Week 10 – Practice Humility

Entering the Anthropocene, defined by humanity's unparalleled influence on Earth's systems, shifts our perception of time and responsibility. The Capitalocene is propelled by our capitalist systems which we, as a collective, need to reflect on. By cultivating humility in the face of our immense impact, we pave the way for a more conscientious and respectful coexistence with the Earth and all its inhabitants.

What I have found to be incredibly useful to use as a rule of thumb is "The Guiding Principles for Slow Design" introduced by Strauss and Alastair Fuad-Luke. These principles are a fundamental ground to move forward with in my Graphic Design career.

The Meadows. Photo by Christina Yang.

The Slow Design principles can be applied to anything including the University of Edinburgh's buildings. Here is my take: instead of appearing to be perfect, the campus buildings can incorporate exposed structural elements and designs that reveal the history of student experiences. To expand beyond functionality, the architecture can encourage expressions by creating spaces that inspire creativity. Furthermore, spaces for quiet reflection and open areas allow students to reflect and process. The architecture design can also promote community by designing communal areas for engagement such as group study spaces and help students participate by fostering a sense of community within the university. Last but not least, acknowledging the need for change and adapting to the need for different spaces, usage of sustainable materials, and having flexibility are elements to a holistic sense of wellness.

It is interesting to reflect on the relationship between design and time since design, in its various forms, encapsulates perspectives on how time is perceived. One aspect is "slow time" which emphasizes the value of unhurried processes, mindful craftsmanship, and sustainable practices. Designs that embody "slow time" prioritize longevity. Another notion is "long now" which represents a far-reaching perspective that transcends immediate concerns, which means sustaining across generations and enduring solutions over short-term gains. This emphasizes durability, adaptability, and a sense of responsibility. Then there are "presents in the making" that reveal our relationship with materials influenced by our current perceptions of time. Together, these concepts become a canvas reflecting societal attitudes, cultural values, and evolving understandings of time. Designing a future embedded with awareness is one step closer to building a better tomorrow. As we confront the reality of living in an era where our actions hold the power to mold the Earth's fate, the concept of time undergoes a profound transformation – it urges us to pause, reflect, and acknowledge our limitations.

Van der Ryn and Cowan's Five Principles for ecological design:

1. Solutions Grow from Place
2. Ecological Accounting Informs Design
3. Design with Nature
4. Everyone is a Designer
5. Make Nature Visible

My manifesto:

1. The vision is for designers, architects, and consumers all to prioritize the planet for sustainable living.
2. To take responsibility for material sourcing and use innovative and cradle-to-cradle principles to minimize environmental impact.
3. To ensure fair labour conditions and have ethical production throughout.
4. To educate and collaborate throughout disciplines to create a new generation of sustainable thinkers.
5. To integrate elements of nature into design, drawing from its efficiency and promoting biodiversity.

Class manifesto combined:

1. Design for the future using the past. Use existing materials in circulation and knowledge and ideas to develop future ones to benefit the environment. Find recycling methods for all waste.
2. Design following and for nature. Nature has already figured out the most successful way to thrive, let's copy. Create for all, human and non-human. Eliminate the binary opposition between humans and nature. Let us breathe with the earth.
3. Design to link up – Interlink between different sectors and processes. Become circular. Good design is a natural

continuation. Understand the lifecycle of what is created.
4. Take responsibility. Be critical about projects, be transparent where designs have failed, boycott carbon-heavy clients. Acknowledge the balance between designers & stakeholders. Recognize the systems at work.
5. Respect the material.
6. Design with place in mind. Acknowledge and respect what's already there. Design should be a reflection of the context of its location. No one size fits all! Consider the local climate, and embrace the skills of local people and materials from that specific area.
7. Un/non-design. Conserve, leave alone, don't make, don't take up space, and even subtract (rather than add)!

Reference list

Harkness, H. (2023) Theme 4_Lecture A [PDF], Environmental Futures: *Time, Hope and Possibilities in Design*. University of Edinburgh.

Van der Ryn, S., & Cowan, S. (2007). *Ecological design*. 10th anniversary ed. Washington, DC, Island Press.

Week 9 – Green Futures Need

Action Now

Our fingerprints are everywhere, disrupting vital carbon and nitrogen cycles to crafting radionuclides and fossilized plastics in unprecedented quantities creating disturbing ethical implications of dominance.

Ecological design is a design approach that seeks inspiration from and mimics natural systems – it aims to create sustainable, efficient, and regenerative solutions. The comparison between ecological design and conventional design often highlights the differences in their approaches to resources, waste, systemic thinking, and adaptability. This comparison is useful as it serves to underscore the significant shifts required in design thinking and practices to address environmental concerns and create sustainable solutions. Embodied in the works of Sim Van der Ryn and Stuart Cowan, ecological design mirrors life, seamlessly integrating with living systems to minimize environmental impact. To me, the juxtaposition of ecological design against conventional methods serves as a compelling framework, instilling a sense of urgency to integrate ecological principles at the heart of our design endeavors.

“Scale linking” in the context of ecological design refers to the principle of integrating patterns and structures found in nature across different scales into the design process. It involves recognizing and incorporating geometrical, structural, or organizational patterns present in natural systems and applying them at various scales within a design. This concept is vital because natural systems often exhibit fractal or self-similar patterns across different scales. For instance, the branching patterns of trees mimic the branching of their smaller twigs and branches, which in turn resemble the larger branches and the overall shape of the tree. These patterns repeat at various scales, creating a coherent and efficient structure.

A park near Dean Village. Photo by Christina Yang.

Green roofs embody the five principles of ecological design. First, it mimics nature by covering building rooftops with vegetation, similar to how natural landscapes support plant life. They utilize native plants suited to the local climate, fostering biodiversity and supporting local wildlife, thus emulating natural ecosystems. Secondly, it promotes sustainability by providing insulation and reducing energy costs. Additionally, it absorbs rainwater by reducing runoffs and helping manage stormwater. Lastly, they contribute to air purification and carbon sequestration, enhancing the environment. Green roofs incorporate various scales of biodiversity, from microorganisms in the soil to larger plants, mirroring the layering and diversity seen in natural ecosystems. The Anthropocene narrative is a symphony of perspectives and revelations, urging introspection, accountability, and a collective vision for a harmonious

future where humanity and the planet thrive in a balanced, symbiotic dance.

Reference list

Harkness, H. (2023) Theme 4_Lecture A [PDF], Environmental Futures: *Time, Hope and Possibilities in Design*. University of Edinburgh.

Van der Ryn, S., & Cowan, S. (2007). *Ecological design*. 10th anniversary ed. Washington, DC, Island Press.

Week 8 – Plastic is Everywhere

In the late 19th century, plastics emerged as clever alternatives, celebrated for their role in enabling middle-class growth and technological advancements in photography, film, and electrical applications. Although initially praised, plastics faced a decline, becoming synonymous with inauthenticity. Designers successfully revamped plastic's image, aligning it with modernist beliefs. Fast forward to the 1970s, heightened environmental awareness shed light on plastic's harmful impact.

Adapting to environmental concerns, chemical companies downplayed chemical talk. Today, plastics are emblematic of our synthetic mess and resource toll. Robert Callender's

‘Plastic Beach’ vividly visualizes plastic debris, sparking contemplation on plasticity. Eco-building explores natural materials, ‘Thing-Materials’ like recycled tires, and energy-saving options.

Mark A. Miodownik passionately advocates for the reunion of material arts and sciences, emphasizing the enriching dialogue between creativity and scientific rigor. Meanwhile, Kate Franklin and Caroline Till present cutting-edge material approaches, injecting innovation into the discourse. This narrative intricately explores the interconnected nature of matter, using plastics as a compelling case study in grappling with material challenges and recalcitrance. The overarching theme goes beyond understanding materials; it calls for active engagement with the environmental impact, laying the groundwork for Environmental Futures – an immersive exploration into the intersection of time, hope, and design possibilities amid the ever-evolving dynamics between humans and their environment.

Plastic creation by me. Photo by Christina Yang.

This week’s workshop was inspiring, prompting me to spend a day at home doing this art project. I transformed plastic water bottles using scissors to shape them, cutting edges, and using red, orange, and yellow markers for a coluorful touch. Then, I used a lighter to give it a curved texture and secured everything with hot glue. Given the prevalence of plastic water bottles, I felt comfortably acquainted with the materials.

Working on this project was a lot of fun. I envision it as a stylish decor or accessory piece, and the best part is that

I’ve taken a step towards upcycling by giving these bottles a new purpose beyond their initial use. The material “pushed back” when I got a cut from the sharp plastic edges. While I’m proud of this individual piece, scaling up the production would be labor-intensive, and I’m unsure if I would make more than ten. This experience has sparked a contemplation on the intricacies of working with unconventional materials and the art of upcycling. As I reflect on this creative journey, I’m reminded that every cut and challenge is a part of the story, making the final piece even more meaningful.

Reference list

Bennett, Jane. (2010) Vibrant Matter: *a Political Ecology of Things.* Durham Duke University Press.

Harkness, H. (2023) Theme 3_Lecture B [PDF], Materials and (new) Materialism: *Bodies, Resources and Pollution*. University of Edinburgh.

Week 7 – Materiality and Sustainability

Carbon’s Journey is a thrilling account of carbon’s adventures in the air after escaping a chimney. Wind, water, and diverse terrains influence its tumultuous eight-year voyage, showcasing its dynamic interactions with living organisms like falcons. Yet, it underlines its fleeting role in biological

systems, making for an engaging narrative of organic escapades. Diving into Historical Materialism coined by Marx: It’s a vibrant lens for understanding history, spotlighting the dynamic relationship between the physical world, economic forces, and social change. By identifying internal contradictions in material production systems as the ‘engine of history,’ it critiques our consumerist obsession with material goods.

Switching gears to the ‘material turn’ in social sciences: Imagine a thrilling shift toward ‘materiality’ rather than just the physical aspects of objects. Drawing inspiration from James Gibson’s environmental classification, it challenges the notion of imposed forms, asserting instead that they dynamically generate and dissolve in material fluxes. This perspective, emphasizing the dynamic and relational nature of material properties, encourages us to tell their stories, providing a captivating narrative lens on the fascinating interplay of forces within materiality.

Playground in Leith. Photo by Christina Yang.

Imagine a kids' playground as an exciting analogy for exploring these concepts. The playground represents the chapters' exploration of materials innovation, substance, and form. It's like the various play structures and equipment that make up the space, each designed with different materials to create a dynamic and engaging environment. Now, think of the children at play as the 'ecologies of material's social lives.' They interact with the playground structures, creating a lively and interconnected social scene.

Sarah Wilkes' chapter on sustainability could be compared to the playground's emphasis on safety and eco-friendly design. It's like the swings and slides being made from recycled materials, teaching kids about the importance of taking care of their environment. The idea of the co-constitution of substances and subjects is like the children themselves, actively shaping and being shaped by their play experiences.

Now, let’s bring in Jane Bennett’s ideas. In the playground, ‘Thing power’ is evident when you see inanimate play structures coming to life through the actions of the children. The litany for vital materialists resonates with the belief in the playground’s vitality, recognizing that not only humans but also the non-human elements—like the swings, slides, and the ground itself—contribute to the energy and excitement of the space. Think of ‘Thing Power’ examples in the playground: Litter becomes a teachable moment about cleanliness, electricity powers interactive features, food may be part of a picnic area, metal structures provide durability, and worms in the soil contribute to the playground’s ecosystem.

Reference list

Bennett, Jane. (2010) Vibrant Matter: *a Political Ecology of Things.* Durham Duke University Press.

Harkness, H. (2023) Theme 3_Lecture A [PDF], Materials and (new) Materialism: *Bodies, Resources and Pollution*. University of Edinburgh.