Kurokawa and Metabolism Theory

An analysis of *Metabolism in Architecture* by Kisho Kurokawa

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The text at hand is written by Kisho Kurokawa, presenting his most prominent works and writings from 1960 to 1975, which delineate the “Metabolist” theory of architecture. He begins with a chaotic preface making references to the Metabolist group he co-founded. The group is no longer active, but he acknowledges its role in developing the ideas he is about to present. He claims the name "Metabolism" is still useful for conveying his ideas, despite showing some reluctance to claim full credit for it. This tension between himself and the group will be useful as a basis from which to examine his relationship to the work and ideas he is presenting. Proceeding in practical fashion, he explains the structure of the book, consisting of four chapters, and notes that the works are not in chronological order, yet emphasizes the importance of dates to situate them in the global discourse. In another seemingly contradictory statement, he rejects traditionalism but highlights the importance of national identities in architecture. By staking a claim on both sides of various arguments, he presents himself in tension between ideas, or somehow above them, before making a point. Analyzing such rhetorical techniques, as well as the specific curation of works presented, will help elucidate his true aims with the writing of this work. He ends the preface by arguing that technology will bridge cultures, uniting them into a universal vernacular, a “many-faceted language.” Right from the first paragraphs, he situates himself within a historical context,

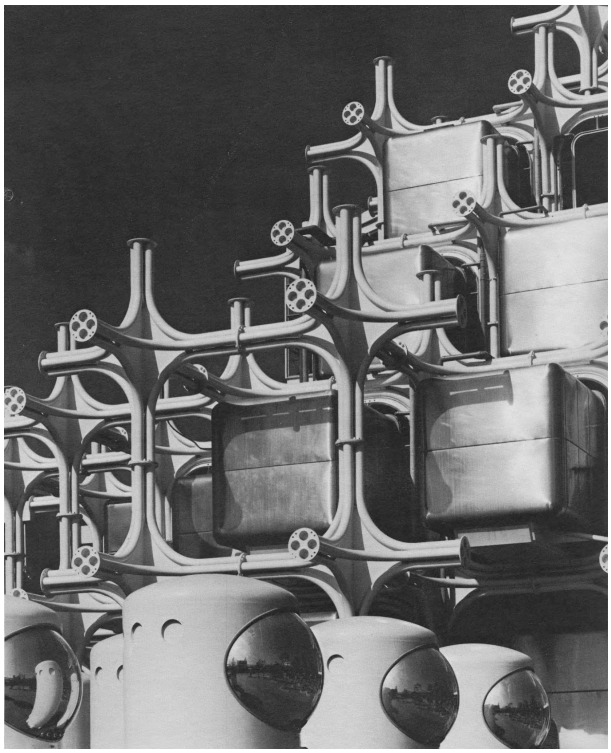
showing his position relative to contemporaries and lays the groundwork for his theory, strongly related to globalization and international culture.

Each of the book's four chapters is structured by theoretical writings followed by a list of works representing these ideas. While images are used in the writing sections, they are more prevalent in the project sections, accompanied by reviews and excerpts from other writers. It is unclear how these were curated, but it is probably safe to assume that he did so himself to promote the self-image he has crafted for himself. The images accompanying the text typically show completed structures, and are taken from the ground plane and at the corner of the building. They vary in scale, from sketches and models to interiors and urban plans, effectively exemplifying his theory and thought process, contributing to the perception of him as an accomplished architect who puts thoughts into action, and whose process is rich and thoughtful. The book is intended for an architecturally minded audience, although nothing is too esoteric or inscrutable for the layperson. Some familiarity with architecture, history, and Japanese sensibilities definitely make for a more fruitful reading of the text. Kurokawa is interested in the spread of ideas and how they carry national identity through the world, himself presenting Japanese ideals of efficiency, order, and innovation. His language, accordingly, is straightforward and confident, without falling into crude arrogance or technical jargon. He systematically presents his works, leaving little doubt about his commitment to his ideals and his faith in their future impact on global trends.

The text can be identified as theory, rather than simply a portfolio, due to its deep use of historical and cultural context to build a conceptual

framework to give meaning to his work. The scope of his proposal is massive. He envisions an entirely new system of construction and use of space, and crafts interventions to mobilize the field towards this future. While his works all certainly point in this direction, they are not enough to truly bring out the paradigm shift he is talking about, which would require involvement from many other disciplines outside of architecture. Therefore, writing is an essential corollary practice, in order to disseminate his thoughts. If that is the case, however, the vast overemphasis on his own work and lack of rigor backing up the theories he presents weaken his case for a globally relevant shift in the norms undergirding the built environment. If he had framed this work solely as a celebration of his works and ideas, it would have greatly succeeded. However, there are hints at his ambitions, starting with the fact that he is writing this at a time of the Metabolist group's decline in popularity, perhaps attempting to single handedly revive the dying movement. He also presents every idea in contrast to movements of global importance, such as modernism itself, and often indicates how his thoughts, rooted in subtler universal concepts stemming from Buddhism could provide a more sustainable and effective status quo. Finally, the structure of the book is set up as a projectile, explaining the origins and philosophical foundations of Metabolism, then showcasing successful projects and appearances at prominent events, such as the 1960 World Design Conference in Tokyo, and finishing with a future oriented conception of "En-Space", leaving the reader with the impression that there is a narrative arc these ideas are following, which culminates in mass adoption.

The problem with this approach and scope, is that it falls short in several key points. As mentioned earlier, almost only his own work and writing is featured in the book. While he does mention projects from some of the other



Metabolist architects, such as Kiyonori Kikutake's "Marine City" and "Cell City", Fumihiko Maki's "Group Form", Masato Otaka's involvement in the "Shinjuku" project, he does so only as he is describing the origins of the group: "Otaka and Maki joined us, seeing the 'group form' concept as a facet of 'metabolism'... In light of this we decided to publish a manifesto before the opening of the World Design Conference to clarify common points and differences between our thinking and the concepts on which the foreign activities were based." Beyond this part of the book in Chapter 2 explaining the history of the movement, there is no significant mention of their continued collaboration, and there is no evidence of the movement taking a life of its own beyond its founding members. The rest of the chapters focus almost exclusively on his own work. He even admits to a falling apart of the movement, "Further plans to publish a book did not materialize because of the growing diversity of opinion among the members of the group. Each member continued his work actively, pursuing his own goal, and many published individual works." This divergence weakens the argument that these ideas are the natural answer to the future. If the original group couldn't agree, how is the rest of the world to take the views of this one particular member as the one way forward?

Looking more closely at the book's contents, the first chapter called "The Philosophy of Metabolism," begins with a vulnerable portrayal of his personal context rooted in a Japan emerging from the devastation left by the Second World War. He was influenced by his father and architectural ideals of antiquity, which gave him "an image of architecture and of cities as entities which are eternal and do not lose their eternal quality even if they are destroyed." He outlines his historical view of various generations of Japanese architects, and how each negotiated influence from industrialization on architectural trends. His generation focuses on recovering from war and addressing destruction, in contrast to prior generations centering their discourse around the adoption or rejection of Western influence. He calculates the changes in the world as an opportunity to redefine Japanese architecture, delaying his debut until the late 1950s, which he deemed the perfect time to enter the scene. Describing his educational background as well, he paints a detailed picture of where his thoughts are stemming from, and how they were contoured by the milieu. In particular, he talks about the influence of Buddhism in understanding the world. This section both establishes his credentials as a well educated person, and validates the origins of his thought as coming from strong and deeply contemplated foundations.

The considerable preparation up to this point places the reader in awe and respect for Kurokawa, setting the stage for the presentation of the core Metabolist idea. He defines this philosophy as a way of understanding cities, buildings, and people as a dynamic process. Because things grow, change, and decay, the built environment should embrace modularity, flexibility, and adaptability. He explains how he and other architects prepared for the 1960 World Design Conference, proposing: "We regard human society as a vital

process, a continuous development from atom to nebula. The reason why we use the biological word metabolism is that we believe design and technology should denote human vitality. We do not believe that Metabolism indicates only acceptance of a natural, historical process, but we are trying to encourage the active metabolic development of our society through our proposals." He uses this metaphor to separate the movement from modernist thought, where function and efficiency are paramount. By adding natural, organic aspects, he is making the system of humans and the built environment into a living being, rather than a machine. His Buddhist thought shines through, as he is inclusive of animals and plants as integral parts of the system, rather than nature being in a distant and adversarial relationship to humanity.

Placing the foundations of his theoretical framework in his personal subjective experience has major drawbacks for mass appeal. Naturally, not everyone will share or appreciate the context he is coming from. But beyond that, rooting any kind of theory in personal experience automatically renders it not universally applicable or relevant. Given his own appreciation for theories of antiquity, which were mostly based on universal truth and divine proportions, it is curious that he would emphasize his personal background in this way. Again, if the work were seen as more of a memoir, or a portfolio of his work, this personal context would be justified, but his theory would then take on the quaint qualities of a personal philosophy, as inspiring as it may have been for his prolific career. Perhaps this text might be better interpreted as his own personal critique of Metabolism, in contrast to how his contemporaries saw it, more of a public philosophical argument with them. He does, after all, justify the title of the book by saying, "I was also led to select this title out of a desire to reflect upon and organize the relation between my writings and works of

these fifteen years and Metabolist thought." While this framing could explain much of his choices, and perhaps was his initial aim, the tone adopted by the latter chapters brings the text closer to universalizing theory. The confusion in aims is perhaps best observed in the following passage: "I hope that the Metabolist theory will give new meaning to the architecture of today, but I do not intend to try to produce an international style. Nor do I hope to establish standards that can be used everywhere. On the contrary, I believe that it is the historical characteristics of each people, nation, and region which through their own uniqueness are of international significance."

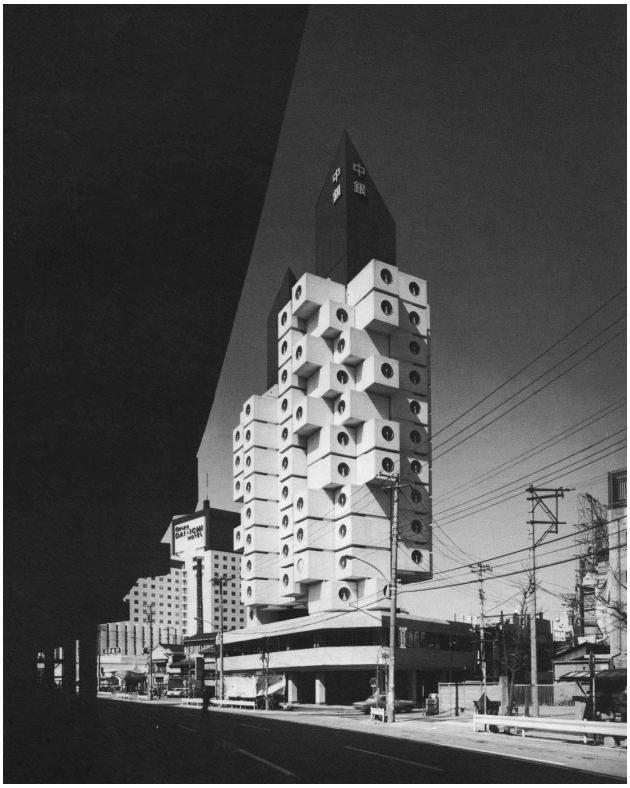
He clearly states he is not interested in defining a new paradigm, but all of his ideas imply it. How can new meaning be given to architecture based on Metabolist concepts of adaptability, impermanence, cyclical change, responsiveness to context–things that are universally relevant–without affecting global standards or style? He devotes significant time to arguing against dualism prevalent in modernist thought, advocating for the interconnectedness of things to be a guiding principle in design, for example when he discusses the difference between Japanese streets used as intermediate third space, in contrast to the town square in Western cities, as the main place of gathering. It would be impossible to adopt concepts of "En-Space" and "engawa" as he describes, without drastically changing the aesthetics and style of the architectural practice. The narrative of how he arrived at these thoughts is itself proof that without this journey, it would be difficult to embrace such a contrary view to the predominant modernist thoughts, heavily influenced by Western culture. Many of the values he champions certainly might have benefitted the built environment if incorporated into its ideation. Perhaps he might have better captured the

global imagination with a less personal presentation of his thoughts, and instead employing the culturally predominant discourse of rationality, science, economics, and technology that he is trying to subvert.

This tactic, of embracing the language of the current movement, to introduce a new one, could have shown further synergy. There is significant overlap between modernist ideas of embracing technology, and his own theories. In the second chapter, he delves deeper into the concept of the Capsule within the broader Metabolist system. Much like a cell in a living organism, the capsule is a modular unit that can be mass-produced, potentially relocated or replaced as necessary. A building can consist of a core of connecting space, the “organnector,” providing access and support to capsules, which contain life. The role of mass production is essential in this portion of the theory, as it provides a solution to address Japanese society's growing (and ageing) population and housing demands. It also goes in line with the theory of technology serving as the bridge between cultures and time periods. This thought clearly stems from the influence Le Corbusier and other modernists had in shaping his thought. He mentions them as points of comparison, stating, “I am not pure like Le Corbusier. I accept things from society even if they conflict with my ideas - but that's OK.” However, he may have done better by showing the similarities in their thought, and using that as a point upon which to build further ideas, instead of positioning himself adversarially.

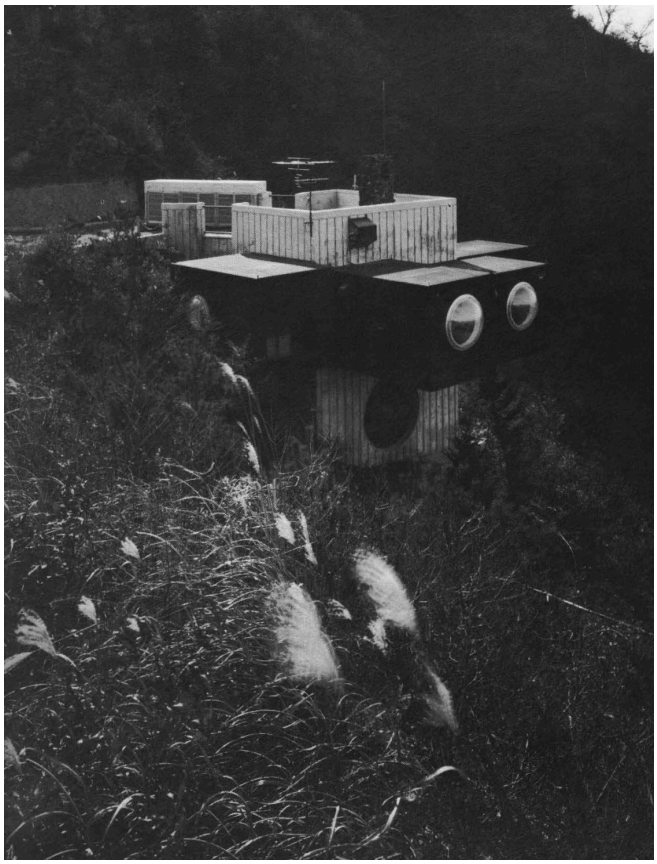
To illustrate what capsule architecture can look like, he includes a variety of projects, such as the Nakagin Capsule Tower. It consists of two central concrete and steel cores with elevators and common infrastructure, upon which

many capsules are attached. Produced in a factory outside Tokyo, the capsules contained essential amenities for traveling business people, the target audience of the development. Each pod, roughly the size of a shipping container, had bedding, a desk, a bathroom, and room for clothes. The concept was possible due to the assumed audience's interest in short-term rentals or a pied-a terre. Realizing the limited appeal of this type of temporary pod, he mentions another project, the Capsule House ‘K’ from 1972. This house tries to approximate more traditional dwellings by utilizing capsules as separate rooms, each with a different function. He even suggests a capsule village, with larger pods attached to a pipe structure down a landscape slope, exemplifying his trans-scalar approach.



While the impetus for the capsule idea, of leveraging mass production technology to build housing more effectively, and that individual parts of a building can be replaced as necessary, rather than rendering the whole thing inoperable, are very strong ideas. However, the theory is somewhat removed from people’s actual desires and emotions. He talks about the desire for mobility in the population, and makes a comparison with American culture, where seasonal jobs, good highway infrastructure, and other factors contribute to swathes of the population living in mobile homes. He is excited to find a

quintessentially metabolic system already existing in the world, where people can bring their own space with them as they travel, and then connect to a trailer park to gain access to utilities as needed, such as sewage, water, and electricity. He sees a global movement as society starts to value flexibility and movement more, the need for large, immutable spaces decreases. However, there is an enormous logical leap made here. First of all, a phenomenon happening in California will not necessarily translate to Japanese culture, or any other, for that matter. He also incorrectly extrapolates that because families are moving homes more frequently, that people will embrace claustrophobic capsules as acceptable dwellings. Nowhere in his writing does he mention talking to people, doing any kind of ethnographic research, or otherwise validating his theories. Finally, there is absolutely no mention of cost analysis or any kind of engineering work to prove the capsules are actually financially viable. It seems he is absolutely convinced by his ideas and that their logic alone will convince the world to embrace them.

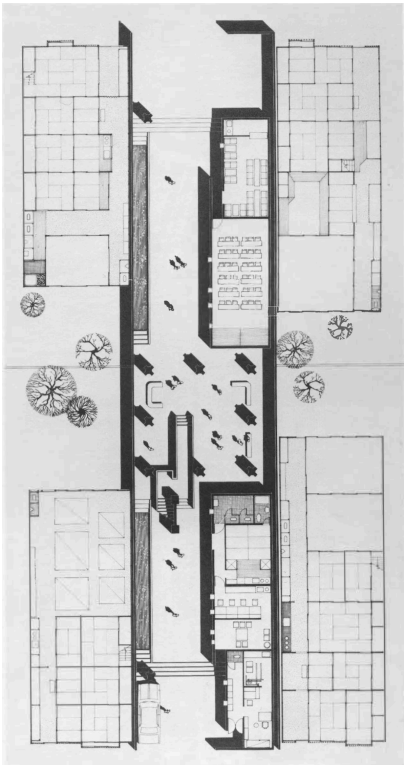


In fact, he even shows some disdain for other disciplines and their ability to result in “fine works of art” from his early college days: “During my four years in college I studied many subjects outside the architectural curriculum

and, under the guidance of Professor Nishiyama, participated in social studies of slum areas. But when I learned that the architecture which results from scientific design theories based on such social investigations does not invariably produce fine works of art I made up my mind to leave Kyoto University. I decided to attend graduate school at Tokyo University, where Kenzo Tange (a practising architect, unlike Nishiyama) was teaching." It seems that this early experience of being unable to combine social considerations with artistic qualities, and the idea that there is little to learn from people outside of architecture for architectural purposes defined his career. Unfortunately, it could be one of the main shortcomings of his theory, which would have benefitted from exploring the interconnectedness of everything, which he claims to value.

Later on, he mentions doing technical work at Nippon Prefabrication Co. along with other Metabolists, but to little effect. "At the company's request we worked for the technical evolution of Metabolism in a way which combined with the industrialization of house construction. Otaka worked on a method of building prefabricated houses, utilizing light gauge steel units, while Kikutake studied a renewal method for equipment units. I did research on a new building device for 'medium-high' prefabricated apartment houses based on box-type concrete units. Although these studies were not put to practical use, they had an impact on architectural circles as concrete expressions of the Metabolist theory." This passage makes it seem as if after a cursory and superficial investigation, they were unwilling to conclude the work necessary to fully tie theory and practice together. Reflecting on the experience, he claims that "This practical work made us more aware of both the possibilities and contradictions in our methodology."

These examples show how throughout his life, experiences with different disciplines were not as fruitful or rewarding as he would have hoped for, and why he focused more on purely abstract architectural concepts. Again, it is curious that he is so candid about these shortcomings in the application of the theory he is championing. Perhaps he can't help himself but being honest about how he feels, as he writes many years after all of this occurred. He might be justifying and rationalizing his story, both to himself and the reader. Unfortunately, by explicitly writing from this retrospective frame, he further buries the theory in the canon of interesting and full of potential, yet unsuccessful.



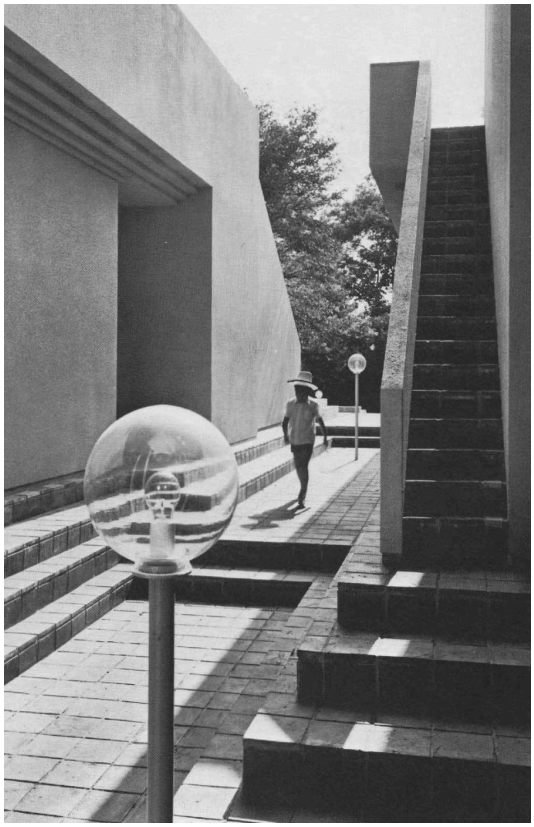
Of course, he did enjoy success as an architect, and many of his projects were indeed built and celebrated. As a theorist, however, it is not as clear cut. While he did present a novel idea that resonated with the historical moment, promising great benefits to society, the text itself gives away that it did not become accepted by the mainstream. There is no mention of other architects, let alone people in other fields, adopting this theory after hearing about it. Another factor possibly contributing to this outcome is his erroneous assumption that inherently Japanese philosophies would translate easily into other cultural contexts. One example is his conception of En-Space or Engawa, which is an in-between space, between interior and exterior, between private and public. It is a fascinating and likely healthier way of life, yet his delivery of the theory, once

again, does him a disservice in how far it was able to reach. It would have taken considerably more research, outreach, and community engagement around the world to promote these ideas further into a global audience.

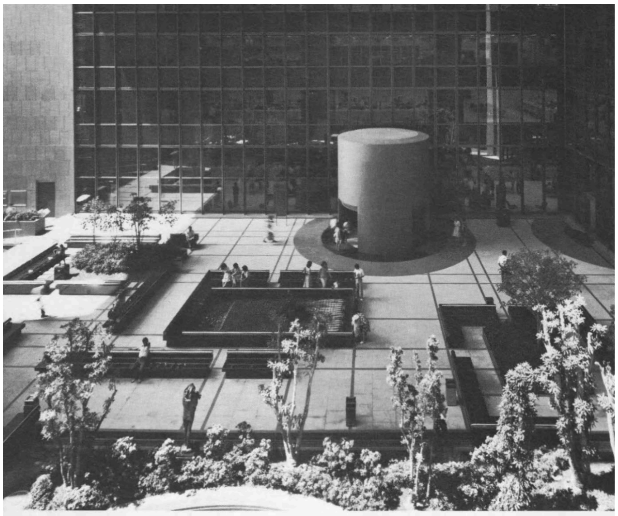
In the third chapter, he explains the Japanese concept for city streets and how they differ from Western ones. He portrays them as a multi-purpose space, winding and intimate, that serve as a connection between neighbors to interact. This is in contrast to the central square typologies more prevalent in Europe and America. He bases this analysis on Indian texts and Japanese history, which he expounds on with total authority and without providing any references. In fact, the only items in the Bibliography are architectural magazines that show his work and write about it, approximating a social media page showing likes, rather than a list of outward references. Some of the works list over twenty different publications mentioning it. At one point, he simply speculates on what the Indian street types might have felt like: “I can imagine that the Sun road was a lively place, filled with people after the long rainy seasons, enjoying the good weather once again. On hot humid nights, many must have moved their beds on to the Wind road, watching the stars in the night sky before a breeze lulled them to sleep.” In any case, it may be a valid point that these streets afforded parade style social celebrations, rather than mass assemblies. It also makes sense that the system of smaller roads connecting a community of homes became the site of socialization. He then makes a rather interesting connection with these traditions and the more non-dualistic nature of Eastern societies, inspired by Buddhist thought. This nicely ties up his analysis of urban organization with his personal philosophical background described earlier in the book. He then demonstrates a series of

projects that utilize narrow passageways, rather than central open space, such as the Nishijin Labour Center.

This theory of street typology serves an important function in the text, as the prime example of En-Space. More than with the Capsule theory, these concepts are better positioned to project how Metabolism might influence the future. He bases his analysis on moral decay in Western society, what he describes as: “the process of spiritual disintegration includes internalization of the self, so that man's inward world came to be severed from the outward reality. A pathological introspective attitude arose as a result which gives rise to introversion, narcissism, sensualism or, according to Charles Jencks's classification, super-sensualism.” He believes this issue can be addressed by the use of architecture to encourage an opening of the self to the outside world and others. “I think that Henri Lefebvre's 'I am a glove turned inside out... I must escape from this prison of ice,' which expresses a desire to avoid self-destruction by transferring from the basic subjectivity of the 'self' to that of 'Other', speaks of the pain latent in the inner reaches of West European individualism.” Here he both places himself among contemporary philosophers and thinkers, but also sets up the problem at hand as something his theory and style of architecture can neatly solve.



These tactics and methodologies of situating his work within his contemporary context are much stronger, and could thus be the reason for which concepts of En-Space are possibly more widespread and influential than those of Capsule Architecture. Perhaps it was an evolution of his own thought and career, which is neatly mapped in the ordering of the chapters of the book. Here, his ambition for his theoretical project to transcend architecture and serve as social commentary and futurist speculation stands on firmer ground. His ultimate goal is to begin a new age beyond modernism, which he makes abundantly clear: “At the same time I was writing a book, Homo Mavens (1969), in which I projected the architecture of the street, and urban movement space upon the image of mankind in a new age, and upon the image of society. This was intended as a way of opposing the functionalism which had been established by CIAM and other participants in the modern architecture movement, as functionalism had taken the setting for the functions of daily life as static space and had viewed movement as taking place only along optical lines within those static spaces.” Here he restates his stance as the proponent of a future beyond modernity, and as having the solution, which is in the liberal use of En-Space in architectural projects to provide the



socially connecting tissue found in the intimate Japanese streets he talks about. His faith in this concept is quite deep, “the creation of media space has the potential of serving as the stage for the formation of voluntary intermediate groups.” He is positioning these spaces as having the potential to save the soul from individualistic nihilism, as well as enable all kinds of organizing and presumably social reform (towards which political direction is totally unclear).

This time around his arguments feel more full of potential and better participate in the cultural discourse, but he gradually loses the reader’s confidence as he describes being “perplexed” with deploying these concepts in practice. For example, he describes his process for developing the Fukuoka Bank project with words such as *rigorous*, *scientific* and *methodical*. At this point, it seems like there will be a satisfactory conclusion to the inquiry. However, he once more ends on a speculative note, having just laid out his assumptions and inspiring ideas without any form of feedback or validation. The chapter abruptly ends and he moves on to other writing about the topic: a collection of disjoint fragments about his thoughts on En-Space. All of this contributes to the concept becoming elusive and mysterious, as a thing that cannot be grasped, even after ten years of contemplation. He does employ references from physics, philosophy, and culture to explore the topic. However, it is unclear whether the change of tone here, compared to his extremely direct and matter-of-fact position regarding his theory of capsules, is an intentional tactic to take his theory from the material to the ethereal, projecting itself onto an uncertain future. While perhaps more successful, it still does not make it all the way, due to the uncertainty in his tone when describing its practical deployment.

However, even as the theoretical framing of En-Space is left in ambiguous territory, the projects subsequently presented do explore the concept, and are more tangible and realized projects than in some of the prior sections. Perhaps his respectful and more distant relationship to this concept, allows him to take a humble more exploratory stance before it, potentially leading to more success. With the capsule architecture, even though his intentions were born from Buddhist and organic thoughts of cyclical renewal, attempting to create a dynamic and adaptive system, the rigidity of his concept ended up as its own demise. En-Space, in comparison, is a more flexible and dynamic piece of theory itself, and perhaps is a better example of "Metabolism" than the capsule concept. It is perhaps an approach better suited to negotiate the inherent rift between theory and practice, especially when dealing with such complex systems as urban society and the built environment. He also demonstrates iterative improvement of the theory at each of its applications.

Kisho Kurokawa clearly was a respected and successful architect, and indeed created a strong conceptual system, which has undoubtedly influenced thoughts about sustainability and community in architecture. The way in which he exposes his thought is inextricably linked to his personal philosophy and idiosyncrasies, which makes it useful as a barometer of his milieu and cultural background, but perhaps weakens the overall effectiveness of influencing architectural theory more broadly. Because the core of his theory is rooted in a vision of a better world, one more closely resembling organic systems, which are dynamic, self healing, and impermanent, it is a shame that he was not able to better deploy and promote these concepts for the benefit of society. Perhaps it was the highly personal relationship he held with the subject matter,

or his inability to pinpoint the crux of the theory in concise language. Perhaps it was his inability to integrate more effectively with other disciplines and empathize with the inhabitants of his envisioned spaces. Whatever it may have been, there is no doubt a wealth of conceptual material in his writing and architectural work, and while it may not serve as the most potent and widely disseminated piece or architectural theory, it is a beautiful dive into the thoughts of a highly creative and well intentioned person, and the reader is nevertheless left inspired and in awe of his depth of thought, dedication, and prolificness.

References:

1. Kurokawa, Kishō. *Metabolism in Architecture*. London: Studio Vista, 1977.