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THEORY AND DESIGN IN THE FIRST MACHINE AGE FROM REYNER BANHAM

Banham who was the writer of the book ‘Theory and Design in the First Machine Age’ was born in 2 March 1922, England and he died in 19 March 1988, England. He was an English architectural critic writer and lots of his books were related to modern movements in architecture throughout twentieth century. In 1960, he wrote a book, which was named as ‘Theory and Design in the First Machine Age’ by him. He wanted to analyze new movements and architects’ perspectives to architecture in this new century. Twentieth century could be referred as ‘New Century’ because people started to use some machines in their daily lives and in lots of fields for the first time. Reyner Banham called as ‘First Machine Age’ earlier twentieth century. He tried to understand and to analyze designs and products of this age in terms of paintings, sculptures, industrial designs and architectural projects. There was a completely different understanding of art at that time. Architects and some artists wanted to adapt themselves to new machines. They aimed to renovate their strategies and designs by the help of machines. Also, architects wanted to create an International Style in architecture. One of Banham’s objectives while writing this book was to observe thoughts of
architects such as Le Corbusier, Mies Van Der Rohe and Walter Gropius who were masters of the modern architecture and to examine designs and projects of those architects. Reyner Banham illustrated some writings of architects, their theories and some products in his book. While doing this, Banham analyzed that what were the impressions of this machine age on architects and what did architects write about their perspectives to new designs of them. He showed the end products of those architects and in the light of these, he related these new ideas, designs, theories and products with each other. In short, Reyner Banham worked on the influences, actions and reactions of First Machine Age on architecture and other works of arts like paintings.

With the beginning of twentieth century, people started to produce lots of products via new machines because producing with machines was much easier, faster, cheaper and there wasn’t need to human labor. Thus, people started to get used living these machines so there was necessity of factories where people could use machines and manufacture their products.

The Fagus Factory in Alfeld, Germany from Walter Gropius and Adolf Meyer (1911-13).

Fagus Factory is an important earlier example of modern architecture. It can be observed that using supporting elements and designing whole façade with
transparent glass material were new things in terms of architecture at that time. The architects designed structural elements as possible as narrow so they could utilize nearly whole façades as transparent. In this way, they also made the relation stronger between inside and outside. Usage of glass gave a chance to architects to design and to experience new sense of openness and continuity throughout the building. Also, a factory has to be a huge building in order to manufacture some products in it. For this reason, architects designed buildings with much larger spaces than the past and they provided light condition via large glass openings.

Werkbund Pavilion in Cologne, Germany from Walter Gropius and Adolf Meyer (1914).

Theatre in Köln from Henry van de Velde, 1914.
Glass Pavilion from Bruno Taut in 1914 (Cologne Deutscher Werkbund Exhibition).

Reyner Banham illustrated these examples in his book and analyzed them. In 1914, an exhibition was organized in Werbund. The aim of this Werkbund Exhibition was to show arts and crafts and industrial objects from different countries and cultures. Also, people aimed to bring together whole new ideas, theories, designs and aspects related with the new modern architecture and machine age from different artists and by this way, they tried to create an international style in architecture and art.

Werkbund Pavilion from Gropius and Meyer, Theatre in Köln from Henry van de Velde and Glass Pavilion from Bruno Taut were there projects displayed in this exhibition. It is possible to see different perceptions of architectural design in modern machine age. Architects tried to find out new solutions for constructing their buildings. There are new sensation of façade via employment of glass material especially in Werkbund Pavilion. For instance, Bruno Taut utilized glass in terms of its nature in order to provide different reflections of sunlight while Gropius and Meyer utilized glass in terms of transparency issue throughout the building. These were some examples of different interpretations of modern designing in Werkbund exhibition.
Adolf Loos wrote a lecture named as ‘Ornament and Crime’ in 1908. He evaluated this new machine age and modern architecture in terms of ornamentation issue and he expressed his ideas about modernism in this book. He clarified his thoughts by these words;

‘The child is amoral. To our eyes, the Papuan is too. The Papuan kills his enemies and eats them. He is not a criminal. But when modern man kills someone and eats him, he is either a criminal or a degenerate. The Papuan tattoos his skin, his boat, his paddles, in short everything he can lay hands on. He is not a criminal. The modern man who tattoos himself is either a criminal or a degenerate. There are prisons in which eighty percent of the inmates show tattoos. The tattooed who are not in prison are latent criminals or degenerate aristocrats. If someone who is tattooed dies at liberty, it means he has died a few years before committing a murder.’

By the help of this statement, Loos claimed that ornament doesn’t belong to our age so ornament is a crime for modern man because we have machines now, which make manufacturing process easier, cheaper and faster than producing and ornamenting things by human labor. We could design and produce our creations in easier and more useful way and at the same time aesthetic objects than the past without any ornamentation.
There were also new expressions in the field of painting. Some artists accepted new traditions of painting just like Cubism. By this new Cubist tradition, painters tried to create their characteristics made of vision. They preferred to paint in a different manner which they drew objects and portraits of people by producing some new lines. For example, painters tried to perceive objects as 3 dimensional composition on canvas so it is possible to say that they drew and painted everything in an abstract manner. Thus, they could experience different perspectives simultaneously.

Another approach came from Marcel Duchamp in terms of painting. Duchamp reflected new machines of age to his paintings. He tried to analyze and to understand working of machine and the rotation of its parts. In other words, Marcel Duchamp painted his paintings in the light of futurist ideas of his age.
The Coffee Mill from Marcel Duchamp, 1911.

La Citta Nuova from Antonio Sant’Elia, 1914

Antonio Sant’Elia drew La Citta Nuova which means New City by his understanding. He tried to bring together skyscraper towers and their multi-level circulation in this hand drawing. He analyzed the idea of modern town planning.

The Einstein Tower from Eric Mendelsohn in Potsdam, Germany. 1919.
Eric Mendelsohn was an architect of Expressionist Architecture. It is possible to see, his ideas about modern architecture were completely different because The Einstein Tower designed by him had very different shape and space experience. Also, project for a car-body factory drawn by him has important structural ideas by using the possibilities of machines and new materials.

Schroeder House from Gerrit Rietveld in Utrecht, Holland. 1925.
Schroeder House was designed by Gerrit Rietveld in 1925. We can easily observe effects of De Stijl on design of the building. It could be talked about ornamentation on façade of the building, however it is very minimally applied and provided only usage of primary colors just like De Stijl paintings of Piet Mondrian. The architect wanted to control transparency of the house. While doing this, he used some curtain walls integrated to the house. Also, every object in the house were designed and produced according to their function. From now on, function is evaluated as design rather than visuality of objects.

While lots of artists and architects were trying to find out their strategies and ways of designs in this new modern machine age, Le Corbusier started to explore this new age and its possibilities. Le Corbusier and Amedee Ozenfant met for the first time in 1917 and they wrote some books together in order to express their ideas and analyzes in terms of whole new ideas about modern architecture. Le Corbusier, also, wrote some books such as ‘Towards A New Architecture’ and ‘The City of Tomorrow’ himself and by the help of these books, he tried to spread and to present his design ideas and theories of his buildings to people.
Le Corbusier and Ozenfant painted together for a time. Their Stil Life paintings were reflections of their Purism idea about painting. They used pure geometrical forms and pure colors while painting and their main aim was to draw objects as what they are and how they look like in real. They preferred to understand details of objects and their functions rather than their ornamentation and visuality of them.
One of the most important products of Le Corbusier according to their ideas about Modern Machine Architecture was Villa Savoye. Villa Savoye was a villa which elevated from the ground. Le Corbusier designed the building as isolated from the landscape. There are some available spaces under the building. He used geometrical shapes and pure white color while designing the building. He could provide larger openings via his strategies about usage of structural elements. Thus, he could raise the building from ground. Also, he could control points of view and the relationship between landscape and living area. There is an open terrace top of the building. By the help of openings on façades in here, he provided air flowing and fresh air through spaces. Other important example of Le Corbusier’s works in Modern Architecture was his futurist design of Une Ville Contemporaine which means Contemporary City. He reflected his idea of Machines for Living via this design.


VILLA SAVOYE in Poissy, Yvelines, FRANCE from Le Corbusier, (1931).

Une Ville Contemporaine (Contemporary City) from Le Corbusier, 1921-1922.
In opposition to Le Corbusier’s solution of landscape, Frank Lloyd Wright tried to integrate the landscape and the building Falling Water House. The building is completely open to the nature and it was designed according to it. Falling Water House is another important example of modern architecture and also, it is seen as an example of Organic Architecture of Wright.

Walter Gropius designed Bauhaus building in 1926. Bauhaus is a really important building because it was used as both an educational building in the field of art and architecture and a production center. This school provided lots of modern movements in order to create International Style in architecture by the help of masters and artists of twentieth century. Also, lots of productions were aimed to produce here. The main aim about manufacturing objects was to design form and function together and to
acquire real beauty of materials and geometry without any ornamentation and human labor.

BAUHAUS in Dessau, Germany from Walter Gropius, 1926.
Marianne Brandt, Coffee and Tea Set, 1924.

Karl J. Jucker and Wilhelm Wagenfeld, Table Lamp, 1924.

Marcel Breuer, Metall-Chair, 1925.
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