博士論文

Distinctive Features of Japanese Architecture and What Is at the Root of Japanese Creativity

（日本建築の特質そして創造性の根底にあるもの）

Subtitle：Parts Precede the Whole

（副題：部分から全体へ）

枝川裕一郎

Table of Contents

Chapter 1. Aim of Study

1－1. Introduction …… 1
1－2. Aims and objectives …… 4

Chapter 2. Characteristics of Japanese Architectural Creativity

2－1. Intimacy with nature …… 7
2－2. Importance of materials …… 16
2－3. Simplicity and denial of ornamentation …… 25
2－4. Craftsmanship and skill of master woodworkers …… 32
2－5. Bipolarity and diversity …… 41
2－6. Spirit of coexistence …… 50

Chapter 3. Characteristics of Japanese Architectural Composition

3－1. Asymmetry …… 58
3－2. Culture of addition …… 67
3－3. Devotion to small space …… 75
3－4. Organic form …… 84
3－5. Sense of “oku” …… 94
3－6. Do not show the whole …… 104

Chapter 4. Formative Development from Parts

4－1. Parts precede the whole …… 111
4－2. Compositional principles …… 124

Chapter 5. What Does “Parts Precede the Whole” Accomplish?

5－1. Case studies …… 137
5－2. My design work on Nibancho Garden …… 153

Chapter 6. Summary

6 － 1 . Outcomes of study …… 164
6 － 2 . Afterword with diagram …… 169

List of references cited, illustrations cited and photo credits …… 171

List of reference books …… 177

Personal career and major works/ Y. Edagawa …… 181

Chapter 1. Aim of Study

1-1. Introduction

In 2008 in Germany, I published a photo and interpretation book titled "Japanese Identities – Architecture between Aesthetics and Nature" (Note 01) introducing Japanese architecture to a worldwide audience in the English and German languages. The first page opened with the following photograph and words:

This is the place where it all started. A few years ago, I had the chance to visit the ancient city of Nara, and I visited this very spot. This is one of the most representative settings for a scenic encounter with Nara. Looking up at the Pagoda, I was astonished by its beauty: the originality and harmonious beauty of its form, the tactful use of natural materials, and the rationality of its structure. I was so proud to notice the essences of the ancient Japanese people's creativity. I will never forget the strong feeling that welled up within me, to introduce to a worldwide audience what Japanese people once created.

(Five-story Pagoda, Kofukuji Temple, Nara)

The publication was my humble attempt to show people overseas the beauty and magnificence of Japanese architecture. In the foreword of the book, I emphasized the following:

I am to introduce scenes created by Japanese people,
* which are characteristic of Japan.
* which show the original creativity of the Japanese.
* which have cultural and/or historical impacts.
* and which I consider to be beautiful.

In the book, I selected 80 representative Japanese architectural scenes. Each scene is introduced with photographs that I have personally taken, and by text giving explanations and information of the object featured in the photograph.

Refer to the double pages coming up next. (Fig. 00) By plotting each building that I selected together with the matrix analyzing period and building use, we can sense the tide flowing from the ancient era in the upper left to the present day in the lower right. This is the main point that I wanted to emphasize.

Observing a number of old and new buildings in detail, I cannot help but sense a certain power such as tradition continuously streaming through them. It is the inner sensibility of the Japanese, which might be an inherited gene and DNA among us. There is an apparent commonality in what the Japanese regard as beautiful, comfortable and what holds us in awe. These are "Japanese Identities," and their features in architecture are exactly what I aim to study.

Now, how can I describe and explain what they are? In this thesis, I would like to focus on Japanese architectural artifacts that strongly exemplify "Japaneseness." I would like to grasp the whole picture and come up with informative descriptions and clear explanations. My strong desire for the logical development of this issue is the exact starting point of this thesis.

For this purpose, I will refer to distinctive Japanese characteristics that are the sources of architectural Japaneseness. I will deepen the studies on the relativity of these characteristics and what are behind Japanese-like perceptions. Furthermore, I will try to refer to what kind of architecture these characteristics would lead to.

This thesis deals with the whole of Japanese architecture, which is, in a sense, too arrogant a claim for a single thesis. I will study the characteristics of Japanese architecture, which I call "Japanese Identities," mainly using photographs I have taken myself. This will result in a thesis based on my image of the characteristics of the object featured in the photograph. It can be said that this is a thesis that deals with the image of the Distinctive Features of Japanese Architecture.

CHRONOLOGICAL TABLE OF ARCHITECTURE AND CREATIVITY DEVELOPMENT IN JAPAN (78)

Western World	Year	Temples (9)	Shrines (7)	Pagodas (6), Castles (4)	Gates, Bridges (9)	Gardens (10)	Townscape (12)	Villages, Houses (11)	Contemporary (10)
Hagia Sophia, Istanbul (537) Sant' Apollinare in Classe, Ravenna (549)	600								
	700	Hôryûji Temple, Nara (607)	Izumo-taisha Shrine, Shimane Isejingu Shrine, Inner Shrine, Ise						
Palace Chapel, Aachen (792–)	800	Tôdaiji Temple, Great Buddha Hall, Nara (751)	Shimogamo-jinja Shrine, Kyoto	Yakushiji Temple, Eastern Pagoda, Nara (730)					
Santa María del Naranco, Oviedo (848)	900		Yahiko-jinja Shrine, Niigata						
	1000			Daigoji Temple, Five-story Pagoda, Kyoto (952)					
Piazza San Marco, Venizia (1085) Tower of London (1093–)	1100	Byôdôin Temple (Phoenix Hall), Kyoto (1053) Sanbutsuji Temple, Nageiredô Hall, Tottori							
Notre Dame, Paris (1163–)	1200		Itsukushima-jinja Shrine, Hiroshima (1168)	Ishiyamadera Temple Tahôtô, Shiga (1194)	Tôdaiji Temple, Great South Gate, Nara (1199)				
Alhambra, Granada (1232–) Santa Maria del Fiore, Florence (1296–)	1300								
Duomo, Milano (1386–)	1400	Kinkakuiji Temple (Golden Pavilion), Kyoto (1398)	Udamikumari-jinja Shrine, Nara (1320)	Shurijô Castle, Okinawa	Tôfukuji Temple, Tsutenkyo Bridge, Kyoto (1380)	Saihôji Temple (Moss Temple), Kyoto (1339)			
	1500	Ginkakuji Temple (Silver Pavilion), Kyoto (1489)		Kôfukuji Temple, Five-story Pagoda, Nara (1426) Rurikôji Temple, Five-story Pagoda, Yamaguchi (1442)		Ryôanji Temple, Rock Garden, Kyoto (1499)	Tower of Yasaka and Vicinity, Kyoto (1440)		
St. Peter's Cathedral, Rome (1506–) The Louvre, Paris (1546–)	1600	Kinpusenji Temple, Zaôdô Hall, Yoshino (1592)		Matsumotojô Castle, Matsumoto (1593)	Ujibashi Bridge, Ise	Daitokuji Temple, Daisenin Rock Garden, Kyoto (1509)			
Saint Paul's Cathedral, London (1675) Palais du Versailles (1681)	1700	Kiyomizudera Temple, Main Hall, Kyoto (1633) Hônenin Temple, Kyoto	Nikkô Tôshôgû Shrine, Tochigi (1634–)	Hikonejô Castle, Shiga (1606) Himejijô Castle, Himeji, (1609) Tôji Temple, Five-story Pagoda, Kyoto (1644)	Sensôji Temple, Kaminarimon Gate & Nakamise, Tokyo (1635) Nikkô Shinkyô (Sacred Bridge), Tochigi (1636) Kintaikyo Bridge, Iwakuni (1673)	Katsura Imperial Villa, Kyoto (1616) Shûgakuin Imperial Villa, Kyoto (1659)		Ouchijuku Post Town, Fukushima	
	1800				Fushimi-Inari-taisha Shrine, Senbon Torii Gate, Kyoto	Kôrakuen Garden, Okayama (1700) Ritsurin-kôen Garden, Takamatsu Kenrokuen Garden, Kanazawa	Sannenzaka Slope, Kyoto Gion Shirakawa District, Kyoto	Gokayama Gasshô-style Houses, Toyama Takayama Yoshijima Residence, Gifu Tsumagojuku Post Town, Nagano	
Parliament, London (1860) Eiffel Tower, Paris (1889)	1900				The University of Tokyo, Akamon (Red Gate), Tokyo (1827)	Isuien Garden, Nara (1899)	Passage to Nigatsudô Hall, Nara Higashi Kuruwa, Kanazawa Ômihachiman Moat and Townhouses, Shiga Philosopher's Walk, Kyoto	Kurashiki Canal & Merchants' Houses, Kurashiki Nagamachi District, Kanazawa Dôgô Hot Springs Bathhouse, Matsuyama (1894)	
Stockholm City Hall (1923) German Pavilion, Barcelona (1929) Empire State Building, New York (1932) Potsdamer Platz, Redevelopment, Berlin (1991–)	2000				Sagano Bamboo Forest, Kyoto	Adachi Museum of Art, Shimane (1970)	Hôzenji-Yokochô Alley, Osaka, Hiroshima Peace Memorial Genbaku Dome, Hiroshima (1945) Dôtonbori Street, Osaka Tokyo Tower, Tokyo (1958)	Taketomijima Island, Okinawa Kitano District Foreigners' Houses, Kobe Kinosaki Hot Springs, Hyogo Hoshinoya Karuizawa, Nagano (2005)	Yoyogi National Gymnasiums, K. Tange, Tokyo (1964) Nara Prefectural Office Bldg. Nara (1965) Nago City Hall, Team Zoo, Okinawa (1981) Chapel on the Water, T. Andô, Hokkaido (1988) Toyota Municipal Museum of Art, Y. Taniguchi, Aichi (1995) Makino Tomitarô Memorial Hall, Kôchi (1999)
							Marunouchi Central Business District,Tokyo		Sendai Mediatheque, T. Ito, Sendai (2000) Batô Hiroshige Museum of Art, K. Kuma, Tochigi (2000) 21st Century Museum of Contemporary Art, SANAA, Kanazawa (2004) The National Art Center Tokyo K. Kurokawa,Tokyo (2006)

Fig.00

1-2. Aims and objectives

The main purpose of this thesis is to study the distinctive features of Japanese architecture, namely, Japanese Identities in architecture, and make clear the following points:

(1) To organize existing ideas and studies on distinctive features of Japanese architecture.

(2) To come up with new relations and interpretations between and behind these features, through new comprehensive and bird's-eye views, in addition to the individual perspectives of existing ideas and studies.

(3) To create a more essential understanding of Japanese Identities through new interpretations and viewpoints.

(4) To verify what kind of architecture Japanese Identities would create.

(5) To find a way to interpret and explain Japanese Identities as a whole.

These are the main focus points of this thesis. Furthermore, the points of consideration in particular are as follows:

- When we talk about the distinctive features of Japanese architecture, it is likely that basic attitudes of creation, such as intimacy with nature and emphasis on natural materials, and morphological features, such as asymmetry and organic forms, are pointed out. Sometimes the peculiar sensitivity of the Japanese, such as the concept of "oku (inner space)," is referred to. Furthermore, in the background of these features, "certain Japanese ways of thinking and perceiving" seem to influence them greatly. How can we describe what they are?

- When we discuss the "certain Japanese ways of thinking and perceiving," we should refer to "A History of Japanese Literature" by critic and author Shuichi Kato. (Note 03)

This book is a masterpiece that describes the dynamism of Japanese mental activities, and refers to the innermost depths of the heart of the Japanese and their indigenous views of the universe. It has been translated into many languages, including English, French, German, Italian, Chinese and Korean, and is regarded as a must-read in the study of Japanese culture. What Kato describes is extremely suggestive for consideration of the characteristics of architectural space.

Furthermore, Kato, in his later work, "Time and space of Japanese culture" (Note 04), in which he summarized what he had in mind on this subject, says:

> The Japanese look at the total world from "here," they do not look "here = a part of the world" from the total world order. The whole is created by piling up parts rather than coming up with a pile of parts by dividing the whole. Namely, parts precede the whole.

□ This idea is the same as my own understanding of Japanese architecture. That is to say, Japanese architecture in general, "develops from parts to a whole not from a whole to parts." The Japanese process of creation starts from parts and ends up as a whole combining them. Namely, it bears the characteristic that "parts precede a whole"

In this thesis, I will proceed with my studies focusing on the characteristic that "parts precede a whole" by asking the questions "what does it mean?" "how is it brought about?" "what influence does it have?" and "what results does it bring about?" I will deepen my studies on the structure of Japanese architectural creation and its background, through analyzing and verifying Japanese architectural sensitivity, the ways of creating ideas, and outcome forms and characteristics. Thus, I will find a route to explain the distinctive features of Japanese architecture, namely, "Japanese Identities."

- Many architects and scholars have studied the Japanese way of design, but it is likely that they were made respectively and separately. In this thesis, through my comprehensive and bird's-eye views, I will try to organize existing ideas and studies, and attempt to describe the various features in a parallel and crossing manner. This is the basic approach and a new point of interest of this thesis.

Chapter 2. Characteristics of Japanese Architectural Creativity

2-1. Intimacy with nature

One of the most distinctive features of Japanese architecture is no doubt its close relationship with the surrounding natural environment. Architecture, in harmony with its natural surroundings, is treated as if integrated with them. Japanese architecture is not intended to surpass nature, but it can be said as to coexist with nature. This is to say, in general, nature in Japan is gentle and people appreciate most of the gifts of nature, and therefore our ancestors followed the way of symbiosis with nature. This is in great contrast to architecture in the Western World, which tends to be isolated from nature and appears to want to assert itself over nature.

Hirotaro Ota, in his work "Characteristics of Japanese architecture" (Note 05) describes Japanese architecture as follows:

"Japanese architecture is not intended to confront nature but, although it is man-made, it is considered to be just a tiny scene of nature like a tree."

"Japanese architecture shows a humble stance with its friendly attitude with nature rather than its strong presence as an individual. What Japanese architects aimed for was not a highlighted imposing structure, but a humble structure harmonizing with nature."

What do Japanese people look at and feel when they stand in front of an architectural structure? Ota's description (Note 05) follows:

"Here is a famous waka poem by the 12-century monk Saigyo Hoshi. This poem was read when he visited the Grand Shrine of Ise:

"*nanigoto no owashimasu kawa shiranedomo, katajikenasa ni namida koboreru* (loosely: I do not know what god there is, but feeling utterly blessed, I am deeply moved to tears)."

"What impressed Saigyo so deeply? Was he moved by the beauty of the architecture itself, which was described by Bruno Taut as "the greatest piece of creative architecture in the world"? Probably not. More likely, he was impressed by the thick cedar grove, the simple shrine building made

of plain wood and moreover, the harmony between the architecture and its environment."

Thus it is needless to say that Japanese architecture bears great relevance to the surrounding environment and has a strong symbiotic attitude to nature. And it is natural that this symbiotic attitude to nature, in the process of creating each piece of architecture, leads to more attention being paid to each part of the structure so that it may adapt to the surrounding nature. In this section, by studying various pieces of architecture that are nature symbiotic, I attempt to study the basic influences that are brought about by the symbiotic attitude of the Japanese to nature.

2-1-1. Nageiredo Hall, Sanbutsuji Temple, Tottori Prefecture

This is a most typical example of Hirotaro Ota's description, namely, "an architectural structure showing a humble stance with its friendly attitude toward nature rather than its strong presence as an individual."

Photo 01: Nageiredo Hall, showing its harmonious relationship with nature

(built around 1100 AD, location: Misasa-cho, Tottori)

This is one of the most representative examples, which clearly shows the harmonious relationship between nature and Japanese architecture. The hall stands in a natural cave half way up the steep cliff of a sacred mountain. "Nageire" means "to throw in." It is not certain how this hall was built, but legend has it that after being built on level ground, it was thrown into the spot where it stands by the dharmic power of the founder En no Gyoja. Ancient Japanese mountain worship was combined with Shinto and

foreign Buddhism, and temples were built on steep mountains so that the priests would endure ascetic lives.

The hall was built in the graceful Heian Period (794-1185) style, a characteristic of which is the elegantly curved roof. On the other hand, the length of various pillars supporting the hall well expresses the powerful and wild nature of this peculiar architectural structure. A close study of the wood used for the building and the statues inside made it clear that the hall was built in the second half of the 11th century.

Built in a natural cave, the hall has not been exposed to rain, snow or strong winds. Due to the fact that the cliff faces north, the adverse effects of sunlight have also been avoided. Thus, the hall has survived for a thousand years and is now designated as a National Treasure.

On my visit to the site, I recognized that it is certainly a Buddhist hall and representative of Buddhist architecture. But from its appearance, nestling in nature, its existence as a piece of architecture was so obscure. Rather, in response to various requirements that nature imposed, it is clear that the building exists as a result of assembling its parts, each of which conforms to natural conditions.

2-1-2. Yahiko-jinja Shrine, Niigata Prefecture

This worship hall exists in complete unity with the holy mountain in the background. It is composed as if it were the point of contact with God.

Photo 02: Worship hall of Yahiko-jinja Shrine and holy Mount Yahiko
(rebuilt in 1916, location: Yahiko Village, Niigata Prefecture)

Visiting Yahiko-jinja Shrine for the first time, I was strongly impressed by the intimate relationship, illustrated in this photograph, between the mountain in the background and the shrine buildings. The mountain and

the worship hall seemed to be in complete unity, and when I prayed to the God Ame no Kagoyama no Mikoto, I felt strongly that I was praying to the sacred mountain. At 638 meters high, Mount Yahiko is within the sacred boundary of the shrine, but moreover, it seemed as if the mountain itself were the principal image of the shrine.

Being polytheistic, the Japanese tend to cherish holy feelings for high mountains, huge rocks, tall trees, etc., as well as supernatural phenomenon. Thus, it was typical for a shrine to be built at the base of a distinctive mountain; together they create a more divine atmosphere with synergistic effects.

Here, the architecture emphasizes the holy existence of the mountain and it is merely a part of the whole composition. The attitude that treats architecture as a part of a whole rather than a leading role, greatly influences the way of existence as an architectural structure.

2-1-3. Gokayama Gassho-style Houses, Toyama Prefecture

Overall view shows a typical small mountain village, formerly found all over Japan, which brings to mind a kind of yearning.

Photo 03: Aikura community in Gokayama

Gassho-style is highly rational, having a strong structural design, and at the same time providing ample space inside for daily living and working.

Photo 04: Gassho-style houses in Gokayama

Here is a small village in the rural mountains where there are 20 characteristic Gassho-style houses. Most of them are 100 to 200 years old, but the oldest is said to date back 400 years. The overall view shows a typical small mountain village, formerly found all over Japan, which brings to mind a kind of yearning.

Gassho means to clasp one's hands, and this is meant to express the characteristic shape of each house's enormous roof. The roof slopes at an angle of about 60 degrees, which means the snow easily slides off. The roof frame is lashed together, with rope and twisted hazel boughs, and no nails are used. Architecturally, Gassho-style is highly rational, having a strong structural design, and at the same time, providing ample space inside for daily living and working (with three attic floors).

In these Gassho-style houses, symbiotic lives are possible through the efforts to comply with natural laws, the use of natural materials and a rational way of life. As a matter of course, their lifestyles would lead to considerations of how the parts of a building should be related to their daily activities, how they could construct a building utilizing natural materials, rather than how the building should be as a whole. Their way of thinking would certainly have great influence on the parts precede the whole architectural design process.

2-1-4. Nomura Residence in Nagamachi District, Kanazawa, Ishikawa Pref.

Photo 05:Nomura Residence in Nagamachi District

Eaves and "engawa (veranda)" achieve an intimate relationship between inside and outside. The building is "ganko"-shaped (flight form of wild geese), seeking an extension of contact with the outdoors. The design of each part of the building is more important than the overall shape of the whole.

In the heart of Kanazawa, only a 10-minute walk from the busiest city center, one will find this quiet, rather sentimental quarter. Several hundred years ago, in feudal days, middle-class samurai lived here. The continuous thick earthen walls preserve the characteristic atmosphere of a samurai housing district.
Within this district, a charming garden is preserved at the former residential site of the Nomura Family, one of the samurai leaders. This Edo Period home offers an enclosed garden with waterfalls and a carp pond extending below the "engawa (veranda)" of the main guest room. The garden is completely hidden — enclosed by the walls as a perfect garden sanctuary. The Journal of Japanese Gardening ranked this garden as No. 3 in Japan, after the Adachi Museum of Art and Katsura Imperial Villa. Here, one can realize just how intimate with nature the Japanese way of living has been. Inside and outside boundaries are so ambiguous.

When I put myself in this space, I strongly feel that Japanese architecture is meant to be created from its parts in relation to the surrounding nature, without being conscious about architecture as a whole. Existence and insistence as a whole are so vague. Sitting in this space, I will never be conscious of the overall shape of the structure.

2-1-5. Isuien Garden, Nara

This is a strolling type of garden with changing views as the walk progresses. The garden as a whole is an outcome of various components such as architecture, a pond, a bridge, trees and flowers.

Photo 06: Isuien front garden (completed around 1670)

It is difficult to identify the boundary between the garden and the "borrowed scenery." The garden is completely incorporated into the surrounding natural environment.

Photo 07: Isuien rear garden (completed around 1900) and "borrowed scenery"

This is a secret spot in Nara where one can enjoy utter quiet and solitude because it is not so well known. The garden consists of two parts, the front garden (completed around 1670) and the rear garden (completed around 1900).

The front garden is a strolling type of garden with changing views as the walk progresses. The rear garden is a superb example of incorporating "borrowed scenery." The two gardens are connected by a narrow pass and visitors are surprised by the sudden widening of the vista as they approach the rear garden. The roof of the Great South Gate of Todaiji and the multiple layers of green mountains in the background offer wonderful views, which have probably been the same since the completion of the garden.

In order to appreciate a Japanese garden, it is essential to sharpen the senses, take time, relax and contemplate whatever thoughts arise. Therefore, it is very important to sit down and be comfortable, and to enjoy a cup of tea or even a tea ceremony in the open air, in order to truly experience the essence of a Japanese garden, namely, the condensed world of nature.

The rear garden is a typical borrowed scenery garden. It is meaningless to distinguish borrowed scenery from the actual garden. While the garden is completely artificial, it is impressive that its creation is so natural that it is fully integrated with the natural scenery. In the case of a borrowed scenery landscape, the garden design is merely a part of the whole scene.

2-1-6. Nago City Hall, Okinawa Prefecture

This is a city hall building in Okinawa. Its distinct façade — with "shisa" (a guardian decoration) and a pink exterior finish — is very impressive. Since its completion 35 years ago, the pink has faded slightly, which has resulted in a nice harmony with the deep green of the surrounding trees. Gentle and comforting breezes flow through the open-air corridors and terraces that connect all of the offices in use.

The human-scale divided façade creates intimate atmosphere.

Photo 08: Nago City Hall surrounded by thick green trees
(completed: 1981, location: Nago, Okinawa, Architect: Team Zoo)

The distinct façade with "shisa" (guardian decorations) and a pink exterior finish using local materials

Photo 09: Exterior finish utilizing local color blocks

Team Zoo, the architects who won the competition for Nago City Hall, practice their design work according to unique design principles, including expressing local identities, stimulating the five human senses, and enhancing and enjoying nature. Thus, their design for the building featured distinct characteristics, which were highly admired by other architects who were facing the limits of functionalism and rationalism in modern architecture. To care for and emphasize the localities was the breakthrough that everyone had been looking for.

Ecological features such as deep eaves to cut strong sunlight, maximum-height windows and openings to let in natural wind, open-air corridors for natural ventilation, and terraces and roof gardens to cut heat loads, etc., are the fundamentals of the design. All of them are clearly shown on the photo.

Photo 10: Ecological features of Nago City Hall

Moreover, during the early 1980s, Team Zoo was trying to design a building with as many ecological features as possible: deep eaves to cut strong sunlight, maximum-height windows and openings to let in natural wind, open-air corridors for natural ventilation, and terraces and roof gardens to cut heat loads, etc. Team Zoo was able to achieve all of these ideas from the very beginning. Here, they included their design intentions in every part of the building, and succeeded in completing such a charming piece of architecture as a whole.

So far, I have described how Japanese architecture has maintained a symbiotic approach to nature through history. The nature of Japan — its landscape, terrain, climate, seasons of the year, vegetation, etc. — are extremely diverse and the situations vary infinitely. In order to coexist with nature, an architectural structure must adapt itself to change and its location. Therefore, a piece of architecture must not seek a uniform figure as a whole, but its parts should cope with the given circumstances. It is obvious that these conditions will lead to the consideration that individual parts of a structure have priority over the structure as a whole. Nature is an aggregate of various components. To maintain a harmonious relationship with nature, each part of an architectural structure must be compatible with the diversity of nature. One cannot create a structure that is symbiotic with nature without paying the most precise attention to every part of it.

2-2. Importance of materials

A few years ago, Japanese food, namely, “Japanese traditional food culture,” was registered as a UNESCO Intangible Cultural Heritage. The essence of the exquisite charm of Japanese cuisine is being able to enjoy the taste of the ingredient itself, to take advantage of the appearance, fragrance and feeling on tongue of the ingredient as it is, through the five senses. Japanese people use the very best ingredients, with no processing at all, and this is a typical example of the active sensitivity of the Japanese. On the other hand, for example, in French cuisine, because many ingredients are braised with a lot of spice, we can hardly tell what they are. It is likely that the ingredient does not keep its original form. As in the case of cuisine, the handling of materials thus differs greatly in Japan and in the West. Do we live in accordance with nature or with an overbearing attitude toward nature? The difference in our way of life leads to characteristic contrasts.

I will look at how these differences appear in the field of architecture. In the following examples, I will refer to how each architectural material is handled and, as a result, what kind of architecture is created utilizing those materials. Through comparisons of Japanese and Western examples, I will try to examine how particular the Japanese have been about materials themselves.

▫ Townscape of two medieval towns

(① The Japanese being particular about materials themselves)

Most of the buildings in the town are wooden structures, nonetheless they are completely covered by colorfully painted plaster. As a result, they lack the characteristics of natural wooden buildings.

Photo 11: Rothenburg, Germany

Here it is clear how the Japanese insist on wood; characteristic lattice works continue on both sides of the street. Painted in a blackish color that is a mixture of red iron oxide and persimmon soot, the buildings preserve the goodness of wood as it is.

Photo 12: Sanno-machi, Takayama Gifu Pref.

Sanno-machi had developed as a merchant town at the center of Takayama castle town, which was called the "Little Kyoto of Hida." As evidenced by the fact that it has been designated as a "Preservation District for Groups of Traditional Buildings" by the Japanese government, the district conserves its buildings and townscape from the late Edo Period.

On the other hand, the old town of Rothenburg in Germany, also known as a medieval jewel, preserves the exact townscape after achieving postwar reconstruction. Because Rothenburg is close to the rich timber producing areas Schwarzwald (the Black Forest), it has a lot of wooden structures, that are similar to Japanese culture, but the design appears to be totally different.

In Western Europe, wood is mostly covered by colorfully painted plaster while in Japan, the wood itself is highlighted by the characteristic design of woodwork and the overall simplicity plays the key role. By comparing these two, it can be seen that there is a great difference in the way they handle and insist on materials.

⊡ Handling of exterior finishing materials
(② Each material insists upon its presence)

It is surprisingly colorful and beautiful. This is why it is referred to as the “Cathedral of the Flower.” The exterior wall is covered with finely cut pieces of colored marble that are treated just as colored pieces, with no claims as stone material.

Photo 13: Santa Maria del Fiore, Firenze, Italy
(completed: 1436, architect: Filippo Brunelleschi)

Wood, bamboo, Japanese paper, plaster, etc., insist on their existence as they are. Differences in their natural qualities bring about the deep flavor of the exterior finish.

(constructed through a few decades after 1615)

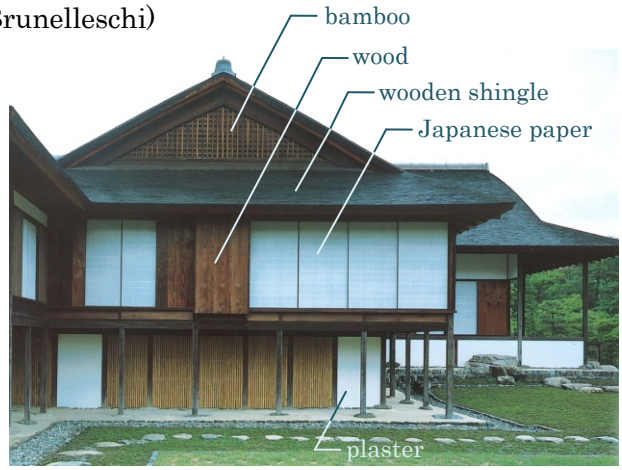


Photo 14: Katsura Imperial Palace, Kyoto

The buildings at Katsura Imperial Palace in Kyoto are in the Sukiya-style, which utilizes the very best of diverse natural materials and enjoys their refined taste. As seen in the photo, wood, bamboo, Japanese paper, plaster, etc., insist on their existence as they are, thus expressing a simple and delicate beauty.

On the other hand, in Florence, the Renaissance Cathedrale di Santa Maria del Fiore (Cathedral of Saint Mary of the Flower) owes its glamorous beauty to the colorful marble decoration of the exterior finishing. Here, marble, cut into tiny pieces, loses its original stone-like characteristics. The marble cuts are merely built into the wall decoration and engraved as colored pieces.

This is a typical comparative example, in which major differences are found in the handling of materials in Japan and in the West.

⊡ Handling of interior finishing materials
(③ Materials bear clear identification of insistence as a part of architecture)

The interior design of the magnificent Alhambra in Granada, Spain, which is a highlight of Islamic culture, is simply overwhelming. The numerous tiles, stone pieces and plaster works (stucco), have created a unique world, and the way the materials have been handled is quite similar to the methods in the West. Numerous pieces of various materials are used, but the total form is the major concern, therefore the goodness of each material itself is ignored. They could be made of other materials.

Arabesques and "muqarnas (ornamented vaulting)" around the windows and on the ceiling are the highlights of Islamic art. They are made of numerous tiles, stone pieces and stucco.

Photo 15: The Alhambra in Granada, Spain

Wood plays the main role of this space. It is intended to maximize the merits of timber.

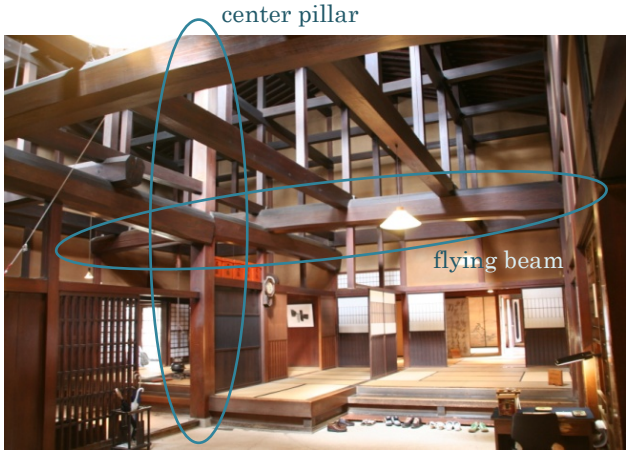


Photo 16: Yoshijima Residence, Takayama, Gifu Pref. (rebuilt : 1905, master carpenter : Isaburo Nishida)

On the other hand, this is a typical wealthy merchant's house in Takayama, which was rebuilt by a master carpenter after a fire in 1907. The most attractive feature of this structure is the space of the shop area inside. After stepping into the house, one is greeted by this fascinating void. The earthen area and adjacent tatami rooms seen in the photograph were for business use. The dynamic structure of the center pillars, flying beams and posts were symbols of the solidity and reliability of the business. Thanks to the sunlight from the high side-windows, the entire space is bright and comfortable. The pillars and the beams are covered with a thin coating of lacquer and one can appreciate the beauty of the fine-grained wood.
As you see in this case, the wood simply insists on being itself and plays the main role of this space, and this is a main characteristic of Japanese architecture.

These three examples show that the Japanese insistence upon materials in architectural creation led to the development of Japanese architectural characteristics.

Namely: ① The Japanese insist on materials.
↓
② Each material insists upon its presence.
↓
③ Each material bears clear identification of insistence as a part of the architecture.

Thus it is considered that, in Japanese architectural creation, each material as a part of the architecture insists upon its role and the total image of a structure as a whole is created thereafter.

On the other hand, the opposite of the above mentioned logical development may also be true. Namely: ① Each material bears clear identification of insistence.
↓
② Each material insists upon its presence.
↓
③ The Japanese insist on materials.

Hirotaro Ota says in his work “Characteristics of Japanese architecture” (Note 04): “All structural materials appear outside and they become design materials. The Japanese are fond of plain woodwork without any coloring. Therefore, the quality of the material immediately affects the beauty of the architecture. For this reason, fine-grained wooden materials are preferred and the regard for materials is extremely deep.”

Nonetheless, this deep interest of the Japanese in materials will have great influence on the fact that the Japanese, in their creation of architecture, will pay great attention to materials and it is likely that any architectural structure will be designed from its parts rather than as a whole.

▫ Fukutake Hall, The University of Tokyo, Tokyo

Tadao Ando is synonymous with exposed concrete. Ando, from the beginning of his architectural career, has devoted himself to the use of fair-faced (good-quality) concrete finishing. Ando himself describes the process as follows: (Note 06)
“I have been considering whether there is an architectural expression that is stoic and static but would reach out to the human spirit, that is quiet but would have a strong impact. In particular, concrete cast on site represents the quality of manual work. Therefore, I have been working in order to create concrete that is stoic but that talks about human handwork.”
“When I first saw a cast-on-site concrete building by Le Corbusier, I thought this is not possible in Japan. Talking about the nature of the Japanese, they are fond of delicate and highly accurate finishing. When I started my office and let my clients see the concrete buildings, they all refused saying…ridiculous!”
“What I considered was how I could create precise concrete. Once successful, the clients could be convinced. Workers should always do their best, which has much to do with Japanese nature. In such circumstances, I tried to grasp the Japanese mentality, and thus I was able to be acknowledged.”

Through his words, we can understand how Ando has been struggling with concrete and how committed he is to the material.


Photos 17, 18: The beauty of this fair-faced concrete finishing and the long slit on the wall show an extremely high technical level of treating concrete.
(completed: 2008, location: Tokyo, architect: Tadao Ando)

What I had in mind, walking along this long concrete wall in front of the University of Tokyo's Fukutake Hall, is that Ando at first came up with this wall and he was committed to concrete and decided to see what he could actually do with the material. The wall, which is more than 100 meters long, is not merely a wall. It is the outcome of challenging the limits of the on-site casting of concrete. The Japanese recognize the value of the pursuit of limitation, namely, shape, precision and the beauty of cast-on-site concrete. Ando says, "From the point of view of the Japanese temperament, highly delicate parts and precise finishing are more preferable." This is the wall that achieved them.

And, the willingness to devote all their energy to the wall in front of them is the basis of the creative attitude that creates a whole from the parts.

▫ Bato Hiroshige Museum of Art, Tochigi Prefecture

A quiet Japanese atmosphere that calms one's heart.

(completed: 2000,
location: Nakagawa-cho, Tochigi Pref.
architect : Kengo Kuma)

Photo 19: Rear garden and façade

The entire building is completely wrapped in lattice work, which is all 3 centimeters by 6 centimeters at 12 centimeters pitch, and made from local cedar trees.

Photo 20: Looking out from the café

This is a museum in Bato, which is a town about 150 km north of Tokyo. The museum was built to accommodate the original works of "ukiyo-e" master Hiroshige. Kengo Kuma's design expresses the artistry and tradition of Hiroshige by means of a traditional yet restrained exterior. With its big gabled roof, deep eaves and latticed walls, the building blends into its rich natural surroundings. In fact, the roof, the walls and the entire building are completely wrapped in lattice work, which is all 3 centimeters by 6 centimeters at 12 centimeters pitch, and made from local cedar trees. Thus, the natural light can be appreciated wherever necessary. Local materials such as handcrafted paper walls and local stone paved floors are also used for the interior.

Kuma insists on "Defeated Architecture," which means not to be self-assertive but to give way to the environment, and the history, culture, and local materials of the site. Therefore, the building designed by Kuma can be appreciated as the charming expression of his interest in traditional Japanese materials, and the pursuit of an environmentally conscious and culturally sensitive architecture.

The closeness of the mountain is strongly sensed. The building exists as if merely a gateway to the mountain, thus featured as a piece of "Defeated Architecture."

Photo 21: Main approach

The use of local materials is the starting point of the project. Local materials such as handcrafted paper walls and local stone paved floors are also used for the interior.

Photo 22: Entrance to exhibition space

The materials that Kuma sticks to are not limited to architectural materials. In his words, he first focused on the closeness of the mountain behind and tried to maximize its existence by the design of the approach entrance of the building. In addition to the exterior local cedar louvers, plenty of local materials are used. A commitment to local materials and their use are the basic stance to create an architecture that embodies local claims, and this is quite simply the approach that creates architecture from parts.

As can be seen in the examples above, an approach that greatly cares for the material itself is typically Japanese. It is understood that this approach puts great importance on materials and material-conscious architectural parts are the starting point of architectural design.

2-3. Simplicity and denial of ornamentation

Japanese architecture features natural materials used as they are (mainly wood), and its form is likely to be simple and lucid. Structural frameworks are not hidden, but are meant to express formative beauty. Ornamental elements are limited so that the materials used are appreciated as they are. The technique and know-how of the master carpenters are, of course, essential. Thus, the architecture completely reflects simplicity and purity in nature.

Why are the Japanese fond of such simple architecture? Once, on the occasion of my publishing a book in Germany, I was interviewed by a magazine house and answered: "Naturally, the Japanese interpretation of the void is not merely emptiness, but moreover, a borderless space for meditation and creativity. Therefore, it is possible to create a pure, simple, sophisticated structure to represent any significant architecture."
It can probably be said that such an abundance of rich imagination and creativity has allowed the Japanese to abandon unnecessary decorations. Simplicity is inevitable with the materials used for construction, so it is possible to exhibit freer imagination and creativity with minimum installations.

A tea ceremony room, in which the host is able to express his intention in an once-in-a-lifetime opportunity by arranging a flower or by hanging a scroll in the alcove, is a typical example. With a single branch of cherry tree blossom, guest and host can share the illusion that they are sitting under cherry trees in full bloom. Because of these spiritual and cultural characteristics, the Japanese have respected and enjoyed simple taste without excessive ornamentation.

Below, I will look at examples of architecture that embody this simplicity throughout the ages.

⊡ Ise Jingu Inner Shrine, Mie Prefecture

This is the prototype for all buildings in Japan. Although it is a symbol of authority, the non-decorativeness of its nature is remarkable.

(rebuilt every 20 years, and this is the only occasion when the building is exposed to public)

Photo 23: Main hall of Inner Shrine

Surrounded by natural forest, it makes one feel that this is a place where God descends.

Photo 24: Inner Shrine being rebuilt on the contiguous lot

In the midst of the divine forest, which covers 1 million square meters in the city of Ise, the Inner Shrine stands as it did 2,000 years ago. The shrine buildings are completely rebuilt on the contiguous lot every 20 years to ensure ritual purity and the old ones are dismantled. Thus, the original form and technique are preserved with all of their details. Of course, this practice is enormously costly, so Ise-jingu is the only shrine today that is regularly rebuilt, though this was common practice for many shrines in the past.

The style of the main sanctuary building is distinctive to Ise-jingu and this is the purest and most simplified style of Shinto architecture, which is unique to Japan. This style is said to be the form of a house with a raised

floor, which was used to store rice about 2,000 years ago. The impression of the building is extremely simple and linear; using unfinished Japanese cypress, a thatched roof and pillars erected without foundations in the ground. The sanctuary is enclosed by four rows of board fences and may not be approached by general worshippers.

On his visit to this site Bruno Taut, the famed German architect, compared Ise-jingu with the Pantheon in Greece saying, "This is the purest of all buildings in the world. It integrates the fragrant Japanese cypress and the thatched grass of its roof into the most harmonized and ultimate of all structures." It was praise of simple architecture based on the values of modernism.

⊡ Jo-an (teahouse), Inuyama, Aichi Prefecture

The interior is entirely undecorated and uncolored. The roughly finished alcove post and old lunar calendar pasted on the walls are the decorations.

(originally built in Kyoto in 1618, relocated number of times)

Photo 25: Alcove and host mat (seat)
by this decorative element alone, the intention of the ceremony is appealed

The Jo-an teahouse is a National Treasure, and sitting inside one feels a rationality that is precisely calculated. The moderate size of the space, arrangements corresponding to movement, lighting and settings in accordance with sight, everything is perfectly arranged. All the ideas, the diagonal wall that widens sight from the host seat, the placement and design of windows, including skylight, views from the host seat and allocation of the slope on the ceiling, all ideas are simply exquisite. With the rough finished alcove post, the unique design of the old lunar calendar pasted on the lower part of the walls, the extremely simple interior has

become a rich and comfortable space.

As shown in the photograph, it is an unfriendly space without any decoration or color, but once a scroll picture is hung in the alcove, the host and the guests are able to share the common illusion of the picture. This is possible because of the very essence of the tea ceremony and the simple but comfortable design of the space, which deserves the National Treasure distinction.

▫ Gion Shirakawa District, Kyoto

Photo 26: Gion Shirakawa in spring

Sprouts of willows and cherry blossoms reflect on the surface of the Shirakawa River and no decoration on the buildings seems necessary.

This is a place where one can realize the beauty of Japanese streets. Only natural materials, which are slightly processed, are used and there is no artificial decoration.

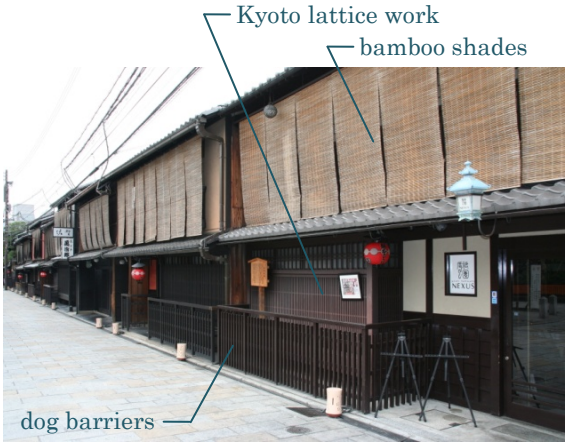


Photo 27: Important Preservation Districts for Groups of Traditional Buildings

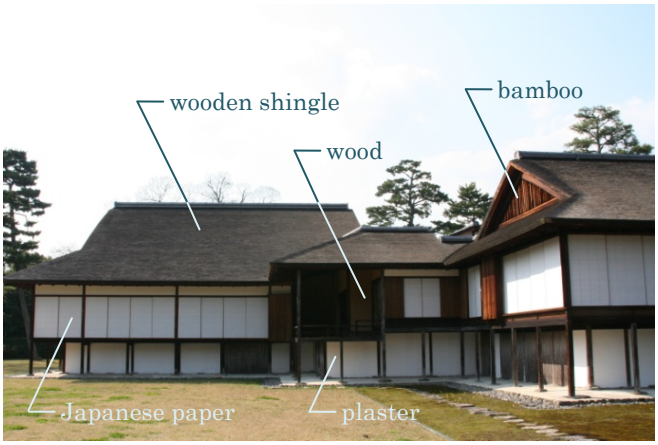
Gion is Kyoto's famous pleasure quarter or Geisha district. Shirakawa is the name of the river. This neighborhood is well preserved with old wooden

houses (designated as Important Preservation Districts for Groups of Traditional Buildings), so visitors can enjoy the atmosphere of Kyoto as it was a few hundred years ago.

Gion became a pleasure quarter in the mid-18th century. The teahouses in this quarter where "maiko" and "geiko" girls entertain their guests are in the style of Kyo-machiya (Kyoto town houses). Kyo-machiya is famous for its small fronts and considerable depth, typically 5.4 meters wide and some 20 meters deep, and often known as "eel's bed." For these Kyo-machiya, "tsubo-niwa" (3.3-sq.meter gardens) are often placed inside the house and they made houses comfortable not only through their aesthetic reflection but also by bringing in light and air. Small, but built by the workmanship of experienced builders, Kyo-machiya reflects the aesthetic sense and comfortable design that developed over the long history of Kyoto.

Delicate Kyoto lattice works and dog barriers continue alongside the streets, and bamboo shades are always hung down on the upper floor. These scenes are typically found in Gion. Such wooden design work has been developed through the use of natural materials as they are without any decorations, and simple taste has breathed over the ages, taking full advantage of the nature of the materials.

▫ Katsura Imperial Villa, Kyoto



In contrast to Western architecture, which is full of ornaments, the façade is just a combination of natural materials. The beauty of simplicity without ornamentation is realized.

Photo 28: (From Left) New pavilion, Instrument room and Middle pavilion

This is typical Japanese style (flying geese pattern): The Middle pavilion via Instrument room to New pavilion stand simply in appearance in Katsura Imperial Villa. The façades are made of completely natural materials such as wood, bamboo, Japanese paper and plaster. It is possible to grasp how the delicacy of handling natural materials, the contrast of their colors and the lightness of thin lines, bring about tasteful Japanese beauty.

It is well known that at Katsura Imperial Villa Bruno Taut found the essence of architectural modernism, which he follows, in the beauty of natural materials used and their functions. The fact that he highly praised Katsura together with Ise led to the rediscovery of "Japanese beauty," which had long been neglected.

⊡ 21st-Century Museum of Contemporary Art, Kanazawa, Ishikawa Pref.

Activity spaces are found here and there, architecture does not try to dominate its environment, and no decoration is found.

(built: 2004, architect: SANAA)

Photo 29: Same façade all around

The design of this museum started with a completely new concept. Museums have typically had rather closed, authoritative atmospheres, which may have kept people away. Here, the attempt has been made to create a new 21st-century museum, which people can visit whenever they want, in order to experience or encounter various events and exhibits. The goal is a museum that is open to the public like a park. Thus, in addition to primary museum spaces, there are community assembly spaces, such as a library, a lecture hall and a children's workshop.

The architectural design is the outcome of a long collaboration of museum staff, artists and the architect. Circular in form, the building is 112 meters in diameter, with no front or back, no primary façade, but instead a surrounding transparent glass corridor. The architect attempted to expel all ideas of composition as the basis of her design and minimized what was functionally necessary, so that what takes place in the museum would attract the most attention. The building is as white as possible, with only layers of transparent glass used to create different zones. There are four courtyards within the building that contribute to the bright interior atmosphere, despite the building's size. Here, the main characters are not the objects, but the people who move about in this facility. Certainly, this is an unassertive style of architecture, with no decorative element at all.

There is no doubt that simplicity and denial of ornamentation play a big role in the development of Japanese architecture. As described in 2-1, an intimate attitude toward nature does not require decorative elements. Ornaments are not necessary for architecture that does not assert itself. As for Western architecture, which sticks to architectural styles, it is likely that parts of architecture are regulated from the point of view as a whole. But as for Japanese architecture, which attaches importance to simplicity, it is easy for the preceding parts to come together and form the whole without being bothered by unnecessary decorative elements. The decorative elements of the whole cannot be designed by the preceding parts process, but "the formative development from parts" is easily realized with simplicity without ornamentation.

2-4. Craftsmanship and skill of master woodworkers

Preeminent Japanese wooden building technology has, of course, been developed by the craftsmanship and skill of master woodworkers of all ages. The legacy of the skills of the master carpenters from the days of Asuka-Hakuho were the foundation of the architectural development in Japan. It is rather unique that the Japanese alone used wood for construction.

The thoughtful use of wood, knowing every characteristic of the material, the rational structure system, the total balance and harmonious proportions, the detailed design and the sincere attitude toward creation are the distinctive features of Japanese craftsmanship. There is no doubt that craftsmanship has been the essential key for architectural progress and development in Japan.

⊡ Tsunekazu Nishioka (Master carpenter in charge of the reconstruction of the Western Pagoda, Yakushiji Temple, Nara)

The Western Pagoda of Yakushiji Temple was reconstructed after more than 450 years since its destruction by the flames of war. It is now colored in bright red and green, and in one sense, it may lack the old charm of Nara. But this is how it used to be originally, and together with the Main Hall, which has also been reconstructed, and the Eastern Pagoda, which has survived since the opening of the temple in the seventh century, show the well-balanced harmony of the temple layout. The reconstruction of the Western Pagoda is nothing but a gift from a master carpenter who knows everything there is to know about a tree.

According to Nishioka, as a result of the main components, including rafters, being cut by machine, they are of the same dimensions and look hard as if cast in a mold. Many things need to be carefully considered when handling trees as natural materials.

(reconstruction completed: 1981, location: Nara, master carpenter: Tsunekazu Nishioka)

Photo 30: Reconstructed Western Pagoda

The reconstruction of the Western Pagoda involved various ideas. Each lean-to of the Eastern Pagoda, which is now plastered white, was X-rayed and it was discovered from the joints that there were latticed windows, which are now restored on the Western Pagoda. The height of the Western Pagoda was raised by 33 cm in anticipation of subsidence caused by its own weight. And to reduce the total weight, the amount of sand under the roof tiles was cut.

But moreover, it is quite interesting to listen to what Nishioka, the master carpenter who led the total reconstruction, has to say because it shows the wisdom and skill of a master craftsman. (Note 07)

"As for the rafters, it's the same. The rafters for the Eastern Tower are 5 suns × 5 suns (sun: Japanese unit of length, approximately 3.03 cm) or 4.5 suns×4.5 suns, all mixed. But when assembled as a whole, they are in good harmony. The total feeling is so serene. On the contrary, as for the Eastern Pagoda, the rafters are cut by machine to exactly 5 suns×5 suns and, as a result, the pagoda looks hard as if cast in a mold."

"When really sharp spear-head hand planes are used, even if the whittled surface is exposed to rain, the rain will just wash off. But when

electric planers are used, the surface will be soaked when exposed to rain and as a result black mold will grow. Then the life of the tree as a material is shortened. In this sense, all the wood used for this pagoda is finished by hand using spear-head planes so that it will last for a thousand years."

It has been said that the lean-to that makes the pagoda seem to be six stories is a matter of pure design. But the fact is, according to Nishioka, "Once the roof of the lean-to is set, the swaying of the tower stops at once. It was understood that the tower was stable because of this lean-to. It is impossible to design such an interesting structure. Owing to the existence of the Eastern Pagoda, we were able to design and reconstruct the Western Pagoda."

Photo 31: Eastern Pagoda, which has survived since the seventh century

The design and reconstruction of the Western Pagoda was only possible because of the existence of the Eastern Pagoda. In terms of aesthetical sensibility and construction techniques, they were the most advanced structures more than 1,300 years ago.

The insights of the master craftsman are astute. Nishioka points out: "As for the Pagoda of Horyuji Temple, the framework members are thick and not calculated precisely. Whereas for the towers of Yakushiji Temple, the members are thin and the lean-to plays the role of an anti-seismic damper. The difference of the construction period between the two is only several decades and it is not possible to make such progress in such a short time. The techniques that were used to construct Horyuji Temple probably came in over time from the Korean Peninsula, whereas for Yakushiji Temple it is

natural to consider that advanced techniques came in directly from the Tang Dynasty of mainland China."
"Trees grow naturally, and exposed to sunlight and wind, each tree is different; one is twisted to the right, another to the left. It is important to combine them according to their characteristics so that the torsion strength comes to zero and the tower would not twist." (Note 07) The spirituality to draw forth the very best of trees is the skill and the wisdom of master craftsmen, and legacy that they have passed down.

According to Nishioka's references, he speaks mainly about materials used and component members, and rarely refers to the total design and construction of the tower as a whole. He says in his book, "I have spent all my life struggling with the Japanese cypress and ancient buildings. Therefore, what I say is always about trees." While the passion that is poured into component members and parts of a structure is tremendous, it is as if to say that the total image is brought about as a result.

⊡ Mitsuo Ogawa (Master carpenter of Ikarugakousha*)

*** Construction company specializing in building shrines and temples, and the restoration of cultural properties**

At UIA2011TOKYO (The 24th World Congress of Architecture in Tokyo), an architectural seminar was held on "Japanese architecture — From the past to the present." I had the chance to listen to the following talk by Mitsuo Ogawa, the master craftsman and master carpenter of Ikarugakousha. He is said to be the only direct apprentice of Tsunekazu Nishioka, and acted as the sub-leader for the reconstruction of the Western Pagoda and the Main Hall at Yakushiji Temple.

"For the purpose of erecting a pagoda or a hall of a temple, buy a mountain as a whole not trees. This means that one should go to the mountain oneself and watch how trees grow before deciding how to use them. One will not be able to tell what kind of a place it grew in after lumbered. It is necessary to know the soil and the environment in which the trees grew,

the direction of the wind and sunlight, whether they grew in the middle or at the edge of a forest. Use trees after understanding all these aspects."

"Use trees according to the direction they grew in. Trees on the mountain are not able to move. They grow at the place they were rooted, therefore it is inevitable that they are greatly influenced by the restrictions of the environment and the soil. If on a spot where the west wind always blows, the branches will grow against the wind to keep straight. This becomes a peculiarity of the tree. Branches grow in the direction of ample sunlight because trees try to get bigger by producing leaves. These trees have many gnarls. As for these trees, it is much better to use them in the same direction in the building as that in which they grew."

"When setting up the wooden framework, assemble the materials according to their peculiarities not by measurements. This is to say that to set up according to measurement can be done by any carpenter. Trees have their own peculiarities according to where they grow, therefore it is important to make the best of their peculiarities when setting up a building. If there is a tree twisted to the right, combine it with a tree twisted to the left, and then in time they become established more firmly."

"Nowadays, they do not use trees that are bent and have peculiarities. Rather, I should say they can't use them. They can only use lumber with a flat surface because they work just on the surface of trees not the core. They use only machine crossed materials. They have nothing to do with the peculiarities. They assemble materials by measurements because no considerations are necessary. Such buildings are naturally weak."

From the title of the seminar, I was wondering what kind of speech master carpenter Ogawa would give. The speech was a strong display of his commitment to materials and enthusiasm for the handling of trees. Through the seminar, I was reassured that the tradition of Japan pays great attention to materials (parts) and the whole is built by assembling the parts.

⊡ Main Hall, Toshodaiji Temple, Nara

The Main Hall of Toshodaiji Temple underwent 10 years of repairs that were completed in autumn 2007. Because the structure was completely dismantled for the work, the history of the building since its erection became clear. (Note 08)

Not only priests but also a large number of engineers accompanied Ganjin, the high priest at Daming Temple in China, when he accepted Emperor Shomu's invitation and came to Japan and reached Nara in 754. They brought with them new styles and technologies. The Main Hall is a building on a grand scale, and is the largest and most formal structure existing from the Nara Period. There are very few examples existing in China and therefore, when restoring a building from the Tang Era in China, the design and structure of Toshodaiji Temple are referred to.

The Main Hall of Toshodaiji Temple has gone through at least four major repair projects (twice in the Kamakura Period, once in the mid-Edo Period, once in the later Meiji Period). The posts and beams of the main frameworks remain from the time of erection, but the roof was altered completely in the Edo Period. The slope of the roof became steeper and, as a result, the roof is 2.5 meters higher than it was originally. So "the roof tiles of the Tenpyo Era" were not as visible at the time of erection as they are now. In any case, although it has gone through occasional repairs and structural reinforcements, the fact that it remains as it was 1,250 years ago in a healthy state proves the outstanding wisdom and technology that master craftsmen possess.

Here the original bright red and green have not been restored. Thus it retains the old charm of Nara.

Photo 32: The Main Hall after major Heisei Era repair work

Although the Hall has undergone repair projects, most of the materials used for this colonnade corridor are from the days of the original erection. This is proof of the legacy of wisdom and technology handed down by outstanding craftsmen.

Photo 33: Colonnade on the Main Hall façade

When visiting the site, one will notice the impressive Main Hall standing quietly as if nothing had happened. As for the major repair work this time, they tried to reuse the original materials as much as possible and did not reproduce the brilliant colors that had been used originally. The evaluation that "as if nothing had happened" is quite important. The powerful image of the colonnade on the façade, the marvelous framework above, the technology that made it possible to create this structure in ancient days, and the technique and spirit of master craftsmen that enabled this structure to survive for more than 1,250 years…., I could not help paying my respects to all these factors and, at the same time, I was strongly moved and proud of them as a Japanese.

The stunning colonnade and the corridor, which adds depth to the façade, and the brackets that support deep eaves are surely the important components of the building as a whole. But I have the impression that they are not designed as parts of the whole, or rather, the whole is a result of the bringing together of the pursuit of design and the details of each part.

⊡ Five-story Pagoda, Daigoji Temple, Kyoto

On a suburban hillside outside of Kyoto stands this beautiful five-story pagoda, which was built in 951 for the repose of Emperor Daigo. Because of its location outside of the city, the pagoda survived the wartime fires. Although it has gone through a number of large-scale repair projects, it is the oldest remaining wooden structure in the ancient city of Kyoto.

The wonder of the multiple-stepped bracket system, and the pursuit of technology and design are beautifully accomplished. The partial structure and design come first, and the deep eaves are realized. It is clearly understood that the whole is a gathering of the parts.

(built: 951, location: Kyoto)

Photo 34: The pagoda stands as it was more than 1,000 years ago

The deep eaves and the elegantly curved roofs are characteristics of the pagodas, but because of the wooden structure, they were only possible through the development of the multiple-stepped bracket system, which can be seen clearly beneath the eaves of the Five-story Pagoda. It is worth mentioning that such rational solution techniques also contributed greatly to the aesthetic development of pagoda design.

Wooden architecture is really an essence of the technique of bringing together wooden materials. There are materials (parts) at first and the whole is created utilizing most of them. It is not difficult to imagine that the sensitivity that is thus cultivated would have had significant influence on the mechanism of Japanese “parts precede the whole” creativity.

2-5. Bipolarity and diversity

Because of the extreme ornamentation and brilliant colors, structures at Nikko are often criticized as heretics in Japanese architectural history. But can it really be so? They are surely far from the general image of Japanese architecture. When we refer to Japanese, it is likely that we imagine features that are restrained and intimate with nature.

Rikyu created the "Taian" tea-ceremony room, which was considered to be the ultimate in "restrained and understated elegance" and, at the same time, he had much to do with the creation of the "Golden tea-ceremony room" by order of Hideyoshi. Since ancient times, Konjikido (Golden Hall) has nestled in the woods at Hiraizumi. Recently, the interior of Phoenix Hall, Byodoin, was created using computer graphics, which showed a world of brilliant colors. So, it was not only Nikko. At the same time as Nikko, the Date clan of Sendai also created a dazzling mausoleum, which was compared to Toshogu Shrine. It was not only a matter of gorgeousness, but also scale. Nobunaga Oda created the huge Azuchi Castle and the Main Hall of Todaiji was the largest wooden structure in the world until the 20th century. Furthermore, Nintoku Burial Mound has been considered to be the largest cemetery in the world in terms of area.

The most distinctive feature of Japanese architecture is its intimacy with the surrounding environment, and it is useless to discuss architecture by itself. This is what we have seen so far. But when required to create a completely different world beyond restraints, it is natural that an architecture that cannot be categorized would suddenly appear. Such buildings are to be found everywhere.

⊡ Phoenix Hall, Byodoin Temple, Kyoto

By adding decorative raised corridors on both sides of Amida Buddha Hall, an extremely graceful design was created that resembled the image of a phoenix spreading its wings.

(built: 1053, location: Kyoto)

Photo 35: A masterpiece at the time of its design

Without doubt, this is one of the masterpieces created 1,000 years ago by the Japanese. The function of this structure was simply a hall to house Amida Buddha, but the creativity of the designers went far beyond that. They added decorative raised corridors on both sides of the hall and as a result, the total structure can be compared to the image of a phoenix spreading its wings. The proportions of each part are so well balanced and the total harmony, including the pond in front, is inexpressively beautiful.

This building was completed in 1053. The year 1051 was believed to be the beginning of the final decline of the Buddha's teachings and only Amida was believed to have the power to save mankind. Therefore, halls dedicated to Amida flourished, and this Phoenix Hall was a representative example built by Fujiwara, the most powerful noble clan at that time.

The building was designed to reproduce Pure Land (Amida's Paradise) on Earth. It was appreciated from the other side of the pond, where the Fujiwara Family sat and prayed to the Amida Buddha, which could be seen when the hall's center doors were open. The hall is elegant and beautiful, full of imagination, showing the very best technique and strong yearnings for paradise.

On the other hand, at the time of construction, most of the exterior finishing of the building, including posts and beams, was painted in bright

vermillion; therefore the total image of the building was not like the gentle image that we have today. When the restored drawings of the interior were produced by computer graphics, it can be seen that the interior was brilliantly colored and the colorful world of Buddha had been created. Japanese creativity tends to be restrained and modest, but once energy is concentrated to create something special, it can devote itself to a gorgeous and artificial thing.

Many of the interior spaces of the time were modest using natural materials as they were. But once the energy is concentrated, a brilliant artificial space was created. The Amida Buddha sits on this pedestal.

Photo 36: Computer graphic of the restored interior

▫ Konjikido (Golden Hall), Chusonji Temple, Iwate Prefecture

Far up in northern Honshu, Golden Hall stood quietly surrounded by deep green trees in the precinct of Chusonji. The famous haiku poet, Matsuo Basho, visited this site on his Okuno Hosomichi (Narrow Road to the Interior) travels and read “The rain in May drizzles graciously as if not on Golden Hall.” But as far as we know, the hall was already covered in a shelter at the time.

Completed in 1124 by the Oshu Fujiwara clan, it is a small hall, only 5.5 × 5.5 meters, but almost all of it is covered with gold leaf and represents the radiant western Pure Land. It at first stood in woods, but of course it was natural that the gold leaf covered hall would be greatly affected by nature and as a result, in the Kamakura Period 100 years later it was completely

protected by a covering structure. Today, the hall is preserved in a glass case that is installed in the concrete shelter building, completely cut off from exterior influences.

It is amazing that this hall stood in natural woods. Something especially symbolic should have been required for the hall because it is far beyond any architectural category.

Photo 37: Golden Hall in the glass case

It is a world of artifacts rather than architecture, such as gold leaf, lacquer works and raden (inlaid lustrous shell) works. What is created when unusual wealth and power are poured into something? This is absolutely a peculiar example.

Photo 38: Inner sanctuary and dais

The inner sanctuary, lavishly decorated with raden (inlaid lustrous shells), "maki-e (gold-sprinkled lacquer)" and elaborate carving, is the pinnacle of Heian Buddhist art. (Quoted from the official guide of Chusonji Temple)
Ivory from African elephants, not their Asian cousins, is also used. This is how the Oshu Fujiwara clan sought the luxury of the world with their financial power.

There is no shortage of examples, in the East and West, of politically and financially powerful men being charmed by the brightness of gold. But in

Japan, among the restrained buildings that are constructed in general, by limiting it to one point, some special desire is realized. The contrast between the green trees and the Golden Hall standing in the woods; it could be said that this one point of gorgeousness is the outcome of the Japanese artistic sensibility.

⊡ Golden Pavilion, Rokuonji Temple, Kyoto

Photo 39: Golden Pavilion (originally built in 1398) and its reflection on the lake

This is the most beautiful scene that Japan is proud of. The beauty of its reflection shining on the surface of the lake, the gorgeousness of the gold leaf pasted structure and its harmony with the surrounding trees…it is not difficult to explain why it is so beautiful. But why did it suddenly appear? This could only be explained by the sense of bipolarity.

The Golden Pavilion is famous for its completely grandiose beauty, for each of its elegant details and for its image mirrored on the lake before it. It was originally built in 1398 by the third shogun (commander-in-chief) of the Muromachi Period (1336~1573) as a part of a sumptuous villa, which later became Rokuonji Temple.

With a three-story structure, the pavilion is built over a spacious pond and casts its reflection on the water, with an effect that is quite remarkable. It is a peculiar structure, with each floor designed in a different architectural style. The first floor is built in a residential style while the second floor is designed as a Buddha hall (housing an image of the Bodhisattva Kannon) and the third floor is in Zen style (holding Buddha's ashes).

In general, Japanese architecture is understood to be simple and understated, with a refined sense of design and use of natural materials. But here at the Golden Pavilion, the second and third floors are completely

covered in gold leaf and as a result, it offers a startling and gorgeous image. On the other hand, the composition of the pavilion precinct in particular provides a sense of balance between the sumptuous and the simple. This reminds me of how gold leaf folding screen is used in an understated room to indicate a special place.

At the foot of the Kitayama Mountains in a sea of green, the Golden Pavilion suddenly appears and its beauty is immediately apparent, and makes the depiction by Yukio Mishima in his novel "Temple of the Golden Pavilion" redundant. A young Buddhist priest burned down the original in 1950, being enchanted by, and yet attempting to dominate the pavilion's beauty. It was rebuilt in 1955 as a perfect replica of the original.

⊡ Golden tea-ceremony room, MOA Museum, Shizuoka Prefecture

Photo 40: Golden tea-ceremony room (original work by Rikyu and restored by scholars)

Why did Rikyu create this tea-ceremony room at the same time as "Taian," which is highly evaluated as the ultimate of restrained and understated elegance. While the use of gold is moderate and unpolished, such an example could only be explained by bipolarity.

This is also a tea-ceremony room that was originally created by Rikyu. The restoration was carried out by leading scholars of architectural history. About the same time as the creation of "Taian," the ultimate example of restrained and understated elegance, this tea-ceremony room was built by order of Hideyoshi. These two examples created by the same person almost at the same time clearly show the bipolar feature of the Japanese.

Before I actually saw the Golden tea-ceremony room for the first time, I took it for a dazzling fake, but I was surprised that there was no such

impression on seeing it. Rather, I was able to feel the result of exhaustive studies in pursuit of the summit that were common to "Taian." Scarlet tatami mats and paper screens were really effective, and though the tea sets looked like gold, all the other architectural fixtures did not seem to be real gold, rather, I could feel the excellence of the close study of the materials.

A court noble who attended the tea ceremony to which Hideyoshi invited the Emperor kept a diary, in which he wrote that "the walls seemed earthen not golden," which was the same impression as mine. It could be said that an uncommon nobleness hung in the air. The Japanese sense of beauty is hidden in the moderate manner that the gold was not brilliantly polished.

⊡ Nikko Toshogu Shrine, Tochigi Prefecture

Buildings beyond this tori-gate are built with completely different concepts. The monumental aspects are much stronger; brilliance rather than functions is of more importance.

Photo 41: A scene looking up to Yomeimon Gate

A great number of carvings, gold leaf and brilliant colors; such are rarely found in Japan.

Photo 42: Numerous carvings and multiple colors on Yomeimon Gate

There is a saying that "one does not know what beauty really is until you've

seen Nikko Shrine." The buildings of Nikko Toshogu, which are so brilliantly colored and richly decorated with deep relief carvings, are so beautiful yet quite different from other Japanese architecture.

Toshogu is a Shinto shrine initially built in 1617 and dedicated to Tokugawa Ieyasu, the founder of the Tokugawa Shogunate. As the mausoleum of the great Ieyasu and in order to show the power of the Tokugawa Family, it was necessary to create a place completely different from traditional shrines and temples. Because of the extreme ornamentation and lack of restraint, structures at Nikko are often criticized as heretics in Japanese architectural history. Nevertheless, one cannot help but admire the skill and the craftsmanship they reflect.

The five structures of Toshogu are categorized as Japanese National Treasures. One of them is the photographed Yomeimon Gate, the main gate of the shrine. It bears the nickname "Higurashi-no-mon," which means that one could stare at the gate until sunset and not get tired of looking at it.

⊡ Zuihoden, Sendai, Miyagi Prefecture

The mausoleum of the founder of the Sendai Domain was built differently from other Japanese architecture; namely, brilliance was strongly pursued and the challenge to Toshogu, Nikko, should have been considered deeply.

Photo 43: Front view of Zuihoden

(originally built in 1637)

This was completely restored after being burned down in World War II. It is difficult to tell how precisely the restoration work was carried out but still the aims of the decorations are understood.

Photo 44: Numerous decorations as same as on Yomeimon Gate of Toshogu, Nikko

Zuihoden was the mausoleum built 20 years after the completion of Toshogu, Nikko, according to the order left by Masamune Date, the founder of Sendai Domain. It was designated as a National Treasure for its beautiful Momoyama style, but was burned down in World War II and subsequently rebuilt in the original style. Because of the power of Date, succeeding lords of the Date clan erected mausoleums in the adjacent sites, each of which were colored brilliantly. So, the buildings at Toshogu, Nikko, were not the only heretics. Such bipolar features of Japanese sensitibity are to be found where such necessity existed.

In this section, I picked examples that are gorgeous and brilliant. Thus, Japanese architecture has diverse and bipolar aspects. From “restrained and understated elegance” to “gorgeous brilliance,” there exist diverse possibilities, which create the values of Japanese Identities. Forms that are controlled by a total image and homogeneous modelings are likely to be hard and plain while Japanese forms that are brought about diversely seem to be more tasteful and graceful. Diversity is naturally a necessary condition for the Japanese uniqueness that requires that “parts are put together and as a result, the best is created,” which I will refer to in the following chapter.

2-6. Spirit of coexistence

Without having an image of the whole, how can the whole be originated from individual parts in a cohesive way? In the background, there is a unique Japanese sensitivity. In other words, those of different ideas, different eras, different styles, different principles and policies can collaterally coexist, may be anything, so to speak. “Sensitivity without denial” is the starting point that permits the whole to be created as the result of the combination of various parts.

This naturally applies to the present social situation in Japan as well. “Sensitivity without denial” has a major impact on the urgent decision of Japanese society whether to continue to rely on nuclear power or to abandon it. A clear decision or national consensus on the choice is unlikely. Arguments will continue in Japan, while in the West, the United States and France have made it clear that they will stick with nuclear power, and Germany has declared its intention to phase out all its nuclear plants by 2020.

2-6-1. Acceptance of foreign culture and coexistence with tradition

Hirotaro Ota, in his work “Characteristics of Japanese architecture” (Note 05) says; “The culture of developed countries came over to Japan several times in history. Architecture, of course, is not an exception. As for the big waves, there were the architectural influences of six dynasties of China and the Tang Dynasty in the Asuka/Nara Period, the introductions of Song Dynasty style in the Kamakura Period, and the import of Western civilization after the Meiji Restoration. Owing to the fact that Japan is isolated from the continent, Japanese people have not been politically controlled by the continent. Therefore, the Japanese were accustomed to accepting different cultures in a peaceful manner and it was possible to import foreign culture without falling into ethnic bigotry.”

An overall view of the Buddhist architecture imported in the Asuka/Nara Period, can be seen at Horyuji Temple and the restored Yakushiji Temple.

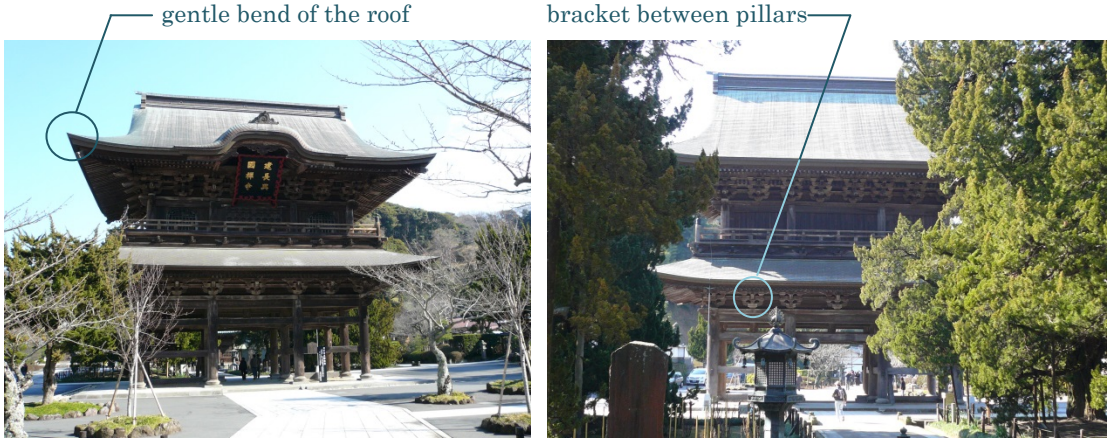
Photo 45: Horyuji Temple, the oldest wooden structure in the world from 7th century

Photo 46: Yakushiji Temple, after restoration work

This Buddhist architecture was completely different from the original Japanese architecture in style, in construction method and, moreover, in the colors used. Buddhism itself was not accepted without any resistance at the beginning. Even in the Imperial Court, there were yes/no arguments. But before long, it became a major force and Buddhism spread across Japan. In addition, many temples architecture were built. When Prince Shotoku who was deeply devoted to Buddhism held power, it is said that over 40 temples were built including Horyuji Temple. However, that does not mean that Buddhist architecture replaced traditional Japanese architecture, but both styles fully coexisted as can be seen in the long history of Japanese architecture.

On the introduction of Song Dynasty style in the Kamakura Period, the influence of which can be found in the Zen temples of Kamakura and other places, as Ota says, “It is still not evident whether it was a complete copy or it was a result of selection. But the ethnic culture of the Japanese that developed within the natural and social conditions as described above was quite different in quality from that of the continent, and therefore, it should have been impossible to copy everything completely.
There was an essential difference between the magnificent exaggerated expressions of the continent and the intensive refined expressions of the Japanese, and even if the will to choose deliberately did not work, it should have resulted in the unconscious choice of selecting only what they liked.” (Note 05) In any case, Song Dynasty style was not accepted as it was on the continent.

The characteristics that were said to be the distinctive features of Japanese architecture had great impacts on them, and through “Japanization” both styles were able to coexist. In other words, through combination with the Japanese characteristics such as “intimacy with nature,” “insistency on materials” and “simplicity of design,” they became Soong style in Japan.



Characteristics of Soong style such as the bend of the roof, brackets between pillars and structural penetrating tie beams can be found, but they are not a complete imitation. In order to be more comfortable with Japanese sensitivity, “Japanization” such as a more gentle bend of the roof has been introduced and the Soong style likely melted into Japanese society without any resistance.

Photos 47,48: Sam-mon gate, Kenchoji Temple, Kamakura, Kanagawa Prefecture (originally completed in 1253)

As for Kenchoji Temple, which is a representative example of Soong style, although all the original buildings have been lost, it is said that the image of the temple in its foundation days remains in the layout of the precinct in which the outer gate, Sam-mon gate, Buddhist hall, lecture hall and priest’s quarters were built in a straight line

The import of Western civilization in the Meiji Era was accepted by the Japanese with a culture shock-like surprise as they faced the advanced civilization that had developed through the Industrial Revolution and that would have a great impact on how the Japanese way of life changed. Architecture, of course, was not an exception and it was completely overwhelmed by new designs, new materials and new methods of

construction. But even in such circumstances, the characteristics of Japanese architecture survived and recently, their wonders are being recognized again. This goes to the heart of my assertion in this thesis that Japanese Identities ceaselessly breathe.

2-6-2. Japanese faith pushes coexistence from behind

It is needless to say that the myriads of gods that the Japanese believe in have a great influence upon the collateral coexistent feature of Japanese architecture. In ancient Japan, mainly in the worship of the natural world, each tribe believed in its peculiar god individually. These individual gods became related to Shinto gods, and later Buddhism and other religions were accepted. There is little doubt that the coexistence of these gods is one of the origins of Japanese sensitivity.

On the other hand, as for Christianity and Islam, under one absolute god, neither compromise nor coexistence is accepted. Even in the world of architecture, it is well known that a cycle of destruction and construction continued according to the change of rule of god.

Meanwhile, the syncretism of Shinto and Buddhism that led to the unification of the two religions is very distinctive. Cases of a temple within a shrine precinct or a shrine attached to a temple are found all over the country and here is a representative example.

Photo 49: Example of a shrine attached temple, Sakurai, Nara

Syncretism was practiced from the Nara Period at Omiwajinnja Shrine, which is said to be one of the oldest shrines in Japan. The photograph shows Wakamiya Shrine, which was a shrine attached temple called Daigorinji Temple until the Meiji Era. The God of Wakamiya and the 11 faced Goddess of Mercy were enshrined together.

(Photo & article: Asahi Shinbun Digital)

The fact that the objects of religious belief that are linked directly to daily lives are diverse will have great influence on the sense of values and criteria of judgments of the Japanese. No absolute code exists such as to determine how one must behave, and therefore, diverse possibilities collaterally coexist. The mentality of the Japanese that enables various "parts" to collaterally coexist is quite convenient for the establishment of the creative process that the whole is created from parts.

2-6-3. "Shin-gyo-so"

Heibonsha's World Encyclopedia (2nd edition) explains "shin-gyo-so," which may be mentioned as one of the concepts to express the characteristics of Japanese culture, as follows:

<The words indicating the types of style of calligraphy. Furthermore, they have been widely used to express the sense of beauty of the Japanese. Wang Xizhi, a Chinese calligrapher who lived during the Jin Dynasty (265-420), created the base of calligraphy and also three styles were said to be established by him, namely, "shin (formal)," "gyo (semiformal)" and "so (informal)." In Japan, the letter "shin-gyo-so" by Wang Xizhi was found on the "Shosoin lists of articles," which was from the second half of the Nara Period. Along with the spread of calligraphy, "shin-gyo-so" came to be used as a term to represent three stages of style not only in calligraphy but also in various genres, shin for most prestigious and formal, gyo for intermediate, and so for the most exceptional and at the other end of the spectrum.>

Thus it is possible to understand what is generally meant by "shin-gyo-so" and here explanations of tea-ceremony tools on the Omotesenke tea-ceremony school Web site are quoted. They refer to "shin-gyo-so" and relate to the architectural world and also are easy to understand.

<In the world of the tea ceremony, "shin-gyo-so" are often used. These words refer to three types of style in calligraphy: "shin" is the original

form, “gyo” is the slightly simplified form and “so” is written in running style. These three types of style were applied to the world of the tea ceremony and classified its styles as “shin-gyo-so.”

For example, to explain tea-ceremony tools, the utensil stand and the set of tea-tools that came from China, and were used when serving noble people such as General Ashikaga or gods and Buddha, are ranked “shin.” In contrast to those Chinese tools, domestic ceramics that expressed the charm of soil, and simple tools utilizing materials such as bamboos and trees are ranked “so.” And the intermediate form, for example, domestic ceramics that resembled Chinese chinaware would be ranked “gyo.” There are distinctions of “shin-gyo-so” among not only pottery but all other tools and tea-ceremony rooms.

Although it may give a stiff impression to look at “shin-gyo-so” as a determined promise, in fact, the Japanese way of accepting foreign culture is seen in this classification. From those things that were Japanized by breaking from their original forms and whose changes, through decisive simplification, disguised themselves as different things from original figures, it is interesting to know not only the development from Chinese tools to Japanese tools but also how to understand Japanese culture, namely, “shin-gyo-so” from the viewpoint of “to imitate, to put in disorder, to disguise.”.>

When we look at things in this way, it is understood that “shin-gyo-so” is a concept to help us to comprehend different styles and forms uniformly. Teiji Ito in his work “Thought in Japanese Design” (Note: 09) says ;

<The people often say that our culture was familiar with neither negation nor conquest. When architecture, gardens, industrial arts and even entertainment are once born, their styles continued to exist without being destroyed. (omission) If the new style was born as the result of negation and conquest of the old style, it is natural that the old style should be forgotten in the new era. (omission) The history and the characteristics of our culture, in the design field, were expressed in the form of “shin-gyo-so”.>

It is possible to organize various different styles by “shin-gyo-so” and to justify the presence of each style, and it can be considered that “shin-gyo-so” has promoted the coexistence and collateral of various styles and forms. Rather, it has prompted the sense that it is natural to have three styles/three states for anything. The fact is that such a value system has become widely rooted in Japanese culture and the formation of collateral coexisting culture without negation are both sides of the same coin.

“Shin-gyo-so” is a very useful concept that makes it possible to justify the existence of various styles in general by just using the term , while there are various architectural styles and forms in Japan. For example, among existing Shoin architecture, which developed in the life-style of samurai, Dojinsai, a study room of Togudo Hall, Jishoji Temple, which is said to be the origin of that architectural style, is ranked “shin,” Shoin architecture in the Sukiya style that avoided the stiff atmosphere of samuri life is classified as “gyo,” and the ultimate thatched hut used as a tea-ceremony room can be ranked “so”. Thus, any coexisting style can be explained by this “shin-gyo-so”.

“Shin”: Formal form based on the samurai lifestyle, so neat and rigid

Photo 50: Dojinsai study room,Togudo, Jishoji Temple (Silver Pavilion), Kyoto

“Gyo”: A playful mind is strongly reflected in the staggered shelves, wall design and sliding screen paintings.

Photo 51: Middle garden guest house, Shugakuin Imperial Villa, Kyoto

"So": Keen-edged space with minimum components

Photo 52: Jo-an tearoom, Aichi Pref.

From ancient times, when the objects of religious belief that were linked directly to daily life were diverse and there was no absolute code such as to determine how one must behave, "sensitivity without denial" or the "mentality that anything goes" had been cultivated. Such mentality of the Japanese accepted foreign culture without resistance and created the way to justify the diverse possibilities to collaterally coexist. It can be said that the grounds for the "parts" to assert themselves freely have been developed.

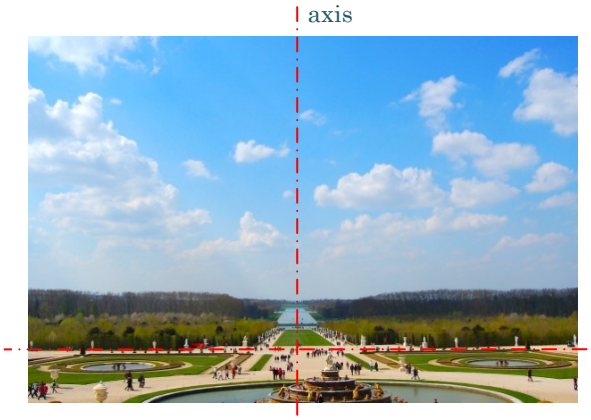
Chapter 3. Characteristics of Japanese Architectural Composition

3-1. Asymmetry

In an agrarian society, the Japanese believe that one does not conquer nature, but one fears and respects nature, and walks together with it. And nature does not have a fixed form, but is a free form that is ever changing. In the creative activity of the Japanese trying to work with nature, it was inevitable that the free form that had originated from nature would occupy a major position. It can be said that the artificial geometric form and the static symmetrical form were the counter electrodes of Japanese sensitivity.

In addition, in the world of flower arrangement that had a major impact on medieval design, emphasis had been placed on the asymmetrical harmony of elements. With dynamic balance in the asymmetrical leading the way, it can be said that asymmetry was actively pursued by the Japanese. The pursuit of symmetrical beauty as in the Western world was difficult in the first place due to the fact that the form of flower arrangement materials was irregular and not perfect.

Symmetry is the product of a master plan, and as the result of a composing process that looks at the whole from its parts, it was natural to be asymmetrical. Homogeneity is also the product of the precedence of the total image and the result of logic as a whole regulating its parts. The emphasis on axis and symmetry found in Western urban planning and garden planning strongly regulates not only the placement and the form of individual parts but also the ways they exist, and those plans result in the fact that they bear a strong homogeneity under overall control. In contrast, as the result of the parts precede the whole Japanese creation process, the flexibility of each part appears in the organic, non-homogeneous character of the whole.



Standing on the terrace of the Versailles Palace, one will notice the existence of an absolute axis. This is an assertion of human creation. All parts of the garden are regulated by the axis and as a result, an orderly symmetry is firmly maintained.

Photo 53: The garden of the Chateau de Versailles, France

In Western garden planning, particularly in French gardens, the absolute axis of the whole layout, including buildings, is of the most importance and the emphasis of the axis is strongly required. In the vast garden of the Chateau de Versailles, first and foremost is this axis, and as a result, symmetry of the whole is deliberately acknowledged. This strong axis not only penetrates the garden and buildings, the walkways, ponds, monuments and art objects are all placed on the axis, and the layout design is in a homogenous context. Such axis emphasis, also dominated subsequent urban planning. The absolute axis of Paris starts from the Elysees Palace to the Place de la Concorde, the Arc de Triomphe and farther leads to the new Arc de Triomphe of Defense.

“Most of the intentional architecture is made by way of descending from the whole to the parts. This type of design considers the conditions given initially, makes the most suitable overall pattern therefrom and, descends from this pattern to the parts again. (ommision) Of course, the overall design along with the work revised by the partial study, will be repeated downward (division) and upward (composition). However, to give an overall pattern in the early stage, will probably produce formal architecture.” So says Hiroshi Hara thus in his work “What is possible by architecture” (Note 17), and this is vividly shown in the case of Versailles Palace.

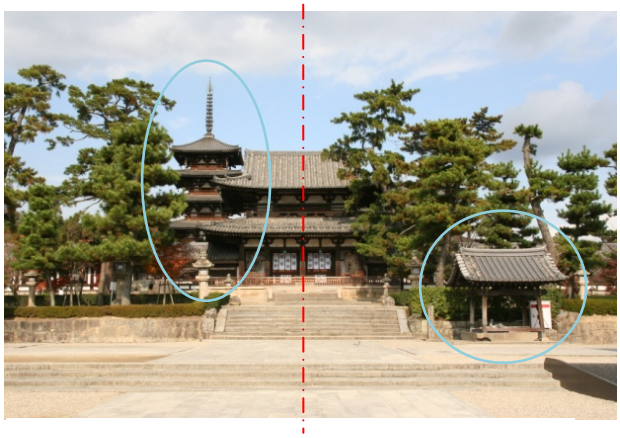
Although this is the epitome of a natural landscape, it is an artificial garden, with every part designed in detail. The flexibility of each part is highly respected, therefore it cannot become symmetrical.

Photo 54: Korakuen Garden, Okayama (completed in 1700)

In contrast, the Japanese garden is merely a reproduction of a natural landscape, therefore organic asymmetry is dominant. More than pursuing the natural form, it cannot become artificially symmetrical.

Korakuen Garden, which was constructed by order of the Okayama feudal lord and completed in 1700 after 14 years of construction, is regarded as one of the three most beautiful gardens in Japan, along with Kenrokuen and Kairakuen. It was designed so as to take in the flow of the Asahi River in the Kaiyu (strolling) style, which presents visitors with a new view at every turn of the path connecting the vast lawns, ponds, hills, teahouses and streams. The magnificent views of ponds and hills can also be enjoyed from the teahouses, which were built for each succeeding daimyo and are located throughout the garden. Okayama Castle and the surrounding mountains in the background are nice examples of "borrowed scenery."

⊡ Horyuji Temple, Nara



The Pagoda on the left and Main Hall on the right of the central axis. This main approach shows the delicate balance in the layout, including the trees, by which the Japanese feel more natural.

Photo 55: Inner gate and Saiin precinct

The dynamic balance between the Pagoda and the Main Hall placed asymmetrically, which is common to the aesthetic sensitivity of flower arrangement.

Photo 56: (left)Five-story Pagoda, (right) Main Hall

Horyuji was built in 607 by Crown Prince Shotoku, and was one of the most dignified temples at that time. According to historical documents, Horyuji was completely destroyed by a great fire in 670, but was rebuilt soon after. Notice the asymmetrical disposition of the Main Hall (on the right) and the Pagoda (on the left) in the precincts surrounded by the corridor. Under the strong influence of the relative culture of the continent, the layout of the temple architecture at that time was completely symmetrical without exception, but here they dared to ignore symmetry. Asymmetry is one of the important keywords for understanding the Japanese aesthetic sense.

⊡ Izumo Taisha Shrine, Shimane

misaligned

The Copper Torii and Worship Hall, and a glimpse of the ornamental rafter ends of the Main Hall in the rear slightly misaligned. Obviously, it is intended to give a feeling of depth.

Photo 57: Slightly misaligned configuration

Under symmetric culture, it is important to show off the existence of the main structure, but under Japanese configuration the whole of the Main Hall is hidden.

Photo 58: The Main Hall

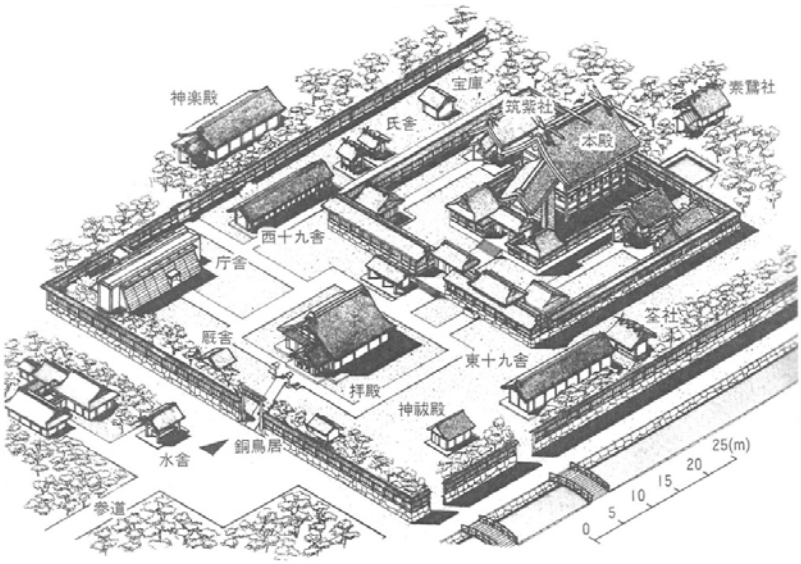


Fig.01: It is understood that the Copper Torii, Worship Hall and Main Hall are intentionally misaligned. The function of each component is important and the mutual relationship of the absolute position of the components is not of great importance.

The origins of the Izumo Taisha buildings date back as far as the mid-seventh century, with the architectural style of the Main Hall being one of the three prototypes of ancient shrine architecture. According to tradition, the hall was previously twice as high, and the recent discovery of the remains of enormous pillars might give credence to this. The present hall was rebuilt much smaller in 1744, though the original architectural style was emphatically preserved.

It is interesting to note that the buildings are slightly misaligned. This creates a somewhat informal atmosphere along with the feeling of greater depth in the given area.

Shinto architecture also seems to have been under the influence of the strong relativity culture of the continent, but these unique Japanese space configurations and building layouts were given priority.

▫ Kyoto Imperial Palace, Kyoto

The placement of each building is likely determined spontaneously. There seems to be no intention to regulate the placement and form of each building from the overall image of the palace. Rather, the relationship between the buildings and exterior spaces is of much importance. As a result, asymmetry is inevitable.

Photo 59: (from left) Kogosho, Ogakumonjo, Otsunegoten

Kyoto Imperial Palace is one of the most typical and representative architectural creations of Japan. The current Kyoto Imperial Palace used to be one of the temporary palaces that had been built outside the original Heian Palace. It had been the Imperial Palace from 1331 to 1869, when the capital was moved to Tokyo. During this period, there were repeated instances of fire and reconstruction, and also extensions were built adding new functions.

From Shishinden (Hall of State Ceremonies) to Otsunegoten and farther to the Chosetsu Teahouse via Kogosho and Ogakumonjo, extensions continued northward. The buildings were added by crossing their ridges at right angles and by adding connecting corridors. What had been considered

important were the relationships between added buildings and the grand Oikeniwa Garden, and other exterior spaces. The layout of the extensions was determined spontaneously and it was quite different from the strong assertion of symmetry that was found in the Chateau de Versailles or the Schonbrunn Palace, Vienna, in the West.

Photo 60: Shishinden (Hall of State Ceremonies)
Neglection of symmetry by planting

This is the front face of Shishinden which is the most formal of Kyoto Imperial Palace. The building was built in the symmetrical to conform to an ancient rite but, as if to eliminate symmetry, a pair of trees were planted, a tachibana tree on the right and a cherry tree on the left. Although they were planted in accordance with the ancient rite and the origin of planting was as well transmitted, morphologically, it is clear that there was an intention to eliminate tense symmetry. It is said that the cherry tree was at first a plum tree, but in any case, an evergreen tree and a deciduous tree were paired to display asymmetry.

Since the introduction of Jori-sei (the ancient Japanese system of land subdivision), there had been attempts in our country to fix the symmetrical order numerous times, but it was likely that on each occasion there had been some influence to exclude symmetry. Here, one of the origins of this power is acknowledged.

⊡ Jo-an (teahouse), Aichi

Entrance, eaves, windows, etc., everything is where it is needed. Form is a mere result of necessity.

Photo 61: Façade without regulating order
(said to have been built in1618 on its original site in Kyoto)

In the condensed small space, the intention to adjust shape and placement does not work; function and effect are the first priority; everything is determined by the functional movements of the host and the customer. There is no scope for symmetry.

Photo 62: Placement of windows, the first priorities of which are lighting and vista effect

In the ultimate small space, namely, the tearoom, manners and features are the top priority, and the scarce space margin is there to stick to the shape and formality. The crawl-through doorway from the dirt floor, guests seat and the alcove, the furnace and the host seat, these are arranged by functional necessity; a symmetrical arrangement is out of the question. The exterior appearance also directly represents functions, it is inevitably asymmetric. The façade of Jo-an, delicately balanced while asymmetrical, is very tasteful.

As for the creative activities of the Japanese who try to maintain a good relationship with nature, it is logical that they pursue free forms that are related to the natural environment.

When the concept of the temple complex was first imported from mainland China, everything was positioned symmetrically, but soon after, Japanese people avoided this uniform layout as seen at Horyuji, the oldest remaining temple. Most Japanese architectural styles were based on daily activities rather than monuments; hence the symmetrical style did not develop. In other words, it was not possible to create symmetrically under the Japanese creation process starting from the parts. The asymmetrical approach is most notably seen in the interior design and fittings for residential use.

On the other hand, Shuichi Kato, in his work "Time and space of Japanese culture" (Note 04), describes the origins of the pursuit of asymmetry by the Japanese as follows: "Parts precede the whole. Details are independent from the whole, and assert the form and function of themselves. This is the worldview behind asymmetrical aesthetics."

Symmetry is the product of the overall design, and in the process leading to the whole from the detail, it is likely that there is no place for it.

3-2. Culture of addition

⊡ Addition (Katsura Imperial Villa, Kyoto)

Photo 63: Old Shoin

Photo 64: (from left) New Palace, Musical Instrument Room, Middle Shoin

The culture of "formative development from parts to the whole" is in a sense the "culture of addition."(Note 18) From investigations during dismantling and repair work, a series of buildings ranging from Old Shoin, Middle Shoin to New Palace was found to be added sequentially.

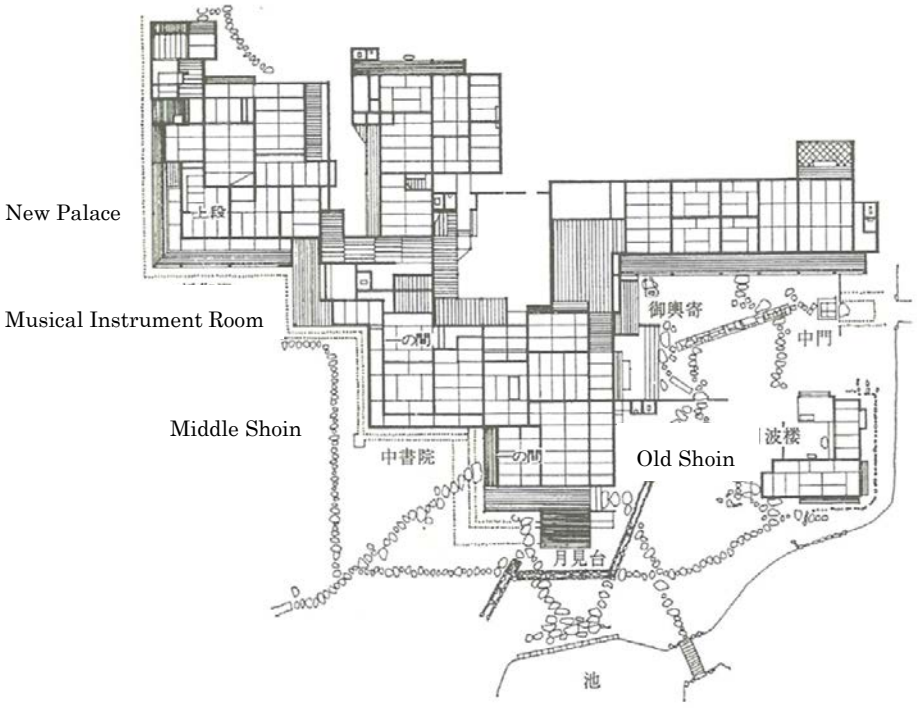


Fig.02: Plan of main buildings of Katsura Imperial Villa
(constructed through a few decades after 1615)

By orthogonally connecting buildings, it was possible to create a rich relationship with the garden and the segmentation of the space function was realized toward the creation of a more private New Palace. As for Japanese culture, the evolution of creativity does not necessarily mean the old is denied and replaced with the new. It is possible to coexist by adding the new. The total composition of the buildings of Katsura Imperial Villa is a perfect example of the result of the addition of parts, which are Old Shoin, Middle Shoin, and New Palace.

▫ Orthogonal design /Flying geese pattern (Nijo Castle, Kyoto)

Ninomaru Palace in Nijo Castle was built almost at the same time as Katsura Imperial Villa but differed because all buildings were constructed simultaneously, each with its own function. The palace is the result of the addition of functions.

(Front): Kuroshoin (Inner audience chamber), (back): Ohiroma (Great hall). Big hip-and-gable roofs are connected orthogonally. Small spaces with respective functions are added and the inside has a strong hierarchy of space.

Photo 65: Ninomaru Palace in Nijo Castle (completed in 1626)

In Japanese architecture, huge roofs are avoided by keeping the gradient, large buildings in terms of depth are not built and extensions are made by orthogonally connecting separate buildings by a corridor. Moreover, in order to maintain the maximum open and continuous relationship with the garden, without placing the ridges in a straight line, the buildings are connected in the flying geese pattern.

This is very effective for the segmentation of large-scale buildings in terms of adjusting the sense of scale as seen from the garden. At Ninomaru Palace, Tozamurai, Shikidai, Ohiroma, Sotetsunoma, Kuroshoin, and Shiroshoin were placed in a flying geese pattern and were internally connected by a corridor that turns orthogonally, thus creating an extremely strong hierarchy of space. Each time the corridor makes a turn, the fact that you are entering the next zone is recognized. From the front toward the space further inside, from the waiting room of feudal generals to the audience chamber of the Tokugawa Shogun, subsequently more prestigious rooms are placed as one proceeds. And at the end, it is connected to a more private zone for the shogun. Such a flying geese pattern is completely different from the output of configuration by dividing the whole. This is the result of addition and the morphological completeness as a whole is weak, while further extension is possible and inevitably the total picture would become asymmetrical.

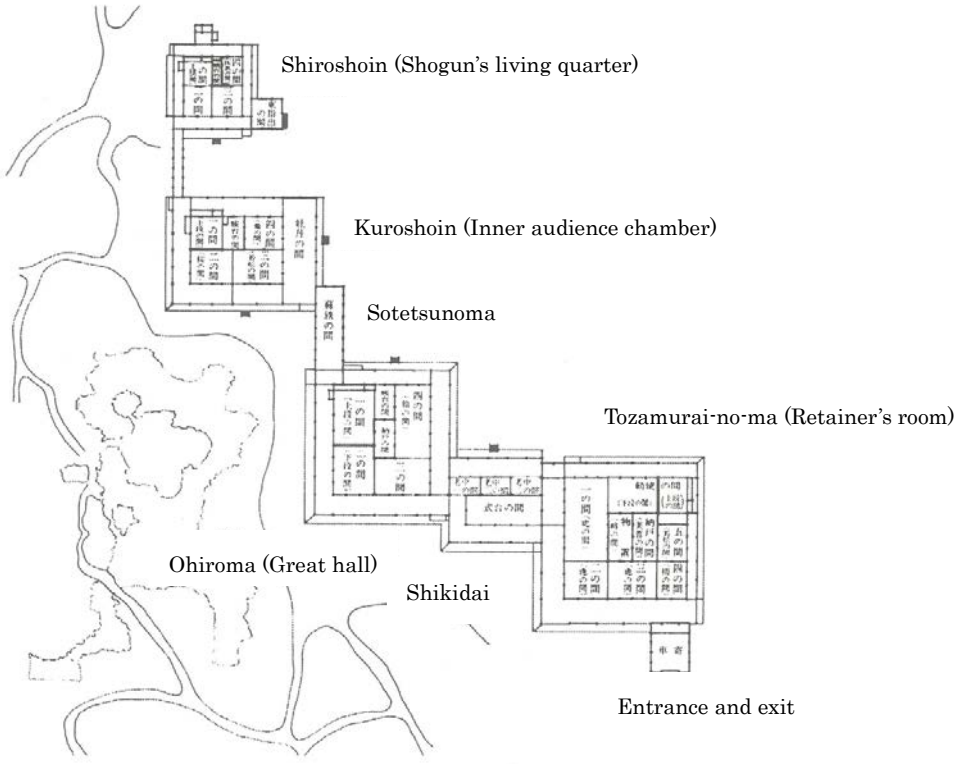


Fig.03: Plan of Ninomaru Palace, Nijo Castle

⊡ Technique of connection (Ninnaji Temple, Kyoto)

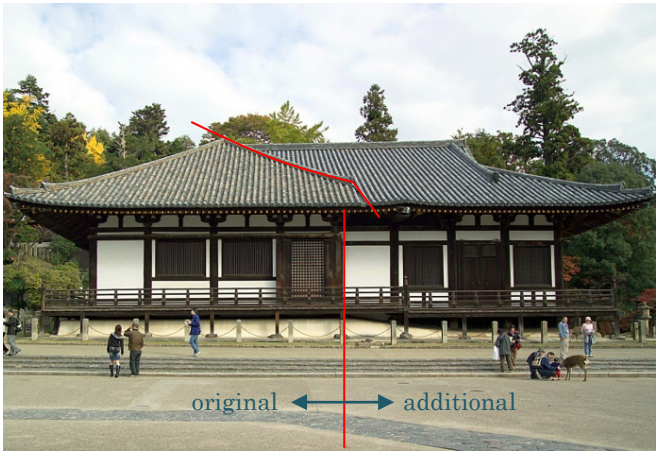
Connecting corridors became essential for adding separate buildings. They are the symbol of the culture of extension.

Photo 66: Ninnaji Temple, Kyoto

In order to practice “addition,” it is necessary to develop techniques or methods to connect various “parts.” As for Japanese architecture from ancient times, the fact that small buildings, which had been connected according to need, were used rather than large buildings, which had been divided into necessary parts, is clearly seen in the layout of temples and shrines. <It can be said that the part of a building that connects separate buildings developed historically showing different methods, such as exposed corridors, roofed corridors, intervention of a connecting room, to become an internal space, or to connect directly.> (Note :19)

At Itsukushima Jinja, connecting passages have developed to be admirable corridors and now they are the main character of the total configuration. On the other hand, at Katsura Imperial Villa (as shown above), the Musical Instrument Room, which connects Middle Shoin and New Palace, is a good example of a space that developed to be completely internal.

▫ Unification (Todaiji, Nara)

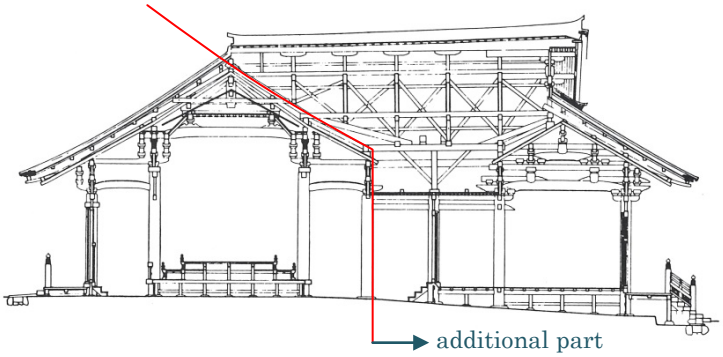


The right half of the building was added to the left half 500 years after erection. A gable-and-hip roof was added to a hipped roof, as the result of the culture of addition. This is a world where anything goes, not caring for form or style.

Photo 67: Sangatsudo Hall, Todaiji Temple

Sangatsudo Hall of Todaiji Temple, which is designated as a National Treasure, is one of the few buildings dating back to the Nara Period and is as old as the erection of Great Buddha Hall. But only four intervals (between posts) to the left of the photo are from the Nara Period and they are the main part of the building where the principal image is enshrined. Four intervals to the right were extended in the Kamakura period as a worship hall and the difference in style of each period can be seen in the architectural joints atop the posts.

It is understood that the main hall part is in the hipped roof style and the worship hall part is in the gable-and-hip style, but the point is that, without reconstructing the whole building in the first place, the extension of the building, which was already 500 years old, is a strong reflection of the "culture of addition." And what is worth attention is that the unification of these old and new buildings, despite the delicate differences in architectural joints and heights of beams, results in a powerful harmony beyond architectural styles. This is a proof of the Japanese character that, along with the "parts preceding the whole," the total best is created as the whole.



From the section drawing, it can clearly be seen that the worship hall (from right side) was added to the main hall (on left side)

Fig 04: Section of Sangatsudo Hall, Todaiji Temple

▫ Extension (Kyoto Imperial Palace)

Ogakumonjo (study hall) in the front and Kogosho in the back. These buildings show a blend of old architectural elements of the Heian Era. They were built in accordance with functional necessity and extension work was carried out in graceful manner.

photo 68: Oikeniwa, Kyoto Imperial Palace

The buildings and the landscape of Kyoto Imperial Palace invite visitors to elegant space perception that is unique to Japan. In this relaxing atmosphere, it seems that time passes more slowly and differently from in contemporary Japan. Now, we will look at its spatial structure.

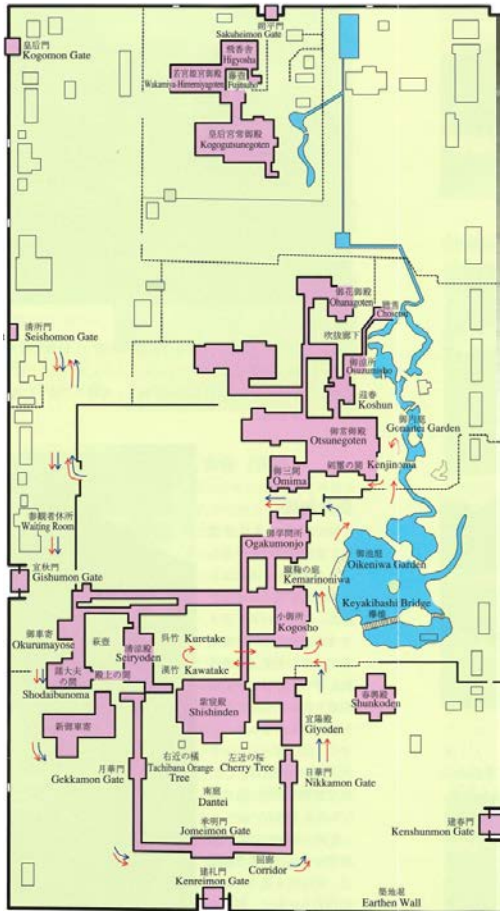


Fig 05: Site plan of Kyoto Imperial Palace

The groups of architecture at Kyoto Imperial Palace clearly show that Japanese culture is recognized as the “culture of addition”. Shishinden (the most prestigious hall for state ceremonies) and Seiryoden (pavilion used as the Emperor's normal residence), which are built in the manner of Heian Era palatial architecture (Shinden-zukuri style), and Kogosho (small palatial hall) and Ogakumonjo (study hall), which are built in a mixed palatial and residential style (Shoin-zukuri style), are added and further connected to a more private Otsunegoten (living quarters for the Emperor), the interior of which was completely built in a residential style partly in Sukiya style as well, Koushun (study room), Oshuzumisho (cool-down space) and the Chousetsu tearoom.

These palatial halls and attached buildings are organically connected by hallways and corridors, thus creating inner courts with white sand and spot gardens, and a spacious garden with a large pond is placed in the middle.

The buildings are basically constructed in the graceful Shinden-zukuri style, but the transition to the Shoin-zukuri style and further to the Sukiya style can be seen, and clearly buildings are added from time to time. Until now, there has been a cycle of fire disasters and reconstruction, and the main palace buildings have been restored to ancient Heian Era style according to documentation. (The current buildings were mainly reconstructed in 1855.)

It is obvious that the architecture of Kyoto Imperial Palace is the aggregate of individual palace buildings, yet as a whole, it has the graceful atmosphere of the dynasty culture of the Heian Era, which is simple but elegant and refined.

When one looks at the overall plan of Kyoto Imperial Palace, it is obvious that the buildings were constructed sequentially. At each part, the form was determined to satisfy the functional needs, but as the whole, the configuration was left to chance. But they were not just mere “additions.” An appropriate sense of scale, harmonious relationship with the garden and the sense of “oku” were realized, and the graceful atmosphere of the dynasty culture of the Heian Period and the refined architectural style of early modern times were incorporated. The “culture of addition” embodies the “parts precede the whole” Japanese creation process, and expresses diverse Japanese architectural characteristics and realizes the rich Japanese environment.

3-3. Devotion to small space

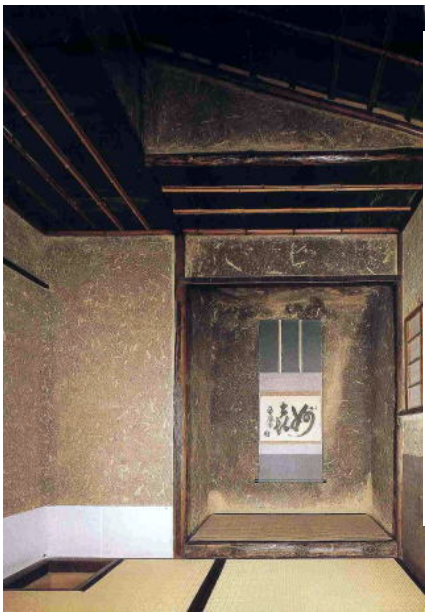
As mentioned above, Shuichi Kato pointed out “the culture whose interest to the whole was weak, at the same time, produced strong interest to parts.” (Note 04) In the parts precede the whole creation process, those parts are intensively focused upon.
Furthermore, from the perspective of "now = here," what is in front of the eyes becomes the top priority and inevitably, interest will be concentrated there. Therefore, the characteristic of Japanese creation that “to the whole from parts” is directly linked to the approach that creative energy is concentrated on the small space in front of the eyes.

⊡ Taian Tearoom, Myokian Temple, Kyoto

“Wabi” and “sabi” is said to be one of the most distinctive characteristics of the Japanese sense of beauty. There are various references for this, but I explain as follows: wabi connotes rustic simplicity and understated elegance while sabi is beauty or serenity that comes with age or solitude.

When applied to architecture, what distinctive features does this bring about? It may be said that the use of natural materials as they are without processing or painting, or in a quiet and distinctive atmosphere, allows an inner beauty to emerge from its simple appearance. And in the background of such creation, there is a glimpse of an abstract sense of value.

This Taian Tearoom by Senno Rikyu is a representative structure created by the combination of the spirituality of wabi and sabi, and the devotion of energy to small spaces.



Ideas for the ceiling, placement of windows for lighting, configuration of the alcove, study of the materials, details for finishing, etc., the energy of creation is concentrated in this minimal space. And as a result, a rich space unaware of its size is created.

(said to have been built during Battle of Yamazaki in 1582)

Photo 69: Taian Tearoom, a National Treasure

The Taian Tearoom, designated as a National Treasure, is the oldest teahouse in Japan and is said to be the only remaining teahouse created by Senno Rikyu without doubt. While the tea-ceremony room is only two mats, and including the service room and the room next door, the entire teahouse space is only four and a half mats. Why did Rikyu create such a small tearoom with only two mats? It is conceivable that Hideyoshi invited Rikyu to the camp ahead of the battle at Yamazaki, and because of the camp it was made small. But, first and foremost, wabi and sabi is a world of conception and abstraction, and a wide space is unnecessary.

It is said that Urakusai Oda who created the Jo-an Tearoom, a National Treasure, said, “Only two tatami would torture people.” But when I visited the site, I didn’t have the impression that the space was too small at all. It is only two mats and an alcove, but the ceiling height is enough for the small area and the existence of a sloping ceiling is very effective. The interior is full of rich light from windows that are opened giving priority to the best lighting. Because the corner walls of the fireplace are plastered around, one is not aware of the corner and a widened effect is created. The depth of the alcove is enough for its frontage and it contributes greatly to the three-dimensional effect of the interior space together with the variation of the ceiling. The chief priest told me that the back wall of the

alcove was plastered top to bottom into an approximately 2-centimeter concave form, thus creating the appearance of depth.

The simple and sophisticated space that is configured only by plastering the wall with straw on the surface, the multiple use of local bamboos, the rough finishing leaving marks of adze on the alcove post, and the feelings and colors of natural materials, tells us about the basis of wabi and sabi. What is enclosed in this minimal space, and the resulting rise of refined spiritual energy is one of the extremities of Japanese Identities.

⊡ Rock Garden, Daisen-in, Daitokuji Temple, Kyoto

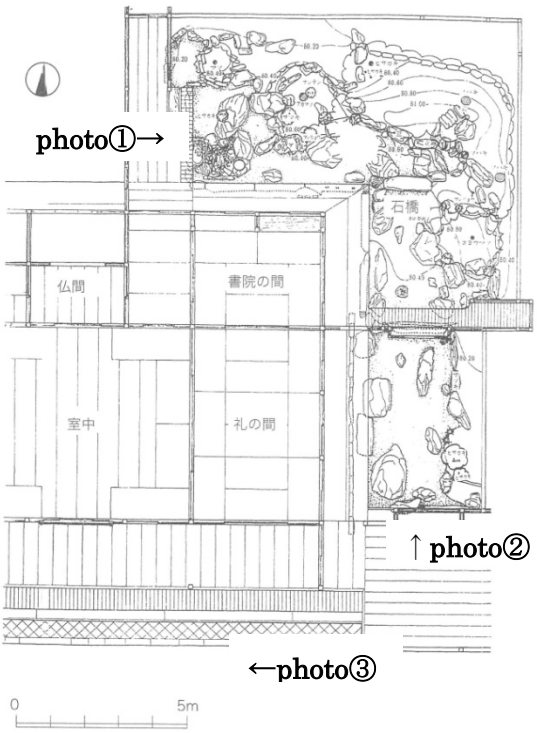


Fig.06: Abbot's quarters (completed in 1513) and
rock garden , Daisen-in, Daitokuji Temple

Photo 70: ①(north-side): Mt. Horaisan

Photo 71: ②(east-side): Water flow and treasure boat

This is a representative dry landscape of the Muromachi Period (1336-1573), where various scenes are elaborated in small spaces around the abbot's quarters. There is a waterfall from Mount. Horaisan falling into the north side of the abbot's quarters, and water flows out of there as if a dam had broken. The landscape expresses all states to flow into the ocean in sand, and expresses a treasure boat, a crane and a tortoise by arrangement of garden rocks. There is an open corridor surrounding the abbot's quarters creating a strong sense of unity in the garden and the interior of the quarters. It is created so that you can sit in the tatami room or on the open corridor to appreciate the garden. Definitely, it can be said that this is a representative space showing the devotion to small space, where magnificent thoughts are incorporated in the small space in front of your eyes.

This rock garden is often compared to that of Ryoanji Temple. This scene is the end of the magnificent story of the water flow, and what does one contemplate when looking at the great ocean and two peaks?

Photo 72: ③(south-side): great ocean

On the south side of the abbot's quarters, there lies the spacious ocean. The expanse of dazzling white sand stimulates one's sensitivity and encourages one to let the mind wander. The previous rugged rocks all disappear, and there are only two peaks of pure and innocent white sand. The rocks are said to express the human desire and the peaks of white sand are said to be in the course of its purification. When one gazes at the scene and closes one's eyes, a magnificent space is felt and heartfelt thoughts fill the mind.

⊡ Rock Garden, Ryoanji Temple, Kyoto

Photo 73: Everyone stares at the Garden

Sitting on the veranda, everyone gazes at the Garden. Recently, there are more visitors from foreign countries due to the worldwide Zen boom. A Japanese rock garden, where water is expressed without using it, hides symbolic meanings in this small space.

(said to have been built in the late 15th century)

The presence of this tasteful earthen wall, which regulates the small space, contributes greatly to the formality and the sense of existence of the Garden.

Photo 74: The surrounding earthen wall

This is the world-famous Rock Garden of Ryoanji Temple. This simple, yet remarkable garden measures only 25 meters by 10 meters but is meant to represent the whole universe. The rectangular Zen garden is completely

different from other gorgeous gardens constructed in the Middle Ages. Neither trees nor water are used, only 15 rocks and white gravel constitute the garden. But behind the configuration, there breathes the deep thoughts of Zen Buddhism.

Visitors sit on the veranda facing the Garden to gaze at it. It is for the visitors to decide what and how they think of this abstract garden. Probably, the longer one looks at it, the more varied imaginings one will come up with. The white gravel is often compared to the sea and the rocks to islands. But I see them as a sea of clouds and protruding peaks. It is often explained that there are 15 rocks in the garden but wherever one sits, it is not possible to see all 15 at one glance, signifying the imperfect nature of mankind.

The low earthen wall surrounding the garden is also of great importance. It is made of clay boiled in oil, from which the color seeps out and leads to a peculiar design in the course of time. Also, an intentional perspective effect was created by decreasing the height of the wall toward the distant corner. The garden is said to have been created by multitalented Soami, who died in 1525, but no one is quite sure. There are many opinions as to the creator and the creative intention of the garden.

▫ **"Shukukei"** (an artificial scene constructed in a garden, which mimicked a famous natural scene) **in the gardens**

"Shukukei" of famous scenery in Kyoto : The Katsuragawa River and Togetsukyo Bridge in Arashiyama

(Edo period clan garden, construction started in 1629)

Photo 75: Koishikawa Korakuen Garden in Tokyo

Koishikawa Korakuen Garden is a strolling type of garden begun in 1629 by Yorifusa Tokugawa, first feudal lord of the Mito Tokugawa family and finished by his son, Mitsukuni Tokugawa, as a garden attached to the residence, and the names of beauty spots across the country are used here and there. The photograph is of famous scenery in Kyoto: the Katsuragawa River and Togetsukyo Bridge in Arashiyama, and it is possible to imagine that this setting was created according to the cherished of Kyoto scene and a strong yearning for it.

As in this case, by getting a hint or a motive from natural scenery, the configuration that the essences of a scene are incorporated in the garden is called "shukukei." Here, numerous shukukei parts are scattered through the garden, and the aggregation of which constitutes the whole of the garden. And here we can clearly see the characteristic of the Japanese way of configuration that, by devoting to parts, the parts precede the whole.

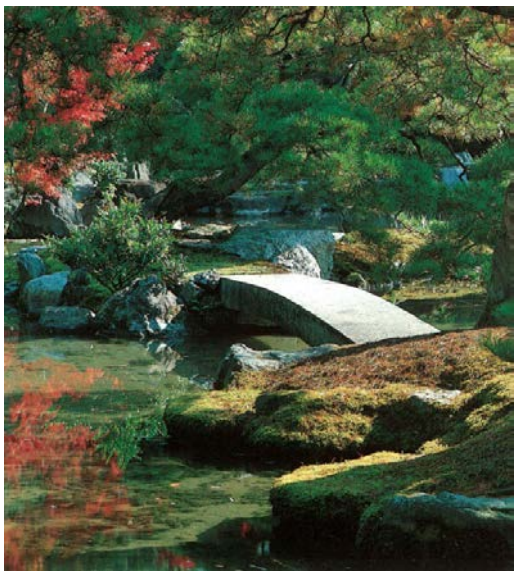


Photo 76: Amanohashidate in Katsura Imperial Villa

Next is a shukukei in the Katsura Imperial Villa, Kyoto. On the way to one of the teahouse, Shokintei (known as Pine-Lute Pavillion), one will have a view of Amanohashidate (a natural sandbar known as one of the three most beautiful spots in Japan). It is said that this setting is associated with the scenic beauty of Tango, the birthplace of the princess of Prince Tomohito who created this villa. The garden of the Katsura Imperial Villa can also be said to consist of a combination of various motives within it and the energy that is devoted to each one of the parts is enormous.

▫ Katsura Shelves, Upper Alcove of Main Room, New Palace Katsura Imperial Villa, Kyoto

The design, materials, details and the sense of fun helps one to grasp the extraordinary creative energy that is poured into this shelf. It is said to be one of the three most distinguished shelves in Japan, and this refers to the fact that the Japanese pay much attention to such small "parts" of a building.

Photo77: Katsura Shelves, Upper Alcove of Main Room, New Palace

At the Katsura Imperial Villa, Old Shoin, Middle Shoin and New Palace were subsequently constructed, and it is said that Sukiya-style designs were added over time. In the Upper Alcove of the Main room of the New Palace, a study and shelves were attached to just a three-mat space like house fixtures, and they were simply the fruits of creative energy. The details considering practical use, closely examined materials and the expression of a sense of fun are all excellent. It is inferred that the black-and-white painting on the small sliding doors should be the work of a famous painter. These shelves are called Katsura Shelves, which are said to be among the most distinguished shelves in Japan together with the Mist Shelves of the guesthouse of the Shugakuin Imperial Villa and the Daigo Shelves of the Sanpo-in, Daigoji Temple.

In the first place, to say the three most distinguished so and so for the shelves in the alcove is an evidence of the approach of devoting enormous energy to small parts.

Looking at these examples, I cannot but feel the enormous creative energy put into such tiny parts of a small tea-ceremony room, a small garden or a living quarter, and the small portion of space in front of one's eyes. It is realized that the parts are the object of creation and the whole is a mere outcome of "the aggregation of parts."

3-4. Organic form

The organic form, such as that found in nature and the biological world, is a natural form without straight lines. By breaking away from the artificial geometric form, and when attempting to create a free organic form, if not entirely based on forms that have been completed, it is inevitable that the whole will be created by piling up parts. It is possible to design the whole by geometric design methods, but in order to design an organic form, it is necessary to design "from parts to the whole." It may be said that the Japanese sensitivity to parts preceding the whole offers the strong possibility to bring about an attractive organic form.

⊡ Okayama Korakuen Garden, Okayama Prefecture

Although this is an artificial garden, it is intended to reproduce nature. It is configured by curved lines and surfaces seen in the natural world, and there are no geometric straight lines. It is in itself an organic form.

(constructed 1687～1700)

Photo 78: Sawanoike Pond and strolling passage

Natural ponds, islands, a sandbar are reproduced and the total scene is elaborated from these parts. Okayama Castle is incorporated in the background as "borrowed scenery" and the ideal whole is created from parts.

Photo 79: White sand and pine trees

In contrast to Western gardens, which pursue artificial beauty, Japanese gardens, although they are man-made, reproduce a natural landscape or ideal natural scenes as far as possible. At Korakuen Garden, by creating islands, peninsulas and beaches on a natural shaped pond that takes in the flow of the Asahikawa River, the total configuration results in a quite organic form. This is a strolling type of garden, where a stream flows in a large lawn grounds, and a pond, mountains and teahouses are connected by passages. It is made so that the visitors can enjoy the changes of the scenery as they walk. Also, from the teahouses built at various points, it is possible to enjoy each scene of the pond and mountains, with Okayama Castle and the surrounding natural mountains seen in the background as "borrowed scenery." Korakuen is a noted garden with a bright and expansive atmosphere, where one can enjoy the seasonal changes.

▫ Makino Tomitaro Memorial Hall, Kochi Prefecture

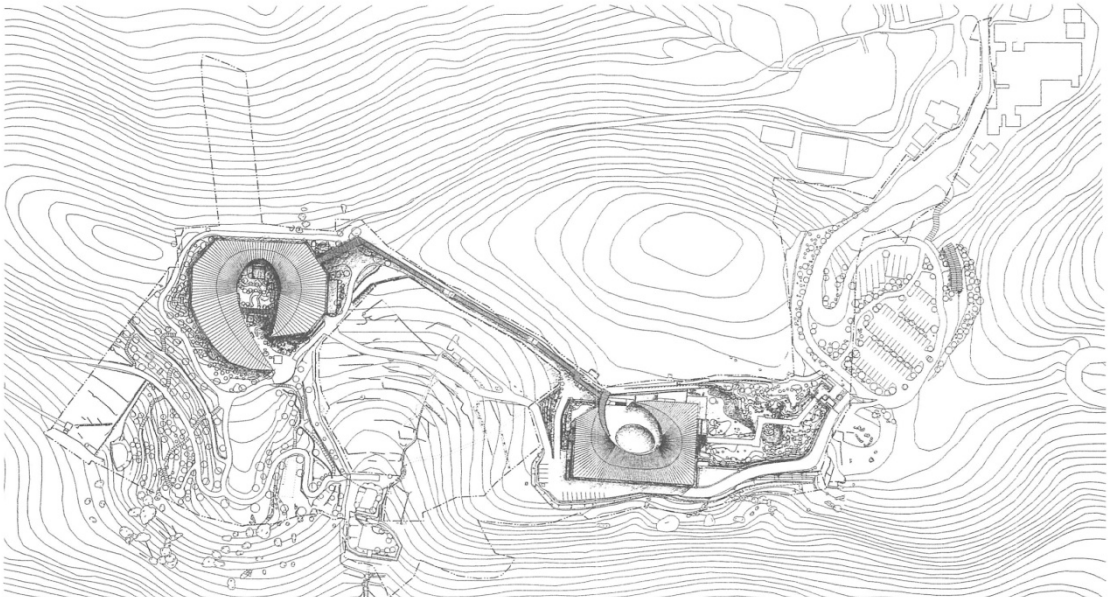


Fig. 07: Site plan of Makino Tomitaro Memorial Hall
(built: 1999, architect: Hiroshi Naito, location: Kochi Prefecture

The Main Building (on the right) and Exhibition Hall (on the left), the two buildings that consist of two wooden vaults standing on the ridge of Godaisan Mountain in Kochi City overlooking the city, are a part of the prefectural botanical garden, which is named after Dr. Tomitaro Makino,

the father of Japanese botany. As for the architectural design, it was required to be in harmony with the natural landscape of Godaisan Mountain and to be a symbolic presence for the "Plan for Cultural Prefecture of Trees," which Kochi Prefecture is promoting.

It was required to design a building with an organic form that will adapt itself to the ups and downs of the natural contours of the mountain ridge. And the design that symbolizes "tree culture" can be realized by practicing what I pointed out in Chapter 2, Clause 4 : "Wooden architecture is really an essence of the technique of compiling wooden materials. There are materials (parts) at first and the whole is set up utilizing most of them."

It is not possible to photograph the whole building in one shot. This building consists of continuous parts and is not intended to show the total figure.

Photo 80: Horseshoe shaped Exhibition Hall

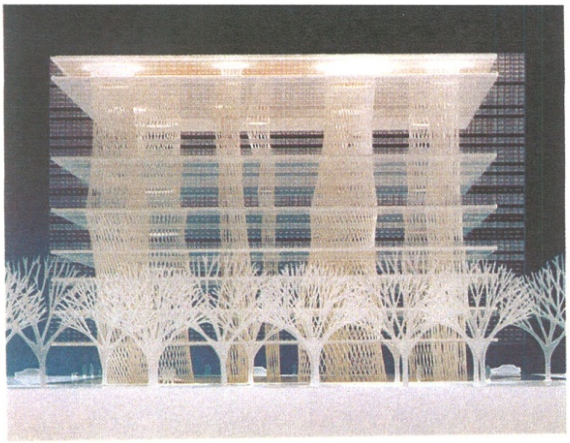
The Main Building is an oval shape while the Exhibition Hall is horseshoe shaped. The buildings are constructed along the natural contour lines so as not to stand out from the landscape. Each of the roofs consists of continuous vaults of laminated timber beams that are said to suggest a fishbone. At a glance, the buildings look small and do not stand out, but once inside, one will be surprised by their scale. And as for the interiors, a lot of lumber is used for roof finishing, beams, walls, floors, which is richly expressive. Inside the Main Hall, there is a projection room, a library, laboratories, a restaurant, etc., and in the Exhibition Hall, there are four exhibition rooms and a cafe.

Characteristic fishbone shaped wooden beams are the core of the design and structure. Enormous labor is indispensable for assembling this structure because all the beams are of different lengths.

Photo 81: Exhibition Hall/ continuous wooden vaults

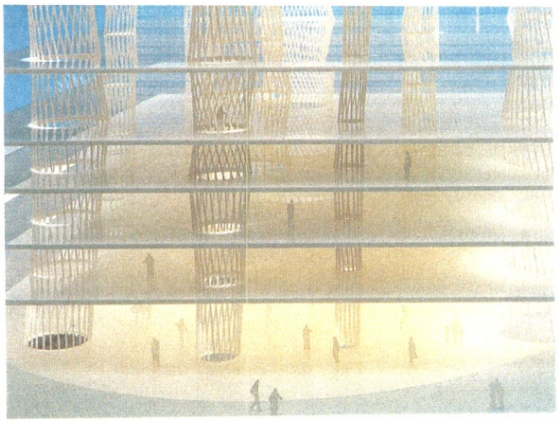
This is an extremely effective example of coexistence with the natural landscape, but in order to achieve this organic three-dimensional space, enormous time and labor are indispensable. For example, the lengths of the wooden beams all differ and therefore industrial production is of no use at all. Such charming architecture is only possible through serious efforts by the architect Hiroshi Naito and those related to the construction. This is the sincere attitude of the Japanese toward creation, which I described as "craftsmanship" in Chapter 2, Clause 4.

▫ Sendai Mediatheque, Sendai, Miyagi Prefecture



The innovative sketch that was presented in the competition. The organic pillars and the linear slabs were so impressive.

Fig 08a



Tube-like pillars penetrate slabs fluttering like seaweed. Is it possible to construct this?

Fig 08b

Toyo Ito's few sheets of sketches that he presented in his plan for the design competition featured tube-like pillars penetrating the slabs fluttering like seaweed, and the slabs were as thin as mere lines, and everything was wrapped in a glass box like a water tank. This completely new striking concept that pursued "architectural freedom" beat over 200 presentations to win the competition, and for the following six years, Ito had to struggle with numerous structural designers and construction people to realize the submitted idea. Finally, this multipurpose building was completed and won so many prizes. Ito presents striking ideas for each of his works, and he is regarded as one of the most innovative and influential architects not only in Japan but also in the world.

Was it possible to realize the original image? Tube-like pillars that fluttered like seaweed stand statically and they seem to act in unison with the zelkova trees on the street. The glass box weakened its appeal and the organic presence of the pillars is more impressive.

Photo 82: Façade of Sendai Mediatheque
(built: 2000, architect: Toyo Ito, location: Sendai, Miyagi)

Sendai Mediatheque is a seven-story public building and the entire structure is covered by a transparent glass double skin in each direction of its 50 meter by 50 meter floor plan. The main structure consists of the tube-like pillars that are made of steel pipes and the steel framed flat slabs that are supported by shipbuilding technology. The spaces within the pillars are used as elevator shafts, light wells, duct pipe shafts, etc. And it is extremely interesting that the organic form of these tube-like pillars resembles the trunks of the roadside trees in front of the building. The pillars and the trees visually overlap, and assert their coexistence while the appeal of the glass architecture is very weak.

The pillars and floor slabs of this building are fabricated by welding steel pieces. Manually built up from pieces and parts, the tube-like pillars resemble the trunks of the trees outside.

Photo 83: Tube-like pillars

It is the repetition of manual welding that made it possible to create this attractive organic structure. Such irregular shapes of the tubes have to be determined one by one. Each decision will result in the constitution of the overall figure. This is a gift of the “parts precede the whole” creative approach.

⊡ Teshima Art Museum, Kagawa Prefecture

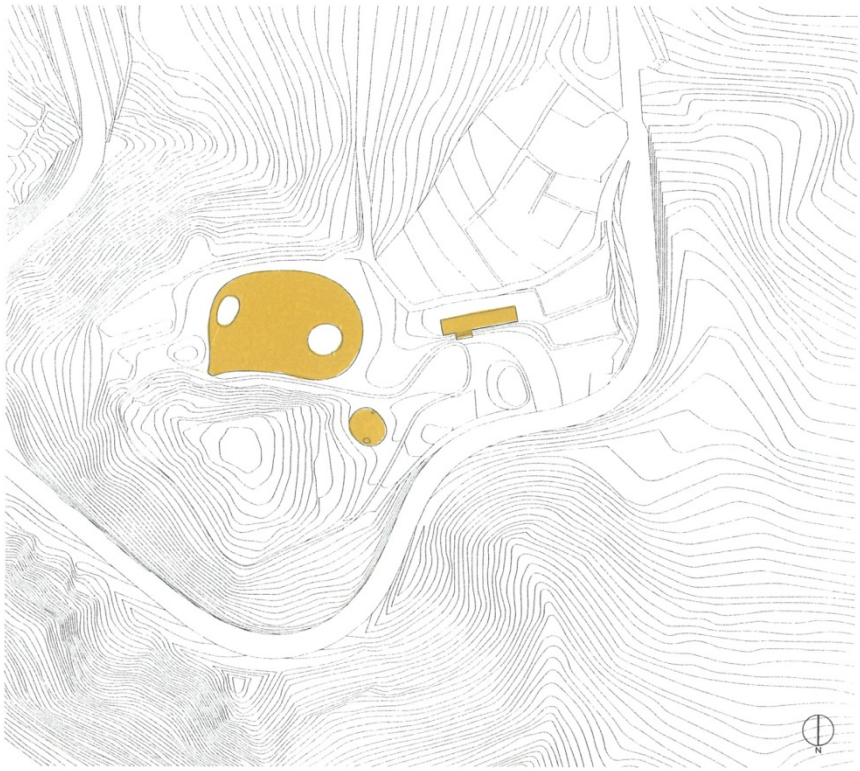
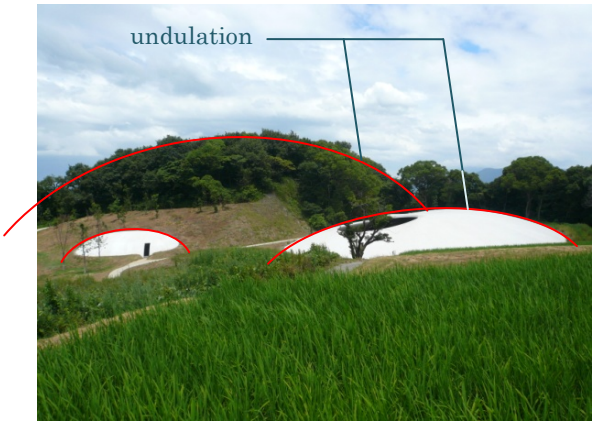


Fig. 09: Site plan of Teshima Art Museum

(built: 2010, architect: Ryue Nishizawa, location: Kagawa Prefecture)

Female artist Rei Naito and architect Ryue Nishizawa were asked to realize "the unification of art and architecture" concept, and "to create a base to send positive energy from Teshima, having understood the history of Teshima," which Soichiro Fukutake, the chief director of Naoshima Art Museum Foundation, conceived. (Note 20) Naito created an artwork using water, in which a spring is born every day from morning to night. Nishizawa primarily aimed at the unification of environment, art and architecture. As a result of the collaboration, such a fascinating art museum was born.

The structure is covered by a one-piece concrete shell and Nishizawa elaborately worked on every part of the up and down curves of the shell in order to harmonize with the surrounding environment. As a result, the organic form that was achieved completely melts into the surrounding nature and is called a drop of water. It is really the birth of an art museum unified with nature.



The museum building (right), and shop and restaurant (left) in an organic form called a drop of water, which melts into the surrounding landscape by adjusting itself to the undulations.

Photo 84: It is like a UFO

The form of the concrete shell is not the result of geometric necessity but the aggregate of parts that are created like a sculpture by Nishizawa because of his sensitivity toward nature. It was only possible by utilizing the newest technologies in such fields as computers, surveying and construction.

The gift of the attitude as if creating a sculpture according to the architect's sensitivity.

Photo 85: The sculpturesque concrete shell

As a result, the interior space is so fascinating it invites one to conceive something never experienced in daily life. It may remind one of a religious space, but there is no unified nor centripetal aim based on the total design as in religious architecture. Certainly, it is a place where nature, art and architecture resonate. The work of Rei Naito is, in scale, so small compared to the architecture. Water drops from fountains join together to produce flows of water. To collaborate with such a tiny work, it is necessary to pay maximum attention to every small part of the structure. The parts precede and the whole comes after as the result. Even then, it is inevitably the best architecture as a whole.

The structure is planned so as to prepare for the delicate water drops of Rei Naito that spring out, and join together and grow to be flows. It requires maximum consideration on the detailed parts of the architecture. This space consists of the elaborate aggregation of those parts.

Photo 86: Interior of the museum hall

There is a big hole on the shell and this part of the interior is completely unified with the exterior. Bright sunshine pours in and a pleasant breeze is occasionally felt. Even when there is no breeze, one can notice the flow of air by the movement of hanging ribbons and threads, which are the work of Naito. One will clearly notice the birdsong and the tone of cicadas in the hall which, will not be sensed outside. Looking upward through the hole, once again one will be conscious of the clear blue sky, innocent white clouds and the deep green of the trees. Here, each of the five senses is sharpened and activated. Here and there on the floor of the hall, water drops spring out and flow, and join together and grow. From this "living proof," what will one feel through stimulated sensitivities? Everyone visiting here sits on the floor and meditates. The internal space is somehow quite comfortable. This may be because the outline surrounding the space is organic and natural, and the geometric enclosure is not noticed.

The unification of the interior and the outside world, and the outside seen from inside through the hole, are full of new discoveries.

Photo 87: Looking up into the sky

As one moves about in the hall, the exterior seen through the hole is quite different. Springs on the floor and drops of water vary. When interviewed, the staff who spend their days in this art space answered: “This art space definitely consists of an aggregation of parts. The impression of the space differs completely according to place, time, weather, season, etc. Every morning, we start with wiping off the water, gathering fallen leaves, wiping and cleaning the floor, and we find that the drama that develops in each part of the hall is so diverse. We can’t but feel the great energy that has been infused into every part of the space.” It is obvious that this space has been created primarily by the aggregation of a careful devotion to every part of the total structure.

For those architectural structures of natural organic forms as seen so far in this section, it is evident that the creation process, in each case, involves parts preceding and parts being seriously considered, and it is the result of individual single article production.
Mass production of such structure is completely out of the question but therefore, it is possible to sense the depth of architecture that is brought about by intensive labor. The charm of Japanese architecture is based on an original sensitivity that cannot be measured by Western rational. It could be said that this is where the characteristic of Japanese Identities to create “from parts to the whole” is clearly shown.

3-5. Sense of "oku=inner zone"

A distinctive feature of Japanese culture is that each part of the whole has its own independent meaning, coexists and composes the whole. Among the parts, some order is likely to appear. The sense of "oku" is quite Japanese among those orders.

Simply referring to oku, there is something that appeals to Japanese people. Conversely, it is extremely difficult to translate that feeling into Western words. In terms of Japanese sensitivity, oku = inner zone refers to more sacred, more noble, more private or more secret feelings. In Japanese houses, the "oku room" or "oku parlor" is the important room in the back, and in daily life Japanese people have been deliberately conscious of oku. It is said that "housewife = oku mistress," derived from the most important presence.

In the "Kokin Wakashu (Collection of Japanese Poems of Ancient and Modern Times)," there is this well-known poem by Sarumaru no Taifu who was a waka poet in the early Heian Period;

> *oku yama ni momiji fumiwake naku shika no kowe kiku toki zo aki ha kanashiki* (loosely: Far up in the mountains, as I hear the cries of deer trampling over the maple leaves, oh! how sad the autumn feels to me!)

As seen in this poem (far up in the mountains = oku), from ancient times we Japanese have cherished special thinking on oku compared to Western people's yearning for "height."

My own feeling of the sense of oku is also interesting. When I enter a Japanese-style inn and am guided to the back along a tortuous corridor, I probably say, "Yeah, a good room in oku!" But in Western culture, when I enter a Western-style hotel and go up to the room, farther and farther from the elevator, I would claim, "No, what an inconvenient room!"

Japanese people are very keen on this sense of oku (Note 03), which leads to characteristic arrangements in order to express peculiar feelings. Here, I will look at various forms that are brought about by this sense of oku. The inner zone does not necessarily mean physical distance on a flat plane. Rather, it can be created by means of diverse arrangements. One feels the order of the space coordination at each gate and corner as one proceeds to the inner sanctuary of a shrine. In the course of the approach, when one crosses a body of water, it implies that one is being cleansed by the water before entering oku.

What is important is that the sense of oku and its production and composition as the expression of this sensitivity are only realized by accumulating parts, which is the theme of this thesis "formative development from parts," and the spatial hierarchy of parts. It may be said that oku, which is an extreme spatial perception of the Japanese, is a gift of the Japanese creative principle that is "from parts to the whole."

Let's look at the various forms in which the architectural set up of oku and the design of "parts" appear. On the other hand, in the background of these characteristic designs, it may be said that the intention of production of oku lies hidden.

⊡ Main approach of Ginkakuji Temple (Silver Pavilion), Kyoto

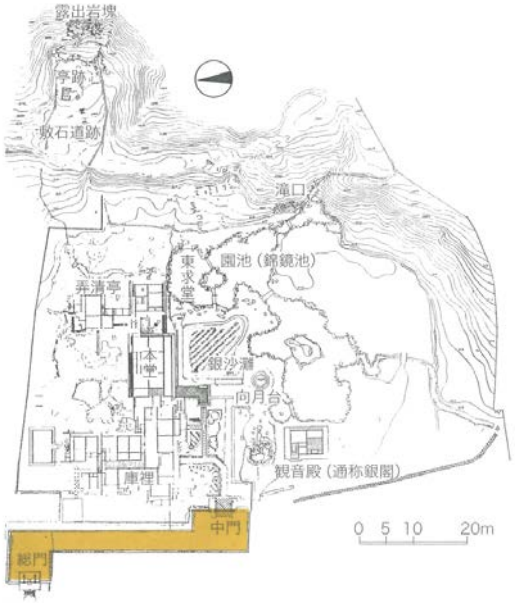


Fig. 10

Here is the approach path to Ginkakuji Temple from the main gate to the inner gate. This approach plays a major role in the layout of the precinct. Visitors cannot enter the garden straight from the main gate but are forced to walk a distance and make two right-angled turns. Thus a 50-meter-long approach space surrounded by bamboo fences called the “Ginkakuji hedge” was created and this space is effective enough to let one recognize the concept of oku. Some talk about the defensive implications of the approach, but moreover, away from the hustle and bustle of the city, this space brings about an absolute effect as an approach to the world of Higashiyama culture of the mid-Muromachi Period.

A unique space where visibility is restricted and a feeling of depth more than actual distance is recognized.

(Ginkakuji Temple: founded in 1490)

Photo 88: Approach and the “Ginkakuji hedge”

⊡ Nezu Museum, Tokyo

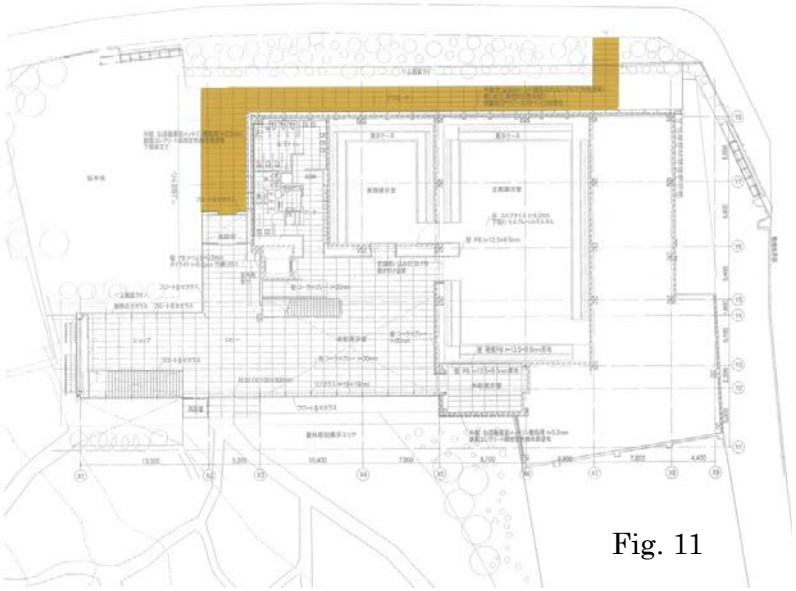


Fig. 11

built: 2009,
architect: Kengo Kuma
location: Tokyo

The approach space of the newly rebuilt Nezu Museum in Tokyo, which was designed by Kengo Kuma, is nothing but a production of oku. Away from the bustle of the capital's Aoyama district, where there are many fashionable boutiques, this is an introductory space to a silent art museum, and at this point we change our mind-set, become calm and ready ourselves to enter the world of art.

Entering from the front street, the space structure and its effect (the composition of this particular part of the whole), which was created by making two orthogonal turns, are said to be the product of Japanese DNA, which has been cultivated through the long history of Japan.

Make a right turn from the street and you are here, and after walking along this path, make a left turn and you will reach the entrance. Expectations increase by not being able to see oku. This is a distinctive Japanese space structure.

Photo 89: Approach path producing the wonder of oku

⊡ Dazaifu Tenmangu Shrine, Fukuoka Prefecture

Arched bridges are repeatedly set as “parts” on the approach path, and the change of views and up-and-down movements let one feel the “depth” or oku.

Photo 90: Approach path to Dazaifu Tenmangu Shrine (has its origin in 10th century)

The production of oku at Dazaifu Tenmangu Shrine is quite interesting. The main approach path to the shrine first passes through a line of souvenir shops, and then makes a left turn and, goes straight through a tower gate to the main building. In between, visitors will cross two big arched bridges over Shinjiike pond. One is purified by crossing the water, but more important is that, as one goes up and down the arched bridges, the sight of the main building appears and disappears, accordingly. Thus the layer of space is acknowledged and layer by layer one will proceed to oku, which is the most sacred space. Within a linear approach space, there lies an admirable production by which oku is to be acknowledged.

In this connection, a representative straight approach path is found at Tsurugaoka Hachimangu Shrine in Kamakura, where there is a great difference in the level of the ground as one proceeds. In this case, the great stairway plays a major role in the configuration that allows one to recognize the feeling of oku.

⊡ Fushimi Inari Taisha Shrine, Kyoto

Continuous torii gates, which regulate territories, create an extremely strong introductory space. Torii gates are multilayered and the sense of oku is strongly recognized. Furthermore, natural daylight penetrating through the limited gaps emphasizes the multilayers. This is an incidental result of consecutive donations over the years, but it can be said that this is a quite peculiar space that was created by the sensitivity of the Japanese conscious of oku.

Photo 91: Peculiar space at Senbon Torii gate

This is on the way to the inner precinct of Fushimi Inari Taisha Shrine. This place is called the “Senbon Torii” meaning a thousand torii gates. It is so unique that one will not find a similar place. Fushimi Inari Taisha is worshipped as a god for prosperous trade, and those successful in their business donated each of these red torii gates, built in a consecutive series that forms this unique tunnel. The custom of making a donation started a few hundred years ago, in the Edo Period.

All torii gates are colored in vermillion and natural daylight penetrates through the limited gaps between them. Thus an extraordinary space emerges. As an approach path, its fearsome and superstitious atmosphere is so effective that all those who walk through here will experience something of a divine feeling.

⊡ Himeji Castle, Hyogo Prefecture

The main approach route leading to the castle is configured in a way that might be mistaken for a maze and its defensive intention is apparent, but also it is very effective in creating a "sense of oku." As a matter of fact, Himeji Castle has never endured the fires of battle and it can be said that the major significance of its existence is the establishment of the authority of lords during peacetime. When entering the castle, it is not easy to get close to the towering keep or the main enclosure. There are gentle and steep slopes, numerous gates, narrow paths and U-turns, three-way blind alleys, etc. All sorts of devices are worked out and this could be said to be the ultimate creation of oku.

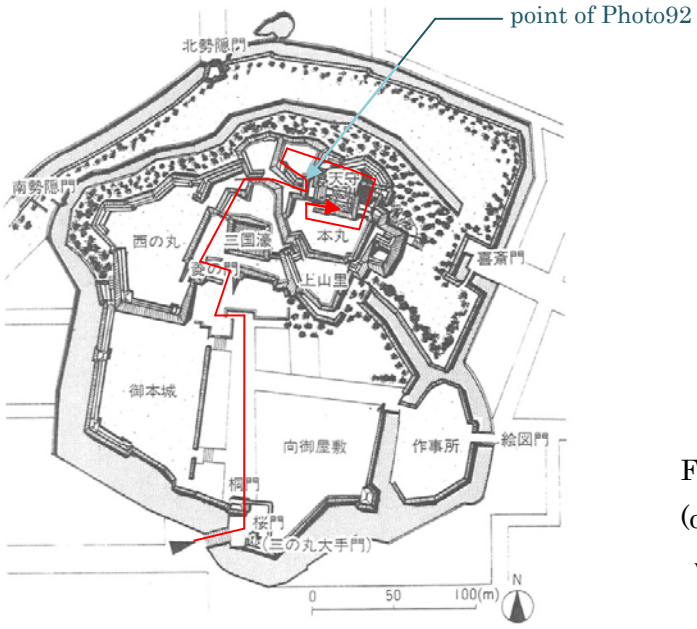


Fig.12: Site plan of Himeji Castle (overall structure of the Castle was completed around 1618)

Bottleneck paths, which seem not to be regular routes, numerous gates, and U-turns make up the sense of oku.

Photo 92: Ni-no gate and narrow path

⊡ Meiji Shrine approach, Tokyo



First Torii Gate (Photo 93)　Sacred Bridge (Photo 94)　Make a big left turn(Photo 95)

At Meiji Shrine, which was built in the Taisho Era (1912-1926), the traditional spatial structure that is peculiar to Japan still breathes and the production of oku is fully shown. Just a few minutes' walk from JR and Metro stations, one will enter the precinct of Meiji Shrine. At first, one will be conscious of entering the precinct by going through the First Torii Gate and as one proceeds, one will cross a stone bridge (Sacred Bridge) to be purified.

The approach path curves gently around here and farther inside cannot be seen, thus our expectations for the next development increase. In a while, a big left turn is made and there is the Second Torii Gate (Grand Torii) and by going through it, one will be aware of entering the higher ranked zone.



Second Torii Gate (Photo 96)　Third Torii Gate and view of the Main Hall(Photo 97)　Middle Gate (Photo 98)

Proceed farther and make a big right turn, and the Main Hall can be seen in the distance. Proceed farther and by going through the (last) Third Torii Gate, one will enter the most sacred zone. After going through the Middle Gate, there is the Sacred Garden in front of the Worship Hall. Several steps have been constructed in front of the Worship Hall in order to

emphasize the higher rank and this is the farthest one can go, except for the priests. At this point, one will face the Main Hall and pray. The inside of the Main Hall can be seen, and there are some stairs at the top of which is an altar whose doors are closed, hiding the interior and intensifying the mystique. In this way, the hierarchy of each part in the precinct is multilayered and the presence of oku is significantly produced.


Sacred Garden (Photo 99)

⇒


Ground level difference and Worship Hall (Photo 100)

⇒


This is as far as one can go (Photo 101)

Thus, it is understood that in order to produce mystique and to constitute a sense of oku various methods and techniques are combined.

① Go through torii gates multiple times to be aware of entering a higher precinct.
② Purify oneself by crossing water.

③ Approach path taking a gentle curve so that further development cannot be foreseen.
④ By making big turns, one acknowledges entering next zone.

⑤ Gate building for insisting on different territory.

⑥ Difference in ground levels to emphasize zone hierarchy.

⑦ Hide as much as possible to raise mystique.

And it can be said that these methods and techniques are aimed at giving significance to each part that configures the whole.

As mentioned above, each part of the whole has its own independent meaning, and among the parts, some order is likely to appear. This is the origin of the sense of “oku.” “Parts precede the whole,” and “the whole is composed of parts,” and through such a process, some spatial hierarchy is brought about.

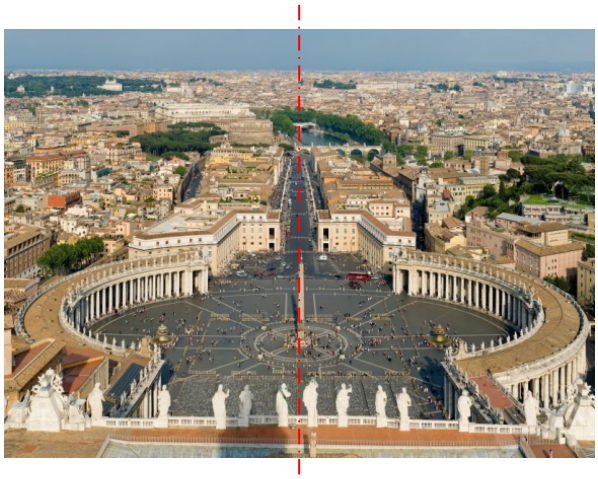
And “oku” has various implications, such as authority, nobleness, secrecy, mystique, importance, elation, privacy, etc. The sense of “oku” cannot originate in “the whole picture is shown” or “the whole precedes parts” processes. The sense of “oku” and “parts precede the whole” are inseparably related.

3-6. Do not show the whole

In Western architecture, in general, configurations show off the majesty of the whole, but in Japanese architectural creation, configurations often appear that dare not show the whole. In the case of an approach to a building, in the West, the axis and the outlook are considered important, and the whole picture of the building can be viewed from far away. But it is quite different in Japanese configuration. By not letting the whole picture be seen, it is possible to reveal the spectacular scene suddenly as a surprise or to arrange the production of oku as explained in the previous section. A clear contrast between the West and Japan can be seen. This clearly shows the characteristic of Japanese sensibility that is the “now = here” principle, which sees the whole from here, and parts have priority over the whole.

⊡ Total image of architecture

In this photograph looking back from the Dome of St. Peter’s Basilica in the Vatican, one can see the magnificent Piazza San Pietro in front of the sanctuary, in the center of which stands an obelisk, and the approach road heading to the cathedral. Everything is planned on an axis and it is intended that one will strive to reach the Dome from far away and, as soon as one gets to the plaza, one will grasp the whole aspect of the grand cathedral.



Looking back from St. Peter’s Dome, it is understood that pilgrims approach from far away, heading for the magnificent sanctuary that is their ultimate goal.

(present basilica: completed in 1626)

Photo 102: Piazza San Pietro in the Vatican

Photo 103: Izumo Taisha Grand Shrine

The Main Hall of Izumo Taisha is a grand structure. But its existence is meant to be felt and the whole image is never exposed. It is important to care how each part of the whole appears.

(origin of the shrine goes back to the days of Shinto myths, present Main Hall was built in 1744)

by the appearance of cross finials,
one notices the existence of the Main Hall

On the other hand, in Japan, at Izumo Taisha Grand Shrine, which is one of the most distinguished shrines from ancient days, as can be seen in the photograph, the Copper Torii Gate, Worship Hall and Main Hall are slightly misaligned from the axis of the approach path. The Main Hall itself cannot be seen directly but its existence is suggested by the appearance of characteristic cross finials on top of the roof. Due to the fact that the buildings are slightly misaligned, the overlapping of the buildings is recognized, and the existence of a spatial layer seeps into our consciousness, and thus the feeling of greater depth in the given area is strongly acknowledged. The existence of each part is clearly recognized. And the configuration not to show the whole is evident.

▫ Configuration of approach space

Photo 104: The Long Walk,
Windsor Castle, England

Photo 105: Entrance bridge of Ise Jingu,
Inner Shrine

"The Long Walk" to Windsor Castle in England allow visitors to approach the building while grasping a total image of the castle. It can be said that this sense of absolute distance represents the dignity of the building.

On the other hand, on the main approach way to Ise Jingu Inner Shrine, one will cross the Ujibashi Bridge to mentally purify oneself in the clear stream and enter the precinct. As soon as one crosses the bridge a right turn is made and one will proceed through the precinct forest, following a gently curving path. Meanwhile, one has no idea where the Main Hall is. Suddenly, making a left turn, one climbs a number of steps and there is the Main Hall of the Inner Shrine, which cannot be seen except for Shinto priests because it is enclosed by a fourfold wooden fence.

Unlike people in the West who will compose the whole in a clearly logical manner and show the whole aspect, it is important for the Japanese to accumulate "parts" and to produce a sense of oku. In this way, the Japanese attain a more holy and solemn feeling.

⊡ Case of an approach to private space

The Schloss Herrenchiemsee, which was built on Herreninsel (gentlemen's island) on the Chiemsee, Bavaria's largest lake, about 60 km southeast of Munich, by Bayern King Ludwig Ⅱ, was meant to be a replica of the Palace of Versailles, which had been built by French King Louis ⅩⅣ.This grand approach, which can be called the complete form of the French garden, and the setting is designed to let visitors feel an emotional upsurge as they approach the palace's main façade.

The grand approach space, where the desire to emphasize the total structure is clearly seen.

Photo 106: Schloss Herrenchiemsee, Germany
(constructed through 1878-1886, uncompleted)

Conversely, the approach to the Katsura Imperial Villa in Japan has a completely different appearance. If you enter through the front gate and proceed to the simple Miyukimon Gate, you cannot understand the total structure of the villa at all except for this humble gate. Inside the gate, only a hedge is to be seen. As soon as one passes through this gate an orthogonal right turn is made, but still one cannot grasp the whole image. In Western culture, it is obvious that social status is expressed by an absolute sense of distance, grandeur of scale and magnificence of arrangement, but it can be said that Japanese sensitivity, which intends to express dignity by refinedness, profoundness and the production of oku is the counter electrode.

The intention not to let one see the whole is obvious. Each part of the whole has its own meaning as one proceeds.

Photo 107: Miyukimon Gate, Katsura Imperial Villa

⊡ Vista of a garden and its development

At Schloss Nymphenburg in Munich, Germany, when one goes out onto the terrace of the palace, one sees the grand vista of a magnificent garden and waterway that continues linearly for several kilometers ahead. Absolute length asserts the possession of a vast territory.

The desire to create elaborately and to show off everything is obvious at a glance from the terrace. It asserts the possession of a vast area.

Photo 108: a glance from terrace
Schloss Nymphenburg, Germany

This spectacular "borrowed scenery" is revealed suddenly after climbing through clipped shrubbery.

borrowed scenery

(constructed through 1653-1655)

Photo 109: Shugakuin Imperial Villa, Kyoto

On the other hand, at Kami-no-ochaya (Upper Teahouse) of the Shugakuin Imperial Villa, going through Miyukimon Gate, one will climb the steps carefully through clipped shrubbery. But the vista does not work at all. Once one reaches the top, there is a simple pavilion, Rinuntei, and suddenly the entire garden vista is completely revealed. Excellent "borrowed scenery" with superb views of the pond, its islands and the surrounding Kyoto hills is provided as seen in the photograph. This is the wonder of the vista itself and the sudden change.

There is a great difference in the creation process, namely, the difference between the attitude of Western culture, which tends to reveal everything, and that of the Japanese, who try to create significance in each part without showing the whole image and to show the resulting change most effectively.

⊡ Unobstructed view

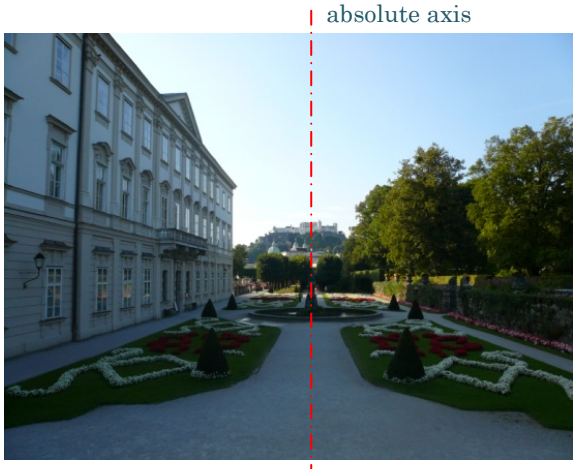


Photo 110: Mirabell Garten, Austria

The emphasis of the axis to Hohensalzburg Castle a few kilometers ahead is the main subject of garden planning. Geometric configuration influences details.

When one enters the Mirabell Garten in the ancient city of Salzburg, Austria, which is said to be one of the most beautiful Baroque gardens in Europe, one notices the strong axis in the total arrangement, and not only within the garden but also the vista of Salzburg Cathedral and all the way to Hohensalzburg Castle can be seen. It is definitely a configuration that lets one acknowledge the great axis in a city.

Photo 111: Katsura Imperial Villa, Kyoto

This is a typical “eye-stop.” A pine tree is placed so the whole cannot be seen. It is important to express oku. The greatest care must be given to the part in front of the eyes.

But at the Katsura Imperial Villa in Japan, arrangements that prevent one grasping the whole image are clearly seen. This photo is of the Sumiyoshi Pine Tree along the path from the Miyukimon Gate to the Main Building. This tree is clearly an “eye-stop,” the intention of which is not to let one see the whole, although the lake is partly seen. The design is to concentrate on “now,” “here” and “what is in front of the eyes” rather than the “whole aspect” and the “whole image”. The intentions of the former case and the latter, and their differences clearly mark a great contrast.

As described above, the characteristics of Japanese space configuration can be clearly understood by contrasting them with those of the West. In Western culture, it is a matter of course that the wonder of geometric configuration is recognized through its geometric space structure and perspective of the whole. However, in Japan, by hiding and blocking the view of the whole, parts insist on their independence and importance, and moreover, the characteristic Japanese architectural sensitivity such as “oku” is created.

Chapter 4. Formative Development from Parts

4-1. Parts precede the whole / "Now = here" principle

"Japanese people see the whole world from here, not from the whole of world order, see the part = Japan = here. The structure, namely, the Japanese way of looking at things, (omission) does not appear to have changed fundamentally," says Japanese literary critic Shuichi Kato in his work "Time and space of Japanese culture." (Note 04)

From the viewpoint that "parts precede the whole," it is possible to understand various interesting points when one compares the society and culture of Western countries, and those of Japan, and as a result, the characteristics of Japan will be much clearer.

It is interesting to compare the Paris Metro and the Tokyo Metro. The Paris Metro operates 14 lines and 297 stations, and the first line started operations in 1900 at the same time as The Paris Exposition. The whole network was planned at the beginning and in 1930 all lines were completed. While the Tokyo Metro (including the Toei Subway) operates 13 lines and 249 stations, and its network is similar in size. But the difference is that, since the start of Ginza Line operations in 1927, each line was planned and added one by one, according to necessity without having any total plan, and the total network was completed as a result of the additions.

Here notably, the Tokyo Metro, which was constructed without any overall picture, is as efficient and convenient for users as the Paris Metro. It is not inferior in any way. It can be said that Japanese creativeness possesses the ability to create the total best from the most suitable parts.

On the other hand, according to studies of Japanese manufacturing industries in which MIT (Massachusetts Institute of Technology) played the key role in the 1980s, so-called "kaizen" activities, which had attracted

worldwide attention, were praised as the source of the strength of the world domination of Japanese manufacturing. These kaizen activities, through the individual optimization of each plant, were regarded as the way to realize the total best and they were definitely good examples to show to a maximum the characteristics of the Japanese.

This “way of looking that parts precede the whole” should also play a major role as a distinctive feature of the Japanese when constructing a building or creating an architectural space. Namely, it will lead to a hypothesis that “Japanese architecture is designed from parts and then configured as the whole.” In other words, no total picture is imaged at the beginning and one by one parts are created in the most proper way, and as a result, the total best as the whole is produced. This procedure is quite different from the Western way of creation.

In Chapters 2 and 3, I looked at the characteristics of Japanese architectural creativity and the characteristics of Japanese architectural composition. I have also noted that the “parts precede the whole” philosophy has always been in the background and influenced them greatly.

In this chapter, I will investigate this philosophy through concrete examples, so as to look at what is meant by “design from parts and configure the whole.”

4-1-1. Examples for investigation

▫ Katsura Imperial Villa, strolling-type garden, Kyoto

The main constituent in the strolling garden is “a moving person." The garden consists of a pond, islands, bridges, stones, trees and buildings, each of which is elaborately created. The landscape is configured by setting up these parts and a person in motion appreciates the garden by combining the respective parts.

Photo 112: Amanohashidate Bridge and Shokintei Teahouse

The garden of the Katsura Imperial Villa, which is designed in the Kaiyu (strolling) style, is an assembly of partial optimization. In the Japanese garden, landscape is configured by organically combining a pond, islands, bridges, stones and trees, and their individual appearance in that location and the detail are extremely important. In addition, architectural structures play a key role in the garden as a specially added element by its visual performance and location.

As the rationale of garden design, miniature views associated with natural beauty spots across the country are incorporated, including “Amanohashidate” from Tango, the hometown of the princess of Imperial Prince Tomohito who is the creator of the whole garden. In addition, right up to designing the steppingstones around buildings, the approach is to optimize every part. With all these parts combined, the great spectacle that varies as one strolls through the garden can be appreciated. Whether or not there was a total image at the beginning, is not the question. From the result, it is obvious that the challenge was to create the total best on the spot.

Let's look specifically how committed they are and how they put in the energy to design the parts and details.

Photo 113

Photo 114

Photo 115

(From left to right): Steppingstones of the approach to Old Shoin; from Old Shoin to Shokatei; and steppingstones under the eaves of Onrindo. From such parts and each detail, the willingness applied to their creation is tremendous. From examination of the materials to the inventive ideas of the form, it is obvious that a great deal of hard work had been put in.

▫ Dogo Hot Springs Bathhouse, Ehime Prefecture

An overall plan did not exist at the beginning. Extensions were added and as a result, the present appearance was achieved, which is now the imposing face of Matsuyama. This is a representative example that parts precede the whole.

Photo 116: Main façade of the building complex

The bathhouse's main building is a large-scale architectural complex

mainly consisting of three-story wooden structures built basically in the Japanese style between 1894 and 1924. To mark the 100th anniversary of the original buildings, the complex was designated as an Important Cultural Property of Japan, the first such designation for a public bathhouse. The characteristic and imposing structure is well known nationwide, and now it is the representative face of Matsuyama. The main building is not exactly Japanese-style architecture, but it was built by master carpenters based on traditional techniques related to castle architecture. Extension work was carried out according to necessity (main extensions were added in 1894, 1899 and 1924), and thus the present complex was completed. The construction work was carried out without a final image and the overall form of the building is very complicated for it is a combination of various parts with different functions. As a result, its powerful existence and total cohesiveness are worth mentioning.

As a bathhouse complex, the building completely occupies a whole block in the busy city and its four elevations of the building are quite distinct, each showing their respective characteristic functions. Elevations created spontaneously maintain a unique flavor and some kind of order is felt.

completed year

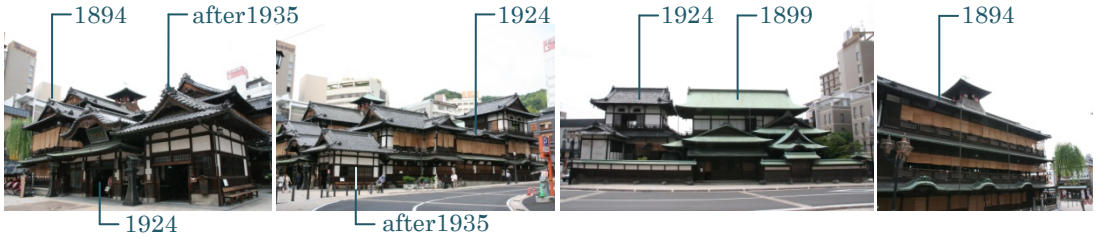


Photo117:West elevation Photo 118: South Photo 119: East Photo120: North

On the other hand, in the German spa resort of Baden-Baden, there is a hot-spring facility that was built almost at the same time as Dogo Hot Springs Bathhouse. It is Friedrichsbad which was completed in 1877 and has undergone repeated luxurious interior renovations, but the initial overall picture of the building is protected. While it is natural that there are great differences in design and in the use of materials in the East and West, this is a perfect example of the contrast between the Japanese way of creation, in which “parts precede the whole,” and the Western way, in which a total image of the whole exists in the beginning.

The total perspective of the whole was drawn in the beginning, and then each part of the building was elaborated accordingly. The whole picture exists first.

Photo 121: Friedrichsbad, Baden-Baden, Germany

⊡ Daikanyama Hillside Terrace, Tokyo

This photo is of the first stage of the development that continued for seven phases over 30 years. Various town planning techniques based on Modernism have been practiced from the beginning. At first, the scope of the development was unknown, but various techniques connected to the next phase were already incorporated everywhere.

Photo 122: First phase completed in 1969

At this stage, enclosed courtyards were discussed, and the layers and depth of space were to be considered. Techniques to achieve various charming urban spaces have been practiced.

Photo 123: Second phase completed in 1974

When visiting this unique neighborhood, one will encounter a comfortable atmosphere surrounded by a group of charming and unified buildings. They are multiple complexes of housing, offices and shops, completed after seven periods of construction from 1969 to 1998, totally designed by Fumihiko Maki.

The buildings are harmoniously designed utilizing the vocabulary of Modernist architecture. The height of each building facing the main street is limited to 10 meters so as to create a single townscape. By dividing the mass of each building, the unified scale is maintained. Spatial layers, which produce the spatial depth, are deliberately incorporated by means of interior and exterior spaces, and trees. The color code is naturally observed. Plural recurrent passages are designed so that one may enjoy the spatial continuity and white round columns are characteristically placed at the corners.

Here, throughout the seven phases, the best design possible according to the needs of each phase has been realized and by combining them, a charming and harmonious neighborhood has been completed. At the beginning, such an expansive site was not conceived. Nonetheless, the townscape as a whole is no doubt wonderful. This is typically the case where perfectly designed parts are combined and the ideal whole is created, which is a characteristic aspect of Japanese creation.

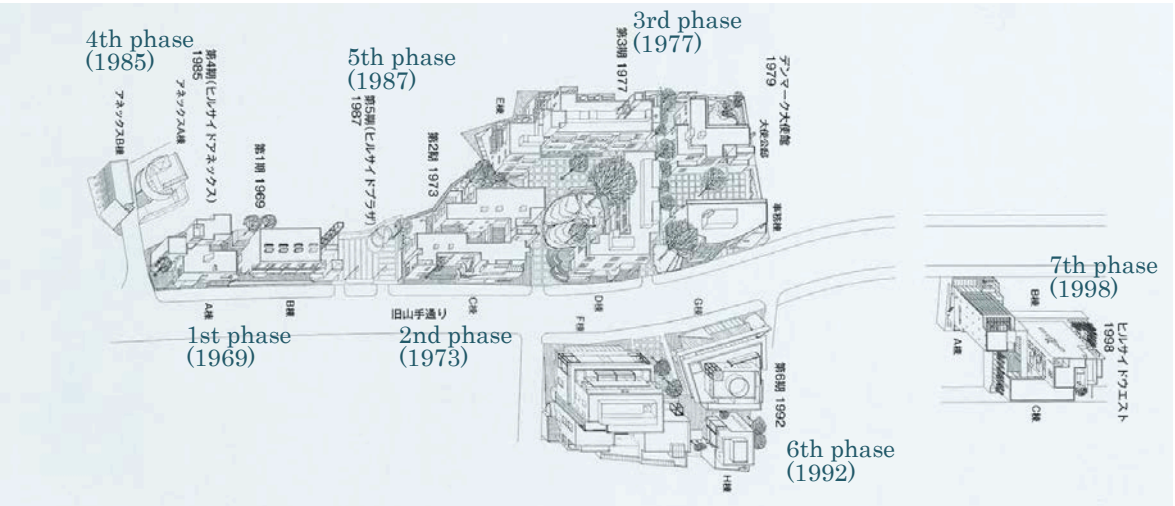


Fig. 13: General view of Daikanyama Hillside Terrace (Phase1-Phase7)

⊡ Drawing of Jo-yugain Residence, Ninnaji Temple, Kyoto

In ancient times, how did the Japanese create buildings? It is quite difficult to grasp the actual state of Japanese buildings before the Middle Ages.
It is said that the "Drawing of Jo-yugain Residence, Ninnaji Temple (1509)," an Important Cultural Property of Japan, showing in detail the layout, including gardens and attached buildings, of the residence of the head priest of a distinguished temple, is the oldest and the most important document we can now refer to.

When we look at the drawing, the total layout of the entire residence is understood. Centered by the main building facing the gardens in the east and west, Buddhist hall, kitchen, bathroom and other buildings spread out. The development of the residence can be seen, and the structures are not likely to be built according to the initial plan as a whole. It is understood that the configuration of the residence is the result of considering the relationship between buildings and gardens, and attaching importance to the function of each building. Even in those days, it may be said that the characteristic of Japanese creation that the total best as the whole derives from making the best of partial creations was clearly shown.

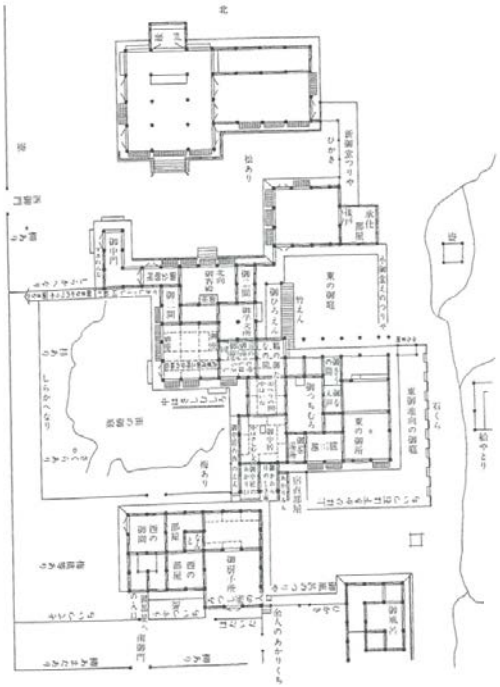


Fig 14: Drawing of Jo-yugain Residence, Ninnaji Temple

⊡ Kumano Hongu Taisha Shrine

There is another document that shows the composition of Japanese architecture in ancient times. It is the National Treasure of the Kamakura Period (1185-1333): Ippen Shonin Eden (Illustrated biography of itinerant monk Ippen). Within the document, there is an illustration showing the appearance of the shrine in those days. It is possible to understand that the total layout was not regarded as important and that each building, which constitutes the shrine, was built according to its needs on the spot where construction was possible. It is said that the shrine, in those days, was built on the sands of the Kumano River, and in the Edo Period (1603-1868) it was rebuilt, but was washed away by a flood in the Meiji Era (1868-1912). Four buildings that survived the flood, including the main hall, were then moved to the current high ground. Thus, rather than the entire configuration showing the formality of the layout as a shrine, the functions of each part were considered to be prioritized.

Fig 15: Ippen Shonin Eden (Illustrated biography of itinerant monk Ippen)

⊡ Townscape of Edo (former name of Tokyo)

When one looks at an old map of the city of Edo in the Edo Period (1603-1868), we can see that the city spread out around centered Edo Castle, but the castle was merely positioned in the center and no centripetal feature is recognized. Around the castle, the residences of three

branches of Tokugawa families, hereditary daimyo (feudal lords), outside daimyo and direct retainers of the shogun were positioned in a spiral configuration, but no positive city planning existed.

The population of the city, which had developed throughout the Edo Period, exceeded 1 million at the beginning of the 18th century and it became one of the largest cities in the world. The towns within the city, which were called 108 (innumerable) towns, continued to multiply and sprawl in each of its parts. When looking at an old map in detail, one will notice the distinction of areas for samurai, merchants, and shrines and temples. As for areas for shrines and temples, a certain intention, which is said to be the influence of "feng shui," is apparent. On the other hand, town layouts depend on the geographical features of places and it is likely that the whole is constituted by aggregation of each part. That is to say Edo is a great combination of countless parts, namely, innumerable towns.

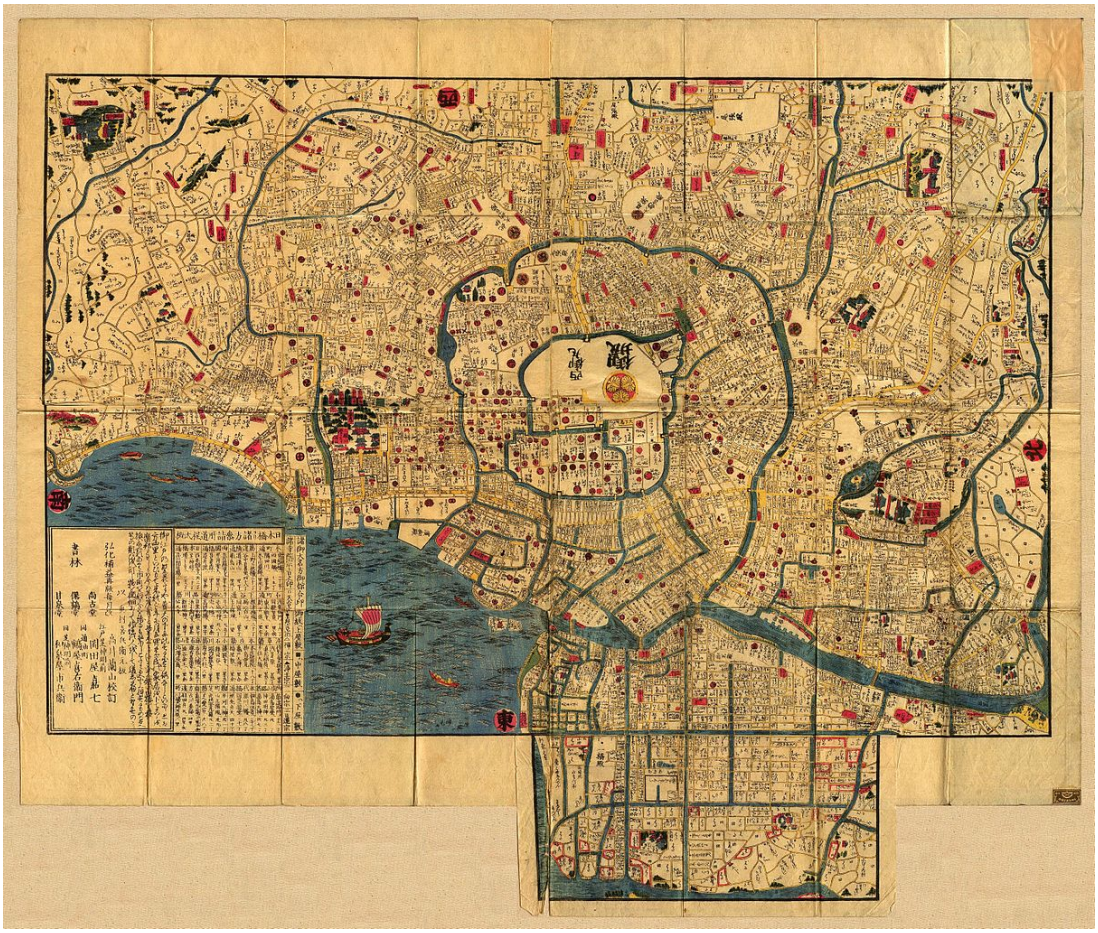


Fig 16: Revised map of Edo in 1844-1848

As is shown in this case, even in the planning of a gigantic city, in Japan, parts come first and the whole is constituted as the result. Overall logic of urban planning does not control and regulate the state of each part.

Fumihiko Maki in his work "Miegakuresuru-toshi (From Edo to Tokyo) = Characteristics and development of a city" (Note 10) says:
"It is well known that the relationship between the whole image and each of its parts has always been regarded as important in the development of Western cities. The whole always had control over its parts, and when parts were to be emphasized, it was done with the strong intent of positive revolt against the whole. It can be said that this has been the same for cities and architecture. On the other hand, looking at the development of Japanese cities, I may say that, in the relationship between the whole and its parts, such Western recognition has been extremely weak. It is likely that the Japanese have strengthened the recognition that parts are in fact the whole, by finding independent space in a tiny, little space. In other words, what corresponds to a single house is, exaggeratedly speaking, the whole of nature, including natural features and climate. For example, in Edo, a castle town, they have developed spiritually such unique dual structures that, on the one hand, site allocation, building materials and design have been strictly determined according to social class, and, on the other, they have freely created such microcosms."

As Shuichi Kato points out, the Japanese see the whole from "here," and do not recognize "here" from the whole. When looking at the divided lots of land in downtown Tokyo (Edo), although they are mostly reclaimed flat land, the logic such as a view or existence of a river at each place has priority and an effective grid system through the area is never adopted. Original grids of which size and tilt differ are created in each part of the area, and they are somehow connected. In uptown areas, there are many places where curvilinear axes are adopted according to delicate alterations of topography and differences of elevation. The townscape of Edo, as seen on the map, is simply an aggregate of multiple parts.

4-1-2. What is meant by “parts precede the whole”

So far, I have demonstrated with concrete examples, from individual structures to a group of buildings and furthermore to an urban scale, what is meant by “parts precede the whole.” The characteristics of each case are summarized as follows:

1. Garden of Katsura Imperial Villa
   - Maximum passion for the design and finish of each part
   - Most emphasis on the appearance in each place
   - Not to show the whole view, but to enjoy each change in the movement

2. Dogo Hot Springs Bathhouse
   - Without having an image of the whole picture, the buildings were added according to the functional needs year by year
   - The whole was completed as the result of a peculiar coherence

3. Daikanyama Hillside Terrace
   - Sophisticated unification as a whole is wonderful
   - Existence of common formative elements, colors and scale
   - Devices for the charm of parts

4. Drawing of Jou-yugain Residence, Ninnaji Temple
   - Mutual relations between rooms are of great importance
   - Most proper combination of parts is considered rather than total image of the whole.

5. Kumano Hongu Taisha Shrine
   - Four out of all buildings were moved → Proof that shows “parts precede the whole”
   - Configuration and form of the whole has less significance

6. Townscape of Edo (former name of Tokyo)
   - Aggregation of 108 (meaning innumerable) towns and each town (a part of the whole) has its distinctive feature
   - There is no centripetal force nor general planning
   - Each part has nothing to do with the whole

As summarized above, an architectural structure (or a city) that is created by way of a design that moves "from parts to the whole," can be described as follows:

- First priority is to put in deliberate efforts and devices for creating each part
- Mutual relations and connections among parts (especially between neighboring parts) regulate the total form
- Each part is not necessarily conscious of the whole
- The whole is completed as the result of an aggregation of parts

It may be said that this is one of the most distinctive characteristics of Japanese architecture and what could be the cause of this feature? And what kind of architectural creation would this "parts precede the whole" consideration bring about? It can be said that the total image of the results of such studies forms "Japanese Identities," which is the main theme pursued in this thesis.

4-2. Compositional principles

In order to start from parts and create the whole as result, the existence of basic compositional principles is indispensable. Japanese people have been trying to find the grounds to explain, to justify and to practice the method of their creation that starts from parts and comes up with the whole.

4-2-1. Principle of "ten-chi-jin (heaven-earth-man)"

In the world of flower arranging, an idea or a compositional principle of "ten-chi-jin (heaven-earth-man)" is often applied as the basis of the arrangement. In the vocabulary of flower arrangement, "ten" is a heavenly body or sun, expressing "a thing to lead," "chi" is for earth, expressing "a thing to follow," and "jin" is for man in between ten and chi, expressing "a thing to harmonize," and that these three elements conform to basic branches in flower arrangement and express the entire space. (Note 11)

What happens when ten-chi-jin is applied to architectural creation? Teiji Ito in his work "Japanese design theory" (Note 09) says that ten-chi-jin is "a design technique to utilize free-shape elements" and "basically a technique that creates dynamic three-dimensional harmony using three elements of different form." Here, three elements may not be necessary, and when there are four, it is possible to apply this ten-chi-jin composition principle by regarding two out of the four as one and the total as three. When there are more than five, ideas could be developed in the same way. Ten-chi-jin makes the maximum use of each part and tries to create the best whole out of them, which is an important viewpoint and a significant explanatory compositional principle.

①World of flower arrangement

There are many schools in flower arrangement and each has an original concept. The following is an abstract from the homepage of Ikenobo, the oldest and largest school of Japanese floral art, that interprets the composition of flower arranging by ten-chi-jin.

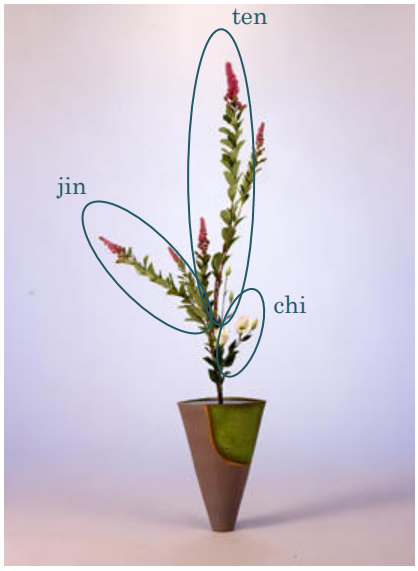
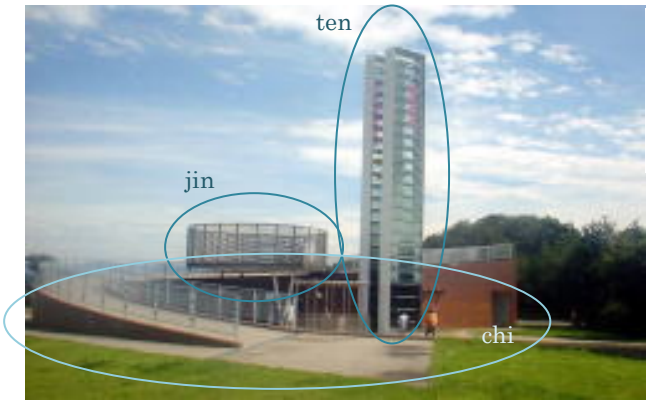


Photo 124: Composition by ten-chi-jin

"This arrangement is composed by basic branches that are likened to yin and yang (opposite forces that form a whole, from Chinese philosophy) and ten-chi-jin, which had been composition basis since ancient times. These three basic branches are treated as one and grow straight from the water's edge. Focusing on the center branch, the other two mutually correspond and the total figure is composed so as to show the characteristic of elevated beauty." (Note 12)

②Ten-chi-jin folly



By naming it ten-chi-jin, the total figure bears convincing and persuasive characteristics.

Photo 125: Ten-chi-jin Folly, Echigo Hillside Park, Nagaoka, Niigata Prefecture (constructed: 1998, design supervision: Hajime Yatsuka)

The following is a comment on the folly by the design supervisor, Hajime Yatsuka. (Note 13)

〈This facility is a folly consisting of three elements, “heaven,” “earth” and “man.” Namely, vertical heaven is represented by twin towers, horizontal earth by a boomerang-shaped base and intermediate man by a wooden basket.” These three elements are composed in a discordant style.〉

In Echigo Hillside Park in the suburbs of Nagaoka City, Niigata Prefecture, this “Ten-chi-jin Folly” soars on the top of a hill that is reached after climbing 435 steps from the green Senjojiki (a 1,000-tatami-mat space). This is a creative work actually named “Ten-chi-jin” and as shown in this case, ten-chi-jin objects are freely composed by balancing three elements and it becomes more persuasive by use of the ten-chi-jin explanation, and definitely it may be said that it is a quite versatile compositional principle based on Japanese sensitivity.

③Donjon of Matsumoto Castle

National Treasure Matsumoto Castle with its donjon (said to be completed in 1594) was originally built for warfare and the main keep was a concatenate type consisting of a donjon, a connecting tower and a smaller donjon. In the Edo Period, Tsukimi (to enjoy the moonlight) tower and Tatsumi (southeast) attached tower were added, but they were built in a time of peace and not for warfare. As a whole, it is called a compound-type keep.

Extension work to the keep of the castle was naturally conducted according to functional needs, but for such work in peace-time, its performance, beauty in design and the enforcement of the lord's authority should have been as important. Considering the total balance, where and how should the additional work be done? It is not difficult to imagine that technique and logic for determining this additional work were required.

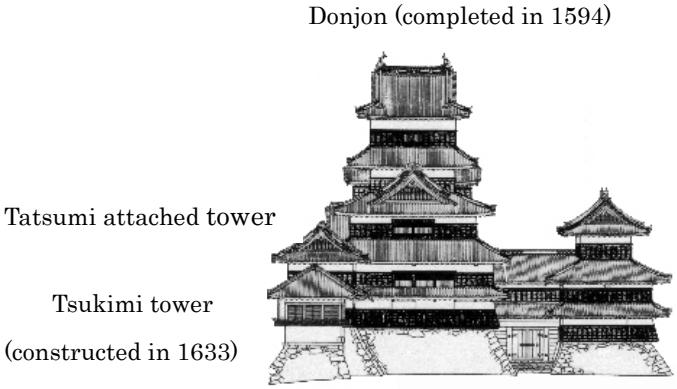


Fig. 17

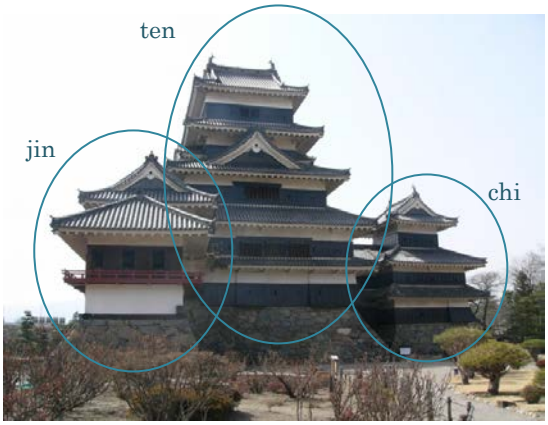


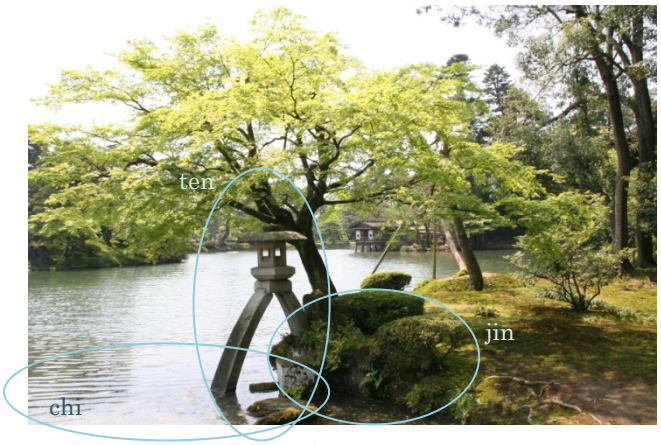
Photo 126: Matsumoto Castle, the additional work of the Tatsumi and Tsukimi towers

Teiji Ito in his work "Japanese design theory" (Note 09) says that "it may be said that the keep of Matsumoto Castle is a proper example of the application of ten-chi-jin in the architectural field. The merit of applying ten-chi-jin principles in architecture is the possibility of not losing the total harmony if additional work is done afterward."

Why can one say that this additional work does not influence and destroy the total harmony? This is simply the essence of Japanese sensitivity. While seeking harmonious beauty in the statistic stability of symmetry is the mainstream of the world outside Japan, it is the essence of Japanese Identities to sense harmony in this unbalanced dynamic appearance.

④Kotoji garden lantern of Kenrokuen Garden, Kanazawa, Ishikawa Pref.

Kotoji garden lantern and Kasumigaike pond is the most popular spot for photography in the scenic Kenrokuen Garden in the city of Kanazawa. This two-legged stone lantern is, at a glance, quite unbalanced, but there is some mysterious harmony and stability in this composition.



Stability is felt if this is regarded as ten-chi-jin.

(construction of the garden started in 1676)

Photo 127: Kasumigaike pond and Kotoji lantern, Kenrokuen Garden

Can it be said that one feels stability and refinement by regarding this lantern as “ten = heaven,” the spreading pond surface as “chi = earth” and the stone at the step of the lantern as “jin = man”?

4-2-2. Movement space

Mitsuo Inoue, in his work "Space in Japanese architecture" (Note 14), refers to the characteristic of Japanese architectural space, and describes the characteristic as the difference between geometric space and movement space. He says: "In contrast to geometric space, which is represented by the space of Cartesian coordinates such as the Forbidden City in Peking and the space of polar coordinates as seen in European medieval city planning, the space composition of our country is controlled by the principle of movement space such as seen in the Katsura Imperial Villa."

In strolling-style gardens such as the garden of the Katsura Imperial Villa, new scenery unfolds whenever one takes a step, and the wonders presented by the change of views are most important. One's movement is required in the first place and there the value is to be found. In contrast to geometric space where all elements of the space such as buildings, monuments or fountains are placed under control of axes and coordinates, in movement space, elements such as teahouses and arbors or bridges and plants are all freely placed in the most effective positions according to the movement of the viewer. The concept of movement space, the compositional principle of which enables the arrangement of compositional elements and the design of space, is noteworthy.

In movement space, the way how each compositional element is connected and the mutual relationship between the elements are of major concern. Mitsuo Inoue, in his work, mentions that the layout of the Honmaru Palace compound of Edo Castle is the most identifiable example of Japanese spatial composition.

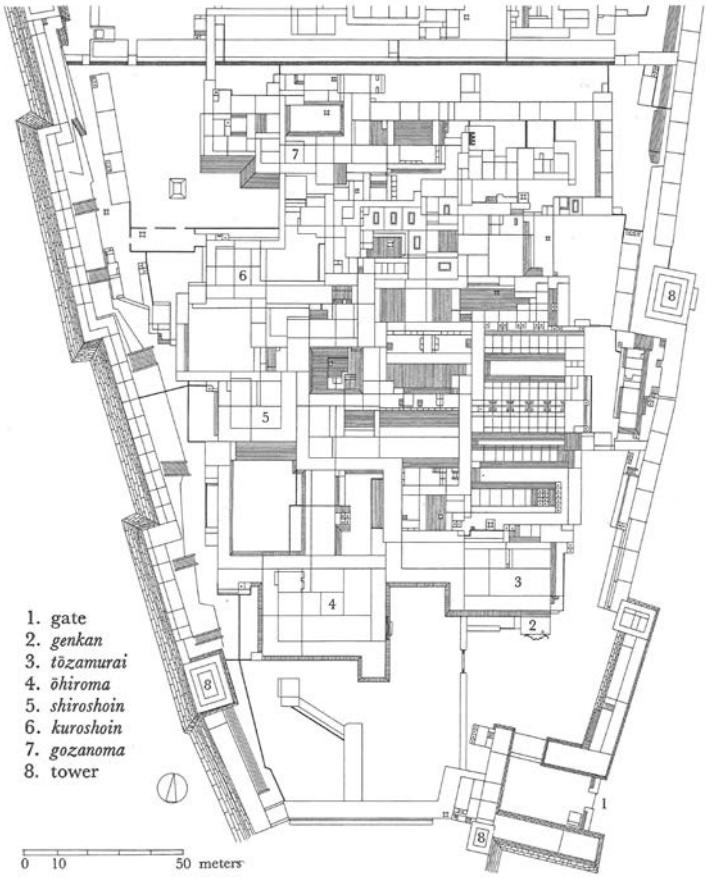


Fig. 18: The Honmaru Palace compound of Edo Castle

"The great number of buildings depicted here are all connected by corridors or joined directly. It is possible, therefore, to see the whole complex as a continuum of interior spaces. It does not really matter whether the buildings are aligned or at some angle to each other. All that is important is what other buildings a given building is connected to. In determining the layout of the Honmaru compound, only the need to create certain combinations of interior spaces and matters of function such as structural and lighting requirements have been taken into account." (Note 14) This is exactly an expression of human movement in the configuration of buildings and spaces.

This logic of movement space structure is a proof of the assertion of Shuichi Kato, a literary critic, which I referred to in the previous section (4-1), that "Japanese people see the whole world from here, not from the whole of world order, see the part = Japan = here. The structure, namely, the Japanese way of looking at things, (omission) does not appear to have changed fundamentally." (Note 03) In addition, this viewpoint "human movement → parts precede the whole" plays an extremely big role as the characteristic of the Japanese way of architectural composition and architectural space. Namely, it could support my architectural assertion that "to be completed from parts and to compose the whole."

Mitsuo Inoue, in his work "Space in Japanese architecture," summarizes the characteristics of "movement-oriented architectural space," or "movement space" for short, as follows:

a) In movement space, it is important to note that, unlike geometric spaces, the positions (i.e., the coordinate) of compositional elements relative to some overall framework are unimportant; instead, what is important are the positions of elements relative to each other.

b) In movement space, the spatial components are observed successively (not at a glance), which is induced by bending the movement path or by obstructing the line of vision.

c) The observation of movement space, therefore, is always postulated on the viewer's movement, whether actual or intellectualized.

In the strolling-type garden of the Katsura Imperial Villa, I have described in detail how the garden is configured from each part in clause (4-1-1).
Each flexible compositional element or component is tied up by one's movement and becomes integrated. It may be said that this logic of movement space is certainly the compositional principle that each part is integrated and the whole is composed.

4-2-3. Practice of Architect Fumihiko Maki : group form

I have already mentioned Fumihiko Maki's work, Daikanyama Hillside Terrace. In this project, throughout all seven phases, and on creating the total figure of the whole project from the outputs of each phase, so to speak parts, Maki developed the formation and shaping of the townscape based on the compositional concept of "group form."

The idea of "group form" (Note 15) has its origins in "genetic form," the technique that constitutes a whole village by connecting box-type buildings and that Maki came to know during his research in the islands of the Aegean Sea in the late 1950s. Maki, who had been studying in the United States in the early 1960s, linked friendly relations with each member of Team Ten, and searched for new urban and architectural space that was more regional, more human and more oriented to human behavior. After returning to Japan, Maki, with all these experiences, started the Daikanyama Project. At first, Maki tried to design new buildings according to the concept of "genetic form" but soon recognized the limit of connecting variations of an identical form or type. Based on such reflection, the project has been developed for 30 years in seven phases and, meanwhile, Maki has developed the concept of "group form," which creates and combines more flexible "parts" that adapt to the times and the locations. Furthermore, the theory of various architectural group designs has been developed, and multiple architectural vocabulary and grammar have been accumulated. The concept of "group form" is exactly the expression of Japanese "devotion to parts" and "craftsmanship."

New architectural considerations such as spatial depth and folds came up and by creating, depending on the situation, each one of those elements that would form the architectural considerations, and by accumulating them, the charming present cityscape was completed. The techniques of "group form," namely, segmentation and proper sense of scale, unification of coloring and moderate variation of materials, corner entries and corner plazas, independent round columns, trees, and symbiosis between nature and architecture, loop passages that bring about a sense of migration and depth, intervention of non-daily activities, and so forth: All of them

contribute greatly, as compositional elements common in every phase (part), to the charm of the cityscape.

In the following pages, I will describe the techniques of “group form” such as various architectural group designs, multiple architectural vocabulary and architectural considerations.

①Segmentation & sense of scale

Photo 128: Segmentation & sense of scale

The creation of a human-scale cityscape has been practiced since the first phase. At first, the segmentation of building mass started from picking up the delicate changes of topography, but it became an important theme through the entire project

②Unification of coloring & variation of materials

Photo 129: Unification of coloring & variation of materials

The exterior finish is unified in a whitish color and modern taste is emphasized. The whitish color was chosen so that shades and shadows in the cityscape would produce the strongest contrasts. Finishing materials have changed, in consideration of maintenance, from coated concrete to air-blast tiles, ceramic tiles and aluminum panels, only within the color range of white to grey.

③10-meter-high eaves line

To create a sense of unity in the cityscape, unification of height is important. Here, the height of the eaves line is fixed at 10 meters and high-rise parts are setback.

Photo 130: 10-meter-high eaves line

④Corner indents & round corner columns

Corner indents, the idea of which is common to corner plazas, emphasize the entrances and bring about some changes in the exterior space. Round columns are intentionally used because they have the visual effect of producing completed independency.

Photo 131: Corner entries & round corner columns

⑤Symbiosis with nature

Originally, this district was a residential area full of green. Such a feature has been left as untouched as possible and it has become an urban oasis space. The green on the right of the photo is a round burial mound of the Burial Mound age. The third phase buildings (completed in 1997) are constructed around the green of this mound.

Photo 132: Symbiosis with nature

⑥Open courtyards

Open courts, and sunken gardens and multiple public spaces are incorporated. Such spaces induce a variety of activities.

Photo 133: Open courtyards

What is noteworthy at Hillside Terrace is that Maki elaborated sequential plans such as “vernacular,” “locality” and multiple “linkages,” and pursued a compositional principle and a technique that would connect each individual part, although letting it change, and bring about an identical whole while being devoted to Japanese sensitivity. The architectural elements that were brought about through this pursuit, with their universal Modernist taste, definitely embody Japanese Identities such as spatial depth and folds.

⑦Spatial folds

Being able to see and not able to see creates “spatial folds” (Note 16) : They are created by an overlapping of space such as a corner indent and entrance, an independent column and a courtyard, as well as a tree and an art object.

Photo 134: Spatial folds

⑧Spatial depth

Multiple “spatial folds” create and visualize “spatial depth.” Here, a circuit passage leads one to an inner zone and the transparency of the interior through the glass is added, and a rich “spatial depth” is composed.

Photo 135: Sense of spatial depth is introduced

Maki has consistently created a new urban space with the architectural vocabulary of Modernism. Using the technique of “group form,” which is introduced hereto, and the vocabulary and concepts of multiple architectural group design, Maki succeeded in creating a group of architectural structures, in which “parts” were valued and “parts” preceded.

Chapter 5. What Does "Parts Precede the Whole" Accomplish?

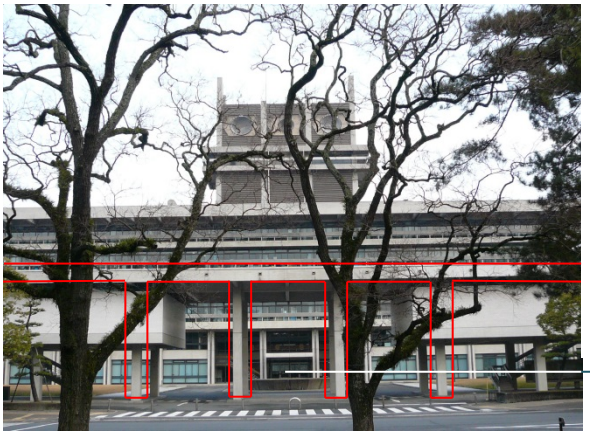
5-1. Case studies

I will make concrete investigations on the cases that, in the present, succeed the creative process, namely, the process that "parts precede the whole," and have notable influences at each level of single architectural structures, architectural groups and urban planning, and study what is at the root of Japanese Identities in architectural design, namely, the influence of this specific process.

5-1-1. Nara Prefectural Office Building

I will identify the Nara Prefectural Office Building as one of the most representative instances of the "parts precede the whole" process having a notable influence.

The building was constructed along the main street of Nara just in front of Nara Park. It is an inspiring work designed by a diligent and skillful architect from the Ministry of Construction, Mitsuo Katayama. He deliberately considered what could be most fitting for the environment of this ancient city with a history of over 1,000 years, and carefully studied the arrangement of Buddhist temples: the gate, the surrounding corridor, the main hall, the tower, etc.



Lower buildings, like a corridor, surround the courtyard in front of the high-rise, which resembles the layout of Todaiji Temple. It can be said that the three-span entrance way is quite similar to the Great South Gate of Todaiji.

Photo 136: Nara Prefectural Office (built: 1965, architect: Mitsuo Katayama, location: Nara)

The design essence of this structure is the emphasis on horizontal lines, deep eaves, independent columns, and the multilayered arrangement of spatial depth. These features were apparently "inherited" by the Nara Prefectural Office Building.

Photo 137: Great South Gate of Todaiji (rebuilt: 1199)

Thus, he came up with this design, which bears a strong resemblance to the image of the Great South Gate of Todaiji. The characteristics of his design were the deep eaves on top, the rectilinear design based on the post and lintel system, the emphasis on the horizontal lines, the multilayered arrangement to acknowledge spatial depth and the atmosphere evoked. These are the characteristics of traditional Japanese formative design. It was inevitable that the more he tried to pursue the essential qualities of the past, the more his design took after the great heritage of Todaiji.

What is noteworthy is that, as a matter of course, Katayama did not attempt to follow the image of the Great South Gate. It is the parts of the building, such as the eaves, columns and beams, on which he focused. They are, so to speak, the essences of traditional architecture and from these essences (namely parts), Katayama assembled the architectural structure. As a result, architecture that harmonizes with and has a suitable presence in the traditional city of Nara was created. This is an exact example of the Japanese Identity that parts precede the whole.

5-1-2. Makabe Denshokan

Makabe in Sakuragawa City, Ibaraki Prefecture, where the mountains extend from Mount Tsukuba in the background, developed as a countryside town that was home to a "jinya" (the administrative headquarters of a small domain in the Edo Period) and the townscape of the Edo Period, which can still be seen here and there, is designated as an Important Preservation Districts for Groups of Traditional Buildings.

In the center of the town, a multifunction complex, "Makabe Denshokan" consisting of a library, a multipurpose hall and a historical museum, was built. In the midst of the historical townscape, how to maintain the tradition and harmonize with the townscape was a significant task. The architect, using a design method called "sampling and assembly," which extracts and reconstructs the historical townscape elements, brilliantly succeeded in realizing the task and won the Architectural Institute of Japan, Architectural Design Division Prize 2012.

This design method uses numerous on-site investigations and measurements of the profiles of the landmark buildings that constitute the townscape. Through such a process, familiar forms and a sense of scale that correspond to the existing townscape were created, resulting in a charming facility that is completely suitable to the traditional town.

The familiarity of triangle roofs, sense of scale and coloration contribute to the unobtrusive presence that melts in the townscape.

Photo 138: Façade of plaza & parking space
(built: 2011, architect: Makoto Watanabe, Yoko Kinoshita, Masato Araya, location: Sakuragawa, Ibaraki Prefecture)

Let's look at the contents of what are extracted by "sampling and assembly." In Makabe, traditional houses and warehouses remain here and there as the following photographs show.

At first, a sense of scale of the traditional houses, dimensions of each part of the houses, the triangle roof with its characteristic slope, the horizontal line of a wall or eaves, black-board walls and the typical window shape were extracted.
(refer to Photo 142)

Photo 139: Taniguchi Residence in Makabe Town

The characteristic existence of a warehouse and its white plastered wall are very impressive. The townscape is characterized by black and white contrasts.

this characteristic "part" is repeatedly used as seen in Photo138

Photo 140: Tsukamoto Residence in Makabe Town

Here, I want to emphasize that this new "sampling and assembly" design method is, as a matter of fact, based on the traditional Japanese sense of creation that is "formative development from parts." The design technique that, by use of the results of case surveys (from parts), reconstitutes new architectural structures is exactly an old, and at the same time, a new challenge (to the whole).

The design composition of the façade of the Hall Building and other parts of Makabe Denshokan is exactly that which succeeds the form, proportion, sense of scale and coloring of traditional houses and warehouses. Therefore, although it is a new building, its unobtrusive presence melts into the traditional townscape.

Form, a sense of scale, coloration, all come from the old townscape, and therefore, they look very comfortable.

Photo 141: Façade of Hall Building

It completely resembles the façade of Taniguchi Residence.

Photo 142: Façade of old town side

My first impressions of Makabe Denshokan were that “it exemplified Japanese beauty, with the vivid contrast between white plastered and black-board walls,” and that, by clever use of the results of sampling, “the handling was quite skillful and it had achieved a fascinating sense of scale.” Irregular and freely positioned windows were full of new sensitivity, and seemed to be quite effective accents. The relaxing sense of scale that the courtyard in between the buildings creates seems to fit the free and easy atmosphere of Makabe Town.

Photo 143: Courtyard (from plaza)

Photo 144: Courtyard (from entrance)

In the interior spaces as well, mountain-shaped forms were repeatedly used and irregular openings brought about unexpected effects. That is to say, because of the irregularity in their form, the openings were acknowledged, and subsequently, the green of trees, white plastered and black-board walls came into sight in the form cut by the openings, which was quite charming. While I sat in the library's study space, I was aware of a comfort unlike that of urban libraries, thus tasteful settings were realized.

Photo 145: Library study space

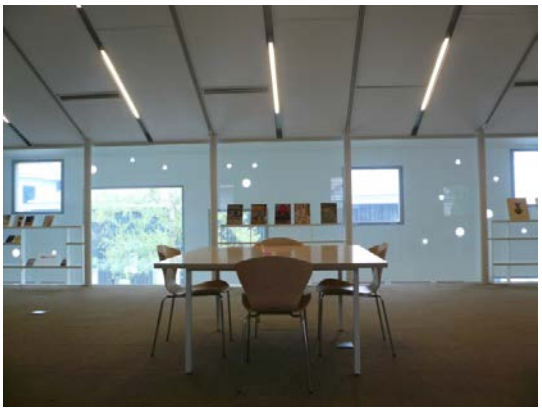


Photo 146: Random windows of the study space

The design of Makabe Denshokan certainly is a concrete example of "parts precede the whole" creativity, where "parts" are closely examined and the best "whole" is developed. And this should be regarded as a representative case that was produced by the resonance of the Japanese sensitivity of creation, which had been cultivated over time and through contemporary sensitivity nowadays.

5-1-3. Marunouchi Redevelopment Project, Tokyo

The Marunouchi Redevelopment Project is certainly one of the most representative city planning and development projects currently being carried out in Japan. The Marunouchi district is the main gateway to Tokyo and the great business center, which Japan is proud of, where headquarters of representative Japanese firms and companies from all over the world gather. At the same time, it is an expanding large-scale commercial area of brand-name stores and retail outlets. On weekdays, weekends, day and night, regardless of the time, the area is filled with all sorts of people enjoying all kinds of activities. This is the result of the Marunouchi Redevelopment Project First Phase (1998～2007) and Second Phase (2008～) which are being carried out mainly by Mitsubishi Estate company.

Photo 147: Marunouchi Building and New Marunouchi Building in the rear

Photo 148: The main street is turned into a pedestrian precinct (lunchtime)

Marunouchi, close to Tokyo Station and the Imperial Palace, enjoys a superior location and the convenience of concentrated urban infrastructure, and it has been the main character in Japanese business society since the late Meiji Era, when the district was called “London street block.” However, in summer 1997, a shocking article on “Marunouchi at dusk” on the front page of The Nikkei reported on the decline of facilities in the area, and that after 3 p.m. all shutters facing the streets were closed because the area was mainly occupied by financial institutions, and pedestrian traffic was sparse. The paper said Marunouchi had lost its vitality and was a symbol of the bursting of the economic bubble.

This article became an extremely significant turning point for Mitsubishi Estate, which owns and manages most parts of Marunouchi, and the redevelopment project began. The first action was the reconstruction of Marunouchi Building, which was completed and reopened in 2002. It was the first effort to bring a large-scale commercial facility to Marunouchi, and when it opened it attracted many people and its success was reported day after day by the media. This was the first fruit of the Marunouchi Redevelopment Project. On looking at the great flow of people, the president of Mitsubishi Estate said, "What have we been doing until now?" Instead of saying "We did well!" to praise the successful project, his words reflecting that they had not been able to stimulate the potential of the district until then, were extremely impressive.

The characteristics of "parts precede the whole" in the Marunouchi Redevelopment Project

As described above, the redevelopment of Marunouchi is a representative city planning and development project being carried out in Japan. I was partially involved in the design work, as a senior architect of Mitsubishi Jisho Sekkei (the design firm of Mitsubishi Estate). Here, I will look at how the Japanese characteristics, which are the inherited creative genes, appear and are activated, especially from the point of view of "parts precede the whole" or "formative development from parts," which is the subtitle of this thesis.

In the course of the development of the project, the total concept such as "creation of an interactive city" and the image of the whole picture that was the base of city planning were naturally discussed, and the overall model of the formative design, such as the size of each block, building heights, and following the 31-meter line, which was the maximum height of former buildings, was shown of course. However, the independency and the originality of each block and building, which are parts of the whole picture, are well maintained and the formative development of the district has not become homogeneous because it was regulated by the total image. This is

where we catch a glimpse of the characteristic of Japanese creativity that develops from the best practiced parts and comes up with the total best.

⊡ Asymmetry/ Marunouchi Building and New Marunouchi Building

On reconstructing the Marunouchi Building and the New Marunouchi Building, many people insisted that as seen from Tokyo Station they should be in complete symmetrical form. From the point of view as the gate of Gyokodori Street (the street from Tokyo Station to the Imperial Palace used for official events of the Imperial Family and for foreign ambassadors visiting the palace to present their credentials) opinions were in favor of a symmetrical twin tower. Numerous detailed study models, including wide areas, were made and the appropriateness of a complete twin tower was discussed. Those who were in charge of the design disregarded the symmetrical figures and the top management of Mitsubishi Estate accepted the considerations of the designers.

The designers were aware of the fact that to introduce symmetry on this site would have an immense impact on the character of the whole of Marunouchi and they were as deliberate as possible. The designers tried to avoid symmetry, so that the structures would not be authoritarian, artificial, rigid and unsuitable for the diversity so typical of the Japanese style, and inappropriate for the natural view of the Imperial Palace. They aimed to develop urban planning in which the logic of each individual block would be used effectively. Here, the sensitivity of the Japanese to eliminate symmetry is clearly shown.

As the result, the Marunouchi Building was designed by utilizing the intellectual abilities of Mitsubishi Estate's in-house architects, and was completed in 2002. Five years later, the New Marunouchi Building the basic design of which was by a British architect, was completed in an asymmetrical style completely different in its exterior finish and form. Now, in front of Tokyo Station, I am glad to see the two buildings standing as examples of quite natural taste.

The two buildings have the same functions (office & commercial) and similar volume. Therefore, there were strong opinions that their design should be the same, as twin towers, but the architects had the courage to insist on the independence of each block, which was so significant.

Photo 149:
(left) Marunouchi Building (built: 2002, architect: Mitsubishi Jisho Sekkei) and (right) New Marunouchi Building (built: 2007, basic design: Michael Hopkins, architect: Mitsubishi Jisho Sekkei)

This is a case that strongly recognizes the characteristics of Japanese culture, which do not control parts from the whole picture but develop an independent and original world in each part of the whole.

▫ Diversity of each block in the Marunouchi district

Nowadays, the given design conditions of office buildings, so to speak universal standards, are extremely uniform and, therefore, it is obvious that homogeneous structures are likely to be built. If the total plan were to exist initially, it is likely to result in total homogeneity due to the control and restrictions of the plan. Although in such circumstances, in Marunouchi, it seems that there exists a force to eliminate uniformity.

Each of the new Marunouchi site blocks is larger now because of the integration of smaller sites, and owner-developers require different additional demands in each site block. Various urban planning techniques such as the “specific block system,” “comprehensive design system” and “volume transfer” are taken into account, and the requirements of those

technical systems, which are enforced by the local government in order to obtain the relaxation of certain regulations, vary. As a result, the diversity of the city, or the independence of each block is achieved, and Marunouchi district is now a great accumulation of urban blocks, the theme of each which differs significantly. Let's take a look at the characteristic blocks in this district.

① Marunouchi Park Building

Marunouchi Park Building was completed in 2009, and on the same site, Mitsubishi Building No. 1, which was originally built in 1894 as the first office building in Maruouchi, was restored. The appearance of this nostalgic European-style building brought some relief and respite in Marunouchi, where everything is new. In addition, there is a courtyard-type public space, say a "pocket park," on this site, which can't be found in other blocks, and it is a place for relaxation and refreshment for office workers and shoppers.

Photo 150:
Restored Mitsubishi Building No. 1
(original building: built in 1894, designed by Josiah Conder)
(high-rise part and restoration part both completed in 2009, architect: Mitsubishi Jisho Sekkei)

It is only 40 years since the former building was demolished because of the logic of economic rationality, and herein, the same building was restored as faithfully as possible. Meanwhile, values had changed so rapidly and it was likely that architecture itself had been greatly influenced. Here, it reminds us of the history of Marunouchi, and helps us appreciate a calm atmosphere in the efficiency-oriented city.

This is the type of public space that has long been sought but not realized for Marunouchi. The space is always crowded and there are refreshments, encounters and laughter. It is an oasis for a busy city.

Photo 151: The Marunouchi Park Building's "pocket park"

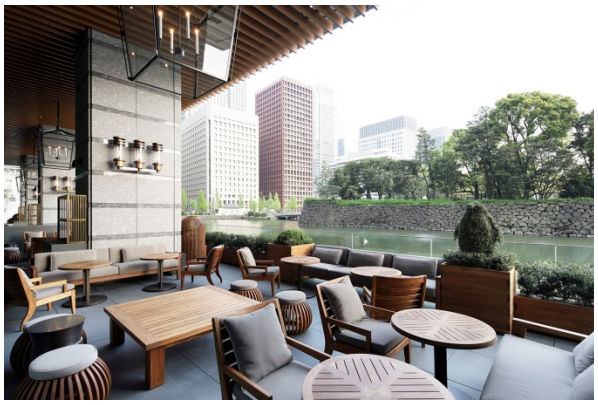
② New Palace Hotel

The brand concept of the rebuilt New Palace Hotel is "Experience the Heart of Japan." The confidence in the beauty of Japan and their pride in the way they respond to it are apparent in this phrase. As for the architectural design, modern Japanese style, and planes, lines and eaves are used as motifs, and Japanese sense is pursued by the materials used and the spatial quality. In Westernized Marunouchi, this was a project that had to be especially aware of Japanese Identities.

The main subject of the design here was how to enjoy the rich Japanese environment (the green of the Imperial Palace, the moat, the stone wall and the vast open space), which could never be found at any other urban site.

The best way to respond to Japanese atmosphere is to incorporate the surrounding environment. This is a picture window whose motif is the stone wall and the water surface of the Edo Castle moat.

Photo 152: Front lobby of main entrance



In the hotel before reconstruction, there was a restaurant at the same place overlooking the moat fitted with big windows. For the renewal, the restaurant became an outdoor dining facility. Facing the stone wall, the restaurant is now a very popular spot, enjoying comfortable breezes over the water surface.

Photo 153: Restaurant terrace seats

③ Preservation of old buildings

This is a full-scale preservation example, which involved structure relocation, and where the main interior spaces such as the main hall and the main dining area are completely preserved. It stands gracefully, contributing greatly to the diverse beauty that surrounds the plaza in front of Tokyo Station.

Photo 154: The Industry Club of Japan
(original built: 1920, architect: Tamisuke Yokokawa, preservation and high-rise completed: 2003, architect: Mitsubishi Jisho Sekkei)

The appropriateness of preservation was widely taken up by the media and public opinion was completely divided, which resulted in only the façade being preserved. The existence of the old building at the eye level of people walking on the streets contributes significantly to the representation of urban diversity.

Photo 155: Tokyo Central Post Office
(original built: 1931, architect: Tetsuro Yoshida, preservation and high-rise completed: 2012, architect: Helmut Jahn and Mitsubishi Jisho Sekkei)

At the start of the redevelopment of Marunouchi, buildings remaining from the Meiji Era (1868-1912) did not exist, but a few from the Taisho Era (1912-1926) and the early Showa Era (1926-1989) remained. From the days when it was called "London street block" in the Meiji Era, Marunouchi has flourished and it used to be a characteristic of the district that buildings from various periods coexisted. On the occasion of the renewal of functions of those buildings, cultural aspects, economic efficiency and the safety of the buildings became big issues. Nevertheless, the existence of these buildings is indispensable for the diverse charm and richness of the cityscape.

The Industry Club of Japan Hall, which was built in 1920, preserving the main interior and exterior parts, was renewed involving structure relocation and seismic isolation devices. On the other hand, the Tokyo Central Post Office Building, which was a representative work of early Japanese Modernism, built in 1931, was rebuilt preserving the façade facing the plaza in front of Tokyo Station, after a big dispute involving the minister at the time. In both cases, the evaluation of the design regarding the relationship between the high-rise part and the lower part is divided, but no doubt they contribute greatly to the cityscape's diversity.

▫ Marunouchi Nakadori Street

Now, it can be said that the main character of Marunouchi is not the Marunouchi Building nor the New Marunouchi Building but Nakadori Street. It is always crowded with people, due to the accumulation of many brand shops, which is likely more than that of Ginza Street. It is only 18 years since the appearance of the shocking article on "Marunouchi at dusk," which reported that on Saturday afternoons all the shutters facing the streets were closed because the area was mainly occupied by financial institutions and pedestrian traffic was sparse. Here, the importance of urban development planning is certainly recognized.

Nakadori Street runs through the main blocks of Marunouchi and, being unified with each block and sharing the independent concept of each block,

it has developed as an attractive thoroughfare along its full length. By mixing hardware and software, such as the original pavement, street trees, flowers in each season, touring exhibits of sculptures and artworks, various events and street performances, Nakadori Street has grown to be a representative scene of Marunouchi. It is incorporated with the redevelopment or the renewal project of each block that it penetrates and each part of the street is being renewed according to the block it faces, but as a whole, it has developed to become such an attractive street.

Photo 156: View of Nakadori Street penetrating Marunouchi

Nakadori Street penetrates the main blocks of Yurakucho, Marunouchi, and Otemachi, which form Tokyo's central business district. Alongside this street, first and second floors are occupied by worldwide brand shops, whereas the high-rises above them house the newest office facilities.

Photo 157: Change of street image from financial offices to brand shops

It is only less than 20 years since the ground floors of all buildings along this street were dominated by financial institutions such as banks, securities and insurance companies, and therefore, after 3 p.m. or in Saturday afternoons, all shutters were closed and pedestrian traffic was sparse. Drastic changes have been made and now it is a very popular spot where it is crowded 365 days by office workers, shoppers and sightseeing visitors.

Nakadori Street develops in multiple ways according to the theme of each block it faces. It consists of parts that fit in each block. Activities of each individual block ooze on to the street. An open café, a cake shop, a chocolate shop, a flower shop, etc., create the atmosphere characteristic to the block.

Photo 158 : Now, the main players are “people.”

As can be seen above, Marunouchi continues to redevelop with the mind-set of Japanese sensitivity. Such architectural features as the diversity of each block, which is a part of the whole of Marunouchi, various schemes and arrangements, the moderate design, which can be said to be tacit knowledge, are apparent. Many city planners from around the world participate in the development of mainland China and promote designs that are drawn straight onto blank white paper. Whereas in Marunouchi, each block is designed elaborately and there is a linkage or profoundness, in which one scheme would lead to a new device in the next stage. Secondary streets within each block that cross Nakadori Street, which runs through main blocks, create spatial folds in the cityscape by bringing in new solutions. An underground pedestrian network is constructed and, together with the schemes in lower-level floors, three-dimensional arrangements are added and spatial depth is created. Tremendous energy is put into the parts, and by putting them together, an immensely attractive urban development is created. This is certainly a case where Japanese sensitivity can be clearly recognized.

What the new Marunouchi is aiming for is not a regulated orderly cityscape, but rather, an aggregate of diverse and attractive parts, which, in a sense, corresponds to the former description “The townscape of Edo, as seen on the map, is nothing but an aggregate of multiple parts.” (4-1)

5-2. My design work on Nibancho Garden

This is an example of "formative development from parts," which was my personal design work in the Nibancho Garden Project. This was a large-scale development project in the middle of Tokyo, consisting of office space (B2F – 9F) and residential floors above (10F – 14F), the total area of which was over 57,000 square meters. I was in charge of the design and the promotion of the project.

The project site faced, in one direction, a commercial area connected to Shinjuku Street, but in the other three directions it was surrounded by the quiet and distinguished residential environment of Sanbancho, Chiyoda Ward. Here, plural companies, including Dai-ichi Life Insurance and Mitsubishi Estate, owned a vacant lot for development that was over 11,000 square meters, partly in use as a material storage site. During the bubble economy, a skyscraper project was planned utilizing various urban planning techniques and mitigations of restrictions. But, as can be clearly seen on the site plan shown below, due to the sense of scale that was so different from the surrounding environment and the sense of incongruity with the quiet residential area, the project was stopped. In other words, they abandoned the project as a result of the logic of a master plan for large-scale architecture.

The scale difference in the size of the project area is obvious. It is quite important to preserve the continuity of the townscape and we restarted the project with the recognition that the main design theme was how to fit it into the surrounding environment.

Fig. 19: Site plan

The 21st century began and the construction circumstances eased, therefore we gradually restarted the project. But from the developer's standpoint, a large-scale building was inevitable. From the logic of economic rationality,

to utilize the maximum floor area permitted was a matter of course. The neighborhood reacted negatively to the news of the restart of the project and the head priest of an adjacent prestigious temple said he would object raising straw mat flags. The most significant subject was how to respond to the various situations of the neighbors and how to design a plan that would fit into the surrounding environment. The method we adopted here could certainly be described as "formative development by way of creating the best parts and coming up with the best whole."

Here, I will look at our actual design created by realizing the characteristics of Japanese Identities that I feature in this thesis.

① Intimacy with nature

In order for the new building to blend into the surrounding buildings whose scale and functions are completely different, what we first considered was to let nature be the medium. We brought in as much green as possible and aimed to coexist with the neighbors by means of intimacy with nature. We were to rely upon the common characteristic of the Japanese, that is "coexisting with nature."

The starting point of the design was how to correspond with the temple and its graveyard in the west.

What should the building look like as the background of the graveyard? Starting from this point of view, we came up with this tremendous green wall, like a green hill. This greening was indispensable for coexisting with the temple.

Photo 159: Coexistence with neighboring graveyard
(built: 2004, architect: Mitsubishi Jisho Sekkei, location: Chiyoda-ku, Tokyo)

As for the north side, we planned set-back terrace gardens with abundant plants on each floor, thus creating a new urban scene as if a green hill had appeared.

The total form is in accordance with the north side set-back line, and the combination of the setbacks and plants is really effective. The arrangement of scale differences and the reduction of oppressive feelings in these parts of the building are apparent.

Photo 160: Setbacks on the north side

Such an attitude in pursuit of a natural environment and comfort benefited not only the neighbors but also those working in the building. The roof garden is not merely an open space on the roof but is meant to be an open-air office, equipped with chairs, benches, tables in between plants and LAN wiring works, for use as a relaxation space or for conferences and meetings, weather permitting.

Then the idea of an open-air office was considered very new and attractive. The open-air activities in good weather were especially refreshing. The pursuit of such additional values in each part of the building contributed greatly to the total evaluation of the building.

Photo 161: Open-air office

② Insistence on materials

I was especially particular about the constitution of the green wall. What should be planted, how it should be unitized, the maintenance management system and so forth. I put an extraordinary amount of energy into searching for each. A green wall as the exterior finish of a building constructed in the city center with an area of over 700 square meters and on the west and north sides, and from the second to the sixth floor, was an unprecedented challenge at that time.

I was especially nervous about the actual green coverage rate at the time of the building's completion. I wanted it to be over 80 percent and, as understood from this photo, I adopted a 90 cm × 90 cm greening unit system and raised the plant of the units in advance at a different place.

Photo 162: Green wall & unit system

Through thorough examinations, we selected the evergreen *Hedera canariensis*, which is a kind of climbing plant. We understood that its green color was beautiful and the leaves were shiny, and it was disease-resistant and good in dry conditions. In order to raise the green coverage rate at the time of the building's completion, we grew the plant in advance in units made by unifying stainless wire mesh and planters, and, finally, we hung those units as the exterior finish on site. An automatic water sprinkler system and labor-saving management system were also installed.

Such a serious approach is simply the appearance of the characteristic of Japanese Identities that is insistent on materials and tries to maximize their merits.

③ Simplicity and denial of ornamentation

The considerations for the neighborhood were treated as the top priority and the design motifs were limited to those corresponding to the needs of the neighbors, and as a result of ignoring all decorations besides those necessary, the total design of the building became extremely concise and simple.

The south elevation facing the road that leads to Shinjuku Street is the façade of an office building. While a dignified style and functionality as an office building were considered, horizontal louvers were for the relief of the visual line looking down from the office windows to the low residences on the other side of the street. This was why the louvers were placed under the glass windows not above. The façade of the upper five stories in use for office and residential floors were slightly set back to reduce the feeling of pressure on the front street. Therefore, these stories cannot be seen in this photograph.

Photo 163: South elevation

④ Diverse sensitivity and Japanese taste

While aiming to design simple architectural structure, I decided to introduce "Japanese taste" so that the architecture would melt into the gentle residential area that had existed since the Edo Period more positively. On the east side, where residential neighbors were very close, we designed, in between, a calm space called the "green passage" in the Japanese sense, and on the windows above, we designed bamboo blind-like screens made of porous bent plate in consideration of privacy for the neighbors.

A passage from north to south through the site and open to the public was required by the local government. In response to this, a public open-space passage in Japanese rock garden style was created on the east side.

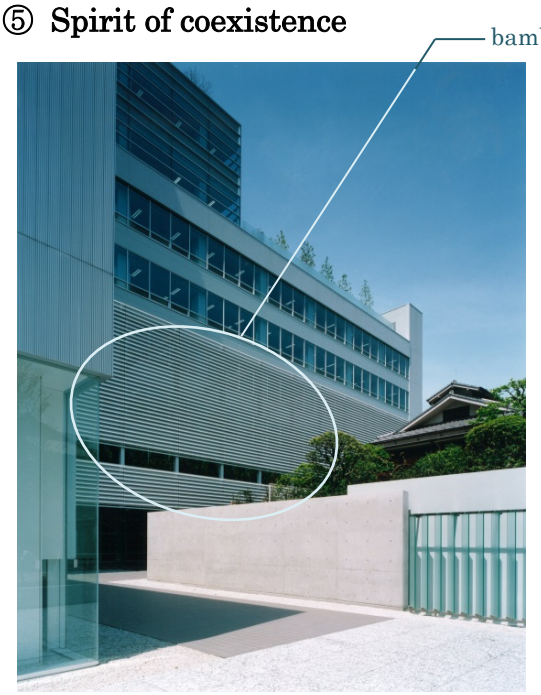
Photo 164: Thoroughfare through the site called the "green passage"

In the formative design, the Japanese sense was adopted here and there, and the aim was to relate it to the atmosphere of the region. The entrance gate overlapped the characteristics of a wooden structure similar to that of the Great South Gate of Todaiji, which I have described.

This part of the structure had only the function of leading people into the building. Big deep eaves, emphasis on horizontal lines and slim pillars were the result of the pursuit of a Japanese sense as a subtopic.

Photo 165: Entrance gate

⑤ Spirit of coexistence



On the east side adjacent to the site, there were individual houses. Here, for the purpose of maintaining their privacy, we put bamboo blind-like screens made of porous bent plate in front of the windows on the second to fourth floors of the offices, as seen in the photo. The view from the windows of the office became half-transparent, but that did not cause any discomfort.

Photo 166: East elevation

As for the design of the building, there was the green wall, set-back terraces and also the façade, the greening of the roof, horizontal louvers, the bamboo blind-like screen and, moreover, segmentation on each elevation, Japanese taste and so on. As a result of corresponding with each part it faces, the total configuration of the building was as if anything could be there. The sense to feel comfortable in a style in which anything goes and the ability to create the best by unifying those parts is the spirit of coexistence of the Japanese.

⑥ Asymmetry

As a result of unifying the land of the owners, the shape of the site was complex. We gave top priority to corresponding with neighbors facing the site on each side and therefore a symmetric picture of the whole was never considered.

Photo 167: Birds-eye view from the east

We Japanese do not have the disposition to pursue a symmetrical figure unless there is a particular intention. Besides, in this case, under such complicated conditions because of the shape of the site, we would never consider a symmetrical figure when designing a building. In addition, when trying to satisfy, as far as possible, the various requirements of the neighbors at each part of the site, symmetry of the total figure is impossible.

⑦ Culture of addition

In Chapter 3-2, I said that the culture of "formative development from parts to the whole" was in a sense the "culture of addition." The development of the plan for Nibancho Garden was this "culture of addition." The plan (Fig. 20, Page 162) clearly shows that the building is the result of the addition of functions and utilization of the site according to its shape. Here, the characteristics related to the orthogonal design pattern and techniques of connection, which I mentioned in Chapter 3-2, are clearly demonstrated. It can be said that the main entrance hall is, in this case, a connecting space that became internal.

⑧ Sense of "oku"

Photo 168: Entrance gate

Photo 169: Main entrance hall

After going through the entrance gate and going up, visitors make a right turn to enter the main entrance hall. From there, the view ahead is blocked and the office zone is seen through the big glass window on the left. (Refer to Fig. 20, Page 162) This is the sense of "oku" expressed in the approach spaces of Ginkakuji Temple and Nezu Museum, which I referred to in Chapter 3-5.

In this section, I looked back at how we had been engaged in embodying the characteristics of the so-called Japanese Identities in our design of Nibancho Garden. In the background of the embodiment of these characteristics, I strongly recognize the existence of the idea that "parts precede the whole."

⑨ From parts to the whole

We tried to do our best in designing the building, taking into consideration as far as possible the requirements of its neighbors. Because the circumstances of each neighbor differed, at each part of the building in each elevation, it was necessary to respond in a completely different way. Thus, we tried to do the best at each part of the building, and as a result, the total figure was completed "from parts to the whole." In any case, the priority was that the completed building was attractive and showed maximum functionality. Although this was a huge office building with the volume of over 57,000 square meters and residential floors above, a distinguished company was greatly in favor of the environment friendly design policy of the building and its performance, and the entire office area was rented under a super-long contract. From the developer's point of view, the project was a great success. As a result, we earned high marks from the neighbors as well, and, at the same time as the project's completion, we were awarded the design contract for the reconstruction of the guest hall and living quarters of the adjacent temple by the head priest, who once said he would oppose the project by raising straw mat flags.

What we especially had in mind for this project was the sense of scale on the spot. For this purpose, so that each part would have the right scale, the entrance gate, elevator shafts, staircases and other parts stuck out from the main structure, and the total exterior appearance seemed like a row of small buildings. Although it was a single building, the exterior view was as if a complex of plural small buildings has been constructed The following plan clearly shows this.

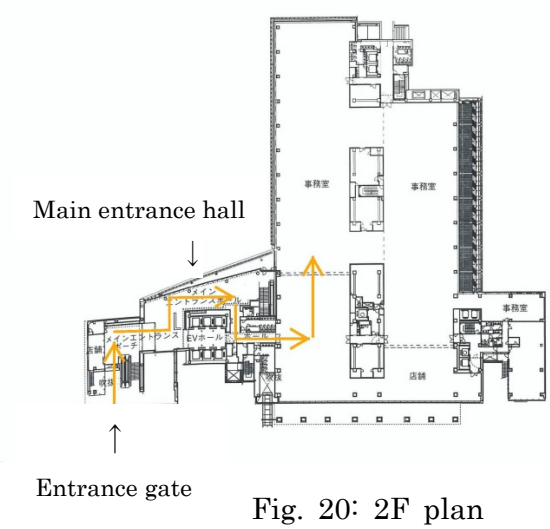


Fig. 20: 2F plan

Photo 170: Birds-eye view from the south

As can be seen in the photo, the entrance gate and the elevator tower in the west look as if they are different buildings. The high-rise part in the front and the lower part in the rear are the same. The protruding part in the east looks like an annex building. Within the total structure, there is a convenient 50 meters ×100 meters office space in a useful rectangular plate.

The entrance gate in the west is a separate building that could be called an entrance annex. (Photo 168 on Page 160) Its appearance is quite suitable for the entrance, and it has the properly segmented scale and appears as an independent existence. Although not straight, the entrance traffic line of the building is clear. (Fig. 20)

In the opening words of Chapter 4-1, I wrote: “Namely, Japanese architecture is designed from parts and then configured as the whole. In other words, no total picture is imaged at the beginning and one by one parts are created in the most proper way, and as a result, the total best as the whole is produced. This procedure is quite different from the Western way of creation.” In the Nibancho Garden Project we pursued and practiced this distinct Japanese procedure.

Chapter 6. Summary

6-1. Outcome of study

Here is the summary of the fruits of my studies on the subjects that I mentioned in〈1-2. Aim of study〉.

(1) To organize existing ideas and studies on distinctive features of Japanese architecture.

At first, in Chapter 2, I extracted the characteristics of the basic attitudes of Japanese creativity, which were based on the relationship with nature, the state and creed of life, and preferences. Through my explanations showing concrete photo examples, I tried to make it convincing and persuasive, by describing in detail, what each characteristic meant and which part of the example was characteristic.

In Chapter 3, I referred to the features of Japanese architectural composition, which were characteristic forms of Japanese architecture such as asymmetry and organic form, and the original form based on Japanese sensitivity such as the sense of "oku." As in Chapter 2, I used multiple concrete photo examples for explanation.

Through these chapters, I identified 12 architectural characteristics, and enabled comprehensive arrangements of the Japanese architectural features, which were often talked about individually, and their further logical development.

(2) To come up with new relations and interpretations between and behind these features, through new comprehensive and bird's-eye views, in addition to the individual perspectives of existing ideas and studies.

By taking into account the 12 characteristics at the same time, unlike the

approach of investigating them individually, it became possible to grasp comprehensively the whole picture of Japanese architecture. And by giving priority to the bird's-eye point of view, I looked at the mutual relationships among the characteristics and what was behind them.

In Chapters 2 and 3, I explained the close relationship between each of the 12 characteristics and the core understanding of Japanese Identities, which is the subtitle of this thesis: "Parts precede the whole." While what I described in 〈Chapter 2. Characteristics of Japanese Architectural Creativity〉 are necessary conditions for the formation of the understanding of "parts precede the whole," as for what I described in 〈Chapter 3. Characteristics of Japanese Architectural Composition〉, it became easier to explain the characteristics through the understanding of "parts precede the whole."

At the end of each section of Chapters 2 and 3, the relationships between each of the 12 characteristics and the understanding that "parts precede the whole" are summarized, which should be referred to once again.

(3) To create a more essential understanding of Japanese Identities through new interpretations and viewpoints.

What is meant by "Formative development from parts" in architectural design? Why is it like that? In Chapter 4, I started the study with following words:

This "way of looking that parts precede the whole" should also play a big role as a distinctive feature of the Japanese when constructing a building or creating an architectural space. Namely, it will lead to a hypothesis that "Japanese architecture is designed from parts and then configured as the whole." In other words, no total picture is imaged at the beginning and one by one, parts are created in the most appropriate way and, as a result, the total best as the whole is produced.

From this point of view, I studied the compositional characteristics of the strolling-type garden of the Katsura Imperial Villa and examples from the historical structures in ancient times such as Jo-yugain Residence at Ninnaji Temple, to contemporary Daikanyama Hillside Terrace. And as a result, I concluded that structures (or a city), which were designed by the "Formative development from parts" process, which was quite different from Western culture, bore the following characteristics:

- To attach great importance to the elaborate works and devices of each part of the whole
- The total form is regulated by the mutual relationships between parts (especially adjacent parts) and how parts are connected
- Awareness of the whole of each part is obscure
- The whole is the result of the accumulation of each part

In addition, I paid attention to the existence of basic compositional principles that were necessary in order to start from parts and create the whole as a result. I considered that Japanese people had been trying to find the grounds to explain, to justify and to practice their creation method, which started from parts and came up with the whole. As the compositional principle, I referred to the principle of "ten-chi-jin," which was often applied in the world of flower arrangement, the principle of movement space developed by Mitsuo Inoue and the compositional concept named "group form" by Fumihiko Maki.

(4) To verify what kind of architecture Japanese Identities would create.

In Chapter 5, I made concrete investigations on the cases that, in the present day, succeed the creative process, namely, the process that "parts precede the whole," and have notable influences at each level of single architectural structures, architectural groups and urban planning, and studied the influence brought about by this specific process.

As for the concrete cases, at the Nara Prefectural Office Building, I looked at the concept of design and how the Japanese traditional essence had been succeeded in its formation, and at Makabe Denshokan, the design method based on the sensitivity of Japanese traditional creativity was practiced, and in Marunouchi, Tokyo, it was proved that the district was an aggregate of diverse and attractive parts.
And at Nibancho Garden, which I designed, I picked up on my experience of bringing in the method based on the characteristics of Japanese Identities to the creation of a design concept and the concrete design process, and that I demonstrated how useful such a method was to contemporary architectural design. It was verified that the consideration of "formative development from parts" functioned extremely well in actual design.

Also, to collect and develop the logic of these characteristics is quite useful for design development, concept making and understanding design. Furthermore, I had this response from the design headquarters of a major general contractor, to which I had given a lecture on this subject: "To accumulate them as design vocabulary could be an important design tool for actual design activities and, as a matter of fact, it had already been actually utilized."

(5) To find a way to interpret and explain Japanese Identities as a whole.

By the intervention of the idea that "parts precede the whole," it was shown that the Japanese architectural features that had been discussed respectively and separately were mutually related to one another, and a way to interpret and explain Japanese Identities as a whole was to be found.

- The lifestyle of the Japanese that is "the way of symbiosis with nature" leads to the "now = here" principle and connects to the idea of "parts precede the whole," which developed "asymmetric and organic forms."

- The spirituality that leads to simplicity is likely to eliminate decorations that bind the whole, and pays attention to parts, and as a result of well-honed parts, it is considered to have become more devoted to “small space.”

- From the spirituality of “coexistence/anything goes,” it is possible to explain that “parts precede the whole” without being conscious that overall control is likely to be practiced, and subsequently more importance is attached to “now = here,” and the attitude to concentrate on what is in front of the eyes rather than to show the whole brought about the peculiar “not to show the whole” form.

The fact that each of the 12 characteristics, the logic of which was developed in Chapters 2 and 3, could be explained in relation to the understanding that “parts precede the whole,” is quite important in order to describe Japanese Identities as a whole. It is difficult to explain the origins of the peculiar Japanese sense of “oku” and its appearance in architecture, but from the approach that “to see the whole from now = here,” it could be explained that the close-up of the relative zone/depth in space leads to the peculiar concept.

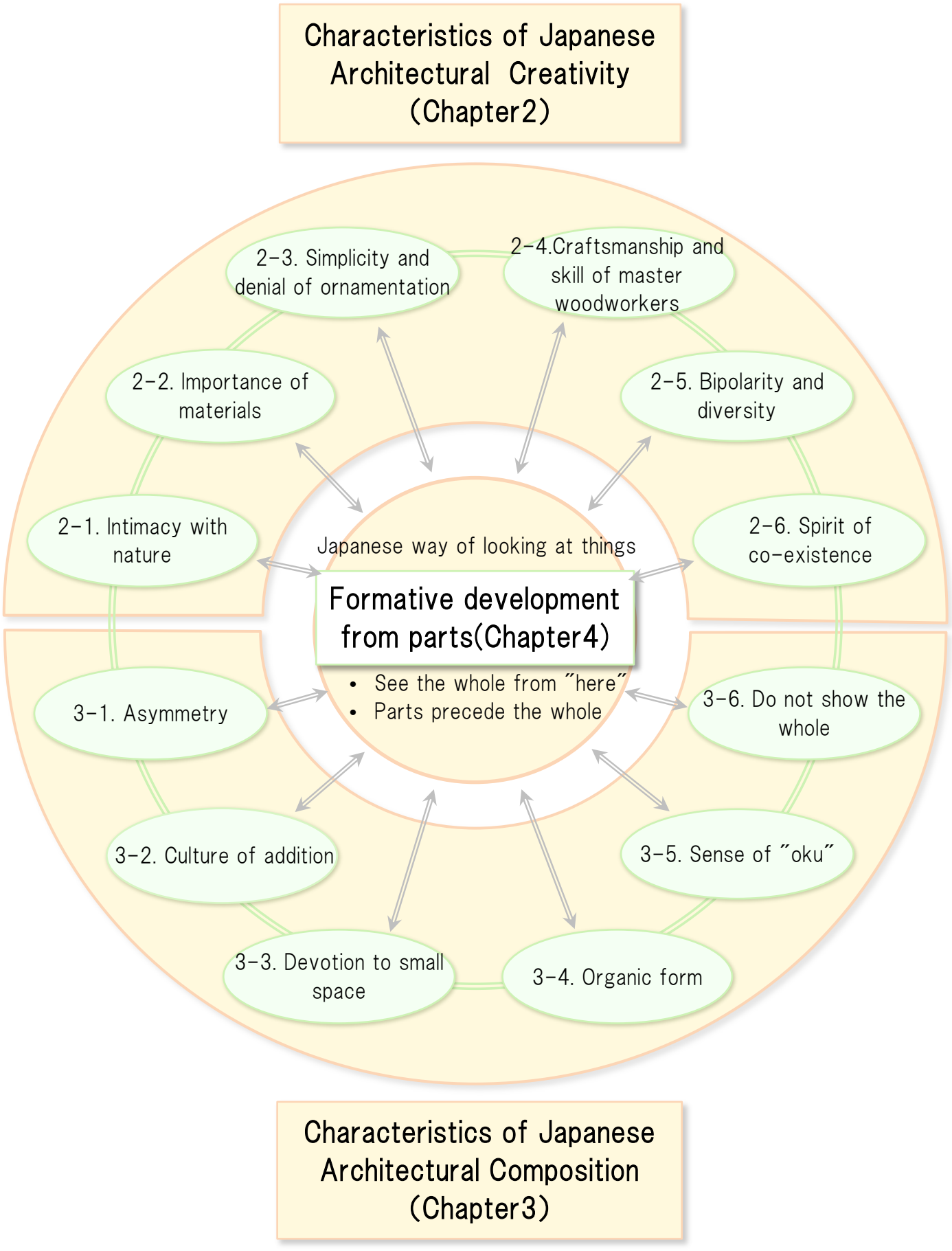
6-2. Afterword with diagram

In〈1-1. Introduction〉, I referred to "Japanese Identities" as 〈There is an apparent commonality in what the Japanese regard as beautiful, comfortable and what holds us in awe. These are Japanese Identities, and their features in architecture are exactly what I aim to study.〉 The attempt to accomplish the extraction of the characteristics and the comprehension of the total picture about Japanese Identities in this thesis is, in a sense, a logical development based on sensitivity that has not been picked up as a thesis subject thus far. But what I recognized through my experience as an architect was that considerations on the characteristics of Japanese architecture and what are in its background are closely related to the understanding of Japanese architecture, and extremely applicable and useful in the actual design phase. In order to develop logically what I had in mind, I determined to take on the challenge of this thesis. This is a challenge for the "creation of arms for architectural design" and it is determined to be a starting point of a "thesis that is applicable and useful for actual design."

At the end, the multiple characteristics of Japanese creation that I studied in this thesis, which have been succeeded being mutually influenced, are shown in the diagram on the next page (Page 170). From the bird's-eye viewed comprehensive considerations in this thesis, the idea that "parts precede the whole" is placed in the center and the mutual relations among the Japanese architectural characteristics are expressed in the diagram. The inheritance of such Japanese architectural characteristics is simple proof of the expectation that something is there to be succeeded, namely, the existence of what is at the root of Japanese creativity: Japanese Identities.

This diagram is a response to〈Chapter 1-2-(5) To find a way to interpret and explain Japanese Identities as a whole〉 and this is the main focus of the thesis.

Summary Diagram
What Is at the Root of Japanese Creativity : Japanese Identities



List of references cited

Note 01. Yuichiro Edagawa
"Japanese Identities-Architecture Between Aesthetics And Nature"
JOVIS Verlag, Berlin (2008)

Note 02. Yuichiro Edagawa
"Japanese Identities" (Kenchiku wo toshite miru nihon rashisa)
Kajima Shuppankai (2009)

Note 03. Shuichi Kato
"Nihon bungakushi josetsu' (A history of Japanese literature)
Chikuma Shobo (1999), (originally published in 1980)
"A History of Japanese Literature"
Routledge, Abridged (1997), (originally published in 1979)

Note 04. Shuichi Kato
"Nihonbunka ni okeru jikan to kukan" (Time and space of Japanese culture), Iwanami Shoten (2007)

Note 05. Hirotaro Ota
"Nihonkenchiku no tokushitsu" (Characteristics of Japanese architecture)
Published in "Nihon no kenchiku" (Japanese architecture), Shokokusha (1954)

Note 06. Editor : Series "20th Century: Japanese Architecture" Project Team
"21st Century : Japanese Architecture — from materials and construction sites," Nikkan Kensetsu Tsushin Shinbunsha (2004)

Note 07. Tsunekazu Nishioka, Koin Takada, Shigeru Aoyama
"Yomigaeru Yakushiji Seito" (Rebuilding of Yakushiji Temple West Pagoda," Soushisha (1981)

Note 08. Explanation by Kakichi Suzuki
"Daigaran no shukumei ni nozomu" (Challenge to the destiny of the great temple), Geijutsu Shincho December 2009, Shinchosha(2009)

Note 09. Teiji Ito
"Nihon dezain ron" (Study on Japanese design)
Kajima Shuppankai (1966)

Note 10. Fumihiko Maki
"Miegakure suru toshi" (Hidden essence of urban design)
Kajima Shuppankai (1980)

Note 11. Web site of Ikebana Koryu-Rion-Kai
"Ikebana yogo no kiso chishiki" (Basic knowledge of Ikebana terms)

Note 12. Web site of Ikebana Ikenobo
"Ikenobo no ikebana/Shoka shofu tai" (Flower arrangement of Ikenobo/ Shoka shofu tai)

Note 13. Web site of Echigo Hillside Park
"Ten-chi-jin no fori" (Folly of ten-chi-jin)

Note 14. Mitsuo Inoue
"Nihon no kenchiku kukan" (Space in Japanese Architecture)
Kajima Shuppankai (1969)
"Space in Japanese Architecture" Weatherhill New York (1985)

Note 15. Web site of Masato Kawamukai
"Gallery of contemporary architecture" April.28,2003 up

Note 16. Editor : Fumihiko Maki
" World of Hillside Terrace ＋ West"
Kajima Shuppankai (2006)

Note 17. Hiroshi Hara
"Kenchiku ni nani ga kanouka" (What is possible by architecture?)
Gakugei Shorin (1970)

Note 18. Teiji Ito
"Katsura ga gendai wo gyoshi shiteiru node aru" (Katsura is watching the contemporary)
Published in "Katsura rikyu" (Katsura Imperial Palace)
Shinkenchikusha, 1996

Note 19. Rintaro Kawamichi
"Gankokei no bigaku" (Aesthetics of flying geese pattern)
Shokokusha, 2001

Note 20. Editor : Naoshima Fukutake Art Museum Foundation
"Teshima Art Museum Handbook"
Naoshima Fukutake Art Museum Foundation, 2011

List of illustrations cited

Fig. 00 Yuichiro Edagawa
"Japanese Identities-Architecture Between Aesthetics And Nature"
JOVIS Verlag, Berlin (2008)

Figs. 01, 12 Kenji Miyamoto
"Zusetsu : Nihon kenchiku no mikata" (Illustrations and texts of Japanese architecture), Gakugei Shuppansha (2001)

Figs. 02, 03 Rintaro Kawamichi
"Gankokei no bigaku" (Aesthetics of flying geese pattern)
Shokokusha (2001)

Fig. 04 Takamitsu Azuma
"Nihonjin no kenchiku kukan" (Architectural space of the Japanese)
Shokokusha (1981)

Fig. 05 Imperial Household Agency
"Brochure of Kyoto Imperial Palace"

Figs. 06, 10 Katsura Nishi
"Nihon no teien bunka" (Japanese garden culture)
Gakugei Shuppansha (2005)

Fig. 07 Sinkenchiku 2000.01

Fig. 08 a, b Editor : Toyo Ito & Associates, Architects
"Kenchiku・hisenkei no dekigoto" (Nonlinear architecture)
Shokokusha (2002)

Fig. 09 Shinkenchiku 2011.01

Fig. 11 Shinkenchiku 2009.11

Fig. 13　Editor：Fumihiko Maki
“ World of Hillside Terrace ＋ West”
Kajima Shuppankai　(2006)

Fig. 14　Editorial board of Japanese architectural chronology
“Zusetsu Nihon kenchiku nenpyo” (Illustrated Japanese architectural chronology), Shokokusha (2002)

Fig. 15　“Ippen shonin eden” (Pictorial biography of Monk Ippen)
National Treasure, Kamakura Period (1185-1333)
The Nikkei newspaper Jan.26, 2014

Fig. 16　Public domain (over 70 years), Wikimedia
“Revised map of Edo, Koka Period (1844-1848)”

Fig. 17　Matsumoto City Government Web site
“National Treasure：Matsumoto Castle”

Fig. 18　Mitsuo Inoue
“Nihon no kenchiku kukan” (Space in Japanese Architecture)
Kajima Shuppankai　(1969)
Plan of ceremonial and domestic buildings,1640 (According to Akira Naito)

Figs. 19, 20 Shinkenchiku 2004.08

List of photo credits

Photos00,01,02,03,04,05,06,07,08,09,10,12,13,15,16,17,18,19,20,21,22,25,26,
27,28,29,30,31,32,33,34,35,39,40,41,42,45,46,47,48,51,52,54,55,56,57,
58,59,61,62,63,64,65,66,68,70,71,72,73,74,75,78,79,80,81,82,83,84,85,
86,87,88,89,90,91,93,94,95,96,97,98,99,100,101,103,105,106,107,108,
109,110,111,112,116,117,118,119,120,122,123,127,128,129,130,131,
132,133,134,135,136,137,138,139,140,141,142,143,144,145,146,147,
148,149,150,151,154,155,156,157,158,159,160
(Above photographed by Author : Yuichiro Edagawa)

Photo 11 Wikipedia (b: Berthold Werner)
Photos 14,76,77,113,114,115
"Katsura rikyu" (Katsura Imperial Villa), Shinkenchikusha
Photos 23,24 Jingu shicho
Photo 36 Computer graphic of restored interior presented by Byodo-inTemple
Photos 37,38 Web site of Chusonji Temple
Photos 43,44 Brochure of Zuihoden
Photo 49 Asahi Shinbun Digital
Photo 50 Virtual reality image of "Togudo Dojinsai, Rokuonji Temple" by Toppan Printing
Photo 53 Wikipedia (b :Luca Volpi)
Photo 60 Brochure published by Imperial Household Agency
Photo 67 Wikipedia (public domain)
Photo 69 Brochure of Myokian Temple
Photo 92 Wikipedia (b: 663 highland)
Photos 102,104 Wikipedia (b: David Iliff)
Photo 121 Wikipedia (b: Martin Durrschnabel)
Photo 124 Web site of Ikebana Ikenobo, "Ikenobo no ikebana/ Shoka shofu tai" (Flower arrangement of Ikenobo/ Shoka shofu tai)
Photo 125 Web site of Echigo Hillside Park, "Ten-chi-jin no fori" (Folly of ten-chi-jin)
Photo 126 Copyright-free image on Internet
Photos 152,153,161,162,166,167,168,169 Mitsubishi Jisho Sekkei
Photos 163,164,165,170 Shinkenchiku 2004.08

List of reference books

1. Bruno Taut
   "Nihonbi no saihakken" (Rediscovery of Japanese beauty)
   Iwanami Shoten (1939)

2. Tetsuro Yoshida
   "Nihon no kenchiku" (Japanese architecture), originally published in Germany (1952), Kajima Shuppankai (2003)

3. Hirotaro Ota
   "Nihonkenchiku no tokushitsu"(Characteristics of Japanese architecture)
   Published in "Nihon no kenchiku" (Japanese architecture)
   Shokokusha (1954)

4. Teiji Ito
   "Nihon dezain ron" (Study on Japanese design)
   Kajima Shuppankai (1966)

5. Teiji Yoshimura
   "Nihonbi no tokushitsu" (Characteristics of Japanese beauty)
   Kajima Shuppankai (1967)

6. Yasunari Kawabata
   "Utsukushii Nihon no watashi" (Japan, the beautiful, and myself)
   Kodansha (1969)

7. Mitsuo Inoue
   "Nihon no kenchiku kukan" (Space in Japanese Architecture)
   Kajima Shuppankai (1969)

8. Hiroshi Hara
   "Kenchiku ni nani ga kanouka" (What is possible through architecture?)
   Gakugei Shorin (1970)

9. Tsunekazu Nishioka, Jiro Kohara
"Horyuji wo sasaeta ki" (Trees that supported Horyuji)
Nihon Hoso Shuppan Kyokai (1978)

10. Fumihiko Maki
"Miegakure suru toshi" (Hidden essence of urban design)
Kajima Shuppankai (1980)

11. Takamitsu Azuma
"Nihonjin no kenchiku kukan" (Architectural space of the Japanese)
Shokokusha (1981)

12. Tsunekazu Nishioka, Koin Takada, Shigeru Aoyama
"Yomigaeru Yakushiji Seito" (Rebuilding of Yakushiji Temple West Pagoda" Soushisha (1981)

13. John Urry, translated by Hirokuni Kabuto
"Kanko no manazashi" (The tourist gaze)
Hosei Daigaku Shuppankyoku (1995)

14. Teiji Ito
"Katsura ga gendai wo gyoshi shiteiru node aru" (Katsura is watching the contemporary)
Published in "Katsura rikyu" (Katsura Imperial Palace)
Shinkenchikusha (1996)

15. Rintaro Kawamichi
"Gankokei no bigaku" (Aesthetics of flying geese pattern)
Shokokusha, 2001

16. Kenji Miyamoto
"Zusetsu: Nihon kenchiku no mikata" (Illustrations and texts of Japanese architecture) Gakugei Shuppansha (2001)

17. Editorial board of Japanese architectural chronology
"Zusetsu Nihon kenchiku nenpyo" (Illustrated Japanese architectural chronology) Shokokusha (2002)

18. Arata Isozaki
"Kenchiku ni okeru nihonteki na mono" (Typical Japanese features in architecture), Shinchosha (2003)

19. Kenichi Echigojima
"Gendai kenchiku no bouken"(Adventures of contemporary architecture)
Chuko Shinsho (2003)

20. Editor : Series "20th Century: Japanese Architecture" Project Team
"21st Century : Japanese Architecture—from materials and construction sites", Nikkan Kensetsu Tsushin Shinbunsha (2004)

21. Supervisor : Aoki, Goto, Tanaka, Nishi, Nishizawa
"Nihon no kenchiku kukan" (Space in Japanese architecture)
Shinkenchikusha (2005)

22. Katsura Nishi
"Nihon no teien bunka" (Japanese garden culture)
Gakugei Shuppansha (2005)

23. Keisuke Fujii, Tetsuo Tamai
"Kenchiku no rekishi" (History of architecture)
Chuo Koron Shinsha (2006)

24. Editor : Fumihiko Maki
"World of Hillside Terrace ＋ West"
Kajima Shuppankai (2006)

25. Shuichi Kato
"Nihonbunka ni okeru jikan to kukan" (Time and space of Japanese culture) Iwanami Shoten (2007)

26. Kenya Hara
"Shiro" (White)
Chuo Koron Shinsha (2008)

27. Norihisa Okada
"Nihon no niwa kotohajime" (Japanese garden to begin with)
Toto Publishing (2008)

28. Explanation by Kakichi Suzuki
"Daigaran no shukumei ni nozomu" (Challenge to the destiny of the great temple) Geijutsu Shincho December 2009, Shinchosha (2009)

29. Arata Isozaki
"Nihon no kenchiku isan 12 sen" (12 selections of architectural inheritances in Japan)
Shinchosha (2011)

Personal career and major works/ Y. Edagawa

1. Personal career

1948 Born in Kobe, Hyogo Prefecture
1967 Entered The University of Tokyo, College of Arts and Sciences
1970 Studied at The University of California, Berkeley,
College of Environmental Design
1974 Graduated from The University of Tokyo, Faculty of Engineering,
Department of Architecture
1974 Joined Mitsubishi Estate Company Ltd.
Architectural Design Division
2001 Transferred to Mitsubishi Jisho Sekkei Inc.
2008 Resigned from Mitsubishi Jisho Sekkei Inc.
2008 Joined Birudaiko Co. Ltd.
2015 Birudaiko expanded to become Globeship Corporation
Present : Managing Director, Globeship Corporation

2. Record of awards (Main role)

1990 Selected Architectural Designs of the Architectural Institute of Japan :
Tokyo Stock Exchange Building (Design architect)
1996 Kansai-kan of the National Diet Library
International Design Competition, Honorable mention
(Team representative)
2004 The Illuminating Engineering Institute of Japan, Lighting Technology Award :
Osaka Stock Exchange Building (Design representative)
2005 Selected Architectural Designs of the Architectural Institute of Japan :
ADK Shochiku Square (Master architect)
Nibancho Garden (Master architect)

2005 Organization for Landscape and Urban Green Infrastructure, Competition for Specialized Greening Technology for Rooftops, Wall Facings and New Green Spaces,
The Minister of Land, Infrastructure and Transport Prize :
Nibancho Garden (Master architect)

2006 The Japan Institute of Architects, JIA Architect of the Year :
Osaka Stock Exchange Building (Master architect)
Otemon Gakuin University Main Gatehouse (Master architect)

2006 Good Design Award :
Otemon Gakuin University Main Gatehouse (Master architect)

2006 Osaka Machinami Award, Encouragement Prize :
Osaka Stock Exchange Building (Master architect)

2007 Selected Architectural Designs of the Architectural Institute of Japan :
Osaka Stock Exchange Building (Master architect)

2007 The Japan Institute of Architects, JIA Architect of the Year :
Otemon Gakuin University, Central Hall, No. 6 Hall
(Master architect)

2008 The Japan Institute of Architects, JIA Architect of the Year :
W place (Master architect)

2009 The Japan Institute of Architects, JIA Architect of the Year :
Breeze Tower (Project manager)

2009 Selected Architectural Designs of the Architectural Institute of Japan :
Otemon Gakuin University, Central Hall, No. 6 Hall
(Master architect)

3. Representative works /20 Major works (Main role)

1978 Yusen Building（Design architect）
【Chiyoda-ku, Tokyo/ Office/ S/ 51,645 ㎡】

1987 Tokyo Stock Exchange Building（Design architect）
【Chuo-ku, Tokyo/ Office, Stock exchange market/ S/ 49,157 ㎡】

1989 Kioicho Building（Chief architect）
【Chiyoda-ku, Tokyo/ Office, Residence, Shop/ S/ 62,473 ㎡】

1990 Nikko Securities Tsurumi System Center (Chief architect)
【Yokohama, Kanagawa/ Office, Data processing center/ SRC/ 20,708 ㎡】

1991 Zenshinren Bank Atsugi System Development Center
(Chief architect)
【Atsugi, Kanagawa/ Office, Data processing center/ S/ 43,244 ㎡】

1993 Tama Tokyo Marine Building (Chief architect)
【Tama, Tokyo/ Office, Data processing center/ S/ 47,227 ㎡】

1994 Mitsubishi Heavy Industries Yokohama Headquarters Building (Chief architect)
【Yokohama, Kanagawa/ Office, Shops/ S/ 110,948 ㎡】

1995 Tokyo Marine Aso Training Center (Master architect)
【Aso-gun, Kumamoto/ Training & Lodging Facility/ RC/ 5,595 ㎡】

1996 Mitsubishi Heavy Industries Yokohama Portside Residence
(Master architect)
【Yokohama, Kanagawa/ Residence/ RC/ 21,995 ㎡】

1998 HSBC Tokyo Building (Master architect)
【Chuo-ku, Tokyo/ Office/ S/ 11,606 ㎡】

1999 Miyagi Prefectural Furukawa Agricultural Research Center, Main Building (Master architect)
【Osaki, Miyagi/ Research Facility/ RC & S/ 6,170 ㎡】

2002 ADK Shochiku Square (Master architect)
【Chuo-ku, Tokyo/ Office, Residence, Shops/ S/ 54,069 ㎡】

2003 Mitsubishi Heavy Industries Shinagawa Headquarters Building (Master architect)
【Minato-ku, Tokyo/ Office, Shops/ S/ 68,658 ㎡】

2004 Nibancho Garden (Master architect)
【Chiyoda-ku, Tokyo/ Office, Residence, Shops/ S/ 58,207 ㎡】

2004 Osaka Stock Exchange Building (Master architect)
【Osaka, Osaka/ Office, Shops/ S/ 53,932 ㎡】

2005 Otemon Gakuin University Main Gatehouse (Master architect)
【Ibaraki, Osaka/ Guard Station, Waiting Place/ RC/ 142 ㎡】

2006 Otemon Gakuin University, Central Hall, No.6 Hall
(Master architect)
【Ibaraki, Osaka/ Educational Facility/ S/ 9,186 ㎡】

2007 Morita New Sanda Plant (Master architect)
【Sanda, Hyogo/ Office, Manufacturing Facility/ S/ 23,315 ㎡】
2007 W place（Master architect）
【Osaka, Osaka/ Office, Shops/ S/ 4,264 ㎡】
2008 Breeze Tower (Project manager)
【Osaka, Osaka/ Office, Shops, Theater/ S/ 84,749 ㎡】

4. Affiliated academic society and others

・The Architectural Institute of Japan
・The Japan Institute of Architects
・Japan Guide Association

5. Books, articles, lectures

Books

・Japanese Identities — Architecture Between Aesthetics And Nature
JOVIS Verlag, Berlin (2008)

I introduced to a European audience Japanese architecture from past to present that embodies the wonders of Japanese culture through my writings and photographs. (In English & German) At the same time, I explained the characteristics of Japanese architectural design and received a great response. All of the photographs were taken by myself from my point of view and all of the texts were written in English by myself. (German interpretation by a translator)

・Japanese Identities — Japaneseness through Architecture
Kajima Shuppankai, Tokyo (2009)

Japanese version of the above mentioned "Japanese Identities — Architecture Between Aesthetics And Nature." It was described as a bilingual (English & Japanese) photographic inventory introducing the beauty of Japan. But moreover, I aimed to explain the characteristics of

Japanese architecture by showing and defining the contrast between Japanese and European architecture. All publication photographs (except for a few exceptions) were my originals.

・ARCASIA　Heritage
Published by Architects Regional Council of Asia (ARCASIA)　(2010)

The joint publication by ARCASIA's 17 participating countries that introduces representative valuable architecture from past to present of each country. My English descriptions were used to introduce 10 representative architectural works of Japan.

Articles

・"In search of worldwide wisdom"　Shinkenchiku：2004.07
I introduced, in detail, the process and the problems in the case of the international design competition for Sankei/ Breeze Tower. Namely, the negotiations with six famed foreign architects, the selection and the decision-making process, and the issues that had to be overcome for an international collaboration.

・Architectural magazines/ Commentary articles

・ADK Shochiku Square　Shinkenchiku 2003.01
・Nibancho Garden　Shinkenchiku 2004.08
・Osaka Stock Exchange Building　Shinkenchiku 2005.07
・Otemon Gakuin University Central Hall, No. 6 Hall, Main Gatehouse Shinkenchiku 2007.10
・Breeze Tower　Shinkenchiku 2008.11
・Work and Style/ Breeze Tower　Architecture and Society 2008.12

Lectures

・“Japaneseness through Architecture”
Sponsored by Japan Guide Association : Government subsidizes program for licensed guides (2009)

・“Multiple ways of thinking through architectural culture and how to understand its essence.”
Sponsored by Japan Tourism Agency : Licensed guide specialty training program (2010)

・“Japanese Identities” Obayashigumi Evening Talks
Obayashigumi Headquarters (2010.09)

・“Japaneseness through Architecture”
Lecturer at Asahi Culture Center (2010.11)

・ Three-man discussion “The heart of Japanese architecture”
UIA2011 Tokyo The 24th World Congress of Architecture
BCS Architectural Seminar (2011.09)