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Thinking for a Sustainable Future within the Fashion Industry

Throughout my research I am going to explore how various forms of thinking influence solutions, and changes in direction during a products lifecycle. To guide these thoughts, I am focusing how these thinking methods can be applied to creating sustainable change within the fashion industry- exploring material and design thinking, I will explain how these thoughts can improve designers' approaches to product lifecycles and advocate sustainable futures. This sustainable future that we are all striving towards is only possible if we change our habits, with reference to Kate Fletcher & Mathilda Tham, I will discuss how a shift in these habits will assist businesses in becoming more sustainable helping create a circular economy. This circular economy ensures as little waste as possible, because like a cycle it has no end, meaning materials will keep getting reused. With reference to H&M, I will highlight how brands are already starting to do this. It is throughout the process of designing and making that these materials will adopt new values. As my focus for this independent project is based on materials, I will consider Tim Ingold's views on materiality and material culture exploring how humans govern materials – controlling the next stage of their lifecycle and values. In accordance with this, I will be taking into consideration Paul Carter and his theories on the application of material thinking and how it is beneficial throughout the making process. These findings will then be related to sustainable change. Assisting this change is also the process of design thinking, this is a method designers use where focus is on consumers' needs rather than their wants. As a sustainable future is relying on the next generation of designers, I explore how Rebecca Earley expresses the importance of a designer's role in making a product sustainable as it is during the design stage of a product many aspects, including materials, are planned out. As I am part of the new generation of designers within the fashion industry, I want to make sure I am pushing myself to use and share sustainable practices and materials in my processes. The research conducted for this written piece gives me the opportunity to gain the understanding I need going into the future as a creator.

Material thinking tends to suggest a gulf between making and the language used to talk about making. In *Material Thinking: The Theory and Practice of Creative Research*, Paul Carter (2007) talks about how material thinking is the result of, “what happens when matter stands in-between the collaborators supplying the discursive situation of their work” (p.15). It is the thinking that takes place through material which could result in modifications, improvements, and new outcomes- this is a beneficial tool for designers because during the making stage of said product you encounter difficulties and realisations that you could not predict beforehand. This outlines why the process itself is called ‘material thinking’. It is the thinking and questions a maker ask themselves whilst handling and putting materials together. This is a different form of thinking to logical, linear thinking which provides clear outcomes and processes. Material thinking is emergent and situated meaning it depends on the materials being used for the purposes required, at a particular time and place. It is an effective way of recording thoughts whilst encountering a task as they are fresh and unpredictable. A maker may find it hard to predict what they are going to think until they go through each stage of the process. This emphasises what Carter suggests when he said material thinking “is located neither after nor before the process but in the performance itself” (Carter, 2007, p. 19).

This way of thinking can be used to improve a product’s lifecycle advocating sustainable futures, meaning combining material and sustainable thinking in order to better understand how the fashion industry contributes to global warming and the changes that need to be made. In *Earth Logic-Fashion, Action, Research and Plan*, Kate Fletcher & Mathilda Tham (2019) state, “Since examining the environmental and social impacts of fashion activity began in the early 1990s, understanding has solidified about both the urgency of change and the fashion sector’s global impact”. It is evident that all aspects of the fashion industry need to be modified to meet climate change goals. As Fletcher mentioned, the impacts have been in conversation since the 1990s, but it has only recently been acknowledged as a critical concern.

Sustainable change, or “moving from making conscious ‘efforts to change’ to establishing a new, accepted ‘way of doing business’ (Simplicity HR, 2007) is essential. According to Alice Payne (2019) in the book *Global Perspective on Sustainable Fashion* “to understand sustainability, it is essential to understand the ‘big picture’ it’s acknowledging that sustainability is about well-being and the long term” (P.29). The changes our generation make in the present will prevent the exhaustion of natural resources and materials in the future,

maintaining an ecological balance. This supports what Payne said about sustainability being about *well-being* and *long term*, the positive effects on the environment from our changes will not be noticeable to us at first but will make a significant difference to the wellbeing and state of our natural habitats so that they can thrive once again.

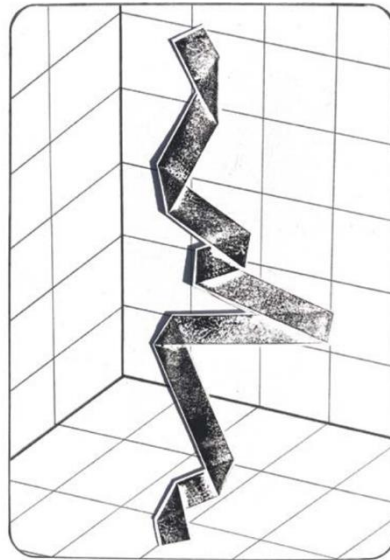


Fig.1 “*Transposition*”

Fletcher and Tham use the term *Transposition* to describe the motion of change we are experiencing. They use it as a metaphor relating it to the key changing within a piece of music, using this representation of change to express ours. The image above exhibits a path, changing in direction- this can be used to show how erratically things can change during any situation.

The complexity, speed and magnitude of the scale for change that we are facing, means we must look at how we understand change... A metaphor for the brave, creative, comprehensive and responsible change which is needed that of Braidotti’s notion of transposition, inspired by genetics and music... creative but also cognitively valid; discursive and materially embedded.

(Fletcher and Tham, 2019.p.29)

The phrase *materially embedded* suggests that the changes we make are highly focused on how we utilise our natural materials in ways of making them

biodiverse and sustainable for future generations. However, it has become evident that consumers have an “increase emphasis on the lower, value end of the market sector...demanding large quantities of cheap clothing” (Payne,2019, p.89). This mindset makes it difficult for humans to change because they choose their wants over their needs, and these behaviour patterns have been and are” detrimental to the planet’s health and therefore also to that of humans” (Fletcher and Tham, 2019, p.29). The over purchasing of *cheap and nasty* products is the reason we have ended up in the position we are today, not only are they made with toxic chemicals and harmful process but “the consumer takes relatively little care of the clothing and are more inclined to dispose of it relatively easy” (Payne, 2019, p.89). This shows how *fast fashion* products encourage a linear lifecycle where they end up in waste, rather than a circular one where they can be repurposed or have a longer life with a consumer due to better quality.

Looking at the stages of a products lifecycle I looked at how “processes play out through the creation, distribution, use, reuse and eventual disposal of physical products... each stage within the lifecycle of fashion is associated with environmental and social costs” (Fletcher and Tham, 2019). The environmental impact of the fashion industry has always been known and talked about, but action has never been a priority in making the sector better. In addition to this, due to the lack of awareness and action taken up to now, the planet does not have enough resources itself for humans to carry on living the way they do- and this is where they need to start prioritising their needs over their wants.

In the existing fashion system, the dominant focus is the economic growth logic and pursuit of profit. This constitutes a single focus of attention and reinforces human-centred priorities over the needs and at the cost of all others. (Fletcher and Tham, 2019, p.32)

Fletcher and Tham say that sustainability has never been the priority for businesses, and this is due to it costing more time and money. For a business to use material thinking as a process to improving sustainable values there must be willingness to spend extra otherwise thinking is restricted and any ambitious ideas might be undervalued and disregarded straightaway. When a sustainable future is a high priority for a business, that is when material thinking can be applied, and questions can be asked during the designing and making processes. Taking my own experience as an example, I am currently doing a live brief

where I am focusing on change and transformation through materiality. I have been using material thinking to guide my project and flourish my ideas, for example, I have been working a lot with wood and during my design and making stages I have been asking myself questions on how I could make my processes eco-friendlier and advocate sustainable change. This has led me to experimenting on various forms of bamboo- a wood that has natural renewing features and does not require nasty pesticides and chemicals to harvest compared to most woods used in making processes (Eco Beyond, 2021). Understanding the needs of the eco system and being mindful of this is “engaging effectively with social, environmental and economic change” (La Trobe University, 2015). My material thinking has led me to support sustainable change as I am being environmentally conscious during my material processes, improving my approach of thinking and problem solving to utilize materials in a more sustainable way.

Combining these two methods of working will ensure a sustainable future for brands as they will be thinking thoroughly about their materials, whilst still having sustainable objectives in mind. The path to a sustainable future relies heavily on what materials we use and how we utilise old materials. Carter expresses, “materials are actively forming and unforming, patterning and repatterning themselves and their surroundings, they are analogues of the effort to become oneself at that place” (2004, p.180). The potential of material is endless, materials have always adapted to their surroundings thriving in new ways, humans are now using this potential, adapting, and creating new ways for themselves.



Fig.2 *“Material Waste”*

An example of a brand using material thinking and sustainable change to their full potential is H&M. They have started encouraging customers to return any unwanted garments so they can reuse the materials for new products. This ensures that they are not only extending a materials lifecycle but also using eco-friendly materials for their future products, instead of sourcing new ones. H&M have expressed that they “want to eliminate waste and let material flow in circles”. (H&M, 2021) They have already shown that this circular motion is an effective way of utilising used materials and left-over waste, creating brand new materials ready for making- leading us away from our current ‘linear’ ways of living. They have also proven that biodegradable materials are possible using waste from “banana trees, pineapple leaves, rice straws, sugar cane stalks and straw from hemp and flax... transforming forgotten food-crop waste into a high value natural fibre product”- this is not only beneficial for sustainable change, but it also decreases carbon footprint by reducing emissions that were created from disposing this waste and provides farmers with more income. Additionally, they “turn waste from wine making into a vegetal leather alternative” and make “materials from 100% discarded cotton” (H&M, 2021). These new processes used by H&M demonstrates the extent to which they are willing and trying to change sustainably. These changes also imply that they are using material thinking, the materials and new measures they are adopting are conscious of the environment and have been through many processes of experimentation - this is where thinking and innovation would have been pushed by H&M’s designers to modify and improve their products to engage

with the climate needs. However, through my research looking at how they have achieved these breakthroughs I discovered that they have not done it alone. They have made various collaborations along the route, including Italian wineries that worked with the “vegetal leather” and a Swedish company that assisted with “the circular cellulose” (H&M, 2021).

Collaboration is not simply a pragmatic response...it is what begins to happen wherever artists talk about what they are doing, in that enigmatic step, joining hand, eye and mind in a process of material thinking.

(Carter, 2004, p. XIII)

Here, Carter makes a strong point by illustrating that combining the knowledge of diverse minds expands the creativity and the innovation between them, meaning the outcomes are greater. Despite this, even if you have the knowledge behind your thinking, Carter states that for material thinking to be effective there must be commitment, meaning the people that you work and communicate with must also have the same initiatives as yourself. As Carter puts it “Even if their material thinking is admitted to that larger conversation, it can make no difference unless all parties commit themselves to a process of self-reinvention” (Carter, 2004, p.13). *Self-reinvention* is “changing our old ways and learning new things relevant to our goals” (Craftdeology, 2021). The future for the fashion industry will highly depend on *changing old ways*. It is these old ways that have led to the need for change. This makes it important not just for the fashion industry, but all industries to reinvent the ways they work and set themselves sustainable goals for a sustainable future. Reinventing the way a fashion business works, will rely on highly on changing the materials they are using in their processes and where they are getting these materials from. A lot of the time the harmful part of a material is the sourcing and manufacturing of it – not actually the material itself and how we use it.



Fig.3 “Materiality”

In *Making, Anthropology, Archaeology, Art, and Architecture*, Tim Ingold (2013) discusses material culture and materiality. Ingold discusses the definitions of these words in his writing by conferring with multiple scholars and looking at their interpretations. One scholar, Joshua Pollard (2004, p.48) says “by material I mean how the material character of the world is comprehended, appropriated and involved in human projects” similarly, Paul-Graves-Brown (2000, p.1) states “how the very material character of the world around us is appropriated by humanity”. Here, you can see that even though they have separate ways of defining the words, their own definitions are comparable by saying materials are governed by humans. Ingold goes onto suggest that there are “two sides to materiality” explaining that one side is the “raw physicality of the worlds *material character*”, and the other is “socially and historically situated agency of human beings, who in appropriating this physicality for their purposes” (Ingold, 2013, p.27), it is a combination of the physical material and its properties, history, and next intentions by the maker. Ingold goes onto explain that materials all have a passed history where they have been “enrolled in human life projects” and could have been “in principle, anything anyone wanted it to be” (p.28). This suggests that humans are responsible for a materials next life cycle and giving it a new meaning and role, supporting this idea he goes onto say that “human life has surrounded it (the material) and giving it meaning”- this implies that regardless of the history of the material and its life cycle, it’s the next intentions that will fulfil its purpose. Using *banana tree* waste used by H&M as an example, the purpose for this tree is to grow bananas and once it’s fulfilled this purpose the left-over waste usually gets disposed of - however, this waste is now being used to advocate a sustainable future for H&M by being used to create biodegradable materials. This means that, the purpose of this material has now been adapted to suit humans needs from growing bananas to supply food, creating new materials for us to use in our processes.



Fig.4 “Banana tree and banana fibre”

These innovative changes will be up to the new generation of designers, including myself, to generate and apply for future projects. In *The Textile Toolbox*, it suggests that:

Designers are strategic agents for change, able to directly generate imaginative solutions working with all stages of the fashion supply chain. When sustainability is considered, they add value to form and function embedding sustainable processes and products into the fashion system. (Earley, 2016, p.7)

Earley uses the phrase *strategic* when describing designers, it illustrates how they think long term in order to achieve aims and objectives. This is the thinking that is needed to be able to create solutions for sustainable change as tackling climate change is an ongoing challenge, with continuous and new goals- meaning a designer's creativity is never limited. Earley mentions Graedel's theory (1995) that “it is estimated that decisions made in design are responsible for eighty to ninety percent of a product's environmental and economic costs”. All the functions, materials, and processes acquired for a project are all planned within the designing stages so it would make it a designer's responsibility to make a product as sustainable as it can be- taking into consideration all these areas. This correlates with material thinking and how it's applied within all these areas during this design process. It is the material thinking that takes place during this design process that pushes your creativity and innovation, making you push your knowledge further to reach the

goals set. Material thinking also drives ambitions meaning designers are constantly looking to improve on what they have already done, continuously making it function better for the environment. Being a designer, especially focusing on sustainable values, means there is no end goal- as they reach one goal they work towards the next. This supports the idea of Norman Jackson (2018, p.5) that “life is a constant stream of activities that involve us in making and remaking”. The words *constant stream* and *remaking*, in relation to a designer, portray that they redesign for making and adapt until a product reaches its fullest potential. It is the thinking that takes place during these processes that helps achieve the final product. I have discussed material and sustainable thinking, but designers also use *design thinking* in their processes. This form of thinking is when the designer prioritizes consumers' needs, always having them in mind, when making big decisions about products. Design Thinking is “a cognitive process, creative practice, organizational routine, and design culture. They emphasize finding profound needs and problems and translate them into tangible designs, creating value for people” (Auernhammer and Roth, 2021). Here, it is demonstrating that this thinking creates products for solutions rather than materialistic wants of consumers- supporting the focus on consumers' needs. This coordinates with the goal of sustainable change and a sustainable future- the consumer's needs, even if they do not know it, is adopting a sustainable lifestyle. Consumer's needs are being conscious of what the products they are buying are made from and the processes used to create them. This shows how important sustainable change is to the new generation of designers, as all thinking involved in the process have the objective of a sustainable future in mind. Even though the designer is an important part of a products production process, the maker can also play a significant role in using these forms of thinking- especially material thinking.

Even if the maker has a form in mind, it is not this form that creates the work. It is the engagement with materials. And it is therefore to this engagement that we must attend if we are to understand how things are made (Ingold, 2013.p20-22). Here, Ingold is expressing that you need to be engaged with the making process to understand how the product is made and how the materials act. It is this engagement with materials where material thinking is applied, you discover how a material behaves and discover any weaknesses or areas for improvement that will be adjusted next time. Designers cannot always predict if a material will work well for its intended purposes, for example looking at biodegradable materials, these materials would have gone through many phases of experimentation before getting to the finalised product. It is the making process

where this experimentation takes place, so it would be the makers material thinking that would steer the changes the product needed. It is important that designers and makers work together to support sustainable change as one cannot predict the others encounters and thoughts. Designers are not part of the making process, so they cannot know what obstacles the makers will face during the making process. Even if the design plan were defined to the T there could still be things they did not expect to happen. This emphasises what Carter said when invention ‘is located neither after nor before the process but in the performance itself’ (2007, p. 19). This is where designers and makers influence each other as they bounce ideas and solutions off each other, creating the final product. Designers give an idea, in which the maker then creates a physical product, which is where Carter suggests *invention* takes place- he implies that the idea becomes an invention through the process of the materials coming together. It is during this journey of invention where improvements are highlighted to designers, ensuring they adapt their design plans accordingly ready for the next stages of experimentation. This process of designers and makers working together is also beneficial to them as they expand on their own knowledge, ensuring growth within their own creativity. This growth means greater outcomes, which leads onto answers and solutions, especially to issues such as sustainability within the fashion industry.

“To date the fashions sectors preferred response to the climate and biosphere emergency has been ad-hoc, ineffective and wilfully conservative” (Fletcher and Tham, 2019.p.5). This illustrates that the core objectives for past designers have not been sustainably guided, and this is due to the mindset of the consumer. To elaborate, it is our buying habits that make us shop unsustainably, causing a chain reaction of harmful processes. For example, many people are not mindful of what they are buying – if it’s cheap they buy it. However, in most cases it is the cheap products that are the worst for the environment, because of their quality and manufacturing. Due to our habit of cheap purchasing, we forget about the impact that has on the environment. Fletcher and Tham continue to say that “each citizen has value, capability and responsibility to create sustainably” (2019, p.57). Here, they are suggesting that each of us has the capability to make the changes that are needed for a sustainable future, but our actions are clearly showing we are choosing not to. In addition to this, if the consumer does not make the effort to be sustainable then this can make it harder for the business to make the changes they need. For example, many businesses are relying on fabrics given to them by consumers, to then reuse to create new and sustainable materials. However, if the consumer does not think sustainably and disposes their clothing in general waste, then

businesses do not acquire these materials and consumers are just adding to the fashion industry waste problem. This illustrates how consumers habits can have a positive impact in many areas of sustainable change, their habits influence the next stages of progression – if consumers are not willing to adapt the ways they live then this makes it difficult for businesses to do so to as they will no longer be catering to consumers wants, but their needs instead (as previously mentioned). To shift consumers mindsets Fletcher and Tham talk about a process called *languageing* - “the co-creative relationship between communicating, thinking and doing”. They go onto explain that it is the “language we use that shapes our thoughts and actions” (2019, p.60).

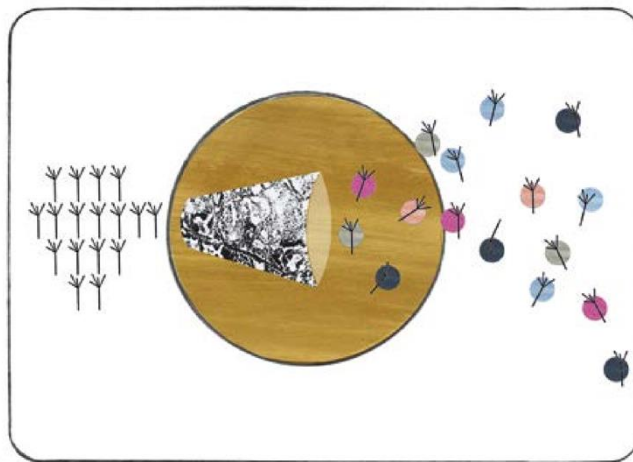


Fig.5 “Processes of creating language of fashion to create agency”

This implies that communication between businesses and their consumers can create this *shift* within their mindset, using strategic choices of language and actions. When a business implements sustainable changes within their practices, this communicates to the consumer how important sustainability is. The higher the increase in businesses starting to work sustainably, the more willing consumers will be to adapt to this form of lifestyle. This will influence a positive change within consumers mindset as they will notice the growing number of businesses joining the sustainable route. In addition to this, it is the language that these businesses utilize to support their changes, that will impact the consumers change. An example given by Fletcher and Tham is “The origins of the term ‘consumption’ are found in the act of wasting, of destroying by its use... words such as growing, nurturing, and caring imply different relationships” (2019, p60). This expresses that by businesses using positive words within their communications, rather than negative ones, it can cause a chain of positive thinking and events. The word *consumption* is widely used amongst the fashion industry and implies using up resources; however, this sort

of language will encourage the consumer to do exactly that - when we are trying to achieve the opposite. By adjusting the words to ones such as *caring, growth and nurturing* it will inspire consumers to think and act in this way, rather than feeling the need to consume.

Through my research I have come to better understand the importance of how different forms of thinking, amongst various groups of people, will have the impact that it does on sustainable change. It is our thoughts that guide us and help us grow, they allow you to ask questions, plan, learn, reflect, and create. All these areas of thinking are applicable to creators as they go through this system when creating a product, from designers to makers they all go through a process of progression where they *plan, learn, reflect, and create*- ensuring growth within their innovation. Sustainable change involves new ideas, which means innovation needs to be pushed, resulting in effective solutions. The different methods of thinking that I have spoken about have their own qualities, meaning they benefit different areas of creativity- broadening ideas and helping to reach answers. Design thinking focuses on solutions and needs for current issues, this keeps designers focused on their main objectives. Whereas, material thinking is more involved in the making process, handling materials and combining the materials together. Even though they differ in the type of thoughts encountered, they both have the same focus – in this case, improving a designers' approaches to product lifecycles and advocating sustainable futures within the fashion industry. I also discovered it's the thoughts of the consumers that have an impact on sustainable change, especially their mindset. This outlines that our thoughts, whether you are a designer, maker, or consumer all have an influence on how sustainable we are. Through the research of practitioners, theorists, and online sources I have learnt that the only way successful sustainable change is possible is if everyone makes it their aim to live a sustainable lifestyle. This would then make it more accomplishable for businesses to provide consumers with what they desire because they would be catering to both their needs and their wants. It is the willingness to change and then the commitment to sustainability that will guarantee a sustainable future, and it all starts with us.

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Fig.5 *Processes of creating language of fashion to create agency*. Fletcher, K. and Tham, M. (2019). *Earth Logic Fashion Action Research Plan*. London: The J J Charitable Trust.