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How Can We Ensure Accessibility of Cultural Heritage? Toward Better Utilization of Existing Assets in Japanese Context

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Abstract

How can we ensure accessibility of historical buildings that were built before the idea was ever dreamt of? Important historic monuments such as World Heritage have come to be made to some extent accessible with due consideration of their historical value (in extreme case, no accessibility is available, and replicated models or virtual reality is alternatively in place). Many buildings that are currently in use pose problems because they have to be usable by everyone. To what extent the historical values can be sacrificed for accessibility and usability? This paper tries to propose some ideas to meet both needs of historical significance and accessibility/usability through examination of several Japanese examples.

Keywords

Cultural heritage; buildings; usability; conversion of use; refurbishment; built environment; accessibility; priority

1. Introduction

Discussion on the importance of cultural heritage preservation started focusing on especially important ones, (such as National Treasure or Important Cultural Property in the case of Japan) whose

historical and cultural values are utmost as discussed in The Athens Charter for the Restoration of Historic Monuments, 1931 [1] and International Charter for the Conservation and Restoration of Monuments and Sites - The Venice Charter 1964 [2]. In this context, it was quite often that the original purpose of buildings is that of the past, disregarding the accessibility and usability of diverse users/occupants. Even during the days when the two Charters were established, the existence of people with disabilities was mostly invisible and rarely noticed.

However, regarding the buildings, the discussion on accessibility along with historical preservation gradually shifted toward ones that are currently in use. Accessibility is more on functionality and usability rather than aesthetics, and when the buildings are still in use, they must be usable by everyone in the first place, not just by visitors but also by persons who work there as staff. Denying people with disabilities from being employed is a grave violation of human rights as stipulated in documents such as the UN-CRPD (and quite likely with legal requirements in respective countries arising from its ratification). Therefore, cultural values should not be given the priority.

How can the potential conflicts be solved? In this paper, the author compares historical context, and will argue the directions to follow.

2. Historical buildings

2.1. Conservation movement

The modern conservation movement that started with Athens Charter gave higher priority on cultural authenticity, and usability for all is put aside in most cases.

Historical monuments that people visit and see as the record of the past might be left as they are, without extensive intervention for accessibility. A typical example is the Japanese castle, which has ceased its function as a fortress during feudal years. Access to its top floor is only possible with steep stairs difficult to climb even by a robust armored warrior, but introduction of an elevator is beyond question.

In 2010, Gomez Robles [3] referred to eight values for assessing the importance of a building to be preserved as a cultural heritage: Typological value; structural value; constructional value; functional value; aesthetic value; formal value; historical value; and symbolic value. If the building is to be seen with the surrounding environment, two more values need to be considered: Landscape value and overall value. Unfortunately, even the paper does not refer to the core value of accessibility and usability. In a sense, the idea of historical preservation can be adverse against access and use, the crucial value of UN CRPD and Disability Discrimination Acts and ISO Standard on accessible built environment [4, 5]. There must be a shift of emphasis in this regard.

2.2. Masonry or timber

In countries where the masonry structures are the standard, their life quite often extends beyond several hundred years. Many walled cities in the European continent have such a long history, and their buildings can be also very old. If they survived the passing of the

time, their change of use is not rare. For example, many museums in Western cities are converted buildings from their original purpose: Musee du Louvre in Paris originally started as a fortress and then a palace, before it was designated to be a museum.

In Japan where timber was the only structural component, in contrast, only a small number of buildings survived more than hundred years with careful maintenance, and most of them are shrines and temples that have had religious importance as place of worship. In that sense, the idea of universal design for tourism will generally apply, i.e., to introduce accessibility to the extent practicable with due consideration of the cultural value – destroying it would damage everything. For timber structures, even access ramps made of any material might look awkward/strange.

Masonry and reinforced structures in Japan are just around 150 years old since their introduction, and most of them are already destroyed, partly due to their structural fragility against earthquakes despite of their significance. Only recent years, such non- timber structures have come to be recognized as historically important, worth preserving. However, such buildings generally lack accessibility - smaller ones did not have an elevator (it was a luxury until recently for two storied buildings), and even larger ones were often designed with grand staircases at the main entrance, denying access for people with reduced mobility. They also lacked accessible toilets for convenient use.

2.3. Ensuring access

How can we ensure access and use along with historical values? We can assume that detailed examination of both the heritage values

and the needs for accessibility and usability will be conducted. Critical argument will be held between these two viewpoints, and final agreement will be reached in real settings. The deciding factors will be practicality with due consideration of economics, i.e., how much funds can be used in the current context including maintenance cost – degree of affection/attachment of people involved might affect the argument. When buildings are still used, with or without change of use, to fully utilize them is most important from sustainability viewpoint as well. DOCOMOMO is active in trying to document and conserve modern buildings. However, such buildings are often demolished against people's wishes.

3. Examination of Japanese preservation efforts

To find out the shift of emphasis from preservation to accessibility, some examples in Japan (mostly in Tokyo area) are examined and compared. These buildings, all built after the Meiji Restoration, i.e., after 1868, are listed in Table 1 with chronological order. Some are timber structures, but most are masonry or RC.

The first example, the Concert Hall of the Tokyo Music School (Fig. 1) was used for its original purpose until around 1980. Handed over to the Taito City in 1983, it was moved to its present position nearby. Major restoration was again done in 2018, but no means of access to the upper floor was provided where the audience seats are situated. There is one place for a person with a wheelchair, but no elevator is available. Since its significance is its pipe organ, whose performance is integral with the hall itself, and primary purpose of a concert hall is to have audience there, the lack of easily usable

access features would be a serious flaw. The author asked how one can reach there – the answer from the manager was that a special stair climbing facility will be arranged by a designated company upon request, who will operate the machine. The cost must be borne by the person with a wheelchair (or by the concert organizer).

Figure 1a&b. Concert Hall, Tokyo Music School, and the wheelchair space in the hall

Three examples in the list were originally built as residences, and all are now open to public along with the garden. Both the former Iwasaki Residence and former Furukawa Residence are designed by a British architect Josiah Conder, who was one of the invited foreign employees in Meiji era Japan, to teach at the University of Tokyo.

Table 1. Buildings discussed in detail. Building name; purpose of use, structural system, year of construction and year designated as the Important Cultural property (if applicable).

Building name	Original use	Structural system	Year of Construction /Designation as a National Heritage	Wheelchair accessibility

Concert Hall, Old Tokyo Music School	**School**	**Timber**	**1890/1988**	**No**
Office of the Ministry of Justice	**Office**	**Masonry*1**	**1895/1984**	**Yes**
Former Iwasaki Residence	**Residence**	**Timber**	**1896/1961**	**Partly Yes*2**
Bank of Japan	**Office**	**Stone & Masonry**	**1896/1974**	**Yes**
Hyokeikan, Tokyo National Museum	**Museum**	**Stone & Masonry**	**1908/1978**	**Yes**
Akasaka Detached Palace	**Residence/Palace**	**Stone/Masonry**	**1909/2009**	**Yes**
Former Imperial Guards Building	**Office**	**Masonry**	**1910/1972**	**Partly Yes*3**
Tokyo Station	**Railway station**	**Steel Masonry**	**1914/ 2003**	**Yes**
Former Furukawa Residence	**Residence**	**Masonry**	**1917/ -**	**Partly Yes*2**
Mitsukoshi Department Store	**Retail**	**SRC**	**1927/ 2016**	**Yes**
Mitsui Bank	**Office**	**RC/SRC**	**1929/1998**	**Yes**
National Science Museum	**Museum**	**RC/SRC**	**1931/2008**	**Yes**

Former Prince Asaka Residence	**Residence**	**RC**	**1933/2015**	**Yes**
Takashimaya Department Store	**Retail**	**SRC**	**1933/2009**	**Yes**
Meiji Insurance	**Office**	**SRC**	**1934/1997**	**Yes**
Tsukiji Honganji Temple	**Religious**	**RC/SRC**	**1934/2014**	**Yes**
Former Kenban, assignation office for geisha	**Office**	**Timber**	**1936/ -**	**Yes**
National Diet Building	**Parliament**	**SRC**	**1936/ -**	**Yes**
Tokyo National Museum Main Building	**Museum**	**RC**	**1937/2001**	**Yes**
Former Institute of Public Health	**Laboratory, Education**	**RC**	**1938/ -**	**Yes**
Former Museum of Modern Art	**Museum**	**Steel**	**1951/2020**	**Yes**
Kanagawa Museum of Western Art*4	**Museum**	**RC**	**1959/2007**	**Yes**
Asian Gallery, Tokyo	**Museum**	**RC**	**1968/ -**	**Yes**

National Museum*5				
Museum of Modern Art, Tokyo*5	**Museum**	**RC**	**1969/ -**	**Yes**
National Crafts Museum, Kanazawa*6	**Offices**	**Timber**	**1898 & 1909/ -**	**Yes**

***1 Base isolation is introduced to withstand earthquakes.**

***2 No access to upper floors.**

***3 Stair climber was installed at the main entrance when gallery was housed.**

***4 Designed by Le Corbusier, with ramp inside.**

***5 Both designed by Yoshiro Taniguchi.**

***6 Two former Japanese Army buildings were moved and connected for the new purpose.**

Although the former Furukawa Residence is not designated as an Important Cultural Property, the difficulty of arrangements seems to prevent it from installing an elevator.

The former Prince Asaka Residence had been occupied by many through the years after the war, being finally handed over to the Tokyo Metropolitan Government, which decided to use it as a museum, and when a new wing was constructed as a major extension, a half-independent elevator was added, making the most part of the building accessible although a minor step difference on the second floor could not be eliminated.

Three museum buildings at the Tokyo National Museum give good examples of ensuring accessibility in Museums. The first one, Hyokeikan (Fig. 2) was designed with a grand staircase at the front,

and it is not easy to make it accessible. It was decided to add a glazed elevator at the back with an access ramp, demonstrating that the building façade is intact but ensured a compromising full access. The Main Building (Fig. 3) is designed with a grand carriage porch, where one can drive a car through. There are additional steps to enter afterwards, and ramps were added on the left side, which everyone can choose to walk in lieu of steps. The Asian Gallery (Fig. 4) was designed to be stepless entry with elevator access to upper floors. With an atrium in the center, the exhibit spaces were made as skip floors, which unfortunately made the original elevators without full access to every floor – left side gave access only to odd number floors and the right side only to even number floors. Renovation in 2012 added a glazed elevator within the atrium – with access to all floors. It has doors on two sides, enabling access depending on the floor layout. By the way, elevators with two-side doors were not allowed until 2000 according to the regulation of the Building Standard Law.

Former Imperial Guards Building had been used as the Crafts Gallery of the Museum of Modern Art Tokyo between 1977 and 2020, and it had a stairlift at the entrance (Fig. 5a). The Gallery moved to Kanazawa and changed its name as the National Crafts Museum. Utilizing two old timber buildings of former Japanese Army, it is now fully accessible with long ramps (Fig. 5b).


Figure 2a&b. Grand staircase at the front of Hyokeikan and glazed elevator at the back.


Figure 3a&b. Tokyo National Museum Main Building carriage porch and long ramp to the entrance.


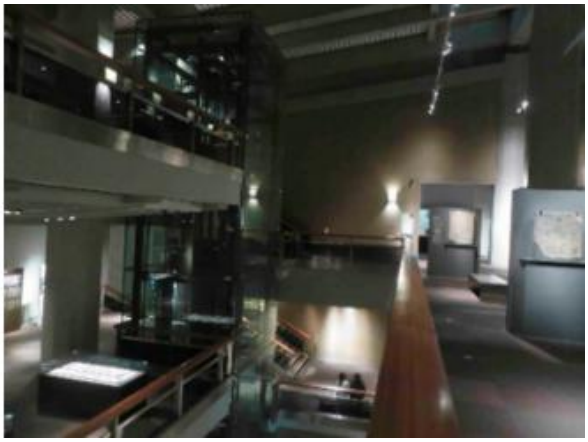

Figure 4a&b. Asian Gallery and the glazed elevator added in the atrium.


Figure 5a&b. Crafts Gallery, Museum of Modern Art Tokyo and the new National Crafts Museum.

Two buildings owned by the Minato City, Tokyo, seem worth mentioning regarding accessibility provision. The Kenban (Fig. 6), originally built as the assignation office for geisha had been used as accommodation for port workers after the war. Valuing its historical significance as a surviving timber structure, the city obtained the building and renovated it to become a new Center for Traditional Culture. Using the adjoining land lot, a small building was built to house an elevator to be connected to the old timber structure. Designed to be a timber house next door, the annex just looks as if it has been in existence long since.


Figure 6a&b. Kenban with elevator annex on the left. Stair guard was added inside.

Another example, the former Institute of Public Health building became vacant after the Institute moved out of Tokyo. Since the building was in fairly good condition (built after the Great Kanto Earthquake with the donated funds from the Rockefeller Foundation), the Minato City decided to convert it for several functions including the Local History Museum. Structural reinforcement and accessibility provisions were extensively introduced (Figs. 7 and 8).

These buildings are not designated as the Important Cultural Property, and it was much easier to arrange these changes. They are the Registered Tangible Cultural Property, but the restriction is less complicated compared to Important Cultural Property.

Figure 7a&b. Former Institute of Public Health. Long ramp on the right side, and structural reinforcement.

Figure 8a&b. Vertical lift at several places, and guardrail to prevent stair falls.

4. Discussion

Demolition is quite often the case in Japan for economic convenience of the owner/developer, but buildings cited in the list seem to have been in use for years, surviving the risk of redevelopment. These buildings of historical significance were saved through continued efforts of people involved.

It seems that the timing of the designation as an Important Cultural Property affected the decision whether an elevator can be added or not for smaller scale structures. Once it has become the Important Cultural Property, to change the status quo is rather difficult – the negotiation with the Cultural Agency becomes more complicated – emphasis on conservation is given priority. The Concert Hall of old Tokyo Music School was trapped with this problem. Although the primary purpose of the building is to be open to public of music performance, keeping the cultural values (original appearance) along with potential cost of installation of elevators may be preventing the move toward accessibility. In comparison, the former Kenban building, also a timber structure, had annex built next to it, enabling accessibility without destroying the appearance. Not yet designated as a National Heritage helped to introduce more positive choice. Still, different route needs be taken for wheelchairs to enter, which arises from the existence of two steps and another one at the original entrance.

The former Museum of Modern Art Kanagawa seem to have taken a clever approach – people tried to restore the building to the original design, but to ensure structural safety as well as accessibility, they not only reinforced the structure with new knowledge but

also arranged an elevator and a more accessible toilet. The former required some modification in the plan layout (a deviation from the original, but hardly noticeable in reality), while the latter did not cause any significant changes. The designation as the Important Cultural Property was done after the restoration/modification was done. If the timing was the other way round, it could have been more difficult.

It is interesting to note the different approaches taken by the museum organizers regarding the renovation of Taniguchi designed buildings (neither is designated as an important cultural property). The Asian Gallery (Fig. 4) of the Tokyo National Museum basically kept the original floor plan layout, but the Museum of Modern Art Tokyo employed a more drastic approach. Originally, the building was designed with skip floors, but void inside was completely eliminated for structural integrity against earthquakes. It is now impossible to try to imagine the original arrangement. Only a tiny photograph showing the previous arrangement is displayed.

The experiences of the National Diet Building could provide useful information [6]. Built in 1936 after 17 years of construction, it faced an urgent need to make it wheelchair accessible to accommodate new members of the House of Councilors elected through proportional representation in 2019. Only a few weeks were left to do a quick fix, then plan and implement a longer strategy was conducted. Ramps and elevators were needed, and space was squeezed out despite physical limitations. Argument against touching historic designs was raised, but equal rights as a member was utmost important, and accessibility was ensured as far as

practicable, which was greatly appreciated from all sides. The reality that the problem was clearly visible helped to push through accessibility provision. The decision to avoid being designated as an important cultural property turned out to be a good choice.

5. Conclusion

Careful examination of examples of preservation of historical buildings in Japan through comparison gives valuable lessons for intervention toward accessibility, which is becoming urgent needs to be fulfilled. Presently, the Japanese access legislation gives exemption for existing buildings as long as the status quo is maintained. Without strong legislation on access rights in Japan, movement toward ensuring access is almost always struggling a difficult battle.

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