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

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As a result of human activity, nature became out of balance, and the conditions necessary for our life have been endangered. As a result of the current functioning of the economy, the social balance has also been upset, which leads to inequality and injustice. Architecture is partially responsible for these problems, it has a negative impact on our natural environment. Architects, like other players of the building industry have a responsibility in these negative effects. We need to change the way of designing, an architecture that contributes to economic and social changes, that are based on circularity and sufficiency.

Instead of the eco-efficiency of sustainability we need to strive for eco-effectiveness, architectural design and construction has to contribute positively to the environment. We must examine our actions from the viewpoint of ecology, we must see humanity as an element of nature's system. Natural cycles can serve as models for architecture. Architectural design based on renewal and on cycles is renewable architecture.

Renewable design examines the built environment in its entire life cycle and offers design principles that connects to the past, the present and the future. We have to take into account the aspects of nature, society and the economy, it is important to strive for preservation, reduction and recycling. All these need to be interpreted through the three basic elements of architecture: material, function and space.

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The pursuit of preservation means sustaining and creating natural and social cycles. The reduction of consumption in buildings and cities can be achieved by leaning on the users. Materials need to be examined in their entire life cycle, it is primary to take their origin into account. Long term usability of materials can be achieved through layering and making disassembly possible. Additionally, efforts must be made to reuse materials. Long-term usability is how renewable architecture defines being economical. This is realized by enabling change. The functions and its changes need to be taken into account, together with the intention of the developer. All these affect the renewal cycle of buildings. The appropriate adaptability can be selected by defining the spatial and functional specificity.

Renewable design can be defined as open end design, which consists of the acceptance of imperfection, the pursuit of inner beauty, openness in material use, and the active use of long-term presence.

To achieve renewable architecture, traditional building techniques and our relationship to nature must be rediscovered. We have to start by planting circular seeds and connect them to each other. This way we can move towards a world based on circularity and renewal. An essential element for it is sharing and transfering knowledge. We have to change the way we think and strive for sufficiency. The goal is to achieve a living and ever-changing 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 behavior that not only strives for the reduction of harming impacts but whose starting point is the strengthening of the Earth’s life support system, i.e. nature. Restoring the balance of nature is possibly by strengthening its natural cycles. Architecture must get involved in the cycles that make up the world and its immediate environment, so it can become renewable.

Third thesis statement

Architecture must be designed in its entire life cycle, i.e. taking into account the aspects of the past the present and the future, in order to obtain renewable architecture.

Renewable architecture:

- **preserves the natural and social cycles in its immediate environment and creates new ones, thus achieving a reduction in consumption.**
- **chooses healthy, clean, reused and renewable materials based on the knowledge of the origin of those materials and enables reuse of materials, thereby creating a circulation of materials.**
- **chooses a renewal and spatial specificity strategy based on the knowledge of the function and intention and adjusts the adaptability accordingly. Thereby enabling economical, long-term use of buildings and their materials.**

Fourth thesis statement

Renewable architectural design is an open process, that

- **builds on the lessons and givens of the past, therefore accepts imperfection and strives for inner beauty,**
- **solves the puzzles of the present, so it adapts to the available materials,**
- **and remains open to the changes of the future, therefore its strives for a long-term presence.**

Fifth thesis statement

Renewable architecture

- **seeks to rediscover by looking into the past,**
- **wants to achieve change in the present by planting circular seeds and by actively gaining and sharing experience,**
- **looks to the future and calls for a change in thinking.**

Renewable architecture is not a style, but a behavior and an attitude, the result of which is a living, constantly changing architecture, an eternal experiment.

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