High-Tech Architectural Design by The Change of The Science Theory

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Key Word: Science technique, High-tech, Conversion

Abstract: After The "Industrial Revolution" architecture design has developed and its motive has influenced with the science technology. A compound word of high style and technology, 'high tech' was originated from a book called the same word written by Kron and Slesin. New Science Technique paradigm is to reevaluate the current scientific technique civilization regrettably and create a new civilization model by integrated unification of all lives, interdependence of all natural phenomena and the circulation of changes and transformations, beyond the framework of existing science.

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1. Introduction

After The "Industrial Revolution" architecture design has developed and its motive has influenced with the science technology. This property of 'Machine Age' is concerned in all over the field of design. Also, the tendency of High-Tech presented in modern architecture is based on this concern. Therefore, this paper describes something in common of High-Tech architecture design in future that forecast about change of design according as change of science theory.

2. The concept of High-Tech Architecture Design

A compound word of high style and technology, ‘high tech’ was originated from a book called the same word written by Kron and Slesin. Emilio Ambasz who first referred to the word compared Marcel Duchamp and Pablo Quiz Picasso in the preface of the book and argued that artistic reactions of both artists were completely opposite as illustrating a ready-made urinal exhibited by Duchamp and a bicycle saddle and handle bar by Picasso although both were not different in view of concept.

He added that the former represented an image while the latter was a kind of ideas. In case of high tech architecture, it does not mean ‘high technology’, a state-of-the-art technology but actually a situation that the performance or aesthetics in an industrial item or industrial technology is simply transferred to an architectural context.

That is to say, the concept of high tech architecture was initially developed in Great Britain, where the introduction of industrial technology was vigorously accepted, after 1960’s and normally called a stream of architecture that actively introduces the industrial technologies that have been developed beforehand to solve the problem of functions and economical efficiency and at the same time, transforms the negative image, which has been shown in the existing excessively technology-oriented architecture, to an image friendly to the current capitalism.

Defining the architectural approach toward the above-stated high tech architecture would be clearly replaced with features of the exterior appearances with structural exposure expressly shown in Pompidou Center or Saint Barrie Center, or typically smooth finish on the surface of an oil refinery and a hangar.

3. High-Tech Architecture Design Principles

3-1. Variability

The architectural idea of high tech architecture is to provide an environment to flexibly respond to the present functional requirements which are complex and variable. The most significant subject for the current modern architecture is to present that an opportunity for activities without rare interference from the external environment is the ‘minimum appropriate restriction’ to free them.

3-2. Mobility

The concept of high tech architecture is closer to a device, rather than a kind of architecture. In addition, high tech architecture has been evaluated as an attempt for the most extreme modern architecture to stand above history beyond culture, unreasonable consciousness and waste time and has a tendency to exclude all humane and cultural backgrounds from a building.

3-3. Transparency

The concept of transparency could be interpreted as the intent to avoid visual concealment of the beauty from a structure by making it transparent and alternative intent to project visual inter-positional design between inside and outside spaces of a structure.

3-4. Light-weightiness

Since high tech architecture is consisted of standardized subsidiary materials and fabricated architecture and points to the concepts of flexibility and mobility, it uses light-weight materials such as aluminum, G.R.P.(glass fiber reinforced plastic), hollow iron frames, steel pipes and woven stuff.

3-5. Industrialization

The size of the building construction standardization, and cheapness, have the purpose for to make immediate construction so that those are used to construct a building spot if we take.

Ecological paradigm is to reevaluate the current scientific theory civilization regrettably and create a new civilization by integrated unification of all lives, interdependence of all natural phenomena and the circulation of changes and transformations, beyond the framework of existing science. Park I-mun called this new model 'post scientific technology civilization' comparing to the existing civilization.

While the existing scientific technology civilization has, based on the world view of overwhelming humanism, justified the indiscriminate conquest against the nature and the self-oriented roles, the world view of ecology is the nature-oriented. It is true that a man is neither the sole master of the nature nor separable from the nature. The change of our values would definitely bring out the conversion of the current scientific technique civilization.

< table1 > Abroad work analysis

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<td>light weigh</td>
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< table2 > Conversion of Scientific Technique Civilization.

5. Conclusion

The past high tech architecture has actively introduced the industrial technologies that have been developed beforehand to solve the problem of functions and economical efficiency and at the same time, transforms the negative image, which has been shown in the existing excessively technology-oriented architecture. However new paradigm has transformed traditional architecture to image friendly one by utilizing the aesthetic components internally contained in these technologies to the max.

In order that high tech architecture cultivates a new paradigm sooner or later in the future, the post scientific techniques shall be applied, but not limited to the formative components as accommodating new technology, materials and sociality. In line with it, ‘post high tech architecture’ to solve the existing architectural design problems appears.

6. References