Session 3. Architecture of the Future, Cities of the Future

The Adaptive City: Time-based Architecture and Urbanism

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Liquid (Fluidized) Architecture

The British architect Cedric Price (1934-2003) saw architecture as an adaptable device that operates on a time basis rather than as a permanent symbol. His "Fun Palace", which inspired the Pompidou Center, was the concept of creating a user-adjustable, interactive environment. According to Price, time is an important but forgotten component of architecture. He not only built the theory that time-based movement would be indispensable to architecture, but would also be applied in practice. Throughout the 60s and 70s, his vision contributed to the development of a new philosophy within architecture, time, space, and the city. He defined architecture and city as a fluid system that constantly changes and constantly reconstructs itself through the process of change.

Goethe once said, "Music is a fluidized architecture, and architecture is frozen music." Like Goethe's words, architecture based on spatiality and music based on time's temporality share an artistic structure that is related to mathematics. However, as soon as the time value was added to architecture, the frozen architecture began to melt. It is the result of "mediatization." The media began to fluidize visual art and architecture. This fluidized(liquid) visual art was soon to be called media art or 'time-based art.' Architecture has also come to a new phase, which is the acquisition of time value(temporality). A space that acquired a time value (temporality) liquidizes a human relationship to that very space. There are much potential within this link of liquidation. A new augmented spatiality awaits with values such as variability, participation, interactions, and openness to the future.

Now architecture is no longer a fixed entity, at least conceptually. Parametric design tools parameterize architecture. That means that the space is changed by many variables. For the architects, this tool provides a framework that allows the world to see in a new perspective. After a debate on whether a plane in architecture is considered as a straight line or a curved line, it is also possible to think of architectural form as a relative and a gradual concept. This is because, a straight line could be a special form of a curve, and a space may exist as a singular scene in continuous time. Jean-Louis Déotte believed that the technical and the visual "perspective" proved the realization of Renaissance valid, by newly introducing a transformative view through the human eyes and standards. The current technical tool that corresponds to the "perspective" of the Renaissance era is the media, which is changing the state of our awareness.

The Adaptive City

A city is like a living creature that is constantly changing. Agreeing to this, a city itself should be a smart system that could constantly adapt to the ever-changing situations. The citizens, their needs, the components that make up the city, and the culture of the city are constantly changing and moving. Future cities should be like living creatures that respond to these changes in real time. A report presented by the Adaptive Future Research Group begins with the following: "Sustainable architecture and the environment does not mean to hold onto the current state, but implies to adapt to change." The report presents that adaptability is an ability to change corresponding to certain value and request of a customer. Such adaptability could be defined as time-based, bottom-up, participatory and/or mass-customized.

- In a space-oriented city, a 'Time-based' value reveals and activates the changing purpose and function of the space as time passes. While it is common to view the architectural urban environment as a form paused in time, looking at a city based on time makes it possible to view a city that holds the dynamism and liquidity of a bustling city.

- 'Bottom-up' refers to the real-time data collection of citizen's needs and a real time public service in response. Data-based, bottom-up cities help by self-organizing their systems flexibly to address the citizens' actual needs in real time.

- 'Participatory Type' means that, in order to change the utilization of a space via customer request, city should provide opportunities for the citizens to participate directly in city administration and planning. Participation means that a citizen is the most important element of the city system and that the city must work for that value through its activity at all time and in real time.

- 'Bulk Alignment' is a concept that can easily customize and optimize multiple requirements into an algorithm to meet the diverse needs of urban residents. Even though much of the cities generally target a singular group of standardized crowd, which is the general public, there should be more mass-tailoring and mass-optimization that is specific to each regions.

This process involves a lot of time, complexity and advanced technology, but in return, it could minimize the cost of time and resources. The future city, where citizens become the center of the city, should be a value driven city that is flexible and tailorable in real time, which in the end would formulate into an adaptive city.