RENEWABLE ARCHITECTURE

Design principles and strategies in a world built on circularity and sufficiency

thesis statement booklet

Bence Török

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Abstract

Renewable architecture

Design principles and strategies in a world built on circularity and sufficiency

As a result of human activity, nature has fallen out of balance, endangering the conditions necessary for life. Likewise, the current economic system has disrupted social balance, leading to inequality and injustice. Architecture plays a role in these issues, as it negatively impacts the natural environment. Architects, like other players in the building industry, bear responsibility for these effects. We must change the way we design—moving toward architecture that contributes to economic and social change, grounded in circularity and sufficiency.

Rather than focusing solely on the eco-efficiency of sustainability, we must strive for eco-effectiveness—where architectural design and construction contribute positively to the environment. Our actions must be evaluated through an ecological lens, recognizing humanity as part of nature's system. Natural cycles can serve as models for architecture. Design based on renewal and cycles is the essence of renewable architecture.

Renewable design considers the built environment throughout its entire life cycle and offers design principles that connect the past, present, and future. It must integrate aspects of nature, society, and the economy, emphasizing preservation, reduction, and recycling. These principles must be applied through the three fundamental elements of architecture: material, function, and space.

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Preservation involves sustaining and creating natural and social cycles. Reducing consumption in buildings and cities can be achieved by engaging users. Material use should be evaluated across its entire life cycle, prioritizing its origin. Long-term usability is supported through layering, disassembly, and reuse. Adaptability is key to economic sustainability in architecture. By considering function, future changes, and the developer’s intent, we can shape renewal cycles for buildings. Spatial and functional specificity must be carefully defined to enable flexibility.

Renewable design embraces open-ended processes, accepting imperfection, pursuing inner beauty, maintaining openness in material use, and actively ensuring long-term presence.

To achieve renewable architecture, we must rediscover traditional building techniques and redefine our relationship with nature. This begins by planting circular seeds and interconnecting them, moving toward a world built on circularity and renewal. A crucial element of this transformation is the sharing and transfer of knowledge. We must change the way we think and strive for sufficiency. The ultimate goal is to create a living, ever-evolving architecture.

First thesis statement

Architecture, in its current form, like the economy, takes infinite growth and limitlessly accessible materials as a starting point and contributes to harming the environment. Architects need to take advantage that they have an impact on the processes of the building industry. They have a responsibility for the (natural, societal and economical) impact of buildings and need to design considering these. Instead of sustainability, design needs to be approached with a holistic point of view, that redefines the relationship between nature and architecture, and that is built on circularity and sufficiency.

Second thesis statement

There is a need for an architectural approach that not only aims to reduce harmful impacts but also prioritizes strengthening the Earth's life support system—nature. Restoring nature's balance is possible by reinforcing its natural cycles. Architecture must actively engage with the cycles that sustain the world and its immediate environment, enabling it to become renewable.

Third thesis statement

Architecture must be designed with consideration for its entire life cycle, incorporating aspects of the past, present, and future. Only like this can renwable architecture achieved.

Renewable architecture:

- **Preserves and enhances natural and social cycles in its immediate environment, fostering new ones to reduce overall consumption.**
- **Selects healthy, clean, reused, and renewable materials based on their origins, ensuring material circulation and reuse.**
- **Adopts a renewal and spatial specificity strategy informed by function and intent, optimizing adaptability for economical, long-term use of buildings and materials.**

Fourth thesis statement

Renewable architectural design is an open process, that

- **Builds on the lessons and inheritances of the past, embracing imperfection and striving for inner beauty.**
- **Solves the challenges of the present by adapting to available materials.**
- **Remains open to future changes, striving for long-term presence.**

Fifth thesis statement

Renewable architecture

- **Rediscovers by drawing insights from the past.**
- **Drives change in the present by planting circular seeds and actively gaining and sharing experience.**
- **Looks to the future, advocating for a shift in thinking.**

Renewable architecture is not a style but a mindset and attitude, resulting in a living, ever-evolving architecture—an eternal experiment.

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