

Utility in Home Fashion Design: Considered Design for Sustainability

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Abstract

Purpose: This research paper investigates and describes the concept of utility as a design principle in the home fashion design industry. It seeks to determine how considering an object's usefulness while at the design and development stages can give way to home fashion products that are made with materials and forms commensurate to their intended usage and whether this results in a lower likelihood of objects being discarded.

Methodology: The paper looks at past precedents in design movements where utility has been a design principle in order to ascertain the viability of re-introducing it into the present-day sphere of home fashion design. The Arts and Crafts and the Bauhaus movements are examined for this purpose. It also considers contemporary design theory and interviews with present home fashion designers to better understand how utility is defined in this field today. A practice-based project was also developed in the form of multi-material, model-sized, speculatively-designed chairs to provide a visual spectrum of utility.

Findings: The study concludes with the finding that utility is being practiced in home design in various manifestations and to differing degrees and that it does have a positive correlation to more sustainable outcomes, but that there is also an important opportunity for it to have a more significant role in the home fashion design process.

Originality/value: The written and visual format for study aspires to also be accessible to practicing designers and product developers who seek to better understand the impact of materiality and usefulness in their design work.

Keywords: utility, materiality, home fashion, considered design, Arts and Crafts, Bauhaus

ISBN: 978-989-54263-0-0

ACKNOWLEDGMENTS

I would like to thank the designers featured in this research from the following companies for generously sharing their time to speak with me and help me learn more about their inspiring design practice: Fog Linen, Eskayel, Fendi Casa, the Toan Nguyen Design Agency, Salty Labs, and the Healthy Materials Lab at Parsons School of Design.

Also, special thanks: to Adele Orcajada of MaterialDriven in London for sharing background research and industry insight as well as for encouraging a passion for materials, and Billie Coxhead at the Ravensbourne College of Design and Communication for supporting this work and generously offering her time and access to the Materials Library at her institution.

Finally, I would like to thank my family and friends for supporting me throughout this academic journey in London. I would like to give a special thank you to my friend, Laure Fernández, for all the brainstorming sessions throughout the course and for aesthetic critiques. I am especially grateful to my husband, Gregory, and my mother, Raquel, and my aunt, Vilma; they each have always believed in me and inspire me to continue on the journey of lifelong learning.

CHAPTER 1 - INTRODUCTION

“Have nothing in your house that you do not know to be useful, or believe to be beautiful.”

- William Morris, 1882

1.1 INTRODUCTION – A new paradigm for designers

The hypothesis proposes that a shift in how home fashion designers envisage a product’s *utility*¹ and *aesthetics*² through form and materiality at the design and development stages could yield more sustainable outcomes and could result in the development of products that will be less apt to be discarded and instead used to their full potential.

In exploring this hypothesis, the research develops a working definition of the term ‘design *logos*’. Specifically, it looks at whether a designer’s *considered*³ contemplation of design *logos* and its relationship to utility could be one way to move the home fashion design industry into a more sustainable practice. It also explores the synergies within historic design schools like the Arts and Crafts and the Bauhaus that have considered utility and aesthetics through form and material selection at the design stage. By drawing on these historical precedents, this project aims to develop a paradigm of considered design that could be one of the many needed approaches to designing more sustainable home fashion.

Additionally, this analysis includes development of four 3D speculative artefacts that each represent ideas that have been synthesised through this study. These four model-sized chairs aim to provide insight regarding the feasibility of applying the theories that have been developed through the written analysis. Photographs of these artefacts are included within this work.

¹*Utility*: The state of being useful or practical (Oxford Dictionary, 2017)

²*Aesthetics*: Concerning beauty or the appreciation of beauty, or pertaining to visual appearance (Oxford Dictionary, 2017)

³*Considered*: Having been thought about carefully (Oxford Dictionary, 2017). This research also regards this term as careful and analytical thinking that was done prior to taking any action and hence is preparative as well.

1.2 BACKGROUND –The researcher’s background and beginning the research

As the dictum from designer William Morris at the start of this chapter suggests, there are useful or beautiful objects and features within our home spaces. These two qualities, utility and aesthetic beauty, are among some of the values that I believe designed objects could aspire to impart.

My professional experience in the home fashion field, specifically with in the product design, development, and material sourcing sectors for home textiles over the past six years, has been the starting point for this research topic. When I began working with design and product development teams, I noticed a trend of scant holistic analysis amongst peers of all levels regarding their design work. Instead, I saw that aesthetic qualities were often the driving force behind design and product development decisions. Consideration about material quality often was only taken into account after the production of a design commenced and initial production samples were received. Furthermore, a lot of thought was given to the cost as well as the ‘bottom line’ and this would act as a constraint on the designers’ decisions. These factors led to a widespread failure to consider the ethics, environmental footprint, and future implications of the work home designers were producing.

The most common occurrence I observed of this design process was that the choice of materials was often incongruous with a product’s intended usage. This mismatch would frequently result in a product being considered faulty by the consumer who generally returned the item. This product would then be discarded and, in the process, generate waste. When this product ‘failure’ happened, what commonly occurred was that the item would be discontinued and replaced with a new iteration. I found this to be not only financially wasteful for the company and the consumer, but there was also cost from an environmental standpoint in terms of energy and materials.

It is during this period of my professional life that I read two books that inspired the origins of this hypothesis. In the midst of observing and even overseeing certain design and development decisions that embodied this lack of holistic analysis, I read Marcus Aurelius’ *Meditations* and *Cradle to Cradle* by chemist Michael Braungart and architect William McDonough. While these two books seem unrelated to each other, both books grapple with the inescapable fact that there is a two-way dynamic of impact between a single thing and the bigger system(s) it is part of. This simple truth clarified and affirmed for me that our design decisions affect far beyond the immediate users of our products.

I developed this topic during my master's course at London College of Fashion to reflect on possible solutions to this phenomenon of mismatched materiality. What changes could be made to the design process so that home fashion designers are better equipped to develop products that both serve a utilitarian and aesthetic purpose?

1.3 RATIONALE

Each year, over 23 million tons of textiles, including home textiles, end up in landfills in the United States (U.S. Environmental Protection Agency, 2016). This figure is increasing per annum and only 2.6 million pounds of textiles are recycled each year (U.S. Environmental Protection Agency, 2016). It is incumbent on designers to understand and optimise a design's potential usefulness, specifically through the choice of materials, to prevent the object from being deemed useless and discarded.

1.4 AIMS AND OBJECTIVES

This research was developed around specific aims and objectives to determine the viability of the hypothesis.

The aims of this project are to:

- Define what 'design *logos*' means within design practice and how it relates to designing for an object's utility or usefulness
- Describe how the Arts and Crafts and the Bauhaus movements practiced *considered* contemplation of design *logos*, and highlight examples of how they designed with both aesthetics and utility
- Examine current home fashion designers and their use of utility and aesthetics as design principles

The objectives of this project are to:

- Demonstrate how understanding design *logos* at the ideation and development stages could help home fashion designers develop products that are made with materials and typologies commensurate to their intended usage

- Present an analysis based on these historic design precedents and the methodologies of some modern home fashion designers that could guide the development of more sustainable products
- Develop multi-material artefacts based on practices from historic and modern home fashion design that express a visual and speculative spectrum of utility and aesthetics

1.5 STRUCTURE OF THE RESEARCH

Chapter two will contextualise the research question by providing a definition of the term ‘home fashion’ to establish the intended scope of this study.

Chapter three reviews historic design philosophies that have practiced a sensibility regarding design *logos* and aesthetics, especially in the vein of utility and beauty for home fashion objects.

Chapter four considers what current design theories exist surrounding the main research question while also presenting primary data from interviews conducted with four home fashion designers.

Chapter six explains the methodological techniques used to develop this thesis’ written dissertation and 3D speculative design practice.

Chapter five presents the conclusions from the written and 3D design research.

CHAPTER 2 - DEFINING 'HOME FASHION'

A home fashion designer develops objects that will be used within home spaces. The objects these designers create are typically broken down into two categories; soft goods (textiles) and hard goods (furniture and housewares). Home textiles could refer to anything from bedding, decorative cushions, towels, carpets, curtains to tablecloths, placemats, and napkins, as noted in Jane Churchill's work, *Complete Book of Soft Furnishings* (2004, p. 10).

Furniture, which could refer to chairs, tables, sofas, beds, desks, armoires, and so on, figures heavily within the home space. Other hard goods include the sphere of lighting and the fixtures that accompany it, as well as ceramics and other hard materials like stone and glass that could be anything from tiles and washbasins to vases and serveware. As such, if a home fashion designer has a specialisation, they can identify as a 'home textile designer' or 'lightning designer', for instance.

Regardless of whether a home fashion designer has a specialty in a kind of material or medium, there are some universal tenets they may consider as they carry out their practice. As Rachael Brown and Lorraine Farrelly point out in their book, *Materials and Interior Design*, 'home fashion [designers] must be able to assess the aesthetic and functional properties of materials...[and they] must also understand how their choice of materials will define the character of an interior environment and inform how the space is experienced by its occupants' (2012, p. 6). It is incumbent on all designers within this capacity to '[examine] how and why materials are selected for different contexts' as well as consider the 'readings and meanings of materials' that are used to develop home fashion products (2012, p. 6).

Indeed, the way in which 'materials are used in an interior environment can be informed by historical, cultural, and physical contexts' as well as by the 'traditions and conventions' that the designer has (2012, p. 7). A home fashion designer must take into account all of these factors at all stages of the design process as the choice they make of their design's form, function, and materials will impact the emotional and physical well-being of the user as well as shape the interior environment.

CHAPTER 3 - LOOKING AT PAST DESIGN FOR PRECEDENT

“To apply art to useful wares, in short, is not frivolity, but a part of the serious business of life.”

– William Morris, 1889

3.1 UNDERSTANDING DESIGN LOGOS

The introductory chapter of this research alluded to the development of the term ‘design *logos*’. This term began to take form after having read two books that both highlighted how all things, including designed objects, have an inherent circularity of cause and effect on their surroundings. As this cause and effect extends to the natural environment as well as to users of objects, this seemed like it could be refined, given a name, and then integrated into the design process to catalyse a more holistic awareness of products and their impact.

While the term itself may be novel, the essence of design *logos* has existed among various design movements. The focal point of this research is to determine if home fashion designers that understand and optimise a design’s potential usefulness, specifically through their choice of materials, correlate to a decrease of objects being deemed useless and discarded. The research theorises that the first step in creating this kind of design practice is to consider a design’s *logos* and this section will attempt to explain what design *logos* means.

The term *logos* was first coined in ancient Greece, around the fifth century BCE. It is derived from a Greek word that has multiple but semantically-related definitions, including ‘reason’, ‘word’, ‘opinion’, ‘discourse’ (Stanford Encyclopedia of Philosophy). In the book *Meditations*, which is a collection of writings by Roman emperor and philosopher Marcus Aurelius, there is a reference to a unique interpretation of *logos* by Greek philosopher Heraclitus from the fourth century BCE, who postulated that ‘[*logos*] is the universal principle or cosmic law in accordance with which all things come to pass’ (1997, p. 37).

This definition is abstract but the basic sense of totality and eventuality that it summons could be applied to the design industry and how products are designed. It presents designers with the reality that one day, their designs will be subject to this same ‘cosmic law’. In practical terms, a designed object will either physically deteriorate or it could cease being useful or enjoyed by users. This totality and eventuality of all processes

and things throughout the universe that *Meditations* refers to is the basis of cause and effect. This basic understanding could inspire designers to consider what a product's post-use impact could be because it will inevitably have an effect.

The second book I read at around the same time demonstrated a design process that was underpinned by the understanding of cause and effect. In the seminal 2002 book *Cradle to Cradle: Remaking the Way We Make Things* by Michael Braungart and William McDonough, cradle-to-cradle philosophy is discussed as a biomimetic design approach that is inspired by nature's production of materials that can be reused and circulated endlessly, resulting in a circular economy (2002, p. 13). This philosophy specifically points out how nature itself generates 'waste' through basic and necessary processes and then uses this waste as a nutrient that goes back into the biosphere (2002, p. 32). This tenet of circularity was instrumental in honing the meaning of *logos* for this study. Like Heraclitus' definition of *logos*, cradle-to-cradle also considers totality and it encourages holistic analysis of a design, with particular emphasis on materials. One of the objectives of cradle-to-cradle philosophy is to design with materials that will not merely cause less net-harm to the environment but that will give back nutrients or otherwise enhance the environment once they are no longer used in their initial capacity (2002, p. 31). In this way, cradle-to-cradle envisages a material's utility at all stages of its existence.

Between Heraclitus' inference of totality and eventuality and cradle-to-cradle's holistic analysis that is led by the knowledge that a design's form and materials will impact the environment throughout its life, *logos* can be interpreted to mean the comprehensive nature of something. Understanding something's *logos* could mean considering its timeline, its lifecycle, its purpose, its shape, its material essence, its basic 'reason' for being, with this latter trait being one of the word's definitions in Greek. After all, with these both abstract and tangible meanings, we can see why there have been distinct yet philosophically-related definitions for the word since ancient Greece.

The phrase 'design *logos*' will be used throughout this research and in the interest of clarity, it will be used to refer to a design's form, materiality, and function.

3.2 THE RISE OF HOME FASHION DESIGN & THE ARTS AND CRAFTS MOVEMENT

The following sections examine how the Arts and Crafts and the Bauhaus movements each considered design *logos* at the ideation and development stages of design. While neither of these movements explicitly used the terms *utility* or *logos* to describe their design ethos, they each notably embraced the convergence of function and aesthetics in their designs through a focus on form and materials. In this vein, they serve as examples of how designers can optimise for a product's potential usefulness through this considered analysis.

The socio-cultural milieu that shaped the emergence of the Arts and Crafts during the reign of Great Britain's Queen Victoria (1837-1901) also catalysed the foundation of home fashion design as a formal industry as noted in John Pile's book, *History of Interior Design* (2009, p 13). Until the nineteenth century, there was a small middle-class in Great Britain that was composed of tradesmen and skilled craftsmen. This stratum also included the artisans who made objects such as rugs, draperies, upholstered furniture and ceramics that were used to decorate the sumptuous homes of the upper-class (2009, p. 251). Yet, Britain was to change forever as the Industrial Revolution took hold in the first half of the nineteenth century. The proliferation of mills, factories, and mines was a source of new employment and wealth. As new industries flourished, the lower-classes flocked from agricultural fields to cities to find work and the middle-class began to grow. Between the evolution of industrialised mechanisation and an increase of the bourgeoisie's spending power, a new phenomenon surfaced; inexpensive and mass-produced decorative objects were within the reach of the new and ever-growing middle class.

Historian Nikolaus Pevsner notes in his book, *Pioneers of Modern Design: from William Morris to Walter Gropius*, that within a generation, the social system that had been in place since medieval times 'was swept out of existence, and with it the class of cultured and leisurely patrons as well as the class of cultured and guild-trained craftsmen', the latter of which had been an integral part of the previous middle class schema (1949, p. 23).

Against this landscape of mass production and consumption of poorly designed goods, a discourse about aesthetics began to take form (Victoria and Albert Museum, 2017). One of the first thinkers in this realm was English art critic John Ruskin (1819-1900), who was then followed by his disciple, the English designer William Morris (1834-1896). The societal and cultural shifts that had taken root at the start of the Industrial Revolution led both Ruskin and Morris to 'realise how precarious and decayed the social foundations of art had become during the centuries since the Renaissance' (1949, p. 9).

In response to the 'garish ornamentation [that] became the norm of Victorian style' because of the unfettered ability of factories to mass-produce homewares, Morris chose to establish his own design firm in 1861 called Morris, Marshall, Faulkner & Co. (1949, p. 11). The firm produced tapestries, wallpaper, fabrics, furniture, and stained glass windows (The William Morris Society, 2017). By founding what would become a very successful business, Morris established a rightful place for home fashion in the design field while also securing the foundations of the Arts and Crafts movement.

One of the central tenets of the Arts and Crafts movement was that the design of objects should be 'fit for purpose' (Victoria and Albert, 2017). Morris derided the crude home goods that had been mass-produced by the Victorian industrial machine. His antipathy towards these objects arose from the holistic view that he practised in the design process. One facet of this view that directly incited his disdain toward these objects was his belief that the visionary force behind the designs was absent when objects were ideated and made in factories. 'When weaving became an industrial operation and the mill hand had no role in the design of the textiles the factory produced', he noted, part of the object's essence was missing as Morris felt that the tradition and spirit behind understanding a design was what made objects 'fit for purpose' (Pile, p. 252). In this way, he believed the maker instilled purpose and function into objects and as such, designers should carefully consider what they incorporate into an object because it is an extension of their reasoning. This evidences how Morris considered the concept of design *logos* and a designer's awareness of it to be integral making useful products.

Morris was also an early advocate of environmental stewardship (The William Morris Gallery, 2017). He recognised how decisions made in his design studio would directly affect the form and materials that products would end up having. He was also aware that a 'bad' decision could result in work that was ultimately wasteful. In his essay, *Useful Work versus Useless Toil*, Morris remarked that 'we are living in an epoch where there is combat between commercialism, or the system of reckless waste, and communism, or the system of neighbourly common sense' (1888, p. 9). His attention to designing with the aim of not generating waste was renowned as was his attention to not overdesigning objects, which he also saw as wasteful. In a lecture Morris gave in Birmingham, which is documented in the book, *Hopes and Fears for Art: Five Lectures Delivered in Birmingham, London, and Nottingham 1878-1881*, he famously quipped when discussing extravagant Victorian goods that he had 'never been in a rich man's house which would have not looked the better for having a bonfire made outside of it of nine-tenths of all that it held' (1882, p. 67). With Morris leading the way, the Arts and Crafts encouraged careful consideration of a design's typology as well as what materials and quantities of materials would be used to manifest a design.

Morris' socio-design philosophy also confronted a convention of his day that espoused the idea that 'all work is useful', which Morris surmised was developed to 'cheer on the happy worker with congratulations and praises' (1888, p. 2). He denounced this 'creed of modern morality that all labour is good in itself' as 'a convenient belief to those who live on the labour of others' (1888, p. 4). Drawing on his experience as a designer, he encourages all workers to 'not to take it on trust' that the work they are doing is useful and 'to look into [how they work] a little deeper' (1888, p. 1). This call to more carefully reflect on the usefulness of the work we perform is valuable in that it encourages thinking of oneself not only in isolation but how our work may affect the rest of the world.

3.3 DESCENDANT OF THE ARTS AND CRAFTS: THE BAUHAUS

The Arts and Crafts movement's influence across the design field was felt in continental Europe and in the United States. Furniture design historian Kathryn McNerney notes that American furniture maker Gustav Stickley (1858-1942) commiserated with Morris' criticisms of Victorian design (*American Oak Furniture*, 1984, p. 11) and 'functionalism' was amongst 'his live by words'. Stickley went on to become a leader of the American Craftsmen movement, which was the American arm of the British Arts and Crafts. The Arts and Crafts began to see its cohesion wane by 1914, according to Nikolaus Pevsner (1949, p. 11) but the movement did not end before ushering in a new era of design known today as the '*Modern Movement*'. The Modern Movement is marked by the incorporation of machinery in the design practice (1949, p. 12). While Ruskin and Morris inveighed against the use of machines in the practice of design and craft, the second generation of Arts and Crafts followers began to consider that the machine should not be rejected but rather mastered as 'it may necessary and useful as the servant and labor-saver of man' (1949, p. 11).

One design philosophy that grew from the roots of the Modern Movement is the Bauhaus movement. Officially founded in 1919 in the Weimar Republic, German architect Walter Gropius (1883-1969) was at the helm of this design school. While Gropius formally founded the school, he was indelibly influenced by German architect and diplomat Hermann Muthesius (1861-1927). Muthesius' time as a diplomat in the German embassy in London exposed him to the Arts and Crafts movement in Britain. Upon returning to Germany, he sought ways to practice *Sachlichkeit* in design. *Sachlichkeit* has no precise translation in English, but Nikolaus Pevsner attempts to decode it as 'objective', 'reasoning', 'matter-of-fact' (1949, p. 15). Muthesius believed designers could practice *Sachlichkeit* as a form of disciplined awareness in their design of objects to achieve 'perfect and pure utility' (1949, p. 15). In this way, we see the practice of

design awareness in *Sachlichkeit* aligning with awareness of form and materiality in design *logos*, particularly when we compare that both words have ‘reasoning’ among their definitions.

With this as a launching point, the Bauhaus evolved into a design school that included architecture, visual art, textiles, and homewares. The movement was named after the term *Bauhaus*, which was conceived by Gropius. Per art historian Judith Carmel-Arthur, the term is broken down as follows: the German verb ‘*bauen* – to build – with the noun *Haus*’. Though not an entirely precise translation, Carmel-Arthur states that ‘the word Bauhaus roughly [means] ‘house for building’ (*Bauhaus*, 2000, p. 11). The usage of the word ‘house’ was not a coincidence as Gropius believed the inclusion of the word ‘house’ would evoke a sense of wholeness at the core of the design philosophy. Tellingly, the term *Bauhaus* itself was ‘essentially a metaphor for Gropius’ belief in the theory of *Gesamtkunstwerk*’, which translates to mean ‘total work of art’ (2000, p. 11). This meaning aimed to inspire both the designer and user to gauge objects in their totality, notes Carmel-Arthur (2000, p. 14). This meant considering the materiality of the object, the machines used to produce the object, and the physical form of the design. Art historian Marcel Franciscono notes that the Bauhaus embraced the core essence of objects partly as a response to the by-then firmly cemented role of machines in producing these objects (1971, p. 39).

As documented by design professor, David Raizman in his book *History of Modern Design: Graphics and Products Since the Industrial Revolution*, Gropius’ manifesto proclaimed that the Bauhaus would ‘create a new guild of craftsmen without the class-distinctions that raise an arrogant barrier between craftsmen and artists’ (2004, p. 181). With design that sought to no longer be controlled by the taste of a certain class, usefulness arose as the prime mover of the Bauhaus school. Within this evolution, there was an effort to return to the essence of objects. Through this exercise, it was believed that the essence of man would also re-emerge (1971, p. 35). In this way, this idea echoes Morris’ belief that design was to be undertaken carefully as the finished object would reflect its designer. This focus on the ‘essential’ also meant that it was crucial to identify the nonessential.

It is important to note that this propensity to design with utility in mind is not ‘anti-aesthetic’, as art historian John Masheck points in his book *Adolf Loos, The Art of Architecture* (2013, p 8). Alfred Loos, one of the prime architects in the Bauhaus, wrote an essay entitled *Ornament and Crime* and in it, he posited that ‘pure beauty in an individual work is the degree to which it attains utility and the harmony of all parts in relation to each other’ (1949, p. 14).

However, while Loos was considered a ‘prophet of functionalism, he was never prepared to reduce [design] to mere functionalist-utilitarian determinism himself’ (2013, p. 8). Indeed, the ‘de-ornamentalized simplicity’ that marked Loos’ work may have seemed austere and merely utilitarian (p. 2013, p. 8). Nonetheless, Loos practiced the Bauhausian theory of *Gesamtkunstwerk* through his appreciation and considered use of materiality. Architecture professor Brian Andrews argues that Loos ‘utilised materials in a manner that transcended the mere act of application and instead wove together architecture and culture’ (2010, p. 438). Though the exterior of Loos’ buildings may have scant ornamentation, the interiors are designed with expressive materials like stone, marble, and wood (2013, p. 24). By choosing to design with these materials, Loos highlights the natural patterns of these surfaces and establishes a unique but nonetheless, considered aesthetic.

In this way, Loos is a prime example of a designer can practice considered design with the aim of achieving utility and aesthetics. Most notably, Loos did this through awareness of design *logos*, specifically the examination of materiality and this holistically informed his design decisions. Loos proved that designing for utility does not mean that aesthetics or ornament are excluded. Rather, Loos elevated aesthetics and deems its ideation as worthy of analysis as utility. As he once said ‘to find beauty in form instead of making it depend on ornament is the goal towards which humanity is aspiring’ (1949, p. 14).

CHAPTER 4 - PRESENT DAY DESIGN THEORY AND PRACTICE REGARDING UTILITY

4.1 TODAY'S THEORIES

While past design movements like the Arts and Crafts and the Bauhaus developed distinguished design theories regarding utility that designers today could look to for inspiration, there are also some more recent maxims that have been put forth by design researchers.

Bruce Archer (1922-2005), renowned professor at the Royal College of Art, studied the importance of utility within the design field and incorporated this subject into his courses. Archer specifically looked at the relationship between the value assigned to an object and an object's usefulness (1974, p. 70). In his book *Design Awareness and Planned Creativity in Industry*, Archer examines how a user's value assignment of an object can be increased through that object's design. As he explores this question, Archer suggests that there are numerous manifestations of utility that can exist within a single object. He implores students to try to understand this multiplicity of utility but he also cautions that each form of utility can have its own subjective quality that is rendered in relation to the user's perception of an object (1974, p. 74).

However, despite this omnipresent subjectivity in value assignment, Archer asserts that the 'most obvious value-inducing attribute in any product or service is utility.' (1974, p. 76). Archer clarifies that while utility is indeed unique to each user of an object, a designer should still seek to create a form that proves useful in some overarching capacity. He says 'the term "utility" is used here, not in the economist's sense, which means "that which induces value" and which is tautological in this context, but in the plain-language sense meaning "usefulness"' (1974, p. 76).

Relevant to this thesis, Archer posits that as designers we can incorporate cognizance of an object's potential usefulness into our design practice and have this shape our aesthetic vision. In fact, Archer believes designers are in unique position to always increase the 'marginal usefulness of [a] product' by 'giving it greater capacity, great power' or any other attribute that gives a product the legitimacy to increase its marginal value and turn it into a 'premium' (1974, p. 76). In this vein, exploring materiality to give an object more capacity, for instance, would be a possible implementation of this design theory.

Another acclaimed design theorist is Nigel Cross (b. 1942). Cross has dedicated his career to researching how designers across various domains think and work, including how they design for usefulness in objects. Cross' book, *Design Thinking*, explores what 'really happens in design thinking' and tries to breakdown

the reasoning processes (2011, p. 10). Cross believes designers practice a ‘logic of design’, which ‘provides the means to shift and transfer thought between the required purpose or function of some activity and appropriate forms for an object to satisfy that purpose (2011, p. 10).

In *Design Thinking*, Cross compiles case studies of designers that clearly illustrate their thinking and methodology. One instance that stands out is a case where Cross points out the designer’s innovative work is ‘generated from considering and responding to the normal patterns of [the object’s] use’. Cross notes that approaching design from a functional standpoint should look at the whole pattern of use, including the basics of how the object itself is supposed to function as well as how the user directly interacts with the object. It is based on this holistic approach that designers can see where shortcomings in an object’s design; from this point, designers may produce innovative or even radical design proposals (2011, p. 60).

Cross aligns this kind of design practice to theories on reflective practice put forth by Donald Schön (1930-1997), who was a renowned learning theorist in the twentieth century. Cross asserts that Schön established his theories ‘as a counter to the prevailing theory of technical rationality’ (2011, p. 23). In effect, Schön called for ‘competent practitioners to actually engage with their practice’ and for design to be ‘a reflective conversation with the situation’ (2011, p. 23).

This form of reflective and in-situ contemplation by designers could provide them with an opportunity to confront the design *logos* of an ideated or existing object. As noted in Cross’ case study above, it is this kind of consideration that could allow the designer to distil the essence of an object so that they see, unencumbered, a possible design solution. This reflective practice gives the designer a chance to ‘shape the situation, in accordance with [their] initial appreciation of it, the situation “talks back”, and [the designer] responds to the situation’s back-talk’ (2011, p. 23). This is an iterative process and each time this process is done in the design field, there is an exciting potential for an entirely new form to emerge.

4.2 TODAY’S PRACTICE: Thematic analysis of primary data

For this study, I interviewed four home fashion designers to understand the design process each designer goes through when developing products, to identify which practices consider utility through materiality,

and to determine if and how *utility* and *materiality* informed the designers' process. The analysis of these interviews is broken down into three parts: a) product life & longevity, b) material consideration, c) the utility of a design

The four designers work with different media and within distinct areas of home fashion:

- a home textile designer who works for textile brand *Fog Linen* (designer A)
- a surface pattern textile designer who works for textile brand *Eskayel* (designer B)
- an industrial designer who has designed furniture for *Fendi Casa* (designer C)
- a furniture designer who works for the design collective *Salty Labs* (designer D).

These designers were chosen because, together as 'soft' and 'hard' goods designers, they represent the diversity of design within the home fashion market. Additionally, each designer has practiced some form of considered analysis in their design process and/or designed objects that have a significant utilitarian aspect.

4.3 THEMATIC ANALYSIS #1: Product life & longevity

The interview question asked the designers if they '*ever thought about what would happen to a product [they had designed] at the end of its life⁴ and if so, did that affect the design process?*'.

Designers C and D affirmed that they do consider what happens to their products across the course of their existence. Of the remaining two designers, designer B did not give a direct affirmation or negation, and designer A said that they did '*not really*' think about it. However, within the same response to this question, all four designers mentioned they do consider some aspect of ecology in reference to their design work. This is notable as the question did not mention ecology. Even more noteworthy is the instance of designer A who said they did '*not really*' think about product life, yet they chose to mention in this response that they actively selected '*eco-friendly*' materials (appendix A).

The conclusions I can draw are that more designers than I originally assumed are practicing some awareness of the environmental impact of their work but do not label it as 'sustainable design' or even consider

⁴ *Life* is proposed as a neutral term for the purposes of this question. '*Lifecycle*' has become associated with sustainability and environmental awareness, whereas '*life*' invokes a more general timeline of a product's existence

themselves to be practitioners of 'sustainable design'. Sustainable design is presently an amorphous and still-evolving discipline and it can be manifested in myriad ways. It is more of an umbrella term at this point, which contains multiple and diverse forms of design that consider the environment. It is possible that the lack of unified design philosophy within 'sustainable design' causes some designers to not identify themselves 'sustainable designers' but they nonetheless practice some form of ecological awareness in their work.

Furthermore, all four of the designers mentioned that they consider product longevity when designing. Designer A, who said they did '*not really*' think about product life but who then followed that by stating they chose to use '*eco-friendly*' materials also said that they chose materials that could be '*used for a long time*' (appendix A). Designer B, who did not directly affirm or negate whether they thought about a product's life, also mentioned in this response that they chose materials based on the idea that they would '*last a really long time if taken care of*' (appendix B).

Once more we see that the idea of 'product life' is something that these designers take into account in some form, despite some of them directly or indirectly stating that they did not consider it. Moreover, it is striking that they each considered ecology in some fashion when asked about product life and that they see a positive correlation between the environment and long-lasting products.

This consideration was particularly evident when designer C, who was one of the two that did affirm that they do consider what happens to their products, said the following in response to these questions: '*the question of sustainability is something you cannot avoid anymore*'. Further in their response, they also mentioned that '*if something is well-done, you buy it and can give it onto your sons. I think it's the dream of many designers to create products that could last forever.*' Interestingly though, the designer then closed their response by stating that '*maybe it's scary to think about. It's difficult for me to think about the second life of a product because I am so focused on the first life and that its first life can go on for years; that it's easy to clean and maintain, that it's easy to re-upholster, and you don't have to ever trash it*' (appendix C).

This introduces an intriguing idea that designers could feel intimidated or unsure of how to develop a long-lasting product that simultaneously will be desired or enjoyed by future generations. Understanding the design *logos*, utility, or materiality of a design may very well help a designer develop objects that are resilient or that have a positive relationship with the environment, but it may be that these are not the same driving qualities that a designer contemplates when creating an object that will be wanted or needed for a future that can only be imagined. From this we can derive that design, especially as an expressive medium,

is subject to reckoning existential questions that also arise in other walks of life. In this way, designing shares some interesting parallels to how everyday life is lived, decided, and considered.

4.4 THEMATIC ANALYSIS #2: Material consideration

Materiality was given significant attention by these designers and often overlapped with other areas of concern like the environment, durability, and quality. As noted in the preceding section, three out of the four designers explicitly mentioned their usage of ‘eco-friendly materials’ in their designs when asked about product life. However, there were two sets of questions in the interview that directly asked the designers about materiality.

The first question asked if they *‘performed any testing on materials before initiating the design process and if so, what did that testing involve?’*.

The second question asked *‘how they choose the materials they were going use for a project and what criteria they applied when selecting materials?’*. They were also asked *‘if there was anything that limited their ability to study materials?’*.

Designer A and D answered that they performed testing on materials. Designer A stated that only if it were necessary, they would get the fabrics they wanted to use in their designs *‘tested for color changes and strength at a lab’*. Notably, though, they would *‘otherwise test the products [in their] home’* and put them through cycles of expected usage (appendix A). This designer was the only one who mentioned using their own home as a space to test materials and product.

Designer D, also performed tests of materials and revealed that they did extensive evaluation and research in this sphere. They mentioned that part of their company’s branding is based on the selection of materials that will not cause harm to the environment or human health, therefore this testing and research is integrally built into their design process and product development.

This designer went on to explicitly discuss their process in selecting the materials they use in their design and how they try to keep the environment as well as health in mind. Specifically, they ask the following questions regarding materials before beginning their design process: *‘Where was it made? What is its carbon footprint? What kind of impact did it have on the environment to get to where it is now? What is the*

impact on the environment to make that kind of material? Who lives near the factory that makes the material and are they being affected? Who are the people in the factory making the material and are they being affected? When it gets into the home of the person, are there additional emissions? Is there off-gassing? (appendix D).

This effort to break down a material's *logos* through the lens of environmental health before committing to its use in a design is an example of analytical and *considered* contemplation. The designer is actively trying to determine, at a hypothetical stage, what kind of effect a material would have on the user of the product and on the planet. Undertaking this analysis to understand the essence of a material through exploring its physicality as well as its chemical and biological impacts, in the designer's words, is 'an evaluative process'. This designer mentioned that 'there are many tools, like *Cradle to Cradle*, that offer an evaluation.' Furthermore, they pointed out that 'there is a big push now for materials to now have a *Health Product Declaration*', which would state 'the ingredients in a manufactured material' with the aim of being transparent. This designer felt transparency was important: '*[with transparency], then [a designer] can make that evaluation*'. They explained that '*to know what a material is a big thing, before you specify it for a built environment.*' However, they also disclosed that this kind of process '*can be anywhere from an hour's worth of research to 20 hours' worth of research depending on what [the material] is' [and it also depends] on whether anyone else has done that evaluative process.*' (appendix D)

Compellingly, this designer brought up a point pertinent to *considered* contemplation and interdisciplinary design thinking that is relevant to this research's hypothesis: '*[the] whole questioning, that whole understanding about knowing what to ask about a material and where to find that information is a big piece*' (appendix D). Encouragingly, this designer then mentioned that the Healthy Materials Lab at the Parsons School of Design seeks to establish this kind of practice and act as a resource for designers. This designer also has an integral role at this lab and as such, their practice exemplifies a paradigm of design that is as much based on considered analysis and holistic thinking as it is on aesthetics. In the conclusion of their response to these questions about materiality, this designer closed with the following: '*to get to these questions from the very beginning [of the design process] isn't an option. It's not an optional feature, this is fundamental!*' (appendix D).

The remaining two designers, designers B and C, who answered that they did not perform material testing, each had responses that explained why this was so. For designer B, who is a textile designer, they felt it was not necessary to test materials as they '*are always designing art for the same products, textiles, wallpaper, rugs, and soft goods. We are already familiar with how our clients use these things so our*

design process is more about renewing the surface art. We try and stick with things that are already tested. We are primarily designing surfaces; we don't have a ton of interest in materials are not already tried and true' (appendix B).

For the designer C, an industrial designer, they answered in the following way: *'for me, testing [materials] is trying to have an intuition of what we can do and then we interface with people who actually have the most advanced and technical knowledge regarding material'* (appendix C).

In both instances, these two designers depend on processes outside of their direct and ongoing design jurisdiction to determine material usage. In the case of the first of these two designers, they prefer to rely on materials that already have been determined to be ideal media for their work and they identify that the prime mover of their practice is surface design, not materiality. For the second designer, they express having an intuitive sense surrounding what materials they will use for their design, but because of the large size and stratified structure of the companies they have worked for, material specialists step in and take over the sphere of research and testing.

4.5 THEMATIC ANALYSIS #3: The utility of a design

The topic of utility was incorporated into the interview through two sets of questions. The first questions asked *'when designing a product, what kind of thought do you give to how people will use it? Does it affect/change your design process? If yes, could you give some examples?'*

The second question was: *'What is more important in a design, utility/usefulness or beauty?'*

With respect to the first set of questions, all four designers affirmed that they considered how their designs would ultimately be used. However, the degree to which this was part of their design thinking was varied.

Designers A and B provided responses to these questions that revealed they considered usage solely to the point where it remained relative and familiar to their own perception of usefulness. For example, designer A replied that the way they thought of usage when developing products was led by the belief that if they themselves *'like [their] own products'*, then *'there will be enough [people like me] to like the same things'* (appendix A). This belief was deeply held by the designer as they concluded their answer with the affirmation that this approach promotes and assures the continuation of their brand.

A relativistic and subjective perspective was also taken by designer B, who replied that they felt they had already achieved an understanding of how *'how clients use [their] products'* because they always designed *'for the same products; textiles, wallpaper, rugs, and soft goods'*. This designer believed that their familiarity with how their products were used by clients allowed their *'design process [to be] more about renewing the surface art'*. They mentioned that their approach was to *'try and stick with things that are already tested'* because they *'are primarily designing surfaces'*. They also revealed that they *'don't have a ton of interest in developing new materials that need to be tested or are not already tried and true'* (appendix B). One theory that I draw from this answer is that if the typology, form, and materiality of products do not change significantly between iterations of designs and assuming that these qualities have been optimised to their maximum, then logically the focus of the designer would be to optimise the aesthetics. As the home fashion world also operates with the release of seasonal collections, the designer then becomes an explorer of aesthetics as there is a built-in drive to continue producing more.

In their answers to the first set of questions about utility, Designer C and D coincidentally both stated that the prime mover of their design process is the usability of their products. Designer C mentioned that *'the [end] result is my starting point. I'm thinking about the object that will exist at the end of the process, the object that may end up on a table and what effect it will have and how functional it will be'* (appendix C). Designer D mentioned a similar design process led by the envisioning of how a product will be used. They stated that *'it's about how you think about who will be using this at the end. That's how it begins. That doesn't happen halfway through or at the end'* (appendix D).

I surmise that designers C and D are practising a form of *considered* contemplation as they analyse the function and effect a finished object will have before the design process begins. Certainly, all designers envision what their work will look like once it is completed but with these two designers, we see a contemplation of an object's design *logos* that specifically conceptualises a more holistic view of the object to assess its usability.

In terms of the second question that asked whether utility or beauty was more important in a design, only designer A answered that utility is more important to them. They justified this by noting that their products are designed for *'daily use, therefore [I want] them to be useful'* (appendix A).

The remaining three designers each answered along the lines of both utility and beauty being equivalently important. Designer B simply answered that both qualities *'are equally important'* (appendix B). Designers

C and D provided similar answers to each other, which was notable as they also answered the first set of questions about usage similarly with both expressing their belief that how a product will be used guides the design process. Interestingly, both designers work with hard goods, which suggests that the kind of materials a designer works with could influence how they approach design analysis, design *logos* and utility.

Designer D answered that *'[utility and beauty] are inseparable. I don't think they are two different things. Something cannot be beautiful if it's not useful or if it doesn't have some utility'* (appendix D). Designer C replied that *'[utility and beauty are] all together. It's like saying what's most important in a person, like which of their qualities are better than other qualities. Each quality on its own may not be perfect, but all together create someone. I don't want to compare people to objects but the value you give to an object is a sum of its parts. If it's only functional, you can see how it's effective but it's not a sexy product. You need an aesthetic approach with materiality, it has to be something that when you touch it, you want to use it. Its value is a mix of objective and subjective thinking.'* (appendix C).

The idea that 'something cannot be beautiful if it's not useful or if it doesn't have some utility' does not just apply to the design world. Designer D, who expressed this idea, followed by noting that art also has *'a certain kind of usefulness to it that has to do with cultural meaning and transcending the day to day experience'* and that *'art often acts as the device that transcends someone from the moment they're in into another place, so that's another kind of utility'* (appendix D).

As I have conducted this research, I have come to internalise that indeed, like most things in life, the value given to utility and aesthetics is governed by 'a mix of objective and subjective thinking'. Consequently, what I may find useful may prove useless to another person and vice versa and certainly with respect to aesthetics, this is well known with the classic maxim *'beauty is in the eye of the beholder'*. One of these designers mentioned that *'the value you give to an object is a sum of its parts'*. Perhaps then by channelling focus at the ideation stage to design *logos*, designers can give some thought to how to parts of the design can be aesthetically enhanced by taking care to choose materials that will be suited to its intention. In this way, designing for utility and aesthetics is not as compartmentalised and we could approach design with the idea that utility and beauty are inseparable and they are not two different things.

CHAPTER 5 - RESEARCH DESIGN AND METHODOLOGY

5.1 INTRODUCTION

The methods of this research were largely guided by the experience of previously writing a literature review during which I discovered historical precedents to the theory of utility and aesthetics in home fashion design, like the Arts and Crafts. However, I also found that there had not been a significant contemporary re-interpretation of this idea with the aim of adapting it for current home fashion design practice.

A multi-methodology qualitative framework was employed so both the written work and the practice-based artefacts could be fully developed. This chapter has been broken down into sections that detail the methodologies I used to approach the research and the corresponding research tools that were used.

5.2 METHODOLOGY #1: PERSONAL OBSERVATION

The research question formed from my observations while working in the home textile industry. These observations led to questioning the potential of ‘utility as a design principle’ to aid this industry in having more sustainable outcomes. I drew from sociologist Guillermina Jasso’s essay, *Principles of Theoretical Analysis*, which notes that ‘a theoretical approach allows a proposition concerning the relationships among observable phenomena to be developed and then tested’ (1988, p. 1).

In this instance, my theory directly arose from a phenomenon I saw in the workplace. My next step was to conduct a preliminary investigation to ascertain what research had been done around this theory. This culminated in an initial literature review that mostly drew from secondary sources. This review exposed a dearth of research that was directly pertinent to understanding utility from a home fashion designer’s perspective. This meant that, based on existing data, it would be impossible to prove whether products that had been designed with material commensurate to their intended use had any correlation to a designer’s awareness of utility or whether these products were less apt to be discarded.

Because of the limited availability of existing research that triangulated sustainability, home fashion, and design philosophy, namely awareness of utility, it was necessary to design a coaxial research strategy for this project that explored different disciplines. Each part of the study used distinct research methodologies to support this multi-pronged, theory-based approach.

5.3 METHODOLOGY #2: HISTORICAL ANALYSIS

While the initial research indicated a lack of data on how home fashion designers consider utility within their design methodology or whether utility has any positive correlation with sustainability, I did learn through this literature review that utility was a point of consideration across historic design schools.

Historical analysis was employed when examining the two design schools that this research looks to for precedence regarding the use of utility as a design principle. Both primary and secondary data sources were studied for this. There is a wealth of secondary data as these two schools have been written about widely by academics and design researchers. However, as both design schools existed relatively recently and the Arts and Crafts had its origins in Britain, there was also considerable primary data that was available and physically accessible.

The William Morris Gallery in London contains significant primary data as William Morris' journals are on display there as are photographs from the period of the Arts and Crafts movement. Transcripts of Morris' speeches and other writings he published were available too at this gallery and were drawn upon for this research.

I also attended the Tate Liverpool's temporary exhibition in summer 2017 about the Weimar Republic as this republic's existence coincided exactly with that of the Bauhaus' timeline. The exhibition, which featured photographs, paintings and journals, provided an excellent illustration of what greater German society and the arts were like during the Weimar Republic (*Portraying a Nation: Germany 1919–1933*, 2017).

Once I better understood the historical conditions such as the politics, economics, and societies that these design schools existed within, it was crucial to appraise the theoretical tenets in both schools. To achieve this, secondary analysis was employed. Fashion researcher, Yuniya Kawamura, defines secondary analysis as 'reasoning that is formed from the work of other researchers and authors' (2011, p. 108). I used secondary data in the form of existing analyses about both schools and compared them with each other to establish a general maxim of how each school approached utility.

5.4 METHODOLOGY #3: OBJECT OBSERVATION AND ANALYSIS

Another part of my primary data analysis took form in the observation of objects produced by the Arts and Crafts movement and the Bauhaus school. The William Morris Gallery also includes a permanent collection of furniture, wallpaper, and textiles designed by William Morris and his associates. I studied these objects for their form and materiality through taking photographs and making sketches of some chairs and surface patterns.

I also visited the Manchester Art Gallery as this institution's extensive decorative arts collection includes Arts and Crafts furniture. At this gallery, I was able to closely look at a chair made by William Morris' firm that is known as the 'Arts and Crafts Sussex chair' (Webb for Morris & Co., 1870). Photographing and sketching the chair revealed how utilitarian it was in its typology with its simple but sturdy construction. Yet, the ebonised beech wood that was used for this chair also revealed an aesthetic detail that made me contemplate why such a beautiful material was chosen for an otherwise simple chair. This kind of object observation led to making analyses about designing for utility and aesthetics.

I conducted further object analysis at the 'Blackwell, The Arts & Crafts House', a historic residence in Windermere, England. This building contains a trove of textiles, furniture, and lighting fixtures that were made with principles of the Arts and Crafts movement, therefore I could additionally study objects of various materials and media.

5.5 METHODOLOGY # 4: CASE STUDIES ANALYSIS – COMPARISON AND INTERVIEWS

This research also examined case studies regarding design thinking that have been conducted by contemporary design academics like Bruce Archer and Nigel Cross with the aim of understanding whether utility played any role in current day design ideation and development. As the initial literature review found scant research on the role of utility as a design principle in modern day home fashion, this analysis of case studies sought to find any modern interpretation of utility in design to determine whether there was any viability in re-introducing it to the sphere of home fashion.

To broaden this analysis, I also interviewed four home fashion designers that work with different media and who occupy distinct areas of home fashion. This was done to include the diversity found within the industry and to make this research more accessible for all home fashion designers. The following participants were interviewed:

- a textile designer who specialises in table top and kitchen linens
- a textile designer who specialises in bedding linens, rugs, wall-coverings and upholstery fabric
- a furniture designer who specialises in using materials that are non-toxic and have been tested for human health
- an industrial designer who has worked for the home furnishing side of high-end fashion brands

These interviews provided primary data on the designers' workflow as well as insight into how value is assigned to the materials they use for their designs. The interviews were also an opportunity to procure 'social research'. As described by Kawamura, the purpose of social research is to '[check] the validity of existing theories about people and society and also to produce information that describes our lives and to develop new theories that explain how our lives are influenced by varied social and external forces (Kawamura 2011, p. 19). Per this definition, social research was integral to this study because it gave a practical counterpart to the otherwise theory-based methodology.

Individual interaction was also possible as the interviews with the participants were carried out on a one-to-one basis. I developed a set of nine questions that were used uniformly in all four interviews. Some questions were wholly open response and others were flexible-open response. The flexible-open response questions could be answered binomially with either a 'yes' or 'no' answer. For these kinds of questions, a 'yes' answer then led to an open response question, while 'no' answers were not followed by further questions in that category. An example of a flexible-open response is as follows:

*“Do you perform any testing on materials before initiating the design process?
If yes, what does the testing process involve?”*

I chose to anonymise individual names but not company names. The interviews were conducted over the phone, over e-mail, and in person. For the phone and in person interviews, the conversation was recorded and then transcribed. The interviews can be found in appendices A – D.

5.6 METHODOLOGY #5: PRACTICE-BASED

To test the feasibility of the theories this research developed, it was necessary to perform some action research, as well. Stephen Kemmis, a professor of pedagogy who has written extensively about research methods, describes action research as an analysis that 'changes people's practices, their understandings of their practices, and the conditions under which they practice. It changes people's patterns of 'saying', 'doing' and 'relating' to form new patterns – new ways of life' (p. 463, 2009).

Kemmis also notes that action research 'is a meta-practice: a practice that changes other practices' (p. 463, 2009). As this research ultimately seeks to help transform existing design practices, I embarked on a form

of action research known as practice-based research. Practice-based research ‘is an original investigation undertaken in order to gain new knowledge partly by means of practice and the outcomes of that practice’ (*Creativity and Cognition Studios at the University of Technology Sydney*, 2017). This method aligned with my aim to assess whether home fashion designers could change their practice regarding how they consider materiality and utility while they were in the ideation and development stages of designing.

The starting point for the practice-based research began with observing and analysing home fashion objects from the Arts and Crafts movement and the Bauhaus school due to their respective affinity for using elements of utility-based design in their works. It was upon carefully studying the typology and materiality of the ‘Arts and Crafts Sussex’ chair that this research chose to develop model-sized chairs.

The mixed media nature of chairs with their use of both hard materials and soft goods, their ubiquity in home fashion, and their conspicuous utility in everyday life offered an interesting opportunity to experiment with the inherent ‘usefulness’ of this object by developing a small collection of model-sized chairs with various materials. By being able to experiment with a range of materials, I could speculatively and critically consider how I as a designer valued surface, form, and feel. By engaging in this process, I did not want to create designs that could scaled and produced viably or commercially. Rather, the aim is for other designers to see how the speculative ideation and development of these eccentric chairs helped me evaluate the design process more critically and holistically. I hope that they may then adopt some aspect of that evaluative process in their own design practice.

The sketches I made of chairs during the object observation stage of my research inspired me to consider typology and form. However, being able to physically observe the chairs up close was an opportunity to also analyse an object’s materiality for its utilitarian and aesthetic qualities. For instance, the ebonised beech wood that was used in Morris’ ‘Sussex’ chair especially inspired me to understand the physical qualities of that material and whether its selection in this design was more utilitarian, aesthetic, or a mix of both.

Based on the idea that materiality could be a nexus to both usefulness and aesthetics, developing model-sized chairs with a range of materials was determined as a feasible way for me to understand how a designer could consider materials for these qualities in the moment of ideation and then development. It was essential to develop more than one chair as I wanted to explore different forms and materiality.

After I decided to make a series of speculative chairs, I looked at photographs of chairs from a range of eras for design inspiration and I reviewed the evaluations that had been made of these chairs by design

researchers. Upon studying these designs, I was inspired to develop all four of my chair models from iconic chair designs. The designs I chose each have a unique typology and form. I developed this approach because I felt that a diversity of shapes could speak to a greater range of design aesthetics, materiality, and design methodologies.

I chose to not sketch my chairs' designs prior to the development process because I felt I already had enough of a guide by using the form of iconic chairs. I decided it was more important to begin considering materials and assessing how the choice of materials would impact these designs' aesthetics and utility.

One of the methods used in making these chairs was the use of varied materials, including soft and hard materials. This was done to represent the common use of both categories in standard chair design across the home fashion industry. As soon I had selected my designs, I began to consider what kinds of materials would be interesting to use in creating these designs. I reflected on some of the main ideas about utility and aesthetics in this research. I was specifically inspired by the cradle-to-cradle philosophy regarding the use of materials that could be re-used again and/or would benefit the environment after their use in one form ceased. In the end, I chose to use glass, ice, plant matter, cotton, cement, wood, clay, and metal.

The glass, cement, and wood were sourced from a refuse bin at a construction site near my home. These materials were once part of a house that was being renovated and the building contractors had gutted swathes of walls and flooring, which included these three materials. I approached the contractors and asked if I could select some pieces of discarded glass, wood, and cement from their refuse container and they obliged. I chose these materials as I wanted to see if I could give them use once again by adapting them to a new object.

The ice and plant matter were sourced from my own home as I took the leaves and flower petals from my house and garden plants and encased them in ice blocks. These blocks were moulded from food storage containers in my kitchen.

I used cotton textile and cotton batting. The textile was leftover toile material that was given to students in my course. The cotton batting, clay, and metal were the only items I had to purchase for this project. I needed the batting for upholstery, the metal to build the frame of two of the chairs and the clay was to supplement areas where pieces of the cement were broken.

In sum, my practice-based approach was based on taking iconic chair designs and subjecting them to a transformation by making them with materials different to were used in the original design. I developed this visual spectrum of utility and aesthetics that also incorporates certain tenets of design philosophies to complement the theories within this written work. It is my hope that this action research, which aims to be a practice that could ‘change other practices’, will inspire designers to consider materiality and usage more analytically and creatively when ideating and developing home fashion products.

CHAPTER 6 - CONCLUSION

‘Thus the beauty of all visible objects causes a pleasure pretty much the same, tho’ it be sometimes deriv’d from the mere species and appearance of the objects; sometimes from sympathy, and an idea of their utility’
- David Hume, *A Treatise of Human Nature*, 1740

This thesis set out to test the idea of whether a designer’s considered contemplation of a product’s utility and aesthetics through form and materiality at the design and development stages could be a could be one way to shift home fashion design into a more sustainable space.

It began by giving this particular kind of contemplation a name, 'design *logos*'. By defining this term, it sought to highlight the evolution of a practice that considers a more holistic view of products and the systems that could be affected by those products, including the environment. After giving it a definition, this research contextualised design *logos*' importance through the examination of past design movements that practiced some form of it in relation to home fashion.

This was done by looking to William Morris and the Arts and Crafts' crusade to design homewares that were 'fit for purpose' with attention given to not overdesigning objects as these designers regarded this as wasteful to the design process and to the environment. Morris also called for all working people, including designers, to look a little deeper into *how* they work. In this way, Morris transcends an otherwise basic call to design with utility in mind and instead, redefines what design is capable of being: a chance to be reflective and reflexive about ourselves and the world around us.

The Arts and Crafts were not alone in practicing this holistic ethos, as this research notes with its review of the Bauhaus. The very name of this design school was chosen to evoke a consideration of totality in all things, including the objects designed by its disciples. We saw Bauhausian architect, Adolf Loos, embrace materiality in a way that went beyond merely using materials to construct a space; he selected and used materials to weave design and life together until they were a single entity. In this way, Loos is the ultimate reflective and reflexive practitioner of design *logos* in that he understood the ability of design to instil in its users the sense of belonging to something larger than themselves.

This very phenomenon inspired this research to determine if these practices from the past could be adapted for present day home fashion design. It found kindred philosophies in contemporary design theories by Bruce Archer and Nigel Cross. Archer posited an idea that this research found truth in when interviews were conducted with four home fashion designers, which was that utility can have its own subjective quality that is developed in relation to a user's perception of an object. This concept is true for designers as well as evidenced by the unique responses each designer provided when describing how they considered materiality and product life.

Based on the interviews I conducted with these designers, I have learnt that there are design practices that are taking sustainability into account in ways that are not readily obvious because they may not label themselves as 'sustainable' or 'ethical' design. Among the interviewees' work, I saw the use of 'eco-friendly' materials, a drive to design products with a typology or materiality to make them appropriately durable if they were intended to be an extended-use product, as well as investigations to better understand

materials through their impact on the environment and human health throughout the production, transportation, and usage stages of their existence.

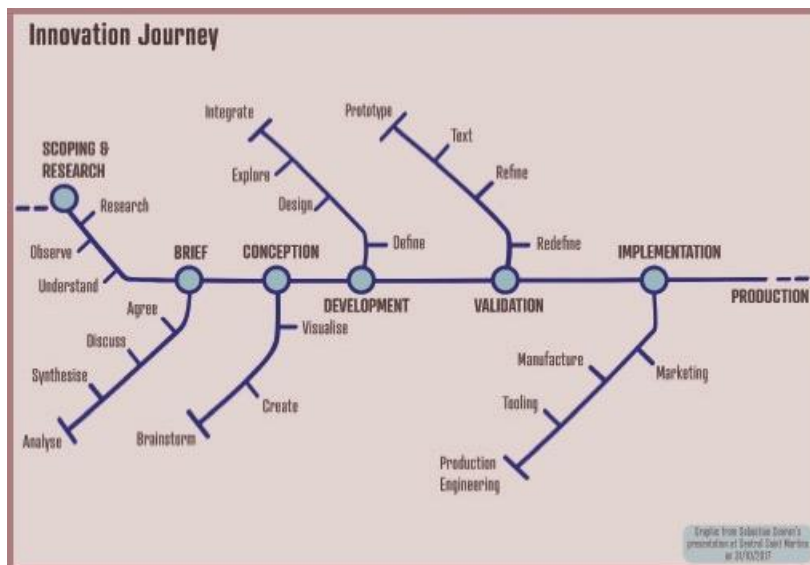
That this diverse group of designers have each found a way to practice their work with some consideration of the environment indicates that 'sustainable design' or 'ethical design' are not set disciplines per se nor do they have a codified ethos that a designer could follow. However, each designer practiced a form of design *logos* in that they considered a material's nature and its relation to their finished product's usefulness. In this way, these designers as a group prove what has long been known in 'sustainable design' circles, which is that no one design can possibly incorporate all 'sustainable' practices that are known today as some of these contradict or eliminate each other if practiced at the same time. Nonetheless, each designer with their individual approach to design *logos* proved that practicing some critical analysis in the design and development stages can yield more sustainable outcomes or at least outcomes that are less harmful to the environment than had they not done any kind of contemplation.

This research acknowledges that this conclusion is partly drawn from the case studies of only four home fashion designers. This is one of the downsides to using the case study approach as generalisations can arise by developing a conclusion from the case study sample and trying to make it applicable to a bigger scale. In light of this, this research aims to channel any conclusions that come from this study into an ever-evolving pool of fashion design research so that future work can continue to develop.

The range of ideas and beliefs found within these designers' interview answers indicates a spectrum within the home fashion industry in terms of how utility is considered. This finding inspired me to develop a visual representation of this spectrum, which is part of the conclusion to my research. I felt that developing four speculative chairs and having their individual shape and materiality illustrate a point along this spectrum would allow me to experiment with both hard and soft materials, which would be relevant when trying to propose an idea for design thinking that could be applicable across the home fashion sector. The importance of chairs as home fashion objects also stood out, as chairs are inherently useful as well as aesthetic products. I chose to experiment with the form of iconic chairs because I felt that using existing forms would grant me more flexibility to use materiality as a communicative medium for expressing points along this spectrum of pure aesthetics and pure utility.

As I was developing this visual spectrum, I had the opportunity to attend a lecture by renowned industrial designer, Sebastian Conran (b. 1956). During this lecture, Conran described a term which would influence my own 3D practice. He explained how a couple of years before, he coined a term, 'beautility'. 'Beautility'

became the ‘collection’ name of my chairs. It combines two seemingly unrelated words, beautiful and utility, into one and the spelling of the word itself makes it unclear where the beauty ends and where the utility starts. Like with most other things in life, I believe that this definition enters a grey area and its meaning is subjective to each person. Conran described ‘beautility’ as an old idea, which I concur with based on my research. Beautility ‘means many things: sustainability, practicality, usefulness, beauty, and accessibility’ according to Conran. He also noted it can be ‘playful pragmatism, with form and function working alongside each other to create meaningful pieces’ (2014). That an object can be playful or endearing as well as functional and beautiful is what I aspire to design and create. In the words of one of the designers I interviewed, design, like humans, is a sum of parts that endow each object or person with a unique place in our world.



At this presentation, Conran also shared a graphic he developed that details the ‘innovation journey’ designers can take to develop objects that contain this range of purpose, function, and joy within them. He advised that this ‘roadmap’ is not a formula that will automatically help one design these kinds of products, but he nonetheless encouraged all designers to take the steps to heart. I found that his suggestions in the ideation and conception areas of this roadmap relate well to the idea of design *logos*. These suggestions are to observe, understand, research, analyse, discuss, brainstorm, and visualize. In this vein, practicing design *logos* through visualisation very much correlates to a core tenet of sustainable development, which as noted in *The Hannover Principles* is defined in the United Nations’ Brundtland Report as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (1999, p. 2). In order to not compromise future generations, visualisation in the present of possible future scenarios as well as research, analysis, discussion and brainstorming are integral.

With this spectrum between beauty and utility in mind as well as Conran's term of 'beautility', I set out to complete my 3D speculative chair collection and conclude this research. I designed this spectrum to have the end of pure aesthetics on the left and the end of pure utility on the right.

The Beautility Spectrum



This set of artefacts does not aim to define what is beautiful and what is purely utilitarian. Rather, it was an opportunity for me to experience how a designer may find ways to balance their contemplation of design *logos* with the expressive nature of fashion design while also exploring materiality. It also helped me tangibly experience these sometimes rather philosophical ideas, which was a necessary balance in this project as materiality is also about the essence of something 3D and touchable.

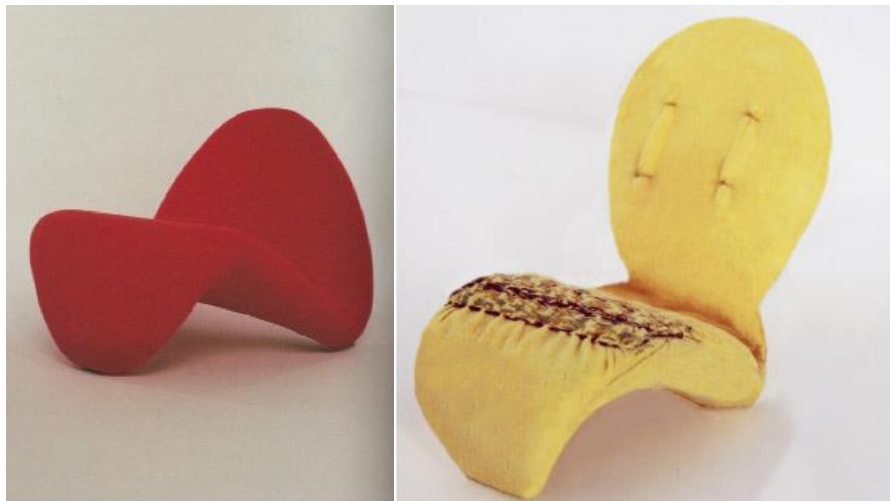
My spectrum sees the glass chair, called *Beautility Series 001*, on the polar end of pure aesthetics. The form of *001* was inspired by Eliel Saarinen's 1929 design of a dining room chair. I chose this Saarinen's design for its classical proportions. *001* has no discernible utility as the glass on this chair is broken. While these shards catch light in an intriguing way, it is best to not actually sit or handle this chair as injuries will certainly happen (I disclose that I have had my hands sliced a couple of times when moving the chair). The chair is made from salvaged glass found at a construction site. While this glass has managed to have a second life by becoming a chair, it must be said that this cannot be used in the manner chairs usually are designed for, which is to be sat on. It is a chair to behold and enjoy visually, which has its own utility but as far as chairs for sitting go, this chair has earned its place of pure aesthetics on the spectrum with no (sittable) utility.



The ice chair, called *Beautility Series 002*, with bits of plant matter frozen into the ice blocks, sits to the right of the glass chair, still in the aesthetic half of the spectrum but closer to the utility side. *002*'s form was inspired by Pierre-Émile Legrain's 1925 design known simply as *Armchair*. I was intrigued by Legrain's design because its levered aspect seemed to lend itself to experimentation with other hard materials that could perform the same function. While *002* is likely too cold to sit on without a throw and it is apt to melt and disappear while being used, it is made of water and biodegradable materials, meaning its leftover remnants can be used as compost or to water other plants. In this way, this chair follows the cradle-to-cradle model of being made with materials that aim to enhance the natural environment once they cease being used in their designed capacity.



The chair to the right this is the cotton chair, called *Beautility Series 003*. This chair sits firmly in the ‘utilitarian’ half of the spectrum, but it is not quite at the polar end of this side, meaning that some aesthetic thought has been given to its form. Adapted from Pierre Paulin’s 1962 chair, *Tongue Model No. 577*, this chair sees two updates from Paulin’s model that cement its place as a more utilitarian object. Some stitching has been added to the area where the legs rest to enhance this textile’s durability as this is the area of the chair that experiences the most friction from users as they stand up or sit down onto the chair. Some stitching to the front back of the chair was also added to enhance the bottom section of the front back and create more lumbar support for the user. Notably, this chair could have used natural, non-dyed cotton, but I choose to naturally dye the fabric as I felt colour would make it more appealing to users. The colour serves an ambiguously utilitarian and aesthetic function at the same time.



Beautility Series 004 sits on the polar end of utility. Like *002*, it is made of salvaged materials, but unlike Series *001*, these materials have been placed on a typology that can be used as a sittable chair as well as a side table, shelf, or coffee table. Its form is inspired by Max Bill’s 1954 chair, *Ulmer Hocker*. Bill’s typology for this chair is quite basic and stark, with no immediately aesthetic aspects to it, though the choice of ebonised wood and the cylindrical bar that acts as a footrest certainly add some visual details to the piece. For *004*, the wood was moistened and bent into a slightly concave shape to accommodate the sideways and downward force that would be exerted on it each time a user sat on the chair. Wood was selected for the seat as its fibrous nature has significant tensile lateral strength. Cement blocks, augmented by some clay to build up areas of the blocks that were not at a 90 degree angle, were used as lateral support for this chair as they sustain the wooden seat. It is likely the most sittable, durable, and usable chair in this spectrum thanks to its basic and sturdy construction. It is beautiful in that it is a chair that can be sat on indefinitely as it is sturdy in form and materials. As far as most chairs go, Series *004* is beyond ‘fit for purpose’.



The conclusion of this design project and consequently the research affirms that while consideration of design *logos* is not a panacea for developing less environmentally harmful products, it does confront the designer with scenarios and questions that could influence them to try to make one aspect of their design more sustainable. In this way, I believe this research has empirically proven what may seem obvious; more analysis at the planning and development stages as well as giving critical thought to how one's work, at all its stages, could impact other systems could lead to more careful or even compassionate decisions. As this stage of my research draws to a close and culminates in this work of written and visual ideas, I hope that what has been produced so far will promote discourse around this subject and grant future researchers of home fashion with theories to examine, confront and expand upon.

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APPENDIX A - INTERVIEW WITH FOG LINEN

Q: Let's start off with discussing your design process. What is the most important thing you think about when

designing a product?:

A: I imagine my home and think what I need or want for my home and myself. What color and pattern fit to my furniture and other things I have in the house and now I also think about my store and imagine how the products and new fabric pattern will be displayed there.

Q: What do you look to for inspiration before you begin designing?:

A: Trying to get inspiration from travel. If I don't have time for travels, I get inspiration from music.

Q: Two part-question: Can you breakdown the high-level steps you go through when designing a product both creatively and logistically?:

A: I draw all the ideas on the papers first, and then will make detail sketch for sample making, and send the sketch to the factory and get the samples made.

Q: When you're designing a product, what kind of thought do you give to how people will use it? Does it affect/change your design process? If yes, could you give some examples, please?:

A: Usually not, at least I like my own products and I believe there will be enough of someone like me to like same things like me to support my brand.

Q: Do you perform any testing on materials before initiating the design process? If yes, what does the testing process involve?:

A: Sewing and cutting and testing the shapes and size.

Q: Generally speaking, how do you test materials for a design?:

A: If it is necessary, I will get the fabrics tested for color changes, and strength at the lab. Otherwise I test products at home, using them at home.

Q: How do you research and choose the materials you're going to use for a project? What criteria do you apply when selecting materials? Is there anything that limits your ability to study materials or find out anything else?:

A: Something natural. And has nice feeling surface. I don't like plastics and acrylic things for a house, trying not to use them.

Q: Do you think about what will happen to a product at the end of its life? If yes, does that affect the design process? Have you ever changed a design or selected a different material based on that?:

A: Not really, most of the material I use is eco-friendly and will be used for long time.

Q: What is more important in a design, utility/usefulness or beauty?:

A: For me, utility/usefulness, since I am designing something for daily use, I want them to be useful!

APPENDIX B - INTERVIEW WITH ESKAYEL

Q: Let's start off with discussing your design process. What is the most important thing you think about when designing a product?

A: I start with a concept or idea or feeling I want to convey. Since I do surface design it's all about the actual art.

Q: What do you look to for inspiration before you begin designing?:

A: Nature and travel are my two biggest inspirations.

Q: Two part-question: Can you breakdown the high-level steps you go through when designing a product both creatively and logistically?:

A: I start by exploring and developing a concept and then start making the artwork. Sometimes, I bring other members of my team in to also design to that concept. After our artwork is completed, my team works to put it into production files for all of our different verticals, fabric, wallpaper, soft goods and rugs. We work with the corresponding factories to get everything right and then we work on getting samples, photographs and marketing materials together.

Q: When you're designing a product, what kind of thought do you give to how people will use it? Does it affect/change your design process? If yes, could you give some examples, please?:

A: We are always designing art for the same products, textiles, wallpaper, rugs, and soft goods. We are already familiar with how our clients use these things so our design process is more about renewing the surface art.

Q: Do you perform any testing on materials before initiating the design process? If yes, what does the testing process involve?:

A: Sometimes we use new qualities in rugs or fabric and we just have samples made.

Q: How do you research and choose the materials you're going to use for a project? What criteria do you apply when selecting materials? Is there anything that limits your ability to study materials or find out anything else?:

We try and stick with things that are already tested. We are primarily designing surfaces; we don't have a ton of interest in developing new materials that need to be tested or are not already tried and true.

Q: Do you think about what will happen to a product at the end of its life? If yes, does that affect the design process? Have you ever changed a design or selected a different material based on that?:

A: We stick with eco-friendly, non-toxic materials that won't end up in landfills. We also make sure to sell our products with the least amount of waste as possible. Most of our products will last a really long time if taken care of.

Q: What is more important in a design, utility/usefulness or beauty?:

A: I think they are equally important.

APPENDIX C - INTERVIEW WITH DESIGNER WHO HAS WORKED WITH FENDI CASA

Q: What do you look to for inspiration before you begin designing?:

A: Inspiration; it's very difficult to say where it comes from in terms of product. For me, the starting point is not a white page. It's always starting from the discussion that brings questions and some challenges. My goal is always to find a small challenge, or it could be small or big, but something that could challenge a production process, or something that could challenge the typology of a company, which would new for the company. Not different to be

different, which doesn't make sense but it is the first step to define a briefing. Very often the briefing is not closed, which is fine and I'll define it after the discussion since it becomes clearer. For me, everything starts with discussion. After that, I start to completely absorb all the information I see around and I start to see it with special point of view, where I see one thing fitting with another project. It's difficult to say "oh, I will get an idea now and put it on paper now". It's easier when you have more time and for me, when I start to open my mind to a specific project and everything I see around, which could be connected or disconnected from design, starts to become a possible source of inspiration. The fact is I don't always receive a briefing that is written which says it has to be "like this and like that". It could happen that way, sure, and be very specific, but in this case, I think I would call it more a technical briefing. For most companies, or for furniture at least, fortunately or maybe for some, unfortunately, there is no "success key" so everyone is looking at everything because no one knows where the next thing could come from. So, the briefing is not the truth, it's just a first intuition that could be something that's missing from the portfolio of the company or maybe it's an open process that can be further developed with other projects. There is always a starting point but you always have to go further. I am not part the company (Fendi) so I have the freedom to think in different terms from their marketing, business, and sales teams and all those things which are pushing a company. I'm not thinking about how something needs to be there because we need a make a new product for a show, "we urgently need it". Often, it happens this way. But you have to quickly develop a story. Everything is about thse story.

Q: My next question is a two-part question. Can you breakdown the high level steps you go through when designing a product, both creatively and logistically?

A: It depends a lot on the typology of the product. If it's an upholstery product, it's very different. For me, everything starts with sketches. Not because I want my hand to go in a completely free way but it's a way for me to fix an idea. After all the initial process and form, I go deeper and deeper into detail. I like to see where I can integrate an experience and drawing will let me see if it's possible or not. Or possible at an incredible cost. But I try to be realistic in terms of the production process. Our approach in the office is to get as deep as possible with the product. For me, the product is done when it is completely industrialised and finished. It's not done with it's just at its first shape or first prototype. There are different stages. One stage starts from my sketch and is after developed in my office without sharing anything first with the client because we want to simulate some study mockups. We only share when I think its in good shape, and when its time to make sure the scale of the design is right. We want to make sure the client likes it, of course. Once we've done this, we move onto the next stage, which is prototyping. It's important that the concept works through all stages of the product. It can't be just decorative. I always make my designs so that I can be involved in the production process. It needs to work in the process of production and work for the final user.

Q: When you're designing a product, what kind of thought do you give to how people will use it? Does this affect or changed your design process?

A: We adapt the design for the final user, to get it better for the final user because this isn't a question that comes at

the end; it comes at the beginning. For me, a chair should be comfortable, a washbasin should be useful and have nice water flow, the faucet should have the perfect flow direction of water, lighting should have a very interesting lighting effect. It's not a question of seeing these things after they're made and trying to see what they resulted as. The result is my starting point. I'm thinking about the object that will exist at the end of the process...the object that may end up on a table and what effect it will have and how functional it will be. An example that comes to mind is a washbasin I developed. When I did the first mock up, I noticed that the material we chose to use was only six millimeters thick versus the typical molding we use for a washbasin which is about 40 millimeters. Once I realised this about the material and how it affected the usage of space, I knew we would make this basin's dimensions more compact. This was important because space in a bathroom is especially important and any extra space you create by being able to have a smaller but just as useful washbasin is important. It was a fantastic modification; it was better. Less material, less cost, smaller mold, smaller space, weight was less, so transportation was easier. My process is not about adding and adding to a design; it's the opposite. Try to take off as much as you can or until its possible. When there's nothing anymore to take off, we can stay like that. Another example is a chair I designed. It was an aluminum chair. The first prototype was very stable but it was die-cast legs and we knew we could take off more and more material. If you see the prototype I have now in my office and the final product on the market, we took off half of the material. It's lighter for the user and easy to use. So, there is a lot of testing and you try to take off as much as you can until you're at the minimum. If there are problems when it has reached the minimum, say like stability or fragility, then you know you're not at the right minimum because you never want to compromise for stability or for comfort. The same for a sofa; you can reduce the cushion until it's not comfortable anymore. When it's not comfortable anymore, you have to stop.

Q: Do you perform testing on materials? If so, what does the testing involve?

A: For me, testing is trying to have an intuition of what we can do and then we interface with people who actually have the most advanced and technical knowledge regarding material. After we have a discussion, if they tell us "oh yes, this will be easy", I feel frustrated. The best is when they say "I don't know but we will try it". I like to hear that.

APPENDIX C - INTERVIEW WITH DESIGNER WHO HAS WORKED WITH FENDI CASA (continued)

Q: How do you research and choose materials? You mentioned you interface with material specialists but is there anything else you do, as well?

A: It really depends what company I'm working with. Some companies I've worked with are specialists in a certain kind of material, say ceramic for washbasins. The question of materials generally comes down to the material the company knows best or is most familiar with. This is where I like to work with companies who are specialists in a particular kind of material because they will have the expertise and I can insert my something which is coming from another space. The production process is something that whichever company I'm working with is completely involved in. This is a reason why I like to work with companies that aim to be sustainable but for the right reasons; not just for marketing purposes. For sure, more ecological products can be products that are designed for years. Like an Eames

product; no one is going to trash an Eames product. So, if something is well done, you buy it and can give it onto your sons. It's important to think about whether this product, say this chair, you're working on, if you'd bring it to your home. I think it's the dream of many designers to create products that could last forever. Maybe it's scary to think about. It's difficult for me to think about the second life of a product because I am so focused on the first life and that its first life can go on for years; that it's easy to clean and maintain, that it's easy to re-upholster, and you don't have to ever trash it. It's a different way of thinking. Answering the sustainability questions hinges on so many angles, you can focus on the material aspect of the product, or the durability, how it is transported. I believe there are very few products that can be transformed into a second life that is completely different from their first. I mean, sometimes recycling materials can consume even more energy than the initial creation of the material.

Q: My last question: what is more important in a design; utility/usefulness or beauty?

A: It's all together. It's like saying what's most important in a person, like which of their qualities are better than other qualities. Each quality on its own may not be perfect, but all together create someone. I don't want to compare people to objects but the value you give to an object is a sum of its parts. If its only functional, you can see how its effective but its not a sexy product. It's perhaps not something you'd like to bring home. You need an aesthetic approach, materiality, it has to be something that when you touch it, you want to use it. Its value is a mix of objective and subjective thinking.

APPENDIX D - INTERVIEW WITH SALTY LABS

Q: Let's start off with discussing your design process. What is the most important thing you think about when designing a product?

A: I really look at all design as designing experience. Design is about imagining someone else's future experience, basically. If we hold that responsibility that you're creating someone else's experience, you're imagining a new experience for someone else. That's a big responsibility that incorporates lots of different things. Fundamentally, yes, it incorporates human health; health of the human body is a major experience. That includes mental health and physical health and emotional health. Absolutely, that is a fundamental piece. I've been a designer and artist my whole life. But I chose design precisely because it had to do with providing something for others. In 2005, I became very restless. And I realised that that manufacturing process was polluting the planet and causing ill health to all the people who

worked in those factories and to the user, who were the people who would eventually have this in their home because of the kinds of chemicals and the kinds of materials we were using to make these things. It wasn't intentional by any means, it's just what was available on the market. You know, different kinds of paints, different kinds of finishes, different kinds of materials, which are used to make mass objects or mass furniture. Eventually, this ends up in the environment, in the land, and in China we used visit these factories and make sure things were going well. I remember feeling like I couldn't breathe the air around the factory. We would go stay and I would have to inside to breathe, to an air-conditioned, air-filtered kind of place. And that was very unsettling and discouraging. I really questioned my whole career; what I am doing? I am designing and producing all of this horrific air and waste and land. I found it very unsettling and I made a switch at that point. I joined a very small start-up company that was aiming to design a line of manufactured mass market furniture that was completely healthy, completely on the other spectrum.

Q: Two part-question: Can you breakdown the high-level steps you go through when designing a product both creatively and logistically?

A: I suppose the first thing I'd really want to do is research and discovery – discovery is kind of a funny word, it's been kind of usurped by marketing terms but – but research into a client's vision and into their needs. That's the very first step for me; it's to understand the context, including the social context. Also, a historical perspective on whatever we are designing is important for me to understand what's come before and what's happening now. A lot of that research for me is really interesting prior to even beginning to ideate. Then that starts to shape an imagination, a form. That's the beginning. And then I usually form a team. After I kind of understand the context, then I have a sense of what kind of team we are going to need, what kind of skills we are going to need, and what kind of skills I'll need to collaborate with. That's when I assemble that team.

APPENDIX D - INTERVIEW WITH SALTY LABS (continued)

Q: When you're designing a product, what kind of thought do you give to how people will use it? Does it affect/change your design process? If yes, could you give some examples, please?:

A: It does. It is another fundamental principle. It's about how you think about who will be using this at the end. That's how it begins. That doesn't happen halfway through or at the end. That's what it is all about; that's what it's completely about. Putting oneself in someone else's shoes and saying and how will it be to do this? In the design, per se, of a piece of furniture, how does it feel to put your hands on the arms of a chair to lift yourself up? How does it feel on your hands? How does it feel on your legs and on your back? Or how does it feel when you open the door to another room? How does it feel to put your hands on the arms of a chair to lift yourself up? How does it feel on your hands? How does it feel on your legs and on your back? Or how does it feel when you open the door to another room? What do you see or what is the first thing you see? All of those things are the initial considerations for design. Of course,

there is a give and take. There is a playback in that experience.

Q: Do you perform any testing on materials before initiating the design process? If yes, what does the testing process involve?:

A: There is different kinds of testing. At the Healthy Materials Lab, we think about testing in many kinds of ways. One is an evaluative process and this process is a questioning; where does this material come from? How is it made? If we are talking about a product, like a material that is an inert, natural material, imagine something that's not wood, stone, or metal, like one kind of element, like a product, perhaps a dyed leather or ceramic. You might look at it and first go through an evaluation; where is it made? What goes into the process of making it? What are the ingredients of that material? In other words, what is the material composition?

Often, building materials and materials for the home and materials for consumer products and materials we build environments out of are usually not just one ingredient. There are many ingredients. We look at the dye that went into making that leather and what's in the dye? What are the chemicals combined to make that dye and do those chemicals have any negative effects on human health.

Where was it made? What is its carbon footprint? What kind of impact did it have on the environment to get to where it is now? What is the impact on the environment to make that kind of material? Who lives near the factory that makes the material and are they being affected? Who are the people in the factory making the material and are they being affected? When it gets into the home of the person, is there additional emissions? Is there off-gassing? So, that's an evaluative process. There are many tools, like Cradle to Cradle, that offer an evaluation but there are others.

There is a big push now for materials to now have a "Health Product Declaration", so to say what are the ingredients in a manufactured material, just be transparent about that and show us what the ingredient list is. Then we can make that evaluation. There are other folks who are putting together evaluation tools where it is pre-evaluated. That's coming, that's the next phase that's not quite here yet. Right now, what is happening is mostly there is a push to make the ingredients transparent. To know what a material is a big thing, before you specify it for a built environment. That can be anywhere from an hour's worth of research to 20 hours worth of research depending on what it is. And depending on whether anyone else has done that evaluative process. That whole questioning, that whole understanding about knowing what to ask about a material and where to find that information is a big piece of what we are trying to establish at the Healthy Materials Lab and to also find out who is building, who has done products like this already. To get to this questions from the very beginning, this isn't an option. It's not an optional feature, this is fundamental.

Q: Generally speaking, how do you test materials for a design?:

A: *answered in previous answer*

Q: How do you research and choose the materials you're going to use for a project? What criteria do you apply when selecting materials? Is there anything that limits your ability to study materials or find out anything else?:

A: answered most of the first question, too, in previous answer but I asked separately.

Q: Is there anything that limits your ability to study materials or find out anything else?

A: It is hard to find out new information about materials. The materials that we build with are products. Once they become products, they're owned by a company and then a company markets them to you and sells them to you. There is this whole mirage of marketing that covers every product. The good news is that the information is becoming more easily found but it's very slow and very time-consuming to find out this information. That's the frustrating part, I think. We are working with this new product now, which is a mix of cement and pine. Cool; somebody figured out that mix wood and cement together but it's really heavy. It's hard to move. There are all of these logistics. How do you cut it? How do you fabricate it? As a designer, you have to sometimes test materials yourself and then convince fabricators to work with them. I'm often finding myself in that position. Sometimes, those are not billable hours.

APPENDIX D - INTERVIEW WITH SALTY LABS (continued)

Q: Do you think about what will happen to a product at the end of its life? If yes, does that affect the design process? Have you ever changed a design or selected a different material based on that?:

A: Already answered via first question.

Q: What is more important in a design, utility/usefulness or beauty?:

A: I think they're inseparable. I don't think they are two different things. Something cannot be beautiful if it's not useful or if it doesn't have some utility. I think, of course, right away of artwork. But I think there is a certain kind of usefulness to art that has to do with cultural meaning and transcending the day to day experience, the typical world experience, a piece of art often acts as the device that transcends someone from the moment they're in into another place, so that's another kind of utility. But in terms of design, the function and utility of the design is what it is all about. You create things, spaces, and places for people to use them and if they're not usable, then they can't be beautiful.

