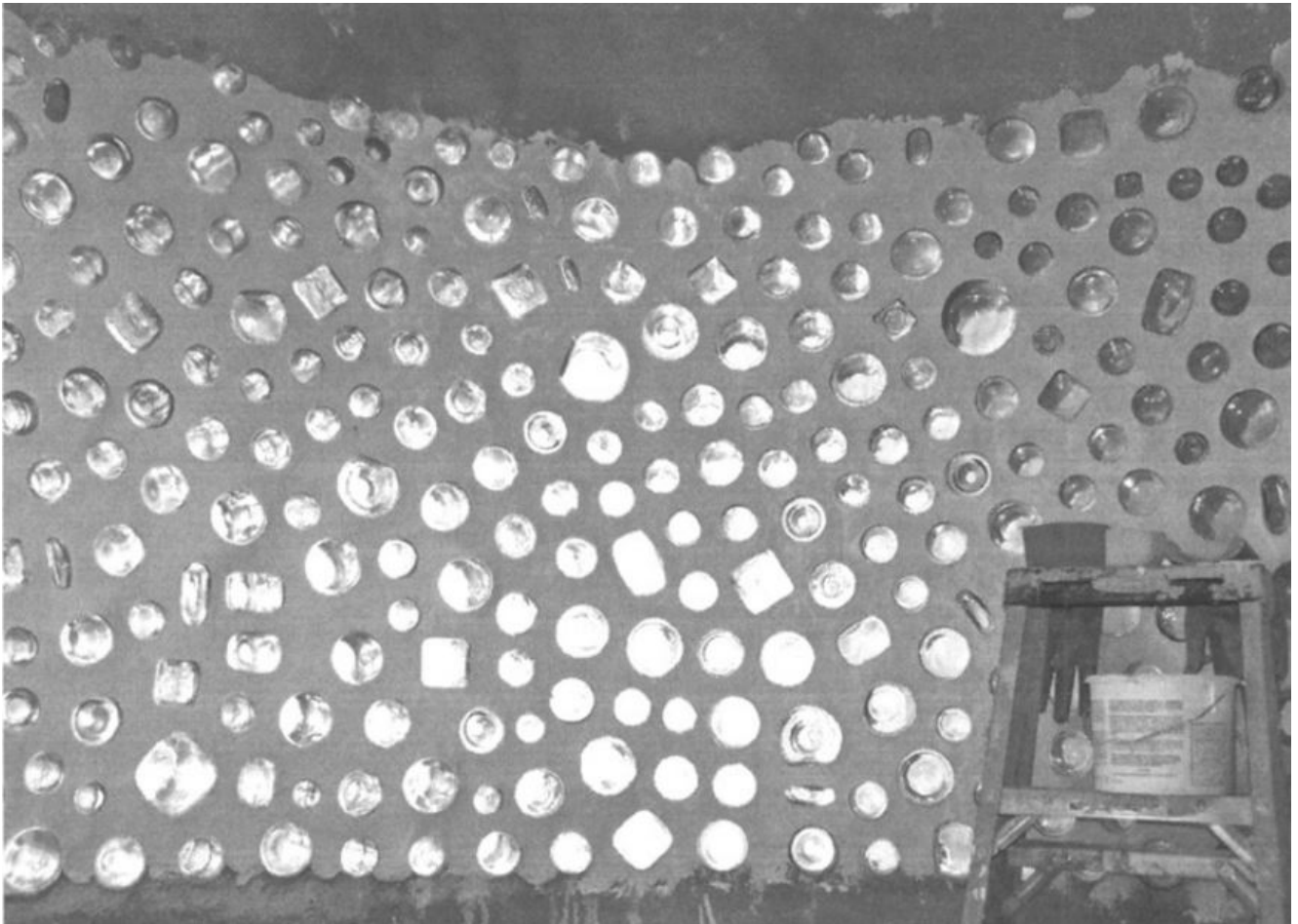


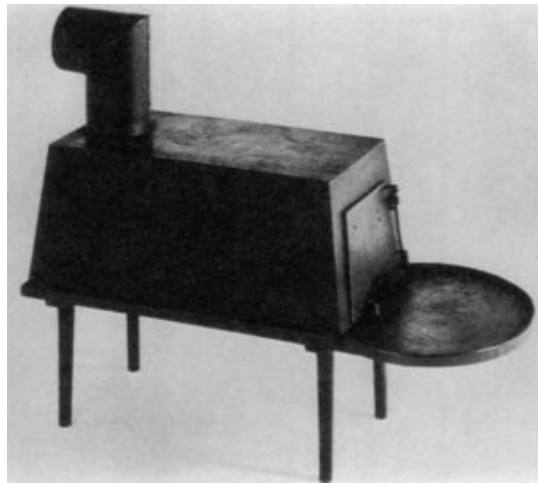
Environmental design-week6

Reading Week Summary Zhu ShenXu

written by s2553129 | 28 October 2023



I will share with you my gains during Reading Week in this blog. We have been studying environmental design for six weeks and have gained an understanding of the history and philosophy of environmental design. So, I read some books related to my major, interior design, this week.



The green imperative : ecology and ethics in design and architecture

Author: Papanek, Victor.

This book adheres to the sustainable design concept of 'cradle to cradle', but it focuses more on how to apply this concept to cities, buildings, and interiors. What impressed me deeply are the following two points.

The first point is that the author reflects on what good design is in the book. If we ask the designers of Bauhaus, what is good design. I believe the answer I received must be to maximize its functional design. However, the author believes that design is not designed to serve survival. He believes that design has deeper spiritual significance, especially its aesthetic and moral significance. Next, the author searches for his position in the design process by constantly asking himself questions. The following set of questions left a deep impression on me, and I would like to share them with you.

"Will the design significantly aid the sustainability of the environment?

Can it make life easier for some group that has been marginalized by society?

Can it ease pain?

Will it help those who are poor, disenfranchised or suffering?

Will it save energy or – better still – help to gain renewable

energies?

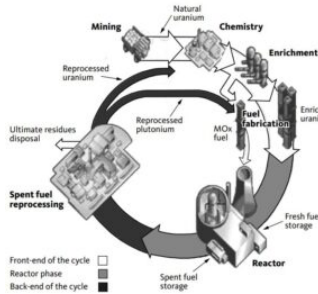
Can it save irreplaceable resources?

A positive answer to these or similar questions does not make the design visibly spiritual. But the performance of such services to our fellow humans and the planet will help us inwardly. It will nourish our soul and help it grow. That's where spiritual values enter design."

Our task has undergone a transformation.



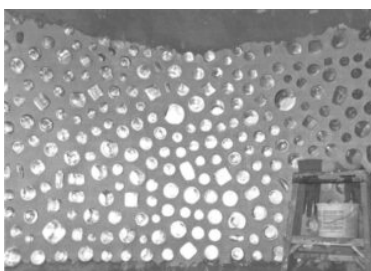
The second point is that he proposed that with the development of society, people gradually moved indoors. Therefore, interior design has become particularly important. The author believes that architecture should not only be connected to nature, but also to local culture. Meanwhile, the author points out that we are all involved in the design. As end users, we are both consumers and victims of the environment, buildings, tools, and artifacts that make up our world. Design is a conscious and intuitive effort aimed at imposing a meaningful order. Therefore, we need to understand the meaning behind design in order to establish a sustainable order.



Economies of recycling : the global transformation of materials, values and social relations

Authors: Joshua Reno & Catherine Alexander

This article mainly discusses how people can meet their needs by recycling and utilizing waste materials in different places and backgrounds. I think this is a circular economy, although some people do it due to the pressure of life. However, this move connects the ends of the linear economy together, making resource utilization more efficient and reducing waste. At the same time, this move also generated economic value, and most participants also benefited from it.



Earthships: The Homes That Trash Built

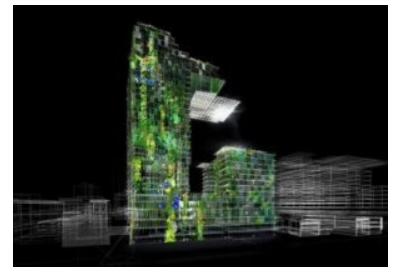
Authors: Rachel Harkness

The author introduces the concept and construction method of Earthships in this article. Earthships are a type of residential building constructed from waste materials. It adopts the concept of zero waste. Waste has no fixed classification and can be reused and reshaped. While building Earthships, they change the way they use their environment and resources by reusing waste.

Builders have a strong sense of morality, which can be seen from the way they treat sewage. They collect and clean this sewage, and then use and reuse it, such as for household and horticultural purposes.

In addition, the article also mentioned that Earthships builders value handcrafting, which can strengthen their connection with the environment and better recycle waste. They are very concerned about the environment and have strong environmental ethics. And through this approach, a new community relationship has been established.

Overall, Earthships, as an innovative residential construction method, propose a new way of resource reuse.



Thinking building dwelling: examining earthships in taos and fife

Author:Harkness, Rachel Joy

This article emphasizes that the responsibility of interior designers is to meet people's diverse needs for the environment. The article also mentions that sustainable interior design not only involves spatial efficiency and productivity, but designers also need to promote sustainable relationships between individuals and organizations from a holistic perspective.

Interior design can support and maintain community relationships, cultural atmosphere, family relationships, and personal life. The article also emphasizes that interior design plays an important role in the sustainability movement. Although designers entering this industry have received training in sustainability principles and practices, they do not always have sufficient information to complete tasks.

This article aims to enhance the standards of the design industry, thereby enabling users to use spaces healthier, happier, and safer.

Reference□

* Pics 1-14 from bibliography, Pics 15-18 from search engine

Environmental design-Week5

Exploring circular economy

Zhu ShenXu

written by s2553129 | 28 October 2023

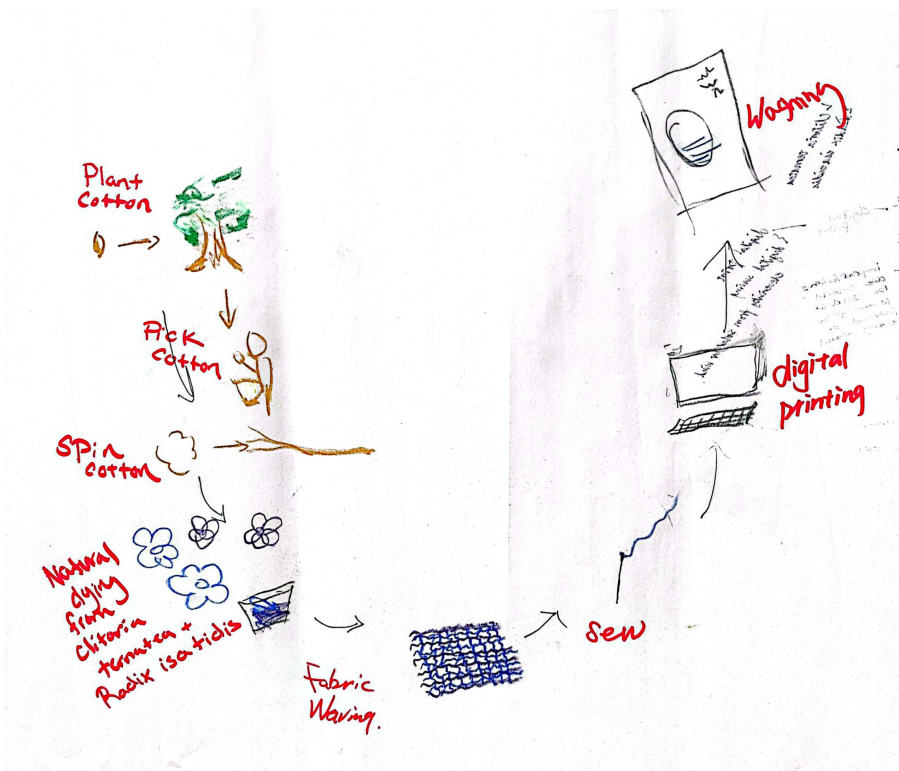
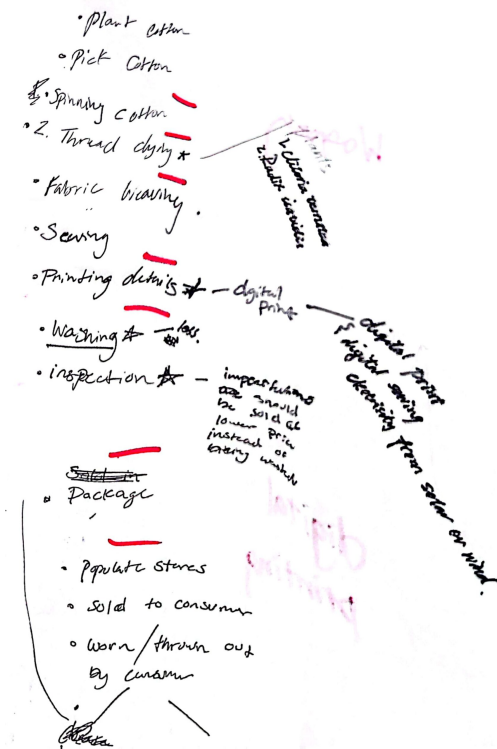


This week, we mainly discussed and explored the circular economy. Although the circular economy has been criticized by some as green capitalism, it is an inevitable trend for sustainable development because unprofitable structures cannot expand.



In the studio this week, we did two activities. In the first activity, we used cards to represent different production steps and natural elements. These cards are then arranged to represent the linear economy of producing plastic bottles and the cycles that exist in nature.

Through different permutations and combinations, I found that it was important to keep the production process in line with nature. Since the original production raw materials come from nature, only by returning all the final production waste to the natural cycle can zero pollution, zero damage and sustainable development be achieved.



In the second event, we explored the circular economy in more detail. Our group has proposed some improvement suggestions for the linear production of jeans to move it closer to a circular economy.

The existing jeans production process not only consumes water, but also pollutes it. Producing a pair of jeans requires

nearly 4 tons of water. More seriously, dyeing jeans can pollute downstream water sources. The water in the drainage area near many jeans factories appears light blue. Our group proposes to use natural dyes instead of chemical raw materials for dyeing. Factories can try dyeing plants such as *Isatis indigotica* that contain indocyanin. (Indigo glycoside turns blue when exposed to alkali)

The existing circular economy is more like a cross combination of different linear economies. In a circular economy, different industries are constantly producing raw materials from other industries, while also constantly digesting waste from other industries. The circular economy is like a collage, which eliminates the gaps between different industries to reduce waste and natural burden.



Next, we held a seminar to discuss “This house (ie. we) would enforce a circular economy.”

In this debate, both sides believe that we need to develop towards a circular economy, but there have been disagreements on the feasibility of a circular economy. We have discussed materials, infrastructure, structural expansion, and policy implementation in the circular economy.

When it comes to circular economy, the first thing we think of

is the recycling of materials, which achieves sustainable development by reinserting production waste into a certain step of production. However, this idea is too idealistic, because there are losses in the process of recycling materials every time, just like recycled paper is not as strong as ordinary paper. And some recycling processes create new pollution and energy consumption.

At the same time, most of the existing production facilities are linear economy production facilities that are not suitable for circular economy. So, we need to integrate the system of circular economy into existing systems instead of rebuilding a new one.

This involves the popularization of the circular economy as a production structure. I believe that an unprofitable production structure cannot be popularized. So whether starting from economic benefits or reducing infrastructure waste, we should develop circular economy on the existing linear economic structure. This is a bottom-up transformation strategy.

We believe that the simultaneous top-down development of circular economy is necessary, but we cannot impose it on different cultural and social backgrounds. The Scottish government has been implementing a circular economy in recent years, such as conducting community activities and issuing relevant legislative policies. I think this is a great approach. We can also strengthen publicity, such as introducing successful pilot cases of circular economy. This can strengthen the public's confidence in implementing a circular economy.

The Earth is like a lonely spaceship floating in the universe. We have no supplies, so we can only produce based on existing material. Therefore, we cannot pollute the environment, and there is no concept of mining. We have to choose a circular economy.

reference□

1.Natural Resources and Environmental Economics; Tom
Titanberg, Lynn Lewis

* Pictures 1-4 are taken by me, Pictures 5-8 are from search
engine

Environmental design-Week4

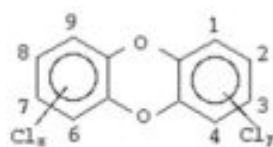
Reading: Cradle To Cradle Zhu ShenXu

written by s2553129 | 28 October 2023

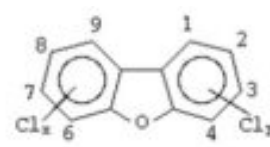


The book I read this week is 'Cradle to Cradle', and this blog mainly shares some post reading experiences. This book tells the author's environmental philosophy from cradle to

cradle, rather than from cradle to grave. And achieve the goal of environmental protection by rethinking and planning every step of product production.



PCDD



PCDF



This book points out that the current design and production process adopts a production model from cradle to grave. Then it pointed out some measures that people have already taken. For example, recycling materials from waste products and processing them into new products. But this process will generate new pollution, such as dioxins, a carcinogen, when recycling plastic. Fortunately, we have new plastics, but this does not allow plastics to return to nature. These measures only change the way pollution is caused or delay the time of pollution.



The author then told us that we need to consider the ecological benefits of Eco Effectiveness. And comparing the

world to a tree, the best development model is like falling leaves returning to roots, where all the waste generated in our development will become food for social progress. But we all know that such ideas are difficult to implement, so we have to force ourselves to do so.



Seeing this reminds me of an architectural case, the Ningbo Museum designed by Wang Shu. During the design process, the designer collected the bricks and tiles of abandoned residential buildings that were not inhabited around the site, and then glued them with clay to create the exterior walls of the museum. Some people also evaluate this building as the best exhibit in the museum because it, like other exhibits, reflects the local customs and traditions very well. I think we can call this kind of construction architecture-to-architecture.



Next, the author points out that we should respect diversity in the production process. Many sustainable cycles originate from nature, imitate nature, and integrate into nature. At the same time, we also need to respect cultural diversity, for example, the “wind spoon” in Pakistani architecture can effectively achieve the circulation of wind. In the long history of development, ancient people have always left behind something worth learning for modern people.

The final step is to put Eco Effectivity into practice. The author finally gave 5 suggestions.

Step 1: Get “free of” known curves.

Step 2: Follow informed personal preferences.

Step 3: Creating a “passive positive” list.

Step 4: Activate the positive list.

Step 5: Reinvent.





The definition of culture can be summarized into two types, one is culture in the sense of social structure, and the other is culture in the sense of individual behavior. They established a common understanding and cultural imagination.

Environmental protection has actually become a popular culture. Perhaps not everyone wants to protect the environment, but no one is willing to live in a polluted environment. Some supermarkets in China have “green vegetable sections” that sell vegetables grown in a pollution-free environment without the use of pesticides or genetic technology. Almost all citizens are willing to pay for these high-priced vegetables.

From the perspective of individual behavior, rushing to purchase pollution-free vegetables is going to become a culture. From the perspective of social structure, can we adjust the supply-demand relationship to keep more farmland away from pollution. For example, we can use the profits from pollution-free vegetables to improve farmland. And, attract more farmers to adopt this planting model through profits. Drive the transformation of planting methods with economic benefits.

In fact, with the development of industry, many lands have been polluted. About ten years ago, rice from certain parts of China was found to exceed heavy metal standards. We can use these methods to bring the soil back to its original state. Or rather, by building and improving culture, nature can be brought back to its cradle.

reference□

1.Cradle to cradle□Michael Braungart□William McDonough

2.2012 Pritzker Prize: Wang Shu [2012 Pritzker Prize: Wang Shu | ArchDaily](#)

3.Primitive Culture;Edward Taylor

4.Empirical research on consumer green vegetable consumption behavior; Qingping, Yan Fengxian, Wang Mudan

* All images are from search engines

Environmental design-Week3

Treasure hunt game & Debate

Zhu ShenXu

written by s2553129 | 28 October 2023

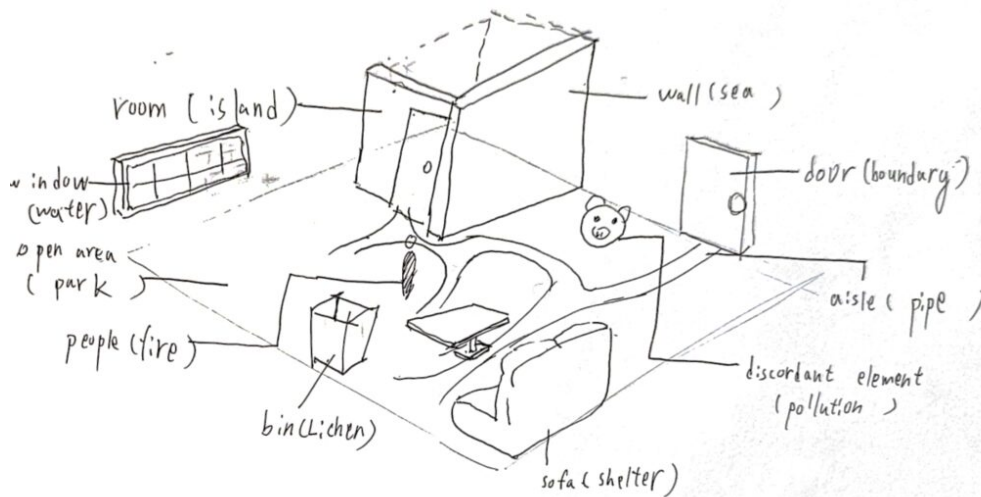
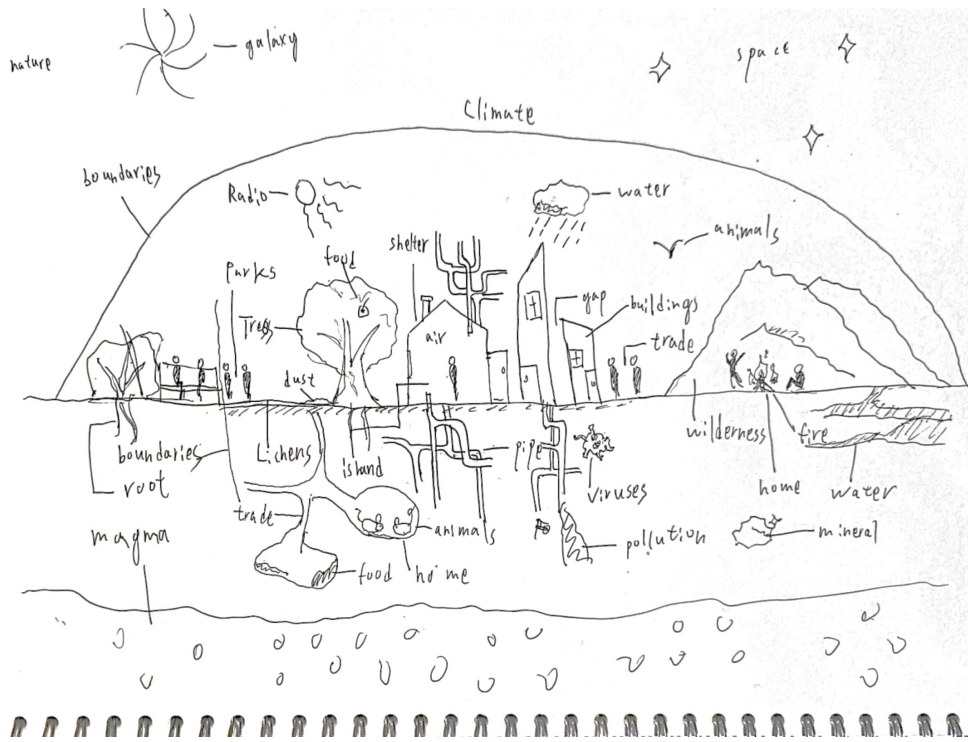


The initial knowledge of humanity comes from the induction and summary of nature. We can still see the shadow of natural

elements in today's design and cities. This week's studio encourages us to go outdoors and search for various elements of nature and human society. I believe that cities are actually a microcosm of natural ecology, and the elements and operating rules in nature can still guide our current urban, architectural, and interior design.



Various elements in nature have potential meanings. For example, lichens can symbolize decomposition and circulation, islands can symbolize independence and closure, and water can symbolize medium and carrier. I can compare different parts of a building with natural elements. I believe this can help us better understand the connection between artificial space and nature.



The above two pictures are my sketches. One uses natural elements to describe the city, and the other uses natural elements to describe the interior.

In the second image, I mapped natural elements to some indoor objects. For example, doors symbolize boundaries because they are controlled by humans, which makes them more like boundaries rather than walls. For example, a walkway symbolizes a pipeline because it means circulation and connection, and both can be extended. Finally, there is the window, which is very similar to water because it can bring vitality to the interior. Rooms without windows are often very oppressive. The above is the first set of metaphors, mainly

focusing on the connection and disconnection of space, as well as the resulting effects, such as vitality.

The second set of metaphors will focus on people and their surroundings. I want to compare people to fire, they always bring vitality to various things, but at the same time, they unknowingly destroy them. Next is the sofa, which I want to compare to a shelter. Finally, there is an independent room, much like an island. Private rooms are often a concrete manifestation of the homeowner's spiritual space. At the same time, the walls turned into an ocean.

The last group is related to the activity. I compare open spaces to parks because they generate activity by stimulating people's creativity. Then, compare trash cans to lichens because they not only clean the environment, but also can recycle. Finally, there are some disharmonious design elements that are difficult to eliminate, just like pollution.

In summary, the basic elements of architecture include space (Group 1), time (Group 2), and story (Group 3).



This week, we also had a debate on the theme that “Designers have not yet come to terms with their complicity in the creation of the conditions of environmental crisis or with their environmental responsibility, nor have they yet reformed their practices accordingly.”

We discussed factors such as the responsibilities of designers, the influence of big brands, the wave of consumerism, and the influence of capitalism in this debate.

Firstly, the opposing party believes that designers who lack awareness of protecting nature during the design process cannot be called designers, but they are indeed designing, so this sophistry is not valid. But we also noticed that environmental awareness is a mandatory course for every designer.

Some brands lock users by creating a culture, such as Apple, but sometimes this can also lead to waste. This situation is more obvious and serious in the fashion industry. The trend is changing every year, and products that have been eliminated generate huge waste.

This phenomenon is also influenced by consumerism. Sometimes it is necessary to acknowledge that consumption is an important channel for generating personal value in a capitalist society. The consumption power of individuals is an important measure of their social value. But consumption power may also be waste power.

Starting from the superstructure, some brands and capitalists have set their sights on profitability. We can sacrifice for this, but many consumers do not accept it. This also prompts many brands to develop their own political stance and brand values. This has to some extent alleviated waste.

Designers are a service-oriented industry, so sometimes we have to cater to customer needs. However, I believe that a successful designer should be a manager who should point out the right path for social development.

Reference:

1. Cities and natural processes: the foundation towards sustainability; Michael Haff

2. Architectural concept: Red is not just a color; Bernard Tschumi

* Pictures 1-7 are taken by me, Pictures 8-10 are from search engine

Environmental design-Week2

Reading comprehension Zhu ShenXu

written by s2553129 | 28 October 2023



In this blog post, I would like to share my understanding of “Environmental Histories of Design: Towards a New Research Agenda” This article was published in May 2017. This article explores the reasons for the formation of the

interdisciplinary field of environmental design from a historical perspective. By understanding this article, we can re-examine what environmental design is and use it as a reference for our further exploration.



I think this article mainly discusses the following three things. The above three images were created using AI tools and correspond to the following three things.

The first thing is that designing around nature may not be environmentally friendly.

The second thing is that industrial development has driven the field of environmental design, and industrial development is also a cause of environmental damage.

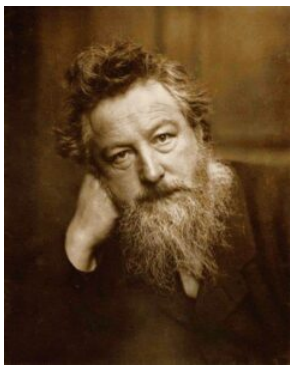
The third thing is the exploration of early scholars on the topic of symbiosis with nature.



The original text states that if early environmental history works erected or strengthened barriers between nature and

culture through a focus on wilderness and conservation, subsequent generations of scholars increasingly focused on removing such barriers. And provide examples of the design of the Flamingo in the United States and the promotion of SUVs to demonstrate that the nature that consumers encounter is “commercialized, modified, dead, out of ecological context” and may even be harmful to nature.

I associate a constructive case with Waterfall Villa. This design does not include building the villa next to a waterfall, as in the previous two cases, and then placing a plastic waterfall inside the villa. This design uses a design language that communicates with nature. The designer of the flowing villa put aside human pride and respected nature and the surrounding environment of the building. I think this is very valuable. This architectural design made me realize that although the building appears to be a separate space from nature, people and the building are actually a part of nature.



The article then introduced the arts and crafts movement that influenced environmentalism, as well as the outstanding figure Morris in this movement. Morris became famous through literary works on utopian themes and demonstrated that it is wrong for humans to view nature as an opposing concept to humans. This is a false binary opposition. But Maurice's utopia was ultimately shattered by World War I. Because industrialization itself is a potential risk of natural destruction. When we see the scorched earth brought about by war, we can intuitively experience it.



The article concludes by discussing the origins of these trends, Bauhaus. The designers of Bauhaus explored the relationship between humans and nature with many ineffective yet enlightening designs, such as the penguin pool that no penguin would use. At that time, designers began to think about the impact of design on the environment and their essence.

From a historical perspective, I believe that designers in the last century advanced the development of design by a significant margin. With the advent of the Industrial Revolution and war, people began to reflect and evaluate their existing knowledge systems. Many constructive schools of thought have emerged, such as deconstructionism, stylism, and the Memphis design organization. These are great revolutions and innovations in the field of design.

Based on the study of this history, I believe that environmentally friendly design should not be limited to imitating the appearance of natural organisms and expressing natural graphics, nor should it only focus on the human perspective and ignore the laws of natural operation. Merely imitating forms cannot achieve environmentally friendly design. We should let go of human arrogance, abide by natural

moral principles, and design from a natural perspective.

Reference:

1. Environmental History of Design: Towards a New Research Agenda; Kjetil Fallan and Finn Arne J ø rgensen

2. From luxury brands to street vendors, why is this pink flamingo so popular; https://www.sohu.com/a/163573917_788514

3. AD Classic: Flowing Villa;
https://www.archdaily.cn/cn/622965/ad-classics-fallingwater-house?ad_source=search&ad_medium=projects_tab

* Unlabeled images are from search engines