

History of Architecture and Culture – 6

Lecture 9

Metabolism

Metabolism in architecture was a post war Japanese architectural movement that fused ideas about architectural mega structures with those of organic biological growth. The ideas were tentatively tested by students from Kenzo Tange's MIT studio. So let's go back to the year 1960 when the preparation for the 1960 Tokyo world design conference was going on, there was a group of young architects and designers including Kiyonori Kikutake, Kisho Kurokawa and Fumihiko Maki these young architects prepared the publication of Metabolism manifesto. Some smaller, individual buildings that employed the principles of Metabolism were built and these were built and these included Tange's Yamanashi Press and Broadcaster Centre and Kurokawa's Nakagin Capsule Tower. The 1970 World exposition in Osaka that was when Metabolism became famous between 60 and 70 nothing great happened in Metabolism and Tange was responsible for master planning while Kikutake and Kurokawa were designing all the pavilions of the exposition. So they were discussing the organic nature of Kikutake's theoretical marine city project and Kawazoe used the Japanese word "shinchintaisha" this word became a symbolic of the essential exchange of materials and energy between organisms and the exterior world. He thought that this project since it had organic nature in the project so "shinchintaisha" was the right word to describe this project because it was exchange of materials and energy between that building and the exterior world just like the exchange of energy between organism and the external world. This Japanese meaning of the word has a feeling of replacement of the old with the new and the organic growth of the city the old being converted to new by exchange of energy. So these concepts were there and the word "shinchintaisha" was going on in their minds as the conference was to be a world conference Kikutake looked up the definition of "shinchintaisha" in his Japanese English dictionary, look what he found he found the word metabolism so then he named the whole idea concept as Metabolism and that is when they published this paper called Metabolism in 1960 conference and after that Metabolism became a very very important very very important style of architecture especially in the post war time.

In his presentation Kikutake used the photo of the Chicago Marine city apartments to illustrate the idea of capsules plugged on to a central tower. Let's assume these are towers and then let's say these individual things that you see here are capsules, so let's assume that this part here is a capsule and you can take it out, you can take this capsule out and then you can plug it on to any other place or any other area which means if these buildings were designed in every city I can take this thing. Let's assume this is City 1 and let's assume this is City 2, so if I'm living in this particular part in this city if all I have to do is to find an empty part in this City 2 and I can transport my entire house, my entire unit on to this City 2 easily so this is a plug in concept where the city the buildings central core will have all the service and elements everything and the external thing would just be for living. This was again a utopian concepts that was earlier proposed by Archigram and it was again another proposal which Kikutake and his friends used to celebrate Metabolism. This proposal of the manifesto of Metabolism. The proposal was published at the World design conference. They say Metabolism is the name of the group, in which each member proposes of our coming world through his concrete designs and illustrations. We regard human society as a vital process- a continuous development from atom to nebula. The reason why we use such a biological word, metabolism, is that we believe design and technology should be a denotation of human society. We are not going accept metabolism as a natural process, but try to encourage active metabolic development of our society through our proposals. So in the sense what these people were trying to do was to create metabolism in a non-natural way through induced metabolism inside the city by creating buildings like those. Let's quickly take a look at this project, this sketch was made by KenzoTange, this was the proposal for the Osaka bay which was designed to take care of the additional population that he city was exploding with, this was a project which is almost completely on reclaimed land. On 1st January 1961 KenzoTange presented his new plan for Tokyo Bay in a 45 minute television program, This design was a radical plan for the reorganization and expansion of the capital in order to carter for a population beyond 10 million. The project was designed by Tange and other members of his studio at Tokyo University, the other members include Kurokawa and ArataIsozaki. Tange received interest and support from a number of government agencies but the project was never built although what was built was other buildings that Metabolists have constructed. These were some of the interesting building that were produced as a result of Metabolist architecture in Japan. This right here is the Nagakin Capsule Tower which was

designed , the interior of this building is what we saw in the first scene first slide ,this is the broadcasting building that we spoke about earlier another Metabolist building designed by KenzoTange.

Neo-Rationalism

Let's move on to the concept called Neo-Rationalism. Rationalism is a term referring to an architectural current which mostly developed from Italy in 1920s-30s. Vitruvius had already established in his work *De Architectura* that architecture is a science that can be comprehended rationally. This formulation was taken up and further developed in the architectural treatises of the Renaissance. Progressive art theory of the 18th-century opposed the Baroque use of illusionism with the classic beauty of truth and reason.

While Twentieth-century rationalism derived less from a special, unified theoretical work than from a common belief that the most varied problems posed by the real world could be resolved by reason. In that respect it represented a reaction to historicism that and a contrast to Art Nouveau and Expressionism.

The name Rationalism is retroactively applied to a movement in architecture that can arrive at during the enlightenment more specifically Neo-Classicism. Arguing that architecture's intellectual base is primarily in science is supposed to reverence for emulation of archaic traditions and beliefs. Rational architects following the philosophy of Rene Descartes emphasized geometric forms and ideal proportions. In architecture, a movement originating in Italy in the 1960s which rejected the functionalist and technological preoccupations of mainstream Modernism. This practice advocating to a rationalist approach to design based on an awareness of formal properties. This then developed in the light of re-evaluation of the work of Giuseppe Terragni led by Aldo Rossi, and gained momentum through the work of Giorgio Grassi. We must see here that Giuseppe Terragni was the person who designed famous and landmarks for Benito Mussolini during the Fasces regime of Italy Giorgio Grassi ,he was also an accomplished architect and their works were re-evaluated by a group of people led by Aldo Rossi and it gained momentum in the light of exposing a rationalist approach to design which had a certain formality , formal properties of architecture. This was characterized by basic

elements there was a marked absence of detail, the style had adherents throughout Europe and USA. Now Rossi is one proponent to refocus on the traditional European city, he criticizes the modern functionalist dogma. Neo rationalism is presented as a means to save European city, negotiating the aims of modernism within the grown structures. It developed out of the schools, that faced difficulties in developing a curriculum to implement modernism integrated into the whole of the city. Because like we saw why people rebelled against modernism was merely because modernism was not as pure as it claims to be, specifically as modernism started from a mere look on administering the growing demand of private housing under the notion of planning. So that is where modernism started, if you look at that you cannot go on saying modernism is going to be the solution for a city. So they looked back to see that it did not work and they try to give a solution to the modern European city. The modern European city had to be worked out in such a way that the implementation of the particular thing is to be done throughout the city, the schools of architecture were facing difficult times because they are not able to create a curriculum to implement modernism and integrate it to the entire city, Neo Rationalism has tried to solve that problem. “L’architetturadellaCitta” can only be seen in the context of the lack of an established planning principle in Italy. The implantation of planning is critically discussed in the book, because modernist paradigms neglected the fact that a city is not the addition of elements but the grown interrelationship among them. So what happens when you already have a city that is almost entirely built. Modernist paradigm say that a city is not the addition of elements you cannot build a city in metaphorical term by building more blocks to a city, you have to grow a city by growing the interrelationship among city blocks, so that is how you build a city. Architecture of the city denominates not its buildings but the interrelations of its functional parts. As furthermore they are temporal transformation although the architecture of a building is just about how a building looks or how a building is denoted or denominated or other explained to people where is the architecture of the city is not so, you cannot determine the architecture of city by looking at the architecture of buildings. You have to see how the buildings talk to each other, how the buildings have interrelation with each other, you need to see how the transformation between one building to other building has taken place. In the transformation and the transition and the middle is the city, the city is not made up of buildings, a city is made up of the space between buildings as it is in the residential areas of the city that is always subjected to change because people will always keep changing the residences the most rather than

commercial establishment which stay for a longer period of time, there is a permanence, stable ideas in the cities are bound to be the public areas and public buildings, the private building and the private areas are bound to change. Although also their programs changes over centuries it is the publicness and 'topos' which remain and develops. The design of the three homes for Riva San Vitale, Switzerland offered the opportunity to engage the context through architectural means. They had a dream it might sound like Martin Luther King Jr's speech but it was similar to the American dream that they had, let us call it the Italian-Swiss dream and the dream of the home isolated in the European dream. The design of the home is rooted in the European dream so that is what they wanted to change, the concept briefly describes that the family aspires to a true home, a true European home is a place to which it's members will return generations after generations. The town becomes a part of the family's identity just as they become part of the identity of the town. The architecture engages the community with respect to its cultural context. Aldo Rossi proposed a system of references to evoke legible personas in architecture. His ideas are acknowledged in many attributes of the design, but there is a considered degree of ambiguity- separating the architecture from any sort of definitive reference or prescribed interpretation was the problem. The houses they exist like three amoebic structures on the site, whose forms may have been made rigid after a highly responsive, amorphous process because of the straight lines that you see, but if you look at the building focus is placed on the areas of the houses where the families may gather, the inter connectivity of the spaces sets the conditions for consistent shared moments with family. The result is a phenomenal architecture without a nominal existence. If you see this thing there is no actual definition or explicit direction of where a space must grow. The inhabitant will provide the definition through his living. The architecture and the structure may take a symbiotic relationship, you build a house a person who lives there will give it meaning and the person who lives there gets the meaning because of the house so they both have symbiotic relation over each other that is a co-created state- the building creates the man's life and man creates the building the way the building works and looks so it's a co-creation they keep creating each other it's a symbiotic growth.