The Metabolist Imagination:
Visions of the City in Postwar Japanese Architecture and Science Fiction by William O. Gardner

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As the title suggests, the book examines the intersection of modern Japanese architecture movement, Metabolism and science fiction in the post-war. For Gardner, both architecture and science fiction are 'forms of artistic simulation.' He explains that the architectural design is *planned* to propose a change in existing natural/constructed environment for the future. Science fictions are also seen as *imaginative speculations* which often illustrates shifts, changes and transformations of future society and consider its consequences for human lives. Gardner examines the series of mutual interchanges between avant-garde architectural concepts and science fictions narratives. By doing so, he attempts to consider the relationship between advanced science and technology, the evolving physical and social environment, and 'the very capacity of the human species to survive our own interventions' (p 2).

The analysis of the intersection and interchanges between architecture and other cultural forms, such as art has been well developed. In his book, *'The Art-Architecture Complex'* (2013), Hal Foster explores modern architecture in the 1950s and 1960, particularly focusing on the relation to Pop Art in the wake of consumer capitalism. Foster introduces 'the most Pop project', the Smithsons' House of the Future (1955-5) which was inspired by the sci-fi movie imagery of the time.[1] James Donald also explores the architectural imagery in the science fiction films and comics. He argues that Fritz Lang's *Metropolis* (1926) can be read as a critique of the cult of the machine endorsed by Le Corbusier. [2] Unlike

[1] Hal Foster, The Art-Architecture Complex (London, New York: Verso, 2013), pp 3-4.
[2] James Donald, Imagining The Modern City (London: The Athlone Press, 1999), pp 86.

Gardner, these previous works shed little light on Japanese modern architectural movement, Metabolism. Gardner carefully introduce key Metabolists architects and discusses their conceptual backgrounds along with a good deal of relevant literature as well as examples of their (un)built architecture. One of the most important contributions of the book is that he reveals both Metabolism and science fiction in the post-war Japan have derived from dystopian aspects of society which were clear reflections of historical as well as contemporary Japanese environments.

For Gardner, futurity and narrativity are the key theoretical connections in both Japanese modern architecture and science fiction. The Metabolist group of architects produced not only substantial form of architecture, but also developed significant narratives for their concepts, design and philosophy. They were interested in future urban design and cities in advanced technological society. The imagined and simulated cities are evident in their drawings, paintings, and writings of (un)built architecture. All carry narrativity. This is a common feature in science fiction. Both narratives (of architecture and science fiction) are reflected in the post-war Japanese society.

Gardiner examines 'the connection between architecture and science fiction with regard to three motifs prominent in Metabolist architectural projects and writings: megastructures (over land and sea), capsules and apocalyptic cities' (p7). He explains the conceptual background of the apocalyptic city. The ideas of Metabolism can be seen as one of the reflections of Japanese urban landscapes which are historically destroyed and rebuilt, due to natural and human disasters. Similarly, for science fiction writers, discourse of *mirai* (the future) cannot be created without revisiting the past. The mass destructions of war and natural disasters in history were crucial factors for architecture/science fiction narratives. These destructions are 'real' traumatic life experiences. Hence, 'the trauma of the past was rescripted onto the future though the motif of "ruins" in both architecture and science fiction' (P 2).

The future city, therefore, emerges from ruins. The ruins and apocalyptic image

of the city give rise to a future city which was, at the same time, 'a reassertion of history'(p2).

Tokyo, the capital city has been destroyed and rebuilt many times in Japanese science fiction, films, animation, manga and video games, such as *Gojira/Godzilla* and *Neon Genesis Evangelion.* This suggests be 'a circular conception of apocalypse' (p 19) in history and the future. For Metabolists, the idea of circularity connects between architecture and biological processes such as cellular replacement and regeneration. Architecture, like biological organisms, can be an assemblage of various parts which are able to replace and maintain themselves. Hence, Metabolist architects believed that city can be flexible, able to grow, alter and transform like an organism which can accommodate to ever changing environments.

In the 1960s and 1970s, Japanese high economic growth and the government-led large scale of investments in urban infrastructure enabled Metabolists to developed and built mega-scale architectural projects. The megastructure was defined by the Metabolist architect, Maki Fumihiko not only in terms of the sheer scale of buildings, but also as 'a large frame in which the functions of a city or part of a city are housed' (p 9). The Metabolist's megastructure expanded into the sky as well as the sea. Kikutake Kiyonori's Marine City (1958 unbuilt) was a good example. The ocean is also an important site for Japanese science fictions such as Komatsu Sakyo and Tani Koshu's *Nihon Chinbotsu Dainibu* (Japan sinks; Part two, 2006) and Otomo Katsuhiro's *Akira* (1982-90)*,* Oishi Mamoru's *Patlabor* (1989)*,* and Masaki Goro's *Viinasu Shitei* (Venus city, 1922).

Following Schnellbacher's suggestion, Gardner further states that colonization of nature environments (the ocean) can be understood as a continuation of the spirit of Japanese imperialism in the post war era. This is to say that the Metabolists political attitude also resonates with 'bureaucratically guided national infrastructure projects' (p 13). Perhaps, the book could have explained more about the political contradiction of Metabolism. On the one hand, they embraced the liberation from the old Japanese feudal system and celebrated individual

choice, on the other hand, they believed that architects (e.g. Tange Kenzo) could act as 'social architects' who have the privileged power of directing social life.[3]

Gardner explains that Metabolists' megastructure ideas were strongly influenced by western counterpart avant-garde architectural proposals, such as Le Corbusier's Ville Contemporaine, Yona Friedman's Mobile Architecture, Constant Nieuwenhuys's New Babylon, and Peter Cook's Plug-in City. Their image of future cities was also influenced by 'the space age'. Metabolists were inspired by Archigram who were influenced by American and Soviet space projects (rocket assembly buildings and astronaut's space capsules) and developed ideas of 'plug-in/out' and 'capsule' (p 5).

The concept of capsule is defined not merely as a self-contained unit which can be plugged in/out from the framework of building equipped with a wider information network, but also as a system of mobility which serves as a mobile home (compact capsules can easily be carried and moved). More importantly, it was designed as a 'bomb shelter', given the dangers of nuclear and biological warfare and climate change. 'Capsule' is one of the key architectural concepts of the Metabolists, which exemplifies the connections between architecture and science fictions Gardner explored. He points out that Kurokawa's *Nakagin Capsule Tower* and Nagai Go's robot manga and anime *Mazinger Z,* both appeared in 1972 (p17) and were paid a good deal of attentions by the public. The robots are the *mecha* which encompasses some similar features of Metabolism's capsules: enclosure, protective shell, mobility and cybernetic system (p 17). This set of concepts can also be found in represents of contemporary information society.

The expansion of the information society with the development of computer technologies that can simulate various aspects of architectural designs can be seen as openning up 'the conceptual horizon as early as 1960' (p21). Gardner

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[3] See more detail in Tomoko Tamari, "Metabolism: Utopian Urbanism and the Japanese Modern Architecture Movement," Theory Culture & Society, Vol. 31 No.7-8 (2014), pp 201-225.

assumes that computers develop the imaginative simulation of architects, which helps architecture itself to move 'beyond the purely visual and into the narrative mode' (p21). Hence, imaginative simulation presented as an important concept and technique throughout the book in order to explore the intersection between Metabolism (as narratives) and science fiction. This is the challenge for Gardner. This is because architectural concepts can be spoken or written in the literary form, but the nature of architecture requires a substantial entity which should be realized, at least, as a visual image in the final stage.[4] It can be fair to say that architecture can turn into imaginative simulation in language and can exists as concepts without substance, if we could accept an idea which architecture can be understood as a conceptual art. This can lead to the fundamental question of what architecture can be. This reminds us of Ito Toyoo's dilemma, 'how to make substantial architecture while substantial things are losing their meaning' (p134).

The book consists of six chapters. Chapter 1, 'City Visions,' explains a brief overview of the social background of Metabolism and its conceptual background. Also it demonstrates connections between architectural and science fiction narratives in literary forms. Chapter 2, 'Ruined Cities,' focuses on the work of Izsozaki Arata and the fiction of Komatsu Sakyo in regard to 'the ruin'. Chapter 3, 'Planetary Cities,' explains the interrelationships between Komatsu Sakyo's concern for the fragile planetary ecology, Japanese national identity, and his science fiction. The important of two themes, 'scale' and 'simulation' in Komatsu's work can also be identified as key concepts of Metabolism. Chapter 4, 'Future City' illustrates the 1970 Japan World Exposition in Osaka, whose high-tech environmental plan and a discourse of utopian future were produced by Metabolists and science fiction writers. The utopian visions of information society in the Osaka Expo weren't, however, harmonized not only with 'real' geopolitical

[4] Effectively, the book contains several coloured visual images: Drawings and photographs of the architecture, 3D models, animation and contemporary art as supplementary material. This is because it cannot be easy to explain about architecture design, the image of science fiction and concept of sculpture providing the literary form (languages) *alone.*

Japanese situation, but also people's sovereignty in the advanced information society. Chapter 5, 'Liquid Cities' addresses developing digital information technologies, computer simulations and the expanding consumer culture that make architecture not as substantial things, but as codes, signs, data, and images. The images of the future techno-city (e.g. Tokyo) can be found find in the science fiction city, such as *Blade Runner* (1982), which evokes a potential dominant technocratic initiatives in the data-centered organization in social life. Chapter 6, 'Metabolist Echoes' focuses on two movies, *Akira* and *Platlabor* and the sculptures and performance art of Atom Suits Project of 1997-2003 (by Yanobe Kenji) in order to examine three key features of Metabolist architectural theory and design: the expansion over Tokyo Bay, the capsule architectural form, and the motifs of apocalypse and ruins. Finally, Gardner emphasizes that recent social and economic situations of Japan is facing catastrophic disaster (e.g the Fukushima Daiiichi Nuclear Power Plant incident) and insecure employment conditions. 'We are all now dwelling in city of the future, and its ruins' (p 164) writes Gardner. Hence he suggests that contemporary Japan could still be inspired by 'Metabolist legacies' and their methodologies.

As the content shows that the book focuses not only on architecture, but rather engages with the city and city image in science fiction. Metabolism was born from the ruin and dystopian sense of the city: they, however conversely embraced the utopian future city in the 1970 Osaka Expo. The book could have explored more why these paradoxical visions of the future city could co-exist in Metabolists narratives. This would entail unpacking more the characteristics of the 1960s and 1970s global modern architectural movements in general and those of the Metabolism and Japanese science fiction in particular. This approach could also be supported by exploring more detailed conceptual connections between Metabolism and the wider avant-garde architecture movement in the post-war (e.g. futurists, brutalists and functionalists etc.) and their relationship to today's radical architectural projects (e.g. Rem Koolhaas who is influenced by Archigram). (Hal Foster 2011: P11)

The significant contribution of the book is to invite us to consider our relationship

to the ever-changing nature/culture environment by exploring the inter-relationship between future oriented-architecture (and the city) and science fiction. For Metabolists and science fiction writers, the ruin was the death as well as the birth. The 2020 pandemic brings forth not an imaginative speculation, but a real apocalypse on the planet. ‘We are all now dwelling in the city of the future, and its ruins’ – Gardner’s conclude remarks seems now to have become more realistic.