

week 11- environmental futures: reflecting on the course



“If design is ecologically responsive, then it is also revolutionary.” (Papanek, 1977:200)

For me, this quote summarises my learning research and thoughts perfectly. As emphasized consistently in my blog posts, I firmly believe that as the next generation of designers, it is extremely important to proactively embrace a design approach that works with our environment, not against it.

I have found this course to be both enlightening and eye-opening. Though I was already aware of environmental issues and driven by a sense of responsibility in my own practice, I did not anticipate the depth of insights and paradigm shifts that awaited me.

The key idea I will take away from this course is the interconnectedness between the environment and design. It has become a key focus of mine to create designs which are not only visually appealing but consider our environment within every stage of the making process. This realization was heavily influenced by the ecological design philosophy of Van

Der Ryn and Cowan, which emphasises the interconnectedness of all living entities. The concept of interconnectedness has fundamentally altered my perspective, serving as a constant reminder that design goes beyond aesthetics and function.

The concept of “cradle-to-cradle” design, put forward by McDonough and Braungart, has also hugely impacted my perspective on sustainable design. The cradle-to-cradle framework challenges the traditional model of “cradle-to-grave” by envisioning materials that can be continually recycled or biodegraded. This reading in particular made me reflect on my design decisions and consider the full lifecycle implications of my designs. I feel morally obliged to make a conscious effort to integrate sustainability into every project.

Though theorists have definitely helped assist my learning, I have been sure to remind myself that they are largely philosophical, and have used my blogs as a means of being critical of their idealist nature. However, I do think it is important that as designers we are open-minded and are able to imagine all sorts of possible futures, as these discussions are the key to starting change.

Changes I have started to make...

As a result of my reflection over the past 10 weeks, I have found myself increasingly drawn to the philosophy of slow design. The principles that underpin this approach align seamlessly with my design practice of textiles. In a world where fast fashion is such a huge issue, I am trying to design with intention, selecting materials that are not only aesthetically pleasing but also environmentally responsible.

My own research led me to watch the **RiverBlue** documentary, which explores the environmental impact of the fashion industry on rivers around the world. The film highlights the pollution caused by the production of clothing, particularly

the extensive use of toxic chemicals and dyes, which often end up contaminating water sources. I found the documentary to be an extremely eye-opening exploration of the dark side of the fashion industry. It has urged me to be more conscious of my clothing choices and consider ways that I can contribute to advocating for sustainable and environmentally friendly practices within textiles and fashion.



Of the back of this, I have begun exploring organic fibres, and sustainable dyeing techniques that prioritize longevity over disposability.

Summarising my findings surrounding natural dyes:

Natural dyes are a great choice for conscious fashion as they advocate that the process of design is slow and intentional. It can also be a zero-waste alternative, especially when food waste is used for dyeing purposes. While there are complexities around sustainably upscaling natural dyes, they are still a great option for small, conscious fashion brands. I think that upscaling these processes for large-scale companies will require a lot of transparency and compromise. I don't think either natural or synthetic dyes are entirely right or wrong, but could be combined to work towards a more environmentally conscious design outlook.

Natural dye development so far...



fabrics dyed with black tea



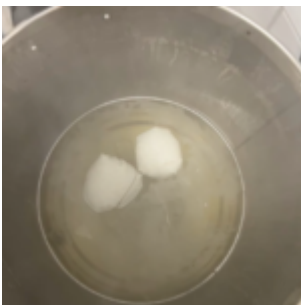
fabrics dyed with logwood



fabrics dyed with black beans



soaking hornbeam bark for natural dye colour



soaking ivory leaves in dye bath to extract natural colour

As I continue my journey in the textile design field, I believe that the principles of slow design will remain at the core of my practice. Following this course, I feel a renewed

sense of responsibility to create products and materials that not only minimize harm but actively contribute to the regeneration of our environment. I have begun to understand that environmental design is an evolving discipline that demands continuous learning and adaptation. As a young designer, I believe that I have a commitment to staying informed and being responsive to an evolving industry with constant challenges. I am driven by the prospect of transitioning into a professional role within the textiles industry, where I can contribute to the development of new materials that challenge the conventions of traditional design, through thoughtful, intentional, and ecologically conscious practices.

References:

Braungart, M. and McDonough, W. (2009). *Cradle to cradle: remaking the way we make things*. London: Vintage.

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Papanek, V. (1977). *Design for the Real World: Human Ecology and Social Change*. New York: Pantheon.

River Blue. (2017). [DVD]. Directed by: David McIlvride and Roger Williams. Canada: Paddle Productions.

week 10: environmental

futures- reflecting on the Anthropocene



In recent weeks, my exploration of environmental design has led me to reflect on the concept of the Anthropocene and I felt the need to revisit it in these final weeks of blog posts. Initially, I found this idea perplexing and somewhat unnecessary- a complex term for something we already know. However, as I started contextualizing it within theories and research throughout the course, I began to recognize its significance in reshaping our relationship with the environment.

“‘Anthropocene’ is the proposed name for a geologic epoch in which humans have become the major force determining the continuing livability of the earth.” (Lowenhaupt Tsing, Bubandt, Gan and Swanson, 2017:1) . The concept of the Anthropocene reflects a shift in our understanding of humanity’s impact on the Earth and acknowledges that humans have become the primary force determining the planet’s continued livability. Additionally, the term “Capitalocene” introduces a critical perspective, emphasizing the crucial role of capitalist systems in driving environmental changes.

What strikes me is that both these terms have been devised by humans themselves. It appears that we have been aware of our impact for years, enough to theorize and define, yet not enough to make meaningful change. Surely increased awareness of human influence should make us more considerate. The notion that our actions can alter the course of geological history

should, in theory, evoke a sense of responsibility to act cautiously and sustainably. However, the reality is different, and the majority continues to prioritize short-term gains over long-term consequences, contributing to what Tony Fry termed as a “still accelerating defuturing condition of unsustainability” (Fry,2009).

The concept of defuturing suggests that, by persisting in unsustainable actions, we are robbing ourselves and other living species of a future. It has now been over a decade since Fry’s warning, which provokes the question: Why do we still resist the critical need for a shift in design thinking, continuing to compromise the well-being of our environment?

The perspective of time

The idea of living in the Anthropocene prompts a reconsideration of our relationship with time. Unlike traditional geological ages that natural processes, the Anthropocene highlights how human activities, particularly capitalism, are rapidly altering the environment. This acceleration challenges our conventional understanding of time, emphasizing the urgent need to recognize the rapid geological impact of human actions. I would argue that if this was better understood and more widely explained, it could be a critical point for change and better understanding within wider society.

An unsettling feeling

For me personally the Anthropocene instills an unsettling feeling. It truly puts into perspective the rapid and uncomfortable changes humans are imposing on the environment. The level of uncertainty created by human activities is discomfoting and highlights the misguided sense of power that our humancentric societies possess. Paradoxically, our belief in total control over our environment has led to a situation

where we have very little control. Though perhaps most concerningly, the misguided feeling of power still largely remains.

“The warning given by the Anthropocene concept, and the recent advances in the sciences of the Earth system, thus go much further than an anthropocentric view of the ‘environmental crisis’, no matter how alarming” (Bonneuil, 2017:19). The Anthropocene prompts us to think about the impact of humans and capitalist systems on earth. It provides an unsettling yet beneficial perspective, encouraging us to understand why changes need to be made and how critical it is to take more sustainable paths forward.

Designer of the week...

However, despite the challenges, there are positive developments. As a textile designer focused on material innovation, I am optimistic about our future. One noteworthy example is cactus leather developed by **Desserto**.

After two years of research and development, Adrián López Velarde and Marte Cázarez created a marketable cactus-based material. This innovation minimizes water use, eliminates the need for irrigation systems, and contributes to reducing greenhouse emissions. Unlike other supposedly sustainable alternatives, cactus leather avoids toxic substances in processing and dyeing. This example highlights the potential for sustainable practices in design, offering a glimpse into a future where innovative materials work with, not against, our environment.



<https://desserto.com.mx/home>

References-

A.L. Tsing, H. Swanson, E. Gan, and N. Bubandt (eds.) (2017) Arts of living on a damaged planet : ghosts of the Anthropocene. Minneapolis, University of Minnesota Press.

Bonneuil, C. (2017) The shock of the Anthropocene : the Earth, history and us. London, Verso.

Fry, T. (2009) Design Futuring: Sustainability, Ethics and New Practice, Oxford, Berg.

week 9: ecological design



Ecological Design- Sim Van Der Ryn

and Stuart Cowan.

“Thinking ecologically about design is a way of strengthening the weave that links nature and culture.” (Van Der Ryn and Cowan, 1996:33)

This week’s blog post will discuss the key reading for theme 4, “Ecological Design” by Sim Van Der Ryn and Stuart Cowan. The book explores how ecological principles are applied to design, emphasising the importance of sustainable designs that consider the impact on our environment. The authors advocate for a shift in perspective from traditional, linear design thinking to a more holistic, ecological approach. Like many of the theorists we have covered in the course thus far, they stress the interconnectedness of all elements of our environment and the need to consider the long-term consequences of design decisions, defining ecological design as **“any form of design that minimizes environmentally destructive impacts by integrating itself with living processes.” (Van Der Ryn and Cowan, 1996:33)**

The authors outline five fundamental principles for ecological design, summarized as follows:

Solutions grow from place- Conventional practices often overlook the importance of learning from and adapting to a place over time. The physical structure of a design should not only serve its intended purpose but should also contribute to the overall efficiency and sustainability of its environment. By doing so, designers can create spaces that harmonize with their surroundings, promoting a sense of belonging and sustainability.

Ecological accounting informs design- It stresses the need to understand and minimize the ecological costs associated with resource consumption, pollution, and habitat destruction. Seeks to minimize waste and energy consumption through efficient design strategies, recycled materials, and using

renewable resources whenever possible.

Design with nature- Emphasizes the importance of studying and learning from natural systems. Over many years nature has developed efficient and sustainable solutions, and ecological design seeks to incorporate these strategies into human-made systems.

Everyone is a designer- This principle challenges the traditional roles of designer, participant, and user. **“The best design experiences occur when no one can claim credit for the solution” (Van Der Ryn and Cowan, 1996:73)** The authors believe that ignoring distinctions between designer, participant, and user is beneficial as it leads to more organic and community-driven design solutions.

Make Nature Visible- Users become more mindful and responsible as they actively engage with the technology. If a design requires people’s involvement it connects them with their own biological processes and encourages a sense of responsibility and mindfulness.

Upon reflection, I feel these principles are fairly realistic and would require more simple mindset shifts and more accessible lifestyle changes than other philosophical approaches I have read prior in the course. As a designer, I feel inspired by the approach and think it challenges us to see beyond the functional demands of a project and consider the broader impact on the environment. Though these principles are posed as an optional framework for change, I personally believe that adopting them should not be seen as an option but a responsibility.

Overall, I think “Ecological Design” challenges us to think beyond the current day and embrace a future where our designs not only coexist with our environment but actively contribute to its thriving. In my opinion, it is essential that writing like that of Van Der Ryn and Cowan is widely endorsed within

the design community, and made accessible to the next generation of designers. The responsibility of rectifying the environmental impact left by previous generations lies in our hands and I believe that redefining our approach to environmental consciousness and encouraging broader conversation surrounding our responsibility to the planet will be the foundation for change.

Designer of the week...

An example where Van Der Ryn and Cowans ecological design principles are already being used is within the concept of green roofs. Instead of viewing rooftops as merely functional, green roofs envision these spaces as opportunities for biodiversity, energy efficiency, and water conservation. By combining living natural materials and architectural design, they not only enhance the aesthetic appeal of structures but 'help to create new wildlife habitats within urban environments or recreate habitats that were lost during development.' (Green Roof Organisation,2023).

- Green roofs mimic natural ecosystems and integrate with the local environment.
- Optimize resource use on green roofs, minimizing the need for external inputs like water and fertilizers.
- Enhance building energy efficiency by providing insulation and reducing heat absorption.
- Focus on long-term durability and have minimal maintenance requirements to reduce the generation of waste over time.
- The community is involved in the design, use and maintenance of green roofs.

I personally think Green Roofs are a good example of a relatively simple change that could easily be applied to the majority of our future architectural design work. I think it demonstrates well that by making multiple small changes of a

similar nature we can gradually come together across all design disciplines to contribute to wider change.



<https://www.greenrooforganisation.org/green-roofs/>

References

Cowan, S. and Van der Ryn, S. (1996) *Ecological design*. Washington D.C: Island Press.

Green Roof Organisation. (2023). *Green Roof Organisation*. Available at: <https://www.greenrooforganisation.org> (Accessed: 18 Nov 2023)

week 8: re-thinking plastic



This week's theme posed an extremely thought-provoking and challenging question: **is it time to fall in love with plastic**

again? As an environmentally conscious designer, plastic and its implications on our environment are something that I have personally spent a lot of time researching. So to me, in a world increasingly aware of its environmental impact, this question initially seemed totally paradoxical. However, after re-evaluating my perspective and considering recent discussions and research, it has become apparent that the key is not to ignore the challenges posed by plastic but rather to reconsider our relationship with it.

The rise of plastic

“Plastics renewed the ambition of shaping the world according to our purposes with no resistance from nature” (Vincent, 2013:27)

Plastic, due to its durability and malleability, has played a crucial role in technological advancement and societal transformations. Initially presented as a luxury alternative, it quickly became associated with inauthenticity and bad taste, leading to the rise of single-use plastics. The convenience of these disposable plastic products fueled a throwaway culture, contributing to severe environmental repercussions.

An environmental awakening

Oceans filled with plastic waste, landfills overflowing with non-biodegradable products, and loss of biodiversity. Just to name a few of the many issues caused by our selfish, human-centric throwaway culture. As a result the world has begun waking up to the environmental cost of plastic, and a material that was once praised for its versatility and convenience, has now become one of the most widely criticised for its role in environmental degradation and pollution.

Designing for a sustainable future

This awakening has also sparked innovation, with researchers and designers exploring biodegradable alternatives and sustainable solutions. The focus has shifted to creating a circular economy where plastic can be reused, repurposed, and recycled.

Bioplastics and sustainable alternatives

Bioplastics, derived from renewable resources like corn starch or sugarcane offer an interesting compromise. These materials break down more easily than traditional plastics, addressing the issue of long-lasting environmental impact.



Australian biomaterials company **Great Wrap** have developed a compostable bioplastic alternative to clingfilm made from waste potatoes, designed to break down in soil in just 180 days. <https://greatwrap.com.au>

End of single-use plastics through **circular design**

There has been a shift towards circular design is revolutionizing the perception of material lifecycles, particularly for plastic. Durable, reusable alternatives are gradually replacing single-use plastics, in an attempt to

alleviate environmental pollution.

Upcycling and repurposing

Designers have begun creatively repurposing plastic waste into functional and aesthetic creations, showcasing the beauty of giving plastic a second life. This approach resonates strongly with my personal design ethos and is a conscious consideration that consistently informs my work.

Not always as simple as it seems...

Though there has undoubtedly been progress towards more mindful use of plastic and plastic alternatives amongst both small designers and larger companies, this shift has also presented challenges.



Danish company Lego has abandoned its programme to make recycled plastic bricks from discarded bottles after projections suggested that if applied at the large scale required, the material would ultimately have a higher carbon footprint.

The company introduced its first prototype bricks using recycled PET in 2021 as part of the aim to have all of its products made from sustainable materials by the end of the decade. However, after two years of testing, Lego has now scrapped the project as calculations indicated that retooling its factories to process rPET – instead of the acrylonitrile butadiene styrene (ABS) would ultimately generate more emissions over the product's lifecycle.

<https://www.dezeen.com/2023/09/26/lego-recycled-plastic-bottle-bricks/>

Recycled doesn't necessarily mean sustainable

The Lego example demonstrates the challenges involved in scaling up sustainable practices, whilst also highlighting the importance of addressing the complexities surrounding greenwashing, whether intentional or unintentional.

Companies portraying a false or exaggerated commitment to sustainability, eco-friendliness, or other environmentally responsible practices demands our consideration as designers. Had the brand proceeded with its recycling initiative, it would have made products that were even less sustainable than its conventional counterparts, despite the

appearance of being recycled and environmentally friendly. This serves as a stark reminder that evaluating the authenticity of sustainable products and companies will be of uppermost importance as we move towards a more environmentally friendly future.

Finding a balance

To conclude, I would personally argue that like with most environmental design issues, it's about finding a balance. I believe that plastic will undergo a revival, and as designers, we will need to redefine our relationship with the material to something that is positive and innovative. By embracing responsible design practices, exploring alternative materials, and finding a balance between convenience and sustainability, we can pave the way for a future where plastic contributes positively to environmental well-being.

Designer of the week...

Plastic Baroque collection



James Shaw is a London-based designer who makes furniture from the sweepings left on plastic-recycling facility's floors after the processing of high-density polyethylene, such milk bottles and other food packaging.

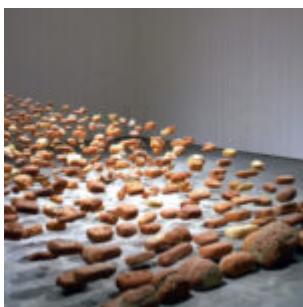
I love this collection as I think it showcases the huge potential for innovation that arises from repurposing waste materials. The unconventional style and texture of his material choice add value and character to his interiors, making them seem quite luxurious, despite their origin as recycled waste. This collection not only exemplifies Shaw's unique creative process but also highlights the transformative power of design, turning discarded materials into functional and aesthetically pleasing pieces.

<https://jamesmichaelshaw.co.uk>

References

Gabrys, J. Hawkins, G and Michael, M (eds). (2013). *Accumulation: The Material Politics of Plastic*. Routledge
Available at: doi:<https://doi.org/10.4324/9780203070215>.

week 7: vibrant matter



Jane Bennett: Vibrant Matter

In this week's post I wanted to reflect on the set reading of the week, Jane Bennett's book "Vibrant Matter". The reading

made it apparent to me how important it is to consider our connection with the world of non-human things, and challenge traditional materialism. Though challenging at times, the reading introduced me to a range of compelling and thought-provoking ideas that really challenged my perspective on life and matter. It was clear to me that her work has the potential to contribute to a wider awareness of our interconnectedness with the environment. However, due to its philosophical nature, I was aware to approach her writing with caution and made sure to reflect on its strengths and weaknesses.

Understanding the vibrancy of matter

Bennett introduces the concept of the “vibrancy of matter,” suggesting that matter is far from being passive or lifeless but instead, it possesses a kind of liveliness and vitality. She asks the reader to recognize the force of inanimate objects and non-human entities and their potential to influence human activities. This reimagining of matter challenges our traditional, human-centric perspective and encourages us to consider the interconnectedness of all things. I would argue that this perspective is essential to wider environmental action, as though it is a relatively simple idea, it challenges the reader to understand the insignificance of humans, and ultimately the very little control we have over life outcomes.

Assemblages

One of the key concepts of Bennett’s theory is the “assemblage.” In the words of Bennett, “Assemblages are ad hoc groupings of diverse elements, of vibrant materials of all sorts.” (Bennett,2010:23) She believes that human, non-human entities, objects, and environments are all part of a dynamic network of relationships and connections. Understanding the assemblage helps the reader to comprehend the web of

interactions that shape our world, and again reiterates the importance of seeing ourselves as part of our environment rather than in control of it.

Is vital materialism radical?

Vital materialism is considered radical because it challenges the anthropocentric view that humans are the centre of all existence. It challenges this very traditional and established hierarchy by suggesting that agency and vitality are not exclusive to humans. The approach acknowledges the shared vitality of all matter, emphasizing the fact that living organisms cannot and should not be separated, categorised, or ranked. By acknowledging the agency of non-human entities, vital materialism invites us to reconsider our ethical responsibilities towards the environment and non-human life forms.

Vital materialism as an ecological approach

I personally believe that advocating for a better understanding of agency and life through an approach like vital materialism could potentially shift society towards a more environmentally aware and considerate state. Though I do understand that some aspects of the concept may be slightly idealistic and over-simplified, for example, neglecting the realities of competition and natural selection,

I would argue that vital materialism should not be seen as a radical approach. Instead, it should perhaps be seen as inspiring, encouraging humans to adopt a more responsible attitude and consider the impact of our actions on all aspects of the ecosystem, including non-human entities. I think the reason these ideas may seem so unrealistic and extreme to some purely comes down to a lack of understanding and awareness, which is a product of years of deeply ingrained societal

perspectives of human to non-human hierarchies. However, I do appreciate that the term “radical” can be context-dependent, so the perceived radicalism of vital materialism may depend on the context in which it is discussed.

To conclude, Jane Bennett’s “Vibrant Matter” challenges our conventional understanding of our relationship with our environment. In my opinion, her ideas surrounding the vibrancy of matter, assemblages, and vital materialism provide a fresh and enlightening perspective on our relationship with the world around us. However, Bennet’s work is slightly controversial, while it presents a fresh perspective on materialism, it also raises questions and concerns surrounding realism and practicality. Nevertheless, in saying this, if we remember that materialism, like any philosophical framework, is simply a tool to enhance our understanding and provoke critical reflection, then I would argue that it could be very useful.

The reading was undoubtedly very challenging, both in terms of concept and vocabulary, which was one of the main concerns I personally had about her work. I do believe her ideas provide a good foundation for a widespread change in mindset, however, her ideas have relatively little value if they can’t be fully communicated to those who are less academically inclined.

Designer of the week...

“Design should be part of life and not separate from it” (Mau, 2021)

Building on my concerns about the accessibility of environmental design thinking in broader society, I want to touch on **Bruce Mau**, a Canadian designer and author, as an exemplary figure in this regard. The Massive Change Network, Mau employs design thinking to address global challenges and

develop sustainable solutions and has collaborated with major international brands including Coca-Cola.

I believe Bruce Mau serves as a perfect example of a designer who not only advocates for sustainable and environmentally conscious design practices but also communicates his ideas in a clear and accessible manner. I find his talk, "How Design Can Change the World," delivered at Business of Design Week 2021 (linked in the summary video below), particularly inspirational. Here, Mau summarises very clearly how designers can contribute to sustainable lifestyles, through a commitment to creating solutions that consider the long-term impact on the environment and society.

What resonates with me the most is Mau's emphasis on empathy as the fundamental mindset driving transformative design. By focusing on empathy, a universally experienced human emotion, he suggests an achievable and realistic motivation for broader society. His insights not only make the principles of sustainable design accessible but also inspire a mindset shift, urging designers and the wider society to think creatively and empathetically towards building a better future.

<https://www.brucemaudesign.com>

References-

Bennett, J. (2010). *The Agency of Assemblages*, Duke University Press eBooks. Available at: <https://doi.org/10.1215/9780822391623-002>.

Dezeen (2022). Design should "be part of life and not separate from it" says Bruce Mau. Available at: <https://www.youtube.com/watch?v=JSMwI-z0F3k&t=115s> (Accessed 5 November 2023)

