

A COMPARATIVE STUDY ON THE IDEOLOGY AND METHODOLOGY OF CONTEMPORARY ARCHITECTS IN JAPAN AND CHINA IN SEARCH OF UNIQUE KANSEI TRAITS

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ABSTRACT

This study aims to identify the unique Kansei traits in Japanese and Chinese architecture, and how this knowledge can be used to promote a better understanding of the influences that promotes original designs. Architecture in Japan and China has been strongly influenced by western architecture since the 20th century. However, under the influence of western architecture and the internationalization of architectural style, architecture in both countries started losing cultural originality. This created a significant conflict in the Japanese and Chinese architectural worlds. This led to a movement by contemporary architects to seek originality without rejecting western style architecture since the 1960's in Japan and the 1980's in China. The historical background of contemporary architecture in Japan and China, along with the similarities, and the differences pertaining to the solution on how to express Kansei in Japan and China were examined. The results show that: 1) there is a difference between Japanese and Chinese architects' perception regarding time (age of architecture). 2) There is a difference between Japanese and Chinese architects' perception regarding space (Regional traits). 3) There is commonality that exists for the very traditional and original Kansei ideologies of *Kyo Sei*, *Tsyo Wa*, and *Tian Ren He Yi*. The differences between Japan and China about time and space are based on a "source (original sensibility in each country)". Comprehending this sensibility is an essential part of seeking the originality of architecture to create contemporary architecture in harmony with traditional Kansei elements.

Keywords: **Unique Kansei Traits, Japan, China, Ideology, Contemporary Architects**

1. INTRODUCTION

Since the 20th century, western architecture, especially European and American modern architecture became like the pronoun of modern architecture; thus, the modern architecture of Asian nations was widely influenced. Architecture in Japan [1] and China [2], like many other Asian nations, has been strongly influenced by western architecture since the 20th century. However, under the influence of western architecture and the internationalization of architectural style, architecture in both countries started losing cultural originality. This created a significant conflict in the Japanese and Chinese architectural worlds. This led to a movement by contemporary architects to seek originality without rejecting western style architecture in China since the 1960s in Japan and the 1980s in China (refer to 3. historical background). China takes pride in its culture and tradition as one of the Four Great Ancient civilizations. Japan is proud to be the leading financial power in Asia. Aspects of Japanese culture were inherited directly from China or indirectly through Korea. After inherited culture entered Japan, it was transformed to match the Japanese culture [3]. Japan and China share a deep connection that has produced commonalities, but likewise, there are some differences in architecture between China and Japan.

The concepts of time and space are vital ones in architecture. Chinese and Japanese architects differ in their way of thinking toward time (age of architecture) and space (regional traits); therefore, the expression of architectural form in those countries should be different. Logically, these differences should reflect the distinctive Kansei traits. Consequently, the main purpose of this study was to identify these unique Kansei traits, and then consider how to use this knowledge to create future original architecture.

“The word ‘Kansei’ has various interpretations and has been used in many studies related with not only design, but in other research fields as well. It is a word which inclusively involves the meaning of words such as sensitivity, sense, sensibility, feeling, aesthetics, emotion, affection and intuition” (Figure1) [4].

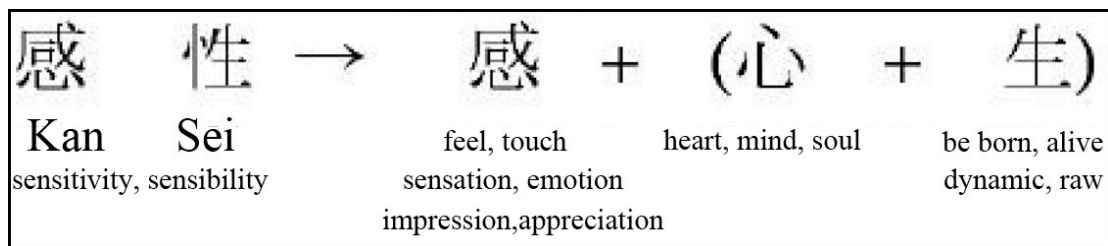


Figure 1: The Etymology of Kansei (by author)

Research Method

First, the authors examined the historical background of contemporary architecture in Japan and China for the similarities and the differences pertaining to the solution on how to express Kansei in Japan and China. Second, they determined a collection of architecture in a certain period in time to identify the unique Kansei traits, and selected six architects from Japan and China that would act as a standard. Third, they selected architectural works by

three Japanese (Kiyonori Kikutake, Arata Isozaki, Kisho Kurokawa), and three Chinese (Taining Cheng, Zhenyu Cai, and Jinqiu Zhang) for a comparative analysis. Fourth, the ideology and methodology of the individual architects was examined through a review of the pertinent literature. Since methodology is an expression of ideology, and a process of molding and theorizing, it was necessary to analyze the methodology to make the architecture ideology clearer. To enrich this analysis, representative works from cultural facilities were selected because there were few economical or political restrictions, which allowed the architects to have more self-expression. The fifth step was to organize 150 key sentences from the contents gathered through documents on ideology and methodology. The sixth step involved brainstorming with Japanese and Chinese students (architecture or design majors), divided into Chinese group and Japanese group. Two groups were given a summary of the research, photos of the architects' works, and the same key sentences. Then, they put key sentences in order, or grouped them according to tendency, rules, differences, or similarities. The final step was to analyze the results of the brainstorming session by classifying the differences between Japan and China that uncovered the unique Kansei traits. The knowledge resulting from this analysis creates a better understanding of the influences behind the creation of original architecture.

2. HISTORICAL BACKGROUND

The chosen architects from Japan and China are obviously culturally different, but their historical background is very similar. The Japanese architects were born from the 1920's to the 1930's, and graduated from college in the 1950's. The Chinese architects were born in the middle of the 1930's, and graduated from university from the 1950's to the early 1960's.

2.1. Resume of architects

Table 1 is an overview of the six architects and their works in Japan and China.

Table 1: Resume of architects

Country	Name	Born	Design works
China	Taining Cheng (Male)	1935-, Nanjing City	>Haining Museum, 2000 >Prisoner of War Hall (Jianchuan Museum Cluster), 1991 >Zhejiang Art Museum, 2007
	Zhenyu Cai (Male)	1936-, Changshu	>Shaoxing Grand Theatre, 2003 >Shanghai Zhi dan Museum, (under construction)
	Jinqiu Zhang (Female)	1936-, Chengdu City	>Shanxi History Museum, 1991 >Xi an History Museum, 2007
Japan	Kiyonori Kikutake (Male)	1928-, Kurume City	>Tojyo Civic Hall, 1966 >Shimane Prefectural Library, 1968 >The Tanabe Museum of Art, 1979
	Arata Isozaki (Male)	1931-, Oita City	>Oita Prefectural Library, 1995 >The Museum of Modern Art, Gunma, 1994 >Nagi Museum of Contemporary Art, 1994

	Kisho Kurokawa (Male)	1934-2007, Nagoya City	>National Museum of Ethnology, Osaka, Japan, 1977 >The Museum of Modern Art, Saitama, 1982 >Irie Taikichi Memorial Museum of Photography, 1991
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These contemporary designers were chosen in this comparative case study to provide distinct subjects to reveal the unique ideology and methodology behind the Kansei that exists in these two countries. These architects represent transitional periods from the 1960's in Japan, and the 1980's in China, and provide valuable insight into the solution sought in this paper through their attempts to discover an effective approach to make original architecture void of conflict.

2.2. Historical background of selected Japanese architects

Chinese culture was the mainstream until western culture infiltrated Japan in the Meiji Era (1868-1912, Emperor Meiji). Japanese architecture experienced two big turn points. The first one was during the Meiji Era when many western style structures appeared. The second was in the early days of the Showa Era (1925-1989, Emperor Showa) when the appearance of the architecture following the latest European trends in the 1930's began to take root. These two events reflect the core of modern architecture. Most of the structures that exist nowadays did not even exist in the imagination of architects until the second turning point. Architects took 70 years or more to try various possibilities to turn ideas into reality. The results of modern architects' imagination can be observed in the towns in Japan. Various changes seem to be the result from trying to attain fresh appeal each time. In fact, the changes that developed over time from the imported imitated western architecture developed naturally to meet the surroundings and Japanese Kansei [5].

In the 1950's, "Conflict about Tradition" by Kenzo Tange and Noboru Kawazoe argued how to connect modern architecture and Japanese traditional architecture. Japanese architects Kiyonori Kikutake, Kisho Kurokawa, Fumihiko Maki, Masato Ohtaka, as well as an architectural critic Kawazoe Noboru, published their manifesto "Metabolism" in 1960. According to it, "Metabolism" is the name of a group, which aims "to encourage active metabolic development of our society through our proposals" [6]. The root of "Metabolism" can be considered as metempsychosis of Buddhism. It is often regarded as a movement related to not only its official members, but also others as well, and has made a strong impact on the architectural world. Arata Isozaki insisted that the "Incubation Process (joint core system)" and the "Process Planning" theory (1963) are related to the continuing problem of architecture [7]. Though he is not an official member of "Metabolism" group, he used to be considered as "Post-Metabolism" designer.

2.3. Historical background of selected Chinese architects

Chinese modern architecture often manifested itself after the middle in the 20th century, which began as early as the 1940's. Architects searched for modernity from the 1950's to the 1980's. Through this period, many problems and lessons remained, especially from 1950's to the 1970's, under unique pressures from the government. However, Chinese modern architecture managed to evolve under this restrictive environment, such as control of design, and the lack of construction funds. Then, in the 1980's, the government's policy to support free market competition stimulated innovation in the economy; thereafter, Chinese modern architecture began a new age of development [8].

In the 1980's, the search of Chinese modern architecture entered a novel creative environment. Chinese contemporary architects could experience the best time since the formation of the republic. The architectural world was freed from a policy of restrictive politics and class struggle [9]. It is possible to see this transformation in the details in designs from this period. In the beginning, changes in small-scale traffic-flow architecture took on the form of modern architecture. In this type of architecture, function, flow-lines are more important than the traditional style. It fits in the ideal of modern architecture. Then, modern-style designs appeared in many types of construction [10]. Struggling through the conflict between Chinese tradition and western architecture, architects tried to discover an original style. After the 1990's, construction of cultural institutions like natural history museums and art museums became very popular. The three contemporary architects in this paper are good representatives for the creation of these cultural buildings.

3. IDEOLOGY AND METHODOLOGY

To summarize the ideology and methodology of three Chinese architects, there is a theory named *Tian Ren He Yi*, which represents the harmonies between people and all objects. In respect to the ideology and methodology of the three Japanese architects, the Metabolism Theory connects all of them. Though the attraction, viewpoint, and application of designs are different, the notion of “time” is the significant commonality.

3.1. Analysis of Japanese ideology and methodology

The Metabolism Architecture Theory by Kiyonori Kikutake literally means, “The space lets human beings metabolize”. Metabolism is a biological term that refers to the chemical process necessary to maintain life. If we consider architecture and death as part of the life developing process, then it is a logical step to introduce the metabolism method into design. Metabolism is environmental humanization. According to this theory, there should be a “Main Space” which is the center of attention and a “Dependent Space” that has flexible utility [11]. The lobby of the Shimane Prefectural Library (figure 2) is centrally located to connect the other rooms, and acts as the “Main Space”. The interior space follows the shape of roof. The reading room is made of units (one unit “L” shaped). These units make space flexible, so various interior layouts are possible.

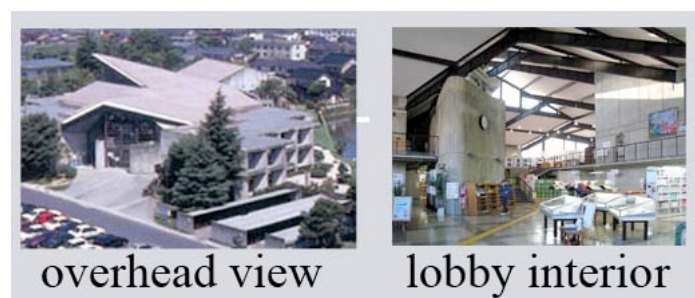


Figure 2: Shimane Prefectural Library (designed by Kikutake)

At about the same time, early in his career, Arata Isozaki adopted the Process Planning Theory, which has similar undertones as the Metabolism Theory of growth and death, but the following analogy illustrates the difference: A newly born city has as its fate—collapse. The ruins of a city are the future figures of our city, and the city of the future ruins itself, so

this kind of city lives a “short-term life”, emits energy, and then becomes material for rebirth again. Every suggestion and effort by humans is buried, and the incubation of culture is rebuilt in this cycle. That is the future [12]. The Oita Prefectural Library (figure 3) represents the Process Planning Theory. It emphasizes cross sections to disconnect time and make expansion possible without destroying the existing structure.



Figure 3: Oita Prefectural Library (designed by Isozaki)

Metabolism Theory by Kisho Kurokawa is “Moving Architecture”, which fits the modern society that is intensely changing and renewing. Growing architecture opens space previously reserved for enlargement and creates joint growth. Changing architecture, not only creates the materials, it also makes space that previously was easy to change. When introducing this form of metabolism, the main space is like the Master’s room in his castle, controlling the dependent space like the ones reserved for the servants. He also declared *Kyo Sei* (dictionary interpretation: intergrowth, paragenesis; symbiosis) [13] is a connection of opposites, contradiction, or competition with this concept [14]. The National Museum of Ethnology, Osaka, Japan (Figure 4) has a special video space that utilizes a special concept (capsule space, Figure 2, right). He declared, “This space represents cyborg architecture, in which humans, machines, and space make a new organism that exceeds antagonism” [15].

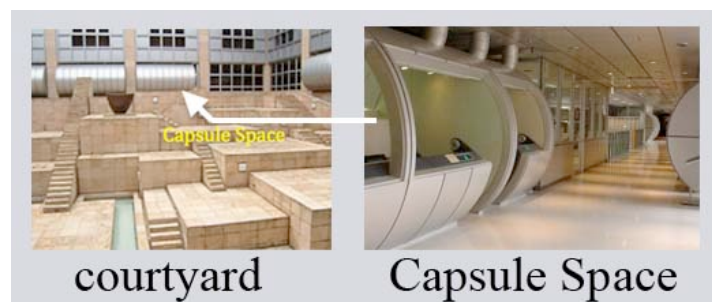


Figure 4: National Museum of Ethnology, Osaka, Japan (designed by Kurokawa)

3.2. Analysis of Chinese ideology and methodology

The central architectural theory of Taining Cheng is called “A Combination of Three”. The combination includes: 1) *Tien Ren He Yi*, (dictionary interpretation: theory that man is an integral part of nature) [13] which represents a perception mode about the universe and architecture. With this philosophy, Cheng tried to practice organic architecture from a macro-view. 2) *Li Xiang He Yi*, embodies the harmonies between rationality (ability to solve complicated problems) and inspiration (leading to creation). 3) *Qing Jing He Yi* characterizes the harmonies between emotion (subjectivity of an individual) and environments (free from

form). It is like “blank” and “vacant” in architecture [16]. From Cheng’s point of view, he believes that simplicity, symbolic nature, naturalness are the three basic elements of Chinese traditional painting, called “Shan Shui Hua” (dictionary interpretation: mountains-and-waters painting; landscape painting; landscape) [13], which expresses the subject matter by using only monochrome tone. These are the source of Cheng’s ideology, and practiced in his works.

He designed Zhejiang Art Museum like a Shan Shui Hua painting to match the natural lines as it merges with Lake Xi Hu. This design with its complicated glass roof emphasizes the horizontal lines (Figure 5). Though it is modern, it maintains a traditional drawing with its gray-based appearance of a traditional house in Hunan China.



Figure 5: Glass roof of Zhejiang Art Museum (designed by Taining Cheng, photo by author)

Zhenyu Cai insisted that the root of the Chinese architecture is the culture. Humans and nature are the same, and they influence each other through a composed state of harmonization. This harmonization is the source of development in the whole universe, and a quintessence of Chinese traditional culture. We should respect the natural environment when using and remodeling it [17].

Cai’s use of *Tien Ren He Yi* represents harmonies with nature, symbiosis, and regeneration. The motif of Shaoxing Grand Theatre (Figure 6) is a traditional boat called “Wu Peng Chuan”. This design recreates the symbol of the region, its history, and the culture.

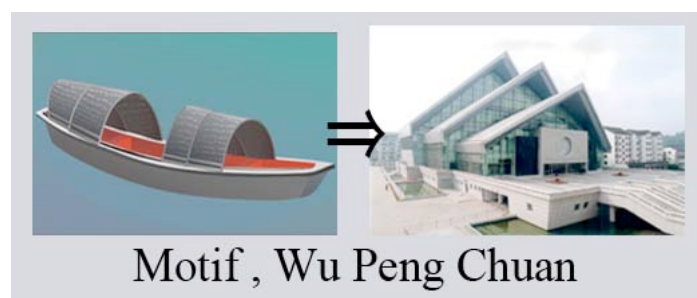


Figure 6: Shaoxing Grand Theatre (designed by Zhenyu Cai)

Jinqiu Zhang interpreted *Tien Ren He Yi* in a classic way. It includes Chinese traditional theory called *Feng Shui*. She thinks architecture design includes function, sculptural art, and spatial art. She asserts traditional space recognition has four points: 1) *Tien Ren He Yi* signifies the harmonies between human and nature; group and the individual; 2) Harmony

between void and solid; 3) Unity of time and space; 4) Harmony between emotion and landscape [18].

Shanxi History Museum (figure 7) embodies the harmony of Chinese traditional style and western style (permanent stone image). The layout is applied on the axis line symmetry. Made an order of Main and Following space.



Figure 7: Shanxi History Museum (designed by Jinqiu Zhang)

3.3. Analysis of key sentences

The brainstorming sessions of the 150 key sentences related to the six architects' ideologies and methodologies produced four categories. Type 1 is the tendency to talk about space as an abstract concept. Some examples are; "Operation of traditional space consideration and Chinese garden creation"; "Planning by the principle of the Chinese traditional painting"; "Architecture is an art that is mortifying"; and "The root of Chinese architecture is the culture". Type 2 relates architecture to space itself, and focuses on function. Phrases like; "Classification of king's space and servant's space"; "The function is examined by the unit of the space"; "The pillar gives space to a place"; and "Create organic structure of space" were identified. Type 3 emphasizes the existence and action of time. Examples include; "Admit it is natural to change, but demand unchangeable ones"; "Create connections for further growth"; "Develop the advancement of architecture"; and "Architecture as the device of the metabolized environment". Type 4 is the inclination to refer to unity and harmony. Expressions include; "Reorganize the contemporary, western, traditional and Chinese"; "Create harmony between people and all objects"; "Architecture is a process of coexistence"; and "A symbiosis that holds confrontation and contradiction".

4. DIVERGENCE AND COMMONALITY OF SELECTED ARCHITECTS

4.1. Difference between Japanese and Chinese architects' perception of time

Japanese architects consider time and the environment as parallel. Time is independent, and has a definite beginning and end. This is reflected in the ideology of "Metabolism" and "Process Planning". The root of the Metabolism is an idea that is shared with Buddhism, and it is about time circulating consistently. If the Metabolism is about consistently circulating time, Process Planning is about the start and the end of time. "Process Planning" is a methodology of the plan at the stage that acts as time's invading existence, rotating existence, and making them finally disappear, or become transfigured. According to Arata Isozaki, "Japanese architects tend to consider time like monism."

However, Chinese architects consider time to be a part of all aspects of nature, and included in all existence. Jinqiu Zhang stated, "In Chinese tradition, time and space are indivisible; integrated like the rhythm of music". Chinese appear to try to find something that transcends time. It is said, "The architecture of China had already been concluded 2,000 or 3,000 years before." *Tian Ren He Yi*, which represents the harmonies between people and all objects, is the prime theory in China. It is also connected to the theory of Chinese traditional drawing. Time flows, but it is also like a single photo or frame in a movie, and the Chinese try to capture this "moment".

4.2. Difference between Japanese and Chinese architects' perception of space

Chinese architects consider space as an abstract spirit or image. Space can be a part of the architecture, but it is more than just a physical state, it takes on the soul of architecture. Japanese architects consider it as an element, which is physical and functional. It is more detailed and elementary.

The following key sentences from Japanese and Chinese architects reveal significant differences in the approach to the space of "Main" and "Following". Jinqiu Zhang stated; "The order of Main and Following is applied on the axis line symmetry". Kiyonori Kikutake approach is "To classify Main Space and Dependent Space". Kisho Kurokawa said it is "To classify the King's Space and the Servant's Space". He continues to explain, "Main Space is a part of the space that is usable even if the functions are different". "Dependent Space is a part of space which is added or thrown away depending on the occasional function." It is similar to "King's Space" and "Servant's Space", concerning function. However, the Main and Following space by Jinqiu Zhang is about spiritual aspect and relationship (authority, class).

4.3. Commonality of original Kansei ideologies

Kisho Kurokawa stated; "The ideology of the Orient is a combination of the mind, the universe, Earth, and humans." It is the basis of *Kyo Sei* Theory. In addition, it is similar to the traditional idea in China *Tian Ren He Yi*. Zhuangzi in ancient China originally described the universe, Earth, and humans as corresponding to the natural world. It is altered more by the period, or the situation. *Tian Ren He Yi* introduced in this study, is the foundation of the Chinese classics philosophy. Simply stated, humans are in harmony with the universe.

5. CONCLUSIONS

This study brings out the commonality that exists for the very traditional and original Kansei ideologies of *Kyo Sei*, *Tsyo Wa*, and *Tian Ren He Yi*. *Kyo Sei* reflects the symbiosis-fusion for even opposing factors or inconsistencies. *Tsyo Wa* refers to the harmony existing together without conflict. *Tian Ren He Yi* represents the harmonies between people and all objects. The results show that there is a difference between Chinese and Japanese architects' perception of time and space. *Kyo Sei*, *Tsyo Wa*, and *Tian Ren He Yi* became the "source" of common Kansei of the six architects introduced in this paper. The differences between Japan and China about time and space became the "source" of the different Kansei. Comprehending this sensibility is an essential part of seeking the originality of architecture to create contemporary architecture in harmony with traditional Kansei elements.

6. FUTURE STUDY

This broad ranging study was not intended to focus on individual contemporary architects, but to provide architects in China and Japan with a paradigm of the differences between China and Japan related to time and space, and the commonality that exists for the very traditional and original Kansei ideologies. There are many cultural facilities to choose from, but the selected ones were used in hopes to make the analysis of ideology clearer. The next step of the present study will focus on the differences related to time, determine the kind of changes and influences that exist, and the complex intertwining of ideologies. Then, clarify how they are expressed and used in practice in architecture, or in an urban environment.

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Figure 2: Zukan, <http://pds.exblog.jp/pds/1/200705/04/97/a0074197_23242570.jpg>, [accessed 2009 Dec 28]

Figure 4: Introduce Architecture (ARC STYLE),

< http://www.arcstyle.com/img/osaka/minzoku_museum04.jpg >, [accessed 2009 Sept 1]

Figure 7: Xi An Feng Guang,

< <http://www.dlgallery.com.cn/xian/fengguang/0.htm>>, [accessed 2009 Dec 28]