Time to Reflect

Eleven weeks later I am reflecting on the transformative journey through the Environmental Design Course, exploring how it reshaped my understanding of sustainable and ecological design practices. Before embarking on the Environmental Design course I thought recycling, choosing a sustainable material, or reducing waste was what created a sustainable approach to design. However, although those practices are an important part of ecologically responsible design they play a small role. If we are going to secure the future of the planet we must design with an inclusive, interconnected approach that considers and includes all human and non-human things throughout the design process.

Inspiration for this type of “environmental design practice” can be taken from settled cultures that live with a slow approach to life. This way of life is vastly different from our western society that is fast paced, excessive and thrives on consumption. Settled cultures take their time to achieve things, working mindfully, in touch with the land around them, using resources provided by the surrounding community. Orr mentions a few successful cases of this ecological design and highlights that it is possible for all designers to create ecological designs with this level of success if we draw on the history that is “evident in many places, times and cultures prior to our own”. This approach requires a deeper understanding of cultural practices that have harmonized with nature over centuries, enabling designers to draw on “intelligence that is deeply embedded in the culture”. (Orr, DW. 2002)

Designing with this mindset means shifting away from the fast-paced, consumption-driven habits of modern society and instead embracing practices that prioritize mindfulness, community,

and respect for the natural world. As Orr highlights, the solutions to our current ecological crises often lie in the practices of the past—cultures that demonstrated how to live and create in ways that sustain rather than deplete the world around them. By learning from history and remaining committed to an interconnected approach, we can collectively work towards a design ethos that truly supports the long-term well-being of our world.

Ecological Civilization (Lent, J. 2021)

The Environmental Design course has been a transformative experience, reshaping my understanding of what it truly means to design sustainably. I have learned that ecologically responsible design is not merely about individual actions like recycling but involves adopting a holistic and inclusive approach. This approach requires us to recognize the interconnectedness of all living and non-living things and to draw inspiration from the wisdom of cultures that have lived in harmony with nature for centuries.

Ultimately, this course has highlighted the importance of not only individual responsibility but also collective action in fostering a way of life that ensures a balance between human needs and the health of the planet. By incorporating these principles into future designs, we can contribute to a more balanced and ecologically sound world. Moving forward, I am inspired to integrate these lessons into my own practice, embracing the complexity and responsibility of designing for a sustainable future.

Bibliography:

Lent, J. 2021. What Does An ecological Civilisation Look Like: In Depth https://www.yesmagazine.org/issue/ecological-civilization/2021/02/16/what-does-ecological-civilization-look-like Accessed on 25/11/2024

Orr, DW 2002, Nature of Design: Ecology, Culture, and Human Intention, Oxford University Press, Cary. Available from: ProQuest eBook Central. (p7-12)

To Condem or Not to Condem?

The theme for this week's debate was "future humans, looking back on our early-mid 21st Century design considerations and actions, will thank us rather than condemn". I believe that future humans will without doubt condemn us for our design considerations of the 21st century. Sure, we have made some

positive changes that point us in the right direction, like being more mindful about sustainability within the design field. But overall, the changes we have made have not been significant enough to regenerate the negative impacts our design decisions have already left on our natural environment.

Our Only Home (UN Climate Action, 2024)

The earth’s temperature is still rising at an uncontrollable rate, carbon emissions are extremely high, we are dependent on fossil fuels, plastic is taking over our oceans. All these things are still causing large scale impacts on the planet. According to UN Climate Action we are “losing species at a rate 1,000 times greater than at any other time in recorded human history”, risking the extinction of many species in the years to come. (UN Climate Action. 2024) We are facing a future with a loss of biodiversity, a lack of natural resources and extreme weather conditions. This does not leave a positive impression on future generations that we did all we

could to help solve the problem.

Berners-Lee talks about how our society has had decades of knowledge and warnings about the impacts of our behaviour on climate change yet “we have wasted that time through our denial, first of the problem itself and then of the nature of the solution that is required”. The only way for future designers not to be condemned is for us to completely re-think our approach to the whole design process. (Berners-Lee, M. 2019)

New Climate Story (UN Climate Action, 2024)

We still make design choices that are convenient, consuming products and materials at a rate that is completely unsustainable to our natural environment. Designers have the power to drastically change the future of the planet by educating ourselves on these problems and designing with a holistic, cradle-to-cradle approach. Understanding where the

products and materials we choose have come from, where they end up, and the agency they possess, is the only way to design responsibly and create significant changes. This approach to design makes it possible to reduce waste, reuse materials, and recycle objects throughout a project, creating a mindful and considered design practice. If we do not want to be condemned by future generations, we need to make these changes to the way we design now. We can no longer approach design with an uneducated naivety that doing the minimum will be ok, if we want to secure the future of our planet.

Bibliography:

Berners-Lee, M. (2019) *There Is No Planet B: A Handbook for the Make-or-Break Years*. Cambridge: Cambridge University Press.

UN Climate Action. (2024). Causes and Effects of Climate Change https://www.un.org/en/climatechange/science/causes-effects-climate-change Accessed on 22/11/2024

The Eden of Ecological Design

This week we are discovering the depths of Ecological Design. The author of this week's reading defines ecological design as "any form of design that minimizes environmentally destructive impacts by integrating itself with living processes". (Cowan, S & Vanderyn, S. 2007) This clearly defines the way we need to think about the design process to create ecologically responsible designs. For designers this means respecting all elements of nature and the environment throughout the design

development process. By taking into consideration the resources we are using and how they are replenished, as well as the impacts of manufacturing those resources. Through consideration of the natural environment in which we are building designers can minimise the impact of the natural species and habitats within those environments and develop design solutions that work in harmony with nature, integrating “human purpose with natures own flows, cycles, and patterns”. (Cowan, S & Vanderyn, S. 2007)

The topic of scale linking was another new concept to me, the theory that “everything influences everything around it”, be the scale small or large everything holistically interacts with its surrounding environment creating varying scales of impact. Scale linking is crucial for designers if we are going to consider and address the unique interconnectedness of ecological environments and the consequences our design choices make on those ecological systems. Scale linking enables designers to develop a sustainable approach that creates harmony between human and ecological well-being.

Eden Projects Biomes (Ackers, L. 2021)

A project that I personally love that embodies scale linking throughout its design is the Eden Project in Cornwall, UK. This is an excellent example of scale linking in the ways it connects local and global scales through its architecture,

ecological systems, and educational mission. The two giant biomes within the site replicate the mediterranean and rainforest ecosystems, this creates a localised link to global ecological systems. The renewable energy use and rainwater harvesting is a local response to global sustainability goals. The educational programs within the project highlight the interconnectedness of local actions to global impacts. (Ackers, L. 2021)

Inside the Biomes at the Eden Project (Ibrahim, N. 2021)

This project has successfully used its design to create a systems-thinking mindset that demonstrates how actions at one scale (local) affect another scale (global). This is why designers play such a huge role in the interconnectedness of these systems. Our design decisions made at small local scale contribute to the larger global scale and impact the larger ecological systems. This project proves that by designing with a holistic approach that engages the principles of ecological design we can fulfil our vital role in shaping a sustainable future that integrates humans with the living flow of nature. (Ibrahim, N. 2021)

Bibliography:

Ackers, L. 2021. Everything you need to know about The Eden Project, Cornwall. https://www.hpb.co.uk/blog/everything-you-need-to-know-about-the-eden-project-cornwall/ Accessed on 15/11/2024

Cowan, S & Vanderyn, S. 2007. Ecological design: with a new introduction by the authors. Island Press. Washington. 10th Edition

Ibrahim, N. 2021. The Eden Project in Cornwall, United Kingdom by Grimshaw. https://amazingarchitecture.com/exhibitions/the-eden-project-in-cornwall-united-kingdom-by-grimshawAccessed on 14/11/2024

Plastic Fantastic

Plastic a material once seen as fantastic has now become a material with many negative connotations. We interact with so many types of plastics daily as humans but are we doing enough to stop the destruction plastic causes to our natural environment? Is it possible to reimagine the way we view plastic? According to SAS (surfers against sewage) “1 in 3 fish caught for human consumption now contains plastic”, so now as humans we are consuming plastic through fish due to our pollution habits. (SAS, 2024)

Image of fish in the ocean (EMF, 2019)

World War II was the beginning of a need for the expansion of plastic as a material, to “preserve scarce natural resources”. (SHI, 2024) By the end of the war production had increased by 300%, plastic was replacing many other materials. Humans designed this material to preserve our natural resources, when in fact the life cycle has now come full circle destroying our natural resources and ending up in the food we eat. This is a fantastic example of the importance of materials and the role they play. It highlights the need for material education throughout the design process. If designers are not choosing materials responsibly then we are not fully understanding future impacts of our design choices. This example should educate us on the importance of the life cycle of a material and the negative impacts it can create on the future of the planet and ourselves if not designed and used responsibly.

Often many design decisions we make have a linear approach, focusing on the finished aesthetic of a space instead of also thinking about the life span of the space. Designers need to modernise our approach to the way we design, focusing on a holistic approach that considers what happens after the space has become redundant. We need to consider where the materials

we have chosen will finish their life cycle? Will they be reused and recycled or will they end up in landfill. The Ellen Macarthur Foundation talks about it best when discussing a "circular economy" where "materials are designed to be used, not used up". In a circular economy plastic never becomes waste that causes pollution. (EMF, 2019)

The foundation also talks about the fact that it is now no longer possible to create a circular economy for plastic without the elimination of the material, we need to physically reduce the volume of the material produced to create a circular economy of the plastic already in circulation. There is a need for designers to develop creative ways of reusing plastic within design to change the impacts the material has on the environment. Achieving this could reframe the negative connotations we perceive around this mass-produced material and create a fresh and positive perspective of its uses. (EMF, 2019)

Bibliography:

Surfers Against Sewage, (SAS), 2024. Plastic Pollution, Facts & Figures.

https://www.sas.org.uk/plastic-pollution/plastic-pollution-facts-figures/

Accessed on 12/11/2024

Science History Institute, (SHI), 2024. History and Future of Plastics.

https://www.sciencehistory.org/education/classroom-activities/role-playing-games/case-of-plastics/history-and-future-of-plastics/#:~:text=In%201907%20Leo%20Baekeland%20invented,the%20rapidly%20electrifying%20United%20States.

Accessed on 12/11/2024

Ellen MacArthur Foundation, (EMF). 2019. Plastics and the Circular Economy – Deep Dive

https://www.ellenmacarthurfoundation.org/plastics-and-the-circular-economy-deep-dive

Accessed on 12/11/2024

Our Vibrant Materials

This week's reading was a topic I found intriguing, the term "Vibrancy of Matter" was a completely new concept to me. My understanding is that this philosophical concept argues against traditional views that we as humans are above everything else, instead proposing that all matter both human and non-human contains agency or "vibrancy". The author proposes that this radical concept could alter the divide between humans and nature making us more interconnected with the natural world. (Bennet, J. 2010)

Essentially both human and non-human things are made up of an assemblage of "vibrant matter" that have multiple qualities and behaviours that impact our environment in ways we are not even aware of. An example of this is Electricity, while not a living entity it has many forms of "vibrancy" creating power for cities, homes & devices all things that we interact with daily, this in turn makes electricity an assemblage of "vibrant matter". (Bennet, J. 2010)

In design we use many different types of materials such as

stone, metal and wood, all of which have different properties and qualities. This concept challenges us as designers to view materials as an assemblage of “vibrant matter”, by doing this we develop a knowledgeable understanding of the history and life cycle of the material we are using. By understanding the vibrancy of the material matter designers are enabled to use them in a way that engages human connection with nature.

For example, if using wood, we can focus on the knots, cracks, patterns, smell and texture of the material throughout the design process. This is a way designers can embrace and highlight the natural characteristics of the material being used, giving us the knowledge to create a designed space where the material becomes part of the experience of the environment we have designed. This connects the user with a genuine relationship to nature through the material, establishing a deeper connection between humans and nature. Although the table below has been treated it is a great example of how viewing wood in its natural state really connects us with its life and where it has originated from.

Wooden Table Top (Barnard, S. 2024)

The use of these materials in its “vibrant form” encourages a genuine reflection of nature and the materials journey, rather than just viewing the material as part of a construction method. It changes our perception of the material from being something separate that has been treated, shaped and formed to build with to a material that connects us with its true self. This creates a more respectful understanding of the material, which puts human and non-human matter on an interconnected and equal level. Designers are then able to embrace the “vitality” of the material in a more responsive and organic manor that works in harmony with the natural environment, reducing the ecological damage to nature.

Bibliography:

Bennett, J. (2010) Vibrant matter: a political ecology of things. Durham, [N.C.], Duke University Press.

Images:

Barnard, S. (2024) Wood in Interiors: How to use natural wood in interior design, [Online image]. Available at: https://www.sarahbarnard.com/story/woodininteriors (Accessed on 30 October 2024).