

Overall Reflection on the topics of the course

Taking part in an environmental design course has been a transformative journey that has not only deepened my understanding of the intricate relationship between human beings and their surroundings but has also ignited a passion for sustainable and thoughtful design. This comprehensive exploration has not only broadened my perspective on environmental issues but has also equipped me with the knowledge and skills to contribute meaningfully to the creation of spaces that prioritize ecological balance and human well-being.

One of the key takeaways from the course has been the emphasis on a holistic approach to design. It's not merely about creating aesthetically pleasing structures but involves a meticulous consideration of environmental impacts. This holistic perspective urges designers to look beyond the immediate visual appeal and consider the long-term effects of their creations. From analyzing site conditions to understanding the life cycle of materials, every step in the design process is scrutinized through an environmental lens. This approach has instilled in me a sense of responsibility as a designer, making me conscious of the lasting footprint that each project can leave on the planet.

Moreover, the course has fostered an appreciation for the interconnectedness of various elements in the built environment. It has made me realize that a successful design is one that seamlessly integrates with its surroundings, promoting sustainability and harmony. Whether it's incorporating green spaces to enhance biodiversity, optimizing natural light and ventilation to reduce energy consumption, or choosing materials with a low environmental impact, every decision plays a role in shaping a space that is not just

visually pleasing but also ecologically responsible.

Additionally, the collaborative nature of the course has been a key factor in enriching my learning experience. Working alongside peers with diverse backgrounds and perspectives has broadened my understanding of environmental challenges and solutions.

Furthermore, the course has instigated a shift in my mindset towards more sustainable living practices beyond the realm of design. It has made me critically evaluate my own lifestyle choices and their impact on the environment. This newfound awareness extends beyond the professional sphere, influencing personal decisions such as consumption patterns, waste management, and energy usage. This personal transformation underscores the profound impact that an environmental design course can have on an individual, transcending the boundaries of academia to shape a more sustainable way of life.

In conclusion, the environmental design course has been a transformative and enlightening experience. It has equipped me with the knowledge, skills, and mindset needed to navigate the complex challenges of designing spaces that are not only visually appealing but also environmentally responsible. This course has not only shaped my professional aspirations but has also influenced my personal values, fostering a deep commitment to contributing positively to the well-being of the planet through thoughtful and sustainable design practices.

Fig1: www.arch2o.com- Solar Panels in the middle of the city



Fig2:
www.re-thinkingthefuture.com

Sources: Fig3: [www,mcessex.co.uk](http://www.mcessex.co.uk) – Principles of Sustainable Architecture



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SUSTAINABLE ARCHITECTURE

The team at Munday + Cramer are extremely passionate about environmental causes and implementing eco-friendly designs into architecture. That's why we have invested heavily in the appropriate training, systems, and technology to ensure all of our designs are sustainable.



@mc_essex

**Will people in the future
look back and think we did a
good job?**

Last week, during our seminar, we had a debate about the topic of whether or not people in the future, ***will thank us for the decisions we are making today.*** I believe, the future holds a mirror to the decisions we make today, particularly in the realms of environmental stewardship and technological innovation. Whether or not people in the future will thank us relies on the paths we choose now.



Fig 1 :Polluted, Destroyed London, source: londontopia.net

On the environmental front, our decisions regarding sustainability, conservation, and climate change mitigation will undoubtedly shape the world our descendants inherit. If we prioritize renewable energy, adopt eco-friendly practices, and implement policies that safeguard the planet, future generations may express gratitude for our foresight. At the same time, a failure to address environmental challenges could elicit reproach, as they grapple with the consequences of our inaction. Amongst the plethora of technological inventions such as solar panels, electric cars, wind mills, we have also been greedy and we have exploited our planet's resources for our own good, without considering the long-term highly and irreversible detrimental effects.

It goes without saying that the vast majority is interested in finding ways in which we can help the Planet. There are multiple projects around the Globe aimed at fighting climate change and preserving the flora and fauna. One particular example that stands out to me in this regard is the Great Green Wall, which is a massive initiative aimed at combating desertification, land degradation, and climate change in the Sahel region of Africa. The Sahel is a semi-arid region

stretching across the continent, just south of the Sahara Desert. The initiative involves the planting of a wall of trees and the implementation of sustainable land management practices to restore degraded land, promote biodiversity, and improve the livelihoods of local communities. Whilst projects like these are incredibly helpful, they tend to be enclosed in terms of popularity or influence. Although change can start from the smallest initiative, I find it that our current biggest issue is the fact that most governments are not willing to make the radical changes that are so desperately needed. There are constant talks about these matters amongst officials, such as the COP26 in Glasgow, where brilliant ideas were presented, yet little improvement or actual tangible, practical, not just theoretical, change has been done in the mean time.

Above all, the gratitude we receive from future generations depends on our ability to balance progress with responsibility. If we act with wisdom, empathy, and a long-term perspective, there's a higher likelihood that people in the future will thank us for the decisions we make today. It is a call to embrace a legacy of mindful choices that consider the well-being of both the planet and its inhabitants. Just as presented in the photos, the outcome of our future can be abominable or flourishing and bountiful.

Sources:

Kaku, M. (2021) *Three predictions for the future of humanity / Big Think ; with Michio Kaku.*

Lennox, J. C. (2020) *2084 artificial intelligence and the future of humanity / John C. Lennox.* Grand Rapids, Michigan: Zondervan.

Briggs, R. P. (2021) *Emerging world : the evolution of consciousness and the future of humanity* / Roger P. Briggs. Ocala, Florida: Atlantic Publishing Group, Inc.

Anon (1999) *Humanity 3000 Seminar ... : proceedings* / Foundation for the Future. Bellevue, Wash: The Foundation.

Fig 2 : Vibrant, Nature Focused London , source: propertyupdate.com.au



Anthropocene- in the context of architecture

I have heard the term "**Anthropocene**" on various occasions before, but I have never really took the time to understand its ramifications, especially when it comes to the field of architecture , which I am familiar with. Upon my research, I

have discovered how essential it is to be mindful of the Anthropocene at all times, in regards to all projects, no matter how ambitious.

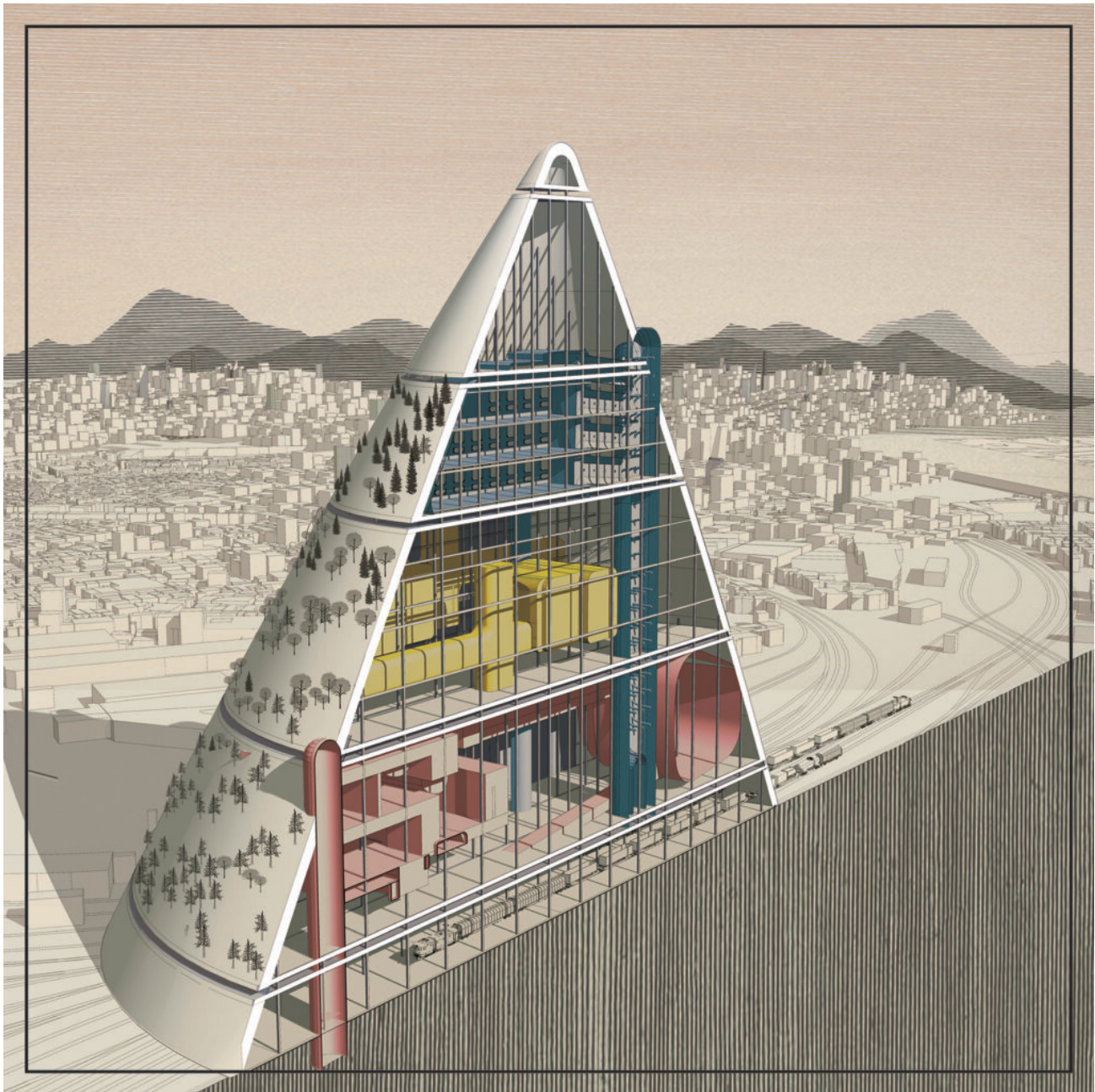


Fig 1. (averyreview.com) – architecture blending in with the environment

First of all, the Anthropocene is a geological era characterized by the significant and lasting impact of human activities on Earth's geology and ecosystems. In the context of architecture, the Anthropocene creates both challenges and opportunities.

Architects and urban planners are increasingly recognizing the need to design and construct in ways that are more sustainable and resilient, considering the environmental consequences of human activities. This involves rethinking traditional design practices, materials, and construction methods to minimize the ecological footprint of buildings and infrastructure.

Additionally, the Anthropocene has prompted architects to address issues such as climate change, resources and biodiversity loss in their designs. Concepts like green architecture, sustainable design, and the integration of renewable energy sources have gained prominence as ways to diminish the negative impacts of human development on the planet.

Furthermore, architects and designers are exploring ways to adapt existing structures to changing environmental conditions and to design buildings that can withstand the challenges posed by climate change. This might include considerations for rising sea levels, extreme weather events, and other consequences of human-induced environmental changes.

To conclude, the Anthropocene has influenced architecture by emphasizing the importance of sustainability and environmental responsibility in the design and construction of buildings and urban spaces. Architects and designers play a crucial role in shaping a built environment that not only meets human needs but also contributes to the health and well-being of the planet.

Sources:

Anon (2014) *The anthropocene review*. Thousand Oaks, CA: SAGE Publications.

Hagan, S. (2022) *Revolution? architecture and the Anthropocene* / Susannah Hagan. London ; Lund Humphries.

Falling in love with plastic all over again?

Plastic. One of the most used materials of all time. The widespread use of plastic began in the early *20th century*, marking a revolutionary shift in material culture. .Plastics gained popularity due to their versatility, durability, and cost-effectiveness. The production of plastics escalated quickly during World War two as a result of production of military equipment and scarcity of traditional materials.

Initially celebrated for its convenience and adaptability, the unintended environmental consequences of plastic have since emerged as a significant global concern. Globally, the popular opinion went from adoration to hatred regarding



plastic, in a matter of a few decades. We have come to the realisation that as efficient as this material is for humans , it is incredibly detrimental for the planet. Thus, we collectively came up with ways of combating the damage we have done. Nowadays, there are a plethora of alternatives for plastic, that we can incorporate into our daily lives. Yet, it still does not seem to be enough. Perhaps we need to reanalyse the problem instead of ignoring it. Perhaps we need to start being ecstatic about plastic again. I know, that sounds rather contradictory to all the downsides plastic is known for, but maybe, if we were to find ways of reutilising the already existing plastic, there would be no need for getting rid of it. Some ways in which we could make plastic resonate with the environmental movement would be choosing durable products,

using recycled plastics, or the easiest method in my opinion, upcycling and repurposing. I remember seeing a really ingenious idea a few weeks ago, which implied turning bottles into pots for a vertical , hanging garden.

To conclude, I find it that since we have such a long and tumultuous relationship with plastic, we should keep striving to find ways of efficiently, wisely and non-wastefully encapsulating it into our daily habits.

Sources:

Fig1: www.trendhunter.com- Sustainable Skincare Bottles

Fig2: www.packageintegrity.com

Qi, Y. et al. (2018) Macro- and micro- plastics in soil-plant system: Effects of plastic mulch film residues on wheat (*Triticum aestivum*) growth. *The Science of the total environment*. [Online] 6451048–1056.

Bucci, K. et al. (2020) What is known and unknown about the effects of plastic pollution: A meta-analysis and systematic review. *Ecological applications*. [Online] 30 (2), 1–16.

Greene, J. P. (2014) *Sustainable plastics : environmental assessments of biobased, biodegradable, and recycled plastics* / Joseph P. Greene. Hoboken, New Jersey: John Wiley and Sons, Inc.



Materialism

I found this week's topic really interesting as it was something I wasn't entirely familiar with or ever properly understood. The lecture and the seminar truly opened my eyes to this rather complex concept. **Jane Bennett** explains it best in the book "**Vibrant Matter**", which encapsulates a deep dive into the idea of vital materialism. Basically, the point of the book is to prove that inanimate things around us, such as objects all have a life of their own, even a kind of will. When we develop an emotional attachment to a certain object, we give it life and charge it with memories. For example, when we look at the way little kids treat their toys, it is almost as if the toys are alive and have moods and personalities.

Another great example that I remember from the seminar, are organs. Technically we do not perceive them as alive beings, but together they help humans be alive. Therefore, the concept of materialism is a thought provoking one and it left me with a different perspective on the world around me and the objects

I interact with on a daily basis. As a future interior designer or architect, working with objects and inanimate elements will represent 90 percent of my time, thus, learning to properly understand and take care of them is quintessential.

The philosophical concept of materialism, in a broad sense, refers to the belief that the physical or material world is the fundamental reality, and everything, including thoughts, consciousness, and ideas, can be explained in terms of physical matter. Inherently, interior design encapsulates this very concept. Objects and things, materials and textures can convey a feeling, can touch a certain sensitive cord.

Together, they help create an atmosphere, without directly saying what the atmosphere is.

This ideology is a daring one, and although most people would disagree with it, it is incredibly thought provoking to analyse and form an opinion. I would not say I have completely leaned into materialism, but reading more about it has led to a change in the way I perceive things around me and the way I interact with them on a daily basis.

Sources: Estrada, A. (2020) Identification of concepts related to materialism by content analysis method in modern architecture historiographies. *Arte, individuo y sociedad*. [Online] 32 (1), 11–30.

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

Armstrong, R. (2019) *Vibrant Architecture Matter as a CoDesigner of Living Structures*. Place of publication not

identified: De Gruyter.

fig1- Vibrant Matter book- www.dukeupress.edu

fig2- Still Life Painting-www.artfinder.com



Annotated Bibliography - Environmentalism in Architecture

Teymur, N. (1982) *Environmental discourse : a critical analysis of 'environmentalism' in architecture, planning, design, ecology, social sciences and the media* / Necdet Teymur. London: Press. – This complex architectural analysis, published in 1982, is a thought-provoking work that critically examines the concept of “environmentalism” within various fields, including architecture, planning, design, ecology, social sciences, and the media. Teymur dives into the

discourse surrounding environmentalism and scrutinizes its



application and implications in these diverse disciplines. The book offers an in-depth analysis of how environmental concerns are addressed and understood across these fields, providing valuable insights into the intersection of environmentalism and different areas of study and practice. It's a significant commentary that encourages readers to think critically about the environmental discourse and its role in shaping these disciplines.

Anon (2008) *La ville é'cologique : contributions pour une architecture durable = The ecological city : contributions for a sustainable architecture / AS Architecture Studio.*

Bruxelles: Archives d'architecture moderne.-This book, published in 2008 by AS studios, offers valuable insights into sustainable urban design and architecture. The book explores the concept of the ecological city and provides contributions to the field of sustainable architecture. It discusses various

aspects of sustainable urban planning, design, and environmental considerations. AS Architecture Studio presents innovative ideas and practical strategies for creating more environmentally friendly and sustainable cities. This book is a resource for architects, urban planners, and anyone interested in the intersection of architecture and ecological urban development, offering ideas and solutions to address environmental challenges in urban areas.

Barber, D. (2016) *A House in the Sun: Modern Architecture and Solar Energy in the Cold War*. [Online]. New York: Oxford University Press.- In this book, Barber explores the intersection of modern architecture, solar energy, and the political context of the Cold War. The book showcases the design and development of solar-powered homes and buildings during the mid-20th century, highlighting how architectural innovations were influenced by both technological advancements and political ideologies. Barber discusses the role of architects and engineers in the promotion of solar energy, the challenges they faced, and the broader social and political implications of using renewable energy sources in architectural design. This book provides valuable historical insights into the relationship between architecture, technology, and environmental considerations during a significant period in history.

Steemers, K. & Steane, M. A. (2004) *Environmental diversity in architecture / edited by Koen Steemers and Mary Ann Steane*. London ;: Spon Press.- This book is a deep dive into the concept of environmental diversity in architectural design. The importance of incorporating diverse environmental considerations into the design and planning of buildings and spaces is greatly emphasised in a light that entails the utmost importance of this topic. It offers insights into how architects can create environments that respond to a wide range of environmental factors, including climate, energy efficiency, and sustainability. The book features

contributions from various experts in the field, making it a valuable resource for architects, designers, and researchers interested in the intersection of architecture and the natural environment. It encourages a holistic and adaptable approach to architectural design, considering the diversity of environmental challenges and opportunities.

fig1: www.inhabitat.com

Circular Economy

Circular Economy is a term that has become incredibly prevalent in our modern lives, whether we encounter it in the work place, on the website of our favourite store or in a friendly discussion. It seems that the world is striving to go into this direction, before it's too late. But is it truly that easily said and done? In theory, a circular economy and the circular, almost infinite life of a product represents a terrific ideology, one that could reduce waste substantially.

But do we really have the infrastructure to assure the longevity of a product? For example, looking at a smartphone, there are a myriad ways of adding it into the circular economy, such as creating a design that is made for reuse and disassembly or the general idea of modularity, where each component is interchangeable. Another way of extending the lifespan of a product such as a smartphone is perhaps implementing a variety of programs and appealing offers such as the option to bring back an old phone and get a new one at a reduced price, or bring a phone in to be recycled or to have its components used for a different phone. This is all idealistic, and maybe a tad utopic as unfortunately, most companies do not aim for their products or designs to stand intact in the face of time, their main goal is usually mass

consumerism and coming up with something innovative every year. Most Apple users for instance, have noticed over time how their products start lagging or just overall not responding to simple tasks just as a new product is about to come out. Thus, the idea of circular economy is certainly a matter of the present and of the future, but I find it that we have a few more years, perhaps even a decade before we can promulgate it globally and in most domains. Certain domains such as the automotive industry, have been quite successful in the past few years in terms of integrating a circular economy: several automobile manufacturers have been working on recycling and reusing materials in the production process. For instance, some companies are exploring the circular economy model for electric vehicle batteries, focusing on recycling and repurposing used batteries. But can the same be said about all domains? Certainly not, as, I find it the the interior design/architecture sector has a lot of catching up to do. Two key ways in which interior design could implement a circular economy would be, in my opinion, a durable and modular design. The focus should be on creating interiors that are built to last, that showcase high- quality materials and construction methods and a timeless design look. For instance, we look at 19th century palaces around Europe, where the interiors are almost intact, due to the quality. However, when we look at some of the homes we build today, such as most suburban homes in the US, the most prevalent materials are cardboard, plywood and plastic. These materials are not meant to last. They are cheap and not resistant whatsoever and will require demolition within more than four decades, thus, waste will be produced. The second solution would be relying on a modular approach to design, one that allows for disassembly and reconfiguration. Ikea, in particular, does a fabulous job at creating modular furniture. Products like the Billy bookcase or the Kallax shelving unit consist of interchangeable and stackable modules that allow buyers to customise the furniture layout to their preference.

Sources: Whiting, P. et al. (2023) A New Retail Interior Design Education Paradigm for a Circular Economy. *Sustainability (Basel, Switzerland)*. [Online] 15 (2), 1487-.

Anjos, M. F. et al. (2021) *Design and implementation of a modular interior-point solver for linear optimisation*.

fig1.- Kallax Shelving unit that can be assembled with other shelving units to create a larger one- www.ikea.com

fig2- Circular Economy Diagram- www.futurecycling.com.au

fig3- Modular Sofa (tiny magnets allow for the pieces to be stuck together in various ways) – www.dezeen.com



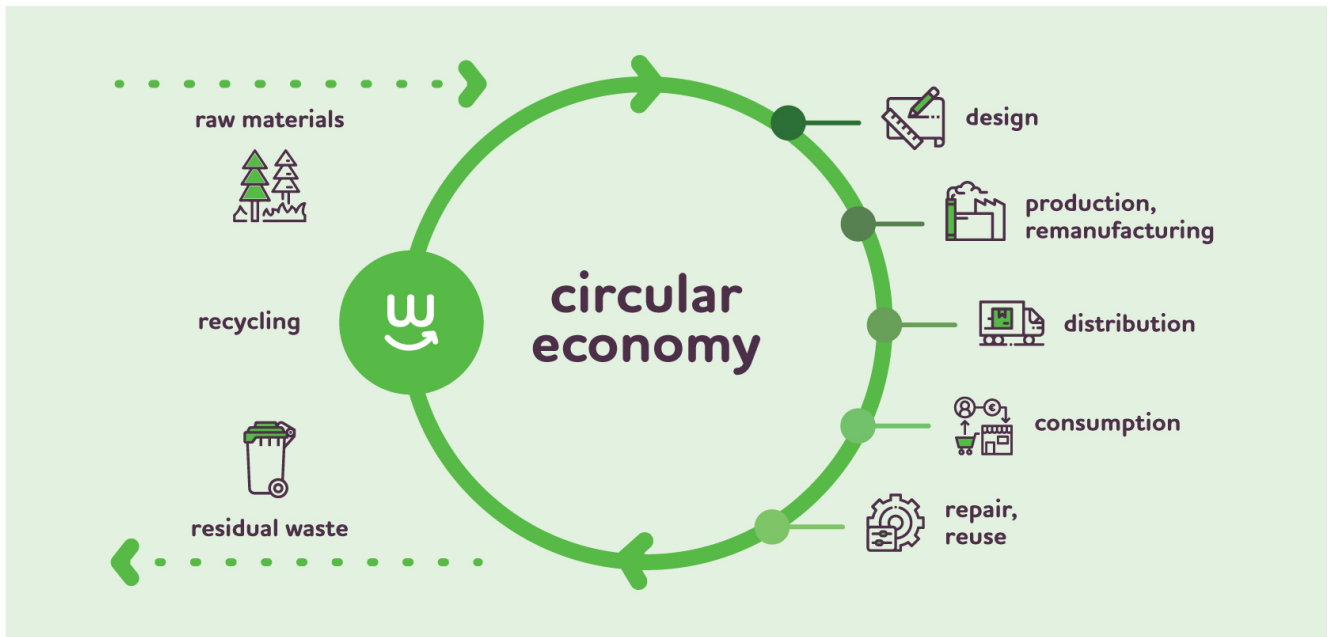


- Shelf type
Hanging Shelf
-

- Mounting type
Wall Mount
-

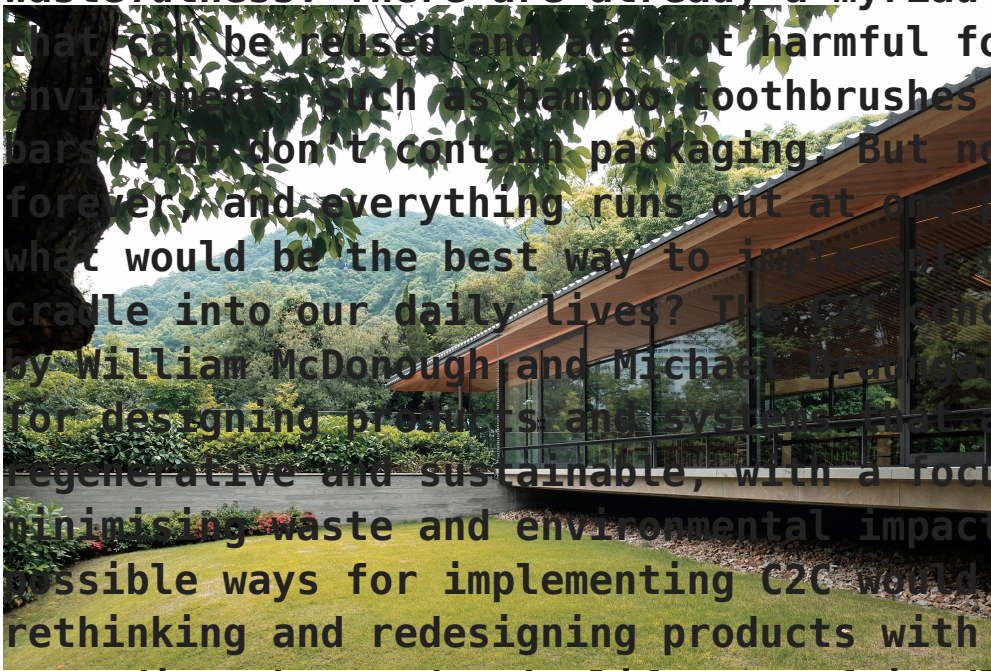
- Room type
Hallway
-

- Material
Oak



Capitalism and the idea of Cradle to Cradle

Last week's lecture presented various ideologies, such as capitalism and the cradle to grave idea. Opposite to those ideas, stood Karl Marx's ideologies and the cradle to cradle idea. In my opinion, socialism or communism are not the response, as in practice it never truly works equally for everyone. I believe, we can implement the cradle to cradle idea in a capitalist society, as a longterm response to years of wastefulness. There are already a myriad of products that can be reused and are not harmful for the environment, such as bamboo toothbrushes or shampoo bars that don't contain packaging. But nothing is forever, and everything runs out at one point. Thus, what would be the best way to implement cradle to cradle into our daily lives? The C2C concept, developed by William McDonough and Michael Braungart, advocates for designing products and systems that are regenerative and sustainable, with a focus on minimising waste and environmental impact. Some possible ways for implementing C2C would be: completely rethinking and redesigning products with the purpose of extending the product's life, eco-friendly materials,



education and more awareness about the topic, financial aid for brands that strive to go into a C2C direction. A C2C future is possible, but it goes without saying that it would take a lot of work and collective determination. When applying the Cradle to Cradle principles to interior design for instance, the goal is to create spaces that are not only aesthetically pleasing but also environmentally responsible. Material selection is one incredibly effective way of making sure that the project's components can have a life even long after the initial concept has served its purpose. Thus, choosing materials that are safe, healthy, and environmentally sustainable, looking for products that have been certified by organisations like Cradle to Cradle Certified™, which assesses materials based on factors such as material health, material reutilisation, renewable energy, water stewardship, and social fairness, using recyclable and recycled materials represent a myriad of ways in which the C2C concept can successfully be implemented into interior design. Furthermore, I find it that designers should search for inspiration, materials and ways of building in the surrounding environment and should opt for locally sourced alternatives. Amongst different architectural styles, Japanese architecture is considered to be the most sustainable, as it is reflecting a harmonious relationship with nature and a commitment to resource efficiency. To further my point, Japanese interior architecture is adamant on incorporating lots of cultural, locally sourced materials such as dried up bamboo or integrating nature in various ways. It is also very adaptable and flexible, as elements are modular and can be repurposed from one interior to a different kind of interior. Perhaps the most sustainable aspect would be the

traditional craftsmanship that is involved in Japanese design, practice that reminds me of William Morris's concept, the Arts and Crafts movement. Since every piece is unique, there is no mass production, thus no mass pollution.

Throughout history , there have been multiple attempts at something that would truly change our habits in terms of production and waste. It is safe to say, that the Cradle to Cradle ideology is perhaps the closest we can get to perfection. There is a lot of work left to do, but we have the means now more than ever to make future generations proud of the choices we have made today.

Sources: Marshall-Baker, Anna. & Tucker, L. M. (2012) *Cradle to cradle home design : process and experience* / Anna Marshall-Baker, Lisa M. Tucker. New York: Fairchild

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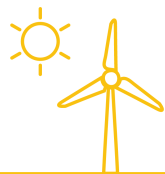
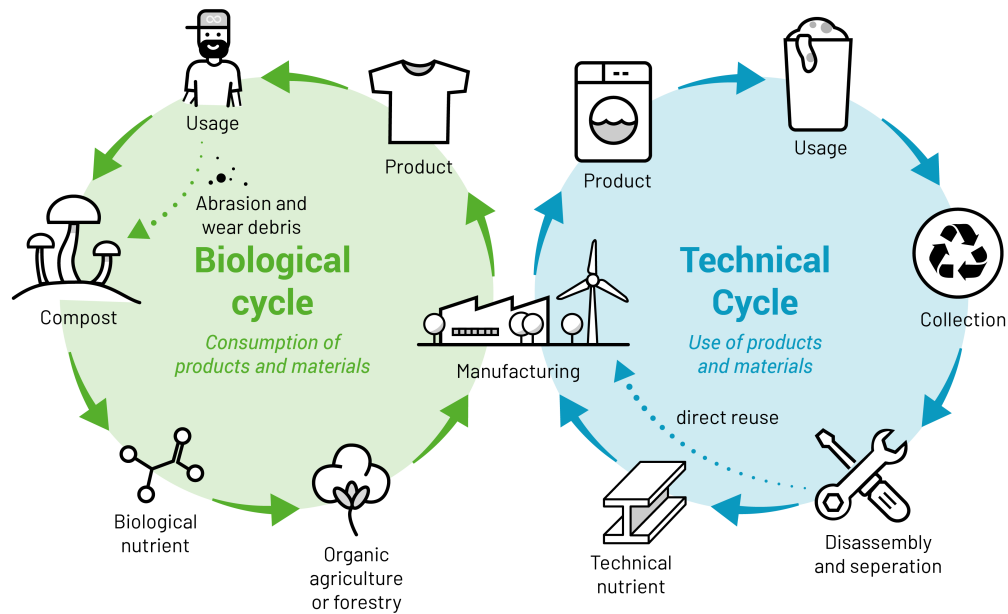
Harada, Jiro. & Holme, C. G. (Charles G. (1985) *The lesson of Japanese architecture* / Jiro Harada ; edited by C.G. Holme. New York: Dover.

fig1: architectural digest.com

fig2: mcdonough.com

CRADLE TO CRADLE

A concept by Michael Braungart and William McDonough



100%
RENEWABLE
ENERGY



FAIR AND
HEALTHY
WORK

HEALTHY
SOILS



CLEAN AIR



CLEAN WATER

Illustration: Felix Müller (www.zukunft-selbermachen.de) Licence: CC-BY-SA 4.0

Debate Seminar

During the seminar, I was on the "FOR" team, regarding the statement that designers are not sustainable or environmentally friendly. Although changes have been made within the industry, I believe we have yet to make effective, long-lasting changes. I find it that the so called "changes"

are merely superficial, as the idea of "design" in and of itself is about constantly coming up with something new and original. This is not to say that designers don't bring back and look at the past quite often, but I believe it should be more about upcycled materials and pieces of furniture rather than just bringing back trends. I think every domain of design, such as fashion design or interior design is extremely wasteful, and very few designers actually strive to make an effort when it comes to reusing the elements they work with. I think the industry is going on a greener path, but there is a lot of work left to do. Perhaps, there are a few firms making a substantial difference, such as Terreform ONE. During one of the architectural society lectures this semester, we had the honour to receive a talk from the creator himself, Mitchell Joachim. As a trained architect, he's always found his domain to be quite wasteful and not aiming for greater purposes. His entire ideology behind the firm was the idea of creating architecture that truly serves and **solves an issue, not just something that is visually pleasing or makes a statement.** Thus, he decided to intertwine architecture with technology and sustainability. Their projects start by looking at the nature around us and what it has to offer and they draw inspiration from any source of life. Their cricket shelter for instance, is a daring project that is meant to be a prototype for potential future insect farms, as they are proving to be a great source of protein, especially in our current climate, where resources are fading away at an accelerated rate.

Although I do still believe design and architecture are amongst the most wasteful domains, I do strongly believe that there is so much potential left unexplored. As designers we have the tools and creativity to truly make a change, I think it's just a matter of actually being willing to. And it is evident that firms such as Terraform ONE are eager to pass the baton.

Sources: Joachim, Mitchell. et al. (2021) *Design with Life*.

New York City: Actar D.

fig1: Cricket Farm – terreform.org



Environmental Design in Fashion

Last week, during the seminar, we touched on the fashion industry and the ways in which it could become more sustainable. For example, my group partners and I were looking at different ways of creating artificial leather. We stumbled upon this brand based in NYC, that does apple leather bags and purses. Apple leather is produced at lower costs and with less resources than natural leather, thus, in such ways, the industry could be less wasteful. Going back to a reading we had to do for last week, the Pink Flamingo, symbol of the environmental activism wave of the 1960's, is a great representation oh how the artificial, in this case plastic, can stand as a symbol for the natural, for the environment. This plastic flamingo was perceived as an ironic statement, a comment on how the line between the real and the "fake" is starting to get finer and finer. Therefore, I think we are slowly going to realise that sometimes, especially in the fashion industry, the alternative, such as faux fur for example, is better than the original. Another example of the alternative being more feasible than the original is using an array of environmentally friendly materials in interior design. For instance, bamboo, reclaimed wood from previous projects, cork, recycled glass, engineered stones, such as quartz, recycled metal or hemp fabric, have a visually pleasing look, whilst also being less detrimental compared to their traditional versions. The same way in which young people have discovered a new found love for thrifting and charity shops, I believe the same phenomenon will take over the world of

interior design, where there will be a higher demand in terms of reusing materials and elements (furniture, fabrics etc).

fig1 : apple leather- source: <https://allegoriedesign.com>

fig2: Pink Flamingo Symbol- source:
newenglandhistoricalsociety.com

Sources: Jones, Louise. (2008) Environmentally responsible interior design : green and sustainable design for interior designers / Louise Jones. Hoboken, N.J: Wiley.

Tucker, L. M. (2014) *Designing sustainable residential and commercial interiors : applying concepts and practices* / Lisa M. Tucker. New York, NY, USA: Fairchild Books.

Anon (2006) Pink Inc. pops up to reprieve plastic icon: the pink flamingo. 18 (39), 3-.

