

**Museum Practices in Japan:
Innovations and Challenges in Collections Care and Display**

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1. Introduction

In the summer of 2001, I was one of approximately 70 scholars granted a Monbukagakusho (Japanese Ministry of Education, Science, Sports and Culture) "Research Experience Fellowship for Young Foreign Researchers."¹ This fellowship program, co-sponsored by the National Science Foundation in the United States², enables researchers from the United States, Germany, France and the United Kingdom to travel to Japan and conduct research with colleagues in Japanese institutions. Our group of researchers represented a wide variety of backgrounds and research interests, ranging from laboratory sciences and medical science to engineering and the social sciences. Two students from the George Washington University Museum Studies Program, Mackenzie Massman and I, were chosen to research museum practices in Japan. The program lasted for approximately 8 weeks, from June 24th to August 24th, and provided a week of orientation and language training in the Tokyo area, followed by seven weeks of research.

After orientation, Summer Program researchers departed for various host institutions across Japan. Ms. Massman and I were hosted by the National Museum of Ethnology in Osaka, called Kokuritsu Minzokugaku Hakubutsukan in Japanese, or "Minpaku" for short (See Appendix A, Figures 1 & 2). At Minpaku, we conducted research under Professor Tsuneyuki Morita, of the Department of Research Development, with a focus on Conservation Science and Museology.

Over the course of the summer, Dr. Morita introduced us to the work and research conducted at Minpaku. He took us on tours of departments around the museum, introduced us to fellow staff members, invited us to museum meetings, explained some of the innovative technological developments at Minpaku, and introduced us to his ongoing research projects. Dr. Morita also encouraged us to utilize the museum's library. The Minpaku library was an extensive resource, and contained many works in English, as well as works in dozens of other languages.

¹ 34 participants in the 2001 Program were from the United States.

² The National Science Foundation administered the application and selection process from the United States, and also provided an allowance to each participant. The Japanese government provided participants' travel to and from Japan, as well as allowances for accommodations, food and professional travel within Japan. The Graduate University of Advanced Studies (Soken-dai) provided logistical support for participants in Japan.

In addition to our time spent at Minpaku, Dr. Morita encouraged us to visit other museums and cultural properties for comparative observation. As a result, we visited numerous museums and historic properties over the summer, and we were able to observe museum and conservation practices being implemented across the country (see Appendix B, “Table of Museums Visited in Japan”). These research trips were invaluable, since through them we were able to gain a sense of comparison and perspective in our observations.

Inevitably, conducting research in a foreign country involves some limitations. Unsurprisingly, our biggest challenge was the language barrier. Although I had previously lived in Japan and can speak conversational Japanese, I found that I was not able to ask difficult or technical questions, or to speak with staff members at length about museum practices. So, we were unable to ask for clarification on some of the interesting procedures that we observed. In addition, we found that seven weeks was not enough time for us to become integrated in Minpaku’s working environment, especially since many museum staff members conduct personal research or go on holiday for the summer. As a result, I found it difficult to achieve my initial goal of focusing extensively on preventative conservation practices. Nevertheless, the National Science Foundation/Monbukagakusho Fellowship Program was a fascinating and rewarding research experience, because instead I was able to develop a broad and comparative view of current museum practices in Japan.

This paper will summarize my research findings for the summer. First, I will provide a general overview of the linguistic and historical basis for museum development in Japan. Next I will discuss my observations about preventative conservation and collection care at Japanese museums and historic sites. I also will discuss the idea of replicas, which were used with greater frequency in Japanese museums than that which I have seen in the United States. Next, I will discuss some of the different types of museums and historic properties in Japan, and discuss notable developments from exemplary sites. Finally, I will discuss some general conclusions as a result of the summer’s research.

2. Museums and historic properties in Japan

A. How is the word “museum” used in Japan?

Although there are a wide variety of institutions in Japan that could be referred to as “museums”, in fact, there is not even one specific word in Japanese that translates exactly as “museum.” The word most often used for museum-type structures is *hakubutsukan*, and is a word comprised of three Chinese characters that mean “many”/“diverse”, “thing”/“object” and “hall.” Generally *hakubutsukan* is used to refer to historical or cultural museums. The term was used in Japan initially in 1872, when the Japanese government was preparing to send materials to the International Exposition in Vienna in 1873, and decided to hold an exhibition of the expo materials before sending them abroad. This pre-exhibition was so popular that a subsequent permanent display was established, featuring works from the temporary exhibition; in turn, this permanent display eventually evolved into Japan’s first *hakubutsukan*, the Tokyo National Museum (Yoshida, pp. 80-81).

Meanwhile, another word, *bijutsukan*, which combines the three Chinese characters for “art” and “hall”, generally is used to refer to art museums. This term also dates to the late nineteenth century, 1877, when an “Art Building” was established at the first Japanese Domestic Exposition for the Promotion of Industry (a domestic version of the International Expo), held in Ueno (Yoshida, p. 82). Eventually this particular *bijutsukan* collection also was incorporated into the Tokyo National Museum, but the “*bijutsukan* as art museum” type of institution originated from this distinction.

Additionally, I have noticed a few examples of the word *museumu* in Japan, i.e., the English word “museum” written in Japanese utilizing the katakana script (a Japanese script used for words of foreign origin). Using words from English, French or other foreign languages for the names of places or products has long been a practice in Japan, because it supposedly projects a trendy or hip feeling. However, I am not sure how much this word has become successfully integrated into the Japanese language, and many Japanese people still may not understand the meaning of the word *museumu*.

B. Historical background of museum development in Japan

The origins of sightseeing and tourism in Japan, and perhaps even museums, can be traced to centuries-old literary allusions in Japanese written texts. In the sixteenth century, the concept of *meisho*, or “famous place”, gained popularity. As described in Ishimore Shuzo’s excellent essay, “Tourism and Religion: From the Perspective of Comparative Civilization”, a

meisho was a conceptualized, mental destination, used to conjure up imagery in writings or poetry. The idea was that “even if one was not actually familiar with the place, one could use a specific place name...as *utamakura* (set poetic phrase)”, to spark the reader’s curiosity about places they had never seen (Ishimori, “Tourism and Religion: From the Perspective of Comparative Civilization”, p. 13).

In the Edo period, travel became more popular among the common people, who began to visit *meisho* they previously had only heard about. In the *Edo Meisho Ki* (Guide to Famous Places of Edo), published in 1662, descriptions of approximately 80 temples and shrines, in addition to other famous places, were listed (Ibid, p. 13). Knowledge about the places listed in these books was considered essential for educated Japanese, and even the common people had a general knowledge of these places (Shirahata, “Information Studies of Tourist Resources”, p. 60). In the *Edo Meisho Zue*, a guide published in the early 19th century, 911 famous places are listed, including: 195 geographical locations, 425 shrines and temples, 144 stores and streets, and 29 events associated with shrines and temples (Ishimori, “Tourism and Religion: From the Perspective of Comparative Civilization”, p. 14). Clearly by this time, Japanese people were used to viewing places of historical or cultural significance as true "destinations." It is interesting to remember that, during the Edo period, Japan was officially closed to foreign contact; for approximately two hundred years, Japan’s only foreign contact was with a limited number of traders in the port city of Nagasaki. So, since Japanese were prohibited from traveling outside the country, and foreigners were prohibited from entering, a uniquely isolated environment was maintained. This may have helped bolster national interest in historic sites, famous shrines, and other items of cultural significance and pride.

In addition, Ishimori describes another early event that led to the development of tourism, namely the *kaichou*, a practice that developed as early as the Heian Period (794 – 1185 CE), and really began to flourish in the Edo Period. The *kaichou* is the opening of a temple sanctuary for a limited period of time to allow the general public access to Buddhist objects that were normally not on view. The funds raised were used for temple repairs and maintenance (Ibid, p. 14). Also during the Edo period, the *degaichou* began to develop, which was a practice in which temple images were transported to other temples for viewing. During the *degaichou*, vendors and other attractions set up shop on the temple grounds, and the atmosphere drew large crowds (Ibid, p. 15).

During the Meiji period (1868 - 1912), Japan was once again opened to foreign trade and tourism, in accordance with the policy of “civilization and enlightenment” (Ibid, p. 18). The sites that had previously been essential viewing for Japanese were now enthusiastically advertised for the foreign visitor. Between 1854 and 1910, over ninety different guidebooks in English for foreign tourists were published (Shirahata, “Information Studies of Tourist Resources”, p. 59). Considering the relative difficulty in traveling to Japan at that time, the production of such a large number of guidebooks truly is remarkable.

Public parks, built in the style of European cities, began to replace sites where *kaichou* and *degaichou* had been held (Ishimori, “Tourism and Religion: From the Perspective of Comparative Civilization”, p. 18). Additionally, the Japanese attitude towards national treasures and cultural heritage began to change, as Japan had more contact with Western influences, and Japanese arts became prized abroad. In 1871, a law was enacted to protect traditional objects stored at temples and shrines (Ibid, p. 19). Furthermore, as mentioned above, the Japanese government sent many of these objects to the World Exhibition in Vienna in 1873. These two events rekindled national interest in religious art treasures. Riding on this wave of national pride, the first national museum, the Tokyo National Museum, was established in the late 1800s.

Perhaps the last major explosion of cultural site development in Japan took place in the post-war reconstruction period. Many of the best-known museums in Japan today date to the late sixties and early seventies. In fact, our host institution for the summer, Minpaku, was developed to continue the forward expansion set forth in the Osaka World Expo of 1970.

3. Examining the Japanese approach to the object

A. Preventative conservation in Japan

For my research project in the summer, I planned to research preventative conservation techniques in Japanese museums today. My research assumption was that Japan, as a very technologically developed nation, would offer numerous examples of advanced exhibition and storage techniques of museum objects. I also expected that ideas of “preventative conservation”— storing, exhibiting and caring for museum objects in such a way to slow or halt

their deterioration, thereby reducing or eliminating future conservation needs— would be well developed in Japan, particularly at Minpaku, which is a hybrid museum and research institution. I expected that a primary objective of Japanese museums would be to maintain a constant climate and stable environment in museum galleries and storage. I also expected that an aim of Japanese museum technology would be to better monitor the environmental conditions found in galleries, ranging from climate control to protection from earthquakes.

Over the course of this summer, however, I was surprised to discover less developed preventative conservation in Japanese museum exhibitions than I had expected. Although I did observe some excellent museum displays, I also observed exhibition standards that were problematic, such as open exhibition cases, mounts that were clearly causing stress on the object, and high light levels. As far as conditions in storage facilities, I was only able to observe storage facilities at Minpaku, so I cannot generalize based on observations from only one site. Overall, however, I observed fewer examples of Japanese collection care innovation than I had expected.

I found interesting similarities and differences between American and Japanese museum practices. A look at methods of casing objects may be an effective way to compare and contrast Japanese and American standards. As in the United States, objects in the museums we visited usually were exhibited either in cases or on open-air platform-type displays. When objects were cased, I usually did not observe separate climate control being utilized inside the cases, although in some cases silica gel or humidity strips were used; I also saw very few instances of pest strips being used inside cases or in gallery exhibition spaces. However, this probably is consistent with the reality of museum practice in America, as well.

There were differences, as well, in the casing techniques used in Japan. First, I found the standard design of display cases to be different to that in the United States. In museum after museum, I observed extremely long, glass display cases, which would run the entire length of the wall. Because these cases were so long, mixed objects, such as paper, fabric, wood and metal, all would be displayed together within the same case. Also, these cases had doors that were closed and locked, but not sealed or airtight. With large, spacious cases like this, it seemed that museum professionals had a harder time designing object mounts to fit the object. Objects would be displayed lying on top of lying on top of plastic rests, or felt-covered or fabric-covered platforms.

One of the most surprising casing techniques that I observed over the summer was at the National Museum in Kyoto. In a display of particularly humidity-sensitive objects, such as lacquer boxes and paper screens, large glasses of water were placed in the corners of the display case to maintain humidity levels for these sensitive objects. I was very surprised to see this, since the glass easily could be knocked over and the water would damage the screen. However, lacquer has been a material used in Japanese art for over a thousand years; perhaps this method of display was developed over the course of time, and culturally is considered to be the most effective way to maintain the appropriate humidity level for those objects.

After visiting numerous sites over the summer, I began to wonder if this approach to preventative conservation that I was observing in Japanese museums, which seemed erratic to me, actually might be related to differences in cultural values between Japan and the United States.

B. Cultural considerations of object preservation in Japan

Historically, Japanese society has always had a rather flexible line between the interior and exterior. This is expressed in myriad ways, starting with the very design of the Japanese house. Divisions between rooms, for example, are very fluid. Paper doors or screens are often used as the sole dividers between rooms, and the very shape or size of the room can change with the addition or subtraction of additional paper doors. In addition, many houses are still not equipped with central climate control; it is not uncommon in the summer to have only one room in the house with air conditioning, or for only one room to have heat in the winter. On top of that, great fanfare is made of Japan's four seasons, and the various natural and climatic changes that accompany each season. Embracing the climatic change is considered one of the ways to fully enjoy and appreciate the season. Therefore, people are more accustomed to regular and drastic changes in temperature and climate.

Furthermore, there is a great deal of interaction between the interior of the home and the natural outdoors. Japanese gardens, for example, almost serve as another room of the house. It is common, even in the height of summer, to have the doors of a home thrown open, offering a full view of the garden from within the house. Since most Japanese windows and doors lack screens, this contributes to the circulation of air and dust between the interior and exterior, not to mention encouraging a variety of little creatures to come into the home.

This interaction between interior and exterior is simply viewed as a given, even in modern Japan. In buildings, offices and schools, climate control may exist during the majority of the working day in theory, but at various points throughout the day, such as daily cleaning time (*soji*), the windows and doors will be thrown open to let in light and fresh air. When I previously lived and taught in Japan, every window in the school was kept wide-open during the 15-minute *soji* period, even if it was the middle of the winter or the middle of the summer. In the halls of the staff section of Minpaku, the windows were open almost every day—to let in air, or to let out someone’s cigarette smoke, or for any number of other reasons. As a result, temperature and humidity can fluctuate wildly even within the institution.

Then, there is the practical consideration of the expense of maintaining climate control. As a country with almost no natural resources, electricity and heat are phenomenally expensive. I learned from an employee of a Japanese museum that even modern Japanese museums, designed with climate control in mind, completely shut down their climate control systems at night, because of the enormous expense of running the systems all day, every day. Any climate stabilization that might occur during the day is then completely eradicated during the evening hours.

Historical sites that wish to retain their original character perhaps have the hardest time with this inevitable assault of elements. In the sweltering heat of the summer, when temperatures can reach 37 or 38 degrees C (98-101 F), many un-air conditioned historic sites are only a few degrees cooler inside. This is particularly a problem for those historic homes and properties that display period objects inside the home (See Appendix A, Figure 3 & Figure 4). For example, we visited the Gyobu-tei Daimyo’s mansion, a historic home in Kumamoto City, on one of the hottest days of the year. There, a variety of domestic items, such as screens, scrolls, clothing and ceramics were on display, but the home was not outfitted with air conditioning or heat. Every paper door in the house was slid open, and every doorway led directly to the outdoors. It was so hot and humid inside the home, that we were actually given hand-held paper fans to cool ourselves while we were touring the house. The objects on display inside the home were completely unprotected from this assault of the elements.

Another cultural consideration in Japan is the access to, and contact with, the objects themselves. By and large, Japanese traditional arts tend to be utilitarian, such as tea ceremony instruments, ceramics and ink boxes. Many historical Japanese objects are functional, and were

used with regularity over their history. It may seem unnatural not to continue to have access to historic religious objects preserved at shrines and temples, even if they currently are displayed in a “museum” context on the premises.

Also, there does not seem to be a great deal of aversion to replicated original objects or structures in Japan. Perhaps this is due to the fact that Japanese cultural objects have almost always been made of highly degradable organic materials, and replacing the old with new is a necessary part of the traditional use of the object. It is considered a completely natural part of that object’s history to replace the silk backing on a screen, or to recopy the calligraphy of an old master, etc. An excellent example of this is the Ise shrine, in Mie Prefecture, which is one of the most famous holy sites in Japan. The entire structure is completely rebuilt every 20 years, and this practice has been in place since the origin of the shrine. Can the shrine still be considered original, because it is ritually rebuilt under the exact same specifications? Essentially, this sense of continual use is quite a challenge to preservation in Japan.

C. The appearance of reality: The replica as an alternative to the object

Considering all of the above, perhaps it is not so surprising that the art of replication is extremely skilled, and frequently utilized, in Japan. In fact, if I had to sum up my observations of Japanese museums in one word, it would be “replica.” I was absolutely amazed at the number of replicas that were on display in the museums that I visited. Even more incredible was the exacting skill and precise detail involved in the replicas’ creation. In museums such as Minpaku, landscape replicas were used to try to show something that could not be gleaned from the objects. For example, a collection of Chinese vessels might be given more significance when displayed next to a replica of a T’ang Dynasty village, showing the vessels in use. Even in the largest replicas on display in Minpaku, the tiny details were always extraordinary, down to the individual branches on each tree in the landscape. The replicas were pieces of art in and of themselves.

One of the highlights of our summer research was a visit to an actual replica workshop. With the assistance of Dr. Morita, Ms. Massman and I visited the Moriguchi replica shop, located in a suburb of Osaka City (See Appendix A, Figure 5). The Moriguchi family runs this small workshop that provided some of the landscape and village replicas used at Minpaku. It was fascinating to see the painstaking detail in which the staff created the individual pieces of

each replica. We were amazed to learn that a replica the size of an A4 piece of paper costs approximately \$10,000.00 US to make; some of the replicas in Minpaku are six feet or longer on each side. Although the replicas were truly amazing, and they do provide additional information that cannot be learned from objects alone, I nevertheless could not help but marvel at the amount of funds used in their production, and think about how much object-related care could be provided for even half that amount.

After visiting numerous sites, and seeing such a consistent and prevalent use of replicas in the sites, I found myself questioning the use of object replicas in some cases. In the Kumamoto Prefectural Museum, for example, fossil replicas were displayed side-by-side with original (real) fossils, with no signage to tell the difference between the real object and the replica (See Appendix A, Figure 6). In fact, I only learned that one of the fossils was a replica when a docent (who only spoke Japanese) told me that the object was a replica. By our standards, the use of replicas to supplement or replace objects would have ethical implications, but this does not appear to be of similar concern in Japanese museum practice.

4. Four different approaches to preventative conservation in Japan

Following are four examples of collections care I observed this summer that I felt were particularly worthy of note. The first, appropriately, was our host institution for the summer, Minpaku, which has implemented some highly developed technology to protect their objects and synthesize the information to be gained from the object. The second is the Horyu-ji temple complex in Nara, which has managed wonderfully to balance the religious purpose of its objects with the need to maintain them in museum standard conditions. Third is the Museum of Oriental Ceramics in Osaka City, one of the most impressive museums that I visited, and a museum that found a wonderful balance between technological development and beautiful, visitor-centric displays. Last, but hardly least, are the atomic bomb museums in Hiroshima and Nagasaki, which are institutions that deal with a collections issue that is unique to those two cities.

A. Minpaku: Innovations in digital imaging

I spent the majority of this research fellowship on site at Minpaku, the National Museum of Ethnology, Osaka. The museum has been open to the public since November 19, 1977, and

the Minpaku collection is comprised of primary artifacts of daily life such as clothing and utensils, and secondary materials, such as written documents, photographs, films, records and tapes. Currently, the museum collection stands at about 230,000 objects, with approximately 10,000 objects on display in the galleries, and 10–15,000 objects out on loan to other institutions at any given time.

Minpaku is one of the National museums of Japan, all of which are supported by a combination of public (governmental) funds and private funds³. However, Minpaku actually is considered a graduate research facility/museum, which is a particular subcategory of the National museums. Minpaku not only serves at the National Museum of Ethnology, but is also the host institution for two Schools of the Graduate University for Advanced Studies (Sokendai)⁴. These Graduate Research Facilities may also be called upon to cooperate with other universities in the training of graduate students enrolled in doctoral programs (National Museum of Ethnology Survey and Guide, 1999 – 2000).

Since it is a graduate research facility and a museum, Minpaku always has had priorities other than museum operations.⁵ In fact, as described by Tadako Unezao, first Director-General of Minpaku:

...even though the name “museum” is used, [Minpaku] is actually incorporated as part of the system of national universities. National universities have many research laboratories and this museum is organized simply as an outside laboratory for universities” (Umezao, “National Museum of Ethnology,” p. 229).

Continuing along this idea, “the Museum has two main objectives...one is to conduct scientific research and the other is, in legal terms, to promote public education” (Ibid, p. 231). It seems that the facility was initially envisioned as a sort of research library of objects, whose primary use would be to bolster the research goals of the approximately 75 member research staff. Its relationship to the public, at least initially, was secondary to its purpose of serving the research staff.

³ There are six National Museums and four National Museums of Art in Japan: The National Science Museum, Tokyo National Museum, Kyoto National Museum, Nara National Museum, The National Museum of Ethnology, The National Museum of Japanese History, The National Museum of Modern Art, Tokyo, The National Museum of Modern Art, Kyoto, The National Museum of Western Art, and The National Museum of Art, Osaka.

⁴ The two Schools hosted by Minpaku are the Schools of Regional Studies and Comparative Studies.

⁵ I use the word “museum” in the most general sense, namely as an institution dedicated to the preservation and display of objects and the dissemination of information about those objects.

The use and development of technology has been a high priority at Minpaku ever since its inception in the late 1970s, reflecting the museum's research-centric priorities. In discussions with Dr. Morita, I learned that in as early as 1984, a seven-year project was begun to construct an image database for the museum's researchers to use. At that time, the development of application software was planned as well. All this was managed under the Image Processing Department, and included:

- 1) Motion Analysis (for comparative ethnology)
- 2) Pattern Analysis (such as on pots, or fabrics)
- 3) Remotely sensed image processing
- 4) Map Handling (consolidating maps of different scales into one)
- 5) Distribution maps (computer distribution of info onto maps)
- 6) Sound Wave Processing
 - Speech Processing
 - Music Analysis
 - Sensing Wave Analysis

A goal of these technology projects was to protect and preserve the object, as well as to provide greater accessibility to the public. However, Minpaku-developed technology also was focused on increasing the efficiency of data collection, synthesizing the data that was gathered, and technologically preserving information about the objects—in a way that looked impressive and had never been done before.

Ms. Massman and I observed the museum's 3-D object photography system, which has been in place at Minpaku for over 15 years. The museum currently has 2 systems capable of digitally photographing objects from 4 different angles. The older system uses 4 different cameras to photograph an object from the front, sides and top. When objects are placed on the photography platform, the object's size and weight is also measured, thereby providing complete, accurate measurements and supporting photographic data for each object. The original system was developed as an analog system, but was converted to digital after only three years. It can photograph objects ranging in size from $1 \text{ m}^3 - 10 \text{ cm}^3$. Over time, a need was perceived for a digital photography system with a slightly smaller capacity. The second system, capability of $30 \text{ cm}^3 - 7 \text{ cm}^3$, utilizes only one camera. In this case, the camera itself moves to photograph the

object from multiple angles. The photography platform itself also rotates so that the object can be photographed from any angle.

Using these two systems, approximately two-thirds of the collection has been photographed at this point in time. We learned that about forty objects a day can be photographed using this system, resulting in about 10,000 – 12,000 objects being photographed per year (5,000 – 6,000 per station). According to Dr. Morita, the current rate of new object acquisition at the museum is about 6,000 – 7,000 objects per year, so at this rate the museum is able to photograph all incoming objects, and also continue to photograph older objects in the collection.

What are the implications of developing such a technology? First, it is very impressive to realize that Minpaku was dedicated to digital photography long before museums in the United States. This project has all the clear benefits of any digital photography project in a museum, such as using the photographs in object databases or virtual museum projects, and accessing photographs remotely for research projects not taking place at Minpaku. Of course, the hope is that having digital photographs of objects will lessen the amount of object handling, thereby protecting the object. Furthermore, projects of this type can serve as trailblazers for other institutions. Finally, in this case, I think Minpaku's special status as a university research facility helped it to receive more funding for its projects than if it had been exclusively a museum. Also, while all of these research projects have practical benefits, it is interesting to note that some of these projects initially were funded during the Japanese bubble economy, when "research for research's sake" was funded easily.

However, the days of unlimited funding for Minpaku probably are over. While at Minpaku, I learned that the funding relationship for National museums recently has become very complicated. At the beginning of this budget year, April 2001, all National Museums were to become privatized. Exactly how this change will transpire is very unclear, however. Even people working in these museums are unsure as to what this means in practical terms, or specifically what kind of funding can be expected in the future. Additionally, the National Museums will retain their names. So, as far as public perception is concerned, these museums may continue to be viewed as receiving national government support. At least initially, this set of museums probably will continue to receive some type of government funding, even if that funding is allocated in more of a contract format, rather than as an automatic budget allocation.

Nevertheless, clearly a significant amount of government funding is going to be cut from the budgets of Japan's national museums within the next few years. Since Minpaku desperately needs to find other means of fiscal support, the museum now is in the process of redefining itself and its research goals. It will be interesting to see how Minpaku's technology develops to fit the resources and goals in its future.

B. Horyu-ji: Retaining sanctity while providing protection

Besides institutions specifically labeled as "museums", there are a wide variety of historic sites in Japan, including castles, historic homes and other historic properties. Many of these sites display artifacts and "museum quality" objects on their premises. In addition, some religious sites, such as shrines and temples, exhibit historically important sculptures or religious artifacts, while serving as a place of worship. Usually the shrine or temple structure has great architectural importance as well, and many site administrators have gone to lengths to provide explanation about the site's history, the creation of the structure and the structure's importance.

Horyu-ji, located on the outskirts of Japan's ancient capital, Nara, is one of the oldest historic and religious sites in Japan. The main buildings of the temple date to 607 AD, and were founded by Prince Shoutoku, "considered by many to be the patron saint of Japanese Buddhism" (Lonely Planet Japan, p. 494). The Horyu-ji complex is comprised of numerous temples, and also serves as a "repository for some of the country's rarest treasures" (Lonely Planet Japan, p. 494). The site, therefore, has the double obligation of protecting its ancient treasures, while allowing visitors to access the Buddhist objects, which still have great spiritual significance.

Horyu-ji provides an extremely interesting solution to these often conflicting goals in the *Daihouzoin*, or Gallery of Temple Treasures. The *Daihouzoin* is located on site within the Horyu-ji complex, so it can be accessed only after purchasing an entry ticket for the entire complex. The *Daihouzoin* is a museum-like structure, and it was specifically constructed to house some of the country's most valuable national treasures in an environmentally stable fashion. The building itself was designed on a temple-style architectural format, which essentially comprises a main hall flanked by two side wings. The main hall contains the Golden Kannon, one of the greatest National Treasures in the country, and the two side wings contain items that served more of an "accessory" role, such as guardian figures, portable shrines, scroll paintings and calligraphy, and other traditional items. This was one of the few sites that we

visited during the summer that used truly museum-standard practices with respect to such areas as climate control, relative humidity control and lighting. All of the objects were cased, with smoke detectors in each case; light levels were low to protect the objects, but were adequate for viewing; mounts were clearly crafted to fit the object; like objects were exhibited with like objects inside the cases; cases were not overcrowded.

The real masterpiece of the Daihouzoin is the Golden Kannon Hall, which is located at the center of the museum. The Golden Kannon Hall contains one of the most important pieces of Japanese sculpture in the world, a gilt-wood Kannon that dates to the 7th century. Since this piece is so historically significant, great effort has been made to exhibit it in an environmentally sound way. It is encased in an airtight glass case, and the lighting is kept at very low levels.

The Kannon is an extremely popular deity figure in Japan, and this particular sculpture is still actively worshipped today. As a result, the gallery in which the Kannon is exhibited is decorated just as the altar in a temple. A wooden railing— exactly as one would observe at a temple altar— encloses the Kannon's glass case. Offerings to the deity are laid out between the railing and the case. A moneybox for donations has been placed directly in front of the sculpture; this is a typical feature of a temple altar as worshippers regularly make small monetary donations as part of the prayer process. Ceiling molding is in the style of carved wood beams that you might see at a temple, and murals are painted as décor throughout the gallery, with a large lotus flower at the center of the ceiling. Altogether, the display technique gives the visitor a feeling of intimacy and connection to the sculpture, rather than a feeling of distance and separation because of the glass case and low light.

In the wall directly opposite the sculpture, two large doors appear to open to the courtyard. I assume that the room must be opened up for ceremonial use at certain times of the year. If this assumption is correct, this feature is yet another creative example of a way to protect the object while also allowing worshippers to retain access. By entering the gallery from this doorway, the statue can remain undisturbed in its case, and worshippers can approach it in a way that is consistent with religious tradition.

The excellent collections care practices implemented Horyu-ji can be a model for other religious properties across Japan as they approach their own preservation needs.

C. Museum of Oriental Ceramics, Osaka: An aesthetic approach to earthquake security

The Museum of Oriental Ceramics, located in downtown Osaka, is a small, unassuming, and absolutely wonderful museum that does an excellent job of displaying just one thing: ceramics. The Museum of Oriental Ceramics exemplifies the essence of a job well done: its exhibitions are simple, its designs are elegant, and its displays are consistently effective.

The museum collection is comprised of about 2,300 pieces, primarily Japanese, Chinese and Korean ceramics. At any given time, approximately 260 objects are on display in the museum's eleven galleries. Except for a few, very large pieces, all of the museum's ceramics are displayed in airtight cases, with only a few pieces contained in each case.

Because of the frequency of earthquakes in Japan, a museum of ceramics must take great care to protect its collection from being damaged. In most other museums visited over the summer, "earthquake protection" was achieved through the use of fishing wire to secure objects within their display cases. Quite simply, the objects are secured to their mount, or to the base, with fishing wire either tied to the object or wrapped around the object. I asked an acquaintance, who is a conservator, about this practice, and I was assured that the use of fishing wire is not uncommon in earthquake-prone areas, and that in fact it is also used in California. So, this method of earthquake protection must have proven over time to be effective.

Interestingly, the only museum where I did not observe the fishing-wire in use was the Museum of Oriental Ceramics. Nevertheless, it is clear that great care is being taken to protect the pieces from earthquakes at that site. The most immediate difference I observed in this museum was a break from the lengthy glass cases so omnipresent at other museums. The cases at the Museum of Oriental Ceramics were consistently smaller and shorter, with only a few pieces displayed per case. Additionally, the pieces are displayed with a great deal of space between them, so that the pieces would be less of a danger to each other if an earthquake were to strike.

Even more interesting, however, is the museum's innovative platform design. At first glance, the platforms appear simply to be of one solid piece that is covered with fabric. However, in actuality, the platforms are comprised of several thin pieces of synthetic material that are designed to move and absorb the shock of an earthquake, so that the object itself does not move. I found it very interesting both that the museum had worked to develop this

technique, and also that it made a point of inform its visitors of this technology. The platforms are described at length on a label in one of the museum galleries.

Another earthquake-related feature of the museum is described in the museum's English-language brochure, received when entering the museum. The brochure contained a small announcement, on a printed flyer put inside the brochure:

As you are probably aware, seismic activity in Japan is increasing recently and this trend is reported to develop further. In order to minimize any damage that may be caused to our collection in case of a major earthquake, our museum has decided to limit the number of National Treasures and Important Cultural Properties on display at any given time. This has led to the absence of some of the exhibits which are already illustrated in our catalogues and leaflets. We thank you for your kind understanding regarding this matter.

The Museum of Oriental Ceramics, Osaka

This announcement shows that the museum staff has given priority to protection of their objects, despite the fact that it may have been an unpopular decision not to show all the National Treasures in the museum's collection.

Another interesting display technique in this museum was the rotating exhibit platform, used in some of the museum's galleries. The ceramics are placed on one of the earthquake-safe platforms, and the platform in turn is placed on a larger, round platform that rotates. The benefit of this is that the visitor can see all sides of the piece (and can observe the piece much more clearly than when objects are displayed on top of mirrors). The platform rotates so slowly that the piece is not jarred or otherwise at all harmed by the movement. It took just under 2 minutes for the platform to complete one rotation.

The Museum of Oriental Ceramics in Osaka showed many impressive examples of exhibition technology being developed to protect the object, and also provides impressive displays of the technology they have developed.

D. Hiroshima and Nagasaki: Collections concerns unique to Japan

Hiroshima and Nagasaki are remembered as the only two cities in the world that have suffered from the atomic bomb. On August 6 and August 9, 1945, Hiroshima and Nagasaki were irreversibly changed by these tragic events. There are many ways in which a museum could

choose to approach this topic—as a historic record, as a memorial for the victims, as a source of education about atomic power, or as a plea for peace. In fact, both the Hiroshima and Nagasaki museums dedicated to this tragic event encompass all of the above themes.

The Hiroshima Peace Memorial Museum is the larger of the two museums, comprising an East and West building and two floors of exhibitions. The exhibitions in the East Building provide information on the war leading up to the decision to use the atomic bomb, a reconstruction of a famous building that was obliterated by the bomb, and information on the nuclear arms race and proliferation. In the hallway joining the East and West buildings, there is a temporary display of recently donated objects, the majority of which are from survivors of the bomb, or relatives of survivors. The West Building focuses on the effects of the bomb and artifacts relating to the bomb. The visitor ends the tour by walking past a series of videos on which films of survivor's stories are played.

The Nagasaki Atomic Bomb Museum follows a similar format, although a few topics were given greater or less emphasis. For example, at the Nagasaki museum, an entire gallery is devoted to remembering rescue and relief activities at the time of the bombing, which is a topic not discussed in depth in Hiroshima. The Nagasaki museum also employed more extensive use of replicas in its museum; in fact, when the visitor enters the museum, the entire first gallery is designed as a replica of the ruins of Urakami Cathedral, a Catholic cathedral that was the unfortunate (and unintentional) direct target of the Nagasaki bomb. However, historical background, atomic bomb artifacts, and survivor's stories all were displayed similarly to Hiroshima.

At these two museums, I saw some of the most unusual artifacts I have ever seen in a museum. For example, the Hiroshima Peace Memorial Museum has on display a human shadow, which had been burned into a wall from the radiation of the atomic blast. I found myself at a clear loss as to how to protect or preserve such an object. The Hiroshima museum also has a display of “Black Rain on a White Wall”, which is a wall fragment covered with streaks of rain, darkened by radioactive fallout, that fell on the city minutes after the bomb detonated. Also, I was very surprised, and uncomfortable, to see that both museums had “touch” areas, in which objects such as glass bottles, melted by the radiation from the bombs, were on display for visitors to touch (See Appendix A, Figure 7).

After visiting these two sites, I wondered about how a museum cares for, preserves and protects (formerly) radioactive materials. Are the objects in the Hiroshima and Nagasaki museums still reacting, evolving or changing? The cases and display techniques used in these museums appeared to be similar to the cases and standards observed at other sites across Japan. In a few instances, I saw objects double-cased, but this appeared to be for security purposes, and possibly also for temperature stabilization. In other words, I did not see any display techniques in use that appeared to be serving the particular needs of these special objects.

Both museums are striving to look forward as much as look back. Survivor's videos and survivor's artwork are exhibited in both locations. Nagasaki even has on display videos of people from around the world who live near nuclear testing sites and have felt the negative effects of this proximity. Both museums are dedicated to the elimination of the atomic bomb from the arsenals of the world. The Hiroshima museum brochure states: "Hiroshima's deepest wish is the elimination of all nuclear weapons and the realization of a genuinely peaceful international community" (Hiroshima Peace Memorial Museum, English-language brochure).

5. Conclusions

Over the research period, I visited approximately forty museums and historic properties. Probably this is a greater number of sites than I have visited even in the United States, so this was an unprecedented opportunity. However, the sites that we visited varied greatly in style and character, so initially it was difficult to formulate conclusions about the Japanese museum field as a whole. Nevertheless, certain trends became apparent over the course of research.

Again and again, museums in Japan seemed to tend towards extremes: they either had excellent standards and innovative technology, such as the examples described above, or they had standards of collections care that were puzzlingly inferior. I was surprised, also, to see how standards of care varied even among some of the country's most prestigious museums. Many of the less impressive sites that we visited gave off a sense of being static or even stagnant. Exhibition halls appeared decades-old, looking as though they had been developed with a large initial sum of money, but then were given no funding to renovate their facilities over time. Even our host institution, Minpaku, which was one of the most advanced and well-funded museums we visited, had not changed many of its permanent exhibition areas since it opened in the late

seventies. It seems as though new initiatives have been easily funded, while maintenance, storage and upkeep have been given much less of a priority. Now that so many museums clearly are in need of upgrading, I wonder if collections-care, and preventative conservation, will be given more attention in the future.

Museum funding in Japan seems to be at risk, however. Due to changes in government funding, described previously, museums are going to have to compete intensely for government and private funds if they wish to preserve their existence. Further, there are many different attractions competing with museums for tourist time and money. American-style shopping malls, multiplex cinemas and theme parks all are developing rapidly in Japan, and have proven to be extremely popular. Museums are going to have to find ways to remain dynamic, in order to remain an appealing destination. Can Japanese museums develop and maintain dynamic identities, yet simultaneously maintain the integrity of their missions?

I found this research experience to be fascinating, very rewarding, and occasionally frustrating. There were many challenges with conducting research in a foreign culture and attempting to speak in a foreign language. At times it was helpful to have an “outsider” perspective, but at other times I wished I was better able to communicate, so I could be more integrated with the staff at Minpaku, or able to ask questions of staff at other institutions. Also, although two months sounds like a substantial amount of time in which to conduct research, in actuality it was very brief. For example, some of our most valuable introductions did not occur until our last week of research, when there was no time left to explore these connections fully.

Nevertheless, this research fellowship was a fantastic experience, and I feel very thankful to have had such an opportunity. I know that the experiences that I had over the summer will continue to stimulate my thinking, and influence my opinions, for years to come.

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<http://www.mext.go.jp/english/sites/main.htm#NMNMA>

The National Science Foundation Tokyo Office:
<http://www.nsftokyo.org>

FIGURE 1



The National Museum of Ethnology (Minpaku) served as our host institution for the duration of the fellowship.

FIGURE 2



The Minpaku collection is comprised of ethnographic materials from around the world. One example is this crane costume, worn during an annual summer festival celebrated in Kyoto.

FIGURE 3



This screen, on display at Meiji shrine in Tokyo, receives little protection from the humidity and moisture on a hot and rainy day in late August.

FIGURE 4



In this historic Dutch house in Nagasaki, cased objects are displayed next to an open window.

FIGURE 5



Mackenzie Massman (right) and I are impressed by the stunning detail in this landscape model, made by staff of the Moriguchi workshop in Osaka.

FIGURE 6



In the Kumamoto Prefectural Museum, intricately designed replica fossils are displayed next to real fossils. The visitor may have trouble distinguishing between the real and the replica.

FIGURE 7



Glass bottles melted by radiation, similar to the ones photographed for this postcard, are on display in one of the “touch” areas of the Nagasaki Atomic Bomb Museum.

FIGURE 8



The privately-funded Miho Museum, near Kyoto, was designed by renowned architect I.M. Pei. The museum is as beautiful as the art it displays.

APPENDIX B

Table 1: Museums, Cultural Institutions and Historic Properties Visited by Mackenzie Massman and Terri Anderson as part of the National Science Foundation/Monbukagakusho "Research Experience Fellowship for Young Foreign Researchers", Summer 2001

Name	Location	Type	Cost	Date of Visit	Brief Description	Handouts Labels	Assessment—Conservation and Technology
Daibutsu	Kamakura	Temple	? (group tour)	01-06-24	Buddhist temple—second largest Buddha in Japan.	No	Conservation--Exposed to elements, visitors allowed to touch. No use of technology apparent. Important tourist site.
Hase-dera	Kamakura	Temple	? (group tour)	01-06-24	Buddhist temple—contains famous Kannon figure, jizou (patron saint of children and travelers) and Bijū.	No	Important tourist site. No conservation issues apparent. No use of technology apparent.
Tsurugaoka Hachiman-gu Shrine	Kamakura	Shrine	? (group tour)	01-06-24	Shinto shrine of architectural significance.	No	Some artifacts are exposed to elements and lack environmental controls. No technology issues apparent.
National Museum	Tokyo	Art		01-06-30	World's Largest Collection of Japanese Art.	Yes-English	Conservation monitoring apparent, though many pieces appear to be in unstable condition. Low light levels. No use of technology in galleries. CD-ROM available in gift shop.
Osaka Castle Museum	Osaka	History	600	01-07-04	Museum housed inside reconstructed Osaka Castle (original castle 1583; reconstruction 1931). History museum based on the life of Toyotomi Hideyoshi.	Yes-English	Advanced use of technology in the form of video and holographic images. Many replicas and models. Interactive and light-up maps. Information in Japanese and English. Conservationally sound practices. Information on care of artifacts available. Fire suppression systems and climate controlled cases.
National Museum of Ethnology (Minpaku)	Suita	Culture	400		First Museum of Ethnology in Japan, opened in 1977. Exhibits are thematic, designed to present various cultures from around the world. Special sections focus on languages, music, recent acquisitions, traveling exhibitions.	Most info in Japanese. English videoguide	Highly technologically advanced. Use of Videoguide system in Japanese & English Video booths and Dr. Minpaku, a computer based system that identifies and describes objects. Many interactives. Advanced conservation efforts, such as use of x-ray analysis, digital imaging. Complex database system. Few climate control monitors. Objects not rotated or cleaned on a regular basis. Cases are crowded. Some earthquake prevention measures.
Mari Time Museum	Osaka	History	600	01-07-08	Showcases maritime history.	Both Jap. And English	Lots of computers and touchscreens. Extensive use of models and replicas. Hand-on interactives often demonstrate maritime technology. Frequently integrate video. Listening stations. Conservation—No working hygrothermographs.

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The Museum of Oriental Ceramics	Osaka	Art Culture	500	01-07-15	Founded in 1982 to exhibit the Ataka Collection of ceramics. Collection of 2,300 pieces.	Yes-Japanese and English	Excellent Conservation practices---Specially designed earthquake-proof displays. Natural Light Gallery with no UV damage. Technology mainly used for conservation. Some videos.
National Museum	Nara	Art Culture	500	01-07-14	Collection of Buddhist Art and Archeological Finds.	Yes-Japanese	Exhibitions areas consistently conservationally sound. Objects housed in climate controlled areas. Good Security. Technology used for Conservation.
National Museum of Art	Osaka	Art	420	01-07-19	Modern and Contemporary Art from around the world.	Yes-Japanese Only	Poor conservation practices. Few cases. Many objects exposed to sunlight. Poor mounting. Working Hygothermograph. Some video (beta), but no other other apparent use of technology.
Phoenix Plaza	Kobe	History	Free	01-07-20	The Hansin-Awaji Earthquake Reconstruction Center.	Yes-Japanese & English	No apparent conservation issues. Excellent use of computers, video, and interactive. Several lighted maps and replica/models.
UCC Coffee Museum	Kobe	History Trade	210	01-07-20	History and Culture of Coffee Production and Consumption.	Yes-Japanese & English	Use silica gel. Most objects encased. Computer interactives and popular video.
Horuji--the Daihouzoin Treasure House	Nara	Art History	1000	01-07-21	Renowned Buddhist artifacts. Great Treasure house of Horuji.	Yes-Japanese & English	Mix of conservation with function. One of the most conservationally sound sites visited. Exhibits designed for other art appreciation and preservation as well as religious worship. Most of technology used for conservation.
National Museum	Kyoto	Art Culture	500	01-07-24	Highly rated collection of art, historical artifacts, handicrafts.	No	Most cases are not sealed. Many objects displayed uncased. Unsound practices. No pest control. No climate monitoring. No technology. Some of the labels are unclear, handwritten. Poor lighting.
Imperial Palace	Kyoto	History	Free	01-07-24	Original Palace built in 794.	English Guide Video	Visitors not allowed to enter buildings. Tours given by guides with number of visitors very limited. Used introductory video. Guide used 1980s sound equipment. No conservation concerns.
Ginkakuji	Kyoto	History	600	01-07-24	Built in 1482 by Ashikaga Yoshimasa.	No	Heavy tourist traffic. Temple exposed to elements. No use of technology apparent.

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Human Rights Museum	Osaka	History Culture	150	01-07-25	Represents a comprehensive range of human rights-related affairs. Historical objects, replicas and text relate information about discriminated communities, women, minorities, handicapped, and environmental problems.	Japanese and English. English CD guide; English tour guide; English labels.	One of the best museums visited. Details with complex/difficult issues in a highly educational way. Use interactives and hands-on activities. Use of video and sound. Many replicas and models. Exhibit design is very modern and well constructed. English docents available. A Sony discman audio guide is available in English, and helps with the interpretation. Videos with holograms are shown. Videos have subtitles. Braille labels also available. Large pool of docents help with content interpretation.
Nijo-jo	Kyoto	History	600	01-07-28	Kyoto Residence of Tokugawa Ieyasu (1603).	Yes-Japanese & English	Another excellent museum. Audio guides available. Conservation of artifacts is a clear priority, though no climate control. Extensive signage. Plexiglass used to protect paintings.
Kiyomizu-dera	Kyoto	History	500	01-07-29	Temple for Hosso School of Buddhism	Yes-Japanese & English	No use of technology or conservation observed.
A-bomb Dome	Hiroshima	History	Free	01-08-02	Atomic Bomb Memorial	No	No technology. Area is fenced off to assist in preservation.
Peace Memorial Museum	Hiroshima	History	50	01-08-02	Tells the story of the Atomic Bomb and the destruction it caused at Hiroshima. Also provides information on worldwide nuclear proliferation.	Yes-Japanese & English	Good mix of technology. Uses audio and video. Also computers are integrated into exhibit and provide additional info. Artifacts in closed cases. Silicia gel used in some cases. Some reproductions, most actual artifacts. Audio guide available but outdated.
Municipal Museum	Kumamoto	History Science	300	01-08-07	Highlights Regional history from Prehistory to Present	Yes-Japanese Only	Extensive use of reproductions/models. Maps and models deteriorating/fading. No pest or climate control. Hands-on areas included inoperable or outdated technology.
Samurai House	Kumamoto	History	200	01-08-07	Reconstructed Samurai home	Yes-Japanese Only	No use of technology. House and contents exposed to elements. Use of replicas.
Glover Gardens	Nagasaki	History	600	01-08-08	Reconstruction of European Garden and Homes	Yes-Japanese & English	Elevators and video technology used. Artifacts exposed to elements. Buildings have no climate control.

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Dutch Slopes	Nagasaki	History	200	01-08-08	Reconstructed Dutch Homes.	Yes-Japanese	No climate control. Videos and some audio used.
Atomic Bomb Museum	Nagasaki	History	200	01-08-09	History of Atomic Bombing of Nagasaki. Also provides information on worldwide nuclear proliferation.	Yes-Japanese & English	Another excellent example of the use of technology and sound conservation practices. Audioguide available. Use of audio to set mood. Video integrated into exhibit frequently. Lighted dioramas and replicas. Some dust in cases. Signage in multiple languages. Computers at the end for more information. Video with subtitles.
Chiiori	Shikoku, Iya Gorge Oboke	Culture	16,000	01-08-10 01-08-11 01-08-12	Reconstructed Japanese farmhouse. Guests allowed to stay and experience traditional living.	No-Only English spoken	No use of technology. Conservation efforts focus on replicating traditional Japanese rural life. Beautiful scenery.
88 Temples Pilgrimage	Shikoku	History Culture	Free	01-08-11	Hike to the first 5 of the 88 temples with a guide.	No	No use of technology. No attempts at conservation. Objects exposed to elements and still functional for religious practice.
ATC Museum	Osaka	Culture	1600	01-08-15	Focuses on traveling exhibits of cultural interest (at the time of our visit, 'Hello Kitty Expo').	No	Extensive use of video and audio. No conservation efforts. Mostly a commercial venue.
Miho Museum	Shiga	Art	1000	01-08-19	Built by I.M. Pei for the Shumei Family Collection of Ancient Art from around the world.	Yes-Japanese & English Eng. Video	Audio guide in Japanese And English. Individual cases. Fiber optic lighting. Special mounts. Earthquake protection. Attendants in Galleries. Has 4 computers with touchscreens and video. Excellent museum with beautiful/vast collection.
Meiji Jingu	Tokyo	Shrine	Free	01-08-22	Reconstruction of Shrine for Meiji Emperors completed in 1958.	No	Exposed to elements. No use of technology. No attempts at conservation.
Nezu Fine Art Museum	Tokyo	Art	1000	01-08-22	Collection of Japanese Paintings, Ceramic, and Calligraphy.	Yes-Japanese Only	Use of technology for conservation. Silicia gel in cases. Special mountings. Beautiful collection.
Tepco Electric Energy Museum	Tokyo	Science Culture	Free	01-08-22	History and Use of Electricity—Filled with interactives and activities.	Yes-Japanese only	All technology and interactives in Japanese. Lots of use of computers and video. Highly dependent on technology. Fun and exciting.
Imperial Palace	Tokyo	Art Culture	Free	01-08-23	Storehouse of Imperial Treasures—Screens, Calligraphy, Paintings.	No	No use of technology. Few objects on display. No climate control. Objects separated by type. Beautiful collection.
Yasukuni-jinja	Tokyo	Shrine	Free	01-08-23	Shrine dedicated to Japanese War Dead.	No	No use of technology. Exposed to climate changes and elements of nature. No conservation efforts apparent. Functioning shrine.

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Yushukan Museum	Tokyo	History	200	01-08-23	Museum of Military History and Arms.	Yes-Japanese only	Some video and audio all in Japanese. No computers or interactives. No conservation efforts apparent. High light levels.
National Museum of Western Art	Tokyo	Art	400	01-08-23	Impressive Collection French Impressionists, Rodin sculptures, and Pre-Raphealites. Also Modern and Contemporary Western Art.	Yes-Japanese & English	Highly invested in conservation. Climate control and monitoring. Earthquake prevention and sculpture restoration practices. Computers and video are the main uses of technology. An excellent collection and very well done museum.