Architecture as an organic entity

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Abstract - *The abstract explores the transformative paradigm of architecture as an organic entity, integrating site, structure, material, services, use, expression, and experience. When conceiving architecture as an organic entity, various elements come together to form a holistic and interconnected system. By integrating principles from nature, architects can emulate the efficiency, adaptability, and sustainability inherent in organic systems. Technological advancements, such as smart materials and responsive design, can enhance the organic nature of architecture, fostering a symbiotic relationship between built and natural environments. This perspective can influence the design process to create spaces that promote well-being, connectivity, and a sense of belonging.*

Key Words: Organic systems, efficiency, adaptability, responsive design, built environment.

1. INTRODUCTION

Architecture is an organic entity that influences the design process by prioritizing human experiences. It transforms spaces into environments that promote well-being, connectivity, and a sense of belonging. As inhabitants navigate these spaces, they become active participants in a symbiotic relationship between the built and natural realms, fostering a sense of belonging and connection. Architecture as an organic entity involves integrating diverse elements to create a responsive built environment. By incorporating principles from nature's design, architects can achieve ecological harmony and enhance resilience in the face of dynamic challenges, thereby promoting a harmonious and adaptable built environment.

2. KEY COMPONENTS

The key components that contributes to organic entities in architecture are of two aspects. The Tangible aspects which include the site, structure, material, services and the intangibles which includes use, expression, experience.

2.1 Tangible components

Site:

In geography, the site location is a specific point or region on Earth's surface. According to the organic paradigm, the site is a living context rather than just a place. The goal of architecture is to create a built environment that blends in seamlessly with its surroundings, taking into account the climate, ecosystem, and natural features. By creating a symbiotic relationship between the structure and its surroundings, site analysis takes on the characteristics of an understanding of the organism's habitat. The location is now a dynamic living environment rather than a static backdrop. Embracing the distinctive qualities of the surroundings, architects create designs that adjust and react to the subtleties of the terrain. By engaging in a conversation with the natural world, the site analysis helps to create a mutualistic relationship between the constructed area and its surroundings.

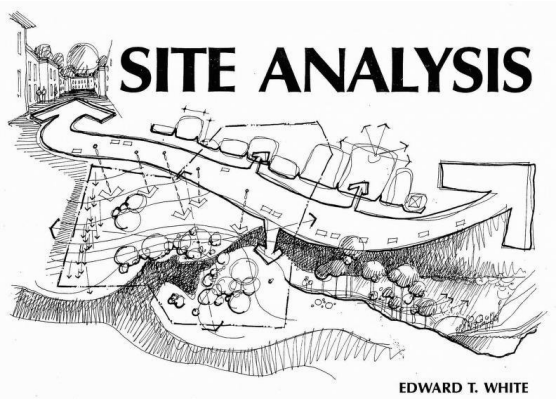

Figure 1: Site and Surroundings

Source: https://archive.org/details/site-analysis-edward-t-white

Structure:

A building's structural framework is thought of as a skeletal system that offers stability and support. A building's framework or skeleton is displayed by its building structure. It is made up of roof, walls, slabs, columns, and beams. In addition, it establishes a building's strength, stability, longevity, and safety. Structural systems react dynamically to outside forces and environmental changes. Buildings that maximize longevity, adaptability, and efficiency are designed with biomimetic principles in mind, reflecting the dynamic nature of living things.

Figure 2: Basic Components of a Building

Source: https://rajajunaidiqbal.com/basic-components-of-building-structure-building-elements/

Material:

The material's color or texture are examples of aspects that the architect considers when choosing a material. Performance-related qualities, like the material's durability or compression strength, are also taken into account. Materials are chosen based on their ecological impact and sustainability in addition to their functional qualities. The use of recycled, renewable and eco-friendly materials all of which improve the general health of the environment .The choice of materials goes beyond practicality to include environmental harmony and sustainability. This strategy improves the general health of the ecosystem while also minimizing its negative effects on the environment.

Services:

The systems and services that provide a building with comfort and functionality are vital. They cover everything, including the plumbing, electricity, and heating and cooling systems. A building could not operate correctly without these services. Energy efficiency and environmental impact are taken into consideration when integrating built-environment services like lighting, ventilation, and heating. By imitating the self-regulating systems present in nature, intelligent and responsive technologies are used to maximize resource utilization and reduce waste. The incorporation of intelligent technologies and adaptable systems is necessary to incorporate services into the organic paradigm. Services are engineered to maximize energy efficiency, resource utilization, and environmental impact, ensuring a harmonious coexistence with the surrounding ecosystem.

2.1 Intangible components

Use:

A space's intended use is taken into consideration in relation to its surroundings. Just as an organism's cells differentiate and change over time, spaces are also made to adapt to different uses. Key factors include flexibility and multipurpose functionality, which enable the architecture to change as the needs of its occupants do.

The idea behind spaces is that they should be flexible and adaptive, much like biological systems are dynamic. Over time, the architecture has served a variety of purposes, fostering an organic evolution that has kept pace with the residents' shifting needs and activities. Circulation pathways are designed to mimic natural flows, enhancing coherence and efficiency. They provide an intuitive and aesthetically pleasing journey for inhabitants, promoting efficiency and a symbiotic relationship with their environment. This design not only promotes functional movement but also offers an engaging and aesthetically pleasing experience for inhabitants.

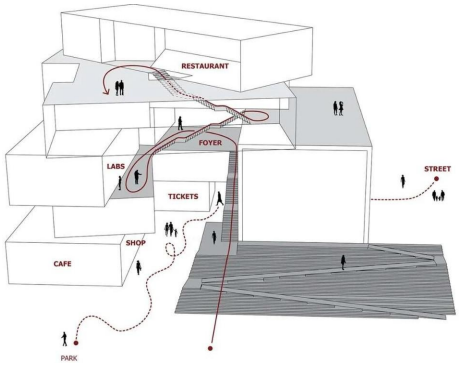

Figure 3: Use and Circulation

Source: https://www.archisoup.com/architecture-circulation-diagram

Expression:

Architectural expression encompasses the human interaction with materials and construction methods, contributing to aesthetic sensation and expressing the inner purpose of a building or group of buildings, indicating the total building program.

Architectural entities have a unique character, akin to different species in nature. This character is formed by combining form, function, and site-specific context, and becomes a defining element that contributes to the built environment's identity and fosters a sense of place that aligns with its organic essence. This character is a defining element in the built environment. Natural processes and forms inspire architectural expression, creating a visual language that celebrates the growth, adaptation, and balance of organic structures. These designs create a strong bond between the built form and the surrounding ecology, reflecting the innate beauty of organic structures and the concepts of growth, adaptation, and balance present in nature. This approach reflects the natural aesthetics of the built environment.

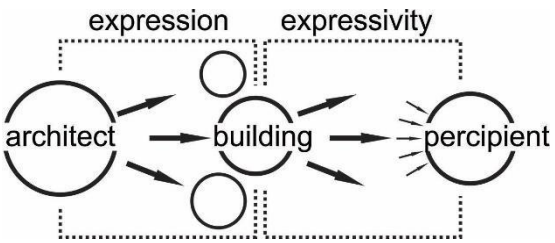

Figure 4: Expression and Expressivity

Source:
https://en.wikipedia.org/wiki/Expression_%28architecture%29#/media/File:Expression_and_Expressivity.jpg

Experience:

In the built environment, the human experience is crucial. Spaces are created with the senses in mind, encouraging a relationship with the natural world and offering chances for introspection and contemplation. The immersive experience as a whole encourages wellbeing and a sense of community.

Spaces are carefully designed to stimulate the senses and create a strong bond with the natural world. The whole immersive experience fosters health, connectedness, and a deep sense of identity within the mutually beneficial relationship between the built environment and its occupants.

3. CONCLUSION

In embracing architecture as an organic entity, these interconnected aspects work in harmony to create a built environment that is not only functional and sustainable but also deeply rooted in the principles of the natural world. Within the exploration of architecture as an organic entity, a transformative paradigm emerges, reshaping the conventional understanding of built environments. This conceptual shift is an intricate tapestry that interlaces the essential facets of site, structure, material, services, use, circulation, expression, character, and experience. Rooted deeply in the principles sustainability, this visionary framework seeks to establish an architectural realm that not only coexists but harmonizes seamlessly with the natural world.

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