**Metabolism and the Structuralist Approach to Utopia** / Jorge Serra

As architects, as designers, and as builders, it is hard in our profession for our ideas not to be seen as commanding; and even sometimes imposing. This is not a completely unfair assumption, and the timing for such reflections seems on point with a new exposition opening at the Pompidou Center in Paris this week, celebrating the fiftieth anniversary of Le Corbusier's death. Paul Chemetov quickly relates him to a demiurge in his article on Le Monde. This is not the first time Le Corbusier has been labeled that way; and while modernism may be long gone, the statement still holds very true today, and prominent contemporary architects are often criticized for their bold attitudes and the nature of their work.

But this wasn't always the case, and in the late fifties several architectural currents tried to shift the power dynamic at play in the architecture field by questioning its operating methods, influences and implementation. From the Team 10 to the Structuralists and the Metabolists, they all tried to envision a world in which architecture wouldn't dictate social development but rather would be a reflection of the current state of things and grow accordingly. Their success can be challenged, but the influence of each of these groups today is unquestionable, and the right questions had been asked; what is the role of architecture? And architects? To what extend can practitioners actually steer the growth of a city, the occupation of a space? How can architecture possibly reflect the current state of ideas? And most importantly, should it?
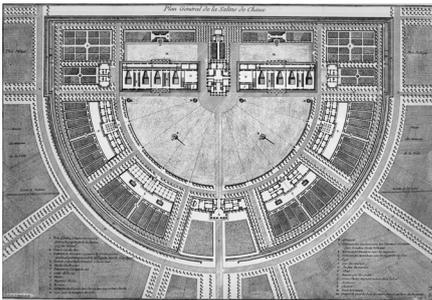
Claude Nicolas Ledoux, Salines d'Arc-et-Senans, 1776

Before talking about the complexities of interdependency between architecture and the city, or more broadly, society, it seems fundamental to understand the origins and rise of utopian architecture, if there is indeed such a thing. Perfectly asepticized, it is the purest visual representation of a world in which society and architecture echo each other in equilibrium and harmony. Some of the earliest utopian examples in architecture, namely by French neoclassical architects such as Claude Nicolas Ledoux, or Étienne-Louis Boullée, offer the first clues to the relationship that can exist between the way we live and the spaces we inhabit. The Salines d'Arc-et-Senans, a 1776 project by Claude Nicolas Ledoux is a very clear proposition in which the plan, order and composition of the buildings would reflect how people would live it. The site would accommodate the workers of the saltworks but also the owners. The order and hierarchy of the architecture reflect the relationship between the very different groups of people at play here, and the panopticon-like master plan doesn't leave any room for doubt in the social arrangement of the inhabitants.
There is this idea that we can, through form and architecture, change societal

Le Corbusier, Plan Voisin, 1925

Charles Fourier, Phalanstère, 1830

conditions, or in this case, impose them.
This in turn is of course very reminiscent of modernist architecture, that in essence, was its own version of utopian architecture. When Le Corbusier projected his *Plan Voisin* for Paris in 1925, he was indeed looking for societal reform. And the way to achieve this was to draw it, to plan it. There is this implication that architecture dictates the way we live. Somehow, the space we inhabit can influence our social position. This was of course one of the big criticisms of modernist architecture, and why Le Corbusier is still by and large seen as a demiurge more so than a people's person, even though his intentions might have been otherwise.

> *"People can inhabit anything. And they can be miserable*
> *in anything and ecstatic in anything. More and more I think*
> *architecture has nothing to do with it.*
> *Of course, that is both liberating and alarming."*

This Rem Koolhaas quote illustrates well the uneasiness that comes with the demiurge approach, and gives back some power to the people while restraining the role architecture actually has to play in society.
Interestingly enough, even before Thomas More came up with the utopian ideal in his 1516 book, another conception for the ideal society had already been thought about. The Urbino Ideal City, a 1485 painting attributed to Francesco di Giorgio Martini, has the opposite approach towards the utopian society. Here, architecture and utopia go hand in hand, but the status quo is reversed. Architecture does not impose the way we live or the way society is ordered, but rather reflects it. The architecture is ideal because the city is ideal and because society is ideal, and not the other way around. The same could be said for other, more architectural projects, such as the phalanstère by Charles Fourier in 1830. What makes this building possible, is the community behind it, and the close integration of different groups of people living together as a community is what defines the architecture and its appearance. There is here no subsequent agenda from the architect and the power architecture has is almost non-existent in these propositions.
There simply is no implication that architecture can achieve any societal change on its own, but rather that society has to change first towards a utopian ideal, and only after this has been achieved can the architectural expression follow.
This brings the question of the role the architect can actually have in such a scenario. If society first has to change in order for architecture to follow, what is the architect's position as a builder and a thinker?

The post-war period was the perfect opportunity for these questions to be asked by architects, sociologists, anthropologists and politicians alike. Societal order had completely shifted towards unprecedented territory, and things were changing immensely. The architectural field also changed and saw a multitude of different, smaller currents appear to the scene instead
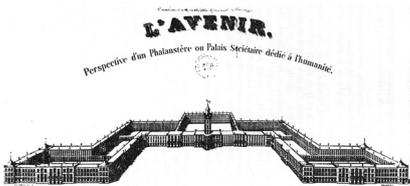
of the previous big architectural movements. Of those currents, focus will be put here on some of the most influential ones, namely the Team 10, and later the Dutch Structuralist movement, and finally the Japanese Metabolists. By the end of the fifties, reconstruction from the war offered playground-like possibilities for the different architectural thoughts to take root and emerge in a way that was never seen before.

At that time, the Congrès International d'Architecture Moderne (CIAM), was seen by some merely as a political party to promote modernist ideas, and with the movement slowly coming to an end, a group of architects from the youngest generation – who called themselves the Team 10, decided to take the reins from the older generation. In 1959, the last CIAM conference took place. Team 10, who believed the conferences had lost their avant-gardism rejected the old ideologies and declared the CIAM dead in 1959, with an organized dissolution in Otterlo. What is remarkable about Team 10's work, and to be understood in the context of the changing ideologies at that time, is the importance they gave to other fields as practicing architects. There was indeed a certain doubt about the influence architecture on its own could have on society and on the way people live.
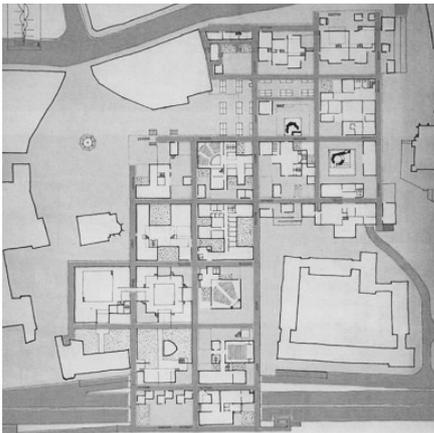
The Smithsons, principal members of the Team 10 group, always had a highly social agenda behind their projects and their research. When they presented new works, they stepped away from the traditional self-referential world of architectural representation, and relied on a deeper understanding of how people actually used space before taking design decisions. Heavily supporting such an approach were the pictures from avant-gardist photographer Nigel Henderson, which showed for the most part ordinary people occupying the public spaces of London, and helped the architects develop their more socio-anthropological approach towards architecture. These themes were all heavily present in projects such as the Golden Lane housing complex from 1952 and of course their Haupstadt competition entry for Berlin in 1957.

Alison and Peter Smithson, Urban Structuring Studies, photographs by Nigel Henderson 1967

From such projects, and other Team 10 members, stemmed another architectural current, Dutch Structuralism. In itself a socio-anthropological movement, Structuralism was pioneered by French anthropologist Claude Lévi-Strauss. Structuralism itself implies a reordering of the conventional structuring systems of the human society; all the elements of the human culture are to be understood in terms of their relationship to a larger, overarching system or structure, in the hope of unifying the human sciences. There is a complete shift away from objects and towards the relationships between them, a shift from function to structure that enables structural comparisons.

In this sense, Team 10's work can be seen as part of the structuralist movement, even though it is certainly not a unified theory, and proponents such as Aldo Van Eyck, or the collective Candilis, Josic & Woods were much more expressive in their architecture of Dutch Structuralism, even though they

were all part of the Team 10 group.

More specifically, in Aldo Van Eyck's orphanage, as well as the proposal for Römerberg, the historic city center of Frankfurt by Candilis, Josic & Woods; the way the projects are structured closely follow the ideas put forwards by Claude Lévi-Strauss. They have a rigid grid of services, or what would be in this case circulation - mostly, in which they then can weave several different programmatic elements. The city is an ever changing entity, and to the opposite of Le Corbusier, or the whole modern movement, they know that nothing can ever be completely planned. There is the question of temporality and adaptation that is an integral part of their work here. A general structure for growth is given, but the way the more specific elements are placed can be altered, modified, and enlarged depending on the different needs. Everything is part of a larger structure. The relationship between the elements is more important than the elements themselves.

Candilis, Josic & Woods, Frankfurt Römerberg, 1963

Meanwhile at almost exactly the same time was taking place something very similar and perhaps even more radical in Japan. The country, like a lot of other places at that time, had a hard time dealing with reconstruction after the war. Japanese society was seeing new mentalities emerge after the war. For a long time a very closed society, the American occupation and the international attention the country got after the war forced them to a softening and opening up towards the western culture. There was also a lot of pollution and a complete absence of control during the reconstruction, which sparked a questioning of the traditional spatial development schemes, and new urban planning and architectural methods had to be thought out[1].

At the same time, the economy and political situation in Japan also started to shift. They were trying to discover for themselves a position in the world, having been mostly subservient and occupied rather than independent and influential. They were used by the United States with restraints from a client relationship, which they accepted without resistance during the occupation. They had been playing a restricted and secondary role in world affairs, other than international trade, and even though they were independent from 1952, they still weren't able to fully develop. Partly due to lingering constraints from the occupation policy, but also because the country didn't feel it had its place in the world, there was a lack of will to play a more assertive diplomatic role. This started to shift in the early 60's with the implementation of the "income-doubling plan" by Prime Minister Hayato Ikeda. Focusing on very strong pro-industry policies, Japan entered a period of record economic growth, later known as the Japanese Miracle. The plan Motivated Individual Spending, low-interest loans to economic sectors designed for growth, expanded investment in infrastructure, highways, high-speed railways, subways, airports, port facilities, dams, etc.
The government also created coalitions of manufacturers, suppliers,

distributors & banks, known as keiretsu, to allocate resources efficiently and streamline the process of financing, production and distribution, making them more competitive in the international market. Their Gross National Product rose 420 percent from 1960 to 1970.

The Japanese people in turn started to become more optimistic about economic and social progress as well as the power of modern technology. These conditions made possible the development of new ideas and radically different proposals for a new society to gain prominence and be taken much more seriously than radical movements usually had.
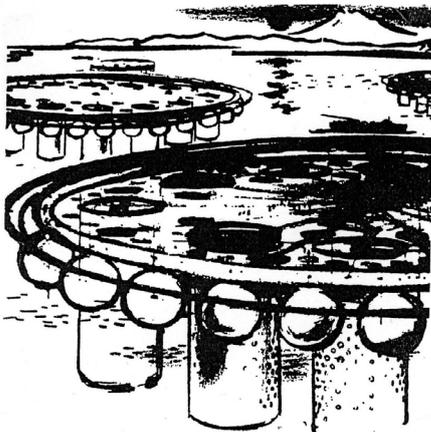
Kiyonori Kikutake,
Tower Shaped Community, 1959

At the 1959 Otterlo CIAM conference, the Smithsons had invited Kenzo Tange to be part of it and to present some works. He only showed two, both by fellow Japanese architect Kiyonori Kikutake. The first one, his Tower Shaped Community, was a series of drawings that would later become his Marine City project. New technologies made possible the occupation of new spaces, such as the sky and the ocean. Most of the buildings were also modular, with a permanent core where capsules could be attached to, and changed if necessary. The rationale behind it being that a city grows at different rates, with different temporalities, therefore planning should be done accordingly.

The second project he presented was Kikutake's personal home, the Sky House. Similar ideas were present there, with the house being made to be adaptable and offering enlargement possibilities by adding to it capsules underneath the core of the building. It is interesting to note that this was eventually done by the architect when he had children and needed more space.

The presentation Kenzo Tange did at Otterlo set the tone for the future of Metabolism, and the ideas were rooted, all of them very closely related to structuralism; the different growth rate of the city, offering an overarching structure that guides development without constraining it and creating a biological growth of the city in a pattern, adaptability and modularity and finally the use of new technologies.

Later, in 1960 at the World Design Conference in Tokyo, the Metabolists present their ideologies as a collective group and officially name themselves. Kenzo Tange in turn invites the Smithsons to attend the conference. After the meeting, Tange went to teach at the MIT where he further developed his ideas with his students. There he started working on a project for the Boston Bay, which would set the foot for his famous Tokyo Bay Project, a project containing all of the Metabolists ideologies for a temporal, structured and adaptable growth for the city of Tokyo. The Tokyo Bay Project would later become a reference for Metabolist architecture.

The Metabolist movement set forward a new way of thinking the city as a process, and not a rigid entity. They saw their society change in a dramatic way and the need to express it architecturally. They didn't seek to change

the status quo through architecture, but rather have architecture follow and integrate what was happening all around them. Architecture here had no power of influence, but it should change itself to adapt to the new paradigm, the very same way Fourier's phalanstère reflected a new way of living, or in the same vein as Francesco di Giorgio Martini's –alleged, painting; by simply being a consequence of society, and not a catalyst.

In the next few years, the Metabolists built profusely, mostly smaller scale buildings, and Kenzo Tange quickly became a Japanese symbol as the national architect. So much so, that by 1965 he was selected along with Uzo Nishiyama to develop the master planning of the Osaka World Expo of 1970, having just won their bid to host the next international exposition. This was the opportunity for the Metabolist architects to apply their urban concepts for a new city, following their ideologies.

During the planning of the expo though, their differences in ideologies proved problematic, with Nishiyama having a more socialist agenda and even questioning charging an entry fee to the expo, claiming it a public event, while Tange sided with the industrialists and bankers sponsoring the exhibition. Later on, Nishiyama withdrew from the planning, leaving Tange and his team in control of the overall planning. These differences in ideologies offered – as Lin puts it, *a prelude to the larger battle between utopianism and commercialism at the Expo*[2]. The exposition itself, although a commercial success, had little influence on modern architecture, and the exhibition was seen more as a funfair rather than the exploration of relevant architectural dialogue[3]. By giving place to politics and industrialists, architecture lost its integrity and was an object of consumerism more than anything else[4]. In the end, the Osaka international exposition seemed to have had the best of the Metabolists, who appeared defeated in their ideologies by the realities of consumerism, the realities of the society they lived in, that they had previously so positively embraced.

The question remains, in a (-dys)utopian ideology where architecture stems from and represents its socio-anthropological context with brutal honesty, isn't this exactly what the metabolists were looking for?

Notes

[1] John M. Maki, "*Japan and World Politics in the 1970's*", Pacific Affairs, Vol. 46, No. 2 (Summer, 1973), p. 289-297

[2] Lin, Zhongjie. *Kenzo Tange and the Metabolist Movement: Urban Utopias of Modern Japan* (London: Routledge, 2010) p. 214

[3] J. M. Richards, "*Expo 70*", Architectural Review (August 1970), p. 67

[4] Lin, Zhongjie. *Kenzo Tange and the Metabolist Movement: Urban Utopias of Modern Japan* (London: Routledge, 2010) p. 225

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