

Week 6 – Annotated Bibliography: Rethink How We Package Materials

Alexander, C, & Reno, J (eds) 2012, *Economies of Recycling : The Global Transformation of Materials, Values and Social Relations*, Bloomsbury Academic & Professional, London. Available from: *ProQuest Ebook Central*. [26 October 2023].

Recycling, a key aspect of environmental reform since the 1970s, involves converting used materials into new ones. It faces challenges due to the cost of keeping materials in place for revaluation, often leading to dumping waste in regions with lax regulations. This book explores the moral and political significance of recycling in transforming nature and human beings, highlighting its impact on diverse people and regions. It also discusses the historical shift from household recycling to organized urban recycling and its influence on modernity.

Ebnesajjad, S (ed.) 2013, *Plastic Films in Food Packaging : Materials, Technology and Applications*, Elsevier Science & Technology Books, San Diego. Available from: *ProQuest Ebook Central*. [26 October 2023].

This book introduces the use of plastics in food packaging, emphasizing commercial plastic films that act as barriers to protect food from contaminants. It explores the significance of flexible packaging in preserving food quality, replacing traditional containers for some products. The book also delves into the chemistry of various plastics used in packaging films and highlights the role of specialty polyesters like PET and PEN in the industry.

Ingold, T 2000, *Perception of the Environment : Essays on*

Livelihood, Dwelling and Skill, Taylor & Francis Group, London. Available from: *ProQuest Ebook Central*. [26 October 2023].

This book traces its roots back to the author's academic journey, motivated by a desire to unite the realms of natural science and humanities within anthropology. It highlights the author's quest to bridge the gap between biophysical and sociocultural anthropology, emphasizing the essential complementarity of these dimensions in understanding human existence. It proposes a relational, ecological, and developmental synthesis that breaks down the traditional dualism between person and organism. Additionally, it grapples with the challenges of using concepts like "the Western" and "the modern" while emphasizing the importance of critical inquiry and rational thinking within academia.

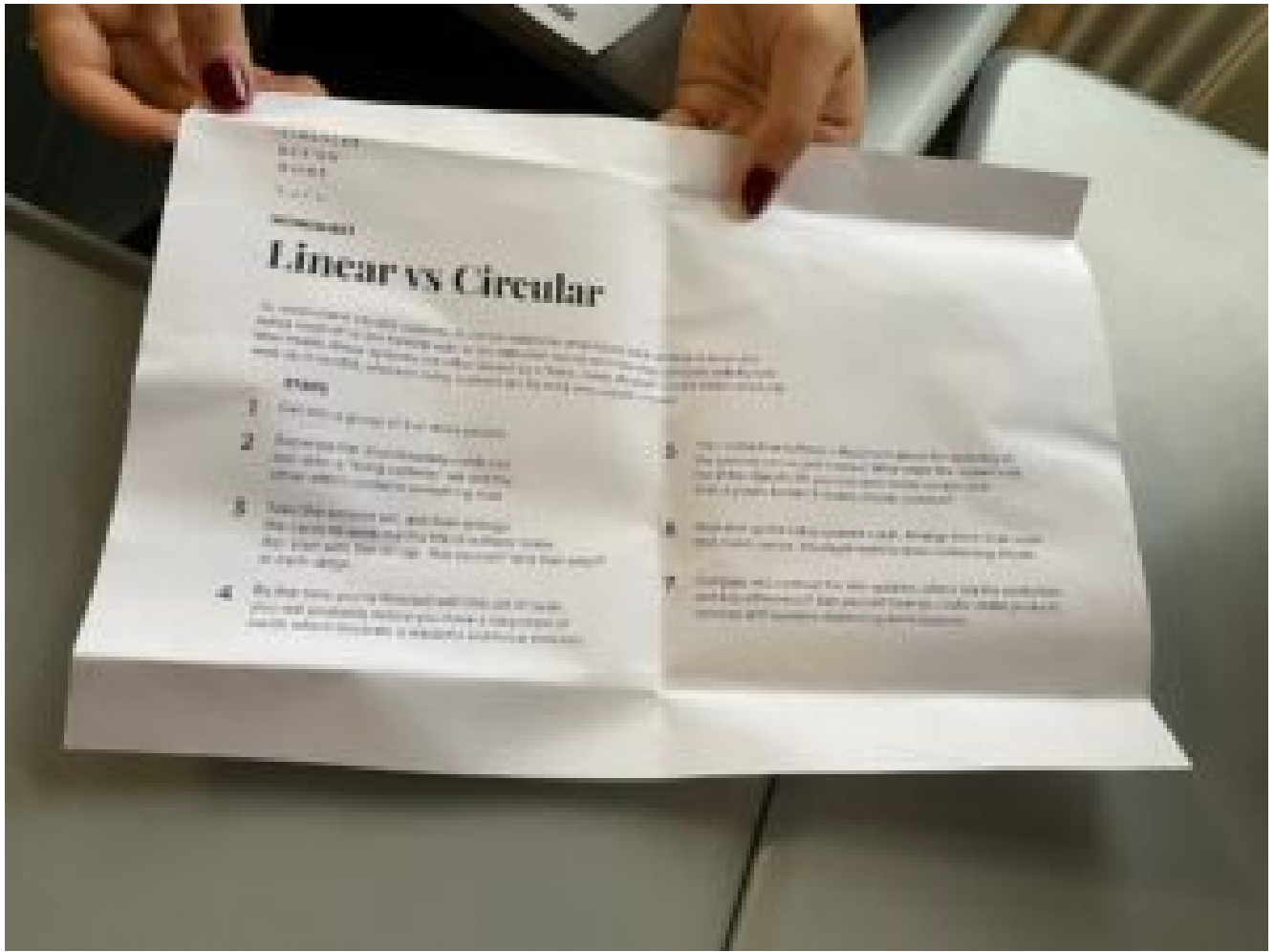
Ouyang, Y, Xu, M, Yang, L, & Liu, XT (eds) 2014, Research on Food Packaging Technology, Trans Tech Publications, Limited, Zurich. Available from: *ProQuest Ebook Central*. [26 October 2023].

This book discusses the "2013 China Academic Conference on Food Packaging," a collaborative effort between the China Academy of Printing Technology and Tianjin University of Science and Technology. It highlights the growth of China's packaging industry and its importance in ensuring food safety. The conference covered topics such as new materials in food packaging, food packaging safety, and the application of technology in food safety.

Week 5 – Possessions with a Past

Design + Activism = Design activism. What does that entail? From what I've gathered in the lecture, it's about reallocating resources, reconfiguring systems, and reprioritizing. It may sound simple in nature but it encompasses challenges like neoliberalism, economic recession, social injustices, political laws, and climate change. When we talk about design activism, it's not just about solving these problems; it's also about coming up with new ideas and ways of thinking about them, which can lead to the creation of new ontologies. In other words, design activism is both material, idea-driven, and political in nature; addressing everyday aspects of life while being motivated by concepts and insights.

A good friend of mine works as a civil engineer, and I've noticed that the lessons from the Standing Rock protest and camp can provide an excellent example for the field of civil engineering. Much like the goal of creating a new community of change, civil engineers can adopt an approach that focuses on the local community, working closely with residents to plan and build infrastructure projects that suit their needs and cultural heritage. In civil engineering, understanding a site's history, as highlighted at Standing Rock, is equally important to make wise choices that honour the area's heritage and environment. Furthermore, the idea of promoting shared, sustainable practices in design echoes the significance of using eco-friendly methods and involving the community in the engineering process. This commitment to being conscientious custodians of the environment aligns seamlessly with the core principle of stewardship in civil engineering, guaranteeing that infrastructure serves the needs of future generations.



Linear vs. Circular workshop description. Photo by Christina Yang.



Life of a plastic water bottle. Photo by Christina Yang.



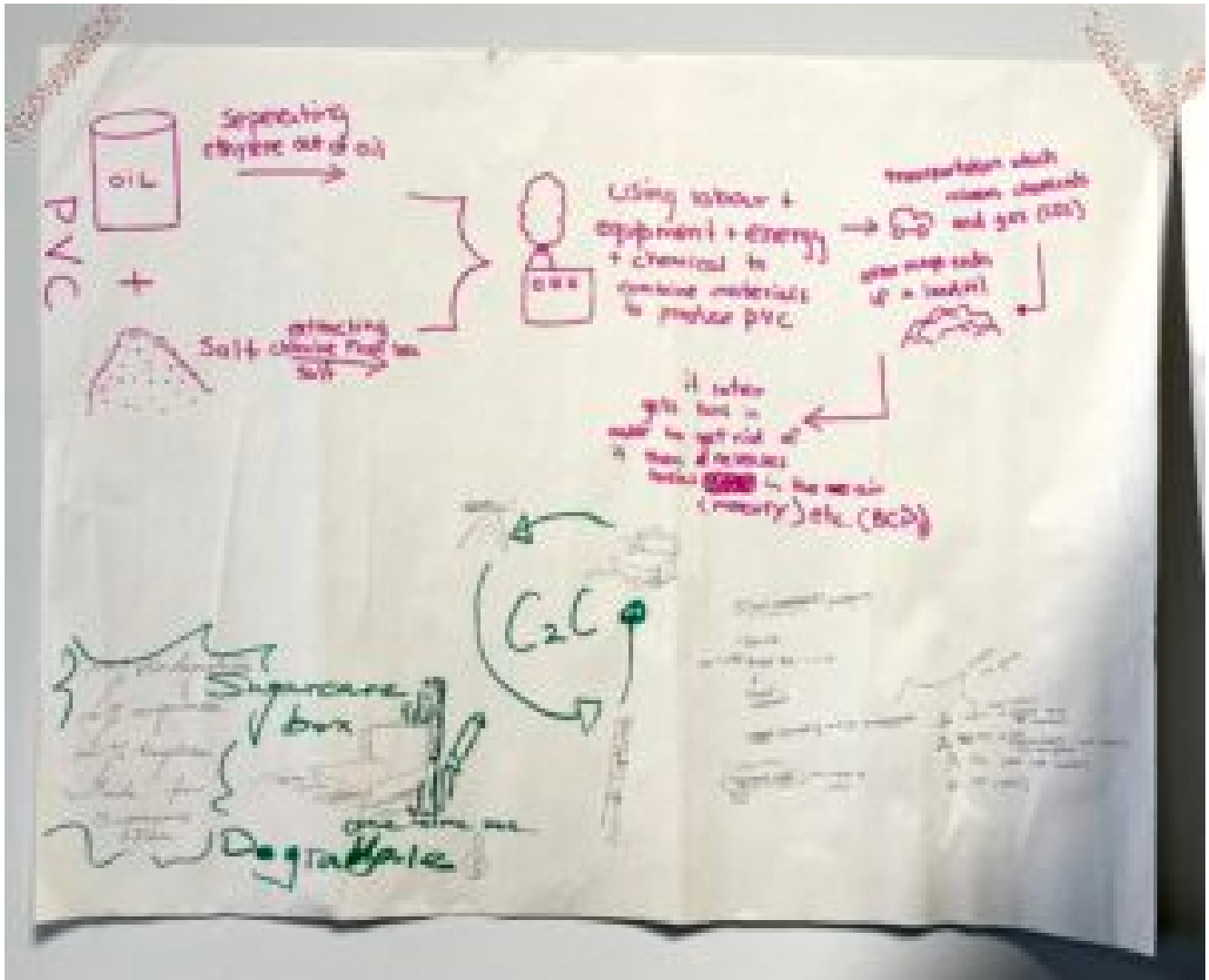
Linear system. Photo by Christina Yang.



Circular system. Photo by Christina Yang.

A circular economy, as defined by the Ellen MacArthur Foundation, embodies an economic framework focused on regeneration and resource optimization while minimizing waste. The role of storytelling is pivotal in understanding how products are created and used, potentially transforming production processes and post-use scenarios. Recognizing the influence of capitalist societies, labour, and their environmental impacts is essential for achieving both social and environmental justice. In this week's workshop, "Circular Redesign – From Linear Economies to Circular Ones," the interconnectedness of social and environmental justice is reinforced. The proposed shift from a linear "cradle-to-grave" approach to a more comprehensive "cradle-to-cradle" model aligns with the transition to a circular economy, aiming for

regeneration and redemption, with a strong emphasis on sustainability and waste reduction. In our group's exploration, we delved into various pathways concerning waste and repurposing, with a focus on examining food packaging for the second part of the workshop.



Group exploration: Food Packaging. Photo by Christina Yang.

Reference list

Lee, Deishin, and Lionel Bony. "Cradle-to-Cradle Design at Herman Miller: *Moving Toward Environmental Sustainability*."

Harvard Business School Case 607-003, May 2007.

Harkness, H. (2023) Theme 2_Lecture 2A [PDF], *Stories of Stuff: Social Justice and Environmental Design*. University of Edinburgh.

Week 4 – Deconstruct Capitalism

Capitalism... what a loaded word. The first step to deconstruct anything is to break it down to understand it. According to Karl Marx, capitalism involves private ownership of production means, mass production technologies, profit-driven motives, and the accumulation of surplus value. Workers are portrayed as compelled to sell their labor power to make a living. Within this work, Marx's theory of historical materialism is prominently developed, shedding light on the stark realities of industrial exploitation and social hardship; alienation is depicted as the dehumanization of workers and exploitation.

The way we make things reveals our ideologies, our values, flaws, and hopes and dreams. There are two types of planetary material flows: biological nutrients that benefit the biosphere and technical nutrients that serve the technosphere (industrial processes). William McDonough and Michael Braungart introduced the "Cradle to Cradle" concept in their 2002 book, "Cradle to Cradle: Remaking the Way We Make Things." This book advocates for an environmentally sustainable approach to design and production. The Hannover Principles, written in 1992 for the EXPO 2000 World's Fair in Hannover, Germany, serve as foundational principles for sustainable design, emphasizing our interdependence with

nature. McDonough and Braungart critique the traditional “Cradle to Grave” industrial model, which results in waste, pollution, and resource depletion as products are discarded. They propose a “Cradle to Cradle” approach, where products are designed with recycling and environmental safety in mind. Cradle-to-Grave is the linear industrial model, while Cradle-to-Cradle advocates designing products for recyclability and environmental harmony. The authors coin the term “Monstrous Hybrids” for products or processes that harm the environment by combining unnatural materials. These hybrids result in pollution, waste, and resource depletion. The Cradle-to-Cradle approach focuses on using materials that can safely reintegrate into natural systems.



*Grayson Perry's Work: Selfie with Political Causes, 2018.
Photo by Christina Yang.*

Selfie with Political Causes, 2018

Colour woodcut

Edition of 15 plus 2 artist's proofs

I made this piece in response to the rise of the social justice warriors, particularly online. They are out to rid the world of racism, homophobia, sexism and poverty but they struggle with the unhelpful toxic by-products of democracy, free speech and tolerance. The imagery was inspired by an Indian miniature painting - an equestrian portrait where the horse was enormous with a tiny figure perched upon it. I liked the feeling of a puny human sat upon a powerful mount that was a bit out of control. This woodblock print was cut by a computer-controlled router, then hand-printed using the back of a spoon. The dimensions were governed by the largest available size of Pampas for the frame.

Courtesy the artist, Pampas | Contemporary Editions Ltd
and Victoria Miro

Grayson Perry's description: Selfie with Political Causes, 2018. Photo by Christina Yang.

I had a visit to the Royal Scottish Academy (National Galleries of Scotland) where I had the opportunity to explore Grayson Perry's exhibition, *Smash Hits*. The piece, "Selfie with Political Causes" (2018) left a lasting impression because it challenges the superficial nature of our society. The artwork and *Cradle-to-Cradle* both critically examine the prevailing cultural norms and practices. "Selfie with Political Causes" questions the authenticity of outward appearances, highlighting the hollowness that can exist beneath constructed images. Similarly, *Cradle-to-Cradle*

thinking encourages a reevaluation of the traditional linear industrial model, where products are designed with a focus on their outward appearance and functionality but often lack sustainability and consideration for their environmental impact.

Reference list

Lee, Deishin, and Lionel Bony. "Cradle-to-Cradle Design at Herman Miller: *Moving Toward Environmental Sustainability*." Harvard Business School Case 607-003, May 2007.

Harkness, H. (2023) Theme 2_Lecture 2A [PDF], Experience and the Environment: *Labour, Social Justice and Environmental Design*. University of Edinburgh.

Week 3 – Unearthing

We're currently facing a critical time with a multitude of environmental crises threatening our world. This week's lecture struck a chord with me, addressing issues like climate change, habitat destruction, pollution, and resource depletion, all of which endanger the well-being of both the current and generations onwards.

It's evident that human activities, especially in sectors like industrialization, urbanization, and agriculture, have a substantial impact on our environment. It is imperative that we comprehend these interactions and take measures to minimize

their detrimental effects. This brings us to the topic of ecosystems, which are currently experiencing a rapid loss of biodiversity. This loss has far-reaching consequences, not only for our ecology but also for our economy.

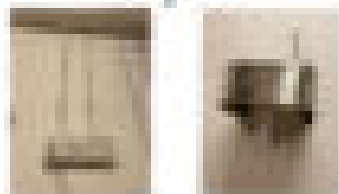
Ecological literacy fosters an awareness of our deep connection to the natural world, promoting sustainable lifestyles. This educational approach acknowledges that our environment is the foundation of prosperity and calls for a cultural shift in priorities. The concept of eco-literacy was introduced by David Orr. Ecoliteracy and environmental design promote sustainable practices that protect biodiversity. Additionally, the scarcity of resources, such as the depletion of finite resources like fossil fuels and freshwater, underscores the necessity for more sustainable resource management and design solutions.

There is a bright side, which is the potential technology to provide for sustainable design and resource management. For example, graphic design agencies are increasingly adopting sustainable practices, notably eco-friendly inks and materials. This shift is a response to environmental concerns and includes the use of water-based inks, soy/vegetable inks, UV inks, and even innovative algae inks. These alternatives reduce volatile organic compounds (VOCs), air pollution, and health risks associated with traditional solvent-based inks. Simultaneously, many agencies are choosing recycled and biodegradable materials for their projects. This sustainable approach not only lessens their carbon footprint but also sets an example for the design industry, meeting consumer demands for eco-conscious solutions and demonstrating a commitment to environmental responsibility.

Pipes • electronic pipe • metal pipe • hole in ground • channel of air • hole in wall	Wilderness • forest • field • garden	Lichens • on wall • on ground • on rock
Fire • fire light • fire light • fire light	Paths • narrow path • path • path	Viruses • virus • virus
Water • water • water • water	Shells • shell • shell • shell	Animals • animal • animal • animal
Climate • wind • wind • wind	Islands • island • island • island	Trees • tree • tree • tree
Trade • trade • trade • trade	House • house • house • house	Pets • pet • pet • pet
Dust • dust • dust • dust	Boundaries • boundary • boundary • boundary	Food • food • food • food
Pollution/ Pollutants • pollution • pollution • pollution	Buildings • building • building • building	Radio • radio • radio • radio

Worksheet for A Patterned Ground Treasure Hunt. Photo by Christina Yang.

Pipes



Wilderness



Lichens



Fire



Parks



Viruses



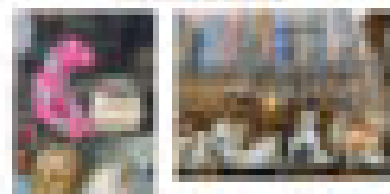
Water



Shelter



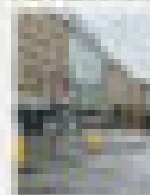
Animals



Climate



Islands



Trees



Trade



Home



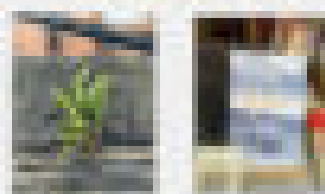
Pubs



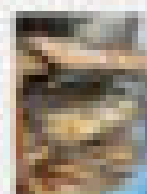
Dust



Boundaries



Food



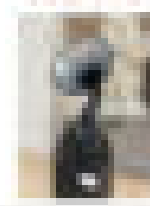
Pollution/
Pollutants



Buildings



Radio



Categorizing for A Patterned Ground Treasure Hunt. Photo by Christina Yang.

The workshop this week focused on the nature-culture relationship, exploring the entanglements between the two. Dr. Rachel Harkness stated that this exercise is inspired by the “Patterned Ground” book; a collection of short essays underscoring the significance of acknowledging the world as an interplay between nature and culture, as well as the interactions between human and nonhuman elements. The workshop was an enriching one, and the class discussion helped me better grasp the concepts – the key idea is that humans are not separate from nature, but deeply interconnected with it.

Reference list

Harrison, S., Pile, S. and Thrift, N. (2004) *Patterned ground: Entanglements of nature and culture*. London: Reaktion.

Harkness, H. (2023) Theme 1_Lecture 1B [PDF], Experience and the Environment: *Design and the Senses, Making and Consumption*. University of Edinburgh.