to justify the objects and mechanisms being generated.

The fact that I'd once been an in-house company designer, and that the road the students were following led to that world, created a sense of danger inside me, and this related to my motivation with respect to education. I wanted to convey this feeling of having broken free. In that world, it was believed that new design was something that existed in a special, separate place. It was perhaps akin to the mistaken idea that one cannot take good photos unless you go somewhere where the scenery is good. I wanted to show them the reality in front of our eyes every day, saying 'See ... look!'. I wanted to make the obvious appear obvious.

UMBRELLA, +0, design by Chie Noda + Naoto Fukasawa, 2003

on

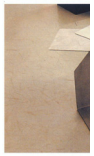
Erasing physical existence

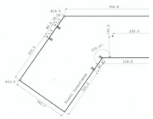
I was interested in the possibility of erasing the existence of things. Thinking of a tile design, I came up with the idea of making one of the tiles a light. I thought that rather than designing a light as a fixture, designing light itself was a first step. There are many light fixtures that are a visible feature of a room or space. Even if technology should evolve such that in the future, these kinds of lights become one with the wall and disappear, while they are visible within a space, they must be designed to suit that space. In this case, I think that design shouldn't emphasize the existence of the fixture to any great degree. When the light is not on, it goes back to being a tile.

Although I may have a certain idea in my head, it can be a long time before I have a clear picture of the finished result. I don't have the kind of imagination for images and forms that can simply be reconstructed. Instead, I try to let things develop in a practical sense. It may well be that I don't make a single drawing, going straight to the modelling phase instead, where I try to produce a three-dimensional structure corresponding to the idea. I work closely with my assistants at this stage, so this is the moment at which the idea is first discussed openly. In other words, the modelling phase represents the first serious test for a design. All the models are built to full scale, so that they provide an opportunity to engage with the actual substance of the design. Physically working on the object means that you have to make quick decisions. I love this process of creation, when the product first takes shape, because it's so open and constructive. At this stage of a project, we're not bothered about whether the model looks good or not. We're only trying to verify an idea.

MARS, chair, 2002, full-size cardboard model

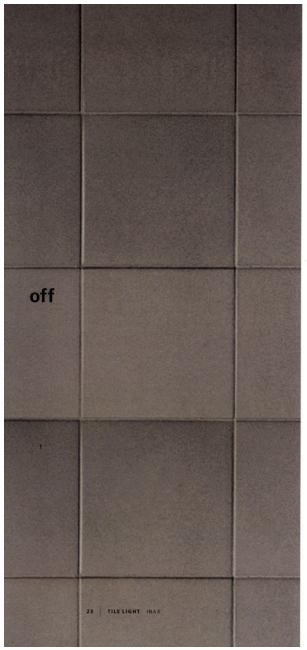
MARS, chair, 2002, full-size cardboard models

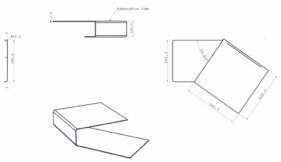




The first designs of Diana wer
an interesting form by folding
Some of the early versions ev
of the table top. The more I
that even a few simple folds w
dimensional form. The yellow
the latest designs.

DIANA, side table, 2001, first prototype in steel, Cl



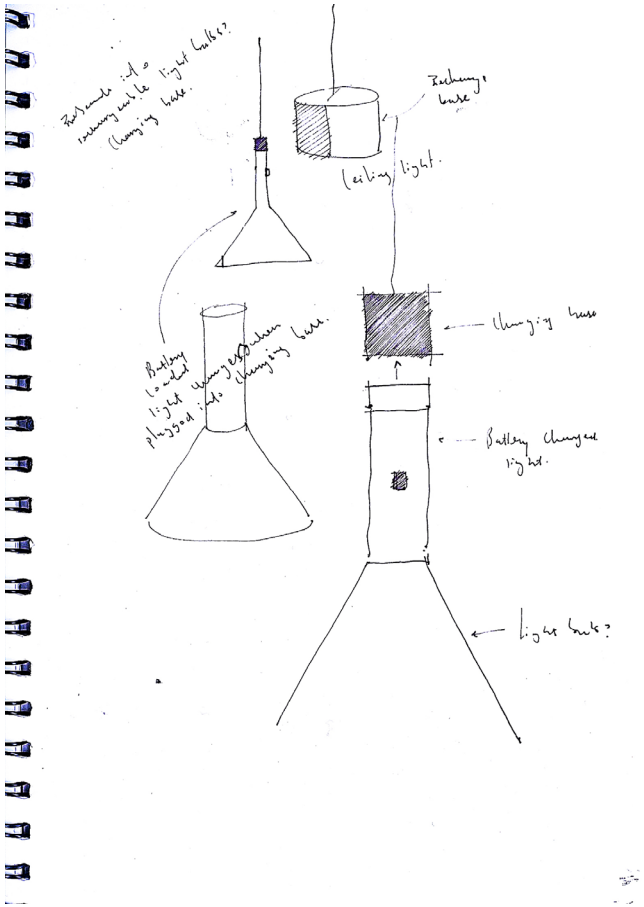


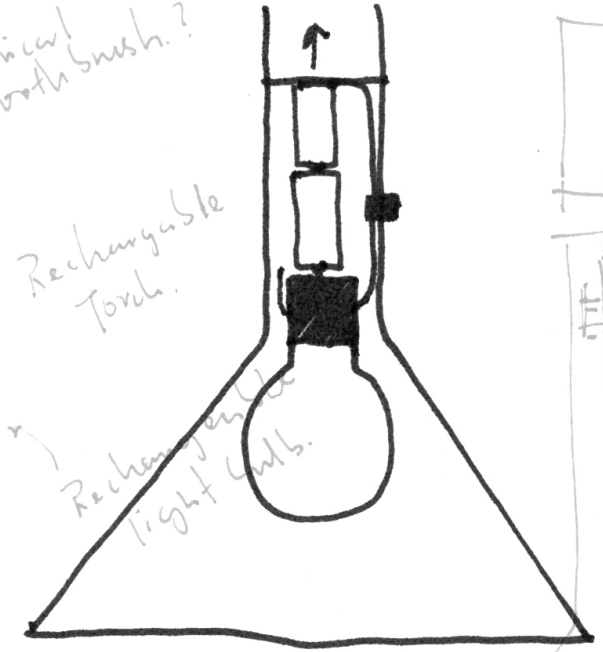
e fairly complicated. I was trying to create
t the sheet metal in every possible direction.
en have a swivel mechanism for rotating part
worked on the project the more I understood
ere sufficient to create a beautifully three-
and black models on the opposite page are

ssiCon; DANA A, B, C, D, E, F, side tables, 2002, sheet steel, ClassiCon

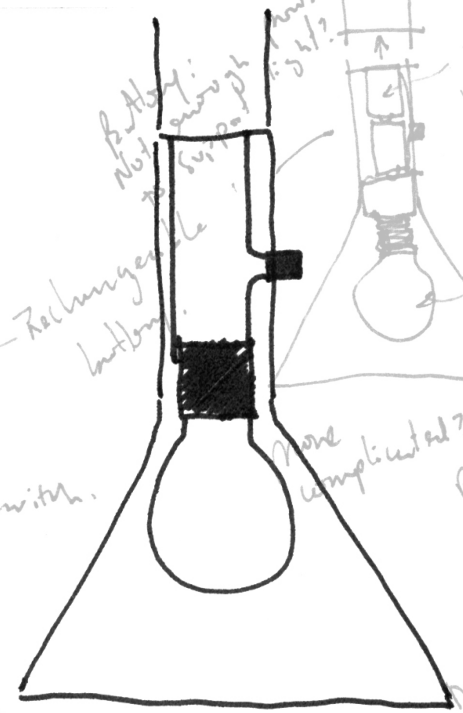
What makes a successful product? When I design, it helps me to think of a type of person, a kind of imaginary user. Not in an abstract way; the person I think of is real, someone I know, a friend – someone with character and attitude. Design relates to people. Always. Sometimes, as was the case with Mayday, I design products just for myself, according to my own set of rules. There's nothing intellectual about this lamp – it's rather ad hoc. People like it because they can relate to it very directly. They immediately understand how to use it. In the end that's what made it a successful product.

MAYDAY, portable lamp, 1998 polypropylene, Flos


Recharge base
Ceiling light.
Charging base
Battery charged light.
Light bulb?



RECHARGEABLE BATTERY



RECHARGEABLE LIGHTBULB?

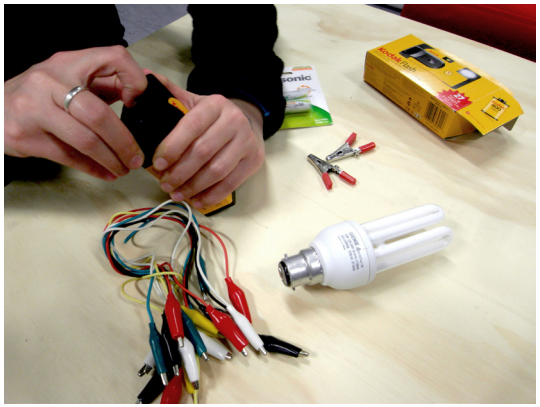
As previously explained, this concept consists of two key parts, the base charger, which is connected to the mains power supply. And a detachable light body. The light uses power from the mains and charge itself while connected to the base charger, when detached from base, the charged battery should allow the light to function on its own for a sufficient period of time.

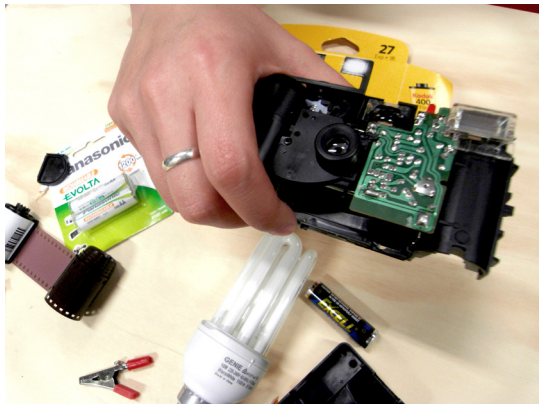
I have thought about products with similar properties, such as electric tooth brush, rechargeable torch, and cordless phones. Currently there are two approaches to power the light independently: Incorporating a recharageable battery pack or using a rechargeable lightbulb.

FREE ENERGY EXPERIMENT

In searching for a solution to power a standard 240V light bulb through battery charge, I came across a Youtube video demostrating the possibility of powering a standard compact flourescent light bulb with a single AA battery (1.5V) using a particular circuit from disposable cameras. Out of disbelief I decided to try this and my friend Sam agreed to help. It was a fun experiment and although the CFL bulb lit up while flashing, both of us were really surprised that it actually worked. We tested this with various light bulbs and found that most light output was average (CFL had frequent flashing). We also tried adding in more battery however the light output remained the same with constant flash. Reflecting upon this experiment I think although there are possibilities of this idea being further developed, it is still considered as a hack and taking this further would perhaps exceed the time frames of this project.

Panasonic
EVOLTA




Panasonic
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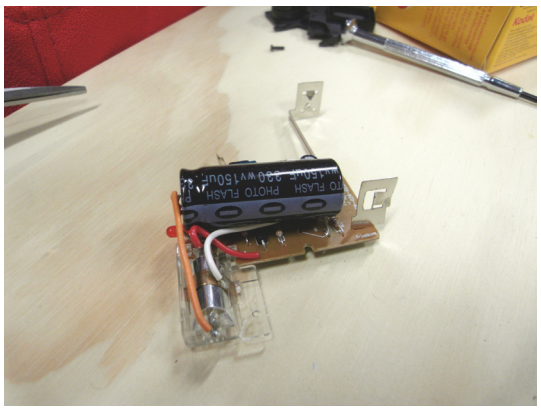
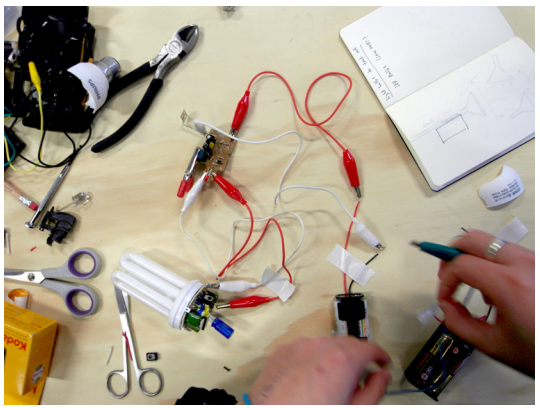
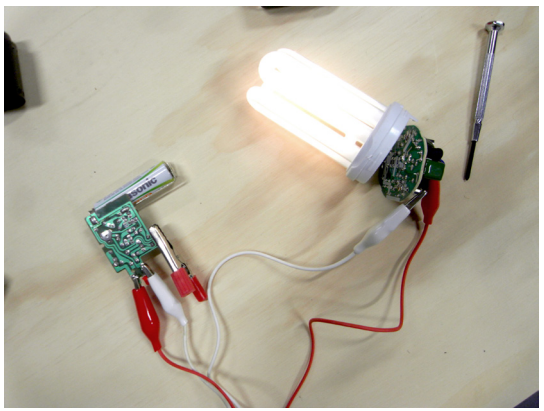






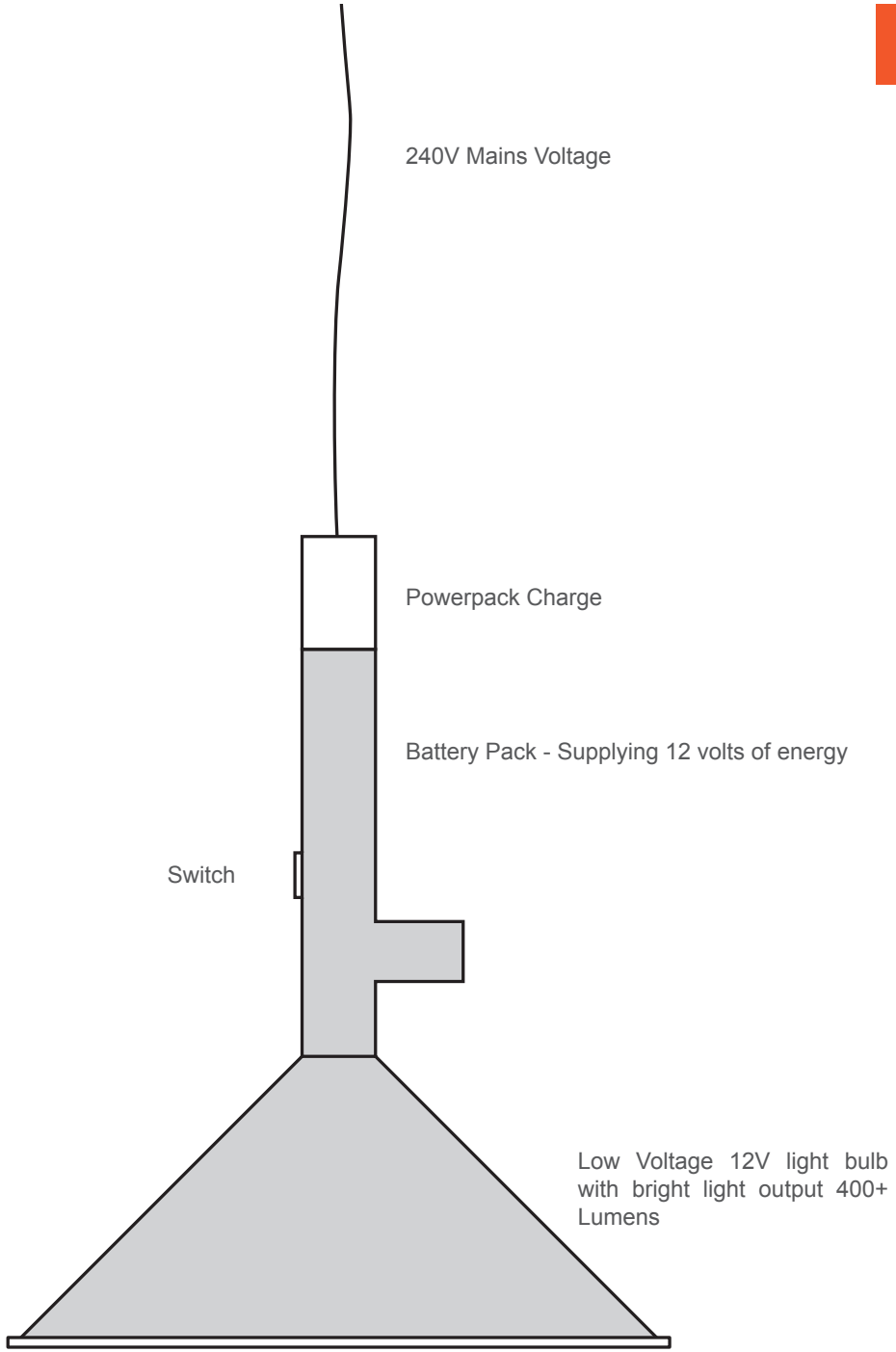
TECHNICAL CHALLENGES

A key part of this challenge is to design the technical aspects of the light as simple and minimal as possible. In comparing the two approaches, using a rechargeable light bulb seems to be a simpler approach as it eliminates the need for a battery pack. In considering for its actual use however, both light bulb and battery should be easily accessible by its user. Currently there are rechargeable lightbulbs available in the market, but they are still a new technology and are relatively difficult and expensive to obtain compared to other types of light bulb.

I approached AUT's electrical technician Stephen Hartley with regards to the technical information around lighting. Upon the first visit I have been having on-going discussions with him about the technical designs of the light. I explained to him the two approaches and demostrated to him a working prototype of the free energy experiment, his feedback was positive, however through the discussion we concluded that the experiment is almost a project on its own and is perhaps outside the research topic of this project. Stephen suggested that using a rechargeable battery pack is a much more feasible approach in terms of design and manufacturing.

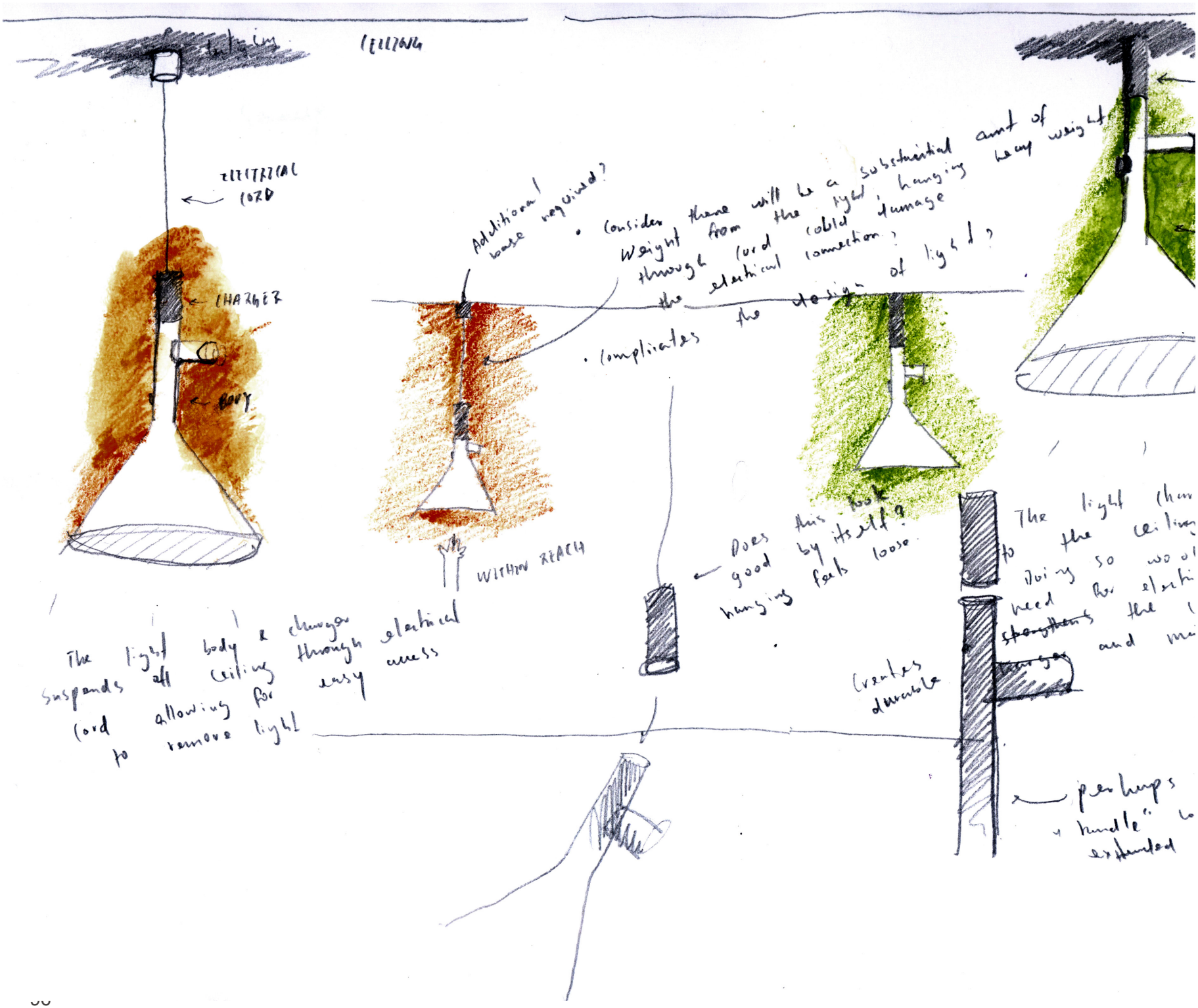
Because the light needs to be powered through both mains voltage as well as independent battery power, it is important to source a low voltage bulb (12V) with sufficient amount of light output. At this stage LEDs are perhaps the most appropriate lighting technology to explore into.

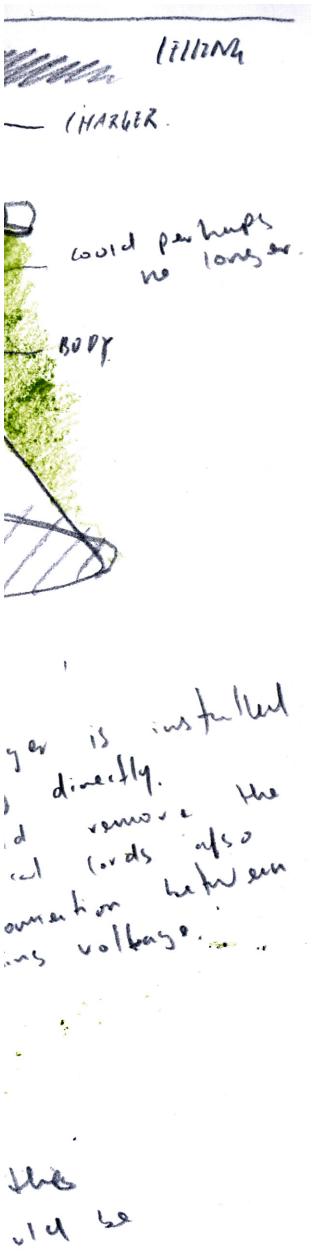
In reference to similar technical concepts such as electrical toothbrush or cordless phones, Stephen suggested that a custom battery pack and charger might be appropriate for this concept. He referred me to SimPower, a battery pack manufactuer located in East Tamaki. This was incredibly helpful as it made me feel much clearer with regards to the technical structure of my concept.



	LED	Incandescent	Compact Flourescent
Life Span	50000 Hours	1200 Hours	10000 Hours
Accessibility	Relatively new	Easy	Easy
Light Output	Average	Ranging from dim to super bright	Ranging from dim to super bright
Cost	Expensive initial cost	Cheap	Relatively low cost
Heat emission	Low	High	Medium
Energy Efficiency	High	Low	Average

A comparison between the three key types of light bulb shows that LED is the most energy efficient option available, however it is relatively expensive and new to the market, a 12V LED has an average output of light compared to compact flourescent light bulbs.


CEILING
ELECTRICAL CORD
CHARGER
BODY
Additional base required?
• Consider there will be a substantial amt of weight from the light, hanging heavy weight through cord could damage the electrical connection?
• Complicates the design of light?
WITHIN REACH
Does this look good by itself? hanging feels loose
The light body & charger suspends off ceiling through electrical cord allowing for easy access to remove light
Creates durable
The light char
to the ceiling
Doing so wo
need for electri
~~strengthens~~ the
and ma
perhaps
"handle" to
extended



I was able to obtain a tubular battery with relatively handle-sized diameter. However, the design of the technical components itself meant that it will have significant impact the aesthetic proportions of this concept, the way it feels and how it will be used. The primary design consideration here is to provide a comfortable hand grip as well as maintain the light within its appropriate weight.

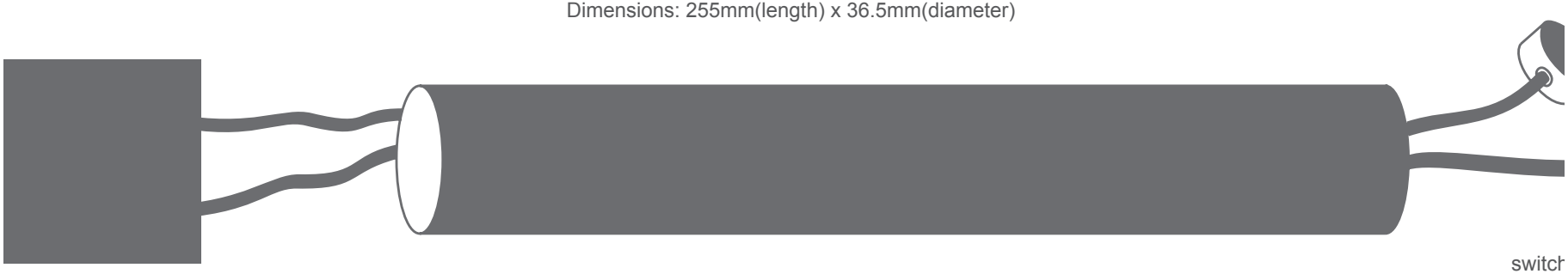
Current intention is to incorporate the tubular battery within the handle of light. The length of battery is around 250mm, this creates limitations around the minimal length of light handle, which means that it needs to be at least 250mm+.

Battery weighs around 0.5 kg. Even though I liked the solidity created by the weight, incorporating battery inside handle means that there will be an unequal distribution of weight, where a significant amount of weight will be focused around the handle in comparison with the shade. therefore it is critical to find a right distribution of weight throughout the light.

The substantial amount of weight also poses issues for it to suspend off the ceiling through cords, an alternative option would be to design a charger incorporated “ceiling rose” where light is directly attached to the ceiling.

Lithium-Ion Battery Charger
Charging time: 4-5 Hours
Weight: 150g

Lithium-Ion Battery
Voltage: 14.8V 4000mAh with PCM
Weight: 535g
Dimensions: 255mm(length) x 36.5mm(diameter)

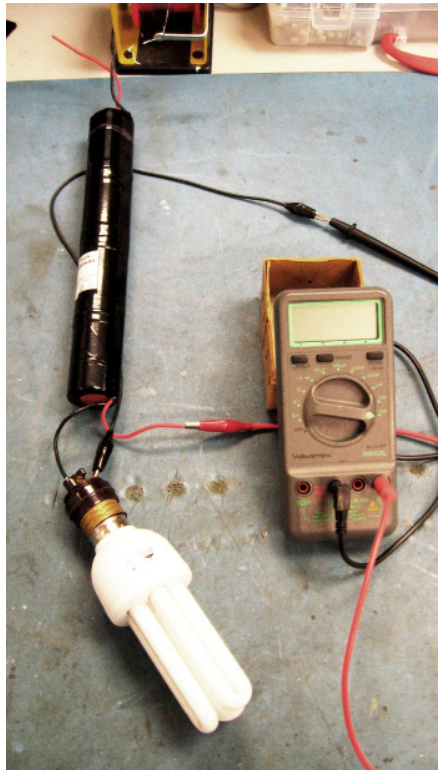


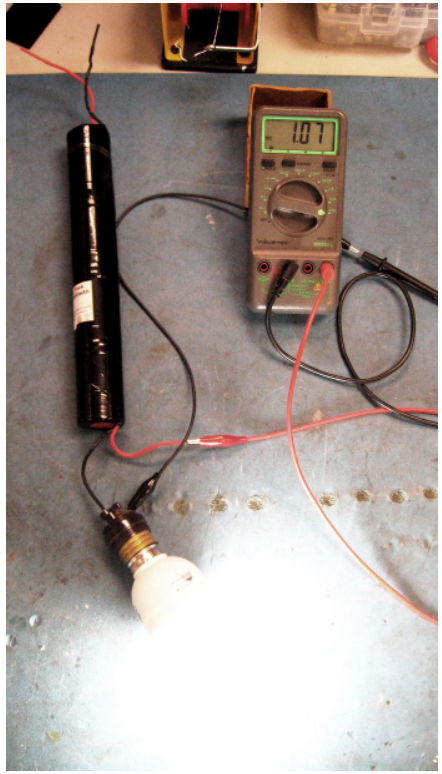
cord leads to charger

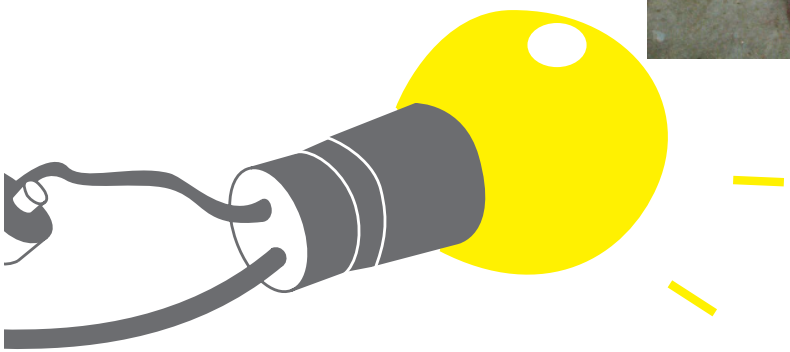
I visited electrical technician Stephen Hartley again today. He was able to help me build a simple circuit based on the key components. The breadboard shown here is only a proof of concept, we have confirmed that the battery is able to light up a 12V light bulb for up to 4 hours which is quite positive.

The circuit itself is fairly simple, one end of the battery has a connector that plugs into the charger, while at the other end is a simple light circuit with switch and light fitting.

The main component in this circuit here is the lithium-ion battery, which is able to supply power for a 12V light bulb for a sufficient amount of time. However, an issue with this type of battery is that once the battery becomes flat, it must be charged immediately or otherwise it would die completely and cannot be recharged. Stephen suggested that I could incorporate a relay into the circuit, to prevent the battery from becoming flat completely. So that the circuit is cut off automatically once battery power has decreased to a certain level.

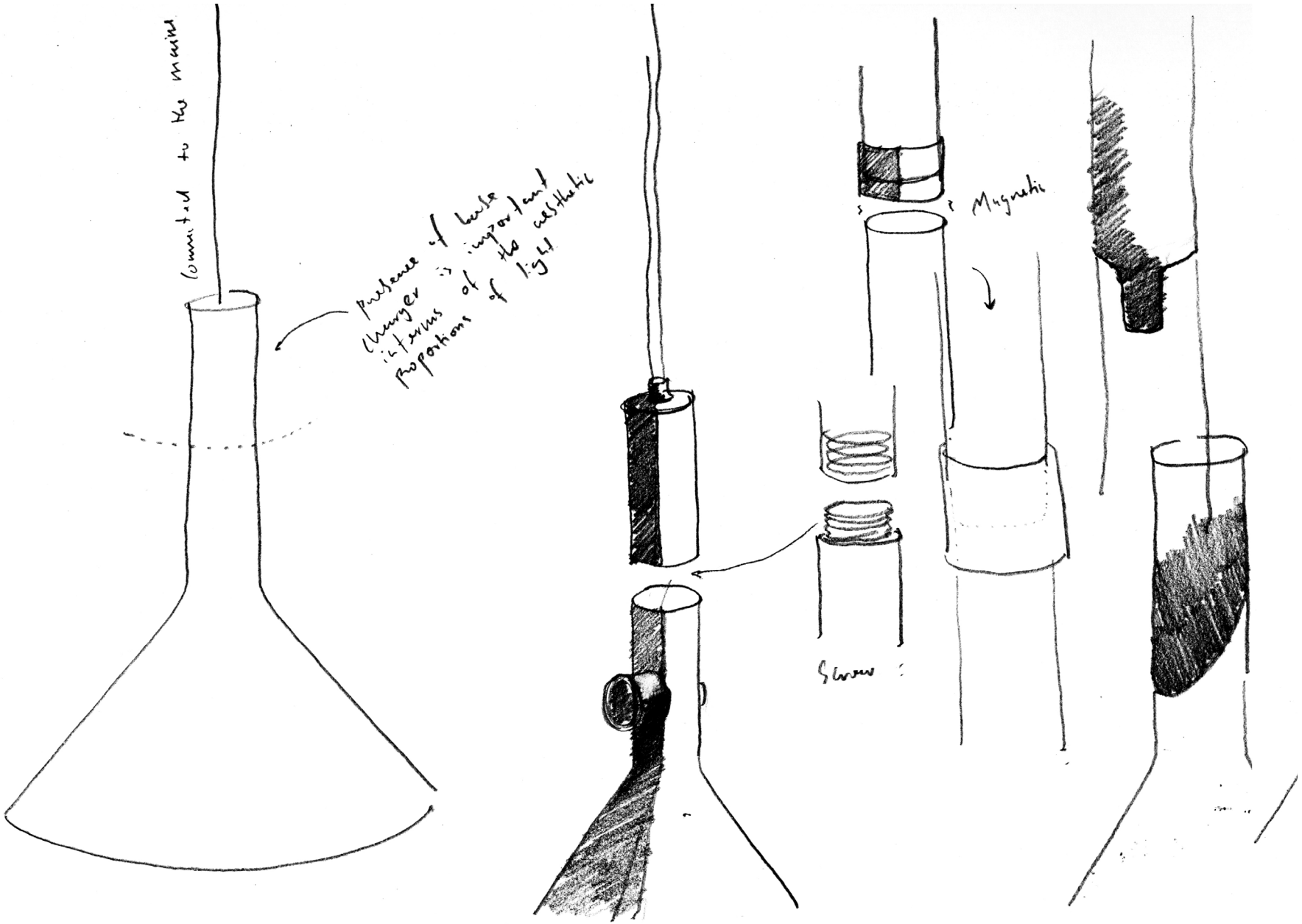


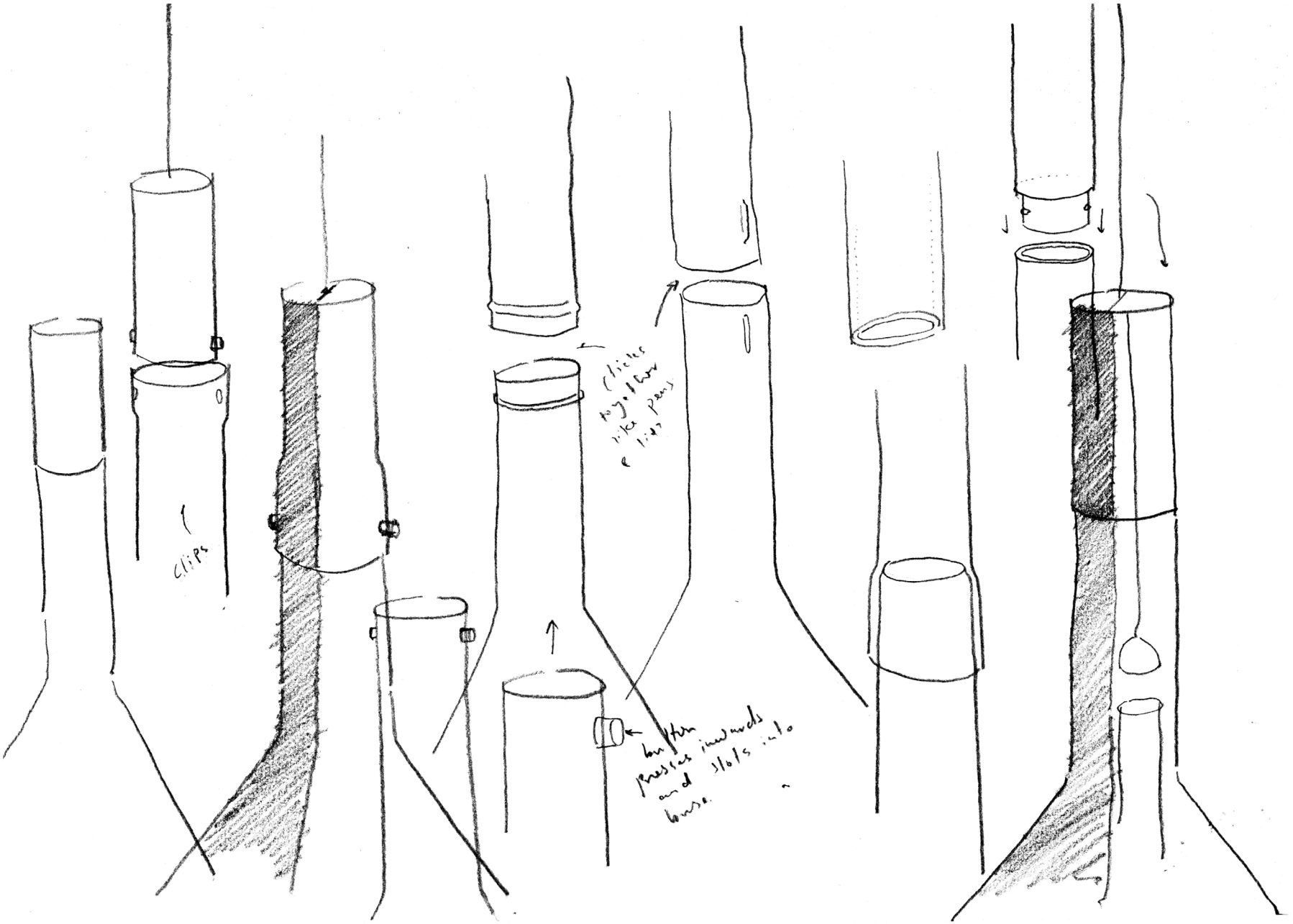


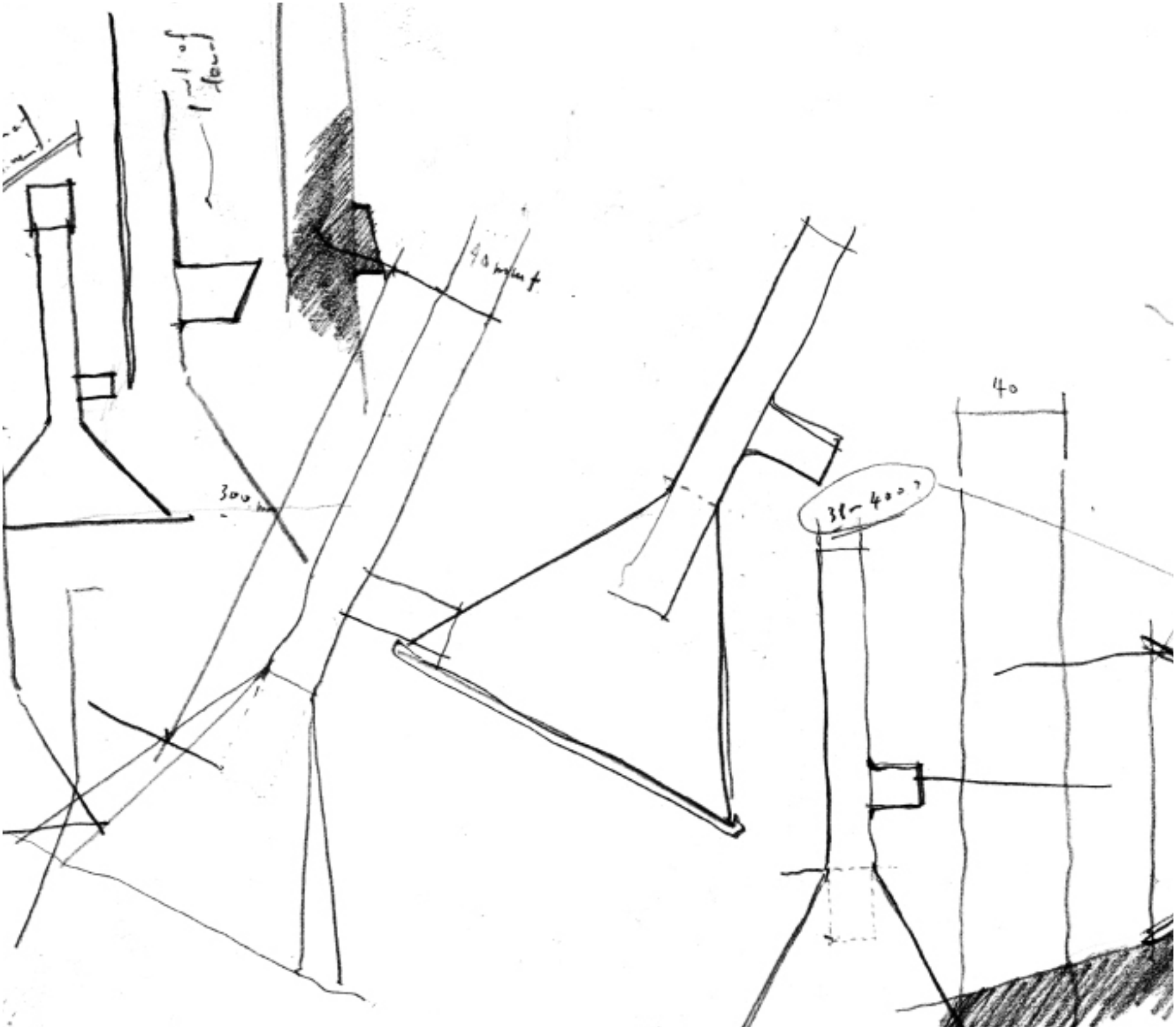


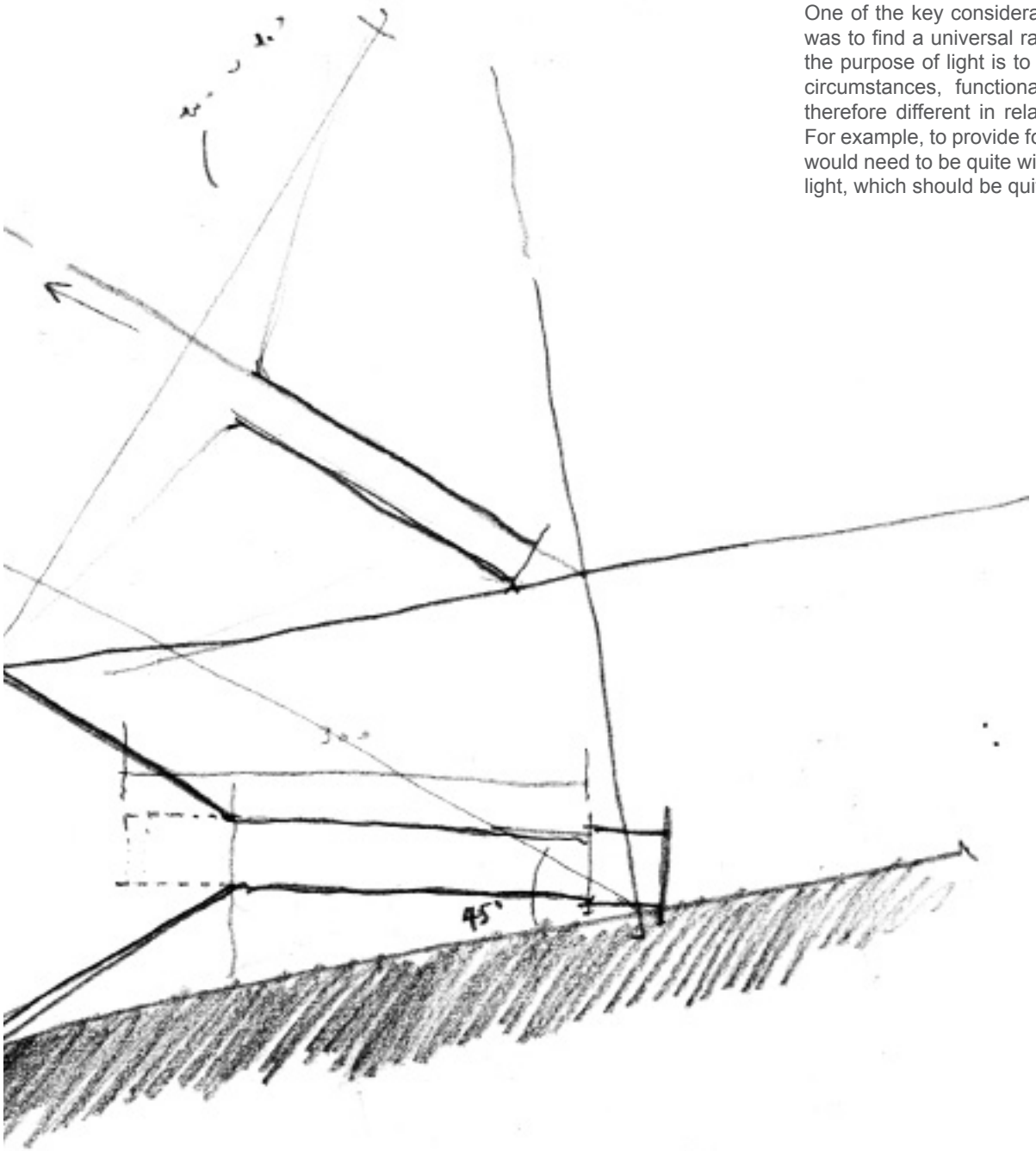
12V light bulbs

ı button


Connected to the main
presence of base charger is important in terms of the aesthetic proportions of light
Magnetic
Screw

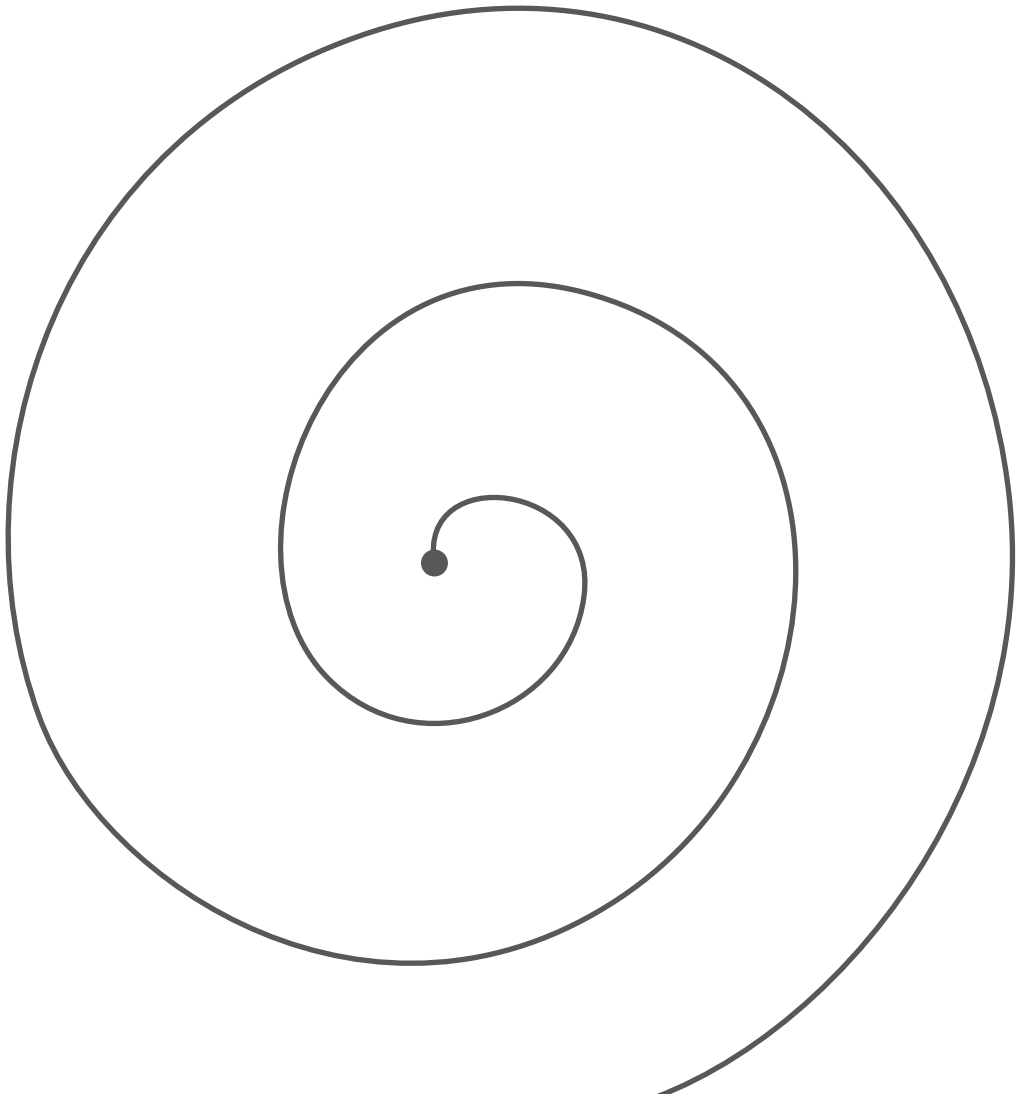

clips
clicks together like pens & lids
button presses inwards and slots into house.


40
35–40?



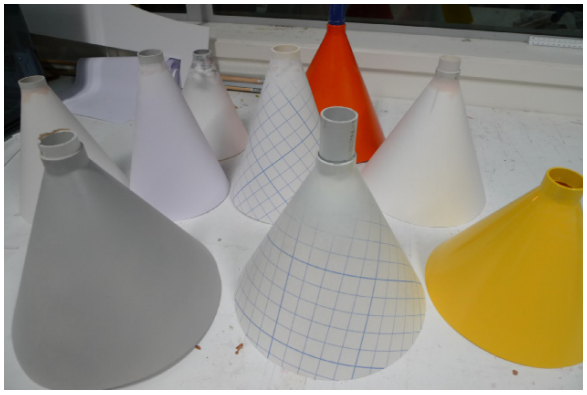
One of the key consideration in terms of the design of light was to find a universal rational angle for the light shade, as the purpose of light is to be able to be used under different circumstances, functional requirement for each mode is therefore different in relation to the context it is placed in. For example, to provide for overall room light, the light shade would need to be quite wide in comparison to a desktop task light, which should be quite narrow and focused.

This project began as a personal journey, however, as the design and research further progresses, a potential user began to emerge. The tangible outcome of my research is a result of an experiment based on me living alone within a limited space, thus in reality, the design outcome would be primarily suitable for nomadic individuals living in a small space environment.

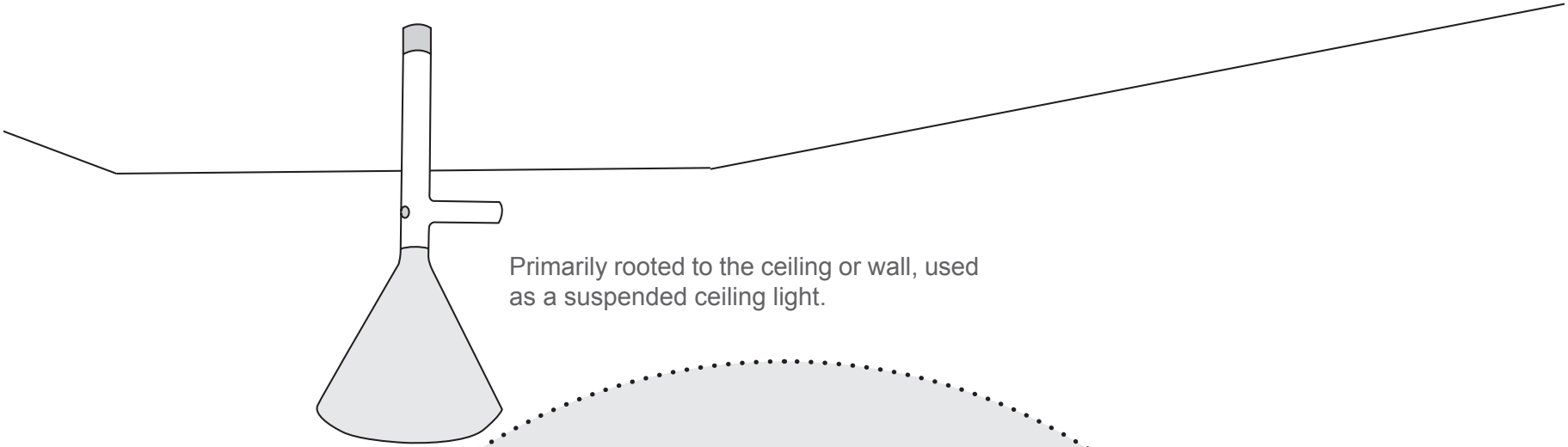


Young, urban dweller living a transient life?

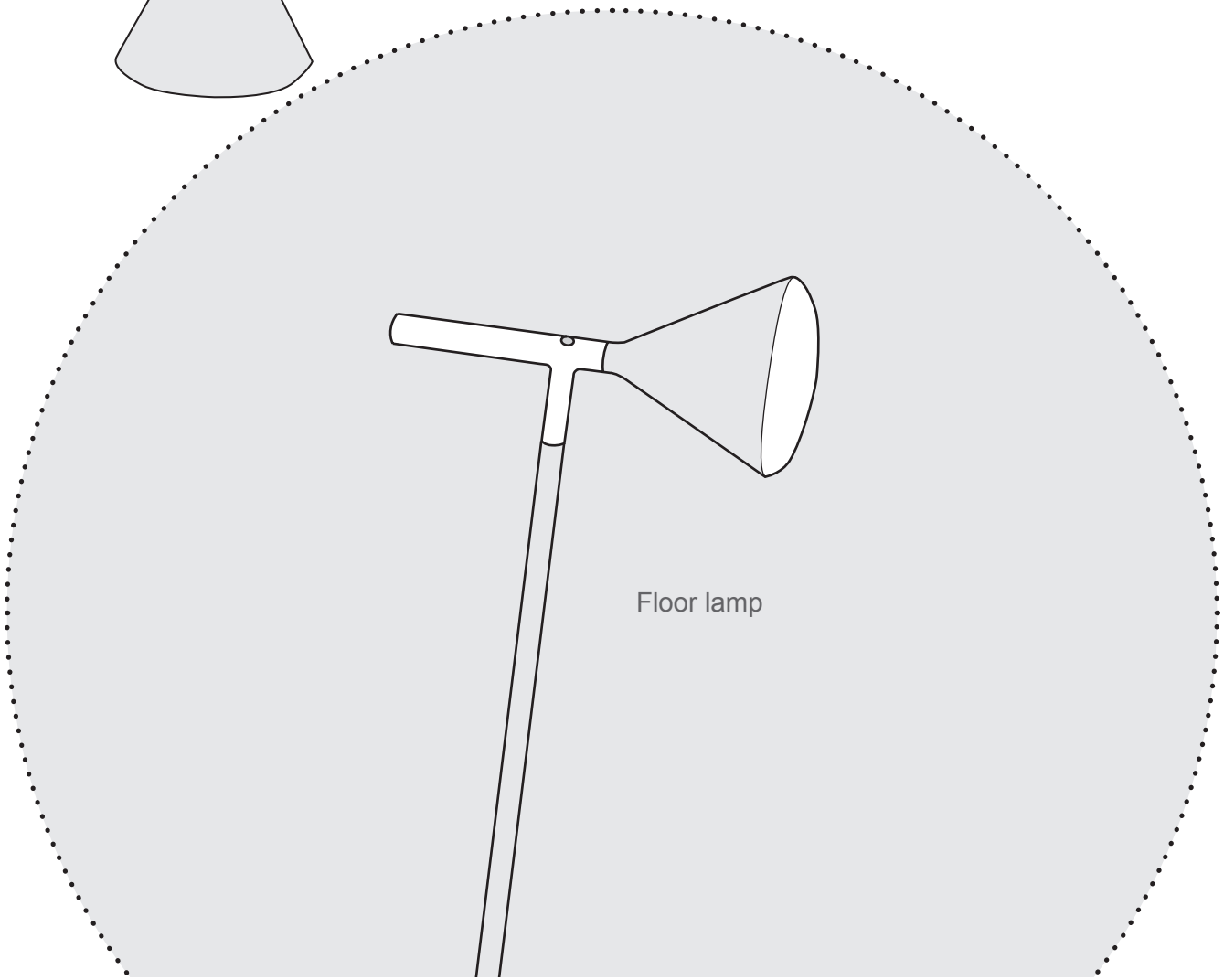
Quick prototype demostrating form exploration of light.



In terms of manufacturing process, at this stage the shade and handle is likely to be manufactured as separate component. The second stage of prototypes focuses on exploring the most appropriate aesthetic proportion. To help generate different ideas I made multiple possibilities of the handle (various form and size) as well as multiple versions of light shade and used mix and match to create different combinations of concept. Each combination was then photographically documented and mapped out in the next page for concept selection.

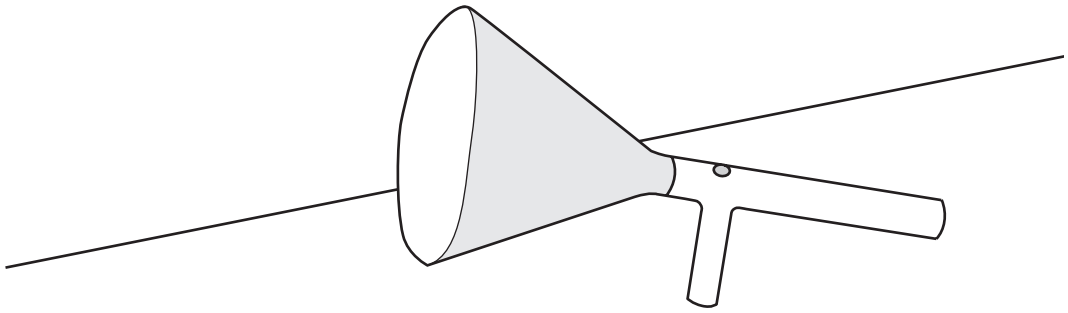


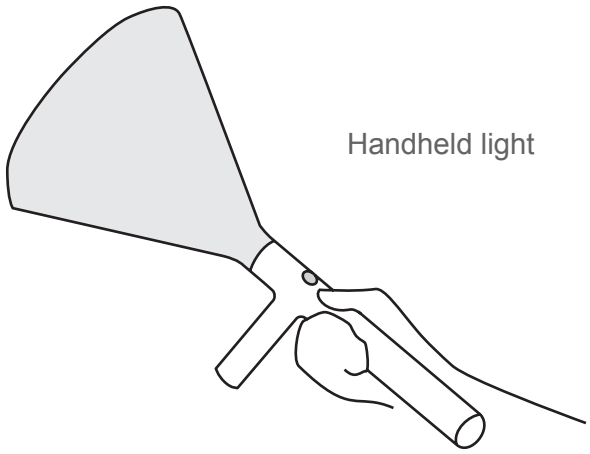
Primarily rooted to the ceiling or wall, used as a suspended ceiling light.



Floor lamp

Projected/table top light





Handheld light

CONCLUSION

How can the design of everyday objects contribute to a minimalist way of living? (The documentation of a personal journey)

This research project explores the idea of living with less, the research question itself is asked through an interpretivist perspective, my intention was to find out/explore whether the way things are designed to be used can help contribute to a dematerialized lifestyle. Several methods were employed to gain an in depth contextual understanding. However, the role playing experiment was used as a primary method into answering my research question. In taking on this interpretist's method's approach, I became an adjunct ethonographer of my own created circumstances as I lived in a minimalist setting, while also taking on multiple roles of self-observer, analyst and interpreter.

Through early literature review and photographic studies, I summarized the key findings into design principles around the design of everyday objects in relation to minimalist living. The summarized key insights reflects my understanding of minimalism and dematerialization in the context of this project and became important design considerations during the creative process.

The experiment was documented in the form of reflective entries and throughout the design process. It began as I emptied everything from my bedroom. This was a critical moment in realizing how much stuff is filled in just one room, however most importantly, emptying the room stripped away everything and reviewed a blank canvas. I was able to sit down and map out my essential needs in order to live within the space, and rethink how these needs can be fulfilled in a simple and minimal way.

As individual objects, both light and the coat hanger emphasizes the idea of dematerialization. In particular the light is designed with a sense of adaptability in mind, its function intended to be openly interpreted by its user during various circumstances, the idea of adaptability and multi-use minimizes the need for multiple objects in a space. Aesthetically, both form of light and coat hanger aimed to celebrate the archetypal beauty of common forms and chose to focus on aesthetic transparency and simplicity.

The objects are not only designed to work on an individual level, but is also part of a system. In a way, I believe design can contribute towards a minimalist lifestyle by enabling a flexible living environment. This can be achieved not only by considering multi usage in a single object, but also explore the language between multiple objects and how they may collaborate with each other to enable an active and flexible living space. Perhaps by sharing the same language, in this situation, when light detaches from charger, it can becomes easily slotted into tip of coat hanger to become a floor lamp.

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