



Taro Amano, Musashi-Ranzan Country Club clubhouse, Koutou, Tokyo, Japan, 1961. © Shiraishi Kensetsu K.K., 1962.

Progress Report on the Musashi-Ranzan Country Club Clubhouse Conservation and Repair Work

BY MITSURU HIRAI

This is a progress report on the plan to conserve and repair the Musashi-Ranzan Country Club clubhouse designed by architect Taro Amano. It is a valuable example of the conservation and repair of private company-owned modern reinforced concrete architecture without the use of subsidies. Project planning commenced in 2009, and minor construction has been carried out each year, with the third installment of work carried out in 2014. For carrying out the construction, the design content and course of construction are based on the results of an analysis and survey of the original building. The clubhouse, together with the conservation and repair work currently being carried out, was selected as one of the works in the *docomomo Japan* 174 in 2014.

Historical Background

The Tokyo Golf Club clubhouse, which was designed by Antonin Raymond and completed in 1932, is a well-known example of a golf clubhouse in Japan designed by a prominent architect. This building was designed in the International Style, and was a pioneering work of architecture in pre-war Japan. Pre-war golf clubs were the scene of leisure-time amusement for foreigners or the Japanese bourgeoisie, so there were not many golf clubs. However, after the war, the economic resurgence gave rise to an unprecedented golfing boom, and golf courses were built one after the other all over Japan.

Ranzan Country Club had its beginnings when it opened as *Shinonome* Golf Course in *Koutou* City, Tokyo in 1952. People from political and business circles and prominent public figures gathered there. Due to the development of the city center which took place from the mid-1950s, the club was forced to relocate. It was relocated to Kamagata in the Hiki District, Saitama Prefecture, near Tokyo, and opened as *Ranzan* Country Club in 1962. Further, at the stage when it was announced in an architectural magazine, it was called *Musashi-Ranzan* Country Club, but when it was opened the name was changed to *Ranzan* Country Club.

In 1961 when *Ranzan* Country Club was built, an example of a well-known building that had been completed was *Kunio Maekawa's* Tokyo *Bunka Kaikan*. This was the height of the post-war Modern Movement, when architecture was maturing. Further, in the same year, Kenzou Tange announced "The Tokyo Plan — 1960". It was a time when Japan faced urban expansion, due to the high level of economic growth. The golfing boom of that time was stimulated by lifestyles in which people who lived in cities, which were becoming overcrowded, sought nature in areas near the cities in their leisure time.

The golfing boom in Japan peaked during the bubble economy. During the time of the high level of economic growth and up to the time of the bubble economy, because the golfing population increased explosively, many clubhouses designed in the style of the Modern Movement were demolished and rebuilt into luxurious clubhouses on a large scale. Therefore, many old clubhouses based on ideas from the early years in Japan no longer remain, and even if they do, they have been extended and reconstructed on a large scale, and there are few clubhouses which have preserved elements of architecture from the early years.

In recent years, the club house of the Fuji Country Club, which was designed by Antonin Raymond and completed in 1958, was the first golf clubhouse in Japan to be registered as a structure of cultural importance. Fuji Country Club is an architectural work which clearly demonstrates the characteristics of timber golf clubhouses designed by Raymond after the war. The fact that this clubhouse was registered shows that the cultural value of golf clubhouses that were constructed one after the other in the 1960s is being recognized.

The clubhouse of *Ranzan* Country Club reached its half-century anniversary in 2012. Compared with when it was first constructed, the needs the clubhouse must meet and the way the clubhouse is used have varied according to the times, and in order to respond to these changes, the clubhouse has been extended and reconstructed several times up until now. As a result, the clubhouse, which people have continued to use while its functions and area have been expanded, has accumulated deterioration due to aging as a structure, and issues due to the extensions and reconstruction, such as issues with facilities.

The Architect

Taro Amano (1918–1990), the architect of the club house, was one of Japan's leading post-war architects, and is known

for having studied under Frank Lloyd Wright. He graduated from *Waseda University* in 1945, and joined *Kajima Corporation*. In 1952 he studied under Frank Lloyd Wright as a *Taliesin Apprentice*. Then in 1955 he became an assistant professor at *Kogakuin University*. During this period he established an architect's office and began architectural work. In 1961 he spent one year as a visiting professor at *Ankara University* in Turkey. *Ranzan Country Club* is an architectural work that was completed during this period. Further, from 1962 he taught at *Tokyo University of the Arts*, and two years later became a professor there. At that time, he made *Tadashi Yoshiwara* a partner in his office. *Yoshiwara* had been assisting *Amano* in his architectural work. The office name was changed to *Amano Yoshiwara and Partners, Architects*.

Amano left behind many architectural works, with a central focus on houses. The campus of the fine arts department at *Tokyo University of the Arts* (library, painting building, sculpture building) is known as his masterpiece. It was selected as one of the works in the **docomomo Japan 145 Sen**, which selected fine examples of Japanese Modern Movement architecture. In *Amano's* early works, the influence of *Wright* is strongly apparent, but from the time he designed the *Ranzan Country Club*, a change can be seen in his architectural style. He created refined works which display more awareness of Japan's climate and natural features. Similar changes can be seen in the residence of the movie director *Akira Kurosawa*, which he designed during the same period. Further, two years previous to that, he designed the *Shin-Hanayashiki Golf Clubhouse* in the *Kansai Region*. This work was designed when the influence of *Wright* on *Amano's* work was the strongest. *Amano* only designed these two golf clubhouses, but they are masterpieces which made him well-known.

Amano is also well-known as an educator. His research office and architectural firm have produced many architects, including *Akira Mutou*, who was a staff member at *Amano's* office when it was established. After assisting *Amano* in the work on *Shin-Hanayashiki Golf Clubhouse*, *Mutou* went to *Finland* and studied under *Alvar Aalto*. Later, *Mutou* once again assisted *Amano* in his architectural work. After *Amano* started teaching at *Tokyo University of the Arts*, *Mutou* took over work in the research office at *Kogakuin University*, and eventually became a professor there. It is said that the illuminated top lights at *Ranzan Country Club* were added to the clubhouse's design soon after *Amano* was introduced to *Alvar Aalto* through *Mutou*, and was inspired by him.

Features of the Clubhouse

The clubhouse is a two-story reinforced concrete building with a total floor area of about 2,000 m². The basis is a design which emphasizes horizontal lines through deep eaves and balconies. Seen floating above the undulating lawn of the golf course, the clubhouse appears like a ship. On the floor plan, centering on a core to which semicircles are incorporated, the building is divided into a one-story north part with a basement level, and a two-story south part. Firstly, in the one-story section on the north side, the first floor has an office, and the basement level has a ladies' lock-

er room, a ladies' bathroom, and an employees' room. Next, the two-story section on the south side, which is long from east to west, has a men's locker room and bathroom on the first floor, and a lounge and restaurant on the second floor, forming a clearly defined floor plan. Further, rooms which have wet areas, such as the kitchen, toilets, and bathrooms, are in the core of the semicircles provided in each section.

Concerning the structure, the curved walls of the effectively arranged semicircle cores support the overall horizontal force; therefore, the columns only support the vertical load, and are slender. This feature is most evident on the second floor, where concrete columns in a rhythmical row are interrupted at a height of 2280 mm from the floor, and H-sections of 200 mm × 150 mm form the part above that which supports the ceiling, giving the second floor a sense of openness that extends upwards. Therefore, the ceiling extends out to the back of the eaves, giving the appearance of a large surface lightly floating. Many top lights pierce this large roof, so during the day, natural light pours into the room, while at night, the room is illuminated from light that pours in from lights set up outside. Further, the curved walls lend dynamic changes to the space, creating multiple places for people to be.

Viewed like this, it can be seen that the framework which creates the space is as one body with the structure, and thus is the building formed. Further, the proportions which emphasize horizontal lines and the fact that the core lends dynamic change to the open space are probably due to the influence of *Frank Lloyd Wright*. In Japan, a land of strong undulations, golf courses may have been the most suited to the *Prairie Style* which *Amano* learned from *Wright*, in the sense of practical application as well.

State of the Clubhouse before the Conservation and Repair Work

The half-century-old clubhouse has greatly changed in appearance since it was first built, due to frequent extensions and reconstructions. As documents for gathering information about the history of changes to the clubhouse, I used plans and construction completion photos relating to *Ranzan Country Club* that have been kept at the architectural design office of *Yoshiwara*, the office which continues on from the office *Amano* ran with *Yoshiwara* during his lifetime, as well as contracts which remain at *Ranzan Country Club*. Further, I organized the documents with reference to newspaper articles, books, photos, and documents regarding *Ranzan Country Club* company history and so on, and clarified the changes that have taken place since the clubhouse was first completed. In addition, I used on-site surveys involving actual measurements to understand the present state of the clubhouse, and clarify the process of change.

The documents show that extension and reconstruction work has been carried out five times, in 1978, 1981, 1985, 1993, and 2005. In 1978, the meeting room and men's bathroom were added to the northwest side using concrete construction. In 1981, the toilets on the first and second floors were repaired, and at that time the lounge on the second floor was turned into the ladies' toilets. Further,

01 Taro Amano, Musashi-Ranzan Country Club clubhouse, Koutou, Tokyo, Japan, 1961. Exterior view. © Shiraiishi Kensei K.K, 1962.



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02 Taro Amano, Musashi-Ranzan Country Club clubhouse, Koutou, Tokyo, Japan, 1961. Lounge. © Amano Yoshiwara and Partners Architects, 1962.

at that time, the corridor in front of the ladies' toilets on the second floor was extended by one span. In 1985, the outdoor cart storage area on the east side was added. In 1993, the kitchen was added north of the center, using steel construction. In 2005, the interiors of the reception area, the toilets, the lounge, and the dining room were repaired. I was unable to identify when the outdoor grand staircase south of the center, the caddie master room on the southern side of the first floor, and the entrance canopy were added.

Following are the main details of the comparison of the clubhouse when it was first built with the state of the clubhouse as it was before the repairs that are being carried out. Concerning the basement level, there have been large changes in the way the rooms are used. Due to the increase in female players in recent years, the area of the ladies' locker room and the ladies' bathroom has been increased, and the area for employees has decreased. Following the addition of the men's bathroom on the first floor, the former men's bathroom was converted into the men's locker room. Further, due to the addition of a doorway leading from the men's locker room to the golf course, a new line of flow to the exterior was created. On the second floor, a grand staircase was added to the center of the balcony on the southern side, creating a main line of flow giving access from the exterior of the first floor directly to the dining room on the second floor. The meeting room and kitchen were added to the northern side, and along with that, the old kitchen was converted into a memorial room. Compared to the first floor, there were fewer additions and changes to the way rooms were used. In particular, the added sections greatly marred the external appearance of the original.

Examples of things common throughout the interior are that the flooring material was changed from flooring blocks to carpet, and dark coating was applied to timber parts, leading to a change in the atmosphere. Also, most of the original light fixtures were replaced with different ones. Further, air conditioners which the original clubhouse did not have were installed, and plumbing and wiring was exposed. Concerning the flooring, the metal shoe spikes prevalent at the time the clubhouse was built damaged the flooring blocks, so the flooring blocks were replaced by carpet soon after the club was constructed.

Conservation and Repair Work Policy

The *Ranzan* Country Club clubhouse conservation and repair project began in 2012. Based on the ideas of the current president, we came up with a policy that stated that this traditional golf club should endeavor to reproduce the original building as much as possible, and continue to use the charming building with care. Firstly, in the first year, a survey was conducted, an overall repair plan was devised, and a report on the plan was created. Also, an investigation of earthquake resistance was carried out. Next, from the second year onwards, in line with the overall plan, items listed for repair were considered one by one, while observing the reaction of members. At first, repairs were carried out starting with conspicuous parts that members use on an everyday basis. We are advancing work while gradually

gaining understanding of the merits of the original building, and creating a consensus. Further, details of the work are being considered in three separate phases: safety; work necessary from a legal perspective/work necessary from a business management perspective/aesthetics; and work necessary for comfort. These phases do not necessarily determine the order in which work is carried out. Presentations are held at meetings of several committees set up within the club, and work is advanced after gaining agreement. Work is mainly carried out in the golf off-season in February. Golf club closure for the work is limited to 12 days at a time, and other work is carried out intermittently, on days when the club is closed. We are repeating this pattern each year. Work focusing on the interior has already been carried out three times, and the plan is to carry out work for the fourth time in February 2015.

As the design method, we are advancing work based on the idea of preserving original sections which still remain, and reproducing original parts which have already been removed to the extent possible, while adapting them to the new ways in which the clubhouse is used. Further, concerning parts that have been added since the clubhouse was first built and are not original parts, a design that allows them to be removed later, without damaging the existing timber framework, has been created.

Report on the Present State of the Clubhouse

Presently, compared to the time when the clubhouse was built, several situations affecting construction have changed. Due to the decline in the golfing population, the locker rooms and kitchen which were added or enlarged before are now not so necessary, and it is possible to reduce their area. Further, in terms of how rooms are used, as a consequence of the increase in female players in recent years, the current ladies' locker room and ladies' bathroom are no longer sufficient, and it has been realized that this should be addressed. Further, the clubhouse's main spaces, the lounge and the dining room, were not being used efficiently, and a plan to address this was required. Up until now, work has been conducted three times, and improvements have been made to the area around the reception, the staircase, the store on the second floor, the lounge, and the dining room. Further, seismic reinforcement work has been finished except for one section of work. Tis & Partners are assisting with the earthquake resistance inquiry and the seismic reinforcement work.

In the first stage, the store on the second floor was relocated to the area in front of reception on the first floor, and by turning the space where the store had been into a chat corner, a larger variety of spaces for players to spend time in was created. Together with this, the orientation of the reception counter on the first floor was changed, space was made for the store, and the place for settling payments for the store was changed to the reception desk. At the same time, part of the ceiling which had been blocked after the clubhouse was built was removed, and the original section was restored, along with the top lights.

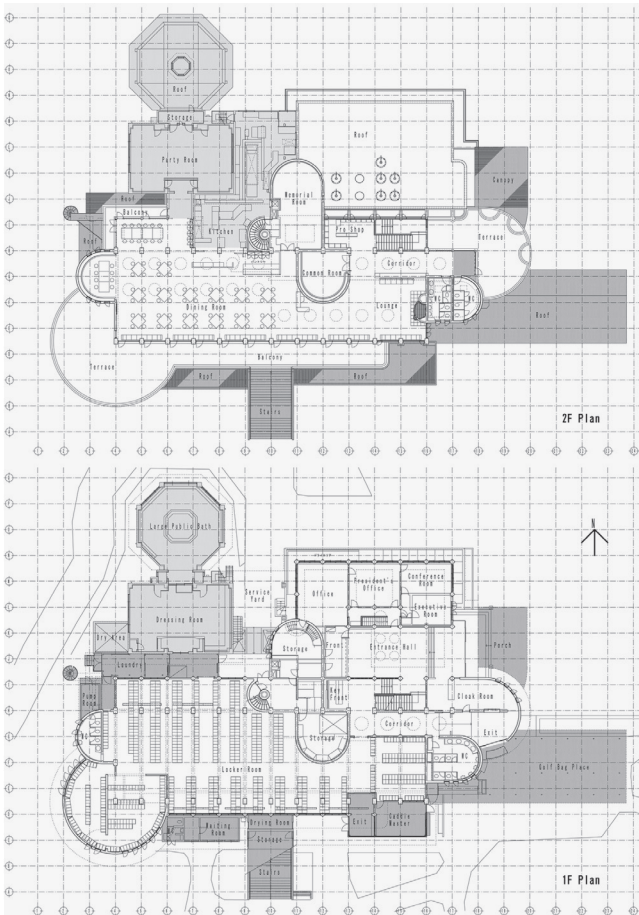
In the second stage, the benches which were made for the



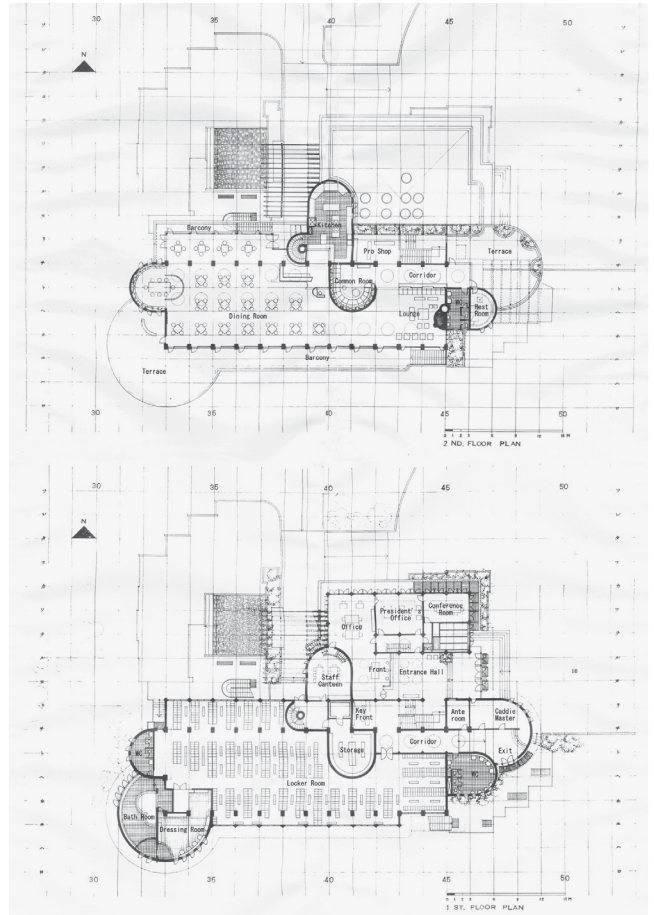
03 Taro Amano, Musashi-Ranzan Country Club clubhouse, Koutou, Tokyo, Japan, 1961. Lounge. © Drawing notes, 2011.



04 Taro Amano, Musashi-Ranzan Country Club clubhouse, Koutou, Tokyo, Japan, 1961. Conservation and repair project by Drawing notes. Dining room. © Koichi Torimura, 2014.



05 Taro Amano, Musashi-Ranzan Country Club clubhouse, Koutou, Tokyo, Japan, 1961. Floor original plan. © Amano Yoshiwara and Partners Architects, 1962.



06 Taro Amano, Musashi-Ranzan Country Club clubhouse, Koutou, Tokyo, Japan, 1961. First and second plan showing the current state of building in 2011. © Drawing notes, 2011.

03 Taro Amano, Musashi-Ranzan Country Club clubhouse, Koutou, Tokyo, Japan, 1961. Exterior view. © Drawing notes, 2011.



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04 Taro Amano, the Musashi-Ranzan Country Club clubhouse, Koutou, Tokyo, Japan, 1961. © Shiraiishi Kensetsu K.K, 1962.

lounge after the clubhouse was first built were removed, and chairs and tables which suited the enlarged space were designed. Further, the entrance of the conversation lounge was removed, the original state of the room was reproduced, and it was converted into a memorial room displaying the club's history. Further, at this time, two experiments were conducted. Firstly, the dark coating that was applied to timber parts after the clubhouse was constructed was removed, and the original clear coating was restored. Next, since current golf shoes mainly have soft spikes, the floor of the memorial room was changed from carpet back to flooring blocks, and members' reactions were observed. These experiments were performed well technically and reaction from members was favorable, so it was decided to make similar changes throughout the clubhouse in the third stage of work. At this time, the memorial plates which had covered the surface of walls all through the second floor were all removed, and a design which organized them into smaller spaces in the chat corner and the memorial room was created.

In the third stage, work was carried out on a large scale. Details of the work carried out include flooring, coating of timber parts, and reproduction of the original ceiling. Further, seismic reinforcement work was carried out. Firstly, the flooring all through the second floor was removed, together with the mortar foundation. As a method for raising the floor, while making sure there were routes for wiring, flooring blocks were reproduced as in the original construction, at the level of the original floor. Doing this enabled cracks in the concrete slab to be injected with epoxy, and in addition, removing the mortar reduced the weight of the floor. Further, coating was removed from timber parts, including those around window frames, and a clear finish was restored. Lighting fixtures such as chandeliers which were added at times after the building was first constructed were removed from the ceiling, and the original lighting fixture design was reproduced. At this time, there was a problem in that the original lighting fixtures had a low level of illumination. However, this was solved by inserting small LED downlights into the holes left after the chandeliers had been removed. As a result, the interior of the second floor brightened overall, and received a favorable reaction. The original tables that remained were reused. Also, the dining chairs which were not original were removed, and new ones were designed.

Results of the earthquake resistance inquiry showed that there was a structural problem in that the core of the large space on the second floor was positioned a little to the east of the center, so seismic reinforcement work was necessary to correct the eccentricity. Concerning the state of the concrete, the coating mixture containing mortar, pulverized stone, cement, and plaster had been sprayed on thickly, so not much neutralization had occurred, and there was no definite problem. In the seismic reinforcement work, steel frames which did not change the original cross-section of the materials were made, and were inserted in two places in the timber sashes of the south-side openings of the dining room. However, concerning the quake-resisting wall on the north side of the dining room, with the additions to

the building in mind, it was decided that work would be conducted when the kitchen section was demolished and removed. Further, epoxy resin was injected into cracks in the concrete throughout the building.

Summary

The work so far has been well-received by the members and the plan has progressed smoothly. Further, an idea to build a new annex in order to allow the present clubhouse to be closed long-term so work can be advanced has also been raised, but carrying out this idea would be costly, so the various committees are considering it cautiously, and a definite decision on it has not been made. In a private sector clubhouse, decisions on the way work will be advanced are based on business conditions, so the situation is not favorable in the way it is for cases that involve public cultural properties which may receive grants from grant-allocating projects and so on. However, there are many valuable examples of modern architecture owned by private enterprises, and in the midst of these being demolished one after the other, it is thought that this project will be a case study that gives hope to the private sector owners. Therefore, the process of this project is being recorded in my office and the *Kumagai* laboratory of the Tokyo University of Science, and we are advancing the work while carrying out study. What I have keenly realized while advancing this work is that the clubhouse structure itself creates the framework of the space, so there are no sections which will conceal facilities and wiring added later, and it is difficult to organize exposed elements. We are advancing the work while dealing with each of these exposed elements as the occasion demands, but this is also a challenge for the future. ■

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