The study of Expressionist Technocratic Architecture and its effect on the change of Architecture Space

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Abstract

Expressionism technocratic architecture is one of architecture style that less has been set forth in the world. The main aim of this school is todisplay human internal emotions, especially emotions such as fear, hate, love and the anxiety. Technocratic expressionism are composed of two words "technocratic and expressionism", expressionism is a new ways of visual expression in which the artist uses sharp colors and irregular shapes, zigzag and rugged lines to induce her/his intense emotions. Expressionism is a form of exaggeration in color and shape, a method devoid of naturalism that sought to express emotions clearer and more explicit, and technocracy is a technically oriented manner and technological encountering with all problems. By carefully considering the meaning of these two words, we will find that these two words have completely different meanings. In this study we have tried to express the profound relationship between these two subjects and to achieve this how mental states of humans are created by technology in the form of artwork and how with the advancement of technology, buildings are directed toward most statue-likeaspects.

Introduction

In this paper first, we will state the way in which the expressionism style architecture has been evolvedduring history. Then, technology-based architecture will be studied, and next we will study the path of evolution of this style. Finally, we will study the turning points in which these two have reached to each other. In fact, the point of encountering these two thoughts is when the technocratic expressionist is created and abstractive art and technology are combined togetherand create very beautiful and pure styles such as Brutalism architecture at late periodof modern architecture and Santiago Calatrava works that were created after fading ofHi-Tech style architecture.

Methodology

The present research method is descriptive in which it is tried to study all aspects of the subject by referring to a library and available documents.

The concept of expressionism style

Expressionism term actually refers to two recent meanings[1].In the literature, expressionism is the way that looks the world more through emotions, in other words, the artist tries to show the truth that comprehends in terms of his/her own feelings and personal effects[2]. Expressionism can be known as the reaction and the sign of romantic inclinations of artists who lived in the early twentieth century industrial society, and in differences of those societies to their artistic value encouraged them to find the new ways, and apply different forms of artistic expression,

especially in those years that Freud's ideas- an Austrian psychologist- searched the depths of the human mind, and encouraged the artists to report accurately the angles of human thought[3]. Expressionism is a school that strongly is against realism and naturalism that are schools of imitation and repetition and recreating nature and reality and also rejects the truth-like principles of classicism and its aim is to induce the regrets and states of artist or characters created by his/her mind through the interpretation that is done by artist, the artist of this school is extremely mind-oriented. Expressionist artists are trying to show the inner of the objects without showing its outside. Expressionism in the poetry realizes as paying attention to sounds and colors, and endeavors to feel sensation that sometimes meaning is sacrificed for their sake. Distortion of the subjects of the outside world and displacement of the sequence of time and applying the precise effort to show the world as can appear in an unrest mind are the characteristics of expressionistic poetry[2].

History of expressionism in Germany

The actual date of using the expressionist style in art is not exactly clear, but sometimes in the art history books, we are faced with sentences like "the most expressionist arts are the arts of black African people" that indicates the use of this method is very old[4]. It is believed that the main center of modern expressionism art movement was in Germany, and artists were often come from Germany or during their artistic period have been influenced by German culture. Even the two important exceptions, that is, Russian "Kandinsky" and "Yavlinsky" also passed a big part of their artistic development

in Germany. Expressionism was a medium for the transition from romanticism to other branches of art styles. After World War I, expressionistic works of Germans were highly regarded by Americans. During 1920-30s the quickly spreading of this approach in Mexico was significant. Mexican Revolution (1911-20) inspired a group of painters to seek a national way based on local art. They wanted their art to be popular and come from the people and the revolutionary spirit is manifested in public buildings. They did their work as a means to carry their burden aspirations and ideals. Manifestation of the revolutionary and popular spirit in public buildings and responsibility of the artist to society is a point that is clearly evident in German expressionist architecture[4].

Expressionism history in relation with the architecture (and civil construction): Wave of expressionistic movement in painting extended to architecture field with some delay. Nicholas Pevsner knows the expressionist architecture as an attempt to satisfy the desire for individual expression and public inclination to "what is surprising and imaginative" and finally escaping away from the truth to a mythical world. And the importance of artistic imagination has been mentioned in the individual statement by Wentzl August Hebik as following clear statement: "An idea can move a mountain". Imaginary term "expressionistic architecture" at the beginning was often used for German and Dutch artists. As Arnasonstated, the first certificates of advent of expressionistic attitudes in architecture has likely been inclination towards the building greatness that some examples of this approach can be seen in turbine-making factory by Peter Behrens and Work bondteather by Van de Velde[4].In 1920 Hans Hansen called expressionism "the active and alive architecture for tomorrow" (something that we can see its signs of realization in the architecture of recent decades as well). And finally in 1964, in Florence at a conference on expressionism, Bruno Zevi emphasized that expressionism has been a permanent feature of modern architecture. During the twentieth century, modernist space, along with advances in technology provided the possibility of constructing large buildings with visual and dramatic modes that many of them were inspired by the ambitious and imaginative plans of expressionists of early century.

The concept of Technocracy

Technocracy consists of Greek word "Tekno" means technology and method, and word "Kratos" means government, power and the ruling. "Technocracy" term briefly means the ruling f technique and technicians, that is, the specialists. Therefore, according to this view, the professionals and experts should hold the responsibility of political affairs, economy and administration in various fields [5]. In other words, the concept of technocracy is the governance of experts and technicians that rely on mechanism, technical knowledge and technological skills and these individuals, that is, engineers, scientists and technocrats should lead economical and political activities [6].Technocracy is a new phenomenon that has been created with

the progress of science and technology and the increasing role of knowledge and expertise in the government, and in many developed countries, technocrats, regardless of their political beliefs, and class characters take the important and sensitive works into their own hands. Indeed, with advances in science and technology, individuals' political beliefs are overshadowed by their knowledge and expertise, and party (ies) that obtain a majority in the parliament, rule the government and in the state works and affairs that need expertise, use non-party members or even the expert members of the opposition party[7]. We can say that technocracy theory is based on this principle that, according to increasingly trend of Knowledge, the administrators of the governments should be scientists and experts as a powerful class in modern society that are considered the most influential class in modern societies after the capitalists.

The backgrounds of emerging technocracy

The term technocracy was proposed in 1919 by William Henry Smith, American author[8]. In the 1930s followed by severe economic crisis in the world (1929-1933), a movement began by experts that following it in 1932, Technocracy Committee was formed at Columbia University, USA. Thismovement and the committee founded the basis of their works on Henry Gantt, Howard Scott and Torstein Violin ideas[5]. Scott Howard propagated the term "technocracy" by writing his book "The engineers and the price system" [8].

Later, with the development and adoption of planned economy, technocratic ideas were common in many European countries. This term was widely popularized in the 1960s in France and the French considered it as the continuation of Saint-Simon's theories, French social philosopher (1760-1825) who had predicted for the future a society in which the government will be ruled by scientists and engineers [9]. Saint-Simon believed that the formations and management of modern society should be given to scientists and industrial experts, because lawyers, judges and the employees are inherently non-productive andparasite-like[6]. The authors such as Jean Monod believed that real power of the elected representatives of people have been given to technical experts, now a new kind of government has started that is not democratic, nor bureaucratic, but it is technocratic[8].

The properties of technocrat

A technocrat is an individual that has the leading leverage influencing on power mechanisms in his/her hands. In broader sense, either in the public domain or in the private economy, if s/he wishes, s/he can, without regard to the hierarchy of rules to achieve dual goals of independence and responsibility to participate in the exercise of power, and of his involvement, determine the trends of the events, not just in their sectors, but also in addition to it, in the broad and extensive view and act according to his/her willing[10]. In general, the characteristics of a technocrat can be expressed as following: i. An advocate of

technocracy is a technical expert and a person who perform management control; ii. A technocrat is one who has the leading leverage of power mechanism in his/her hands; iii. A technocrat is also a member of the government or a high-ranked official that performs his/her official and governmental mission solely based on the study of economic theories and does not pay enough attention to human factors but pays attention to the expertise- even in its machining form[6].

Consequences of technocracy and the criticisms on it

After the economic crisis, technocracy did not find many advocates; and this idea became common that even if the brains and hands of the technocrats can lead the new technologies as well, it is not a reason that they are able to rule the government, especially in our age, the technology itself due to having the adverse consequences is criticized by some social thinkers. Accordingly Louis Mumford wrote in "the myth of machine": "humanity to be really survived, should consider that importance for human personality as the highest manifestation of life which is already considered for machines and electronic brains"[9].

Technocrats are professionals who influence on political decision-making and behavior of government by relying on their own abilities in industrial managements. The injuries related to technocrats relate to the promotion of their ranks as policy-makers. Accordingly, "Alvin M. Wayne Berger" states: "The technocrats can ask questions and set forth important issues, but the answers to those questions are not up to them. So giving technocrats the right to public policy-making is problematic". Bernard Crick in a book entitled "In defense of politics" states: "technocracy as a style of thought and a social creed believes that all issues of human civilization are technical issues that can be solved by the existing and fast reachable knowledge. In this view, politics is reducible to a science in which the political decisions should be the product of tests and scientific arguments that are completely independent from human desires and emotions. Technocratic world-prospection in some unconscious way believes in a technical nature for all problems and issues. According to technological thought, the management of affairs can always be separated from politics, and of course when that happens, there is nothing for managers that they can not do better than politicians. This point of view acts as a servant that not only wants to be equal to her/his masters, but probably tends to push them aside and s/he becomes a master. So a technocratic executive recognizes the political concerns less, and accuses them to ignorance, slowness, and tedious theorizing". As a result, technocracy has a close relation with scienticism. Managing objects is prior to managing people, and a technocrat conceives that s/he understands the needs better than others, and this believe in himself is destructive in a technocrat. Thus the combination of these factors has caused the failure of this approach that has drastically reduced the penetration rate of theory and has decreased the amount of its credit[11].

Santiago Calatrava

Santiago Calatrava was born in Valencia, Spain in 1951. He began studying art at the age of 17, and in 1981 after completing his architecture degree, began his architectural works in Zurich as a professional. His architecture inspirits and expresses the energy of human soul, and the development of human imagination that has surprised and has made us happy, and his work has a sculptural form with a dynamic structure that reflects the human spirit in creating an environment for us to live, to work and to play [12]. In the first step of the process of Calatrava' screativity, they form a new space or libratory to develop and orientate the concepts to become a way to enliven the thoughts and analysis of the forms. This libratory provides a reservoir of diverse ideas that result from conversation with the nature and evident forms in the history of art and architecture. Here, past memories are interspersed with visions of the future world- a combination of engineering science, mathematics, designing, response of structures particularly response to functional needs.

Conclusion

According to the given definitions of expressionist art and technocratic thoughts, we can introduce the two principles as following: The expressionist is an art that indicates the inner and spiritual states of humans' mind, ant technocrats' thoughts imply that whatever is done must be done according to the thinking and selecting of the best things, in other words, the best way to do so is the use of technology in performing anything. Showing the inner and spiritual states of humans with world modern technologies by studying and considering sculptural works, we can understand that in order to be created an assembled volume and building, first its technology should be created; for example, the building of Sydney Opera which was designed by Jorn Utzon, that he was forced to perform his plan 10 years later. Accordingly, we can say that not only the design, but also the technology is important. Technocrat expressionist is one of the branches of Brotatarchitecture, and as mentioned, Brotat architecture has its roots in expressionist architecture. So we can say that technocratic expressionistic architecture is the continuation of expressionistic architecture, and the expressionists show the principle of sculptural forms in their works. Among architects that work with this style, we can refer to Santiago Calatrava, Who has tried to show all his designed buildings as a sculpture of states of body shape. In order to understand this style better, we can compare it with "Hi-tech" style. If we are going to compare these two styles, we conclude that these two styles are completely correlated with each other in terms of their roots; both have rooted from Gothic architecture, so the two have their roots in modern architecture. Like works of Brotat, both are a statue-like work, with this difference that Hi-tech architecture shows the technology and indicates the structural components of the sculpture, but technocratic expressionist conceals the structural components of the sculpture and shows the sculpture itself very well. So, we can conclude that both styles have the ability to create sculpture,

but Hi-tech considers the assembled structure and shows it, but expressionistic style hides the assembled structure and shows the original structure. In fact, we can say, it seems that in Hi-tech architecture the model is Gothic architecture, but in expressionist architecture the model is theinternal spaces and interior painting of Gothic architecture.

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