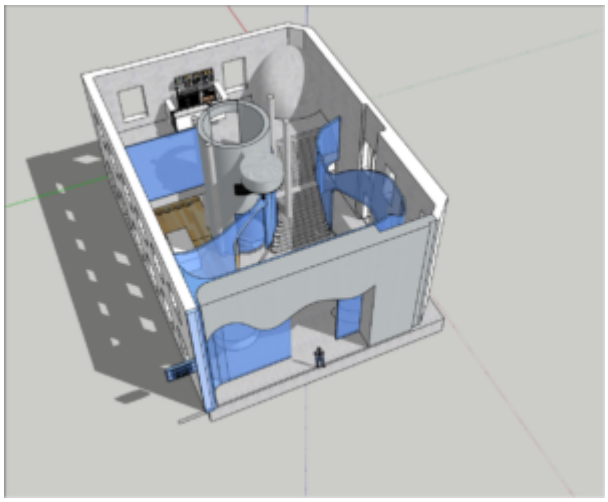
Week11 Romantic Conversation with the Earth—Yichen Jiang

The semester is close to ending. Every time I study with this course, I am reminded of how the Anthropocene epoch is defined: humans are reshaping the environment. And design is one of the primary drivers of this reshaping. As I study more, I realise that the design I am learning is about more than just aesthetics and purpose; it is also about restoring the balance between humanity and the natural world.

At the start of the semester, I had a superficial awareness of environmental issues, believing that design and nature were unrelated. However, as I learnt, I realised that human activities are significantly altering the earth's ecology, as well as the gravity of environmental concerns, so I made it obvious that design must assume environmental responsibility. Kelly (2020) emphasises the same point: Because human actions and interventions have a large impact on ecological outcomes in the Anthropocene, design thinking must consider sustainability and conservation. In Week 2 of my blog, I highlighted the inextricable link between humans and nature. While William Morris pushed designers to deviate from convention, Fry stressed that design should heal the environment rather than simply eliminate harm. These concepts prompted me to rethink my design work and consider how design may support sustainability.

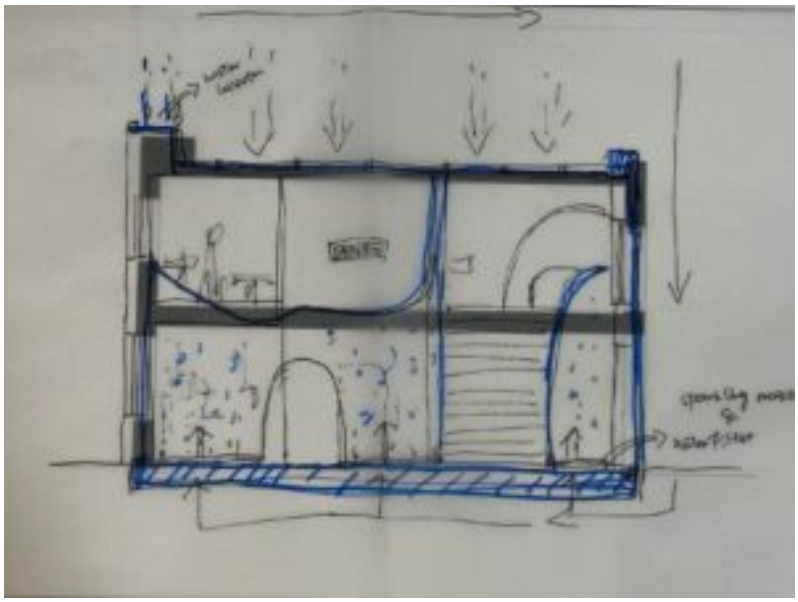
This semester, I also began to experiment with incorporating sustainability and environmental friendliness into my interior design project. I would like to focus on the most intriguing aspect of my project. In order to conform to the product nature and style of the brand Aarke, I designed several long sections of glass walls, with the unique feature that the interior is filled with water and the bottom contains a device that generates bubbles (because the brand's main product is an

air bubble machine).



Screenshot From My own Sketchup Model

However, in order to be environmentally conscious and to incorporate local elements, I chose to collect and reuse rainwater from Edinburgh as a water source within the glass walls. My original plan is to transfer rainwater from the roof into the water storage facility via the drain pipe (the brand makes water filtering goods) and then into the wall after a basic treatment. Although I am aware that the practicality and operational technology of certain concepts cannot be examined in the short term, what I have learnt is more focused on space design. This design idea, in my view, is to ensure that the design is beautiful, that the brand attributes are consistent, and that water recycling is in line with the Cradle to Cradle mode. This is a great start!



Week seven study on “The Life of Things” taught me that every object is not only an expression of design intent but also a vital element of the ecosystem, which challenged my previously held belief in the static nature of materials and design. Week five study of the circular economy topic reinforced my belief that designers should not just decrease resource waste but also optimise resource recycling through innovative design. Overall, taking this course has given me a lot of thinking breakthroughs. Whenever I believed there would be no new concepts, the following week’s learning would once again increase my understanding, and I was pleasantly shocked by the debate on the future last week! In this mood, I began to try to incorporate the things I had learnt into my professional work. I believe this was the original idea behind the creation of this course!

As a designer, this course makes me feel like I have a greater sense of societal obligation. Although my current thoughts and environmental design methodologies are not mature or thorough, I am looking forward to continuing to progress. From now on, I will continue to use inventive design as a starting point and encourage the interior design industry to create advances in resource utilisation, material selection, and environmental protection technology application. Design is a romantic cooperation between humans and the environment, and I am

excited to contribute more inspiration and support to this ongoing conversation about sustainability!

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Week10 Future Fossils: The Artistic Legacy of Modern Times—Yichen Jiang

According to Vipin (2023), future palaeontologists will treat fossil discoveries of unusual animals like priceless old photo albums, affording insights into a world that once existed. From dinosaur bones to marine shells, fossils document the earth's vast past. However, have we considered that, in addition to biological fossils, the future "new fossils" could be plastic garbage and electronic fertilizers, which will serve as permanent marks of human activity? If the outcomes of design are destined to become "future fossils," should we reconsider design's significant impact on time, ecology, and society? This is something I had never realized before, yet it is extremely significant.

Encyclopædia Britannica. Available at: https://kids.britannica.com/kids/article/archaeology/352775 (Accessed: 02 December 2024).

The short-sighted trend of modern design has imposed a significant environmental cost on the earth. Based on Rahm-Skageby and Rahm (2022), planned phase-out prioritizes short-term economic aims while also resulting in long-term geological and ecological difficulties that are unrelated to the initial product design or usage. This short-term perspective ignores the long-term effects of design decisions on the geological record. So it’s critical to reconsider how to leave evidence of coexistence with nature. Only with a sense of responsibility for the future can design really cohabit with the environment.

I indicate “future fossils” as evidence of human activity in our current period that have long-term ecological consequences, such as microplastics, abandoned electronics, and architectural ruins. These artefacts may survive with natural fossils throughout geological time, and they may even become the subject of future archaeologists’ research, warning future societies about the standards of our ecological behavior.

Future fossils (no date) ECAL. Available at: https://ecal.ch/en/feed/projects/6972/future-fossils/ (Accessed: 02 December 2024).

Quharrison (2022) Technofossils are future fossils that tell the human story (technosphere), QuHarrison Terry. Available at: https://quharrison.com/technofossils-technosphere/ (Accessed: 02 December 2024).

If modern design can be changed in a more sustainable and environmentally friendly path, the benefits will be long-lasting. By enhancing design, we may lessen negative geological impressions while also including more sustainable

materials and circular economy items in the geological record. This will aid in the development of more successful cases of human and nature synergies for future generations' solutions, much as present humans seek inspiration from natural design. For example, mycelium material has appeared in recent years. Mycelium materials have lately emerged as an innovative alternative to typical plastics and concrete. The material is completely biodegradable and has no negative environmental impact at the end of its life cycle. However, there are still issues to be resolved. For instance, Lingam (2023) discovered that the dispersion of JG data revealed that mycelium development was not homogeneous in all situations. As a result, the general routes for this material remain limited, and its durability and production costs require improvement. Such future fossils are significant. There is hope that they will persist in tackling issues with these recordings in the future.

Kortman, L. (2020) Mycelium: The plastic of the future?, StrawbyStraw. Available at: https://strawbystraw.com/blogs/features/mycelium-the-plastic-of-the-future (Accessed: 02 December 2024).

Bonnefin, I. (no date) Emerging materials: Mycelium brick, Certified Energy. Available at: https://www.certifiedenergy.com.au/emerging-materials/emerging-materials-mycelium-brick (Accessed: 02 December 2024).

The fossil of the future is not just a symbol of our neglect but also a reflection of our innovation. If today's design leaves future archaeologists wondering, "Is this waste or an art form?" Then everything we do today is meaningful. Design must not only tackle current problems but also lay the groundwork for the future. It is an option that can carry ecological responsibility while also inspiring future generations to be creative. After all, who would not want future generations to look back on our work with awe?

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2.Rahm-Skågeby, J. and Rahm, L. (2022) 'Design and deep

entanglements', Interactions, 29(1), pp. 72–76. doi:10.1145/3502279.

3.Vipin Govind Vipin Govind A is a doctoral researcher in Earth Sciences from Pondicherry University. His primary focus is on studying the effects of climate change (2023) What story will the fossils of today tell future generations about us and our planet?, ScienceABC. Available at: https://www.scienceabc.com/nature/what-story-will-the-fossils-of-today-tell-future-generations-about-us-and-our-planet.html/ (Accessed: 02 December 2024).

Week9 The Battle of Design Wisdom—Yichen Jiang

From the branches of trees and rivers to the intricate network of capillaries in the human body, fractal geometry is the natural smart allocation of energy and resources. These patterns are not only visually appealing, but they also serve as a model for long-term development. Modern design, on the other hand, frequently rejects it in favor of a decentralized approach that separates scale and systems. Is human creation truly better than nature?

In nature, a fractal is a geometric structure that repeats itself at different scales, also known as "self-similarity." For example, consider the previously described branching structure of tree branches, the human physical capillary system, and rivers' branching networks."Van and Cowan (2010) feel that nature's functions and shapes are skillfully coordinated across several scales to provide a greater context for our design. Because they all display fractal qualities,

such as elegant and efficient resource and energy distribution. In ecodesign, fractal logic integrates micro and macro levels via “scale links,” such as incorporating miniature ecosystems into urban development to suit the needs of local functions while also promoting ecological balance. For instance, consider the High Line wetland system in New York. It connects micro-wetland systems with community drainage systems. These wetlands not only absorb and filter stormwater pollutants but also promote biodiversity and reduce urban flooding. This design emulates the adaptability of natural wetlands and highlights the power of fractal intelligence in ecological balance and resource optimization.

Walk the line (no date) Hudson Yards. Available at: https://www.hudsonyardsnewyork.com/discover/high-line (Accessed: 01 December 2024).

Returning to the question: Is human design truly better than nature? I don’t completely agree. Modern design frequently overemphasizes technical efficiency, with speedy problem solving as the primary goal. According to Van and Cowan

(2010), evolution is a design process that nature does on a constant basis. A typical organism has undergone at least one million years of intensive research and development, resulting in a pattern of optimal resource allocation and efficient circulation, which our human design cannot match. For example, the fractal shape of the leaves maximizes photosynthesis while maintaining a waste-free biological cycle. On the contrary, short-sighted human design harms the ecosystem while also endangering human health (Van and Cowan, 2010). Second, design in nature is extremely adaptive. Examples include water storage systems seen in desert plants. Human design is frequently constrained by a trend towards standardization and a lack of localism. Best of all, natural design is both useful and aesthetically pleasing. Spider webs, for example, are strong natural hunting weapons with stunning symmetry.

树叶也能做美食，这*12*种树叶都可以吃，最后一种让人意想不到 *(2021)* 新浪网*. Available at: https://k.sina.cn/article_7513852747_1bfdc4b4b0010173rh.html (Accessed: 01 December 2024).*

蜘蛛网能黏万物，为啥黏不住蜘蛛？_澎湃号·湃客_澎湃新闻-*the paper (no date)* _澎湃号·湃客_澎湃新闻-*The Paper. Available at: https://www.thepaper.cn/newsDetail_forward_27622224 (Accessed: 01 December 2024).*

However, I cannot argue that human design has advantages, whereas nature design has limitations. Natural design evolves over time and cannot adjust swiftly to sudden difficulties. Its application is limited in many high-tech industries. On the contrary, the essential feature of human design is innovation. It has the ability to swiftly surpass the limits of nature and produce something genuinely innovative. Flying machines, for example, overcome the physical limits of birds to create more efficient modes of transportation for people. So, I believe the ideal option for human design right now is to draw inspiration from nature while being inventive.

Birds-flying videos: Download 246+ free 4K & HD stock footage clips – pixabay. Available at: https://pixabay.com/videos/search/birds-flying/ (Accessed: 01 December 2024).

Van and Cowan (2010) argue that by explicitly including ecology in design, humans may significantly lessen the negative environmental impact that we create and construct. Human and natural design have distinct advantages and limitations; thus, discussing “superiority” is incomplete. What is more significant is the mix of the two: by emulating nature’s wisdom while using human creativity, we may create solutions that are more sustainable, adaptive, and functional. This “design collaboration” is the primary direction for future development.

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Week8 From Trash to Treasure: Can Plastic Become the New Luxury?—Yichen Jiang

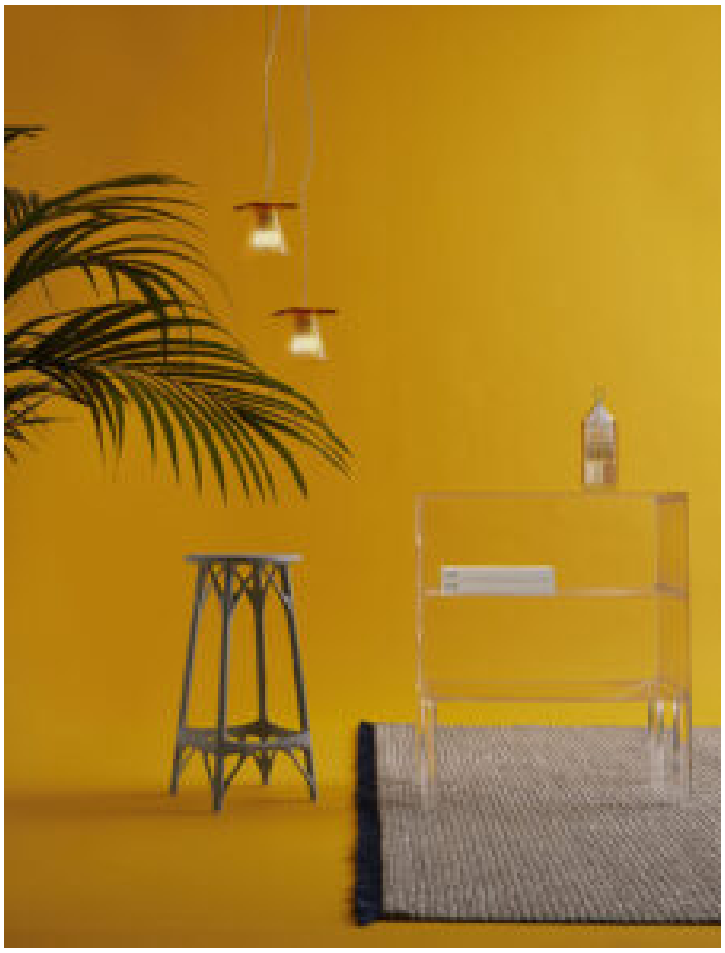
This week, we are focusing on a tiny substance called plastic. Plastic is a material that humans take pride in for its ease of use, yet it is also a hotly discussed contributor to the environmental disaster. According to the requirements of the workshop, I attempted to produce various pieces of jewellery out of plastic bottles. Unlike exquisite ornaments created from other materials, I think the plastic ornaments I manufacture are inexpensive. Indeed, plastic appears to have minimal to do with ‘luxury’ from manufacture to be thrown away. And that got me thinking: can we reimagine plastics via art and design, transforming plastic from a cheap byword into a valuable asset?

Due to their lightweight, durability, and low cost, plastics were once considered a symbol of technological innovation. However, the advent of mass production and single-use consumer culture has resulted in a substantial increase in global plastic output, from 234 million tonnes in 2000 to 460 million tonnes in 2019, and plastic waste, from 156 million tonnes in 2000 to 353 million tonnes in 2019 (OECD, 2022). As a result, plastics have come to be associated with low cost and pollution. Because plastic is so common, closely related objects frequently ignore its distinct design potential and artistic expression. However, repurposing plastic and giving it a second life can benefit the environment. According to UNEP (2023), by adopting systemic reforms to limit the use of problematic and superfluous plastics, as well as expanding on three major market shifts—reuse, recycling, and repositioning and diversification—plastic pollution can be reduced by up to eighty percent by 2040.

□□□ *iPhone 12 □□□□□□□□□□□□□□□□□□□□□□□□ (2020) SUiTHiNK. Available at: https://suithink.me/2020/11/10/iphone-12-blue/ (Accessed: 01 December 2024).*

And converting plastic into luxury items can benefit the environment. First and foremost, the luxury version of plastic products will make buyers value them more, minimizing the potential for single-use consumption and waste and reducing the manufacture and use of throwaway plastics. Second, the quality of more carefully designed plastic items will improve, and users and manufacturers will be more likely to maintain or recycle such products, promoting a successful closed-loop system. Furthermore, plastic luxury products will create a new market, stimulating designer innovation; the uniqueness and artistic design of these products will easily spark discussion and generate heat, deepening people’s understanding of the environmental harm caused by plastics. Some designer firms are already challenging this stigma through creative empowerment, reinventing plastic as a sustainable luxury commodity ranging from fashion accessories to high-end furniture. Examples are Balenciaga’s plastic-textured sheepskin purses and Kartell’s plastic furniture. This transformation not only adds new value to plastics, but it also has the potential to significantly reduce the environmental impact of waste plastics and revitalise the circular economy.

Women’s Crush Medium Tote Bag in Black (no date) by Balenciaga. Available from: https://www.balenciaga.com/en-gb/crush-medium-tote-bag–black-742941210IT1000.html (Accessed: 1 December 2024).



Kartell Kartell ghost buster crystal (no date) Kartell. Available at: https://www.kartell.com/gb/en/ktgb/shop/product/ghost-buster/kar03210b4 (Accessed: 01 December 2024).

While the conversion of plastics into luxury items is encouraging, it confronts numerous hurdles. For one thing, it may intensify consumerist impulses, causing buyers to see high-end plastic products as fashion showcases rather than eco-friendly solutions, deviating from the original objective of sustainability, as with the Balenciaga tote I mentioned earlier. Furthermore, the production costs of high-end plastic products are considerable, and it is unclear whether they can widely replace single-use plastics. More importantly, society's "cheap" notion of plastic has become entrenched, and even with artistic design, it remains impossible to properly attain the identity of luxury items.

Plastics have the ability to be transformed from a cheap commodity to a valuable asset through art and design. However, while seeking innovation, we must be aware of the potential economic and practical consequences. We must continue to make a significant contribution to environmental preservation and the circular economy by repurposing plastics and other problematic materials through responsible design and education, as well as encouraging the public to value resources and engage in sustainable activities.

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2.UNEP (2023) Turning off the tap: How the world can halt plastic pollution and create a circular economy [preprint]. Doi: 10.59117/20.500.11822/42277.

Week7 Living with the Invisible Life Force: Is rust alive? !—Yichen Jiang

On my walk home from class, I started noticing objects in my line of sight that I did not ordinarily observe. I spotted garbage, plastic, and falling leaves. Learning taught me that things may be ‘alive’ in certain ways, that force is not a biological life form in the popular sense, and that they, too, may have energy capable of shaping the world we inhabit.

Jane Bennett’s Vibrant Matter, which emphasizes the inner vitality and agency of a non-human corpse, introduced me to

the concept of ‘thing-power.’ It fundamentally questions the anthropocentric dichotomy between humans and inanimate matter. Bennett (2010) explains how planetary objects vibrated that day, appearing as lifeless objects one moment and then becoming living beings the next: waste, then takers; inert matter, then active energy. Second, the emphasis is on assemblages (dynamic networks of human and non-human things) and actants (any entity capable of producing effects), as well as interconnectedness and distributed initiative in ecosystems. Garbage, for example, is not waste but rather a component of a larger collection that includes natural forces and human behavior. It is a complicated interaction involving air, water, and the metal itself. It indicates a slow but consistent environmental outcome.

When I was installing my shelf at home, I smelt rust on my hands, which made me question whether it was also “alive.” When iron comes into contact with damp air, it oxidizes and turns rusty. Although it is commonly regarded as a symbol of obsolescence and deterioration, it is truly full of ‘life.’ It is not only the influence of ambient elements but also a dynamic phenomenon with its own effects that can change the attractiveness, subjectively destabilize human intents (while retaining the original metallic texture), and even affect the chemistry of soil and water when dropped. Bennett (2010) contends that matter is an active force in the process of being formed, rather than a passive thing. In fact, the meaning of objects in an environment is formed not only from human definitions but also from dynamic independent actors interacting with external factors (Bennett 2010).

How to use Rust Converter (2024) Fuze Products. Available at: https://fuze-products.co.uk/guide/how-to-use-a-rust-converter/ (Accessed: 01 December 2024).

Recognizing the vitality of nonhuman beings has a transforming impact on global environmental movements and policies, both positive and bad. On the plus side, this viewpoint can inspire policy reformulations that include ecosystems and their non-human components, as well as humankind, into a global sustainable development community. Bennett (2010) concurs that this will emphasize the shared materiality that ties us to the world. Bennett (2010), however, emphasizes that acknowledging matter’s agency does not absolve humans of responsibility in their relationships. In most circumstances, human behavior cannot be disregarded, such as the “fire” detailed in the preceding blog.

加拿大卑诗夏季发生400多起人为山火： 大纪元 *(2018)* 大纪元 *www.epochtimes.com. Available at: https://www.epochtimes.com/gb/18/8/27/n10670937.htm (Accessed: 01 December 2024).*

By reviewing the vitality of non-human organisms, we can see that the world is far more intricate and interconnected than we realize. Whether it’s plastic debris, falling leaves, or rust in our hands, these seemingly lifeless objects are “alive” in their own right, continually altering our surroundings. I feel that it is critical to shift the materialism of these ‘things’ from dominance to cooperation in order to generate a new worldview. On the journey that day, I grieved that I had missed so many minor nuances about the planet; perhaps we should pause and look around us, appreciate all powers, and coexist with them rather than just ourselves.

Biliography:

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Week6 Annotated Bibliography

Because my major in interior design has a materials course set for this semester.When selecting materials for my course design, sustainability is a crucial consideration. At this moment, I realised that I have no idea how much the typical and non-everyday materials affect the environment, and I become confused when the materials I want to utilise do not correspond to the concept of environmental protection.So, in order to gain a better understanding and knowledge of materials, I would want to focus the theme of this annotated bibliography on the sustainability of interior design materials. I believe this will be beneficial to myself and other designers who have similar problems.

Addington, D.M. and Schodek, D.L. (2005) *Smart materials and new technologies : for the architecture and design professions*, *Architectural Press eBooks*. https://ci.nii.ac.jp/ncid/BA74186113.

Contents

Related study material is available on the Laurence King website at www.laurenceking.com

This book investigates the use of diverse materials in various aspects of interior design, with a focus on the issue of integrating the concept of sustainability into the selection of interior materials. Brown and Ferrelly begin by describing the fundamental ideas of various sorts of materials, such as sources, manufacturing processes, qualities, and environmental impact, before discussing how to blend visual aesthetic expression with functional practical uses when making material choices. This book is valuable because it covers a wide range of materials, not only traditional materials, but also examines the future potential of emerging environmentally friendly materials in interior design. It is really beneficial for us to comprehend the application of materials. In the sixth chapter, the author highlights the need of natural resource conservation and environmental protection through a series of design examples.

This book is a valuable resource and guide to the study of sustainable materials in interior design. The authors' research offers an objective investigation of materials,

avoids the bias of blindly identifying materials, and focuses on the genuine feasibility of sustainability in design. It can assist designers in making environmentally friendly material selections while still meeting design aesthetic requirements. The concept of objectivity does not influence the judgement in any manner.

Brown, R. and Farrelly, L. (2012) *Materials and Interior Design*. https://centaur.reading.ac.uk/76514/.

Addington and Schodek believe that smart materials and upcoming technology may make interior design more sustainable and adaptive. This book focuses on the use of smart and emerging materials in ecologically sustainable design, as well as how they are influencing the design of current interiors. By incorporating materials that respond to temperature, humidity, and light sensing in the design, interior spaces can more efficiently modify their energy usage and minimize their

reliance on traditional heating, ventilation, and air conditioning (HVAC) systems. The authors further emphasise that the potential of these energy materials is not limited to energy savings; they may also provide comfort and aesthetic value.

This exploration direction of the book is more focused on the future development of environmentally friendly materials, making it ideal for studying the sustainable application of smart materials in interior design. The book is educational and trustworthy, with in-depth analyses based on materials and practical application examples. Most importantly, it presents theoretical concepts for designers on how to use new technology into the architectural and interior design processes. It will assist designers in learning more about material properties and then applying smart materials to efficiently increase the energy efficiency of buildings and interior design, shift the course of future design, and genuinely incorporate sustainability and adaptability into everyday design.

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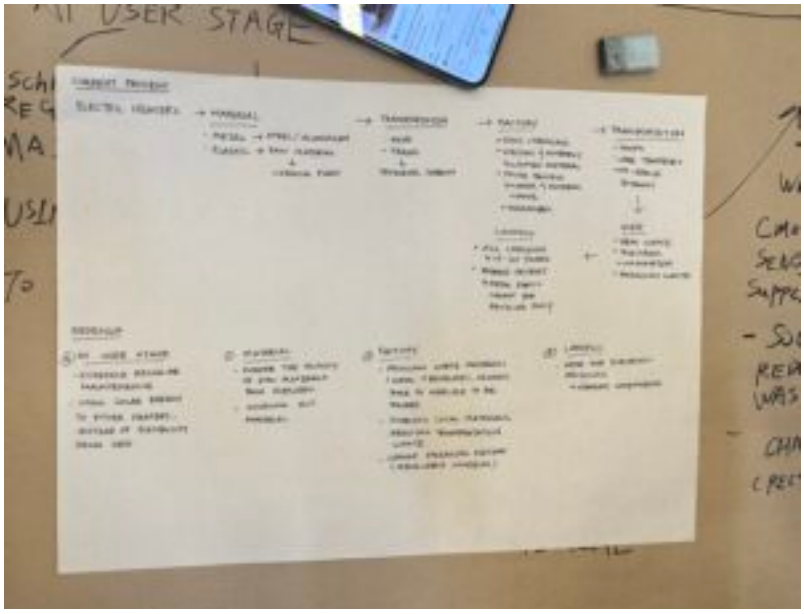
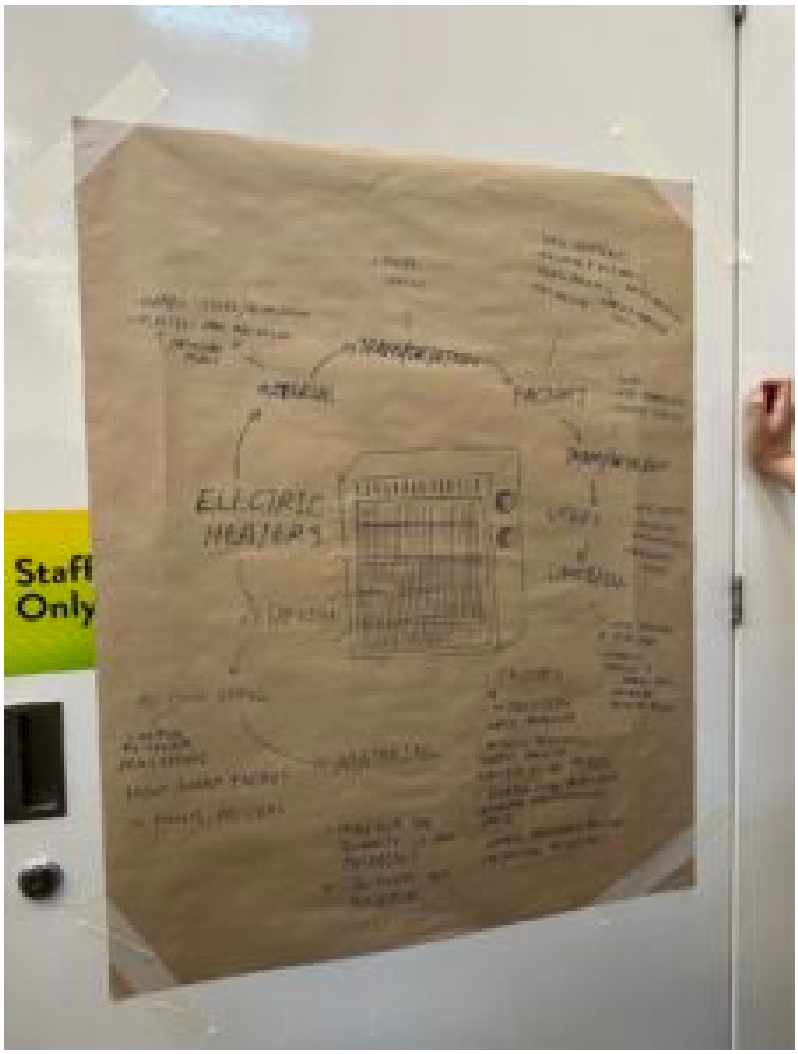
Week5 Circular Economy vs. Cradle-to-Cradle: Partners in Sustainability?—Yichen Jiang

This week, we focused on the circular economy. The lecture focused on the relationship between design, society, and the environment, as well as the interactions between production and consumption, labor and resources, and ecological repercussions. In the workshop, we also attempted to connect the production chain, which considerably aided my comprehension of the relationships between these aspects and other models. In the second phase, our group sketched the type energy. We chose electric heaters to develop. At this point, we have a better understanding of the goods complete production chain and have redefined it to be more environmentally friendly.





This week, I would like to discuss the Cradle-to-Cradle model and the circular economy. Because I believe they are very similar, their essential concepts and shared purpose are to achieve sustainable development. However, this begs the question of whether these two models complement or diverge in theory and practice.

The circular economy is an economic framework. It strives to address global concerns such as climate change, biodiversity loss, waste, and pollution and is founded on three principles: waste and pollution elimination, circulating products and materials at their best value, and natural regeneration. These concepts guide the design process (Ellen MacArthur Foundation, 2020). The building material “WasteBasedBricks,” produced by the Dutch business StoneCycling, is an example of this. The bricks are created from construction trash and industrial

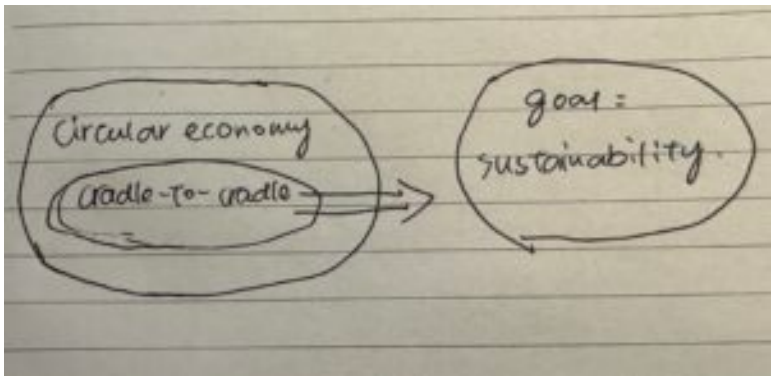
byproducts.It can be used to decorate both the interior and exterior of buildings. It exhibits the ability to recycle while retaining the product’s basic functioning.

Front® Sustainable Building Materials – WasteBasedBricks (2024) FRONT® Materials. Available at: https://www.front-materials.com/wastebasedbricks/ (Accessed:

01 December 2024)

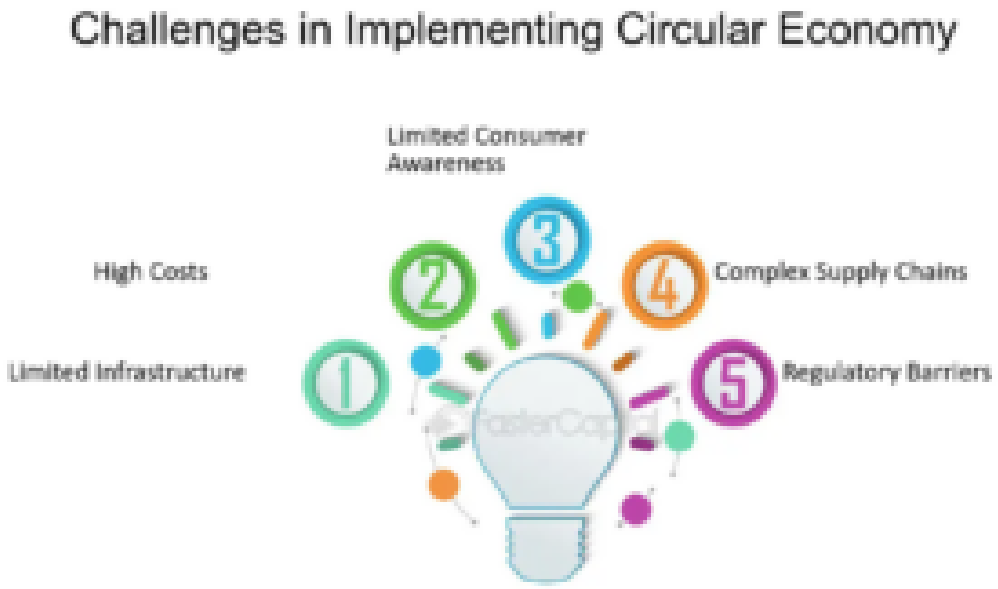
The circular economy and the Cradle-to-Cradle model have one thing in common: they both oppose traditional design models (cradle-to-grave) and linear economies with the goal of reducing environmental damage caused by humans by minimizing waste, and they both emphasize increasing the reusability of products and materials. And in their plans, designers are the primary driving force behind reaching the objectives.

Caroline Macdonald JP CTB CTE LREA (2022) The shift from linear to circular economy is the road to sustainable digitalization, LinkedIn. Available at: https://www.linkedin.com/pulse/shift-from-linear-circular-economy-road-sustainable-caroline (Accessed: 01 December 2024).



However, I feel that the circular economy is more concerned with the total change of the system. It is a broader macroeconomic framework that includes many aspects of social

and economic systems. Cradle-to-Cradle is a design process and concept that focuses on the product itself and how it can remove all waste. So, I believe Cradle-to-Cradle can be considered a component of the circular economy concept, particularly in terms of product design and material utilization. However, there are still variances between them. For example, the circular economy is more adaptable; it allows for the recycling and reuse of materials at many levels. However, the Cradle-to-Cradle paradigm equates waste with food.(McDonough, Braungart, 2019). It pursues absolute circulation with tougher requirements and may encounter market constraints.



Challenges in implementing circular economy, FasterCapital. Available at: https://fastercapital.com/topics/challenges-in-implementing-circular-economy.html (Accessed: 01 December 2024).

But in general, the two are more complementary, with their own distinct emphases. Despite the existing differences, and in fact, they also have similar obstacles in implementation. For example, I remember that at the seminar, one of my classmates shared an interesting example. She mentioned that a

manufacturer of brewing machines is so high in quality that customers who have bought its products will hardly come back for a second time. This is where their sales become very limited. But at the end of the day, what we all want to agree on is that the two models can complement each other in a variety of areas along the way to a more sustainable future.

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Week4 Balancing Ideals and Realities with Cradle-to-Cradle Thinking—Yichen Jiang

In the past few weeks, we have learned about existing environmental issues and the causes behind them. We have also reflected on ourselves. This week, we started discussing solutions to the problems.This time, the solution revolves around two interesting concepts: 'Cradle-to-Grave' and 'Cradle-to-Cradle.' And here, I would like to incorporate this concept into the interior design I have studied for some discussion.

What is Cradle-to-Grave? McDonough and Braungart (2019) define

it as a linear economic model in which products are not considered for recycling and reuse throughout their entire life cycle, from production to final disposal. In addition to recyclability, some materials themselves are also harmful.

(PDF) life cycle assessment: Assessing the environmental impact in the railway maintenance. Available at: https://www.researchgate.net/publication/326665770_Life_cycle_assessment_Assessing_the_environmental_impact_in_the_railway_maintenance (Accessed: 30 November 2024).

According to data from the U.S. Environmental Protection Agency (EPA) (2012), materials such as paints and adhesives, as well as many common building materials, contain volatile organic compounds (VOCs) that can cause indoor air pollution harmful to the health of occupants.So traditional interior design clearly reflects the cradle-to-grave design model.

What about Cradle-to-Cradle? Cradle-to-Cradle design aims to eliminate waste by making all materials reusable (McDonough

and Braungart, 2019).

Cradle-to-cradle design. | download scientific diagram. Available at: https://www.researchgate.net/figure/Cradle-to-cradle-design_fig2_373281917 (Accessed: 30 November 2024).

I found a typical example. Steelcase Think Chair, a paragon of sustainable office furniture, has been recognized by McDonough Braungart Design Chemistry for its material safety, detachable design, and recyclability (Steelcase, 2016). First of all, more than ninety percent of the materials used in the Think Chair can be recycled and reused, and they do not contain any harmful chemicals. Its disassemblability also prevents it from becoming a monstrous hybrid, making it easier to repair and recycle, thereby extending the product’s lifespan.In order to ensure the technology is utilized, Steelcase also maintains a product recycling program to ensure these materials can be reused.

Steelcase, 2016. Sustainability at Steelcase: Cradle to Cradle Certification. [online] Available at: https://www.steelcase.com [Accessed 21 October 2024].

But in reality, the Cradle-to-Cradle model is still too idealistic.First of all, even though more than 90% of the materials in the Think Chair are recyclable, actually achieving the recycling of these materials requires very high research costs and the establishment of a very complex recycling network. Some regions and industries lack the conditions to do this globally. Secondly, even if there are recycling programs in place, consumers may not necessarily participate actively and might end up discarding the products directly. Moreover, the rapid iteration of technology and changes in aesthetic trends may accelerate the rate at which users replace products. Second, although the design itself is already modular and simple to disassemble, the use of mixed materials such as plastics and metals makes deconstruction and

reuse still challenging.This will make the entire process from design to production much more complicated.

As designers, we need to find a balance between ideals and reality.For example, in the case of the Think Chair, perhaps society and the government should invest in and promote the construction of global recycling facilities and the development of technology, making the entire network parallel. On this basis, brands can increase the transparency of their product recycling processes and enhance brand loyalty through design, attracting consumers to participate in recycling programs and reducing replacement frequency. For designers, they can focus more on localizing the design to make the product’s recycling plan more reasonable.

My thoughts remain the same as before.By analyzing the example of the Steelcase Think Chair, it can be seen that this model still faces many practical challenges in real-world applications, such as complex recycling systems, high costs, and the uncertainty of consumer behavior. Nevertheless, the Cradle-to-Cradle design approach also demonstrates the potential to achieve environmentally friendly goals through modular design, non-toxic materials, and recyclability, standing in stark contrast to the traditional Cradle-to-Grave model.Through continuous efforts and improvements, the concept of Cradle-to-Cradle has the potential to truly transform design practices and contribute to global sustainable development.

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Week3 Fire□Designers□—Yichen Jiang

After a week of studying, I would like to further discuss the relationship between humans, design, and the environment, starting with this week's workshop content and debate topics.

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I observed and contemplated the seemingly everyday or ordinary elements on the workshop sheet.I have some of my own thoughts

about the element of fire.The use of fire is inseparable from human behavior.Kelly (2020) stated that fire has always been a source of global biodiversity.Fire is both a symbol of civilizational progress, but it has also become a catalyst for environmental degradation. And humans, as the primary species capable of utilizing fire, have brought negative impacts on the environment due to their over-reliance on fire as a technological tool. For instance, anthropogenic drivers like climate change, land use, and invasive species are altering the nature of fire activities and their impacts (Kelly, 2020). This has led to the unstable frequency of wildfires in many ecosystems, affecting biodiversity and ecosystem resilience.Of course, this also encompasses the greenhouse effects resulting from excessive burning. Therefore, Kelly (2020) believes that in the Anthropocene, it is necessary for conservation planning to explicitly include the combined impacts of human activities and fire regulations.Before this workshop, my understanding was limited to the fact that the factors causing massive wildfires were just the ‘fire’ itself, but I never delved deeper to realize that it was actually the human use of these natural resources that caused it. From this, I deeply realized that landscapes are not purely natural and that humans intervene in natural processes and even reshape them.

□□□□□□□□□□□□□□□□ ‘□□□□’□□□□ *(no date) BBC News □□. Available at: https://www.bbc.com/zhongwen/simp/world-51092542 (Accessed: 01 December 2024).*

Returning to design, the relationship between designers and the environment is actually analogous to the element of ‘fire.’The goal of design itself is to be positive and meaningful rather than deliberately create destruction. Previous studies have clearly shown that designers play a crucial role in addressing environmental issues. Therefore, it further proves that designers are both participants in environmental destruction and changers who rectify all of it.Baldassarre (2024) found that the main focus of design thinking is on economic impact rather than social and environmental impact.So I believe that, given the current situation, designers have played a role in both unsustainable design itself and excessive consumerism. This is like us changing the nature of something that was originally beautiful.

Fortunately, our situation is not as dire as it seems; the workshop sheets mention that not all factors have suffered negative impacts. In society, there are already quite a few designers and brands that have begun to learn and possess ecological literacy, focusing on circular design and the use of sustainable materials, among other things.Just like I mentioned in my week 1 blog, the brand hear0 embodies and conveys excellent environmental protection concepts.The ability of the design industry to support sustainable transformation depends on the severity of these changes in undergraduate design education. Boehnert (2022) mentioned that the rigors of transformations in undergraduate design education directly affect the design industry’s ability to support sustainable transitions. Indeed, with the establishment of our course, the school has already begun to respond to this call. Designers must learn to strike a balance between existing unsustainable design work and supporting sustainability goals when confronted with diverse cases of

duality. So I believe that even though sustainable design practices have not yet been fully implemented, as long as environmental issues remain at the forefront of public attention, more designers will join this transformation. This will be a continuous process of improvement.

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Week2 Reconnecting Humans with Nature—Yichen Jiang

We started our formal study this week. In the lecture, the lecturer discussed the relationship between the environment and human experience. We live in an era in which human beings are profoundly changing the earth. This era is called the

Anthropocene. While shaping society through industrialization, urbanization, resource exploitation, and other behaviors, human beings have inevitably caused damage to natural ecology. This led me to question if humans and nature truly stand in opposition to each other.

Historically, humans have tried to conquer nature through technology and culture. For an extended period, it appeared that we frequently discussed nature and culture independently, implicitly acknowledging that our actions would harm the environment. But in fact, human beings are part of nature. As stated by Fallan and Jorgensen (2017), the environmentalist movement sees arts and crafts as a pioneering endeavor. Nature and culture are interdependent systems, and design must reflect the relationship that exists between them to achieve sustainable outcomes in the future.

This means that designers have a key role to play in this process. First of all, William Morris and his novel News from Nowhere (1890) inspired me. The existing environment and case always constrain my design process, preventing me from making potentially “wrong” decisions. But now I realize that designers have to get out of their comfort zone and be bold and innovative to really drive change.

Secondly, Fry (2009) believes that designers need to realize that sustainable design is not only about reducing damage but also about repairing the environment through innovative practices. I can’t agree more with that. We frequently overlook the harm humans have inflicted upon the environment. What can we do and write? For me as an interior designer, the choice of renewable and recyclable materials is a key consideration. Through taking use of renewable materials such as bamboo and recycled wood as an example, which can greatly reduce the environmental impact of buildings and thus reduce the consumption of non-renewable resources. This can help the ecological resources gradually move toward balance. Also the use of recycled metals in buildings reduced the need for

mining the environmental impact associated with raw material mining. And that gives nature more time to repair itself and regenerate.

Daudén, J. (2020) 如何利用回收与再生材料? *10*个面向未来的室内设计*, ArchDaily. Available at: https://www.archdaily.cn/cn/943612/ru-he-li-yong-hui-shou-yu-zai-sheng-cai-liao-10ge-shi-nei-xiang-mu-an-li (Accessed: 30 November 2024).*

In general, I think designers should be the pioneers in realizing these aspirations. In fact, there are still many obstacles in the way. For example, even though sustainable materials can provide long-term benefits to the environment, the cost of their widespread adoption in the construction industry is very high. And because these technologies and materials are still in the early stage of research and development, the availability of these sustainable new technologies and materials is also limited. In addition to practical problems, including my own problems, the psychological problem of relying too much on the transmission design is also one of the obstacles. So it is going to be a long road for society and designers.

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