

Embodiment of Arata Endo's Philosophy on Architectural Beauty at the Former Koshien Hotel

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Abstract: The 'former Koshien Hotel,' completed in 1930, was designed by Arata Endo, who worked with Frank Lloyd Wright on the design of the Imperial Hotel. It has been converted into the 'Mukogawa Gakuin' school facility and is presently called 'Koshien Kaikan.' It makes an expressive and profoundly meaningful impression even now and it is an excellent representation of the Japanese buildings of that time. In this study, the Endo philosophy on architectural beauty at that time, as explained and broken down into nine key points in 'An essay on architectural art,' was investigated and, through a survey of 'Koshien Kaikan,' it is apparent that Endo poured his philosophy on architectural beauty into the design of the 'former Koshien Hotel' and embodied the nine key points into it from various points of view.

1. Introduction

1.1. OBJECTIVE

The 'former Koshien Hotel (Koshien Hotel),' designed by Arata Endo (Endo), who had worked with Frank Lloyd Wright on the design of the Imperial Hotel, has been converted into 'Koshien Kaikan' of 'Mukogawa Gakuin.' The Department of Architecture of Mukogawa Women's University, founded in 2006, uses it as a schoolhouse. Endo designed over one hundred and thirty buildings and wrote approximately seventy articles in his lifetime. He designed fewer buildings between 1924~1927 (from the end of the Taisyo era to the beginning of the Syowa era). During that time, he wrote more than twenty articles, including 'An essay on architectural art' (1926) and 'An essay on architecture' (1928). The Koshien Hotel was designed right after that time and was completed in 1930. It is thought that the Koshien Hotel is a building that fully represents Endo's philosophy on architecture at that time. The objective of this study is to clarify Endo's philosophy on architectural beauty and determine how it is embodied in the Koshien Hotel.



Fig. 1. The Koshien Hotel (presently Koshien Kaikan)

1.2. METHOD

The articles that comprehensively depict Endo's philosophy on architecture in that timeframe are 'An essay on architectural art' and 'An essay on architecture,' as mentioned above. 'An essay on architectural art' is about architectural beauty and 'An essay on architecture' is concerned mainly with the relation of use, strength, and beauty in architecture. In this study, Endo's philosophy on architectural beauty is investigated through 'An essay on architectural art' and the philosophy of Frank Lloyd Wright (Wright), his mentor, is investigated in relation to it. How Endo's philosophy is embodied in the Koshien Hotel is investigated through a survey of the present Koshien Kaikan and investigation of related data.

2. Endo's philosophy on architectural beauty

... from the standing point of working practically on architectural design, I want to think about daily facts on architecture and architectural beauty of the moment, which is found on either side of us, by the roadside and everywhere.¹

Endo expressed this intent and composed the following nine points as developed thoughts of his philosophy on architectural beauty:

- (1) To be centrifugal;
- (2) To be suggestive;
- (3) Associative beauty;
- (4) Scale;
- (5) Momentum is natural;
- (6) Material comes first;
- (7) The beauty of collapsed objects;
- (8) The third object;
- (9) Toward the third dimension.

He explained these nine key points, illustrating examples of beauty both in our daily life and in architectural design, and introduced Frank Lloyd Wright's philosophy on architectural beauty.

2.1. TO BE CENTRIFUGAL

*There is no center in nature. ... the Japanese garden, which is intended to reflect nature, has no center. ... there is always preparation in order to be centrifugal there. If architecture wants to occupy a part of nature and to become as one with it, melting into nature, the necessary preparation is to be centrifugal. Being organic and being centrifugal are inseparably related. It is almost as though to design organic architecture is to be centrifugal.*²

*Nature has a center. It exists in a part obviously. And it exists at certainly an important point. ... in the flower, in the eyeball, there is the important matter of the so-called finishing stroke — architecture has such a knack.*³

Frank Lloyd Wright (Wright), Endo's mentor, coined the term 'organic architecture,' which is architecture constructed as a space for life where all elements are harmonized according to the character of the site and nature of the materials. Endo explained that the important thing is to design organic architecture to be centrifugal in order to harmonize the architecture with nature, occupying a part of nature and becoming as one with it, and the public space of the Imperial Hotel was designed to be centrifugal in every aspect. At the same time, for the center that exists in nature, he referenced the bright core of the hollyhock flower that bloomed all over Taliesin and fascinated Wright, and commented that a center as the finishing stroke of a part is also acceptable.

2.2. TO BE SUGGESTIVE

*One part extends to the other part and, moreover, in an order not abrupt, that part already has prepared for the other part. ... preparation for the other part of one part — The psychological effect is nothing but the suggestion. ... therefore, to handle a building psychologically is an important key to connecting life to architecture. By the way, handling a building psychologically comes back to the suggestion of form. ... negotiations between form and mind, psychological effect of form, psychological arrangement of form. The important key for human beings to live in architecture and that architecture can teach human beings is appreciated there.*⁴

Endo showed, as examples of the suggestion of form in the natural world the scenery of Musashino, which moves from the high road to the ridge between rice fields, from the field to the grove, from the grove to the hill, and eventually opens out, and, as examples in architecture, the round window at the end, the transom toward the next room, the pine over the wall, a distant view of the tower, a 'torii' (a gateway at the entrance to a shrine) approaching and looking up, the first 'torii,' and the second 'torii.' With these preparations of suggestion, the architect's idea easily became three-dimensional.

2.3. ASSOCIATIVE BEAUTY

Standing on a hill in Wisconsin, I saw the evening sun sink heavily into the end of overlapped land. The large setting sun looked like a mat of tempered copper — I could not decide how to envision that. Looking back on my homeland, I realized that there were so many associations in the objects that I looked at or listened to. In rain and wind, mountain and water, going in and out, associations always follow — personally, historically. The fixed form of the association is a part of many traditions there. Thus, 'architecture,' which should agree with the basic sense of use and form, falls into the arena of taste by mistake. ... For example, here is a Gothic church and Gothic style is a result of historical association. It falls short of the viewpoint of religious sense. And it expects all religious effect only to the historical

*association. ... originally, architecture is circumstances that agree with the law of use and form and remove the association — the direct promise of the beauty and the truth exists there.*⁵

Endo argued that there are many forms of association that have taken root in Japanese culture, a tendency to explain things by borrowing associations without satisfactorily explaining them, and an attitude of tracing some allegory instead of faithfully creating something. He explained that the Unity temple designed by Wright was lampooned in that it was not a church, but a stable, and he worries that architects in particular have this tendency.

2.4. SCALE

*Wright often told me that the most difficult thing about the design of a large building was scale. A skillful person could create an interesting design or provide ornaments for it here and there. But it was not so easy to unify the scale all over (of course, the character of the design should be unified as well). This scale also exists in Japanese architecture. For example, they certainly utilize an excellent human scale to make the three 'syaku' (≒ 90.9 cm) as the standard dimension of a residence, and make the height of fittings five 'syaku' and seven 'sun' (≒ 172.71 cm). By the way, in temples and shrines, by making the span of a column standard and the eaves rafter a unit, the dimensions of the wooden frame and roof tile are calculated. This is called 'kiwari.' ... In western-style architecture, there is nothing like 'kiwari' and everybody strays from this scale easily. Architects should pay attention to this today.*⁶

Endo stated that the Imperial Hotel was composed in human scale paying close attention to the standard of four 'syaku' (≒ 121.2 cm), allowing a person to melt into the building immediately and become one with it anywhere. On the other hand, he asserted that the 'Basilica di San Pietro' in Rome was proportional, but its scale was difficult to discern. He explained that it was important to unify scale and design with the human scale.

2.5. MOMENTUM IS NATURAL

*... A roof hanging over columns that rise steeply comes down the pitch surging from the thick ridge and goes over the columns. To columns are added single or double square flaring and brackets. However, the roof spreads and extends until the very edge and calms the momentum. ... There are the eaves — the edge of the rafters put in order, supple detail of comma-pattern roof tiles and arabesque-pattern roof tiles. ... and the natural economy, natural efficiency, and natural chain of the dynamics and the aesthetics are the stage where the structure and the architecture are unified between the momentum of truth and falsehood. The power of architecture is due to the appearance of this momentum.*⁷

Endo described the true and false momentum of river flow, dance, and so on, and of temples and pagodas in the architectural field, and explained that the unification of structure and architecture is important and that the power of architecture is produced by it.

2.6. MATERIAL COMES FIRST

Materials are important. This does not mean that there is first the best design and human beings make something by chopping materials for it; this means that there are natural materials first and human beings make something pulled from those materials. There, power that cannot be forgiven exists with beauty. ... this casual structure became a 'torii' with a little transformation and

became the clothes-drying stand of a dye house with more change. ... this structure makes us feel powerful enough to forcibly pull human beings. Of course, human beings have a purpose, but it has an atmosphere in which human beings listen to the command of the materials gently to achieve this purpose. ... when we make the building in a large scale, if the scale of the materials disappears, the building is spineless.⁸

The materials Endo mentioned here do not seem to be finishing materials, but structural ones. He explains that, because of the primitive materials and the powerful structural impression of those materials, the architecture of those days was pulled not by the materials, but by the structure. He explained that he was surprised by the strong expression of temporary fencing at a construction site and was impressed by the architectural beauty of the constructed steel. However, he finds it deplorable that the completed building usually betrays these temporary fences and steel.

2.7. THE BEAUTY OF COLLAPSED OBJECTS

*A roof beginning to rot, a wall beginning to collapse, these have unspeakable virtue. Although newly made objects are good-looking, collapsed ones have indescribable beauty. —It is not a matter of taste, but is pure architectural beauty. When an object made by a human being collapses, it is released from constraints and follows the law of nature. It is beautiful on this account, whatever others may say. The general feeling is an aesthetic one that is urged from the particular case rather than urged from an emotional point of view. ... That is, to make an object natural to remove when it collapses, in other words, to respect the nature of a material thoroughly, to be obedient to the nature.*⁹

Endo has been asked if it is useless to carve a stone that is not hard because it has holes and is rounded off at the corners. He stated that he always answered this question that, although the stone has holes, eruptions, and rounded off corners, Wright encouraged eruptions and unevenness. As it is too arrogant to attach a reserved beautiful pattern to it, he adopted modesty and persistency, helping the materials faithfully, thus giving them life.

2.8. THE THIRD OBJECT

*There is a male and a female. They become a couple. But this is yet a plane. Then, a child is born — the third object. A three-dimensional situation develops. Conflicting power is relieved. Not physical existence one by one, but true composition starts. Here, they become architecture. There is a first object, a second object, and the third object is arranged. For example, there are two squares like these. At first, there is no architectural composition. And it is not architectural yet to attach any pattern to each. It can be said that by causing the third object there, they have become architectural, like these, for the first time. (Fig. 2, Fig. 3) When a straw-thatched roof like a turned down shell in the country appears in our eyes and confronts the earth with a 'shoji' column, wall, and so on, as third objects, it has unlimited taste architecturally. ... The earth as the first object, a roof as the second object, and columns, wall, and 'shoji' as the third objects. And this relation goes into a part, the earth as the first object, column as the second object, and basis and board between them as the third objects.*¹⁰

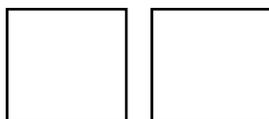


Fig. 2. The first object and the second object

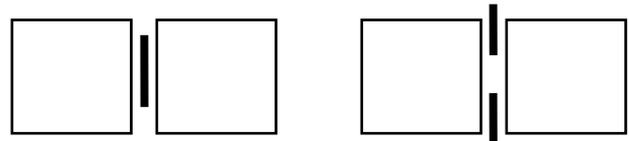


Fig. 3. Addition of the third object

Endo explained that, with the addition of the third object to the first and second object as architectural elements, a composition results and becomes architecture, illustrating the composition of Japanese architecture. He mentioned that Wright used third objects freely at the wings of the rooms, restaurant, and promenade in the Imperial Hotel.

*...a telegraph pole — crosspieces, electric wire and ceramic insulations of it — beauty between crosspieces, electric wires that cross on the right. ... there are third objects like these, canopy coming down from the ceiling, chandelier, hanging lantern, curtain, tassel; I cannot imagine how much they improve architectural sense. Architecture has a large field in which to invite the element of tension.*¹¹

Endo explained the importance of the existence of third objects and that a sensible way of ornamentation is to add color, embroidery, or patterns not to the first or the second object, but to the third. He commented that architects should use consciousness of composition for the use of materials and that the brick wall of the Imperial Hotel had sculptural modeling of unspeakable taste.

2.9. TOWARD THE THIRD DIMENSION

*There is scenery. And it is said to be good. This is almost framed scenery, scenery to make a good picture, scenery as a picture. ... we are apt to pick up an episode of nature instead of watching nature and we do not stop until we make three-dimensional nature into a two-dimensional picture. This also occurs in architecture. Architecture is three-dimensional, which nobody can refuse. — Only no one treats it completely as three-dimensional. Since the Gothic era, architecture has not been treated as a three-dimensional form for a long time. ... From three-dimensional architecture, the third dimension has vanished as an element of three-dimensional form. ... Japanese architecture is composed as three-dimensional, Chinese architecture is as well. ... Many sculptures are created there that are not two-dimensional ornaments, but three-dimensional all over, and they stand out harmoniously as great sculpture — a three-dimensional form.*¹²

Endo sounded the alarm to the tendency to fail to treat architecture as a three-dimensional form. He considered Wright a genius who could have completed the sense of the three-dimensional form and that there was no lack anywhere of preparation for three dimensions in the basis of the plan, composition, and ornamentation. He explained that, when looking at the Imperial Hotel, we are surprised at the soft swelling of it in spite of the use of large lines, broadness of area, and great number of straight lines and angles.

3. Embodiment of the philosophy on architectural beauty at the former Koshien Hotel

3.1. TO BE CENTRIFUGAL

The main facilities of the Koshien Hotel, such as the rooms, banquet hall, and grill, are arranged outside of the towers and the central part is mainly reception room. For the hotel facade, the central part is two stories high with a flat roof and both wings are

three to four stories high with pavilion roofs. Because of this, the composition of the building form is centrifugal. The Midway Gardens, which Wright designed, had a similar external appearance composed of horizontal lines and vertical lines of twin towers with the Midway Gardens' main facilities located in the center, and this central part is massive. Because of this, in comparison, the Koshien Hotel is felt to be more centrifugal than the Midway Gardens.

For detail, the consecutive square pattern, which was often used by Wright to give unity to a huge, complicated building, is also used at the Koshien Hotel; that is, five 'suns (≈ 15.15 cm)' of unglazed square tiles for both the exterior and interior wall. In the center of four tiles, a convex pattern with the motif 'Uchide no kozuchi' (small good luck hammer) appears. Furthermore, above and below/right and left of the convex pattern, the motif 'Uchide no kozuchi' appears. Although these shapes are the center of a part, consecutive patterns remove the center of the whole and perform as a woven pattern from a distance and as a human scale grid and pattern on closer inspection.

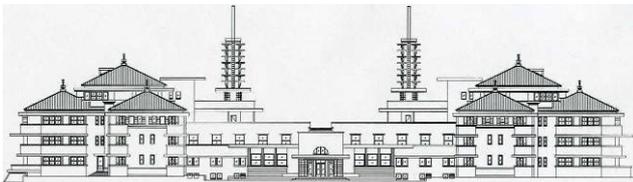


Fig. 4. The façade of the Koshien Hotel

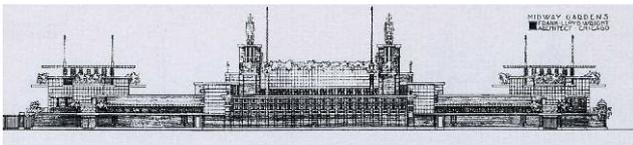


Fig. 5. The façade of the Midway Gardens

On the other hand, several partial center finishing strokes are developed also at important spots—a fountain in front of the banquet hall, 'Uchide no kozuchi' in the library and at the stage of the roof garden, and fireplaces in five rooms and the bar—and their role is to brace spaces.



Fig. 6. The fountain in front of the banquet hall as a partial center

3.2. TO BE SUGGESTIVE

The twin towers that characterize the hotel façade and transom around the wall correspond to the 'tower seen from a distance' and 'transom toward the next room,' respectively. The border and square tiles of the interior wall are an example of 'preparation of a part for another part' and create continuous interior and exterior spaces.

The motifs that characterize the Koshien Hotel are 'Uchide no kozuchi' and 'drops of water.' 'Uchide no kozuchi,' small

good luck hammer, is a symbol of happiness that means that you can get anything you want by hammering. Drops of water are thought to be the symbol of safety to protect guests and the building. Happiness and safety are the desire of every guest and these ornamental motifs seem to impart psychological effects.

On the carpets of the public spaces, patterns of waves, sweet flags, cherry blossoms, Japanese maple leaves, and deer are woven. They remind us of the 'crystal-clear lake' and (mentioned in the hotel brochure), the Mukogawa River and Nishinomiya Beach, sweet flags around the lake (painted in a postcard of the hotel), cherry blossoms at the Mukogawa riverside, and the 'wooded hills of Rokko' (also mentioned in the hotel brochure).

*First, I observe the site. It tells me about architecture. How architecture is allowed, how life is allowed, and how that life is developed, I learn from the nature there.*¹³

*The site is located along the new national road that connects Osaka and Kobe. The Mukogawa riverside has white sand and green pines. The scenery is the combination of the garden with a crystal-clear lake appropriate for boating, with the sea and mountain in the distance.*¹⁴

Endo spoke of this and it is thought that he embodied the Koshien Hotel with these ornaments to encourage guests to reflect on the character of the nature and the site. Here, 'association' does not mean beauty based on similarity of form, but beauty that is developed by 'ornaments that are meaningful only to the imaginative heart,' as Wright urged.



Fig. 7. The view of the twin towers from the Muko-ohashi Bridge



Fig. 8. The ornaments of the 'Uchide no kozuchi' motif

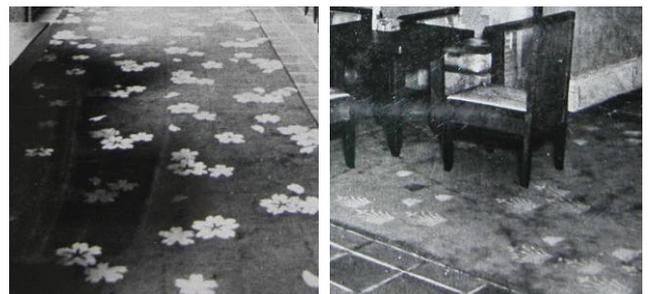


Fig. 9. Patterns of carpet with cherry blossom motifs (left) and with the sweet flags motifs (right)

3.3. ASSOCIATIVE BEAUTY

The façade of the Koshien Hotel is characterized by horizontal lines, vertical lines, and pavilion roofs. It does not imitate Japanese-style inns, nor does it imitate western-style hotels. Aisaku Hayashi, who formulated the plan of the Koshien Hotel and managed it, planned to create an ideal hotel with good accommodations and services, because the Japanese-style inn had been superior in service, but inferior in accommodations. Endo designed the hotel in order to give form to function based on Hayashi's plan. Thus, the design of the Koshien Hotel did not aim for associative beauty based on similarity to any specific building style.



Fig. 10. The external composition of the Koshien Hotel

3.4. SCALE

The Imperial Hotel is designed with the unit of foot and the module of four feet, and the Koshien Hotel is designed with the unit of 'syaku' and the module of six 'syaku' (one 'ken' \approx 1818 mm). 'Syaku' is the standard measurement of Japanese wooden buildings. At the Koshien Hotel, columns were arranged with a span of two to four 'ken' (\approx 3636 mm \sim 7272 mm) and the standard floor height was ten 'syaku' (\approx 3030 mm). It is said that the Koshien Hotel's special composition was fit to the Japanese sense of scale. The size of the unglazed tiles is five 'sun' (a half 'syaku', \approx 151.5 mm) square including joint width and the size of the border tiles is one 'shaku' (\approx 30.3 mm) long including joint width. Thus, the module is also applied to the scale of the materials. The Koshien Hotel was designed in human scale with unified measurements.

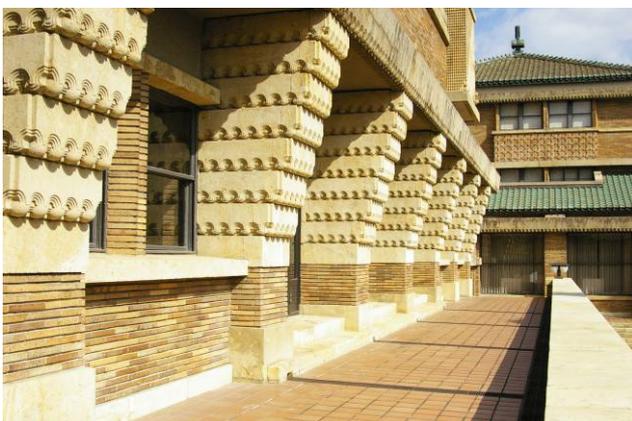


Fig. 11. Columns with a span of two 'ken'



Fig. 12. Square tiles (above), border tiles (below)

3.5. MOMENTUM IS NATURAL

Drops of water gush out from the conspicuous ornament of the ridge of the pavilion roof, fall down the ornament in one breath, run down the roof with the rhythm of the hip notch, trickle from the eaves end roof tiles, come down to the horizontal eaves, fall down along the columns, and pour into the 'crystal-clear lake' in the front garden. A story with such momentum and rhythm is notably suitable for the Koshien Hotel. Endo may have given it this power.

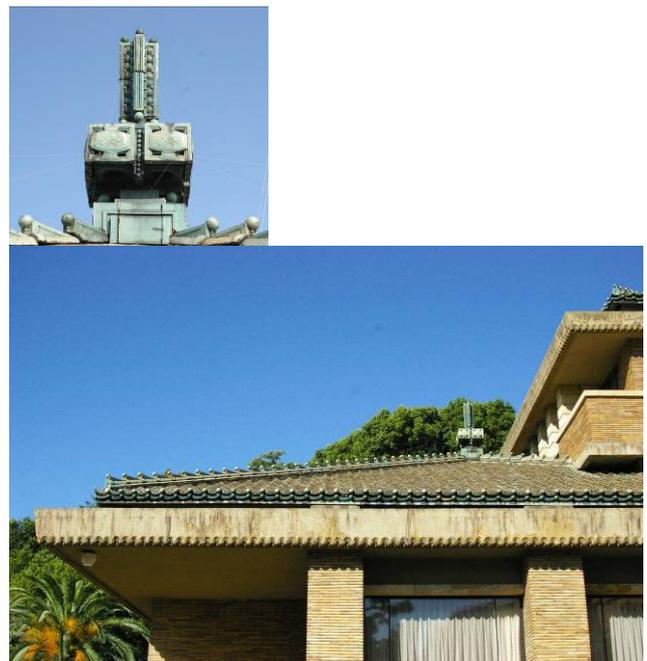


Fig. 13. Momentum of the drops of water

3.6. MATERIAL COMES FIRST

The finishing materials of the Koshien Hotel are tiles for the walls, floors, exterior wall, and interior wall of the public spaces, and stone for the retaining wall, floors, ornaments, and roof tiles. All are made from soil or stone, and the color of the tiles and turf is close to that of earth. The green color of the roof tiles becomes one with the green color of the pines. Wright stated that a major element of 'organic architecture' is to perform its highest function related to the human life inside and the natural scenery. Therefore, Endo based his choice of materials on this same philosophy.

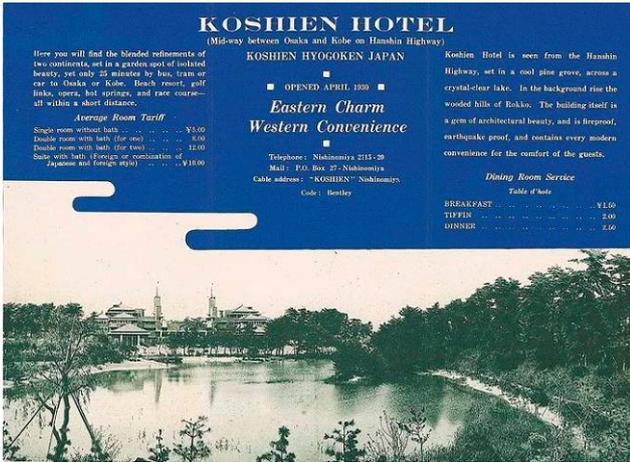


Fig. 14. The brochure of the Koshien Hotel showing the harmony of the green roofs of the hotel with the pine groves

3.7. THE BEAUTY OF COLLAPSED OBJECTS

The stone used for the retaining wall, floors, and ornaments is a type of tuff called ‘Nikkaseki’ that is produced in Komatsu city, Ishikawa prefecture. It has been used as architectural material since the beginning of the Taisyo era. ‘Nikkaseki’ is a tuff similar to the ‘Oyaishi’ that Wright used in the Imperial Hotel. Although ‘Nikkaseki’ is more durable than ‘Oyaishi,’ the ‘Nikkaseki’ used in the Koshien Hotel has become partially cracked and broken over the past more than eighty years. However, its texture exudes a warm feeling and reflects the blessing of earth without appearing dirty or unsightly. It is thought that Endo evaluated the nature of ‘Oyaishi’s’ texture, but preferred to use materials that had higher endurance and would retain an elegant texture even if broken. He therefore chose ‘Nikkaseki.’



Fig. 15. Fireplace in the reception room made of ‘Nikkaseki’

3.8. THE THIRD OBJECT

For the façade's composition, assuming that the exterior wall and pavilion roofs are the first and second objects, the twin towers, horizontal borders of the upper and lower end of the openings, and the large transparent openings are the third objects. The twin towers are the vertical lines that soar in contrast to the composition of the horizontal lines. The horizontal borders of the upper and lower window ends are the lines that brace the horizontal composition. The large transparent openings confront the earth-color wall and green roof. These are expressions to make us feel the ‘tension’ that Endo spoke of. Around the roof,

the ornament of the ridge of the pavilion roof, drops of water at the hip roof, and the eaves end roof tiles are the third objects. Around the exterior wall, the reliefs of several patterns, including ‘Uchide no kozuchi,’ are the third objects. Moreover, for detail, the deep joints of the border tiles also represent the third object, as Endo said that the brick wall of the Imperial Hotel was modeled like sculpture. About the interior of the hotel are ornaments of columns around the entrance hall and reliefs of ‘Uchide no kozuchi’ in the banquet hall, the library, and fireplaces in several rooms, including the bar. Furthermore, the coved ceiling of the banquet hall and the grill, and the shell-shaped chandeliers and bracket lamps seem to correspond to the ‘canopy coming down from the ceiling,’ ‘chandelier,’ and ‘hanging lantern.’

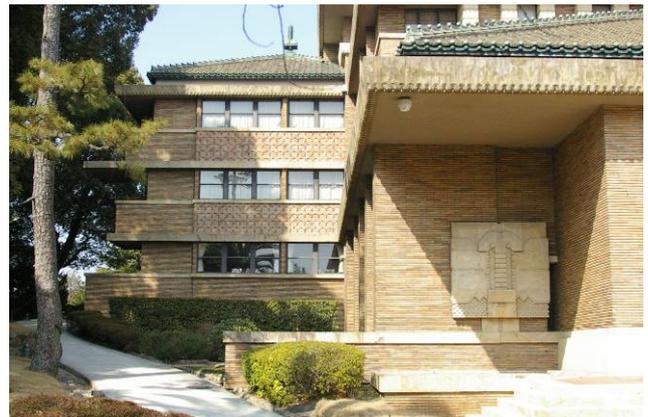


Fig. 16. Wall, canopy, and a ornament as the third object (front), wall, openings, and horizontal borders of ‘Nikkaseki’ as the third object (back)

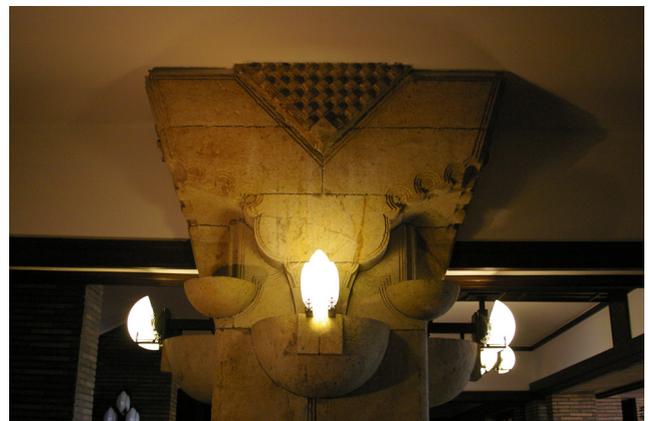


Fig. 17. The ornament of the column in the entrance hall

3.9. TOWARD THE THIRD DIMENSION

Three-dimensional expressions are seen everywhere at the Koshien Hotel. On the façade, the combination of masses of pavilion roofs, the composition of the twin towers with ornamental plates, and the expression of rich shade of the exterior wall by tiles and reliefs are examples. In the internal space, ornaments of columns around the entrance hall, the composition of the ceiling of the banquet hall and grill, and the shell-shaped chandeliers and bracket lamps are also three-dimensional. Endo has said that Wright is the genius who raised architecture up from the corruption of being non-three-dimensional and breathed life into it, and then embraced the concept of three-dimensionality thoroughly. On the other hand, Wright replied to Endo that the design of the Koshien Hotel was a splendid performance and that he could see how Endo had

concentrated on it after looking at the drawings and pictures of the Koshien Hotel that Endo sent to him. From this fact, it is understood that the Koshien Hotel is architecture properly prepared to be three-dimensional.



Fig.18. Three-dimensional composition of the tower



Fig.19. Three-dimensional composition of the ceiling of the banquet hall

4. Conclusion

Endo expressed his philosophy on architectural beauty by explaining the nine key points related to it. In comparing these points with the philosophy of Wright, they have much similarity with the sense of 'organic architecture' that Wright advocated. Endo was a pupil of Wright and learned the principles of architectural design from Wright. It is thought that Endo added the knowledge he learned from Japanese architecture to what he learned from Wright and that he established a philosophy of his own. Through this study, it is observed that Endo poured his philosophy on architectural beauty into the design of the Koshien Hotel and embodied the nine key points into it. It is thought that the accumulation of such embodiment from various points of view makes us appreciate the present Koshien Kaikan (the Koshien Hotel) as expressive and profoundly meaningful. These key points are not only the theme of the days when the Koshien Hotel was designed, but also a universal theme that is still new today. The following subject is to survey mutual relevance among nine points of Endo's philosophy on architectural beauty and relevance of them to the philosophy of Wright on architecture.

Endnotes

1. Endo, A. (1926). *Kenchiku bijutu*, Arusu dai bijutu koza vol. 6, Arusu, p.1
2. Endo, op, cit., pp. 1-2
3. Endo, op, cit., p. 4
4. Endo, op, cit., p. 5
5. Endo, op, cit., pp. 6-7
6. Endo, op, cit., pp. 7-9
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Reference Drawings of the Koshien Hotel

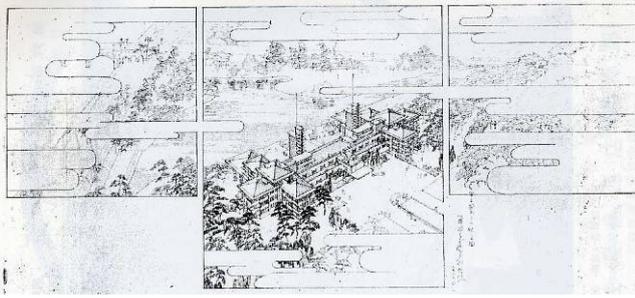


Fig.20.Perspective drawing

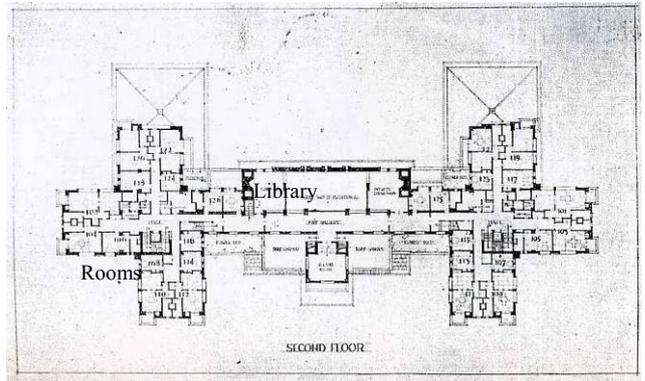


Fig.23.Second floor plan

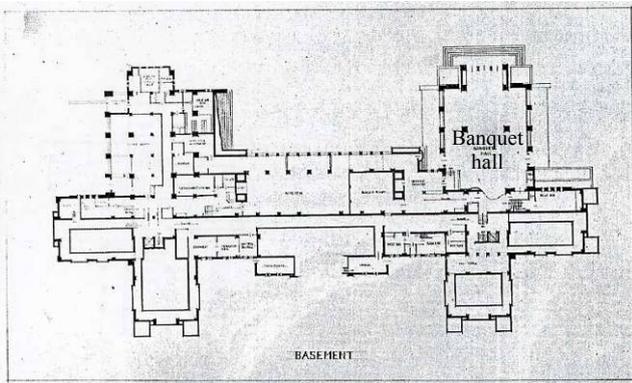


Fig.21.Basement floor plan

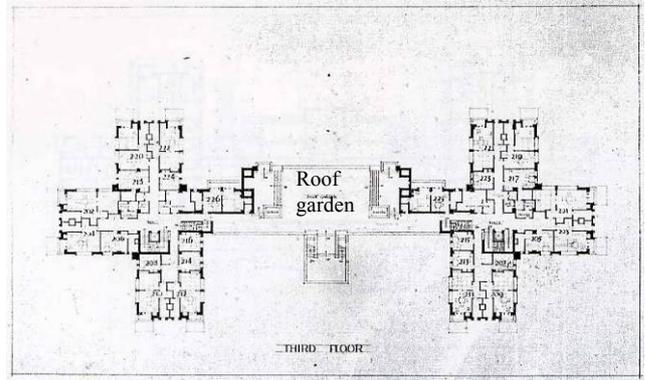


Fig.24.Third floor plan

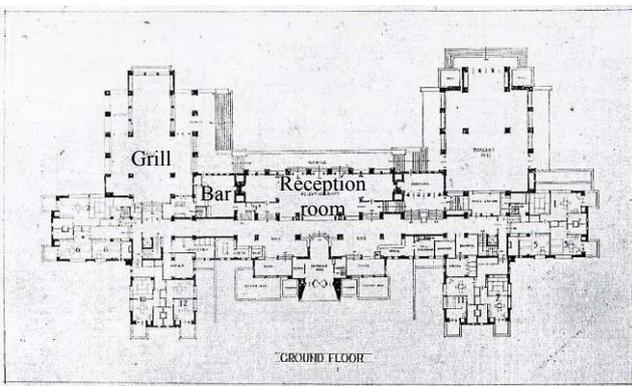


Fig.22.Ground floor plan

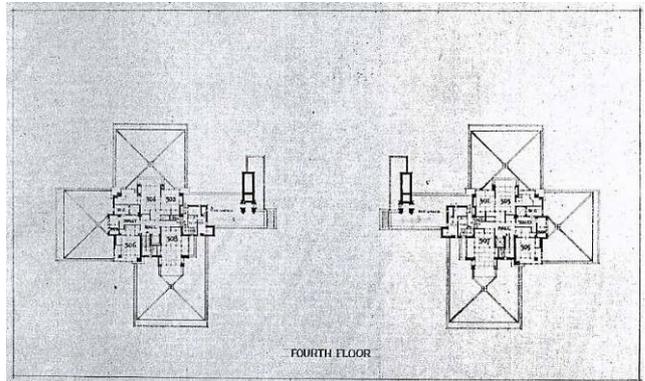


Fig.25.Fourth floor plan