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Prioritisation of Care: textiles, sustainability, and morality

Interdependence relies on interconnection. The relationship between fibre and final product, between designer and farmer, spans as a giant web, branching into wider disciplines such as science and ecology. Within this independent project, I will discuss how a prioritisation of care can improve interdependent relationships through an analysis of current sustainability issues, design responsibility and systems thinking. I have included case studies of successful sustainable designers whose work proposes creative, hopeful solutions for the future of textile design; the students at Iceland Academy of Arts, Amy Powney and Nienke Hoogvliet.

Kriti Sharma (2015) asserts that the recent interest in interdependence from multidisciplinary areas, still relies on independence at its core – focusing on independent entities simply interacting with one another. Sharma argues against this, that instead interdependence means entities existing only because of their mutual reliance on each other. A clear example of this would be organisms developing senses. Sharma states that organisms developing abilities to sense the world does not mean there is one singular, correct world that organisms must learn to sense (2015). Rather, the world cannot exist without a perception of it. Ways of perceiving could not develop without the need to perceive. The being's experience of existence depends on differing situations and objects; nothing exists intrinsically.

Perception and experience are incredibly valuable aspects to a designer. In my own practice, I often use a crucial sense of tactility to choose the most appropriate materials for the context, understanding its limitations and applications. Experience in a fine art background has furthered my skills in building narrative, as well as questioning concerns within the textile industry - this supports thoroughly informed design decisions and outcomes. To create a planet and communities that thrive, there must be respect for other experiences. According to Puig de la Bellacasa, to understand the importance of care means supporting thriving relationships (2017, p.70). She states, "interdependency is not a contract, nor a moral ideal – it is a *condition*" (2017, p.70). It is not a particular way of thinking about existence, it is intrinsic to existence - connected through one another, relying on each other to survive and sustain. Beings are not isolated in existence from one another – their interaction with one another creates existence (Sharma, 2015).

Sharma uses the metaphor of a spider web to understand our perception of existence. A spider web is constructed around a central anchor point, likewise it is assumed our experiences must be anchored somewhere in existence (2015, p.101). Moreover, existence appears as the spider web itself – each string holding one another in place. Jordan Dalladay-Simpson similarly uses the metaphor of a web to describe the collection of interactions and objects that make up the "socio-

cultural fabric” of the world (2022, p.33). Interaction contains the power of influence – influencing decisions, actions, and interests. Within his writing, Dalladay-Simpson recognises the position of designers as being influenced by the interests of the market, whilst simultaneously directing and enforcing interests themselves (2022, p.37). Research into trends has informed personal decisions within my work – colour schemes, materials and motifs have been influenced depending on recent popularity, as well as identifying what the current market may be missing. My work then feeds back into the market, and into the web of objects within the industry. Market interest relies on the designers for direction, and designers are directed by the tastes of the market. Each relies on the other to keep moving forward.

Dalladay-Simpson additionally asserts that designers are often incentivised to produce outcomes without consideration of the long-term impacts (2022). He emphasises that when efforts are solely on economic growth, designers find themselves working for companies whose exclusive focus is profit increase. Karl Marx and Frederick Engels wrote within the Communist Manifesto that through the industrial revolution and birth of modern capitalism, all worth had been transformed into profit (2012). Dalladay-Simpson confirms that profit within a capitalist system is seen as the singular important measure for success (2022). This hugely influences how designers look at wider social and environmental impacts of their work. Moral disagreements conflict with the need to make money. Dalladay-Simpson writes that this has resulted in damage to the environment, to individual wellbeing and to society. In considering the future of our system, designers must shift the focus on to care. Recently within my practice, this has turned into considering the environment throughout each step of the process: whether the fabrics I use are sustainable, whether the chemicals involved in dyeing and printing are safe for the environment, how much water and energy are being consumed by processes I use. There are current limitations due to accessibility – sometimes the use of synthetic fibres is necessary for tests, man-made pigments are needed to achieve a specific colour, or because some processes innately have a lot of water waste. A single person cannot unravel the problem of environmental impact on their own - the aim is to keep cultivating an awareness of process and its impact, as well as developing possible new strategies.

Equally, designers must be conscious of how their work impacts life now *and* in the future; sustainability, regeneration, and ethics can no longer be side projects of profit. My current work considers the immediate impact of my processes as well as the future of the final product. For example, questioning the difference between chemical dye and natural dye. Reactive dye (chemical) is washed out after the print process, where the pigment ends up in water systems eventually leading to the ocean. This could lead to the pollution of marine ecosystems, in addition to contaminating marine animals. The natural dye I have used is made with locally foraged plants simply

boiled in water – I can trace exactly where the plant came from and know the left-over dye is comprised of non-toxic, naturally extracted plant material. For future making, I have been considering the longevity of my materials, aiming to use regenerative fibres (such as wool and linen) that will biodegrade at the end of its life.

Younger generations have begun to change consumption habits due to growing awareness of environmental impact, leading designers to increase ethical elements (Dalladay-Simpson, 2022). However, companies can utilise this new market interest to advance their capital, whilst being juxtaposed with detrimental impacts on the environment. This is conflicting for a market who wishes to make better choices but are being intentionally misguided on the material, origin, and impact of the products they are consuming.

The term for exaggerated claims about sustainability used to gain profit is known as ‘green-washing’ (Dahl, 2010). As the consumer demand for greener products increases, so do the green claims made by corporations. The US Federal Trade Commission charged four sellers for claiming their textile materials were made from sustainably grown bamboo, whilst being made from rayon - a man-made fibre that does not biodegrade (Dahl, 2010). Furthermore, in 2008 the Malaysia Palm oil council made a commercial suggesting that palm trees increase biodiversity, whilst critics asserted that palm oil plantations were linked to pollution and loss of habitats (Dahl, 2010). Kenny Bruno refers to the large blame deflection from companies and manipulation of the public as “deep greenwash” (Dahl, 2010). It is morally abhorrent for companies to manipulate the market this way – a consumer may believe they are making ethical, environmentally friendly choices, whilst unintentionally contributing to pollution. Prioritising care in this context could translate as increasing stricter rules around green advertising, prohibiting companies from misleading the market. There could also be more education for consumers to question where they are buying their products from, and if the company is reliable.

Whilst designers are responsible for the outcomes of their work, they are also at odds with a system not meant to prioritise them. The British fashion industry is largely ignoring the cost-of-living crisis whilst design students struggle to find studio spaces (Fashion Reimagined, 2023). Designers, so sort after by companies to create their products, branding, and spaces, are being failed so soon following graduation. Angela McRobbie – Emeritus Professor at Goldsmiths – believes there is an unravelling within the fashion industry, as the younger generation strives towards a fairer, more sustainable, and meaningful industry (Fashion Reimagined, 2023). She also asserts that universities, because of this, are essential for the economy and for the future of the industry.



Fig 1. Iceland Academy of Arts, *Colouring dye*, 2016.

The Willow Project, produced by a group of students at Iceland Academy of Arts, demonstrates how essential arts education can be to come up with creative solutions for sustainability (Solanki, 2018). In 2016, the design students were tasked with investigating the uses of Icelandic willow trees in collaboration with Reykjavik Forestry Association. The focus of the project was to utilise all parts of the tree – bark, leaves, branches, and trunk - with a restricted process of only heat and water. Through boiling, burning, breaking, and distilling, a range of potential material outcomes were discovered: papers, glues, water filters, string, pigment, dye, and essential oil. Utilising the entire plant means less production waste, and more materials and products able to be produced from a

smaller resource.

In my recent project, I have investigated dyeing with local plants and using them in their entirety: flowers, leaves, branches, stems, and berries are all boiled together to extract the dye colour. After the extraction process, the plant remnants can be composted and fed back into the earth, helping to regrow the plants initially used. This is an example of using circularity to sustain the system – the plant is taken, used, and fed back to grow the next plant. The elements within dye plants can be separated (having the leaves and stems divided, the colour extracted separately) to get distinct, unique colours from different parts of the plant. However, I have found within my own practice that to get a strong, rich colour, a large amount of the plant is needed. By separating out leaves, stems, and flowers, I would need to collect even more of the plant to bulk out the separate dye extractions. This could be damaging to the original plant and the surrounding area – thinking-with care, designing with care, personally translates into taking no more than necessary.

The importance of designers in our system is the way that they invite questions and curiosity to tricky problems. To counteract the destruction of environments, which ultimately affects both human and non-human life, designers must begin to think beyond commonly used materials and adopt a systems approach; understanding where materials come from, how the material lasts, and how it impacts the consumers of the final product. This also means understanding how the



Fig 2. Iceland Academy of Arts, *Paper from inner bark and ash*, 2016.

material will impact the earth after it has become beyond repair – whether it is biodegradable or can be recycled into a new material.

The focus on profits and efficiency has caused companies to put more time into developing robotic technology to replace workers. J.M. Ledger discusses the future of automation as a future focused on robotics. He asserts that while a person's access to technology will increase, their access to water, safety and shelter will still be abysmal (2016, p.68). Puig de la Bellacasa supports this, stating that the response to multiple issues tends to be in technological development, rather than a refocus onto care – meaning prioritising and understanding the needs of those within these dire conditions



Fig 3. Euronews, *New documentary highlights exploitation in garment factories*, 2020.

(2019). Thus continues the dilemma of the system – creating efficiency whilst overlooking the very real, devastating lives of those in need. According to Gannon, automated work can mean eradicating jobs in industry (2016). On the other hand, Gannon writes that automated machines can go beyond the abilities of people, either physically

surpassing their abilities or able to do extremely dangerous, unpleasant work (2016). Automation means driving down cost of production, which does have benefits; more accessibility to goods and services, necessities such as medicine, food, and shelter become more available and faster to produce. Specifically, the automation within medicine production has meant the quick development of new treatments.

There has been moral questioning around automation since the beginning of the industrial revolution. Machines to replicate hand embroidery were invented in 1828 (Miller, 2012), and much of textile work was removed from the home into factories (Barber, 2012). These factories were dangerous and unpleasant places. Karl Marx and Frederick Engels described the workers as “masses of labourers, crowded into the factory, are organised like soldiers” (2012, p.80), a vision not unlike a modern-day sweatshop.

Yet there has been a recent shift, a yearning to move back to the hand made, and revisit pre-industrial methods of production (Wellesley-Smith, 2015). Hand-made processes connects an individual to their material and slows down the need for material gain. According to Li Edelkoort, the Covid-19 pandemic had a great impact on the changing perspective of hand-made labour, moving from the fast consumption of material objects to “a realm of sharing, caring and making” (2020). The

isolation from communities and families led many to cope through making – and in essence, caring – for one another. However, individuals cannot produce on the scale that mechanisation can, meaning many products and necessities rely on industrialisation to continue being accessible. The same system that promotes fast-fashion and creates textile waste also makes affordable and accessible clothing. The positives and negatives of textile industrialisation do not necessarily outweigh one another. There is no final answer, as designers continue to ask more questions. This is the trickiness of the web-system - when one string is pulled, another appears.

Marx and Engels wrote within the Communist Manifesto that the more difficult and disgusting a job is, the less it is paid (2012). Contemporary industries have found ways to give such jobs to automation, as a way of decreasing the wage (automated machines do not require pay). The difficulty and dissatisfaction of the work is also increased – predicted correctly by Marx and Engels – by exhausting working hours. Yet, there are ongoing disagreements around the morality of allowing people to do such labour in the first place. Jobs that are difficult and paid poorly – such as sweatshop labour in the fashion industry – are still relied upon by many to lift themselves out of abject poverty. According to Timmerman and Zakhem (2021), the literature around the morality of sweatshops suggests that, although it is morally wrong to initially create sweatshops, without any sweatshops at all many impoverished people would find themselves unemployed and struggling to live. If automation replaces workers, it leaves them without employment and without pay.

Still, technology and humanity need each other to work. Instead of replacement, there can be retraining. Workers are needed to maintain machinery and make sure it is operational. This is much safer than workers doing dangerous, fast paced production themselves. Programmers are also needed, engineers, operators, and technicians – new methods can lead to rewarding new careers. Thackara (2023) suggests that care should be at the centre of all production. This means placing the needs of workers above increasing profit, focusing on making safer, more fulfilling jobs that allow workers to gain new skills and keep them out of poverty. Care also demands a sense of responsibility from companies, factories, and sweatshop owners to make sure the workers are in safe environments, paid well and are able to progress within their chosen careers.

Thackara writes that the contemporary person today uses more resources in a single month than their great-grandparents did in their entire lives (2016, p.130). This is a product of our current system; of living in a modern society that requires more from the modern person than it did twenty, fifty, one hundred years ago. Without changing the system at the core, the surficial strings of the web that are pulled will be meaningless. Thackara explains that whilst committing to help within a system based on growth, we continue to damage our environments, our non-human companions and

ourselves (2016). Designers need to think outside of this system – begin to pull apart the threads that lead to the core. Old methods cannot be used to regenerate the environment when these methods initially created the damage. Dalladay-Simpson supports this, suggesting that design needs to be perceived beyond the creation of object and ever-changing current trends (2022). To find greater change, we must realise our own interdependence as designers – as a single pair of hands amongst many (Dalladay-Simpson, 2022, p.33). Designers are inevitably influenced by their market's interests, but this does not mean they cannot in turn shift the interests of the market to achieve meaningful change.



Fig 4. Mother of Pearl, *No Frills* collection, 2018.

Amy Powney, creative director and owner of Mother of Pearl fashion brand launched her '*No Frills*' collection in 2018 with the goal of creating a completely sustainable, transparent company (Mother of Pearl, 2023, *About Amy Powney*). She wanted to unravel the intricacies of the supply chain: see the animals and plants her collection would come from, meet with the suppliers and spinners, and document the process to encourage deeper understanding about where the products come from (BFI, 2023). Powney stated that the lack of legislation around sustainable marketing has led to confusion of the market and a lack of questioning product origins (BFI, 2023). Creating stricter legislation around sustainable advertising would prevent companies misleading consumers and encourage others to follow through on their green

promises.

Powney's journey through the documentary is a great example of using the fundamental belief in care to restructure a system. Every thread of the web-system is questioned: where the fibre is obtained, who grows it, who harvests it, how are they paid, the emissions it takes to be shipped across countries. The manufacturers are visited in person to make sure workers are on a living wage and treated fairly (BFI, 2023). Natural fibres make up the majority of Mother of Pearl's collections, except where recycled synthetics are used (Mother of Pearl, 2023, *Sustainability*). Synthetics are avoided where possible, because they shed tiny amounts of plastic when washed which are impossible to filter and end up polluting marine habitats (Mother of Pearl, 2023, *Sustainability*). Fabrics used in their raw state means avoiding harmful dyes, and where possible mono-fibres (100%

of one type of fibre, such as cotton) are used to make the garment easier to recycle at the end of its life. Occasionally, Mother of Pearl uses cross-woven fabrics to increase the longevity of the garment. The denim used in Mother of Pearl's collections is all made in one country, to reduce the carbon footprint as much as possible. This caring curiosity has allowed the entire brand to become informed, transparent, and entirely sustainable.

When discussing the significance of care and design, it is important to include emotional wellbeing in the conversation. This involves understanding how design can psychologically shape people's interaction with space. Sharma discusses that, although it has been assumed otherwise, self-identity is created through emotions and thoughts (2015). Physically wellbeing and emotional wellbeing are intrinsically linked - surrounding environments have great impact on how individuals' function throughout daily life. Nour Tawil (2021) discusses the attention restoration theory (ART) which suggests that cognition and mental focus can be restored through natural environments.

Furthermore, a biophilic hypothesis suggests that due to an intrinsic connection to nature, bringing natural elements – live plants, views of green spaces, even indirect biophilic motifs – can reduce stress and have restorative psychological effects (Tawil, 2021). The earliest and most well-known studies into the health-related outcomes of biophilia were investigated by Professor Roger Ulrich (Browning and Ryan, 2020), the outcomes of which suggested that patients who were able to view green spaces were faster to recover and had less need for painkillers. Over-stimulation and stress caused by work, education and busy social settings could be decreased by engaging with natural environments.

This could be further utilised by interior designers, in consideration of the materials used to decorate and furnish spaces. Knowing that natural, sustainable materials are used could strengthen a connection with the environment and therefore be beneficial to emotional wellbeing. Materials could be visually promoting sustainability – used in their raw states, with naturally occurring colour schemes. Tactility could encourage a sense of nature within interiors; glossy woods, soft linens, even less common materials like bamboo could create a subtle biophilic link. Similarly, clothing made from regenerative, sustainable materials, built to last and able to be repaired, could create a closer relationship between the person and the garment – cultivating connection and identity. Being able to trace where your products come from and knowing they are created with care increases empathy and awareness, necessary for a sustainable future.

Introducing a psychological approach to inform design decisions is not new, however a specific methodology supported by scientific research has yet to be adapted, much less accepted across disciplines (Tawil, 2021). The importance of prioritising care means prioritising the health of the

individual using the space, in ways that are rich and meaningful – not solely focused on the productivity of the worker, but for emotional and physical wellbeing.

Yet, whilst our need for natural spaces is beginning to seem more vital, our environment is slowly being destroyed. Pollution, industrialisation, mistreatment of workers, loss of biodiversity, extinction of species and micro-plastics – the situation is dire and at desperate need for change. According to Thackara (2016), since design has focused so vehemently on message, the system behind it which has created economic struggle and environmental devastation is largely ignored. The focus of design needs to be shifted away from the need for capital growth and toward the health of human and non-human life.



Fig 5. Nienke Hoogvliet, *Sea Me*, 2016.

Part of this means to reshape the very system itself. A system cannot be restructured in one go, as there are too many threads too fragile to shift. Still, there are hundreds of projects, groups and designers working around the world to create systemic change in their discipline (Thackara, 2016). Nienke Hoogvliet (Solanski, 2018) is one such designer looking to adopt overlooked materials into

her work to propose new sustainable possibilities. In her two-year study in Delft, The Netherlands, Hoogvliet explored the use of seaweed as a possible untapped resource. It is estimated that marine plants produce up to 80% of the world's oxygen as well as creating important habitats for marine life (Solanki, 2018, p.138). Hoogvliet forages for her seaweed on the Netherland seafront, and through her study produced a yarn, numerous textile dyes and even a bioplastic.

The seaweed yarn (Fig. 6) was dyed with seaweed and handwoven, creating a strong link between the original plant and its composite materials. The use of seaweed could also be a great alternative to the swathes of land being used to grow crops such as flax and cotton, as well as reducing the need for pesticides and encouraging care towards our marine ecosystems.



Fig 6. Nienke Hoogvliet, *Sea Me*, 2016.

Nienke Hoogvliet's study demonstrates the necessary questioning of overlooked resources. These can be used instead of harmful chemicals, plastics, and fossil fuels. By focusing on material abundance, offcuts, excess materials from industry, designers can identify areas that are underutilised that would otherwise be wasted. I have utilised within my own practice post-production waste materials, donated by companies that would otherwise need to dispose them – likely to end up in landfill. Where there is an abundance of material, it is better to recycle than to add to the growing numbers of textile waste. It can also lead to more questioning: how the materials properties can adapt for new contexts, if it responds to natural dye and print processes, if it can be used with other materials to become more robust. As an emerging designer, these questions can help identify possibly unexplored areas that could lead to new sustainable solutions.

Similarly, it is important to not overestimate abundance – this does not mean the materials are infinite or exhaustive, merely questioning what is already provided to us. By engaging with these materials, we become more connected to the non-human world and grow an appreciation, a fervent need to keep it thriving.

In my recent project 'Foraged and Found', I have foraged locally for plants around Swansea to use for natural dye. Doing this has cultivated a deep curiosity about the roles of each plant within the local ecology, where I can find them growing in abundance and how I can carefully remove what I need without disturbing wildlife. These plants include buddleia, nettles, brambles, and ivy, which often grow wild in unkempt spaces around urban environments due to their hardy natures and ability to thrive in difficult conditions. Buddleia is vital for local biodiversity and provides food for a variety of insects during the summer months. In the winter, the flower heads die and turn brown. Collecting the plants once they have died means connecting to their natural lifecycles. Nettles, brambles, and ivy provide shelter for birds, mice, insects and even bats (Harmer, 2006). Having respect and care for the local ecology, biodiversity and non-human life is essential, and directly engaging with the environment has started to deeply inform my design and personal lifestyle decisions.

Engaging with the earth and its abundant resources can mean focusing down to the smallest of life systems - bacteria. Thackara says that because microbial life is interconnected, this influences the health of soil, which in turn affects crops, animals, and eventually our own health (2016, p.132). Each designer, agriculturalist, ecologist, and farmer hold their own pair of hands into the web, allowing the interconnectedness of ecologic systems to be reflected between people. Thackara explains the need to engage with those outside design circles, such as city planners, farmers, conservationists, and ecologists, to incorporate a whole-system approach (2016, p.133). The ecology of place, according to Browning and Ryan (2020), considers the geography of the surrounding area, local

habitats, and climate to inform decision-making. It is necessary to consider the local communities, businesses, traditions, and identity of a place to improve the area with an empathetic, rounded understanding of human needs.

In Browning and Ryan's book of biophilic design, they cover important principles they believe designers should aim for (2020, p.26-27). This includes emotional wellbeing, engaging with nature, and encouraging a positive relationship between humans and the surrounding ecology. The need for sustained engagement with natural surroundings is important not only for personal wellbeing, but for the benefit of non-human life. In *Fear and Love* (2016), McGuirk and Delicado explain that constant access to virtual realities have caused a disconnect to the real world. They describe a disconnection from the emotional and the physical – the reality that influences emotion and the reality that can be influenced. As simulated experience is prioritised, the more separated communities become from each other, the world and even an individual's sense of existence.

Fisher and Davies wrote "the world doesn't end with a bang, it winks out, unravels, gradually falls apart" when analysing the film *Children of Men in Capitalist Realism* (2009). This is extremely relevant to the current ecological crises. It has been growing since the industrial revolution and continues to increase as technology and virtual reality distracts, over-compensates, and replaces.

Hacer Developments and Powell Dobson Architects are currently working on a regeneration project in Swansea, bringing together environmentalists, scientists, and architects across a broad range of disciplines to work on a 'biophilic living' building in the heart of Swansea (Biophilic Living, 2023). The building is planned to have a community garden that can be used to grow food, affordable housing, living walls, along with sustainable solar panels and rainwater collection (Biophilic Living, 2022).

Redevelopment of an already existing building means connecting to the pre-existing history of the space – similar in the reuse of textiles, connecting to the history of the original cloth. Hacer Developments recognises the importance of community within sustainability; caring for one another means caring for our shared environment. There is also the opportunity to involve textile designers; in the community garden, plants can be grown for their contribution to local ecology whilst yielding natural dyes and fibres. Weeds or unwanted plants could similarly be used to create fabrics or dyes, which could be made into products for the community (clothes, furnishings, accessories).

Everyone connects to the web of interdependence. Non-human life is included in this web; bacteria, soil, plants, animals, earth, and sea, rely on our actions as vitally as we do on theirs. Prioritising care in textiles means putting quality of life, safety, and stability of the planet above profit growth. We are already moving in this direction through more informed consumer choices, companies becoming more sustainable and the use of technology to help efficiently produce necessities. Emotional

wellbeing also has its place in the conversation: creating fulfilling careers, tackling isolation through community projects, and improving mental health by engaging with green spaces. All of this can be done by reconnecting to the environment, locally and globally. Finally, it is essential to cultivate a caring curiosity that encourages individuals across a breadth of disciplines to question materials, move beyond common applications and use abundant, overlooked resources. Designers have an important role to highlight the need for care, by offering new perspectives and proposing creative solutions to issues of sustainability. One individual cannot change the system on their own – but each can pull a string on the web. Through growing communities and environmental awareness, we care for the planet, and in turn, one another.

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Figure 2. Iceland Academy of Arts. *Paper from inner bark and ash* (2016) Accessed from: <https://www.dezeen.com/2016/03/18/iceland-academy-arts-product-design-students-willow-project-materials-range-designmarch-2016/> (Accessed: 5 December 2023)

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