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Opening Remarks

Johei Sasaki
President
National Institutes for Cultural Heritage (NICH)

I would like to first thank all of you for gathering here today to take part in this symposium. ACA, UNESCO, ICCROM and NICH have organized the International Expert Meeting on Cultural Heritage and Disaster Resilient Communities within the framework of the Third UN World Conference of Disaster Risk Reduction (WCDRR), with the generous support of ICOM and ICOMOS.

Today's symposium is a part of this large conference. It aims to review a series of heritage rescue and recovery activities accomplished after the Great East Japan Earthquake, and to introduce current efforts for the development of the National Task Force for the Japanese Cultural Heritage Disaster Risk Mitigation Network. It is also a platform for debate and discussion among international experts to elucidate points that need to be addressed within the "Framework for Disaster Risk Reduction 2015-2030" adopted at the WCDRR.

The day before yesterday, March 11th, marked the fourth year since the 2011 Great East Japan Earthquake. I again express my deepest condolences to those who lost their lives, and extend my sympathies to the many people affected by the disaster that remain living in temporary housings after they were evacuated.

Following the devastating earthquake, NICH set up an office in the National Research Institute for Cultural Properties, Tokyo, to develop cultural property recovery projects. Emphasis has been put on the recovery of cultural properties in Fukushima Prefecture, as a significant number of disaster affected cultural properties remain isolated especially in the area around the Fukushima Daiichi nuclear disaster, where entrance was not allowed.

Various large scale disasters, including landslides, water and wind damage caused by typhoons, as well as volcanic eruptions, have occurred throughout Japan in recent years. There is also concern for imminent massive earthquakes such as the Nankai Trough Earthquake and the Tokyo Inland Earthquake, and establishment of an effective recovery system is needed more than ever.

Taking into account these circumstances, the Headquarters for Promotion of Cultural Heritage Disaster Risk Mitigation Network was established within NICH in July 2014, with myself appointed as executive director. Collaborating with ACA, the Network aims to develop human resources, gather, analyze, and disseminate information, and conduct research necessary to mitigate disaster risk to build an effective rescue and recovery system in times of emergency.

Beginning with the keynote speech delivered by Nobuo Kamei from the National Research Institute for Cultural Properties, Tokyo, the presentations to be made during this symposium will introduce various rescue and recovery approaches specific to each type of cultural heritage, from movable and immovable heritage, historical landscape, archaeological materials, to intangible cultural heritage. They will also address the current situation of the affected cultural properties in Miyagi and Fukushima Prefectures, and provide case studies concerning the handling of objects with radioactive contamination. Various works undertaken by the National Task Force will also be introduced. I hope the symposium promotes awareness for disaster prevention and will facilitate greater development of collaborative projects by the state, the local and private sectors as well as individuals.

Finally, in my concluding remarks, I would like to express my deepest gratitude to the people whose efforts have made today's symposium possible. With the proactive participation of everyone in attendance here today, I anticipate the success of this symposium.

Opening Remarks

Masanori Aoyagi
Commissioner,
Agency for Cultural Affairs (ACA), Government of Japan

In my opening remarks, I would first like to offer my heartfelt condolences to the victims who lost their lives as a result of the events of the Great East Japan Earthquake. I would also like to extend my deepest sympathies to the great many survivors of that disaster who nevertheless continue to lead their lives while being confronted by very difficult circumstances, and I would like to offer a prayer that a state of recovery may be achieved at the earliest possible opportunity.

In speaking today, the expressions that I choose to employ may seem somewhat sentimental; however, concerning both the individual human condition and the continued existence of communities, it is extremely important that we forge positive recollections.

In the lives of individual human beings, the memories of parents are inherited by their children, and these are in turn passed on to their grandchildren. For communities as well, even if memories represent a form of social settlement, I truly feel that there may be a creation of strength through the thorough sharing of such recollections. I would consider that the inheritance of such recollections and memories represent critical elements, which in turn give form to what we know as "resilience," a construct which in itself has become a keyword within the context of this International Expert Meeting on Cultural Heritage and Disaster Resilient Communities.

Concerning the efforts of communities as they seek to accumulate a body of shared recollections, it is also my belief that what we define as a "cultural property" plays a significant role in that process. Thus, the ways in which what we define as a cultural property are protected and passed on to future generations and are an important consideration for maintaining resilient communities and continuing activities under optimal circumstances. Bearing this in mind and taking into consideration the valuable opinions of everybody in attendance here today, I look forward to a better utilization of what we define as cultural properties in the future and the important roles that they may play in helping to build resilient communities. Thank you very much.

Opening Remarks by Masanori Aoyagi, Commissioner, ACA (Photo by NICH)

Keynote Presentation

Review of Rescue Activities of Cultural Heritage Affected by the Great East Japan Earthquake

Nobuo Kamei
Director General,
National Research Institute for Cultural Properties, Tokyo (NRICP-Tokyo)

Good afternoon everybody. My name is Nobuo Kamei and I work at the National Research Institute for Cultural Properties, Tokyo. For two years I worked on the front lines in the areas impacted by the Great East Japan Earthquake as the chairperson of the Committee for Salvaging Cultural Properties and Other Materials charged with the task of rescuing cultural properties damaged by the events of the disaster. In light of my own experiences, I want to talk today about the rescue activities that the committee undertook and the lessons that we learned.

In my speech today, I would first like to summarize what sort of event the Great East Japan Earthquake was. What was its magnitude? How big was its tsunami? What was the impact of the radiation released from the crippled Fukushima Daiichi Nuclear Plant? After reviewing such issues, I shall offer some insight as to how the committee actually worked on the ground in the impacted areas. Then, I shall offer some ideas as to how the lessons learned can be harnessed for the future. How may such lessons be incorporated in an institutional framework or our attitude toward disaster? These are the sorts of issues that I wish to discuss today.

The first topic to consider is the nature of the earthquake. It was a massive seismic event that occurred four years ago at 2:46 pm Japan Standard Time on March 11. The earthquake's epicenter was about 24 kilometers below the seabed, and its physical location was in open water, around 130 kilometers east of the Oshika Peninsula in Miyagi Prefecture. The earthquake's magnitude was finally established as being 9.0 on the Richter scale, making it the biggest seismic event that modern Japan has ever experienced. With this seismic event, the worst-hit areas recorded a maximum grade of Seven (7) on the Japan Meteorological Agency's Seismic Intensity Scale, followed by Six Upper (6 Upper). The southern part of Iwate Prefecture recorded Six Lower (6 Lower) and the intensity was identical in Miyagi Prefecture, Fukushima Prefecture, Ibaraki Prefecture, parts of Chiba Prefecture and Gunma Prefecture. Meanwhile, the land extending as far as Tochigi Prefecture was also severely shaken. Additionally, the whole of Hokkaido recorded seismic activity along with everywhere else in Japan as far down as Kyushu. I think you can understand that the entire archipelago was shaken by the event.

Next, let us consider the tsunami that was caused by this massive earthquake. In terms of its geographic profile, the coastline extending from Iwate in the north down to Miyagi is referred to as a "Rias Coast," and it was where a massive tsunami struck. Accordingly, throughout the river courses and valleys along this coastline, the waters pushed upstream by the tsunami were of great height. In some places the recorded high-water mark was close to 35 meters. Even the tsunami that engulfed the flat areas were considerable, with the recorded heights in some areas being between 10 and 25 meters. However, with respect to the coastal region of Fukushima Prefecture where the nuclear power plants are located, we could not even measure the height of the tsunami in some locations because parts of the plant were destroyed.

It was this two-punch combination of a huge seismic shock and the resultant massive tsunami that inflicted so much damage across a very wide area of the country, extending from Tohoku in the north down as far as the Kanto Region. This diagram represents a plot of flooded areas and it focuses on a location called Sendai Plains (Fig.1). The data it contains highlights cultural properties located in the area. It also indicates the numerous facilities, archives and museums where such properties were stored. The Ishinomaki Culture Center, which I will discuss in greater detail later, was directly next to the coast and was thus subjected to the full force of the tsunami. Within this Sendai-Hirano region, the area of Wakabayashi in particular boasted a wide expanse of newly developed housing. Unfortunately, this resulted there in numerous fatalities among the homeowners.

By contrast, the area around Matsushima Bay

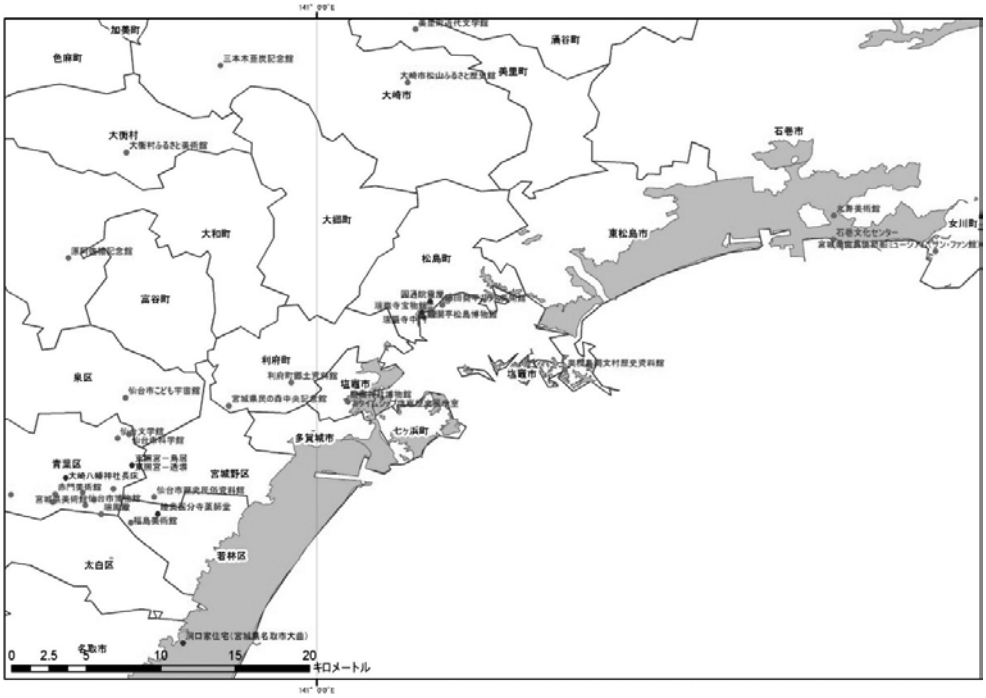

Fig.1: Tsunami affected areas and the cultural properties plotted out in the Sendai Plains (This figure is drawn by Yoko Futagami and PASCO Corporation)

was not heavily impacted by the tsunami. I should point out that the waters around the bay are dotted with many medium and small-sized islands, and these seem to have acted as a buffer against the tsunami. We received reports that the islands broke the back of the oncoming surge and thus there was not much damage in the confines of the bay. That events turned out this way in Matsushima was really a blessing in disguise because on the shores of the bay there is a very old Buddhist temple called Zuiganji. This temple boasts many assets including buildings designated by the Japanese government as National Treasures. Although there was some slight damage recorded due to the earth- quake's seismic shock, luckily the old temple sidestepped the threat posed by the tsunami. I am inclined to believe that our ancestors purposely selected the land that Zuiganji currently occupies as a site that was particularly suitable for such a temple.

There is something we should learn from this. Namely, we should not construct archives, museums and art galleries on low-lying lands. We should think about construction locations, learning from the distribution of ancient sites: we should avoid location where there is no evidene of either ancient buildings or traces of what might have been erected earlier, even when developing temporary constructions.

As a side note, local municipalities nationwide have had to come face-to-face with the scale of damage that a tsunami can inflict since the Great East Japan Earthquake. New policies have been initiated regarding the preparation of hazard maps, particularly concerning those municipalities situated along coastlines which are under the threat of earthquakes. It is thought that such maps will help citizens appreciate the risks of the local region in advance, and that such consciousness may help determine their evacuation behavior.

The next link in the chain of unfortunate events was the designation by the government of both "Zones Subject to Evacuation" and "Difficult-to-Return Zones" for local residents. These areas were set in accordance with the radioactive contamination that was predicted to result from the faltering Fukushima Daiichi Nuclear Plant. Such developments resulted in the birth of the restraint order. Indeed, it was Japan's first experience of an incident of such a scale. As a nation we are now confronted by the very real possibility that decades may pass

before some of our compatriots can safely return to their former homes, depending on their locations. Although unavoidable, the people who once lived in the communities impacted by the nuclear disaster have been forced to now live as evacuees in other areas. Among them, there are some victims whose emotional state is very fragile. These issues arise from the fact that, due to a series of events beyond their control, these people have effectively lost their hometowns.

Due to the nuclear accident, extreme measures were initially put in place that restricted access to certain areas. Accordingly, in years one and two following the disaster, Fukushima Prefecture was not really in a position to promote projects that would preserve and salvage its own cultural properties. It is only very recently that the access restrictions for certain areas have been lifted, and this has allowed us belatedly to commence our rescue of the cultural properties and their related materials. However, there are still areas where the decontamination process or other factors have stalled such activities. This means that no timeline for the lifting of restrictions has been established. In such areas, obviously there is concern about conducting any rescue activities.

Next, I would like to comment on the damage that occurred to the assets designated as either National Treasures or Important Cultural Properties. Some 754 cases of damage, both significant and minor, were reported across a very wide expanse of the country from Aomori in the nation's north right down to Kochi on the island of Shikoku. A list with the details has been handed out, and although it is not my intention to dwell further into these matters, you can appreciate that, particularly in Ibaraki Prefecture, the number of damaged buildings was rather large. There may be differences in the size of the affected assets, but as an overall trend it is possible to appreciate that the extent of damage inflicted upon buildings in Ibaraki was pronounced. In addition to these nationally designated assets, there was also damage to prefecture-designated, city-designated and non-designated cultural properties. If these were also counted, then the total number of damage cases would increase by at least a factor of ten.

Given the variety extent and a number of damaged cultural properties, and responding to a request from ACA, NICH needed to get on the ground of the impacted areas so we could salvage and help deal with damaged cultural properties. However, immediately after the disaster struck the transportation infrastructure also broke down. Meanwhile, on the ground of the impacted areas the preservation of human life was given the highest priority. Thus, we were not really in a position to commence our activities under such conditions. After roughly two weeks, however, the full extent of the disaster was better understood and a degree of calm was in the process of returning. When we finally realized that the time had come when we could turn our attention to the plight of the damaged cultural properties, staff from the National Research Institute for Cultural Properties traveled to the impacted areas together with a number of specialists from ACA. Once there, meetings were held with the different prefectural authorities who dealt with cultural properties. During these meetings, deliberations occurred as to what we should be doing and what we could actually do given the circumstances. In the course of these discussions, it became readily apparent that a tremendous amount of damage had occurred across a wide geographic area. Thus, it was well beyond the resources of a single organization to conduct salvage activities in response to everything that had happened. At this point, a decision was made to also call upon the cooperation of stakeholder organizations. Thankfully, this nation is fortunate to have a wide range of different organizations such as the Japanese Association of Museums and the Japanese Council of Art Museums, etc. ACA approached these various stakeholder organizations, and the "Cultural Properties Rescue Project" was established to deal with tangible cultural properties such as art objects. Meanwhile for buildings in the impacted areas, we set up the "Cultural Properties Doctor Dispatch Project."

First let me describe the Cultural Properties Rescue Project. Everyone here may well appreciate that many museums and archives were left damaged by the disaster. A particular example was the Ishinomaki Culture Center located in Miyagi Prefecture. The building is a relatively new, and the true extent of the damage to it is not evident at a glance. In fact, however, the entrance doors of the building were ripped away, and the tsunami forced its way into the stairwells. Wreckage borne by the water ended up inside the building, and everything was in shambles. The rescue of cultural properties commenced with the piece-by-piece removal of the rubble (Fig. 2).

Fig.2: The rescue team removing the rubble scattered in the Ishinomaki Culture Center

As lifeline services of the building such as water and electricity were also cut, the clearing work took place in completely darkened rooms, with our staff depending solely on their headlamps for light. The entire process was further complicated as there was no water available to rinse off the items that were retrieved. As you may well imagine, our rescue activities were not simply a case of turning up at the site and then proceeding to remove the cultural properties from the outset. Rather, routes for the safe extraction of the assets had to be secured before anything was able to be recovered and carried out. For our researchers, who on a day-to-day basis carry little more than pens, and for the curators of museums, etc., such voluntary labor proved to be a very tough and demanding form of physical exercise.

Of all the damage that occurred, the most tragic event was played out at the public museum in Rikuzentakata City. At the time of the disaster, six staff members were on duty. Regrettably, however, none managed to survive because of the sheer height of the oncoming tsunami, wtich exceeded the height of the two-story building's roof. Because the building was located on flat ground near the coast, it was subject to a combination of being battered by the huge tsunami followed by a violent receding of the water. Accordingly, much of what was originally housed in the museum floated outside. In its place, other wreckage was deposited inside the building. The scene that confronted us was truly shocking. In our salvage activities, we experienced considerable trouble when trying to identify actual cultural properties. Indeed, because it was so difficult at the time to separate assets from the surrounding rubble, anything that looked even slightly probable was retrieved for later analysis.

Next, I would like to comment on the plight of some historic buildings. Before the disaster, this was a three-story building that combined a wooden structure and stone pitching. It used to be a liquor store. Due to the tsunami's impact, however, both the first and second stories collapsed, leaving only the third intact (Fig. 2 in the presentation by Hiroharu Hatano). As the third story still housed possessions that were of great importance to the building's occupants, great care was taken so as to rescue everything.

To return to the topic of earthquakes for a moment, I should point out that an earthquake is not a one-time event. Rather, after the main quake has struck, it is invariably followed by numerous strong aftershocks. Accordingly, it is necessary that rescue and relief work only be undertaken after first confirming the safety of the staff members and others who are to engage in such tasks. Traditionally, that would probably mean requiring that people wear helmets, or possibly equipping them with safety boots, gloves, masks, etc. However, during the initial stages of the rescue occasion, we were not in a position to demand these goods.

As we realized during the course of our activities, because these events took place in areas that were under the jurisdictional control of the staff of local cultural facilities and local municipal boards of education, it was necessary as an initial step that we gather information from these sources. Concerning matters related to cultural properties, our normal administrative procedures are to utilize a communication system in which information is conveyed from the top down. In other words, information is conveyed by ACA to the various prefectural boards of education, and from there it is then disseminated to the municipal or local boards of education. Alternately, such information may flow from bottom to top along the same routes. We believed that the usage of this network would be good for the collection of information pertaining to the disaster situation, so it was necessary to establish a reciprocal communication network. It has been pointed out that in cases such as this, in which a disaster extends across a wide geographic area, there must be cooperation cutting across prefectural boundaries. Furthermore, information should be shared among stakeholders as to what cultural properties are located where. If staff members and others are able to survive a disaster, then they can pass information on as to what items are retained by the particular collection of the iustitution. However, since regret-

tably all of the staff of the Rikuzentakata Museum perished, we had no information whatsoever as to what had been retained in their collection. Accordingly, it was important that the curators engaged in the salvage activities on the ground could come into contact with the actual cultural properties while they were working. This allowed them to separate assets from the surrounding rubble. As to lessons that may be learned and harnessed for the future, one issue is that certain facilities should be chosen to play key roles as aggregators, and in this regard it would be desirable if prefectural institutions were nominated to the post. If these entities acted as hubs, then the museums, art museums and archives, and others under their jurisdiction could be encouraged to mutually share information about the contents of their collections.

Regarding the composition of the units that are actually charged with the task of carrying out the salvage of damaged cultural properties and other objects, we soon learned that it was necessary that a wide variety of professions participate in these teams. For example, people with the technical skills to implement emergency measures, people who can arrange cultural properties to withstand the rigors of transportation are highly valuable additions to any team. Also important, are people with the ability to safely transport properties.

I should also point out that what we targeted in our art museum salvage activities was not merely limited to artistic works such as the paintings and sculptures, but also books and documents. We even had one case where an institution had a collection of botanical and marine life native to a specific region rescued. In the Sanriku Area in particular, some institutions retained extensive fossil, biological and botanical sample collections. Thus, we could not have responded without the cooperation of curators drawn from natural history museums. Through these experiences, we also learned the lesson that it was good to consider the types of job that were to be incorporated within the rescue squads.

Additionally, under circumstances such as these, where an enormous volume of cultural properties and other objects were damaged, it was necessary to secure a temporary storage space where the rescued items could be held, as well as workspaces where soiled cultural properties could be washed and emergency measures conducted to ensure their viability. Paper-based collections of materials had been damaged by a combination of seawater and muddy weter. While they were originally exposed the coolness of March, our efforts to rescue them were confronted by the coming of the rainy season and by the summer heat. Thus, it was necessary that these items be processed as quickly as possible to ward off the threat posed by decay and deterioration. However, there was not enough time to process the sheer volume of material that was recovered. As it was understood that the only solution to ward off the threat of decay and other problems was to freeze the materials, we managed to secure enough freezer space with cooperation that was received from two private-sector companies in Sendai and Nara.

When thinking about the best response to issues as these, we also realized that it would be necessary for us to have access to large volumes of water for the initial cleaning the recovered cultural properties. Great amounts of water was also required to leach out salt contaminants. This meant, however, that we also had to seek out and secure a range of facilities including places that combined a sufficient water supply with enough space to dry out recovered items after they had been rinsed.

Additionally, because a great variety of materials had to be transported, we had to secure the cooperation of private companies. Working hand-in-hand with ACA, we also conducted campaigns to secure the funding necessary for continuing our operations. We received both funding and great physical and moral support from overseas, a situation about which both my colleagues and I feel extremely grateful. Indeed, such support still continues. Although somewhat delayed, I would like to use this opportunity today to again express my heartfelt gratitude for all the help and assistance that has been forthcoming.

For damaged architectural heritage, we established the Cultural Properties Doctor Dispatch program. Our purpose in establishing the project was to rescue the buildings that society deemed important, regardless of whether they were officially designated cultucal perperties or not. With ACA taking the lead, contact was made with various prefectural boards of education, the Architectural Institute of Japan and the Japan Institute of Architects, amongst others. With the cooperation of these organizations, specialists who became known as “Cultural Properties Doctors” were dispatched to the impacted areas. These people were able to both preserve and repair cultural heritage buildings, and they could also pass judgment on structures in terms of their

value as cultural properties. The project also endeavored to provide technical assistance to others in the execution of their building preservation and repair activities.

The person responsible for the Cultural Properties Doctor Dispatch Program will deliver their own report later in these proceedings and give more details and data. Here, I shall comment only briefly and simply. One particularly fine building featured a thatched roof and was located on a property that included both a garden and a pond. One factor that contributed to its demise was an excessive spacing of the pillars around the doors. Seismically speaking, the weight-bearing ability of the building's walls proved insufficient to deal with the stresses exerted. Meanwhile, possibly because the direction of the seismic shock's swing differed, its adjacent building was able to receive considerable damage but nevertheless remain standing. A contrasting example is provided by a brick storehouse dating from the Meiji period (1868-1912). Although there seems to be a small bump caused by a gradient difference in the building's skeleton, because its shape was structured in a certain way, the building did not move as a uniform mass when shaken. Thus, inspections revealed examples of detached or fallen roof trusses and of cracks in the external walls.

There was also an opportunity for us to witness Buddhist temples that had been damaged by the combined forces of earthquake and tsunami. We saw examples of stone lanterns in front of temple gates toppling due to seismic shock, and subsequently being engulfed in heaps of rubble deposited by tsunami. As to the temple buildings themselves, as the structural integrity of some was rather rudimentary to begin with, the events of the disaster left them in a rather perilous condition. It was sometimes necessary for our staff to rescue Buddhist statues or other objects from within temple structures. In the undertaking of such activities, we needed to have teams that could rescue the cultural assets, while securing the safety of each site. In many cases our teams required close cooperation with building experts.

The Cultural Properties Doctor Dispatch Program, which focused on buildings, dealt with structures that in many cases had already undergone various inspections by prefectural or municipal authorities prior to the disaster, which made the building damage-confirmation processes go somewhat more smoothly than those pertaining to art objects done by our teams. Although I shall discuss it in greater detail in a moment, I should point out that a new registration system for cultural properties came into effect here in Japan back in 1996. This development resulted in numerous buildings being registered as part of the nation's cultural heritage. On this occasion our teams confronted a number of frustrating issues. One was that some time had elapsed since the lists of past inspections was created. Thus, The data we had was not always accurate. Another issue was that individual building data had not always been updated. There was also the problem that some buildings that should have already been registered as cultural heritage were discovered by our inspection efforts. By confronting these complications, we came to realize the importance of data being managed and updated on a regular basis. These practices would allow an accurate appreciation of what types of cultural heritage were situated where.

In carrying out our damage inspections, an important thing for our teams were the relationships developed between our network of specialists and the local administrative authorities. Generally speaking, when an unknown individual seeks access to inspect a damaged building, even if introduced as a building repair specialist, it can be difficult for the owner to trust visitors based solely on their word. Under such circumstances, what is required for the inspection process to proceed smoothly is teamwork, with our specialists cooperating with municipal authorities whose faces are well known locally. Furthermore, it was clear to us that we needed the leadership and opinions of individuals well-versed in restoration techniques in order to decide how to implement emergency measures in damaged buildings. Accordingly, I feel that we need to establish a system for specialist capacity building. As a pioneering example, I want to highlight the Heritage Manager Training System that has been developed by Hyogo Prefecture, a topic that shall be addressed later. We are keenly aware that we need to establish training programs for specialists in preservation and restoration of cultural properties.

However, an issue that needs to be addressed within the world of construction is how to organize an evaluation system regarding the degrees of emergency safety in affected buildings. When earthquakes occur, it is obvious that a large number of buildings can be damaged. As for the possibility of secondary danger of these affected buildings, a system does exist where qualified architects judge

the degree of danger they pose. A judgement involves the application of one of three stickers to the inspected buildings, "UNSAFE," "LIMITED ENTRY" or "INSPECTED." Nowadays, this system is implemented in all parts of the country to avoid secondary disaster risks that affected buildings could cause.

One related issue that arose was how we should correctly inform what the evaluation is for, in order for the system to be appropriately applied to damaged heritage buildings. With a written consent of the Ministry of Land, Infrastructures, Transport and Tourism, which is the government organization with administrative control over construction issues, ACA issued a notice to widely inform that, even if cultural heritage buildings were to be judged as UNSAFE or LIMITED ENTRY, the judgement should not be understood as "unrecoverable condition" but just as "with possibility of secondary damage", and that those buildings should not be demolished without due consideration. Indeed, there are cases where heritage buildings judged to be UNSAFE were demolished at the public expense upon request from the building owners. We saw building owners feeling that they would have to demolish a building because it was "too dangerous" and "too difficult to repair," despite their understanding of the cultural significance of the buildings. Through such cases, we realized the need to develop communications for strongly encouraging heritage owners not to demolish their heritage buildings but to keep and recover them.

In the Great Hanshin-Awaji Earthquake of 1995, a great deal of damage centered around the city of Kobe. Administratively speaking, I would like to discuss what sort of cultural-property-related policies came about as a result of what was learned through the events at that time. First, and perhaps most obviously, reports on the salvage activities were created. Disaster Prevention mannuals were also prepared. In conjunction with these developments, a tool called the "Cultural Properties Emergency Response and Salvage Wheel," on how to better deal with tangible cultural properties, was created and distributed to stakeholder organizations. The idea of this wheel came from USA.

Regarding architectural structures, we created a new registration system to recognize buildings of social importance that were excluded from the rigorous national system of cultural property designation. Concurrently, because some designated buildings were in fact damaged in the earthquake, we performed minimal structural stabilization at the time and left the development of future policy for later, after the seismic evaluation inspections could be done.

Because there were people with the technical skills to restore cultural heritage buildings in the Kansai region prefectural or local municipality governments, it was possible after the Great Hanshin-Awaji Earthquake to build a voluntary network by utilizing this capacity for the purpose of both undertaking disaster assessment inspections, and to provide leadership and support with regard to restoration activities. Roughly six years after the events of the Great Hanshin-Awaji Earthquake, with the announcement of its aforementioned Heritage Manager Training System, in 2001, Hyogo Prefecture became the first municipality to initiate a program whose purpose was to develop human resources capable of leadership in both the preservation and restoration of national heritage buildings. Nationwide, the Heritage Manager System has now been adopted by five or six prefectures, each undertaking its own specialist training. In the future, it is one of my hopes that this system shall spread throughout the country. Thus, as I have just discussed in some detail, systems such as these were born out of the lessons learned from the Great Hanshin-Awaji Earthquake, and they can be linked to future policies.

On this occasion, as we consider how the lessons learned from the disaster might be utilized in the future, one thing that has become clear is that intangible cultural properties serve a key psychological role as pillars or nexuses in the revival of local communities. Within the various areas of the Tohoku Region, there is a great variety of traditional events and arts. In fact, many reports record instances of people desiring to undertake such events and arts as a means of spiritual nourishment that can be utilized to once again to revive their hometowns. A prime example of such sentiment are the people who wish to perform *toramai* ("tiger dances") once again. Through the support of a great many individuals, the spirits of people within the impacted areas have been restored by their being able to perform the tiger dance festivals, which were strongly rooted traditions in many areas. Due to the importance of these intangible cultural properties, people realize that their villages both "possess a proud cultural tradition" and that "they need to revitalize and invigorate themselves" in order to continue such traditions in their hometowns.

There are other instances of the lessons from past disasters having being utilized during the recent tragedy. If I were to offer some examples to highlight this point, an issue that might be considered first is how the disasters themselves are remembered, and how what is learned is passed onto the generations that are to follow. When pondering such matters, I recall the expression, *"tsunami tendenko,"* which has been stated with frequency. The word *tendenko* comes from a Japanese dialect and literally means "each for themselves." *Tsunami tendenko* initially gained a degree of popularity roughly 25 years ago. The expression essentially means that, if threatened by a tsunami, individuals should not consider those around them but rather seek to escape themselves. Perhaps its point can be expressed by the saying "where there's life, there's hope." Accordingly, if each and every individual retained such a sentiment, everybody would escape to high ground. However, the reality is different, as some of the people were sadly lost in the recent tragedy when they returned home to rescue the stranded elderly and others.

There is also an example offered by the Sanriku Earthquake of 1896. Then, too, much of the area impacted by the Great East Japan Earthquake fell victim to a massive tsunami. From that experience, the survivors imparted their knowledge on a slope below a high point in a certain area, erecting a stone monolith that was inscribed with the following warning: "Do not build houses below this point under any circumstances." People actually respected this warning from their ancestors, and the modern community where this monolith is located suffered little damage. Thus, in developing new disaster-prevention strategies, I feel it is necessary to do so while utilizing the knowledge and lessons that have been left behind by previous generations.

From the perspective of protecting cultural properties, we first need to know what assets exist and where they are. Once that is established, we need to share this information with the stakeholders and put in place systems that allow for cooperation in case anything should happen. Additionally, to ensure that disasters do not fade from the collective memory, we need to establish commemorative days, and other reminders, and develop projects like disaster-preparedness drills. It is important that people continue remembering and passing on both their actions under certain circumstances and how they were apt to help one another. For our part, in addition to numerous opportunities to participate in salvage activities in local municipalities, we have held exhibitions and conducted events publicizing the restoration efforts. Regardless of whether damage occurred or not, however, I believe that it is necessary on an annual basis to repeatedly recall to the wider consciousness just how important the cultural properties of the impacted areas are.

Finally, as was also commented on in the President's opening remarks just a moment ago, in conjunction with ACA and with the cooperation of relevant organizations, my colleagues and I at NICH have commenced research for creating a network capable of responding to and salvaging cultural properties. As to what has been gained through these salvage activities, I believe that we have learned important lessons with respect to the issues of overall rescue methods, the securing of temporary storage locations for salvaged assets, the securing of transportation methods, important know-how regarding emergency measures with respect to water damage and, as shall be reported on separately, the handling of cultural properties contaminated by radiation. Looking at the future, we want to utilize what has been learned so we can develop a network capable of responding to the disasters that may be forthcoming. In doing so, we wish to create organizational structures capable of teamwork in the undertaking of salvage activities, and we also want to establish certain standards to secure the necessary funding. For the foreseeable future, a major issue for us is to consider how to utilize what has been learned best.

It may take over 10 years before the process of restoring the salvaged cultural properties is completed. As we continue with these full-scale recovery efforts, we also hope to undertake simulations to better understand how to respond to disasters in the future. That concludes my keynote speech. Thank you very much for your attention.

Activity Report (Cultural Properties) 1

Damage to Museum Facilities and Rescue Activities for Tangible Cultural Properties

Ken Okada
Director
Center for Conservation Science and Restoration Techniques
National Research Institute for Cultural Properties (NRICP), Tokyo

My name is Ken Okada. I previously served as the Secretariat Manager of the Secretariat established within the Committee for Salvaging Cultural Properties and Other Materials, an organization that was chaired by Nobuo Kamei, the Director General of the National Research Institute for Cultural Properties, Tokyo. On this occasion, I would like to focus on the specifics of the activities we undertook to successfully rescue various cultural properties.

The earthquake that occurred on March 11th, 2011, was followed by a series of rather strong aftershocks. Such phenomena resulted in the damage and destruction of cultural properties. Furthermore, museums, art galleries and other buildings, where cultural properties were housed, also began to collapse. More than anything, however, what caused a massive amount of damage to a huge volume of cultural properties both in terms of geographic coverage and the categories that were hit, was the series of tsunami that occurred immediately after the initial earthquake. Moreover, it could be said that the nature of the damage incurred was complex. To make matters even worse, we were also confronted by the unique situation of the explosive incidents that had occurred at the crippled nuclear power plant.

If the cultural properties that sustained damage were to be considered in terms of who actually owned or retained them, they were comprised of public and private art museums, as well as other kinds of museums and archives, Buddhist temples and Shinto shrines. Furthermore, there was the destruction of private homes and damage to schools, community centers, libraries and the administrative agency buildings.

As a result of all this, many cultural property professionals died, including museum curators. In some areas, essentially everything was either lost

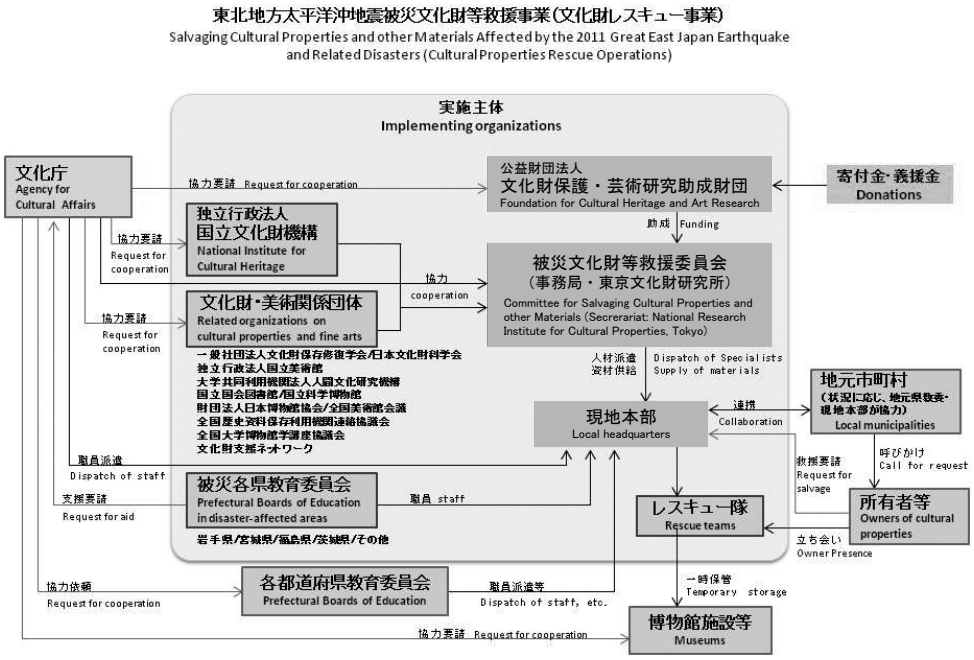

Fig.1: Organizational Diagram of the Cultural Properties Rescue Operations

or damaged, and the immediate families of staff members, as well as their relatives and acquaintances, passed away. As a result of the disaster, many people were forced to lead the lives of evacuees. Even today, approximately 200,000 people continue to lead this lifestyle, meaning they reside somewhere other than their former homes. However, as one of the first actions taken to rescue cultural properties stored at these destructed facilities, it was the people in the impacted areas that conducted the rescue activities themselves, in order to ensure the safety of their cultural properties, and then to find shelter for those that had been damaged. Additionally, the local municipal government, museums, and university researchers followed and began to undertake their own support activities. Finally, under the leadership of the Agency for Cultural Affairs (ACA), we were to get involved through the initiation of what was called the "Cultural Properties Rescue Operations."

The series of huge tsunami struck across a very wide and extensive area, so it was not just housing and commercial areas that were damaged. In some places, local government office buildings, as well as town and village halls were also impacted. It is because of this that the damage inflicted on the region was so extensive. As for the activities that were undertaken to rescue cultural properties, there were certain individual organizations that chose to act in a private capacity. Obviously, however, for our discussions here today, the major point of consideration is how the local government and the administrative institutions of the affected areas decided to act. However, to begin with, we should note that there were numerous areas in which the administrative agencies were not it a state to be able to take actions at the outset. Regarding this inaction, it might be said that the recovery of systems across the impacted areas tended to differ by region, and, at this point, I would like to comment on the distinctive characteristics and the individuality of the cultural properties damaged on this occasion.

First, I will address the relationship between the physical environment of the tsunami-impacted areas and the distinctive nature of the damage subsequently inflicted. I do not want to be overly subjective here, but my opinion is that if this disaster had only been an earthquake, its damage might have been limited to the possible collapse of buildings and some other degree of destruction. However, because the cultural properties in some locations were flooded by the tsunami immediately following the seismic shock and in some cases were even washed away, the affected properties were subject to both water damage and contamination.

The truth is that there were not many cultural properties designated under Japan's national cultural property protection system in areas of the country historically hit by tsunami to begin with. The nature of the actual damage sustained by cultural properties differs between inland and coastal regions. In inland regions of the country, it was only damage from earthquakes that was experienced. However, cultural properties in coastal regions were affected by the tsunami as well; here, there were not that many nationally designated cultural properties. On the other hand, some examples of cultural properties damaged in the tsunami impacted areas are local art museums that proudly displayed the works of locally born artists, small museums with early modern or later architectural or ethnological materials, artworks, and private homes with historical and ethnological materials. There were also facilities that had gathered a variety of historical materials concerning their local fishing industry. Particularly, in the Sanriku area, where whaling had played a major part in the local way of life since ancient times, there were many displays of skeletons and other materials that dealt with the topic.

When we were to rescue items such as the aforementioned whaling displays, a problem was confronted in that these items and documents were not designated cultural properties. Moreover, rescuing natural history items handled under a system different from the cultural properties protection system we were familiar with became an issue. Such aspects revealed the limits in capability of local mu-

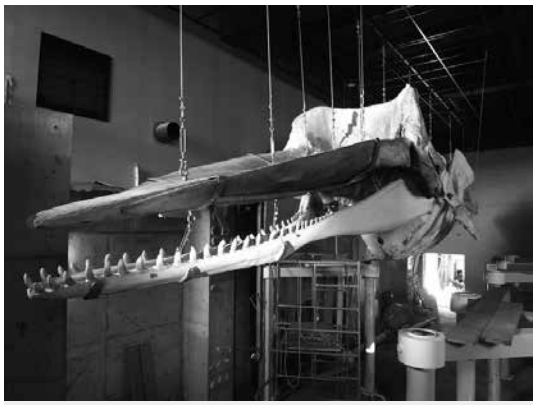

Fig.2: Whale skeleton (Whale & Marine Science Museum, Yamada-machi, Iwate Prefecture)

nicipalities. Nevertheless, these failings were soon confronted by the emergence of actions in the impacted areas led by numerous specialists whose unique skills allowed them to both address and overcome these issues.

I would now like to discuss some of the technical issues that were involved in the transportation of damaged cultural properties. For some of them, in addition to the contamination that resulted from their coming into contact with tsunami water, there were also outbreaks of mold. This raised the possibility of any contamination spreading in wherever they might be stored next. Thus, to overcome these issues, we made use of facilities such as an empty, abandoned school.

In the case of Fukushima Prefecture, in addition to the obvious earthquake and tsunami issues, problems were also created by the nuclear power plant accident that forced residents to evacuate their homes. From this turn of events arose the question of what should be done about the cultural properties that had been left behind. Soon administrative agencies, stakeholder organizations and specialists were pressured for a decision as to how to best respond to these developments.

We commenced the project to rescue cultural properties while seeking to overcome these issues. Those who actually undertook the rescue activities included historians and archaeologists from the impacted areas, museum curators, archival researchers, librarians, researchers specializing in cultural property preservation, technicians specializing in conserving cultural properties as well as members of the public. While all participants shared the same aim of salvaging the cultural properties of a specific area, in reality it was not smooth sailing at first. The main problem for this was the issue of expense. Also, whether or not they were in a position which would allow them to participate in these rescue activities was another. The people with all the different job descriptions above were burdened by their own issues—issues that had to be overcome if they were to engage in the rescue activities. It is fair to say that the Cultural Properties Rescue Operations established by ACA represented the single organizational structure capable of organizing all of these people so that they could act.

Obviously, it needs to be appreciated that none of us had previously experienced such a divergent range of different cultural property genres being damaged throughout such a wide geographic area. Thus, when the actual work began, what resulted might be best described as a succession of trial and error.

As to the specific activities that we carried out, obviously everything started with the procurement of funding. Next, the basic workflow was to proceed as follows: understanding the disaster situation → planning emergency rescue tasks → assigning staff → emergency rescue treatment → evacuation and transportation tasks → temporary storage. However, because there was participation of numerous different organizations and specialists in our rescue activities, one outcome was that, at each site, various methods were used for treatment of cultural properties that had been flooded and contaminated by water. Then again, at the Secretariat of the Committee for Salvaging Cultural Properties and other Materials, we did not dictate certain universal processing procedures. Rather, we decided to leave the issue of processing to the best judgment of the specialists who were on the ground responding to the conditions that were found at each individual processing site.

At this point, I would like to highlight the rescue activities that were undertaken at three particular museums. The first I wish to discuss is the Ishinomaki Culture Center located in Ishinomaki City, Miyagi Prefecture. The beautiful white building itself was a solidly built structure; however, the force of the tsunami led to water getting in on the first floor, and this factor resulted in the destruction and contamination of the museum's collection. There were three full-scale wooden sculptures displayed in the second floor galleries, but these showed little disarray after the earthquake because they were installed on individual seismic mounts, which proved to work extremely well.

A formal request for assistance concerning the Ishinomaki Culture Center was made to ACA by Miyagi Prefecture on March 29, 2011. Although ACA, in response to this request, immediately launched the Cultural Properties Rescue Operations on April 1st, it was not until late April that we managed to start our rescue activities in Ishinomaki. In the period between the issuing of the assistance request and when we actually started our rescue work in Ishinomaki, the staff of the Ishinomaki City Board of Education, who were normally responsible for the Culture Center, expressed a strong interest in trying to salvage the cultural properties themselves. However, these staff members were also needed to help respond to the plight of evacuees because the evacuation centers for dis-

placed citizens within the city were located in school gymnasiums. Thus, they were then not in a position to return to the Culture Center to try and initiate any rescue activities themselves.

When initiating our salvage activities, our staff had first to remove the site rubble themselves. We gathered a team of curators from art museums nationwide, and they then undertook emergency measures to stabilize the recovered works of art. At this initial stage, however, as basic cleaning processes such as fumigation could not be fully undertaken to counteract damage such as staining caused by the tsunami water, there are pieces of art that require further steps still in storage throughout Ishinomaki.

At the Rikuzentakata City Museum in Iwate Prefecture, unfortunately, all six staff members were reported dead or missing. A formal request for assistance concerning this facility was made to ACA by Iwate Prefecture in mid May 2011. Although compared to the aforementioned request for assistance issued by Miyagi Prefecture, this one arrived about a month-and-a-half later, Iwate had already in early April managed to gather specialists from its prefectural museum and local universities, and even representatives from the Self Defense Forces, who were then engaged in rescuing survivors and searching for bodies throughout the prefecture, all of whom were encouraged to participate in the discussion. This combined group had early on successfully rescued the natural history and ethnographic collections of Rikuzentakata and relocated them to a hilltop elementary school within the city.

Fig.3: Emergency measures being undertaken in the garage of an art gallery in Miyagi Prefecture

Art works were also salvaged from the second floor of the Rikuzentakata City Museum finally in July. These were taken to a conservation facility in Morioka City, more than 100 kilometers north of Rikuzentakata, where emergency measures were taken to stabilize their condition.

Because we were able to secure an elementary school in Rikuzentakata to use as a shelter for the damaged cultural properties, we were able to gather most of the recovered materials and archives at the school. Since then, one curator personnel together with the former director of the Rikuzentakata City Museum have been organizing what had been recovered at the elementary school. In this respect, the situation in Rikuzentakata was different than in Ishinomaki, where recovered materials remain scattered.

Finally, I would like to convey what happened in the town of Tomioka in Fukushima Prefecture. This was one of the communities that I alluded to earlier, where all of its residents were forced to evacuate due to the accident that occurred at the crippled nuclear power plant. In this case, what had been left behind in the town was a small museum housing a number of the community's cultural properties. We started to give some thought as to what could be done regarding these items. For a community whose citizens might not be able to return home for some time, what could be best done regarding these materials? One issue was that the electric supply to the museum had been completely cut off. This meant that temperature and humidity within the building were no longer controlled. We also had concerns about rats or mice getting into the materials and damaging them. In light of these factors, a decision was made to rescue the materials and relocate them elsewhere outside the town. This work was undertaken with strong consciousness as to

Fig.4: Removing a painting from the Rikuzentakata Museum

the issue of radiation levels. In fact, my colleague from the Conservation Section of the National Research Institute for Cultural Properties will be giving a speech on the radiation issue later.

The work of rescuing the materials from Tomioka is almost completed. However, there is yet another issue that still needs to be considered: if we do not know when Tomioka's residents will be able to return to their town and resume their former lives, how should these recovered cultural properties be used in the future? This issue, too, is different from the challenges faced in Ishinomaki and Rikuzentakata.

Concluding this presentation, I shall offer a vision for the future that the damaged cultural properties that were rescued may await. The situations confronting each of the museums we just discussed are completely different one from another, as were the conditions in their impacted areas. Furthermore, the circumstances confronting people responsible for deciding the future of the rescued materials also varied. What is more, the condition of the damaged and contaminated cultural properties that were salvaged differ in each of the aforementioned instances. While it might be argued that the cultural properties that underwent cleaning prior to being vacuum freeze-dried are sufficiently stable, what is the fate of less-fortunate materials? Because so much was recovered through our rescue efforts, much of it could not be cleaned sufficiently before undergoing the drying process. Thus, there remains a great volume of materials that are still impregnated with soiled seawater. As a result of temperature and humidity changes, these material might be threatened by mold again in the future. Accordingly, one issue that needs to be addressed is how these damaged cultural properties may be best stored or displayed in new collections and environments.

We managed to rescue great volumes of cultural properties and archives through our activities. What was actually rescued represent a wealth of materials that convey both the history of the region and the lives of its people. The rescued materials also stand testament to the history of the Great East Japan Earthquake as a disaster. Thus, I think we need to keep this perspective in mind as we go through the process of making careful decisions on how to appropriately preserve these important items of the nation's cultural heritage.

Thank you very much for your close attention.

Fig.5: Removing a painting from the Tomioka Culture Community Center

Fig.6: Using vacuum freeze-drying equipment (Nara National Research Institute for Cultural Properties)

Activity Report (Cultural Properties) 2

Damage and Restoration Efforts for Architectural Structures and Cityscapes

Shigeki Sekiguchi
Senior Specialist for Cultural Properties (Architecture)
Architectural Division, ACA

The Great East Japan Earthquake that struck on March 11, 2011, damaged 744 cultural properties protected by Japan's Cultural Properties Protection Act. Of these, 587, or a little less than 80%, were designated (*shitei bunkazai*) or registered (*tōroku bunkazai*) architectural cultural properties. In each case, the walls, roof and even structural components suffered extensive damage, seen across a very wide area.

Only one of the damaged National Treasure or Important Cultural Property designated buildings had its designation lifted as a result of the earthquake. All other damaged architectural cultural properties were quickly repaired and restored as part of subsidized programs run by the Agency for Cultural Affairs (ACA). As of March 2015, these restoration programs were almost completed, with the exception of some Important Cultural Property buildings that suffered extensive damage.

As with Important Cultural Properties, immediate attempts were made to understand the damage caused to Registered Tangible Cultural Properties. However, due to the sheer volume of these properties and the confusion that reigned in the disaster-stricken areas, information could not immediately be obtained, with only around 20% known as of mid-April 2011. It was even worse for regionally designated cultural properties that were not on the national register and for undesignated cultural properties, as no information was available.

Initially after the Great East Japan Earthquake a number of organizations and groups planned to support efforts to survey historical buildings that were not designated cultural properties. However, given the burden placed on the disaster-stricken areas hosting these surveys, it was believed that the ACA would have to develop transportation means for these assistance programs. As a result, the ACA launched a program to dispatch so-called "cultural property doctors" about six weeks after the earthquake struck. Today, I would like to talk about the Cultural Property Doctor Dispatch Program within

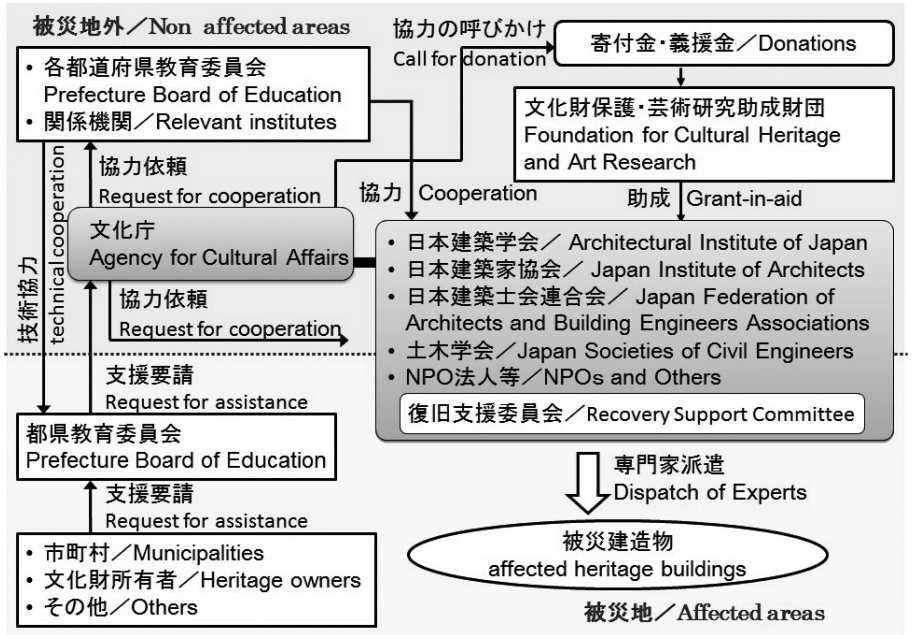

Fig.1: A scheme of the Cultural Property Doctor Dispatch Program

the broader context of ACA support provided for damaged cultural properties.

The Cultural Property Doctor Dispatch Program covered both designated and undesignated buildings considered cultural properties and provided technical assistance based on the extent of damage and received requests. This program began at the end of April 2011. During 2011 the program focused on surveying damage as soon as possible and on providing assistance for restoration work, including emergency repairs. As an ACA-funded program, the Architectural Institute of Japan was asked to carry out the surveys. Through these initial surveys, cultural property owners were able to make more specific requests for assistance with restoration work. In 2012, the Committee for the Restoration Assistance of Cultural Property Buildings Damaged in the Great East Japan Earthquake was established with the Japan Institute of Architects as Secretariat. Under this framework, the program was continued with a grant from the Foundation for Cultural Heritage and Art Research.

This is a program scheme of the activities carried out in 2012 and 2013 (Fig. 1). Under this program, the ACA responded to requests for assistance from municipalities and cultural property owners by dispatching experts from its committee for damage survey and technical assistance. Requests for cooperation with prefectural bodies or boards of education outside of the disaster zone were also made for help via the ACA's Committee for Restoration Assistance.

Examining the detailed aspects of the program, let us first take a look at the damage surveys. These damage assessments utilized a database of Japan's historical buildings created by the Architectural Institute of Japan prior to the earthquake. It contains data of more than 30,000 sites. This data made it possible to carry out onsite surveys swiftly. The same standardized survey format was used to help ascertain the extent of damages and summarize them for study. This made it possible to understand the extent of damage in a single glance. In years two and after, in addition to damage assessments, follow-up surveys were also carried out on historical buildings for which the initial survey had been completed, in order to check on their current status. This made it possible to understand what kinds of

Fig.2: Enginers at work for restoring cultural properties

restoration work were performed.

Damage assessments conducted in 11 prefectures shed light on the extent of damage to historical buildings by structure type, the extent of damage in relation to seismic intensity and location, and tsunami damage tendencies. In Miyagi Prefecture, which was close to the epicenter, in most cases structural damage was quite extensive. The results also showed that the extent of tsunami damage differed based on the surrounding environment.

Another pillar of this program was technical assistance, which I would like to talk about now. Damage assessments were carried out primarily by scholarly organizations such as the Architectural Institute of Japan and the Japan Society of Civil Engineers, while technical assistance was provided by engineering organizations such as the Japan Federation of Architects and the Japan Institute of Architects. This assistance was provided based on requests made by cultural property owners or municipalities and involved a proposal that included the specific location of damage, restoration methods, and estimates of restoration work costs. Prefectural government employees from the Kinki region included accredited senior engineers who had carried out restoration works on Important Cultural Properties. They were asked to provide technical assistance mainly for regional cultural properties (Fig. 2).

I would like now to share the results of the Cultural Property Doctor Dispatch Program. Over three years more than 600 inspectors carried out damage assessments and provided restoration assistance for more than 4,000 historical buildings. This marked the first time ever that the ACA implemented an assistance program for the restoration of undesignated cultural properties. The fact that this program was conducted jointly with research organizations and engineering organizations was also quite ground breaking.

This program made it possible to help restore a large number of historical buildings without losing their value; at the same time, cultural property owners raised their level of commitment for preserving these properties. One example is the Kurihara Denen Railway line located in Kurihara City, Miyagi Prefecture. The owners, together with the Architectural Institute of Japan and the Japan Institute of Architects, held workshops and discussions on restoration processes. Ultimately the railway became preserved as a municipal designated cultural property.

The Cultural Property Doctor Dispatch Program heralded many achievements such as this, but there remain important issues to deal with.

First, there were several cases where restoration work was not performed because of the somewhat timid approach taken by both the cultural property owner and the local government. This may be because the value of each individual historical building is not fully shared or perceived within the community.

Ever since the Great Hanshin Earthquake, many organizations and groups had plans laid out for an initial response, but the extent of damage across the wide area seen during the Great East Japan Earthquake hampered this response in some cases. Of course, it also took time for a system to be put in place in disaster-stricken areas so as to host surveys and restoration work.

One other issue that could be cited with this program was the shortage of manpower. Also, there were funding shortages and a lack of trained and capable human resources. Another issue that exists even today is coordination with other assistance programs.

The one thing I felt keenly aware of throughout the Great East Japan Earthquake is the fact that you can not do more than what you can do in uneventful times. The ACA will need to work on eliminating one at a time the issues discovered through the Cultural Property Doctor Dispatch Program. As a solution, we hope to create a platform for sharing information between the ACA and relevant organizations.

Based on the Cultural Property Doctor Dispatch Program, organizations and groups are examining the possibility of establishing permanent organizations for collaboration during nomal times to prepare for future disasters. These permanent organizations could coordinate on a daily basis to ensure that assistance programs could be implemented swiftly and seamlessly and to ensure that the Cultural Property Doctor Dispatch Program can be put into place promptly following a disaster. Through this coordination platform, we hope to discuss the funding and human resource development issues during normal times as well as update and manage databases to prepare for future disasters.

Another issue that came to light after the Great East Japan Earthquake was that we have to try to better understand the root causes of problems. We hope to pursue further studies, identify problems and try to understand how to best conserve and preserve historical buildings.

Also, we need to consider field coordination in nomal times that goes beyond buildings. No matter how important a cultural property may be, those that are relatively unknown will have a low priority when it comes to restoration after a disaster, which inevitably could lead its loss. This is why it is important to raise broader awareness about the value of cultural properties as a piece of cultural heritage shared by a community. Cultural properties must also be utilized within the realm of community development. Cultural properties that were actively preserved and well known before the earthquake received countless helping hands and were restored as a symbol of the reconstruction work after the earthquake and tsunami.

It goes without saying that the awareness among the community shows that the value not only of buildings but of various cultural properties was heightened by organic collaboration within the community.

Reports were made for many areas this time, but again, improved coordination within various assistance programs is an urgent issue needing to be addressed. In particular, disaster-stricken areas require complex and multifaceted support to preserve and restore their cultural properties. I believe that we need to consider a one-stop approach for future programs by organically linking them with the assistance program I spoke about today.

Activity Report (Cultural Properties) 3

Damage to Historic Sites and Places of Scenic Beauty, and Pre-Reconstruction Rescue Investigations

Yoshio Negita
Chief Senior Specialist for Cultural Properties
Monument and Site Division, ACA

I am Yoshio Negita of the Cultural Properties Monument and Site Division of the Agency for Cultural Affairs.

The Cultural Properties Monument and Site Division deals with several different categories. In the realm of designated cultural properties, we are responsible for historic sites, places of scenic beauty, natural monuments, and cultural landscape properties. We also deal with buried cultural properties sites or archeological sites which are not subjected to preservation in their present states.

In the first half of my talk today, as suggested in the title, I will give a simple overview of disaster damage to historic sites and places of scenic beauty, and work that has been done in response to deal with the situation. Then, in the second half, I would like to talk about the condition of buried cultural properties that were excavated before disaster recovery reconstruction. Today, I would like to use the term "archaeological sites"; so I will talk about the status of the excavations of archaeological sites.

First, let us take a look at the damage to the archaeological sites that the recent disasters caused. In the Great East Japan Earthquake, as has been discussed earlier, most of the damage came from the earthquake shaking. Fortunately, there were no cultural properties that were completely washed away by the tsunami. The greatest damage was observed at Komine Castle, which is located in the inland of Fukushima Prefecture. Tomorrow, participants from abroad will hop on the Shinkansen to visit Sendai City in Miyagi Prefecture. On the way, you will pass Shirakawa Station, which is in the vicinity of Komine Castle.

This castle was built in the 14th century. The reconstructed building was originally built as a watchtower, a lookout point. It was the stone wall which acted as the base of the castle that collapsed in large areas (Fig. 1).

The total length of stone walls surrounding the castle extends 2 kilometers, and 10% of these stone walls had collapsed. One year after the disaster, in 2012, we started removing these stones, a total of 7000 which alone took 18 months. Immediately after that we embarked upon the reinstallation of the stone wall. At this moment, 30% of work is complete. I hear that this work will be completed by 2020. In any case it will take several more years.

Fig.1: Komine Castle (Fukushima)

Next, this is a picture of Takata Matsubara pinery in Iwate Prefecture with very beautiful pine trees. It is a nationally designated place of scenic beauty. There used to be 70,000 trees in this area before being totally washed away by the tsunami. Incredibly, there was one pine tree that remained standing. It was quite miraculous. We became aware of this fact a few days after the disaster. I myself was very much struck by the scene when it was aired on TV. This tree became known as the "Miracle Pine Tree" (Fig. 2).

Fig.2: Miracle Pine Tree (Iwate)

This tree is located in Rikuzentakata City, and it was not only the people of Rikuzentakata but also people across Japan that were encouraged and moved by this sight. Although many efforts were made to keep this one single pine tree alive, it unfortunately was flooded by seawater, and it was not possible to preserve the original tree. Therefore, a replica of the pine tree stands there today. There are now plans to recover this pine tree-lined shore.

The people responsible for this project are looking 50 years into the future, so probably they will not be able to see its completion. This will be a two-generation or three generation effort; a very long-standing restoration effort has just been begun.

Next, let us take a look at the protection of archeological sites. In Japan, as in the rest of the world, excavations are done prior to development projects in places that would be destroyed by the construction. In Western countries, I believe this is called rescue archaeology. In various countries around the world, the challenge is how to secure funding for this rescue archaeology.

One example of a rescue archaeological site in Japan is a 3,000-year-old Jōmon period residence called Kashiuchi Ruins in Iwate Prefecture, where excavation work is taking place alongside recovery procedures. This was originally a very big building but now only holes remain. In Western archaeological sites of houses built with stones and bricks, the building materials remain and can be dug up. But in Japan wood was used to construct most buildings, so the excavations reveal only holes in the ground. In this photo (Fig.3), the pit dwelling is half excavated; the other half is outside the investigation area so it is not excavated. This is because there will be no construction in the latter half, outside the investigation area. In Japan we do not dig areas that will not be destroyed by development.

Is rescue archaeology actually realistic after an unprecedented disaster as the Great East Japan Earthquake? Immediately after the great earthquake, this was a very big issue. Rescue archaeology was seen as something that would slow down and get in the way of reconstruction work. In newspapers, it was reported as a “reconstruction barrier”.

In Japan, the system for preserving archaeological sites was introduced in the 1960s. After that, there was the Hanshin Earthquake, but the extent of the affected region of the Great East Japan Earthquake is completely different. The scale of the required reconstruction work is unprecedented.

Fig.3: Kashiuchi Ruins (Iwate)

Therefore, the accompanying archaeological protection work is something also completely unprecedented.

At the Agency for Cultural Affairs, we adopted the following response. The first point is that we should achieve both the protection of archaeological sites and reconstruction after the earthquake. We have been pursuing various efforts with this principle in mind. Reconstruction is not just rebuilding new houses and roads. True reconstruction is not just reconstruction of hardware, but also recovery of history and cultural backgrounds of these localities. We should conserve them properly, achieving cultural recovery, and we believe that only after this process, we can achieve true, genuine recovery. To do this, and this is my second point, it is very important for the cultural property conservation authorities and reconstruction authorities to collaborate with each other. A system for the two authorities to exchange information and consult one another was established. We believe that these two section sharing a mutual understanding will result in a better recovery and would contribute to accelerate this process.

With this principle in mind, we are providing concrete assistance—this is my third point. For example, one is financial assistance for houses. In order to relocate residences to higher areas from lowlands that were swept away by the tsunami, excavations are required if the new sites are on known archaeological remains. The fees required for excavation were made to be entirely provided by the national government. The other point is personnel-related assistance. For large-scale surveys executed prior to recovery projects, there are not enough archaeologists within the affected local governments, so we called on local governments

across Japan to dispatch archaeologists to excavate these areas. With an increased number of specialists, we should be able to accelerate the excavation work.

Since this was our first experience, we explored a number of possible solutions and were able to establish a system in which excavation surveys could be carried out.

In the Tōhoku region, excavation work is not normally done in December because there is usually a lot of snow and the temperature is very low. This time, however, since we were in an emergency situation, excavations were carried out in winter whenever possible. Reconstruction work and excavations have also been coordinated in such ways as well.

In places where excavation work has been completed, recovery work is begun. This means that work for recovery and excavations can be executed side by side simultaneously. At the beginning, immediately after the earthquake, people said that it would take a year for the excavations, delaying the reconstruction by one year. That was a common misunderstanding, but the reality proved different (Fig. 4).

A very distinctive aspect of the Japanese system is that there are many specialists in archeology belonging to each of the municipal governments, rather than the national government. Around 6,000 officers of local governments are responsible for conservation of archaeological sites. About 200 specialists, like the many of you who are gathered here today, were dispatched to Tōhoku from across Japan, from north to south. Their periods of service varied between 1 month to as long as 3 years, and most of these people left their families to become involved in excavation work.

Although it was under emergency circumstances of disaster recovery, we created opportunities for elementary school children and middle school students to have hands-on experience in excavation surveys. Although such opportunities are provided during ordinary excavation work as well, I think that the fact that we were also able to do this during excavation research in Tōhoku, has been very important in gaining people's understanding about the protection of archaeological sites at times of emergency.

We also provided chances for on-site visits to explain the results of the excavations to the general public. Many people participated in these open site sessions and the media was widely present.

When the excavations had actually begun, the media actually now had a completely different understanding about what we do and there were changes in the way these projects were reported. These surveys have generated new discoveries. Excavations of agricultural lands revealed traces of how people lived in the past, which came as a big

Fig.4: Excavation work (Iwate)

surprise for local residents. These findings brought people in the disaster areas cheerful news, and we think it brought chances to the local people to think more deeply about their hometowns. In each location, reconstruction work was soon begun after archaeological surveys were finished, and the archaeological surveys were completed before any reconstruction work was scheduled to begin. Eventually, as this process was repeated, there was increased understanding of reconstruction surveys. In other words, excavation surveys came to be recognized as the "first step in recovery."

We have encountered some surprising reactions through this process. Very important archaeological remains were discovered during excavations of premises where new residences were to be built for those who had lost their homes in the disaster. People started saying that they wanted to have a park created on the site to preserve the archaeological discovery—even if it resulted in a decrease in the area to be developed. This was reported widely in the media, and the superintendent of the Board of Education, when interviewed on TV, said that the site was "a treasure of the town." It was truly wonderful to have seen such changes in view as the result of preventative excavations after the unprecedented damage brought about by the Great East Japan Earthquake.

So, to conclude, the fact that we were able to carry out what in the West is called rescue archaeology under the extreme emergency situations after the Great East Japan Earthquake was a very rare circumstance. To mention my personal experience, I visited England several times in the last few years and had chances to give lectures on rescue archaeology after the Great East Japan Earthquake, and people were amazed, saying it would be unthinkable in England.

Why were we able to do this? I have been considering this question, and I think that the reason is because of the efforts of the local governments and also, most of all, because we were able to gain the understanding and cooperation of local residents. Also, there is another point: The Japanese concept of the protection of archaeological sites played a major role. In Japan, development work, regardless of whether its scale be only a couple of square meters or thousands of square meters, if this work is to disturb archaeological remains, then there are always excavations done, and the results of these excavations are published as reports. This rescue archaeology is carried out as an administrative procedure, and the principle is that it should not differ from excavation to excavation. I think this was another major reason why we were able to carry out pre-reconstruction archaeological surveys even following the times of crisis after the Great East Japan Earthquake.

It has been four years since the earthquake disaster. Although the speed of reconstruction is sure to accelerate, in Fukushima, recovery from the effects of the crippled nuclear power plant remains as a major issue.

Thanks to efforts made by concerned organizations and to the understanding and cooperation of local residents, we have been able to carry out pre-reconstruction archaeological surveys up until now, but we are still only halfway through. As has been mentioned by other speakers today, I think there are good prospects for recovery regarding other kinds of cultural properties. But those of us working for the protection of buried cultural properties and archaeological sites are still faced with numerous tasks.

Today, I talked primarily about archaeological cultural properties. Before I finish, I want to go back once more to the miraculous pine tree. Why did this single tree attract this much attention? There was a youth hostel in front of the tree (building on left in Fig. 2). Because of it, the tree was not affected by the tsunami. There is now a campaign to conserve this particular building as a monument to the disaster. As was mentioned by Mr. Kamei, we live in an earthquake-prone country and a major earthquake can occur at anytime. We always have to be prepared, not just the Agency for Cultural Affairs in our capacity, but also the local governments. We believe that preserving these post-earthquake ruins for future generations will be important to raise awareness on disaster prevention for people in the future.

I would like to stress again that we are still only halfway in the path towards recovery, and so we ask for your good understanding and cooperation for us to proceed. We need to consider in the long term the recovery of cultural properties in the Tōhoku region and I would like to ask you all for continued interest. Thank you.

Activity Report (Cultural Properties) 4

Damage to Communities and Their Relevant Intangible Cultural Properties

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I would like to speak to you today about the situation regarding Japan's intangible cultural heritage.

By way of introduction, I would like to offer a brief explanation as to what is actually meant here in Japan by the term, "intangible cultural heritage." What the Cultural Properties Protection Law states with respect to the definition of "intangible cultural properties" in Japan is that first it encompasses the two categories of "intangible cultural properties" and "intangible folk cultural properties." The former includes certain performing arts, such as the theatric forms of *Kabuki* and *Noh* as well as the traditional puppetry performances of *Ningyō Jōruri* and *Bunraku*. It also comprises artistic craft traditions such as ceramics and pottery. Textile traditions, including weaving and *yuzenzome* (surface-dyed designs on silk fabric), lacquer and lacquer arts are also included. Also a part of this group is traditional craft techniques as represented by the art of handmade Japanese paper or *Washi*, added to the UNESCO Representative List of Intangible Cultural Heritage last year.

On the other hand, the category of intangible folk cultural properties is divided further into the three sub-categories of customs, folk performing arts and folk techniques. Concerning customs, it is a sub-category that includes annual events such as festivals, while folk performing arts include *kagura* and *dengaku* traditional dances, along with secular performing arts. Meanwhile, folk techniques are considered to be practices that were originally used in a private capacity, that at some point later developed into a way of doing things that in themselves came to represent foundational techniques. An example of this idea are certain techniques used to bore wells, etc.

In addition to these categories, there is a range of important skills that, while not cultural properties in their own right, prove to be indispensable for the protection of certain cultural properties. Under the Cultural Properties Protection Law, these skills are defined as Selected Preservation Techniques. To give but a few examples, traditional roofing techniques are required for thatched roofs and *hiwada* (Japanese cypress bark) roofs. There is also a special production technique that is applied when collecting fiber from the ramie plant.

All these divergent categories together comprise Japan's intangible cultural heritage. As the concept itself might be somewhat difficult to grasp, I have prepared a collage of images to help reinforce my argument. Among them is the *Karatsu Kunchi* Festival, an event that takes place every November in Karatsu City, Saga Prefecture. This festival is an example of a custom. Within the city, numerous local communities bring out their own traditional floats, or *hikiyama*, and then parade them through the streets. Next is an event called *Koshikijima no Toshidon*, which has been inscribed on the UNESCO Representative List of Intangible Cultural Heritage. It takes place on December 31 each year in Kagoshima Prefecture. Examples of folk techniques include *Akita no itaya-ami seisaku gijutsu* (or the technology to manufacture Itaya baskets in Akita Prefecture). It is a weaving process that makes use of the bark of the Itaya maple (Acer japonicum).

Regarding the extent of damage to the nation's intangible cultural properties from the Great East Japan Earthquake on March 11th 2011, not many cases of damage have been confirmed for nationally designated important intangible folk cultural properties in the impacted areas. Mostly reported were varying degrees of damage to equipment or props used in certain events and festivals or related facilities. However, if the question of damage was to be considered in terms that extend beyond the purely physical, then unfortunately the disaster may be seen as a very sad set of events. This is because numerous people involved in passing down the nation's traditions, who were members of organizations that sought to preserve aspects of both our cultural heritage and cultural properties, were extremely unfortunate in that they lost their lives.

As mentioned above, in some respects it might be argued that the number of cases of damaged nationally designated intangible cultural properties was limited. Perhaps it is inherent to folk cultural properties as a category, that in addition to nation-

ally designated properties, there are in fact many more traditions that have been recognized at the prefectural or local municipal level and even more that are not designated at all. If these non-designated folk cultural properties were to be included in the overall damage estimates, the extent of harm inflicted by the earthquake and tsunami disaster in the impacted areas would be considerably greater.

The most readily apparent extent of damage inflicted in many of these cases was to the props, equipment and facilities used in these folk cultural property traditions. This is because of their visually recognizable nature. Because of the enormous amount of damage, support was forthcoming from a wide variety of sources. Projects for repair and rectification as well as new acquisitions commenced from quite early on for props and costumes and other equipment that had been damaged but had survived as well, as for those lost in the tsunami. Thus, some of the affected folk cultural property traditions could return to their pre-disaster state earlier than expected. With the restoration of props used in folk traditions, there were many reports of folk performances and events being resumed in places where local people were apt to congregate. These folk performances and events often became opportunities for people to gather and thus served to enhance local recovery efforts.

As was also touched upon earlier in the images shown by Nobuo Kamei, performances of the *toramai* (the "tiger dance") could be revived in the impacted areas through the efforts of people who quickly repaired the required props and costumes. In most cases, recovery was quickest when the damage was visible and easily recognized. However, on the other hand, the actual damage inflicted upon intangible cultural properties and folk cultural properties was not limited to the visible damage sustained to props and facilities. Rather, local communities themselves were affected, and there was more damage of different nature that went unnoticed. To expand this idea further, I want to discuss the traditional custom of *hamaori* (which literally means "to descend to the beach"), which has been conducted in many localities across large areas of eastern Japan, extending east from the Izu Peninsula up to the northern part of Miyagi Prefecture.

One such *hamaori* event takes place in the former township of Kashima and is now a ward of Minamisoma City, Fukushima Prefecture. On these occasions, members of the local community transfer the spirit of a deity onto a *mikoshi* (a float-like portable shrine); the worshipers then proceed to carry the float from inland areas to the coast. Once

Fig.1: *Hamaori* in Minamisoma City

they reach the beach, they draw seawater for cleansing and reviving the deity. Fig. 1 is a view of worshippers during the ritual of drawing seawater. *Hamaori* requires both a beach and also access into the sea with rather gentle slope. Slopes that drop precipitously into deep water are not suitable, because worshipers do not want to draw seawater from areas between where the waves break and the beach, where the water would be contaminated with sand. Rather, they try to draw clean seawater from the larger waves beyond the break, requiring the beach to have a gentle slope into the sea. Although damage to these beaches by the tsunami causing transformations in their incline was perceived as a natural disaster, it need to be noted that there were also effects on local culture. *Hamaori* customs that previously took place on such beaches must now be relocated. It can be very difficult to recognize this kind damage. Another example is the *hamaori* ritual involving a bamboo fence on the beach created by worshipers seeking to draw seawater and offer a folk performance tradition unique to the area. Obviously, such a structure could not be built unless the beach in question was rather extensive.

Fig. 2 is the *hamaori* ritual at Okunitama Shrine in Suganami, Iwaki City in Fukushima Prefecture. There, the *mikoshi* was traditionally carried along a meandering route over several kilometers before reaching the beach; however, the communities along the sea where these shrine worshippers parade to were washed away by the tsunami. The worshippers draw seawater in buckets and then transfer it to a ceremony site set up on the beach. Later in the *hamaori* ritual, the *mikoshi* is taken into the sea, to a place swept with quite high waves. Because of the danger of being swept away, the *mikoshi* has been secured with a yellow rope before being taken into the ocean. The coast of Fukushima along the Pacific Ocean is a small area with many similar *hamaori* events. There is a tendency to consider the damage inflicted along this coastline in purely natural terms. However, we must also realize that there are cultural practices, such as the *hamaori* rituals, that utilize this same stretch of coastline.

Indeed, there are even cases of damage at one location impacting the events and rituals undertaken by communities in other areas. There is a small community called Minamiebi in Minamisoma City, Fukushima Prefecture. Here, the tradition in *hamaori* outings was to accompany their local deity with traditional *kagura* dancing performed by members of the community. However, because the area was struck heavily by the tsunami, the community's

Fig.2: *Hamaori* in Suganuma, Iwaki City

kagura band was lost. Furthermore, this same part of the coast is used not only for *hamaori* rituals of Minamiebi. A number of other communities in the immediate vicinity, such as Kitaebi, use the same beach. However, the established tradition was that when the worshippers from Kitaebi and the other communities came to the same beach to perform *hamaori*, their parties had to be led by the *kagura* dancers of Minamiebi. Thus, because in the latter community, there are no longer people left to perform this tradition, the other communities are now unable to get onto the beach.

This was not the only example of damage to a single beach affecting many other communities that used it. Another example from Iwaki City in Fukushima Prefecture is a shrine called Gohoden Kumano, where a festival takes place annually on July 31st and August 1st. As part of this festival there is a traditional dance called *chigo dengaku* which in itself has been designated as an important intangible folk cultural property. As another important component of the festival, children are selected to play roles of *chokushi* who are the God's *yorimashi.* At the beginning of the festival, these children are placed upon horses to ride to the coast, about two kilometers away, where they undergo a purification rite.

The very small community of about 30 households along the beach where the children's purification rite has traditionally taken place was severely damaged by the tsunami. While some residential structures managed to remain standing, they were effectively left as empty shells with all household effects having been washed away. Because the *hamaori* ritual could not be conducted under such circumstances, the site for the children's purification rite in 2011 was relocated to a river that runs behind the shrine, with the festival being shortened to a single day. This is an example of how a natural disaster can eventually bring about change in or make changes inevitable for cultures that have been handed down locally.

Next, I would like to address a type of lion dance performance called *Shittogi shishi*, which in itself is part of the larger canon of the traditional *Kuromori kagura* songs and dances. These originated in Miyako City, Iwate Prefecture. Traditionally, these performances took place starting in early January each year, with troupes of dancers traveling to perform in surrounding villages. It was common practice for the dancers to be given overnight accommodation where they performed. The *Shittogi shishi* was a lion dance that the troupes of *kagura* dancers performed when arriving at their lodgings in the village they were to stay at each evening. Because a number of communities along the coast of Iwate Prefecture were struck by the tsunami, some of the accommodations traditionally used by the *Kuromori kagura* troupes were washed away. After the earthquake and tsunami, when people involved in this tradition in Miyako City were asked how they would continue the tradition without these lodgings, they suggested that, in the following year, houses still standing in the surrounding communities would be used for accommodations. I am inclined to believe that they would have to deal with similar situations in the coming years.

As a nation, Japan is a country that boasts a great many festivals, with numerous customs being tied in to both Buddhist temples and Shinto shrines. Indeed, the aforementioned *Kuromori kagura* song and dance troupes commence their tours each year by starting out from Kuromori Shrine. There is a strongly held tradition that if *kagura* is not performed during the Kuromori Shrine Festival, held in July each year, the song and dance troupes may not tour the surrounding communities the following year. So, in the immediate wake of the earthquake and tsunami in 2011, the thought on many minds was that every attempt had to be made to hold the Kuromori Shrine Festival *kagura* performance. If the shrine's festival itself had not been held, then the troupes would not be able to tour in 2012. Being very aware of these circumstances myself, in July of 2011, I frequently tried to gather information through the internet on what was being reported in the local newspapers of Iwate. I am very happy to say that the people of Miyako did manage to hold the Kuromori Shrine Festival as scheduled. I must say that I was very relieved when I found a newspaper article that reported on the performance of *Kuromori kagura*. We experienced a natural disaster whose scale was so large that houses were washed away by tsunami. However, it was not just the issue of the houses being washed away, but also the cultural impact of their disappearance that was the problem.

As I suggested earlier, considering the damage caused to folk cultural properties and the possibilities that this damage presents, this damage may be understood in terms of that which is visible and that which is not. Looking towards the future, I am inclined to believe that we shall need to pay more attention to the latter of these two categories. While

people quickly notice visual damage to props, equipment and facilities, they are much less likely to detect damage which is not apparent to the eye, unless they have a lot of experience or are specialists.

For example, when we witness a coastline transformed by damage, instead of considering the transformation purely in terms of the natural disaster, it is important to realize the impact that as these events will have on the aspects of culture with which it is involved. I believe that people who can determine aspects of cultural involvement of the locality after natural events will become more important in the future. In order to analyze the extent of this damage, basic data will be needed: because many citizens from the prefectures of Iwate, Miyagi and Fukushima were evacuated and subsequently had to live away from their local communities, it was deemed important to record the various cultural traditions that were passed down among the inhabitants in each area. In the few years following the 2011 earthquake, surveys were conducted on the passing down of traditional festivals, the performing arts and other events focusing on the coastal areas of the three prefectures. The data collected through these surveys has been publicized on the website of the National Research Institute for Cultural Properties, Tokyo. An effort must be made to become conscious of this invisible damage. Furthermore, steps must be taken to make these aspects of "hidden" cultural properties visible so that they may continue to be passed down from generation to generation in the future. The abovementioned survey to record local traditions was an attempt to make invisible damage visible.

As my final point in relation to intangible cultural heritage including festivals, events and folk performing arts is that they have regularly been carried out in accordance with a set of basic rules. These rules determine that they are conducted every year at a predetermined location by a predetermined group. Of course, small adjustments have been made as concessions to modern social change, such as events shifting from specific calendar dates to the closest available dates on weekend. However, folk performing arts have generally been dictated by basic rules regarding predetermined locations and predetermined groups. It is in their essence that they be conducted in a predetermined manner, and this in turn has shaped culture. The impact of earthquakes and the associated tsunami has clearly enforced change, hopefully only for the time being, on the basic rules of these festivals and events for them to take place at predetermined times, in predetermined locations and involving predetermined groups. This made us realize that maintaining these basic rules was an essential part of the of tradition.

There is the famous Gion Festival in Kyoto, which has the honor of being included on UNESCO Representative List of Intangible Cultural Heritage. Each year as the festival is about to begin, members of communities with *Yamaboko* floats gather and question how they would proceed with the festival that year. Those gathered would reply, "The same as every year." This marks the start of the annual festival. It was the experience of this past earthquake that we were made to realize the value of being able to undertake these folk performing arts, which have been passed down in different areas of the country in ways "the same as every year." I pray that the folk performing arts hit by the disaster return to being the "same as usual" very soon. That concludes my presentation. Thank you.

Case Report <Miyagi>

Restoration Efforts for Architectural Structures in Kesennuma City, Miyagi Prefecture

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My name is Hatano and I work for the Board of Education in Kesennuma, which is a city in Miyagi Prefecture. In today's presentation, I shall report on the recovery efforts for the cultural property buildings in Kesennuma that suffered damage as a result of the Great East Japan Earthquake.

Let me give you some basic information about Kesennuma. The city itself is situated in Miyagi Prefecture, located along the Pacific Coast of the Tohoku Region. Offshore are the Sanrikuoki fishing grounds, some of the most abundant in Japan. Historically, Kesennuma was a port town, with a great part of the modern city still focused on the fishing industry. In the port's innermost sanctum, there is an inner basin where smaller crafts can be tied up and anchored (Fig. 1). Furthermore, Kesennuma's historic nickname in Japanese is *kaze machikō* ("the port with the favorable winds"). This alludes to the brisk breezes that head offshore from the port. These winds traditionally assisted sailed vessels when they went out to sea. It has a magnificent scenery; even today it is possible to witness colorful small crafts literally filling the port's inner basin to capacity. Moving on with the presentation, I would now like to give a simple overview of the history of this port area of the city.

If we compare a historical depiction of the inner basin drawn during the Edo period (1603-1867) with a modern map, we can see that not much has changed with respect to the layout of the port. The way in which the old town was set out has remained mostly intact. Kesennuma's brisk breezes have also played a considerable role in the city's history. Indeed, they have contributed to many major conflagrations that periodically swept the town. In modern times, there have been two significant blazes. The huge fires of 1915 and 1929 both left what was then a modest township in almost total ruin.

Concerning the area that surrounds the port's inner basin, lessons were learned from the blaze of 1929, and at the time the area was the quickest within Kesennuma to participate in recovery efforts, such as the undertaking of an urbanization process. One outcome of the recovery efforts undertaken in response to the 1929 fire was that Kesennuma attracted skilled carpenters and tradesmen from

Fig.1: Inner basin of Kesennuma (Miyagi)

throughout Japan. This development in turn saw construction commence on a great variety of different buildings within the city. In particular, in addition to the construction of houses for tradesmen, which were built in a traditional style, there were also examples of what was known as Japanese classicism, contemporary Western-style buildings and advertising signboards, and other construction styles. All of these different inputs led to the creation of an eclectic townscape in Kesennuma whose architectural structures were overflowed with a sense of individuality.

Even before the Great East Japan Earthquake, the city had a group called the *Kaze Machi Kenkyū Kai* (a research group on local heritage; hereinafter called "Research Group"), whose members were architects, representatives of the local administration and other specialists. This group of volunteers conducted research on Kesennuma's townscape in the early Showa period (from 1926 to around the commencement of World War II), as well as researching other historic buildings within the city. The membership of this group also considered how to best incorporate these historic resources into the city's modern planning. Unfortunately, however, due to subsequent events, many of Kesennuma's historic buildings were washed away by tsunami. Some, however, did manage to survive, even if in damaged states. While many of the buildings that survived were nationally registered Tangible Cultural Properties, it is often the case that the shops and homes in which their owmers operated and lived are now in a horrific state. Even for people who wish to preserve their properties despite their damaged state, they often cannot find suitable means to do so. These realities have greatly shaken the feelings of owners. Highlighting such dilemmas, recently there was a building whose preservation the owner gave up on, despite the fact that the cultural property was in fact repairable. With this decision made, the demolition of the property went forward at public expense.

Moving ahead to the following year (2012), there were calls from some Research Group volunteers, members of the Board of Education, and others to preserve even just a few historic buildings for future generations. They felt that these endeavors would contribute to the city's recovery and additionally make a significant contribution to the future. With this in mind, efforts were commenced to preserve historic buildings. The Kesennuma *Kaze Machi Fukō Kentō Kai* (the "Kesennuma Favorable Winds Recovery Deliberations Committee") was established as an organization set to play a central role in supporting the restoration of cultural properties within the city. Throughout the city, this group has brought together specialists including architects, university academics, builders, town planners and tourism representatives. More than anything, however, it has secured the positive participation of some of the owners of the remaining damaged cultural properties. By traveling around the city and seeking to convince the owners of damaged buildings whose hearts were wavering between preservation and demolition, we have managed to secure decisions to seek to preserve six damaged buildings that are nationally registered as Tangible Cultural Properties. This was made through extensive negotiations conducted with recovery projects. I would now like to introduce one of these.

This is the main store of a sake brewer called *Otokoyama*, and it is a three-story building with a wooden structure. When originally registered as a cultural property, the structure was described as concrete-made reinforced with wooden spars. The

Fig.2: Otokoyama-store:before(left) and after(right) the disaster

store's external appearance was set off by a washed-mortar effect; with its parapet that somewhat resembled a crown, the *Otokoyama* building was an established local landmark in the immediate vicinity of the port's inner basin. However, due to the tsunami's sheer force, the first and second floors were almost surgically detached one after the other and washed away (Fig. 2). All that remained was what had originally been the third floor. Afterwards, it was decided that something should be done about the very tragic remaining sight. Nevertheless, while discussions were still taking place as how to best restore it, the building's condition was further deteriorating due to wind and rain. As an urgent response, a decision was made to launch some form of preservation initiative. Using a traditional method for relocating structures, the building's remnants were dragged back to occupy their original position. Next, to halt any further deterioration, the structure was wrapped in plastic sheets and a number of emergency repairs were carried out.

I would now like to discuss another example. This store is run by *Kakuboshi*. As with *Otokoyama*, discussed above, the property is the storefront of a sake brewer. The storefront's design is that of a traditional earthen fireproof storehouse. However, appearances can be deceiving. Rather than being of a real earthen construction, the building's cosmetic aspects were created using mortar. The force of the tsunami washed away the first floor, while the second floor was pushed backwards. What remained was left sandwiched up against a neighboring building. By again using a traditional method of relocation, the structure was dragged forward from the rear of the property and returned to where it had originally stood. The remnants are now undergoing a process of repair (Fig. 3).

Here we have a genuine traditional earthen fireproof storehouse that belongs to a company called *Onoken*. In this instance, the business in question is a fish wholesaler. This storehouse was also severely damaged, with the tsunami bringing water that reached the second floor. For your information, I should point out that a series of tsunami of approximately 6 meters in height were recorded in the vicinity of the port's inner basin. Anyway, work is now being done on the *Onoken* property to repair the storehouse walls using traditional plastering techniques. Furthermore, we have held open days at the restoration sites to highlight both the importance of these cultural properties and our ongoing efforts to restore them. Such events allow our citizens to appreciate what is happening. We have also held workshops where children can get their hands on the same earthen daub that is being used by the master plasterers involved in the restoration activities.

Next, there is the historic Chida family residence. Following the disaster, the owners decided to preserve it themselves. Situated on a corner block at an intersection in the vicinity of the port's inner basin, this three-story wooden building has a memorable external appearance, portraying the image of a ship. A land adjustment project has been

Fig.3: Kakuboshi store front under restoration (Miyagi)

brought into the area of the port's inner basin, featuring a program of infrastructure development, including raising embankments by re-plotting land; However, recovery in the area will still take time. Other measures will also be needed before a full-scale restoration of these cultural properties can begin in earnest. The Kesennuma Favorable Winds Recovery Deliberations Committee has received the cooperation of the city's tourist association and other organizations. Such cooperation has allowed for monitored tours to be conducted, targeted both at people engaged in the restoration efforts as well as at general tourists. Average citizens can now accompany their children to see and personally experience what is being done with respect to restoration work, focusing on the cultural properties found in the vicinity of the port's inner basin. The owners of cultural properties themselves act as tour guides and publicize the efforts we are making.

Domestic and overseas support has been forthcoming for cultural properties whose repair and restoration have been decided on. Groups that have kindly contributed include the Foundation for Cultural Heritage and Art Research, with its Project to Support the Restoring of Cultural Property-Listed Buildings Damaged by the Great East Japan Earthquake (the "Save Our Culture" or SOC Project), the World Monuments Fund, and others. With respect to the damaged cultural properties that were left largely abandoned, we were unable to carry out emergency repairs until the autumn of 2012, one year after the Great East Japan Earthquake. While cooperating with wider recovery efforts, restoration proposals have been prepared for cultural properties based on instructions received from the Agency of Cultural Affairs, the Miyagi Prefectural Government and other specialists such as architects. Furthermore, as a considerable amount of time may elapse before full-scale restoration efforts can start in earnest, measures are being employed to keep these damaged cultural properties under surveillance and to ensure that they are not forgotten. We are also undertaking monitoring tours and other events to promote public awareness.

As for the current situation, I would like to discuss the efforts to restore the *Kakuboshi* storefront. The *Kakuboshi* storefront's city block is one of the first to undergo a program of infrastructure development within the vicinity of the port's inner basin. Furthermore, full-scale construction restoration efforts are planned to begin in the fiscal year 2015. A team of design specialists has been established within the Kesennuma Favorable Winds Recovery Deliberations Committee. They have researched the structure and materials of the original building's second floor, by collecting old photographs and records and by interviewing the building's owner. This group of volunteers has progressed very far, creating images of the restored *Kakuboshi* storefront and developing basic design plans. The whole city block is being developed with a focus on the *Kakuboshi* storefront and its status as a cultural property. It will feature shops with common features well as the reconstruction of individual businesses.

Finally, what has become clear to us through our activities, both in surveys of historic buildings that were conducted prior to the disaster and in our proactive use of cultural properties in urban planning, is the importance of human networks. Be they groups established for the purpose of ongoing preservation and inheritance of local cultural heritage, or be they organizations who coordinate and cooperate with entities and local municipalities engaged in urban planning issues, these networks of people are very important. Indeed, in the future we may well find that such groups and the relationships we enjoy with them become the most important issue of all. Not only in periods of relative calm but also in times of disaster, I think there is a strong case for the need of systems and structures that allow for mutual cooperation and support. I believe it will also become even more important to develop wide-ranging networks that are capable of protecting cultural heritage from the major disasters that come in the future. Moreover, rather than solely focusing on the argument that cultural heritage should and deserves to be preserved, it is also important to connect it to the areas that surround it, and also to undertake measures to use cultural heritage within the context of urban planning activities.

The road to full recovery in Kesennuma is still a long and arduous one that shall no doubt take many years to complete, so I humbly request your sustained support for the city in the future as well. You have a site visit to Kesennuma tomorrow, and I look forward to seeing you all there. Thank you.

Case Report <Fukushima>

The Current State of Conservation of Cultural Properties in Fukushima Prefecture

Takaaki Tanno
Culture Division, Fukushima Prefecture Board of Education

As is well-known, the prefecture of Fukushima experienced a great deal of damage due to the events connected to the Great East Japan Earthquake. The damage experienced by Fukushima resulted from three distinct causes: the earthquake itself, the resulting tsunami and the subsequent radioactive contamination that was brought about by a series of nuclear power plant accidents. Even today, many of my fellow Fukushima citizens remain evacuated from their homes, and they have been forced by circumstance either to live in other areas of the prefecture or to relocate to places beyond its borders. Despite these circumstances, the situation in Fukushima is undoubtedly improving due to the great domestic and overseas support over the last four years. Despite the numerous issues that confront us, little by little we have been making headway. The same could be said about the recovery of Fukushima's cultural properties and about our efforts to "rescue" disaster-stricken items. Through the kindness of numerous people and their great desire to get involved, we have been the recipients of a great amount of support. I speak to you today keeping an overwhelming sense of gratitude in mind that I feel for all that we have been provided with.

The prefecture itself is large, comprised of three regions: Aizu, Nakadori and Hamadori. Of these three, the region most damaged by the events of the Great East Japan Earthquake was Hamadori. Certain areas have been designated as "Difficult-to-Return Zones." Access to these areas remains highly restricted; they may not be entered freely. In the immediate aftermath of the earthquake and its associated events, there was another classification put in place called the "Restricted Zone," which extended out from the Fukushima Daiichi Nuclear Plant for a radius of 20 kilometers. Initially, access to this Restricted Zone was also highly limited. We are still moving forward with plans to rescue stranded cultural properties, which I shall discuss this in greater detail later.

Next, I would like to provide some information about the damage to designated cultural properties in Fukushima Prefecture caused by the Great East Japan Earthquake. Currently, there are 295 cases of damage. This figure is the combined total of cultural properties designated at the national, prefectural and local municipality level. As for the given combined monetary value of the damage caused to the various classes of cultural property, they are official figures developed by Fukushima Prefecture in 2011 through research conducted just after the earthquake. At the time, there were 82 cases of damaged nationally designated cultural properties. The monetary value attached to this damage was estimated at roughly JPY 4.2 billion. As for prefecture designated cultural properties, there were 66 damage cases with a projected total monetary value

Fig.1: Bodhisattra Kannon (Minanisoma City)

Fig.2: Former Fukushima-Jinjo Middle School (Kōriyama City)

of JPY 600 million. Meanwhile, there were 147 cases of local municipality designated cultural properties, amounting to JPY 500 million of damage. Particularly, severely damaged were designated historic buildings, of which damage to castles was notable. As for the percentage of damaged cultural properties that have been repaired, 77% had undergone restoration projects as of November 2014, and I believe this figure will have climbed to 80% as of March 2015. This does not mean, however, that complete restoration has been achieved in every instance. Indeed, within these figures there are also cases where complete restoration proved impossible and instead, some alternative form of response was carried out as a protective measure. In fact, among the damaged cultural properties that were nationally or prefecture designated, there were approximately 24 cases where instead of recovery measures, treatments sometimes involving dismantlement were taken. For example, this is a stone-carved relief of the Bodhisattva Kannon in Odaka Ward of Minamisoma City. Although the Buddhist relief itself was not severely damaged, the shelter building collapsed completely (Fig. 1). Restoration of the protective building has been started and it is projected to be restored to its previous state by the end of the current financial year.

Next, we have the former Fukushima-Jinjo Middle School in Koriyama City. This is a very interesting building that represents a prime example of the architectural styles employed for middle schools in Meiji Japan (1868–1912). The school building which has been used as a film location was hit by the earthquake; all of the internal stucco walls collapsed and the building itself suffered great structural damage (Fig. 2). Nevertheless, we were able to complete the restoration process on September 26, 2013.

This is a Fukushima Prefecture-designated cultural property called Kankaidō, and was historically significant because it housed the first elementary school opened in the prefecture. The building itself also has a special place in the hearts of the townspeople. However, the tsunami that struck after the earthquake swept almost all of its traces away leaving only the foundations remaining (Fig. 3). To

Fig.3: The site of Kankaidō (Shinchi Town)

Fig.4: Damege of the site of Komine Castle (Shirakawa City)

Fig.5: Recovery of the site Komine Castle (October 2013)

Fig.6: Recovery of the site of Komine Castle (March 2015)

complicate matters, the area's post-tsunami redevelopment involves land raising. Discussions are ongoing between the Fukushima Prefecture Board of Education and the local township regarding this cultural property.

The next example relates to a topic that came up earlier. Namely, I'd like to focus on the situation surrounding the site of the former Komine Castle in Shirakawa City where the front stone wall completely collapsed following the earthquake (Fig. 4). The areas that had been restored in 1969 employing modern concrete had all fallen. The task on this occasion involved members of Shirakawa City's Board of Education identifying each individual stone and its position in the original structure. Work was then done to replace the stones one-by-one to their original positions in order to recreate the wall. The work progress can be traced in photos taken in October of 2013 (Fig. 5) and more recently (Fig. 6). They were able to employ traditional masonry techniques to return the individual stones to their original positions in restoring the front stone wall.

Moving on, I would like to focus on non-designated damaged cultural properties. A rescue organization called the Headquarters to Support Fukushima's Damaged Cultural Properties was established on May 15, 2012. The Great East Japan Earthquake occurred in 2011, and it was finally in 2012 that these activities could be launched. This does not mean that we were not engaged in any rescue activities at all in 2011. Rather, the different specialist organizations within the prefecture frequently contacted one another to exchange information, carrying out numerous emergency rescues of cultural properties and other objects. It was not until the following year, 2012, that we were able to give form to these initiatives through the establishment of the aforementioned organization. Concerning the time it took for such a systematized approach to be initiated, perhaps our response may seem to have been rather slow. However, the true reality of the situation is much more complex in its details. I would now like to explain these matters.

As have been indicated earlier, all of the area's residents of the Restricted Zone that was imposed across the prefecture's Hamadori Region were

Fig.7: Rescue operation in Tomioka Town (1)

Fig.8: Rescue operation in Tomioka Town (2)

Fig.9: Rescue operation in Tomioka Town (3)

Fig.10: Rescue operation in Futaba Town

Fig.11: Student volunteers

Fig.12: Temporary storage facilities

Fig.13: Communlty Center (Tanshio District)

Fig.14: Evacuating Village Picture survived (Tanshio District)

evacuated. As a result, all museums as well as other public buildings and houses within the Restricted Zone had to be abandoned with no residents in the area. There were serious concerns that the objects left in museums within the area would continue deteriorating as time went by. However, the Fukushima Prefectural Government had no previous experience to support the idea of actually trying to enter the Restricted Zone for rescuing these items. In fact, at that time there was no information available at all about the impact of the prevailing radiation levels upon the human body. At the prefectural level, they were still working to decide what evidence to base these matters on and to finalize the framework for selecting this evidence. Against this backdrop, by obtaining access to a great variety of data, the Tohoku Pacific Offshore Earthquake Damaged Cultural Property Support and Rescue Committee undertook detailed research and analysis as how to best act given the circumstances. The committee was originally established in 2011 by Iwate, Miyagi and Fukushima Prefectures to promote the rescue of cultural properties from a wide-ranging area, and one of its tasks was to determine whether or not rescue operations were possible within the contaminated areas of Fukushima.

Having obtained the opinions of specialists on the data of specific radiation measurements drawn from within the Restricted Zone and also having established specific operational guidelines, the committee was finally able to consider the possibility of undertaking work within these areas. This groundbreaking work by the committee proved to be a game changer for Fukushima Prefecture with respect to its cultural property-related activities within the Restricted Zone. Additionally, we were fortunate enough to receive great assistance from Dr. Kamei, who served as the chairperson of the support and rescue committee, as he made approaches on our behalf to all the related organizations under his control. He resolutely declared that, “It is safe to execute rescue cultural properties within the Restricted Zone, and we would like to ask for the cooperation of organizations that are able to participate.”

It was against this backdrop that the prefectural rescue and support headquarters finally made a decision that would allow these activities within the Restricted Zone. This decision was made on May 15, 2012. Following these developments, actual work within the Restricted Zone commenced on August 1. During the course of the year 2012, about 323 people participated in a series of activities in the Restricted Zone for a total of 21 days. We are grateful that to have had the participation of 18 organizations including the National Research Institute for Cultural Properties of Tokyo; the Tokyo National Museum, the Kyushu National Museum and the Agency for Cultural Affairs.

In the following year, 2013, both the activities of the Fukushima Prefectural Museum of Art and the Fukushima Historic Materials Network were brought into the prefectural rescue and support headquarters, further completing the activities of Fukushima Prefecture's own rescue and support organization. However, after its activities in 2011 and 2012, the Tohoku Pacific Offshore Earthquake Damaged Cultural Property Support and Rescue Committee was disbanded, and there was certain degree of uncertainty as to whether activities could proceed beyond this point through the efforts of Fukushima-based organizations alone. Nevertheless, we received support through the offices of the Agency for Cultural Affairs and the National Institutes for Cultural Heritage, and for a limited time a new organization called the Rescue and Support Office for Damaged Cultural Properties within Fukushima Prefecture was established. It was through this development that these national institutions continued their support of Fukushima Prefecture.

I would now like to discuss some of the activities that have taken place in the Restricted Zone. One example is the structure of the Tomioka Town Art & Media Center housing the historical museum of Tomioka town. In addition to being architecturally magnificent, this building was constructed in a manner that incorporated an ecological system into sections of the roof, allowing for rainwater capture and usage. Unfortunately, however, the tanks holding the rainwater were ruptured by the earthquake, and this resulted in the accumulated water leaking out into the building. To further complicate matters, the leaking rainwater had been contaminated by radioactive substance, and this in turn meant that contamination had spread inside the building. Indeed, the level of radiation to be confronted was rather high. As may be appreciated in the photos, staff members wore protective Tyvek suits (Fig. 7). The maintenance of sufficient safety was a constant consideration when working in these areas.

This photo (Fig. 8) shows the removal of a painting that had hung in the entrance lobby of the building. When removed, the work processes proceeded while sufficient care was taken for safety. The picture's radiation levels were measured. Much packing work was done in the collections storage, which amazingly spared the combined threats of radiation contamination and mold infestation (Fig. 9). Staff members from the Fukushima Prefectural Museum of Art were hard at work in Tomioka, packing works of art for transportation.

Materials of the collection at the history and ethnology museum in the town of Futaba were also packed (Fig. 10). After the radiation was measured, an information card was made, and later, each individual record was digitalized. Objects were then packed and removed from the museum. They were dispatched to the classrooms of the closed Soma Girls High School, which is situated in a low radiation area and was provided as a temporary storage location for these materials. Corrugated boxes were used to mask windows to prevent sunlight from entering the rooms, so that the interior environment could be kept stable.

Student volunteers also worked hard in this effort (Fig. 11). I would like to say that the students studying history at Fukushima University made a wonderful contribution to our activities. Of course, both Professor Koichi Abe and Professor Yoshio Kikuchi acted as a driving force, getting their students involved in non-restricted areas. Nevertheless, these young volunteers were also able to play an active and important role that helped us greatly. Finally, I would like to report to you that temporary storage facilities for these materials have been constructed on the premises of the Shirakawa Branch of the Fukushima Cultural Property Center (Fig. 12). The recovered materials are being transported to this facility, and once there, they can be stored in a stable environment for perhaps quite a while. Initially, two buildings were erected in order to accommodate these materials, each with a floor space of approximately 200 m^2. However, it has become apparent that the space provided by two buildings alone is not sufficient to meet the demands, so a total of four buildings have been completed. At the same time, we have been planning and conducting special exhibitions to provide chances for people who were forced to evacuate from their homes to

see these recovered materials. To date, we have held three special exhibitions.

A list of all the materials recovered from museums within the Restricted Zone in three townships—Futaba, Okuma and Tomioka—tells us that we have recovered 2,874 cardboard boxes of archival materials and other objects from the three towns. In Futaba there are still some 60 boxes of material. Among what remains in the towns are large items that cannot be readily removed. Meanwhile, one item remains in Ōkuma. It was left there because high radiation levels were detected when it was checked using a dosimeter.

Activities also took place in locations other than historical museums and archives. One example comes from the community center of the Tanashio District, which is located along the coast of Namie Township. Inside the community center building was a picture depicting Tanashio Village during the Meiji period. This picture had been left behind. However, in response to strong requests from local residents to recover it, a rescue mission was carried out. Although the exterior of the building remained, the force of the tsunami had shattered all the windows. Basically everything on the first floor was carried off by the water (Fig. 13). Miraculously, however, the prized picture remained hanging near the second floor entrance. The photo (Fig. 14) shows the picture being carried out. I believe this one photo well represents or rescue activities. In the background there is a waiting truck, but in the foreground it is human labor at work, guiding the picture on its way to safety.

Concerning all these rescue activities, they were made possible through the efforts of the Agency for Cultural Affairs and the National Institutes for Cultural Heritage, and through the great many organizations that kindly stepped up and participated. About 760 people participated in our activities between the years of 2012 to 2014, and that total figure does not include members of the Fukushima prefectural office. We have been truly moved by the generosity and level of support of people who offered to cooperate and actually participate in our rescue efforts.

We always took group photographs each time a series of rescue activities ended (Fig. 15). As records of activities that have been carried out in Fukushima, I believe that these photographs will become a very important treasure. Our rescue efforts will continue in the future. We will be very grateful for your continued support and cooperation. Thank you very much for your attention.

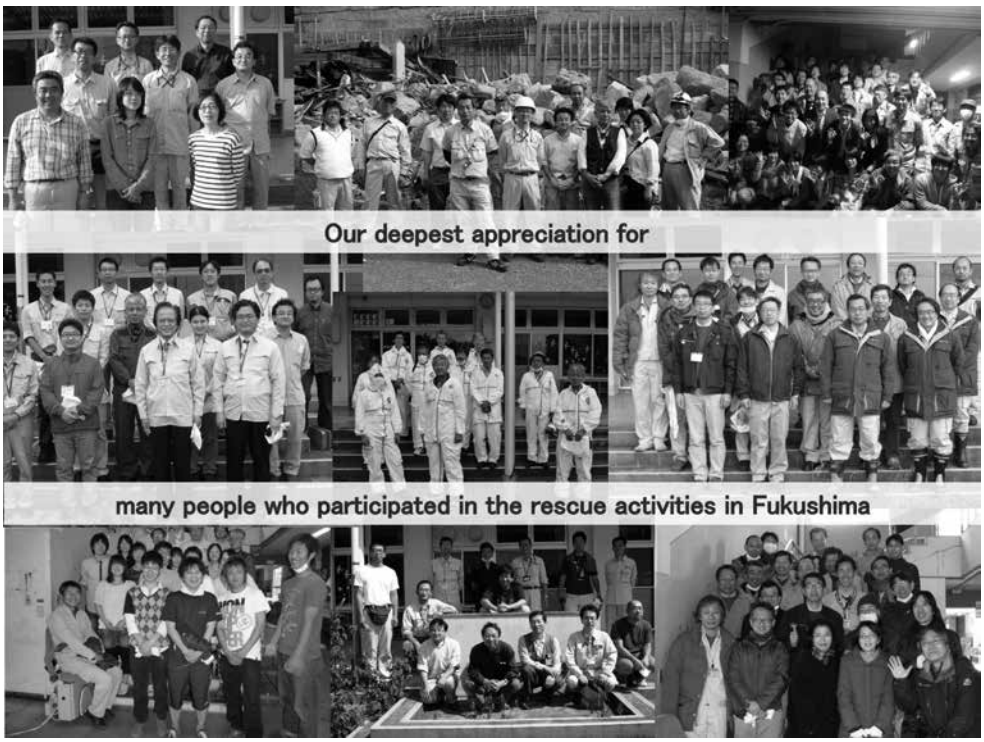

Fig.15: Thanking everyone for their Support

Case Report <Fukushima>

Management of Cultural Properties Located in Radiation-Contaminated Areas

Chie Sano
Head, Conservation Science Section,
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At the National Research Institute for Cultural Properties, Tokyo (NRICP), there are a few of us researchers in the natural sciences who have specialized knowledge of radiation, and we discussed amongst ourselves how to best handle cultural properties from the previously restricted zones in Fukushima as part of the cultural heritage salvage effort. We did not, however, foresee a situation in which the environment would be contaminated by radioactive substances. Because of this reality, in the fiscal years 2012 and 2013, we at the NRICP-Tokyo started up an emergency project to deal with radiation and cultural properties. As part of this project, we sought collaboration from researchers at museums as well as academics in conservation science, and specialists in radiation and radiation protection, and we had them specify the guidelines on how to work safely.

Let me first explain how the radioactive matter moved when it was released into the atmosphere with the 2011 Fukushima Dai-ichi Nuclear Power Plant accident. The building collapsed due to a hydrogen explosion, and its remains were scattered around. The radioactive substance iodine 131 mixed with the atmosphere and was diffused. The formed droplets, that were slightly larger clusters, stayed relatively close and probably fell within the grounds of the Fukushima Dai-ichi Nuclear Power Plant. Cesium 134 and cesium 137 gasified because of the heat; others of a certain size remained close by while smaller ones mixed with the atmosphere and went around the earth.

When it rained, all of this fell to the ground, and this is how the Fukushima Dai-ichi Nuclear Power Plant contaminated the soil. Part of the cesium that was released into the atmosphere locked solidly into the clay contained in the soil. It is estimated that approximately 70% immediately attached itself to the clay. The rest spread as cesium ions or spread by being absorbed into organic material, and in the end it locked into the clay by moving with water. It stayed in the topsoil and in places that were relatively close to the surface of the earth, and sometimes it would fly up into the air when the wind blew. The Fukushima Dai-ichi Nuclear Power Plant soil was covered with a scattering inhibitor—a measure taken so that the contamination would not spread beyond the area that was severely contaminated.

We conducted these rescue activities in the towns of Futaba-machi, Ōkuma-machi, and Tomioka-machi, located close to the Fukushima Dai-ichi Nuclear Power Plant. The cultural heritage salvage activities we conducted in Fukushima comprised carrying cultural properties left behind in museums to these three towns, away to locations where they could be taken care of. The crucial work was to decide on the rescue procedures for these cultural properties. Our first aim was to protect the workers according to the guidelines published by the International Commission on Radiological Protection (ICRP) in 1990, so that their health would not be harmed. Luckily, Japanese museums are built of concrete for fire prevention, and this concrete turned out to be a good buffer. At the preliminary research stage in 2012, we discovered that even for museums within the former restricted zones, the radiation dosage indoors was very low, so we could work inside the museums.

Another very important aim was not to spread the contamination caused by radioactive substances. Cultural heritage objects are a public asset, and we needed to make sure that they would be in a state in which anyone could touch and make use of them without fear of contamination. So we thought that we needed to prove that they were not contaminated. For that, first we determined a standard value for removing items and we decided necessary its procedures. We also considered establishing advance how to decontaminate in case we found objects that were contaminated.

When deciding on the standard value, we first followed the example of Japan's domestic law, "Act on Prevention of Radiation Disease Due to Radioisotopes." We decided to deem contaminated any material whose surface value of contamination exceeded a certain amount. The value was expressed in legal terms as "exceeding a tenth of the limit of

surface contamination concentration." Cesium 134 and cesium 137 still remained when we were conducting the rescue activities, but these were isotopes that stabilized by releasing beta and gamma rays. The limit of surface contamination concentration was 40Bq/cm^2 and a tenth of the value of that was 4Bq/cm^2. We made it a rule that anything that did not exceed this value could be removed. Another thing we considered as our basis is import and export limitations. At the time, many foreign countries were requiring contamination examinations of the surface of any imported products from Japan. We referenced the restricted values for these and the value at which an import would be rejected. We decided to use the GM-tube style survey meter with a 50 mm diameter probe, which the Ministry of Education, Culture, Sports, Science and Technology had approved for use in examinations. We converted the values according to the unit conversion methods posted by the National Institute of Advanced Industrial Science and Technology, which established the standard value at 1300 cpm including the background. Then, we measured the material surfaces using the GM-tube style survey meter and decided that we would remove from the restricted areas only material that did not exceed 1300 cpm.

Before beginning the removal work, we also conducted preliminary research to measure the radiation dosage in the air and confirm that we could work indoors. We educated and trained all of the workers on how to measure surface contamination levels, on the basics on radiation, and especially on protection against radiation. During the actual activity, we wore disposable gloves, masks, shoe covers, and when necessary, protective clothes to prevent ourselves from being exposed to radiation. In addition, we wore pocket-sized dosage counters and glass badges to monitor individual exposure dosage. Locally, we first measured and recorded the dosage in the air, and measured and recorded this for all materials one by one (Fig. 1, time constant 10 seconds, measured three times over 30 seconds, judged by the average value). We confirmed that the value did not exceed the standard value; anything that measured above that, we deemed to be contaminated and left it there.

Fig.1: Measurement in the Tomioka town museum

Looking at the results of the contamination level measurements for all of the materials that we removed (Fig. 2), Tomioka had none that exceeded the standard value, and there was only one such item from Ōkuma. This was a wooden mortar con-

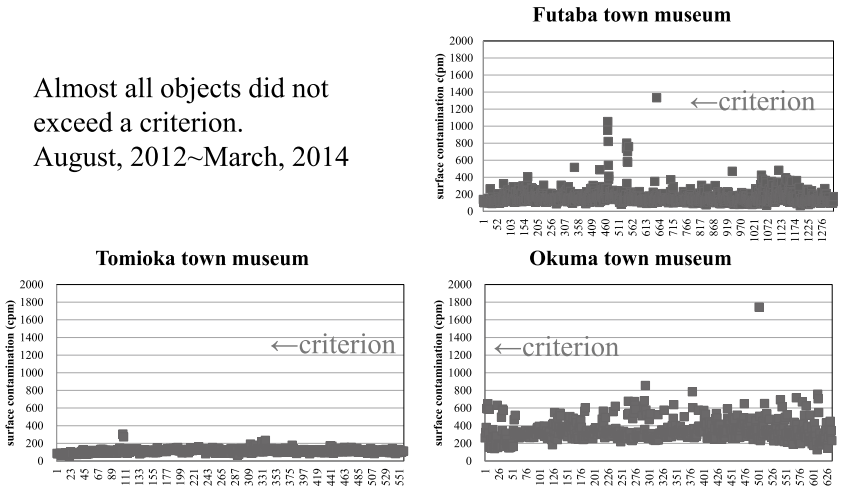

Fig.2: Results of surface contamination measurement

taminated by water that had leaked through a vent fan attached to the outside wall. What exceeded the standard value in Futaba were clay vessels. The Futaba museum had kept some artifacts with lower environmental sensitivity in a separate location outside, but these were all contaminated by flooding. Ultimately, we left behind eleven items.

The amount of daily cumulative radioactive dosage for the workers was not very high, at 2–9 microsieverts. There were relatively low dosage amounts in Tomioka and Futaba, and slightly higher in Ōkuma. When work involved physically removing objects, much was carried out in the exterior, outside so the numbers became a little higher. The exposure dosage per day in Tokyo is about 1 microsievert, and Japan's annual average is 2100 microsieverts. Compared to these values, the exposure dosage of the rescue workers was not particularly high. We can say that we were able to keep to the level recommended by the ICRP in 1990.

Concerning decontamination, since cesium locks itself into the clay, we thought that we might be able to rid contamination if we removed the dust on the surface of the material. For objects stored outdoors in contaminated containers (such as vinyl bags or boxes), unless the container was of historical significance—in which case it would need to be set aside—the contamination level could be reduced by changing out the external cover. We decided not to wash the materials with water, as that could lead to spreading radioactive dust inside the museums.

We also considered the possibility of preserving the material by, instead of actively decontaminating, simply monitoring the reduction of radioactivity while managing the objects according to legal regulations. We tested methods of decontamination. We carried an oil painting that used to hang in a community center to the museum. The center's door had been broken, and the center was full of dust and fallen leaves that had blown in. We also asked Futaba to entrust to us a partition screen that stood in the entrance hall of an ordinary residence, and we removed it. For both of these objects, we measured the surface contamination value and removed them after confirming that they were not greatly contaminated.

As for the cleaning, we repeated a procedure of holding a cleaner nozzle close while gently brushing off the dust with a soft brush. After the first and the second cleaning the surface contamination level eventually decreased (Fig. 3). Using glass containers as hypothetical objects to be decontaminated, we experimented with different methods of decontamination. We tried a soft brush, a hard plastic brush with a cleaner attached to it, and wiping down with water, and we found that a hard brush takes off most but can damage the surface, so the durability of the surface is something that should be assessed by a specialist before removing dust with a hard brush. How to use the tools is a critical technical issue.

The cultural properties that were rescued were shown in an exhibition that was visited by many of the residents. I believe that the historical materials from their hometown can help to give psychological grounding to those who still are in a state of evacuation and cannot return to their homes.

Oil painting left in the community center broken

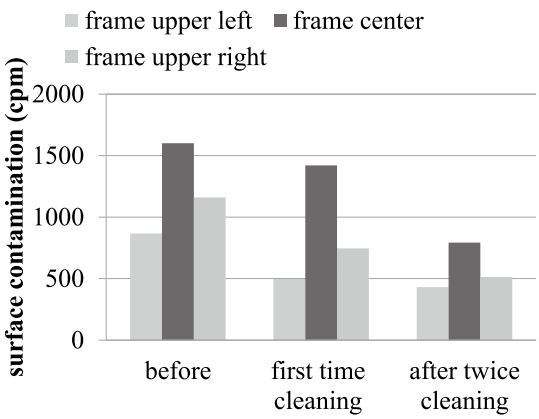

Fig.3: Radioactive dust removal test for oil painting

Future Prospects: Developing Networks for Cultural Heritage DRR

Yuji Kurihara
Secretary General,
National Task Force for the Japanese
Cultural Heritage Disaster Risk Mitigation Network, NICH

My talk will focus on mitigating disaster risk to cultural properties and what to do to improve our system.

The Agency for Cultural Affairs' Disaster Prevention Operating Plan states that when an emergency disaster occurs, an "Agency for Cultural Affairs Emergency Disaster Headquarters shall be established." But as was mentioned earlier, the Committee for Salvaging Cultural Properties Affected by the Great Tohoku Region Pacific Ocean Earthquake (2011) was disbanded as of March 2013. In other words, it was only in existence for two years. We, on the other hand, thought that it was necessary to maintain such an organization in regular standing, so in July 2014 we created a "National Task Force for the Japanese Cultural Heritage Disaster Risk Mitigation Network" (TF for CH-DRM Network) within the National Institutes for Cultural Heritage (NICH). For the time being, this is being financed through a grant from the Agency for Cultural Affairs. The network itself is not yet established, as we are still in the formative stages of development.

As you know, Japan's cultural heritage objects are concentrated in the three cities of Kyoto, Nara, and Tokyo. That is one of the reasons why there are national museums in Tokyo, Kyoto and Nara. We are planning for the Tokyo National Museum and the Tokyo National Research Institute for Cultural Properties to become the headquarters for disaster prevention and rescue for national heritage objects in eastern Japan. Of course, we will continue with our rescue efforts of cultural heritage items in Fukushima. In 2020 we plan on opening a National Ainu Museum in Hokkaido.

For Kyoto and Nara, we are planning for the Nara National Museum and the Nara National Research Institute for Cultural Properties to be the centers for protecting cultural heritage objects of the Kansai region, and we will have the Kyushu National Museum be the protector of the cultural heritage items in the Kyushu region and beyond. However, a mere six institutions cannot cover all of Japan. We are planning on building the network by linking up and collaborating with other organizations and people, including local historiography networks.

Another institution that you may not have heard of before is one called "Work Experience Center for Youth," which was built by the Ministry of Health, Labor and Welfare. It failed as an experiential facility, however, and now been closed and stands empty. It was handed over to Kyoto Prefecture for free by the national government, and they are now considering how to make use of it. It is a solidly built facility right between Kyoto and Nara, so we jumped on this and have rented part of it. We are considering whether we can use this in the future as a salvage headquarters or perhaps as a temporary storage space in the case of a disaster such as an epicentral earthquake hitting Kyoto or Nara, where many cultural heritage artifacts are concentrated.

In eastern Japan, there is a vacant lot that used to be a US base near Tokyo. We are also considering building a salvage headquarters for eastern Japan there. We have received a five-year subsidy from the Agency for Cultural Affairs, with which we started the TF for CH-DRM Network. Our director is serving as the head of this task force, in which seven organizations under the auspices of NICH are collaborating. In addition, we have hired thirteen junior researchers in charge of disaster prevention at each of the facilities as network staff. These researchers are on multi-year contracts, and we are relying on to their hard work to build this cultural heritage disaster prevention network.

Let me briefly describe our enterprise and lay out our three aims. The first is to create a nationwide system for disaster preparation and rescue; the second is to develop and conduct research on the ongoing cultural heritage disaster prevention and rescue. As the third, we aim at building capacity, especially among younger researchers, in disaster prevention for cultural heritage.

Let me explain our operational plan in a little more depth. In reality, disaster prevention operations are not clearly positioned within NICH's mid-range goals or mid-range plans as an independent

administrative institution; it is necessary to incorporate this clearly into our operations from now on. First, we must collect information on DRM and the rescue of cultural properties from all over Japan. In addition, in case a disaster happens in multiple regions, we want to be able to reliably direct efforts, offer advice, and offer training in DRM and rescuing cultural heritage.

This is our fourth aim: as Chie Sano of the Tokyo National Research Institute for Cultural Properties, explained in detail earlier, we should conduct and develop further research on how to conduct emergency care, stabilization, and reconstruction of affected cultural heritage items based on conservation science.

As the fifth aim, we would like to build a network for cultural heritage disaster risk mitigation and rescue in case of emergency situations. We have the experience from Great East Japan Earthquake, but when we look back, we see that things did not go as well as they could have in some cases. We must use this experience as a lesson to properly consider what kind of network to establish for the future, including how to collaborate with the government and NGOs.

The sixth aim is international collaboration concerning disaster risk reduction and the rescue of cultural heritage artifacts. Using opportunities such as the UN World Conference on Disaster Risk Reduction, we are planning to develop international collaboration while gaining a varied and deeper perspective from abroad.

Next, I will introduce what we have accomplished this past fiscal year. First, as NICH cannot build such a network operation alone, we aimed for a system that involves all of Japan, one that can deploy swift rescue activities of cultural heritage items in case of an emergency situation. Towards that goal, we have collaborated with many national academic associations such as the Japanese Association of Museums and The Japanese Council of Art Museums, national organizations such as the National Museum of Art, the National Museum of Nature and Science, the National Diet Library, and the National Archives of Japan, and representatives of various specialist organizations all over Japan. Aiming to build this as a permanent structure, we have established "Committee for the National Task Force for the Japanese CH-DRM Network," with two meetings within the fiscal year.

In addition, there are currently over twenty networks established all over Japan for historical documents, and they held their first national meeting early last month. We think that it is important to build a national system for disaster prevention of cultural properties, even in places that do not have a national facility, by holding national meetings of these historical document networks on an ongoing basis or to work collaboratively with the private sector to build a system of response. As Yohsei Kohdzuma of the Nara National Research Institute for Cultural Properties explained to us yesterday, we are aiming to have all curators learn scientific conservation knowledge such as emergency care of affected cultural heritage objects, including how to use a vacuum freeze dryer, by holding special trainings on preserving cultural heritage objects.

We also held the "National Task Force for the Japanese CH-DRM Network Experts Meetings." As opposed to the Committee, which is a network of organizations, this was set up as a conference of individuals working at the forefront of their fields, who are in a better position to deliver a wide range of opinions. Many of them have their own unique viewpointss, so we can keep working with a sense of urgency while being whipped into shape. We just held the first meeting on March 10. We would like to continue our development through leveraging such occasions as well.

In addition, we held a symposium at the Tokyo National Museum on March 11, which unfortunately overlapped with this meeting. We are holding a special exhibition entitled The Great Tsunami of March 11, 2011, and the Restoration of Cultural Properties at the Tokyo National Museum until the day after tomorrow. At the same time, we are holding a symposium, which we have made efforts to advertise to those coming to the exhibit, including general visitors.

Finally, our largest operation of this fiscal year for the CH-DRM Network is, in fact, this meeting. While we are currently grant-funded, we would like to develop our network as a permanent entity within the NICH in the future. I would like to ask for your support in that endeavor.

For the following fiscal year and beyond, we will continue to discuss what is needed to keep expanding the CH-DRM Network and for building a comprehensive DRM system for cultural heritage. We also consider it necessary to build a database that includes hazard maps with information about the locations of cultural properties, areas of disaster risk, and how far the damage might reach. We are looking at developing this database over the long

term, because it cannot be done within one year.

It is also crucial that we not only conduct cultural heritage rescue activities as we have been doing, but also to pass on our experiences to others. People in charge change over time, so we must make sure not to be complacent about passing on our expertise to future generations. Other issues we need to deal with are how to ensure that these salvage centers that I mentioned earlier function. I believe that Japan the country with the biggest number of museums devoted to the commemoration of disasters. A cursory look shows that there are more than forty disaster commemoration museums and disaster prevention museums. Museums concerning volcanoes have already organized a committee. I think that different and new knowledge can be gained if these facilities form networks.

Another thing we need to do is to continue disseminating information internationally through international forums. Specialists already know this, but for some non-specialists in the audience I will mention that there is an international framework called the Committee for the Blue Shield. This is a joint body comprised of the international NGOs that include ICOM, IFLA, ICA (International Council on Archives), ICOMOS , and CCAA (Coordinating Council of Audiovisual Archives Associations). They originally began as a framework to protect cultural properties in times of armed conflict based on the 1954 Hague Convention, but they have also decided to leverage the network for the times of natural disaster and various other activities. There are no countries in Asia that have established a national committee so we must also start planning for participation in activities with the Blue Shield. And there is actually an ulterior motive. All of these five international organizations have related organizations in Japan. We are thinking, however, that if we can encourage the so-called MLA collaboration (museum, library, and archives) within the framework of Blue Shield activities, we might be able to encourage domestic collaboration as well. We are planning on holding a research group in Fall, so I would like you to keep this word “Blue Shield” in the back of your minds.

I would like to advertise one more thing. We are bidding to hold the 2019 ICOM General Conference in Kyoto. If we are able to hold it, this should help increase international collaboration concerning CH-DRM through ICOM. The Eighth World Archaeological Congress (WAC-8) will be held in Kyoto in 2016, the ICOM meeting in 2019, and the Tokyo Olympics and Paralympics will be held in 2020. Japan is hosting many cultural and sports-related international meetings in the next five years. If they also help us to bring more specialists of CH-DRM to visit Japan, this will also contribute to broadening the international network.

While continuing to collaborate with all of you around the globe, we would like to keep encouraging the building of the CH-DRM Network in Japan. Thank you very much.

Discussion

[Facilitators]
Kumiko Shimotsuma, Toru Tateishi

Stefano De Caro:
I would like to congratulate you with the impressive job that has been carried out in such difficult circumstances. And you have offered once again an outstanding example of resilience which is very impressive. I have two questions and one observation.

I will start with the observation. The observation is about Yoshio Negita's presentation on archaeology. It's impressive that the work has been conducted in such difficult circumstances, and that it is being conducted as a regular administrative job, because you have a law that enables preventive archaeology. And the fact that there is a total of as many as 6,000 specialists in archeology working under local governments is impressive, too. It means that you are at the highest standard of the archaeological protection.

For this reason, I would suggest that you call this not "rescue archaeology," but "preventive archaeology." Rescue archaeology is a terminology which comes out from the bridge system, whereas the Valletta Convention and the European conventions deal with preventive archaeology. Rescue archaeology, in fact, is also commercial archaeology or salvage archaeology and it is archaeological work conducted for discoveries by chance at endangered sites; whereas, what you do is the normal assessment and evaluation of projects in case of excavations, which is preventive archaeology. It also includes the discovery of hazardous and rescue excavations.

So I think that what you do is more in line with preventive archeology, which is very, similar to the public work on preventive assessment, such as impact evaluation for natural disasters.

Next, my two questions are very simple. Question 1. Nobuo Kamei's keynote speech showed how that, great earthquakes and great tsunamis are concentrated on a not-so-long section of the coast. Do you think that there will be a long-term land use assessment? I don't think that settlements will be stabilized in a short term. It seems as a trend that will affect Japan for centuries. If there is no land-use systems to encourage resettlement or the transformation of cities, it will take even longer.

My second question is if there has been some measures in taxation, which enables the burdens of rescue work to be lower for the general public. In Italy, we have adopted a taxation exemption system for 20 years in order to allow cheaper and easier works of rescue. Thank you so much.

Toru Tateishi:
Thank you very much for your intervention. For Japan, I think your comment is quite insightful. I would like to ask Yoshio Negita and then Nobuo Kamei to give us some comments.

Yoshio Negita:
Thank you for your positive review and comment on the Japanese system for archaeological remains. As I have mentioned before, I think it is characteristics of the Japanese system to have rescue archaeology carried out under the administrative structure. Therefore, archaeology and rescue archaeology are viewed separately and I think this differs from the European system.

Stephano De Caro:
The European system is split into two, because you have the rescue system in Great Britain and you have the Inrap (Institut National Pour La Recherche En Archéologie Préventive) in France. So, in Europe, you have these two systems. There is not one European system, there is a British system and there is a worldwide system.

Yoshio Negita:
Thank you for your suggestion. I would like to study about other systems besides the one in England. In Japan, there are about 6,000 archaeological specialists working in municipalities, and during the last three years, about 200 were dispatched to the Tohoku region to carry out rescue archaeology. I think this is quite a high ratio. For some time in the future, the staff dispatch program will be continued if requests are received from the three prefectures affected by the disaster, and the consensus of

municipalities in other prefectures could be obtained. I think the number of local government archaeological specialists in England is extremely small, whereas in Japan there is a large pool of staffs from the municipalities which allow such measures to be taken. I suppose the protection measures for archaeological remains vary in European countries and I would like to learn about the arrangement for carrying out rescue archaeology in emergency situations, or whether it is being carried out.

Nobuo Kamei:
I would like to thank Stefano De Caro for his very insightful comments. Avoiding living in the area which is dangerous is an effective matter. However, in the Sanriku area, there are fishermen communities, which need to be close to the coastlines. Of course, reconstruction plans have been made and some actually involve communities moving to raised grounds, or the creation of the evacuation shelters 30 meters-height, which cannot be reached by tsunami. Those are the works that are done in compliance with the voices from the communities.

Regarding taxes, we have an income tax for the reconstruction of the area. So, we all are temporally paying extra tax for the recovery of the Tōhoku area. In the Tōhoku area, the land tax is rather low, therefore tax reduction would not be so effective. And if you donate to funds which support the Tōhoku area, then some amount can be deducted from your income tax. I believe that Japanese tax authorities are thinking of various ways.

In modern history of the Sanriku area, in 1870, there was a large earthquake of magnitude 8.2 that devastated entire villages. Tsunami caused by the Chilean earthquake in 1960 of magnitude 9.5 hit the coasts of the Pacific Ocean. And this time was the third. Historically speaking, in a cycle of 300 years, this region has been heavily damaged. At Nara Cultural Property Institute, they are presently surveying traces of tsunami disasters at archeological sites, to analyze when and what scale of tsunami struck Japan in the past so that we can use this information to determine whether an area is safe or not for town building in the future.

Returning to the lives of people in the region, in order for the local people to continue living in their present places, we need to consider protective measures, learning from the tsunamis we've experienced. For example, if we know that a tsunami of 10 meter height had once reached the coastline, there might be plans to build a huge dike. But we are not sure how effective such structures can be. There was an earlier dike that was destroyed by the tsunami, so, we have to analyze why this was destructed before building again. Such analyses would help us create a safer town in the future.

It may not be easy for us cultural heritage specialists to speak up regarding town building; however, by analyzing what we have learned from data acquired over the years, we would like to bring attention to have such information taken into account in the recovery plan. Thank you very much for your comment.

Toru Tateishi:
At the Tokyo expert meeting, we discussed a very important topic, that is to have a list of baseline information on the location and state of preservation of cultural properties before disasters strike. A database of 30,000 properties is kept by the Architectural Institute of Japan, and each of the governmental bodies have compiled their own lists. In the case of movable assets, the total number would be much, much more. In the aftermath of East Japan Earthquake, Miyagi Shiryō Net activities have proved to be of a great help in locating cultural properties. If Masashi Amano from Miyagi Shiryō Net is here today, could you tell us about your activities before the disaster and how it unfolded after the disaster, so that we can learn from your experiences as a system effective for the entire country of Japan.

Masashi Amano:
I am Masashi Amano. I work for the Miyagi Shiryō Net, an organization that goes by the English name of the Miyagi Network for Preserving Historical Materials. Our group was established in 2003 in response to an earthquake in northern Miyagi Prefecture. What we learned from that particular earthquake was the importance of confirming the locations of historical materials in advance of any future disasters. Thus, after its establishment, the Miyagi Shiryō Net has mainly focused on confirming the whereabouts of both non-designated cultural properties and other items of importance. Through this process, we became especially interested in identifying historical materials retained in private collections. However, it is particularly rather difficult to obtain information on materials in private hands. Thus, our belief was that it would be possible to quickly recover such materials in the event of a disaster if the information previously

stored in a great variety of sources was collated and consolidated within a single database, which could then be shared with local municipalities. This we have done since 2003, with most of our work undertaken since 2004.

During the upheaval of the Great East Japan Earthquake, the aforementioned arrangements seemed to work well. By being able to share our information with local municipalities from the outset, I feel that we responded to the circumstances quickly. However, one issue that we confronted was that, throughout the country, there is a great amount of non-designated historical material retained in private hands. Its sheer volume is far in excess of what we had imagined when the Miyagi Shiryo Net was initially established. Thus, it subsequently proved difficult for us to grasp the whereabouts of everything. At the time of the Great East Japan Earthquake, we had not yet been able to trace all materials.

Another matter I should comment on is our efforts to digitalize everything. Concerning old written documents in particular, we have pursued a strategy of advanced photography and summarization so as to develop a primary information source. We have done this in the belief that, even if the original documents were subsequently destroyed, a copy of their content would nevertheless survive. This strategy has paid back in the sense, even though original historical materials from the vicinity of Ishinomaki City were washed away during the Great East Japan Earthquake, we still have a copy of their content in digital format. Thank you very much.

Closing Remarks

Masami Zeniya
Executive Director, Tokyo National Museum

On the successful conclusion of this Tokyo Symposium, I would like to take the opportunity to offer a few words. By way of introduction to my remarks, I would first like to sincerely thank everyone who participated throughout the long symposium schedule planned for today. Secondly, I would like to express my deepest appreciation to those kind individuals who delivered speeches and reports. To each of the speakers who gave the keynote address that started proceedings, and the speakers who presented the various activity reports on cultural properties as well as the case reports on the measures being undertaken in Miyagi Prefecture's Kesennuma City and in Fukushima Prefecture, I would again like to express my deepest gratitude for the invaluable insights that their presentations offered.

This symposium has given us a chance to look back at the range of activities undertaken to salvage and restore those cultural properties damaged by the events of the Great East Japan Earthquake. Through the experiences of the speakers, we, the participants here today, were exposed to a wide-range discussion. For both myself personally, and for everyone in attendance, I believe that we had a profitable time today. I feel that in today's symposium, we examined both how to salvage assets and how to create and maintain systems for rescuing cultural properties owned by regional communities after major disasters. This gave us a good opportunity to consider the issue of cultural heritage disaster prevention. I hope that this symposium will give us the opportunity to help expand networks that may be invaluable when responding to disasters occurring when the future. I would like to conclude my remarks by expressing my deepest gratitude to the individuals whose efforts made organizing today's symposium possible. Thank you very much.