

PROJECT LOVE YOURS

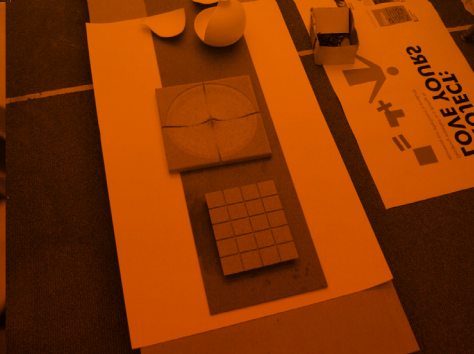
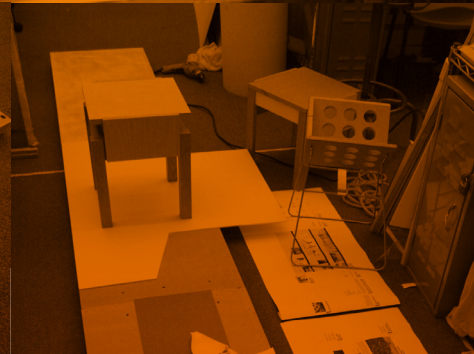
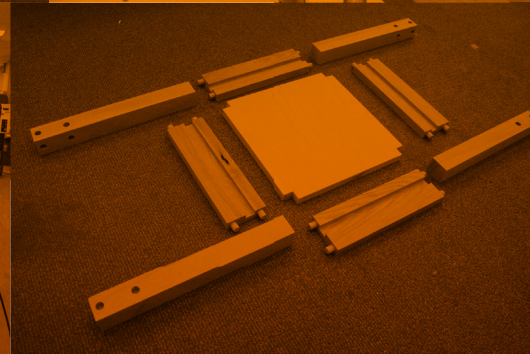
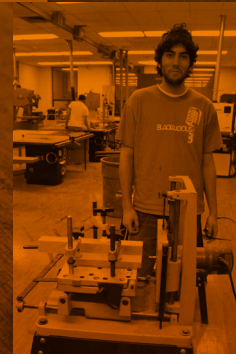
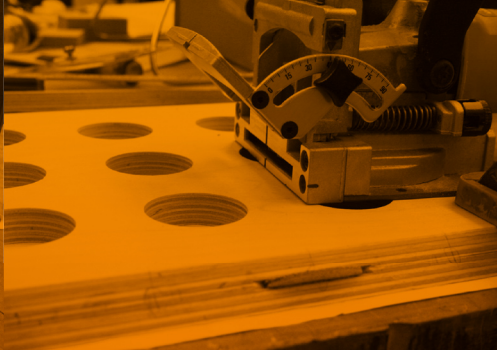
IMPERFECTION AS A STRATEGY TO REJUVENATE
OUR ATTACHMENT TO PRODUCTS

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Abstract

PROJECT: LOVE YOURS is a graduate thesis project that examined the importance of emotional attachments to product longevity in the context of problems where our material culture is distant and disposable. Through research memory was identified as an influential factor in attachment formation. By incorporating the philosophical concept of IMPERFECTION as a design strategy to stimulate the process of memory building, three concept solutions were developed. The design implementation in four product prototypes proves to be successful in encouraging memories to grow within each product. As ownership continues over the years, we can anticipate memories to accumulate and build up to long lasting product attachment. PROJECT: LOVE YOURS proposes an alternative strategy for designers to embrace longevity for product design. With a fundamental change in our thinking, our relationship with artifacts will be profound and long lasting.





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This thesis project is in memory of my beloved parents. I dedicated to my lovely family for their continuous support and faith in me.

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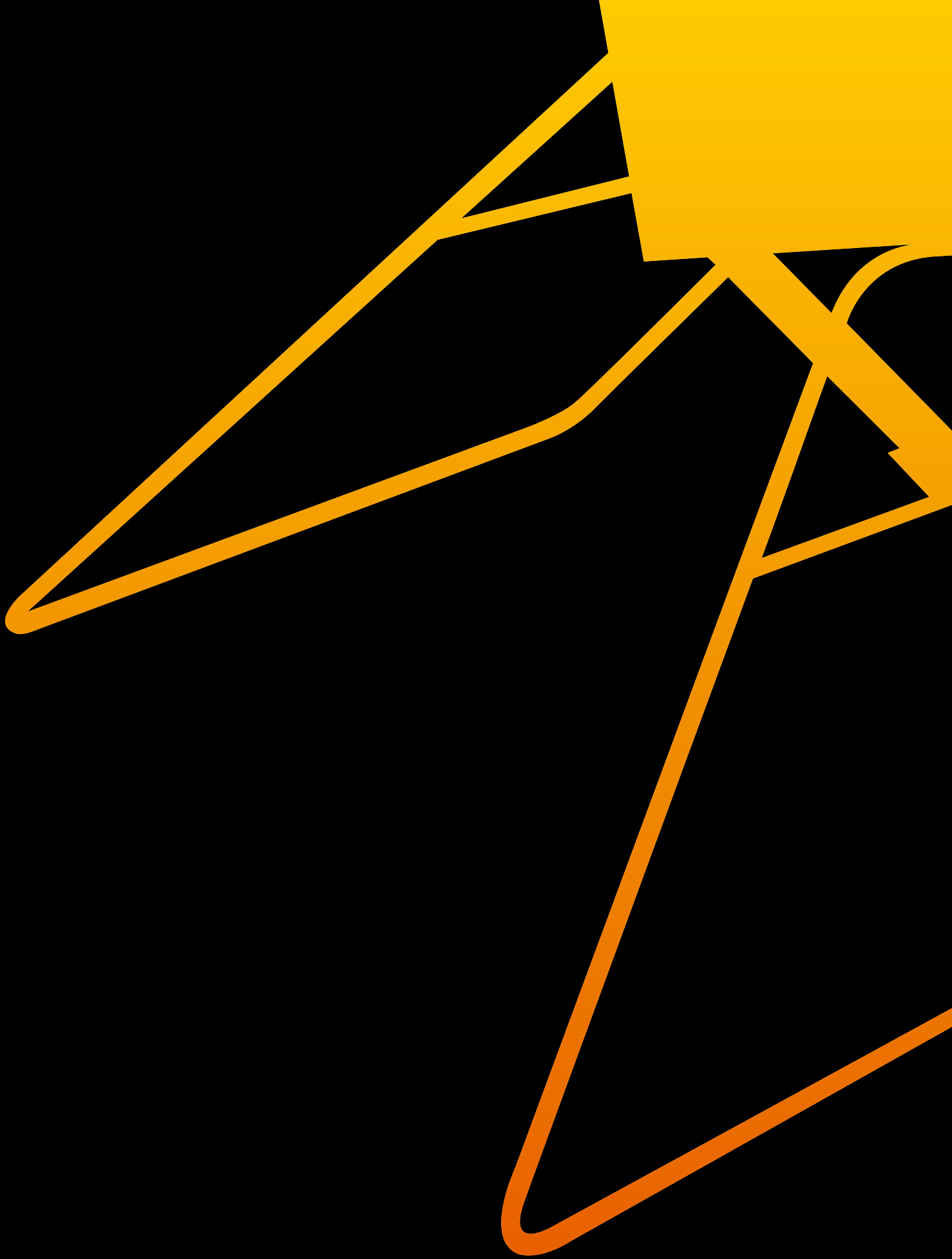


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Introduction

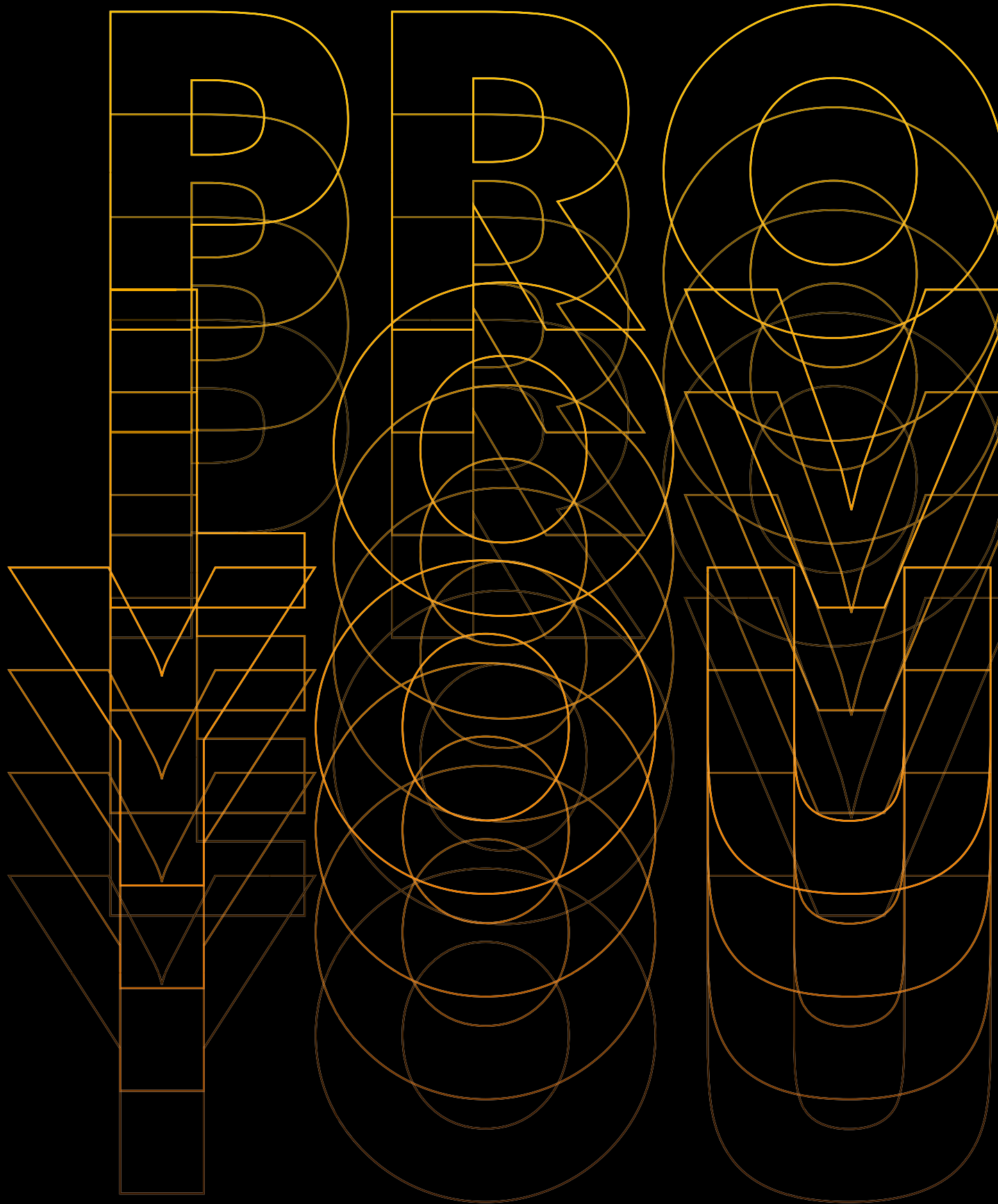
Designers possess the ability to shape the world through their problem solving solutions. Each design decision is the embodiment of attitudes and beliefs. It has great influence on people's lives. Therefore, it is a privilege, as well as a responsibility, for designers to create and to convey values to people. The environmental and social needs that we are facing today have reached a critical turning point of exhausting natural resources. Our conventional value system of consumption will fail to sustain itself in the future. I believe that this is the time for designers worldwide, regardless of their disciplines, to take a lead in reforming our current material culture, transiting our attention from physical artifacts to values we cultivated by our lifestyles.

PROJECT: LOVE YOURS relates to this goal of reshaping our material culture from inside out. Inspired by the Dutch research group Eternally Yours, my thesis project gains its title and elaborates on the core concept of longevity for product design; Dating back to the 1990s, the Eternally Yours Foundation has dedicated their efforts to conducting a series of research studies related to lengthening product lifespan. My thesis project starts with a review of our existing relationships with the material world. By focusing on the emotional aspects of human behaviors, I find that emotional attachments to products alter their role as artifacts and merely functional tools, to meaningful belongings. Furthermore, if these emotional qualities can be incorporated into the stages of design development, they will bring forth positive results in creating an enduring human-artifact relationship.

The philosophical concept of IMPERFECTION was introduced and developed in this thesis project. It reversed the orthodox design thinking about how perfection can be achieved. Is it in the hand of designers who assert their absolute control? Or does it take the user's involvement to make a product complete? A set of design strategies was distilled based on the role of memory in attachment formation and in use imperfection as a vice for attachment. IMPERFECTION can be a successful strategy to rejuvenate our attachment to product.

With the urgency to transform our present, distant and disposable material culture to an enduring one, PROJECT: LOVE YOURS proposes an alternative strategy for designers to embrace longevity for product design. With a fundamental change in our thinking, our relationship with artifacts will be profound and long lasting.







PART I

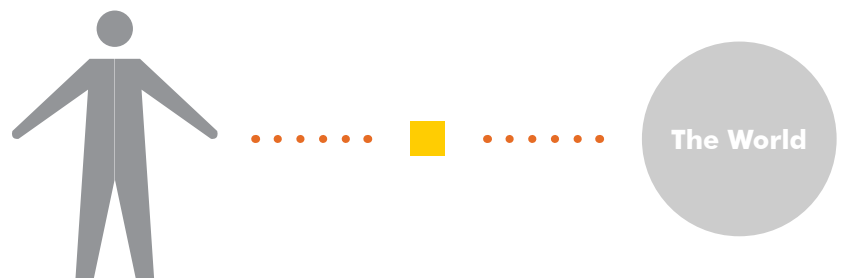
World of the Objectified

Through the lens of director Gary Hustwit, we took a peek into the complicated relationship between us and manufactured objects in his movie *Objectified*, as it debuted in March 2009. Driven by the same intent to comprehend our material world, I started this thesis project with a simple question: Are we truly conscious of how artifacts play a role in our daily life?

We may not notice this, but the artifacts have already seamlessly blended into our everyday behavior. In the morning, mom cooked scrambled eggs on the *griddle* for our breakfast. A quarter to ten, dad sat behind the *wheel* to drive to work. After dinner, we huddled onto the *couch* to read. During the weekend, we helped *hammer* the leaking roof.

Through artifacts we are able to enjoy food; transport ourselves to our destinations; be seated comfortably to have a good read; and use your own hands to create a home. Artifacts facilitate us to engage with the outside world. They embody our existence through their materiality. Taking this perspective, a further question arose. What is the essence of artifacts? Are they simply functional tools, or are they more like partners who collaborate with us?

CONNECTION WITH THE WORLD

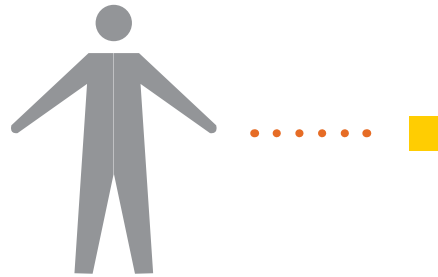




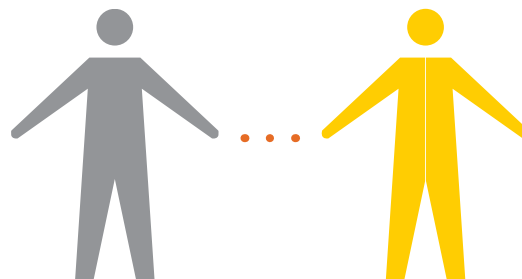
Beyond Function

If we take a look at the year 2000 film *Cast Away*, we find an interesting insight into the essence of artifacts. In the movie, Tom Hanks was a Fedex employee who was abandoned on an isolated island after his airplane crashed over the South Pacific. Prior to his rescue, the only *companion* he had was a volleyball he aptly named Wilson. Although Wilson did not serve its function as a volleyball, it, even as an object, did provide an emotional bond and a supportive friendship. This extreme example of human-artifact experience unveiled that our emotional attachment could sustain a human-artifact relationship beyond its original function. So, what is the essence of artifacts? In a physical state, an artifact functions as a tool to serve our need. In an emotional context, an artifact can also build up an intimate relationship with us, just like a partner.

PHYSICAL STATE



EMOTIONAL CONTEXT



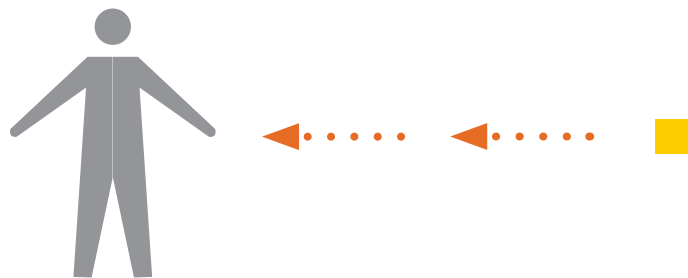


Broken Relationship

Following the dialogue of artifacts as partners, a review into our contemporary material culture exposed a fragile connection between humans and artifacts. Through the rapid evolution of technology within the past hundred years, designers have helped facilitate people to do things with ease and convenience. It seems to be a promising future that by simply unwrapping a box, then pushing a button, things will be done for us automatically. In fact, we are gradually secluding ourselves from the process of physically engaging with our tools. It is like holding a pencil and hoping it will start writing on its own without our efforts.

People today are losing the ability to maintain a human-artifact relationship by asking for more; existing products are replaced for new features; things are thrown out just because they are outdated in one respect or another. The mentality behind these thoughtless acts deteriorates the partnership between people and objects. Eternally Yours argued, “We can only make products survive year after year if we realize that they are used and cared for by people who see them, feel them, understand them and dream about them.” (VAN HINTE 1997, 105) Only a commitment from both humans and artifacts can support a firm and sustainable relationship in the future.

ONE WAY INPUT



← ONE WAY

ONE WAY →



The Role of Industrialization

Since the first steam engine launched the new era of industry, we have been able to mass-produce products with help from the machines. Seemingly, we streamlined products for a cheaper price, but do we really pay less for more?

In order to lower the cost for mass production, the maximum volume of products is often produced. Most of the time, the quantity far exceeds that which we actually need. As a result, a series of strategies were invented to stimulate consumption over the surplus of merchandise. These strategies purposely accelerate product obsolescence. Research on the historical correlation between industrialization and obsolescence is well documented in the book *Made to Break: Technology and Obsolescence in America* by Giles Slade.

PLANNED OBSOLESCENCE was an industrial strategy first developed between the 1920s and 1930s. Products are made to break down in the near future. This built-in obsolescence ensures that a flow of consumption circulates flawlessly time after time. PERCEIVED OBSOLESCENCE is another commercial strategy that contributes to the birth of branding and advertising. Consumers are persuaded to update their products to the latest one, even though the products still maintain their full usefulness.

Driven by consumption, this is the direction our economy system is heading today. Ongoing consumption growth becomes the ultimate measure of business success. These preoccupied mentalities and shortsighted strategies are rapidly deteriorating our relationship with artifacts.



A Short Lifespan of Products

With the increasing concern of global warming and ever depleting natural resources, reforms in all aspects of human activities need to be undertaken to ensure a sustainable coexistence with the ecosystem. As product designers, the problem we have confronted in the current material culture is that of a broken human-artifact relationship, one that leads to a critical outcome: A short lifespan of products.

WASTING RESOURCES is one of the major issues. From *The Story of Stuff*, a documentary animation about the lifecycle of goods and services, we realized the astonishing fact that the flow of material resource is seriously unbalanced: In North America, only one percent of the materials flowing through the consumption system are still in product or use 6 months after their initial sale; the other 99 percent of them have simply become waste in the material flow. This made me wonder why the objects cannot stimulate a long-lived relationship with us.

On top of that, a more fearsome phenomenon of YOUTH CENTRIC VALUE reveals its fundamental impact in creating the *use and throw* material culture. Today, the criteria to evaluate an object is based on its superficial values; we are attracted to things with new features and discard things that are out of fashion. The challenge of my project is to retrieve the meanings of things hidden under their superficial values. Professor Louise St. Pierre argues that, “Designers have the ability to impact culture and perception by reframing age as something that can be honored, celebrated and appreciated” (PIERRE 2008, 31).



Image source: www.hpsupplies.info/images/Lo-Landfill.jpg

Design Strategy

After a probe into our relationship with artifacts, we came to realize that it is fragmented by our superficial, youth-centric values. Before the unceasing landfills jeopardizes our living environment, what possible strategies can we employ to lengthen product lifespan? From a whole system view, William McDonough and Michael Braungart, authors of *Cradle to Cradle: Remaking the Way We Make Things*, provide us with a continuous product lifecycle model in which material can be used over and over again as the same product without losing its integrity or quality. The waste now becomes usable.

Designer and researcher Miles Park points out three levels of product design to approach long-term product survival. At a behavioral level, research has shown that an emotional attachment proves to be a positive bond to make people hold onto their products. The most prominent study in the field is presented in the book, *The Meaning of Things: Domestic Symbols and the Self* by Mihaly Csikszentmihalyi and Eugene Halton. The authors conducted a survey of eighty families in Chicago with interviews on the subject of their feeling to the possessions in their household. From the results of the survey the authors discovered that positive meanings of things helped cultivate emotional attachments with people. These positive meanings could be categorized into physical and psychological reasons for an understanding of their formation. At a product level, quality maintenance ensures a product can perform year after year without defect in quality. The dependable user experiences encourage people to keep their products. At a system level, ongoing repairs and upgrades allow a product to extend its life cycle for another run. They also accommodate people's changing needs over time.

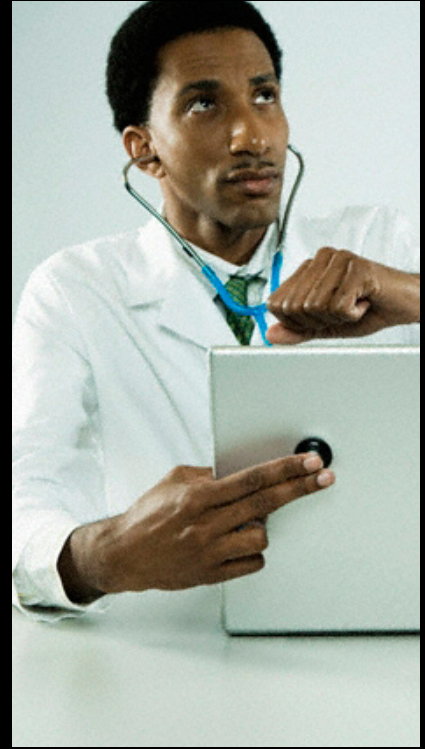
Due to the subjectivity and unpredictable nature of human behaviors, designers seldom adopt emotional quality as a factor in the design process. However, in the book of *Emotionally Durable Design: Objects, Experiences and Empathy*, designer Jonathan Chapman shows us the possible path that emotionally durable objects and experiences can be a radical design about-face to enrich the human-artifact relationship, but also reduce modern impact of consumption. With an understanding to these possible strategies, this thesis project will further explore the realm of EMOTIONAL ATTACHMENT.



Emotional Attachment
Behavior



Quality Maintenance
Product



Ongoing Repair/ Upgrade
System

Why Attachment

“Attachment to a product is a positive emotional state of the relationship between an individual and a product, which indicates a strong linkage between them and results in considering the product as parts of the self with a strong will to keep that product.” (SAVAS 2004, 318) From the study of Savas, we discover once again the tremendous strength in emotional attachment. Along with the example of Wilson the volleyball referred to on page 14, we realize that an attachment to product can not only transform the role of an artifact into an intimate partner, but also encourage two-way involvement between both humans and artifacts to support a durable relationship.

Once the value of emotional attachment is established, the following step is to examine how the quality of attachment can be incorporated into the process of design development and design solution itself.



Design Tools for Attachment Emotions

Donald A. Norman states in his book *Emotional Design: Why We Love (or Hate) Everyday Things*, “Our attachment is not to the thing, it is to the relationship, to the meanings and feelings the thing represents.” (NORMAN 2004, 48) Attachment is an integral experience of the senses. It is a representation of the psychological state rather than a scientific law. For that reason, product attachment may vary from person to person. Some people may be attached to their iPod for usability, while others may find something different. As we proceed, it is this variable we need to generalize in this study.

In order to understand product attachment fully, I sought to find out what factors partake in its creation. In Tara Murray’s thesis of *Affective Industrial Design: Understanding Our Emotional Attachment to the Products We Love*, there are three research projects relating to product attachment, including the renowned study in *The Meaning of Things*. They were distilled into a set of design tools for encouraging the integration of emotional attachment within product design. On the opposite page, each tool defined a quality that would lead to a positive result in enhancing product attachment. From this valuable analysis, I was able to identify the useful factors from which potential design strategies can be developed.



Identity



Aesthetics



Memory



Functionality



Value and Meaning



Time and Context



Story

The Role of Memory in Attachment Formation

After gaining the factors involved in product attachment, I studied further into the effect of MEMORY. In the research of *Designing Consumer-Product Attachment* (SCHIFFERSTEIN, MUGGE AND HEKKERT 2004), memory and enjoyment were identified as two dominant factors in attachment formation. According to the authors' graph of this analysis, enjoyment holds a high ratio in creating an attachment to a new product. However, as the length of ownership increased, memory significantly enhanced attachment formation, especially for products owned longer than 20 years.

Additionally, in *Indexicality and the Verification Function of Irreplaceable Possessions: A Semiotic Analysis*, researchers Garyson and Shulman discovered that "Special possessions are valued in part because of their ability to evoke memories." (GRAYSON AND SHULMAN 2000, 19) The presence of special possessions is capable of being a reminder of individual history. For instance, a wallet is an object that we use frequently in our daily life. It changes its shape to fit in our pockets over time. Eventually the leather is worn and torn as the colors fade away. The trace of usage reflects our personal history and becomes the evidence of past memories.

To conclude, enjoyment is fundamental to emotionally engage with a product during initial appeal; while memory has a key role in establishing a long-term product attachment.

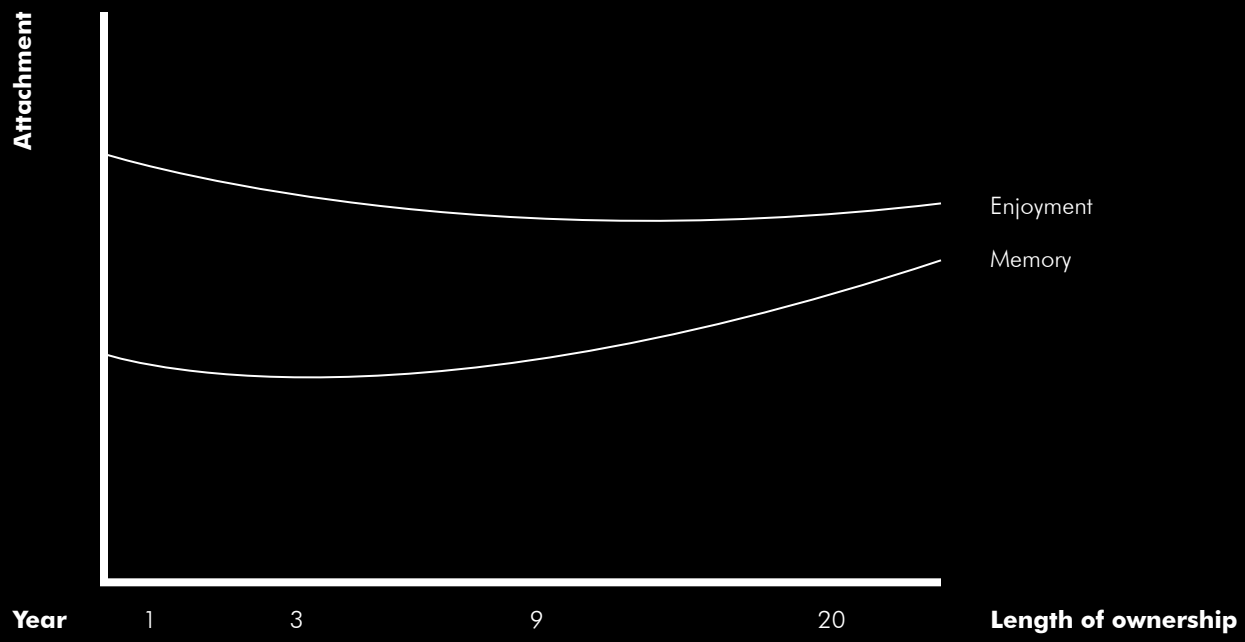


Figure: Redrawn from Schifferstein, Mugge and Hekkert 2004

Memory Building

In the last chapter, memory reveals its influential role in creating a long-term product attachment. Before we are able to apply this key factor to designing a product, an investigation into the memory building process will give us a better understanding of memory types and related circumstances. In the following pages, I identified a series of examples within design and non-design fields. By boiling them down to their basic elements, key features were distilled and categorized for design reference.

FINDINGS

USER PARTICIPATION

User behavior bears the realization of product function

COHESIVE EXPERIENCE

Product experience is a two-way involvement between user and product

SEQUENTIAL SCENARIO

Product function adapts to serve a user's demands over time

MATERIAL QUALITY

Material quality (appearance / tactile) reflects personal history

01

One Time Experience

Memories are associated with events, people, and objects in a specific time and space. The individual experience is unique and irreproducible.



Group Activities



Gift



Special Event



Do Project By Droog Design



When using the objects for the first time, users personalize their chairs by hammering the sitting space out of a steel cube, or shattering the vase onto the ground to create a unique pattern of cracks on the surface.

02

Growth over Time

Continuous attention, whether in a physical or psychological form, is needed from an individual for a period of time. Memories are encouraged to grow between people and objects.



Planting flower



Terra Grass Armchair by Nucleo



The chair is constructed of cardboard. It requires grass to grow over it to form a sitting surface. Users need to perform regular maintenance, such as watering and trimming, to retain its functionality.



Toys from Childhood



Simple by Alexandra Campbell



The furniture set is designed to accommodate children's growth over time. Users are able to rearrange the furniture pieces based on purposes to serve their changing needs.

03

Material Reflects Personal History

Material quality is allowed to alter and reflect the personal history. The trace of usage becomes the evidence of memories.



Wood



Leather



Steel



Textile

Target Definition

Does every product in our daily life need to acquire a strong attachment with us? A discussion of object types in *Affective Industrial Design* would assist us to clarify and locate the ideal target product in this project.

“There are items that most of us own that are completely valueless to us. They are physically and emotionally disposable.” (MURRAY 2006, 64) Within a limited time of use, products such as toothbrushes, plastic food containers, and light bulbs can hardly evoke emotional exchange with us. The low cost makes them easily dispensable in our material culture. They become *functional-meaningless* goods. “In contrast, there are personal possessions that are untouchable and invaluable. These heirlooms, antiques, mementoes and collectables hold so much emotional value they are priceless.” (MURRAY 2006, 65) Items like these have given up their duties as functional tools because of their preciousness in emotional context. They become *functionless-meaningful* possessions. This thesis project seeks to focus on products that fall between these two categories. An ideal target product is not only emotionally durable, but also useful in its functions. As Eternally Yours argued that “Designers should not only create things that are meaningful, but things in which meaning is firmly anchored in their materiality.” (HINTE 1997, 105), a product should be *functional-meaningful*.

Aside from what we discussed above, Eternally Yours introduced a new term of CULTURAL OBESITY. (ENO AND THACKARA 2005, 51) It describes a phenomenon which an excess of stuff in storage is just as unhealthy as extra weight in the body. Even though a product can be retained forever, the failure to fulfill its given duties deprives the value of a product.



Why Imperfection

At this stage, I want to introduce the philosophical concept of IMPERFECTION. Why imperfection? This may be the very question that keeps most people bewildered. Before we are able to see the value of imperfection, a question that we should ask is: What is *perfection*? From the definition of *Webster's Revised Unabridged Dictionary* (1913), perfection is “the quality or state of being complete, so that nothing requisite is wanting.”

Let us have a look at the image on the opposite page. A glass is full of water. At this specific moment, it reaches the state of perfection. If we were to add more water to the glass it will inevitably overflow. The *complete* state makes the glass unable to accommodate any more water. On the contrary, if we replace the scene with the same glass but half filled with water, a totally different story happens. The *incomplete* state would allow water to fill the glass until it reaches the state of full capacity.

Translate this metaphor into a product experience and the incomplete state opens up an opportunity for a product to grow with time, inviting users to be involved in its realization. The contribution from an individual to a product brings the partnership to life. The true value of imperfection acts as a perfect glue to mend the broken human-artifact relationship. Italian designer Nucleo argues that, “Which is the best way to learn about an object? To feel it? Surely to construct it. There is no greater form of intimacy for an object than to be created.” (THE WALKER CENTER 2003, 252) Perhaps it is an utopian thought that we are able to create every object in our lives. A certain level of user involvement in product realization will bring awareness of how objects come into being.

At the core of this project, IMPERFECTION also challenges the conventional thinking about perfection. Some designers believe that the end product of one's design should be as clean, perfect, consistent, and precise as the product shot in a magazine. In fact, user experiences become limited and barren when designers have too much control over the end product. In the book of *Emotionally Durable Design*, Jonathan Chapman argues that, “Fuzzy interaction reintroduces the wild card element of unpredictability to otherwise traditional interaction scenarios; the overall result is less precise outcomes and richer user experiences” and he continues to support the fact that “Imperfections can be endearing and help to create a bond with the user.” (CHAPMAN 2005, 77) Therefore, the imperfection is the seed of true perfection.

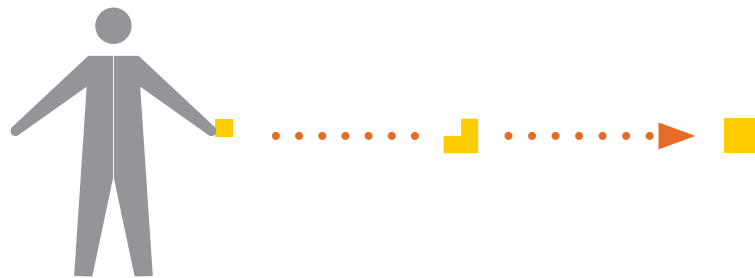


The Imperfection and Attachment

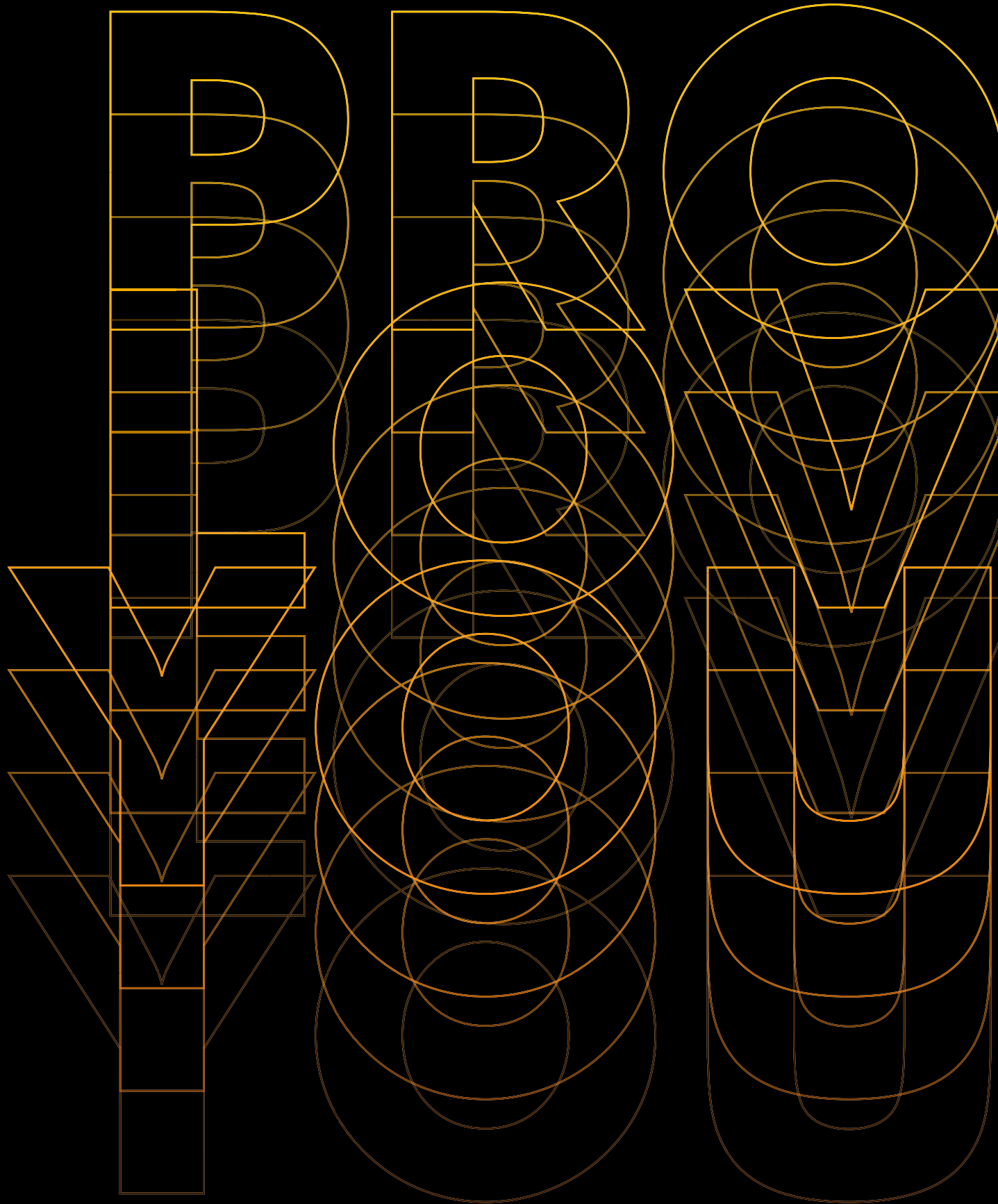
We recognized imperfection as a state in which users are encouraged to fulfill a product by collaborating with it. If this user participation scenario continues to be replayed over time, memories can grow and be embedded within a product and eventually lead to long-term product attachment. In *The Meaning of Things*, Csikszentmihalyi and Halton introduced us to the idea of PSYCHIC ENERGY. By giving more attention to certain objects over time, human beings cultivate *possession meanings*, that is, “the more psychic energy a consumer invests in an object, the more meaning gets layered on the object and the more important it becomes.” (GRAYSON AND SHULMAN 2000, 23) From this point of view, the imperfection as a creation-of-meaning process is the ideal strategy to rejuvenate our attachment to products.

In fact, the concept of imperfection is borrowed and extended from the Japanese aesthetic view of WABI-SABI. Its essence is rooted in finding beauty in imperfection and interpreting profundity in nature. It embraces the natural cycle of growth, decay, and death. The porcelain mug on the opposite page is an example of this. The beauty of the imperfection lies in the details of its natural cracks on the surface, handmade impreciseness, and ombré of color from being used. Intriguingly, the concept also applies to the virtual, online model of Wikipedia in which the state of ongoing imperfection is accepted to allow people to contribute and collaborate on an open-ended encyclopedia.

USER PARTICIPATION









PART II

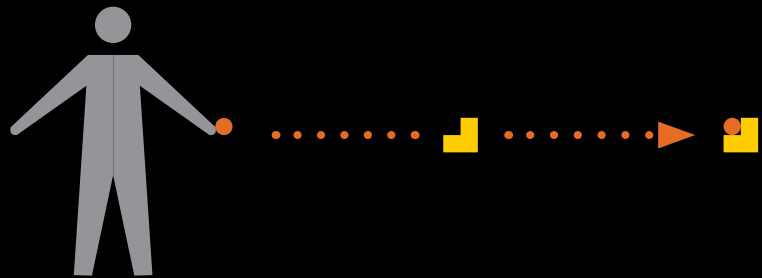
Concept Solution

As this project began, we discovered the substantial value of product attachment in lengthening products lifespan. After boiling this long-term connection down to its elements, we identified memory as an influential factor in attachment formation. In order to embed memory into a product, the concept of imperfection turned out to be the perfect carrier through the track of user participation scenario. Based on these preceding studies above, I proposed three concept solutions to designing products for longevity using the strategy of the imperfection.

01 Integrate Personal Possessions

Some of possessions we owned already hold a rich emotion value for us, such as favorite items. The concept solution here is to integrate these existing emotional values into a product to enhance attachment formation in this product. Initially, a product is emotionally remote from the user. By integrating user's valuable possessions as an essential part in realizing product function, personal meanings and emotional values are passed onto this product and help to emotionally connect with the user. As both existing personal possessions and this new product become a whole unit, new meanings get layered and new attachments are formed.

INTEGRATE PERSONAL POSSESSIONS

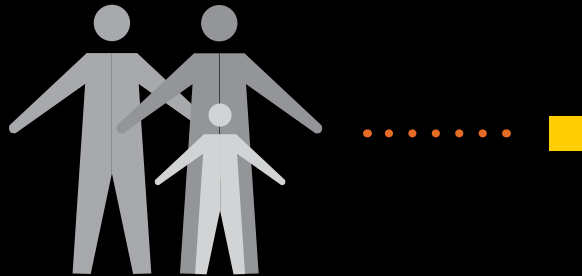


02

Associate with Group Experience

“Objects with social rituals can give rise to certain emotion value. It enhances product longevity.” (HINTE 1997, 39) The concept solution here is to relate the product experience to a group of users by encouraging a social activity to take place at an event, such as a family reunion or a gathering of friends. This group of users can participate in the realization of product function. With this mutual experience created and shared, each individual from the group can associate the product with this specific memory. It enhances product attachment by layering a shared group memory over the product.

ASSOCIATE WITH GROUP EXPERIENCE



03

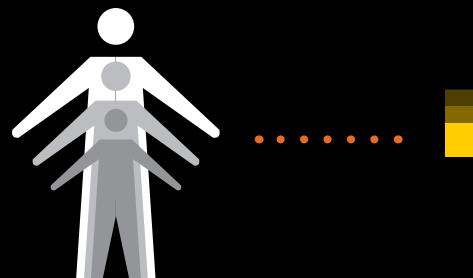
Transform with Users over Time

In her kitchen table design, Dutch designer Moniek Gerner designed a set of movable hooks attached to the edge around the underside of the table. After mom cleans up the kitchen, cooking utensils can be hung onto the hooks for storage. When children come to the table, the space underneath is activated as a playground. By wrapping a piece of cloth around the same hooks, children can create an enclosure and play for fun.

The concept solution here is perceived from both the functional and the material aspects. In terms of function, a product can respond to users with flexible usability; it is made to serve multiple users and perhaps multiple generations. A product becomes a carrier for our cherished memories. Moreover, if taking passage of time into account, a product can acquire the ability to adapt to users' needs over time. For example, as a product coevolves with children through different stages of childhood, their users experiences accumulate over time. The material of a product should allow the user to leave a personal mark on it. This trace of usage makes the product an integral part of user's life. For example take a leather chair where the contact surfaces of leather become darker and smoother from being used after a prolong of time. The alteration of material quality records a unique and personalized evidence of memory.

The concept solution enhances product attachment through two levels. In the level of function, flexible product usability enables a product to be layered with multiple meanings by users in different time periods. At the material level, a personal linkage to a product is made available by applying a positive alteration of material quality.

TRANSFORM WITH USERS OVER TIME



Design Implementation:
Break Ceramic Plate Set

Break Ceramic Plate Set is designed to stimulate social activities in a group event. When it is first purchased, the plate set comes as a mysterious onion-shaped vessel. The function for holding food is not available. Curiosity rouses people around to figure out how it works. After a few attempts, they find out that by snapping off the top outer pieces, each piece now becomes a plate, while the lower void transforms into a central serving bowl. With the initiation completed, people can now share and have a meal together.

The breaking process embodies the emotional idea of a shared user experience. When a group of people are involved in the realization of product function, they start to share a mutual experience relating to the product in which memories are formed and meanings become layered.

Break Ceramic Plate Set has not yet reached the finished state, but it is shown here in its prototype stage. The intent here is to demonstrate the primary concept, while the technical design details may require further research. Issues, such as sharp broken edges and reliability of plates breaking along the groove, are some of the usability concerns that will require engineering trials for the actual manufacturability and usage of the product. The overall material selection and breaking processes are future design improvements that will strengthen usability and refine user experience in the final solution.

USE INSTRUCTION



01
Break Ceramic Plate Set comes as an onion shaped vessel. It contains four plates and one bowl for a small group of people to use. The groove around the body implies where to snap it off.



02
By using the tips of the fingers, each piece of plate can be easily broken off from the body. The action of breaking forms random and unique plate edges upon users' strength and breaking angles.



CONCEPT APPLIED Associate with group experience

MATERIAL Ceramics

CONSTRUCTION Slip casting for moulding

Kiln firing

Product Demonstration









INITIAL VERSIONS

The two design attempts are insufficient to integrate the idea of sharing through their forms and ways of using them.



Design Implementation:

Stool M

Stool M is designed to serve users through different periods of time in their lives. At first glance, it is as simple as any other everyday stool, a seat with four legs. But you soon realize that the sitting plane descends in the center and needs extra support. The design uses a stack of books or magazines to make a stable sitting platform. By adding books to the pile or pulling magazines out, people of varying heights can easily adjust the seat height to suit their different needs, which include a child's changing height throughout the years.

With flexible usability in mind, Stool M allows various individuals to customize their own seats. Each individual correlates their personal experiences with the others by sharing the same base product. Gradually, meanings get layered over this base product through the addition of collective memory.

The design aesthetic uses a personal belt. It is a simple and poetic solution to fasten the stack of books and magazines. However, the varied belt sizes from users may fail to be usable or to promise a consistent strength. In addition, the belt is not level with the seat plane so the bump may produce discomfort when sitting. In order to achieve a more refined result, the use of a belt will need to be technically reconsidered with further studies on fastening methods.

USE INSTRUCTION



01

Stool M comes with a sunken seat plane. By stacking up books or magazines, a sitting surface is created. Users can easily adjust seat height to fit individual need by adding or subtracting volumes.



02

Once the adequate height for sitting is reached, you simply fasten the pile onto the stool with a personal belt.



CONCEPT APPLIED Integrate personal possessions

Transform as users over time

MATERIAL Solid ash wood

CONSTRUCTION Dowel joints

Use Demonstration





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INITIAL VERSION

The design attempt underestimates the visual and functional power of the stacks of books by covering a lid on top of it.



Design Implementation:
Stool V

Stool V is designed to blend into everyday life by embracing user behavior. The v-shaped wooden basket has large drilled holes in a grid pattern, making it unrecognizable as a stool. However, as one fills this basket-like fixture with a few shirts, it turns into a great spot for sitting. One can add on more layers of clothing to make the cushion both soft and sturdy. The seat is now an exclusive one with your personal mark.

What Stool V offers is not only the flexible usability to adjust its seat, but also a medium for users to extend their personalities onto the stool. The personal state is documented and reflected through the profile of clothing layers. As time goes by, our personal history infused with memories has become an integral part of the Stool V.

In reviewing the design, the actual seat height was found to be lower than an average stool. The reason for it was a miscalculation on the tolerance of clothing for compression. For further improvements, the steel frame should be raised to allow a maximum space compression, but still measure within the range of moderate seat height. The stool has a tendency to wobble slightly when pushing along the front to back axis. To correct this the steel frame can angle out to form a trapezoidal support from the side to improve stability. In addition, fixing a crossbar between the paralleled steel rods underneath will make it a more rigid and sturdy structure.

USE INSTRUCTION



01
Stool V comes in two parts: A wooden basket and a steel frame base. Users can easily detach the basket from the base to collect clothing for the seat.



02
Once you find the satisfactory softness of the seat, you simply place the basket back onto the frame base. A personal seat is ready for you.



CONCEPT APPLIED Integrate with personal possessions
Transform with users over time

MATERIAL Birch plywood ; Steel rod

CONSTRUCTION Varied wood joints ; Steel bending

Use Demonstration







INITIAL VERSION

The design attempt requires structural and proportional adjustment for durable support and adequate seat dimensions.



Design Implementation:
Balance Floor Lamp

Balance Floor Lamp realizes its function through an interactive experience with users. The lamp is inactive when the light points to the ground. The way to initiate it is to place a counterbalance onto the hook to elevate the light source to a desired position. The correct combination of weight and distance from the hinge point may require users to make a few attempts to acquire the best result. This interactive process greatly enhances the memory building process and enriches the user-centered experience with the Balance Floor Lamp.

Balance Floor Lamp is shown here in its prototype stage. The design for the power cord placement requires further development since the weight and position of the cord affects both the balance of the system, as well as the simplicity of its visual composition. Currently the design of the movable hook for holding the counterbalance items is assembled using ready-made hardware. This mechanism could be simplified to a single piece of hardware which can move freely along the rod, but also secures quickly to hold the counterweight items. Elegant simplicity is manifests in the de-cluttered visual composition as well as the ease of operation.

USE INSTRUCTION



01
Balance Floor Lamp is a design based on a counter balance system. The movable hook to the right of the steel rod is for attaching weight to adjust the height of the light source.



02
In order to attain the desired height for illumination, it requires users to figure out the proper relationship between weight and distance from the hinge point for the counterbalance to be secured.



CONCEPT APPLIED	Integrate personal possessions Transform with users over time
MATERIAL	Solid ash wood ; Steel rod ; Hardware
CONSTRUCTION	Dado joints for base



Construction Details



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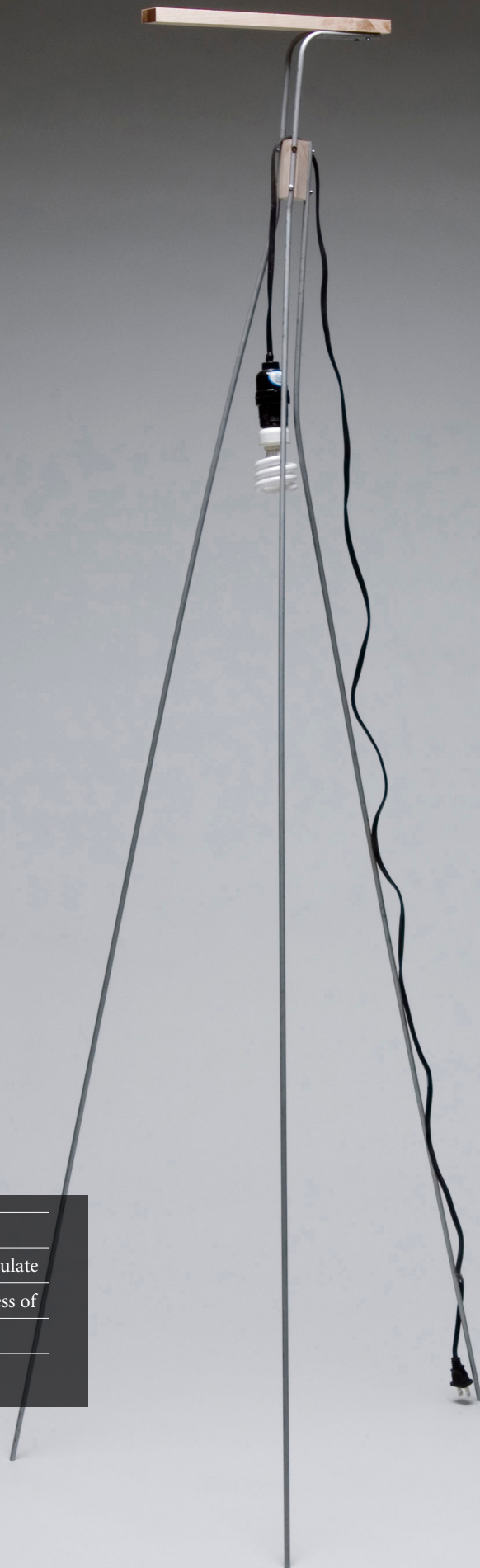
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March/April 2009
March/April 1995
March 2000

Use Demonstration







INITIAL VERSION

The design attempt is unable to stimulate a richer user interaction in the process of fulfilling the product function.



Conclusion

By employing the strategy of imperfection in tandem with three concept solutions, the four proposed products within this thesis study create rich and interactive user experience. At this stage, the strategy proves to be successful in encouraging memories to grow within each product. As ownership continues over the years, we can anticipate memories to accumulate and build up to long lasting product attachment. For further research, a long-term observation of actual usage is suggested to review how the emotional state changes over time.

The major challenge of this thesis project was to approach and to communicate the immaterial qualities, such as memory and emotional attachment. Those qualities cannot be easily analyzed in a quantitative way. They can only be felt and understood when a personal experience is associated. As a result, empathy is the best way to understand this project in which scenarios, examples, and images are more qualitative and serve as the main communication conduits for intuitive comprehension. Within a limited time, this thesis project can only explore four possible products in three product categories: tableware, furniture and lighting. If future design implementation can be expanded in more product categories to develop a wide range of practical applications, the concept of imperfection can be acknowledged and participated by the public as a powerful strategy to lengthen product lifespan.

PROJECT: LOVE YOURS proved to be challenging but rewarding. The content of emotional attachment it deals with is too complicated to fully explain, define, and express through physical design language. For this reason, emotional attachment is seldom be incorporated into a design development process. However, as the significant value of emotional attachment emerges as a cure to today's unhealthy material culture, I believe the path to rejuvenate our attachment to products is definitely worthy of more attention. This will not only require practical implementation from designers, but also public involvement as well. "We can only make products survive year after year if we realize that they are used and cared for by people who see them, feel them, understand them and dream about them." (VAN HINTE 1997, 105) This is the mentality of the greater value system that I have attempted to address through this project. When partnership and empathy are missing between an individual and a product, we cannot expect the relationship to be enduring and sustainable in the future. Objects are not merely tools, yet through the use of tools man has built empires, and our civilization has evolved. It is crucial that we respect and practice a more balanced partnership between humans and objects in order to avoid and perhaps even reduce complacency in our own futures.



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