Technology, Japanese Tradition, and Contemporary Japanese Architecture

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INTRODUCTION

Japan, by virtue of its postwar economic success and recent market collapse, has been receiving an increase in attention from the West. As a result, Japanese architecture has been fairly well represented to Western audiences in the last three and a half decades, especially since the Metabolists of the 60's. While Western audiences find modern Japanese architecture reassuringly familiar, due to its purposive Western character, some aspects of it still remain perplexing and mysterious if not remote and inaccessible when one tries to understand it within its cultural context. This is due to the fact that such endeavors are almost always haunted by a sense of "curious Japan:" Japan as a land of geisha-girl with Sony MiniDisk players in a *traditional* Japanese garden of the Imperial Hotel.

Such a paradoxical coexistence between tradition and modernity is amplified in Japan and seems implausible or at best constitutes a sort of "enigma" which is very hard to reconcile, if one tries to interpret it from a Western conception of history aspiring primarily to progressive development and uniformity.

CONTEXTUALIZED PARADOX

The origin of such a "Japan" can be traced through its long history. Japan had repeated exposure to other outside cultures: the Korean culture (5th-6th century), the Chinese culture of Tang dynasty (8th-9th century), then the Sung dynasty (13th century), and Western culture, especially from Portugal and Spain (16th century). The influx of foreign cultures occurred at intervals, and caused enormous changes in Japanese cultural patterns. As a result, Japan has been repeatedly forced to rewrite its own history, yet over the years it has somehow managed to renew itself and develop itself into a distinctive entity in the process. Thus, the disparity apparent in the "curious Japan" is historically long-standing and culturally pivotal. Japan's history only can be described by "the senses of the dominant Other and its own marginality."[1]

Fig.1. Advertisement for Citizen watches.

Japan's most significant encounter with "the Other" happened in 1853 with the appearance of the "Black Ship" of U.S. Commodore Perry off the coast of Shimoda, a city near the end of the Izu Peninsula. Threatened by the technological might and superiority of his ships and weapons, Japan was forced to open its doors to the rest of the world after centuries of self-imposed isolation. This encounter posed a major difference compared with the previous influences, however, in that it was accompanied by modern technology as it was symbolized in

the "Black Ship." In order to survive in a rapidly changing world, Japan fervently appropriated the technology necessary for its transformation to catch up with the West. As a result, the Meiji period 1868-1912) signified a great turning point for Japan. The expeditious economic development created drastic transformations within social organizations. while making congruent changes in various cultural domains. It is very significant to note that many words crucial to architectural discourse such as "technology," "philosophy," "concept." and even "space." and "tradition" were translated from Europe and America into Japanese around this period.

In the beginning of this remarkable westernization, efforts at synthesis to overcome the problems of assimilation were evident in such typical slogans as "Japanese spirit and Western Learning," "the unity of Eastern and Western thought," or "the rolling of all things into one." Although the Japanese attitude toward assimilation of Western culture was selective in the beginning. it was never consistently critical and this has resulted in what now appears as extreme eclecticism.

Such an extreme eclecticism can be partially attributed to the Japanese languages' capacity to translate any foreign language into Japanese by using *Katakana*, one of two Japanese alphabets. By phonetically replacing a foreign word. *Katakana* can instantaneously makes any foreign word into Japanese. i.e.. "hotel" becomes "*hoteru*." The resulting "loanword" retains solely its foreign-ness while being completely neutralized as "merely foreign" in the Japanese language. Thus it is possible to bring anything foreign to Japan. even things which are impossible to translate. "The average Japanese speaker uses three thousand to five thousand loanwords, which constitutes as much as 10 percent of daily vocabulary items... 94.1% of these borrowed words come from English."[2] Once they are "Japanized" their origins are lost and backward translation is not always possible. It is simply astonishing to note the necessity of a dictionary just for *Katakana* which contains more than 20,000 words as of the 1996 edition.

To most Western eyes Japan seems to exist in a state of "schizophrenic ecstasy": all sorts of contradictions are seen between the traditional Japanese culture and the modern "world" culture. Japan after the Meiji period (1868-1912) may best be described as a period of historical convulsion. The encounter with the Western Other brought Japan a kind of Lacanic irreversible "mirror state" and it is getting harder everyday to draw the borderline between Self and the Other. How then would one interpret the current condition in Japan? Is it the globalization of technological culture at an extreme. displaying Fredric Jameson's Postmodern "pastiche," or Baudrillard's "hyperreality"? Is Japan on the verge of cultural bankruptcy? Or, is it a flash of a link between past and possible future, an optimistic view of an unproblematic relationship between technology and culture? In any case, there seems to be no conscious acknowledgement of threat from technology to Modern Japanese culture. because everything is stripped of its consequences.

THE INFLUENCE OF TECHNOLOGY ON AN UNDERSTANDING OF PLACE (CULTURE) AND TIME (HISTORY)

In order to examine this "ecstatic Japan" appropriately, it is necessary to clarify the influence of modernity. especially that of technology. within contemporary culture. Technology, as Martin Heidegger first observed. turns all of nature into a resource for human use. The analytical power of modern science is used to "pursue and entrap nature as a calculable coherence of forces,"[3] to draw the natural environment into systems which maximize usable material output and economic growth. The origin of such a modern thought is credited to the Cartesian *cogito*: a detached and contemplative subject. This independent and indubitable "self," capable of asserting the mathematical techniques for studying nature, eventually dislodges knowledge with techniques of objectification aimed at mastering and controlling nature. Within technological society. Ellul argues that human endeavor has become an extension of technique rather than simply employing technique. "Technique" in this case always follows the principle of "efficient ordering" and it moves in geometrical progression.[4] Technique. thus, is always the cult of "the new." It moves infinitely onto itself.

In order to comprehend the influence of technology on architecture, a twofold articulation is necessary: The first is the influence of technology on different cultures; "horizontal horizon."[5] The second is on history; "vertical horizon." The first aspect is the influence of technology from place to place, from one culture to another. Technological culture has become a universal culture because it has proven to be the most successful at satisfying the universal needs and desires of mankind. Mass-produced products, mass-transportation, and mass-communications have all contributed to what Paul Ricouer has called "universalization in culture of consumption."[6] Such is clearly apparent in the current direction of many industries' flexible and centerless operations; goods produced and assembled in several different places and then sold everywhere.[7] This is further reinforced by the breakdown of the Berlin Wall in 1987, and the disappearance of the Soviet Union, which made the previous cultural framework of East/West or North/South lose validity. Political and economic globalization have been accelerated at an ever increasing speed and we are facing waves of homogenization and standardization in all aspects of our lives. The world is becoming more and more multinational and borderless and increasingly becoming the "global village" as described more than 30 years ago by Marshall McLuhan.

The second aspect of technological influence is on history, in one place from generation to generation. When "technique" is applied as a mode of understanding history, it allows chronology to be privileged, resulting in a concept of history as a linear chronology of objective time. That is to say, history becomes the knowledge of historical facts, a field which can be systematically separated thus defined, described, measured, and eventually classified objectively. This under-

standing of architectural history is apparent even as early as in *Recueil et Parallele des edifices de tout genre* by J. N. L. Durand.[8]
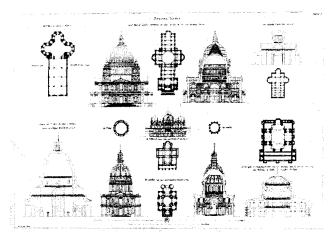

Fig.2. J. N. L. Durand. Churches. from *Recueil et Parallele*, 1799.

By means of categorization, then, it was possible to transcend the study of separate individual examples and to discover more universal principles that lay behind them. Classification, therefore, was a formalist methodology based on logico-combinatorial principle, that is to say, a technique used for extracting general principles from particular cases as evidenced in nineteenth century biology and anthropology. Such classification of facts eventually creates seemingly clear and objectifiable formal hierarchies. Consequently, architectural history can be understood as a series of identifiable and distinctive styles. Architectural history becomes a history of styles.[9]

Once this notion of history is achieved, cultural tradition in architecture becomes highly problematic. "Cultural tradition." in this framework, is only to be understood as the "matching" of the past, as opposed to "making" of the present. In other words, style in this context is based on the doubtful assumption that cultural tradition is something created in remote antiquity, and somehow handed down intact to the present day. Thus it can be "achieved" through the direct imitation of styles. Such an attitude of returning to one's origins by resurrecting past tradition results in superficial styles that only value the formal reiteration of tradition and simply devalues change brought about as a result of cultural evolution. Consequently, a nostalgic fondness and naïve celebration of a supposedly pure and untainted past turns the vernacular into a source for stylistic appropriation, only this time with the conveniences and comforts of modern technology. What is significant in this attitude is that the sense of history as an ongoing process is often lost. This serves only to intensify the aura of mystery surrounding Japan today.

PROBLEMS IN UNDERSTANDING CONTEMPORARY JAPANESE ARCHITECTURE

"In Tokyo, tradition and modernity interlock to create an eclectic environment that juxtaposes the old and new...Historical background of Japan and glimpses of old Tokyo...[contrast] to the panorama of a constantly metamorphosing metropolis."[10]

When one tries to understand contemporary Japanese architecture, one is always confronted by an irreconcilable image of Japan as both a symbol of modernity and an icon of tradition. Thus, the current condition, "curious Japan" often causes interpretation to be superficial due to its familiarity, or stereotyped because of its exotic appearance. Such attempts are always hindered by the strong desire to relate contemporary Japanese architecture to either the horizon of place or of time: either "Japanese" or "architecture." In other words, local architecture or universal architecture.

Japan, with radically different layers of images and symbols, quite frequently becomes a subject of vague cultural syncretism. Thus, when one encounters contemporary Japanese architecture, one quite often seeks in it the mysterious or romanticized images of Japan as a country of Zen Buddhism or Shintoism, subtle nuances of materials and surfaces, best exemplified in the buildings such as Katsura Imperial Villa and Ise Shrine. This desire for an "exotic Japan" was satisfied when the concept "ma" (space-time) was first introduced to the West in an exhibition entitled *MA Space-Time in Japan*, organized by Arata Isozaki, in the late1970s.[11] The concept of "ma" was introduced in this exhibition in an effort to promote a characteristic which is distinctively Japanese in an increasingly Westernized Japan. It was also an attempt to assert Japanese notoriety to the West. Unfortunately, it was only to misguided Westerners when setting out to understand Japanese architecture. We simply have to recognize the fact that many practices which are today considered traditional are in fact quite recent inventions, often deliberately constructed, as in the case of Isozaki, to serve particular ideological ends.

The effort by Isozaki was an exact inverse of "Orientalism" put forward by Edward Said, yet based on the same relationality that clearly separates self and other.12 Similar attitudes can be seen in various disguised forms thoroughout the course of Modern Japanese architecture. In most cases, the notion of tradition is simply taken for granted, and the making of contemporary architecture substitutes traditional architectural components with modern materials.

It is important, however, to recognize that such approaches simply fail to acknowledge that modern technology and its concomitant epistemologies have drastically altered the aesthetic and ethical sensitivities of the Japanese. It is not only that nothing will be gained by simply putting locality forward, be it in the form of "Orientalism" or "Japonism," in contrast to universality, but also that such an understanding simply ignores works of may other contemporary Japanese

Fig.3 Advertisement for Japanese roof tiles.

architects as merely western or non-Japanese.

The fundamental problem of such attempts lies in their failure to recognize culture and its by-product, "architecture," in its mobility and transitory nature, and to interpret it in terms of both horizons. It is widely acknowledged that the success of Japanese culture, does not lie in its ability to simply adopt western culture, but rather it is based on the ability to modify and adapt new cultural ideas and make them uniquely Japanese. It is becoming increasingly more important to abandon the conventional understanding of "Japanese architecture" and venture into a whole new awareness. It will be well beyond the scope of this paper to fully illustrate this point, thus I will try to focus only on the use of exposed concrete; a material that was not only alien but even contradictory to how one perceives Japanese architecture ought to be.

The first use of concrete in modern architecture is credited to Auguste Perret in his apartment buildings on rue Franklin
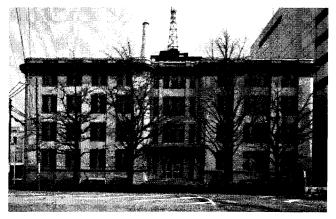

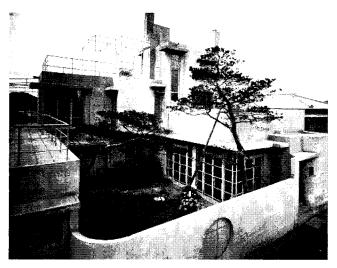Fig.4 Mitsui Bussan Yokohama Office.

Fig.5 Reinanzaka Residence.

in 1903, and was first introduced to Japan by Oto Endo in his Mitsui Bussan Yokohama Office in 1905.

As is apparent from the photograph, this building was merely an unreflective copying of a western style building using western style material. The most notable early example of concrete used in Japanese architecture can be found in Antonin Raymond's Reinanzaka Residence in Tokyo built in 1923.

Raymond described the building as "one of the earliest truly modern residences in the world: monolithic reinforced concrete, natural concrete finish on the exterior, ... and the whole thing very simple and natural."[13] He used this house as an exploration into Japan's view of nature as found in traditional methods of Japanese carpentry. In order to conduct this exploration, he imposed three conditions on the construction of this house: no sandpaper, no nails and no paint.

One could interpret his exposed concrete house as merely a copy of the European Movement, eliminating ornamentation in architecture. What needs to be acknowledged here is his interpretation of traditional Japanese architecture, as one which keeps all materials in a natural condition. It is questionable to say that the rules he had imposed on the construction of his house would constitute a definitive understanding of traditional Japanese architecture, however, what is key was his recognition of Japanese use of materials in their natural states. As opposed to natural finish on wood, unfinished concrete was considered "a dirty finish" amongst Japanese architects when it was first introduced by Raymond. Since then the use of concrete has become synonymous with modernism, that is to say Western style architecture, and has been embraced by many architects of his time and after.

This technological change in modern Japan has not only been a process of refining borrowed technology, it has also involved modifications through techniques and sensibilities indigenous to Japan. Through trial and error, concrete's bare finish eventually found its place within Japanese aesthetic sensitivity.

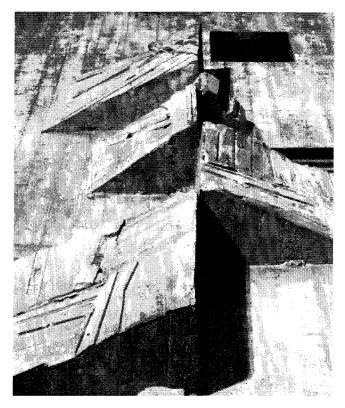What was achieved during this process, through reconcili-

(Fig.8 Tamayu Spa in Shimane by Shin Takamatsu)

than by directly delving into their own history.

Fig.6 Interior of Tokyo Cultural Hall by Kunio Maekawa with exaggerated natural formwork.

CONCLUSION

ation of local and foreign, imitation and innovation, was the creation of a hybrid, which eventually evolved into the foundation of Japanese modern architecture. Championed by Tadao Ando, it has ultimately become known as being distinctively Japanese.

As it became established practice, however, efforts of early Japanese modernists lost their spirit and became accepted architectural style. As a result, one can find concrete building everywhere in Japan. The quest for Japanese architecture is carried on by architects such as Shin Takamatsu or Masaharu Takasaki. These architects are able to establish something uniquely Japanese by reaching deeply into their future rather
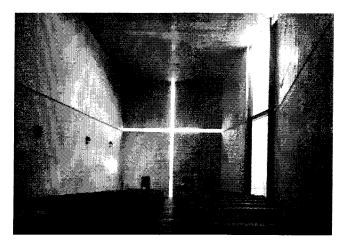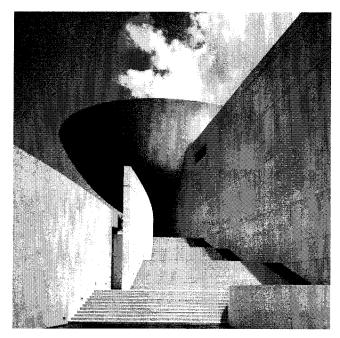
"There is no turning back to the way things were. What is past is dead and gone, only to be repudiated or subjected to radical criticism. The tradition must be rediscovered from the ultimate point where it is grasped in advance as 'the end' of out westernization and Western civilization itself. Our tradition must be appropriated from the direction in which we are heading, as a new possibility, from beyond Nietzsche's 'perspective.'"[14]

As Kenji Nishitani described, it is meaningless to indulge in remorse for an irretrievable past which "existed before," and thus is "no longer." What some Japanese architects recognize is that the answer is not found in trying to change the fundamental problems of a technological society, because, as Ellul stated, it is no longer possible to go back since we have wagered our future at the dawn of our civilization. In so doing, they realize that they are faced with two alternatives. One is to be naively optimistic about the current condition and hope that technology will solve all our problems in the near future. The other is to face the dilemma and to realize that what becomes necessary is to embrace a "working-out" of the interplay between technology and culture, historical and universal, otherness and self. That is to recognize the importance of the interpretation of history, and question what it is to reconstruct tradition within such a situation. They realize that quintessence can only be reached when subject and object merge, self and things forget each other, and all that exists is the activity of the sole reality: schizophrenic ecstasy. Only within such a schizophrenic ecstasy, it may be possible

Fig.7 Church of Light in Osaka by Tadao Ando

to "work-out" the interplay between technology and culture,

historical and universal, otherness and self, and consequently, modify the understanding brought by the dichotomy of horizons as a result of technological society. One may find a glimpse of hope for architecture in this ecstasy, which is to project oneself both in the future and past simultaneously, and in so doing, one may bring forth something uniquely Japanese, yet universal. Such may only be possible within the technological culture of Japan.

"Dokuwo kurawaba saramade."

If you have eaten poisoned food, you might as well lick your plate.

- old Japanese proverb.

NOTES

1. Masao Miyoshi and H.D. Harootunion. Introduction to *Postmodernism and Japan*, ed. Masao Miyoshi and H.D. Harootunion (Durham and London: Duke University Press, 1989), p. xi.
2. James Stanslaw. "'For Beautiful Human Life': The Use of English in Japan." *Re-Made in Japan: Everyday Life and Consumer Taste in a Changing Society*, ed. Joseph J. Tobin. (New Haven: Yale University Press: 1992), p. 68.
3. Martin Heidegger. *The Question concerning Technology, and other Essays*, trans. W. Lovitt. (New York: Harper and Row, 1977), p.21
4. Jaques Ellul. *The Technological Society*, trans. John Wilkinson (New York: Knopf, 1964) See especially "Human Techniques".
5. Hans-Georg Gadamer. *Truth and Method* (New York: Crossroad, 1985), p.273
6. Paul Ricoeur. *History and Truth* (Evanston, Ill.: NorthWestern University Press, 1965), p. 274
7. "Postmodernism in a Nominalist Frame: The Emergence and Diffusion of a Cultural Category." *Flash Art*, 137, p.51.
8. For further discussion, see Alberto Perez-Gomez, *Architecture and the Crisis of Modern Science* (Cambridge, Mass: MIT Press, 1983), especially "Durand and Functionalism."
9. For the discussion related to history and styles see Stephen Parcell, "The Re-Creation of History." *Carleton Book*, ed. Stephen Parcell and Katsuhiko Muramoto (Ottawa, Canada: Carleton University, 1986), PP 41- 48.
10. Description of the video. *Tokyo: The Eclectic Metropolis*, from Films for the Humanities and Sciences.
11. This exhibition was held at Cooper-Hewitt Museum in New York City in 1979. The catalogue accompanied the exhibition was by Arata Isozaki et al., *MA: Space-Time in Japan* (New York: Cooper-Hewitt Museum, 1979)
12. Kojin Karatani, *Intercourse of Ideas*, "An Interview with Kojin Karatani by Sabu Kohso.
13. Antonin Raymond, "Turning Point in My Career," 19 February 1959, quoted in "Design from the Hearth; The Architecture of Antonin Raymond." *The Japan Architect 33* (1999): p.5.
14. Kenji Nishitani. *The Self-Overcoming of Nihilism*, (Albany, NY: State University of New York Press, 1990), p.179