

Field VS Collective Form

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Abstract: Whether it was small or big, cities around the world are formed slowly by series of operations and development that are led by a commanding factors and elements such as culture, religion, necessity or topography. Villages and cities historically were built around rivers and lakes for the mere fact that water has been always an essential element for growth in most civilization, i.e: Rome which grew at a vast speed due to the construction of the aqua-ducks. Through the development and growth of civilizations, citizens of these cities and its architects have tried to improve their cities to adopt their growing needs and surrounding conditions.

This leads to the discussion of analyzing the origin of the city and its development through evaluating the work of Maki and Stan Allen, Collective Form and Field conditions and relate it to current examples. Allen and Maki are considered as some of the most dedicated architects that worked on examining and finding out answers for the questions of: what form a city? What a developed city is consists of? What are the operating factors that control the formation of a city? What is fixed and what changes in a city?



Maki is known for being part of "Team X". a group of architects who were against CIAM approach toward urban design. From publishing his first article in "Group Forum" his ideas of urban design have been further developed and have become presently collective form. Maki believe that a formal architectural idea in modern world is mainly driven by politics and economics. Several factors emphasize the importance of how politics and economics in creating a new concept in modern city. These factors include: coexistence, conflicts among institutions and individuals, fast transformations in society, and technological advances in communication. Accordingly, these forces make it difficult to have the same architectural visions as architects from historical time periods like the Romans and the Greeks.

In his book, Maki invited the readers to look at the urban society as a dynamic field by saying "we must now see our urban Society as a dynamic field of interrelated forces. It is a set of mutually independent variables in a rapidly expanding infinite series. Any order introduced within the pattern of forces contributes to a state of dynamic

equilibrium – an equilibrium that will change in character as time passes” (Maki, 1964, page 3).

In order to have a successful master plan for a city, Maki suggests a developed method that he calls a "master program". Basically, it shares the same general basics found in a master plan, but with adding a time dimension and an order factor of how each stage will be implemented. Without a time frame for each stage of the master plan, an unexpected external event, might lead to unusable plan that need to be redone, which mean a waste of time and money.

He further went into detail by explaining that modern world cities master plans seem to be confused because they usually don't start based on a proper master form that fits the region at the first place. Based on that, there is a lack of flexibility, elasticity and character.

Maki breaks down collective form into three components: compositional form, the mega structure and group form. He starts with explaining the compositional form as elements that are preconceived and determined separately. Then, function and spatial relationship would be arranged on a two-dimensional plane. This technique is the most understandable and commonly used by architects.

Mega structure is a composition of a larger city form or a village compacted vertically with all its resources and functions that are combined or stacked above each other. With time necessary changes and developments that will occur to accommodate the modern life. Tnage, one of the great architects in this field, focuses his concepts on the idea that change will accrue as. “Short-lived items are becoming more and more

short-lived, and the cycle of change is shrinking at a corresponding rate. On the other hand the accumulation of capital has made it possible to build in larger scale operations. Reformation of natural topography, dams, harbors and highways are of a size and scope that involve long cycles of time, and these are the man-made works that tend to divide the overall system of the age. The two tendencies are toward shorter cycles and toward longer cycles are both necessary to modern life and humanity itself “ (Maki, Page 11)

Maki's understanding of group form evolves from a system of generative elements in space. By looking at historical buildings one can have better understanding of a group formation. Medieval cities in Europe, towns in the Greek Island and Villages in North Africa are good examples of this evolvement. These towns are formed due to several factors, which determine the spatial organization which are: consistence use of basic material and construction methods with minimal variations in physical expression, dramatic use of geography and typography, human scale preserved throughout the town and the sequential use of basic elements such as walls, gates, open spaces between the houses and towers...etc

Stan Allen, emphasized on his unique approach to how field conditions start forming from small parts and factors starting from inside out and from small parts and factors that get organized dynamically in a way the end up creating the overall urban space. He further explained that the modern advancements in technology helped in switching from analog to digital, which introduced new tool to creative processes.

Based on that, Allen generally defines the field condition as "any formal or spatial matrix capable of unifying diverse elements while respecting the identity of each." He also defines field configurations as loosely bounded aggregates characterized by porosity and local interconnectivity." Allen believes that field conditions are figural instead relational and based on interval and measure. Scale plays a major factor in creating the optimal field. Also, scale and form contributes to the architectural theory, which develops overt period of time.

Not only digital insight was a new tool set but it created new paradigm in the field of practice in architecture. The shift that accord in the design and construction mode of creating architecture was now open to incremental approach that allows for smaller independent parts to drive the whole. This allows independent parts to coincide with design or other related elements.

Architectures oldest and most acquired organizing device is the rectilinear grid. Even with its workable track record the grid has fallen out of favor today. A great example of a rectangular grid system is the Jeffersonian grid which was proposed that territories be surveyed before they were sold, subdividing them into a system of squares that aligns with of meridians. Looking at Jeffersonian grid, at face value you can see the common narrative of modern cities.

The way information can be securitized over the last several generations resulted in new fields of investigation and observation of the build form in cities. this new level of insight has created new potentials and visions that are redefining how we preserve cities. This new perception has changed the way we approach urban design.

Flock, schools, swarms and crowd's studies are representative of these new emerging investigative explorations. Flocks study was done by Craig Reynolds in 1980's with birds and their behavior of flight patterns and resulted in behavior study that revealed pattern variations. These patterns represented a system of independent patterns with consistent structure above the ground plane.

This phenomenon revealed a source of inspiration for similar studies that related to things as far sweeping as music, down to the study of movement of people within a city. People behave in similar ways to living nature in the way they gather in crowds, swarms and schools. This information is being used to predict movement of ideas and physical relationships between city and the environment.

Basically, Maki suggests that form is generated by the landscape, culture and necessity. Presenting an organization that is static and serves as organizational strategies for future change and expansion. While Allen defines the fields configurations as a "Loosely bounded aggregates characterized by porosity and local interconnectivity." Meaning that the field is defined by the dynamic relationship between objects. The dynamism of these objects generates a specific organization.

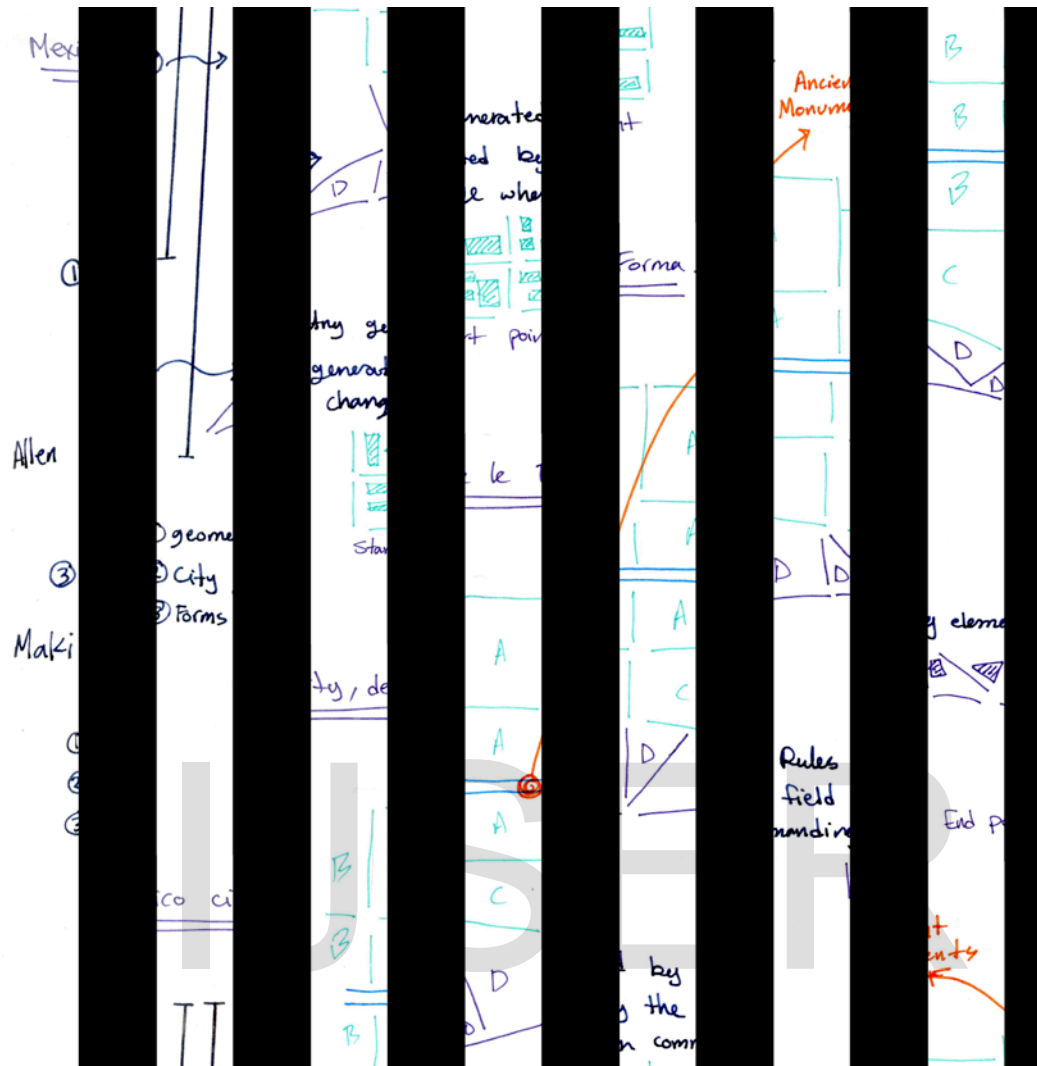
Introducing an overlap between their opposed proposals where Maki in some sense is suggesting a continuation or more expanded study of what Allen is trying to propose. I don't fully disagree that they have differentially in their concepts on how they address the city, but I think there is more similarity to it. I look closer in their overlapping theories by examining Mexico City.

Maki starts with a commanding element to aggregate the forms around where for example this element could be a road. The roads change, and with it the

group of objects that define that group-form change, but the forms must always be attached to the central element, the road, after that rule is satisfied then variations can appear.

The road also could be the dynamic element that creates relationship between Allen's objects in a field. These relationships tend to generate bigger patterns that are visible in macro scale, which is an overall geometry to urban space, made of a set of small decisions that are taken repetitively across the field. In this sense one can say the field -the rules - governs geometry and therefore infrastructure in the city is also generated by the field. Both proposals start from one main element that differs later from each other through either repetition of units or the responding to landscape and topography.

In Mexico City, both concepts are what strongly forming the city. Paseo De La Reforma, which is considered an important commercial and residential road that cuts through Mexico City from southwest to northeast, holds a number of iconic elements or sculptures such as The Angel of Independence where the city starts to form around. This road could be the commanding element in Maki's theory where forms (buildings) will aggregate around it. At the same time it may be the dynamic element in Allen's city that ties objects together. This condition is mostly noticed in historical cities that hold.



Another example is when you go further away from the city closer to the suburb the road starts to change and deform dramatically in terms of direction, topography, dimension, functionality and importance. Forms change and deform along these changing conditions. Moving closer to the extreme landscape conditions on the mountings where housing cannot be described but as crucial as the houses are stacked one above the other or roads between houses become physically impossible to go through in comfort.



- ① closer to the city.
- ② Deformation as getting closer to suburb.
- ③ Forms generated by landscape, culture and necessity of living.

* More change = Maki
* less change = Allen.

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All together, despite that Maki and Allen seem to have different approaches regarding addressing the city formation, there are several areas where there ideas overlap and complete each other. Maki's went further than Allen in his work by creating a revolution on long lasting concepts that architects followed for many years. If their work gets reevaluated and developed to meet the new technological advancements and modern necessities it can lead to the perfect combination to form the concept of an ideal modern city.

References:

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