

# SRAL

Art Conservation and Research



ICOM-CC Post-Conference Tour - Tohoku Region  
Sunday 8th to Wednesday 11th September  
Report by Kate Seymour, Head of Education, SRAL  
ICOM-CC Directory Board Liaison Officer



## ICOM -CC Post Conference Tour

Organised by Reiko Sakkio (Salt and Tobacco Museum, Tokyo, Japan) and Kristiane Strætkvern (Chair ICOM-CC Directory Board) and Dr Nobuyuki Kamba (Formerly National Museum, Tokyo, Japan). Accompanied by Mr Masayuki Handa (The Japanese Association of Museums, Japan). Translator Yuri XXX

Nineteen participants took part in the tour.

### Day 1: Sunday 8<sup>th</sup> Sept: Kyoto to Koriyama

Shinkansen train from Kyoto via Tokyo to Shin-Shirakawa.

Visit Fukushima Cultural Property Centre, Shirakawa Branch, where artefacts rescued from the radioactive contamination area are kept (radioactive level is below risk limits).

Welcomed by: Director, Dr. Tetsuo KIKUCHI and Dr. Hiroshi HONMA.



The group was welcomed by Dr Tetsuo KIKUCHI (Director), Dr. Hiroshi HONMA (Curator) and Ms. Mariko NAKANOSHIMA (Conservator). Dr. Honma began the tour with a short presentation outlining the events that took place on 14th March 2011. He explained how the immediate damage by the earthquake was exasperated by flooding from the tsunami along the coast line and from a broken damn. The failure of the nuclear plant resulted in radiation contamination. The first rescue of objects from the contaminated area was only possible after 18 months when the radiation levels reduced. Irradiated objects were not initially treated but left for number of years while the level of radiation was monitored.

The objects moved to temporary storage in unused girls school while waiting for more permanent solution. A prefabricated building took 2 years to build. The site selected was in the grounds of the **Fukushima Cultural Property Centre, Shirakawa Branch**. Storage rooms were built to specific designs. Lights with no UV content. A reinforced roof. Beach wood floor. Walls have isolation film between boards. Room climatized with humidifier-stable climate no more than 60%. Insect control. Radioactive levels monitored. Earthquake prevention shelving utilised. Exhibits mounted regularly. Closed high schools used. Other aspects lost in disaster. Displacement of people meant loss of craft skills. Demonstrations given by staff. The permanent storage areas were also shown.





Time had obviously been taken to look for pragmatic but also best-practice solutions for storage of fragile cultural heritage. The objects stored will be returned to their origins at some point in the future and so a careful registration system was used. Consultation with other institutions was clearly sought and decisions made for this facility were also used in other venues seen in our tour.

**Day 2: Monday 9<sup>th</sup> September, Morning:**

**Tohoku History Museum**

Visit to Tohoku History Museum in Sendai and hear about the rescue of cultural properties in private collections.

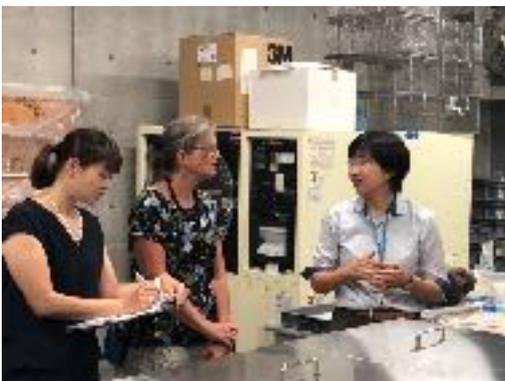
**Meet:** Dr. Nobuo KASAHARA , Dr. Ryusuke KODANI



The group was welcomed by the director, Mr. Nobuo KASHAN, the chief curator Mr. Ruyuksuke KODANI and the conservation scientist Ms. Ayae HAGA. The director gave a short presentation outlining the history of this 20 year old regional museum. It acts as the centre of museum activities in Tōhoku region. The museum was established in 1989 and has roughly 15500m<sup>2</sup>. It has 3 divisions: management, curatorial and planning, with a staff of 32. It has around 70000 objects in its collection, not counting photographic material which would double the number of registered objects. The museum is well visited with around 150000 visitors per year. It hosts an active exhibition schedule and has a busy educational programme. The main building has 6 exhibition and 8 storage rooms. Also own historic farm house and annex (also for storage - which was the old museum). That facility has 11 storage rooms. Storage is organised by category. Each store room has appropriate temperature and humidity levels. The one for ceramics is not climatised. Special storage for materials with potential for mould. No specific storage conditions for photographs but wish to have designated conditions. Film stored separately - at lower temperature. The entrance for cargo has rooms for reviewing objects, for carrying out photography and unpacking objects. The storage rooms have voids in walls with negative and positive pressure regulations. Wood (red cedar) is used for the floors and walls of the storage areas. A better option is Japanese cedar but that is too expensive. Cypress wood is not used as it releases VoCs. Beach would be a good alternative. Objects can be fumigated in two chambers, which use ethylene oxylate gas. The museum has well equipped conservation laboratories for paper, ceramics and (waterlogged) wood. Fumigation. Cleaning with ventilation. Water replacement (PEG 4000) and freeze drying.

The director when on to discuss the role the museum played after the 2011 earthquake. The museum building was designed to resist earthquakes. The glass roof remained intact. But the museum building sank a little leaving access after the quake precarious. Once the building was deemed safe to access, staff could begin to offer their services in the rescue of objects from the tsunami effected area.





After the earthquake there was a power outage immediately after the earthquake which lasted until 15th March. Water supply was out until 31st March. The air conditioning units were not turned on again until 5th April and the phone lines remained down until 15th April. Aftershocks continued and caused more damage with further power and water outage until 18th April. Main building had no additional damage. Shelving was again displaced.

An initial damage at the museum was assessed only after 18th March 18. Within the exhibition and storage areas objects had shifted. Some roof tiles had collapsed. The door openings had shifted causing doors to detach at the hinges. Shelving had shifted and fallen. At this stage all objects were moved to a safer place without any intervention. After the initial month without air conditioning, the RH returned to a stable condition. Rooms that were relatively unaffected were kept closed until other more urgent actions were undertaken. The storage facilities in the main building were stable because of their location within the central core of the building. They had a buffer zone and kept the RH over the period of recuperation. The museum was well designed.

The tsunami affected a vast area which extended some 15km inland from the coast. Staff at the museum were involved in the rescue of objects from around 10 other facilities. These rescued objects were moved to the museum facilities. This consisted of about 1568 boxes / 500000 artifacts. Temporary storage areas were located and planned. Capacity was found internally by emptying existing storage. The museum's own objects evacuated elsewhere. In these temporary storage areas, humidity was the main issue. The dehumidifiers used had to be emptied each day.

Temporary and emergency treatments were carried out. These included de-acidification, especially of paper materials, and the application of anti-rust coating for metal objects. The objects were placed in deoxidation packaging. Work was carried out by professional conservators, but also non-academic staff were instructed in techniques. The treatments focused on low cost solutions.

Staff also organised seminars on how to treat paper objects, and created publications. They collaborated with other governmental departments.

Eight years have not passed. Most of the repair work has now been completed [of the objects rescued to the museum].

After the discussion the group was shown the storage facilities, the fumigation room, and the conservation divisions. It was clear that a high level of professional standards was up-kept during the time of the emergency. A collaborative and team spirit endured during this time of hardship and loss. Plans for disaster management were in place prior to the earthquake and tsunami and these were put into action. The museum team effectively used non-specialists and volunteers and have further refined protocols on how to treat affected objects. Even with this influx of work, the everyday functionings of the museum and caring for the collection continued. It was clear that the staff were proud of their work and had advice to give to those who find themselves in a similar situation.

**Day 2: Monday 9<sup>th</sup> September, Afternoon:**

Bus to Kesennuma City, (Miyagi Prefecture)

Visit Rias-Ark Museum of Arts (Tsunami photographs and Japanese folk Culture & Art ) in Kesennuma in the afternoon.

Meet Director, Dr. Koichi SATO and Dr. Hiroyasu YAMAUCHI



The tour group was welcomed by the director Dr. Koichi SATO and shown around a permanent exhibition by Dr. Hiroyasu YAMAUCHI (curator). The exhibition consisted of photographs taken by the curator, and two colleagues, in the days, weeks and months immediately after the tsunami. Objects (sanitised) salvaged from the tsunami hit area were mounted and displayed throughout the room. Each photograph was accompanied by a text describing the emotions of the curator as the shot was taken. The result was a very evocative exhibition. The intension is that this information can be used for education purposes. The photographs can be reproduced with permission.

There was an underlying political message which was that nature is overwhelming. Humans should change their mindset because nature cannot be controlled. Reference to historical documents and images indicate that this event is not a once in a life time occurrence and happens effectively every 30-40 years. It is not as the press reported at the time unprecedented, exceptional nor unique.

The upper floor of this purpose built museum housed a permanent exhibition dedicated to folk art and the crafts needed by local people to go about their daily business. The exhibition, as at the **Fukushima Cultural Property Centre**, was informative and well curated.



## Day 3: Tuesday 10<sup>th</sup> September

### Rikuzentakata City Museum (provisional building)

Continue by bus to Rikuzentakata city. On the way one of the curators from the museum joins on the bus. Visit the **Memorial site**. Travel into the mountainside to visit the temporary building of **Rikuzentakata City Museum** - a closed elementary school where conservation treatment has been conducted by the local people since 2011.  
Meet Director Hiroaki OOKUBO

The curator (Mr. Kumugi?) of the next venue on the tour, the **Rikuzentakata City Museum (provisional building)** joined the bus before the group arrived at a national monument to the victims of the tsunami. The memorial was placed near the mouth of the river overlooking the area most affected by the tsunami. Re-generation of this area is underway and has involved the construction of a large tidal wall. Areas designated for housing have been rebuilt on artificially elevated land. A few remaining buildings could be seen from the outlook point. The experience at this site was very poignant as the area is currently almost completely devoid of buildings and trees. The events of the day of the tsunami were recounted by Mr. Kumugi from the first-person perspective. He openly described how he had evacuated to the roof of the local hospital and watched as the wave advanced to his position. His house, work place and live was decimated by the tsunami. This was a touching moment.



The group briefly visited the information centre near the memorial. This building houses an exhibition about the tsunami, its devastation, and the rebuilding. It also houses a small boat that belongs to a local school. Two years after the tsunami the boat washed up on the coast of California. It was returned, cleaned, to Japan by the local inhabitants of Crescent City, USA.



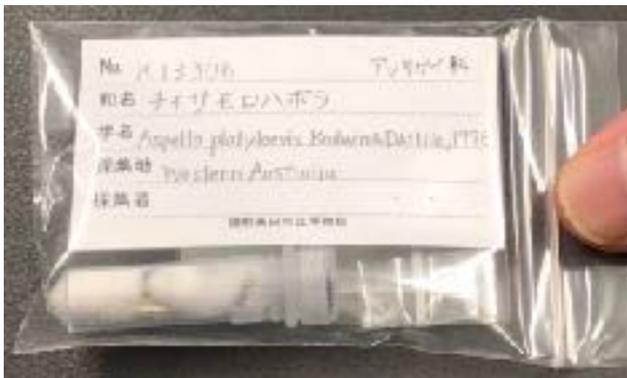
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The group returned to the bus and travelled up the mountainside to the temporary museum location of the **Rikuzentakata City Museum**. The collection is currently housed in an elementary school. The school was already disused at the time of the tsunami and could be put into use almost immediately. The group was greeted by the staff and shown around the facilities that were adapted to be used as a museum repository and conservation laboratory. The director Dr. OOKUBO gave an initial welcome speech which was followed by a further talk on the tsunami and how the events of that day unfolded.





The centre opened just after the tsunami. Objects began to arrive just 20 days after the event. These included the objects first rescued from four different museum sites, including the Rikuzentakata City Museum and the Rikuzentakata City Sea and Shell Museum. A new museum is being build near the original site. This will be completed in March 2021.

In total the amount of objects saved numbered almost 500000. The team called this extradition the 'first rescue'. The next step was to stabilise these objects. The team call this phase the 'secondary rescue'. Stabilisation consisted of initial washing to remove the sludge and oils (fish) from the water immersion. Objects are washed in water from the local stream. Residences were asked for permission to dispose of the contaminated water in the stream. After some 8 years almost half of the objects have been washed. Many of those that still have to go through this treatment have been frozen. Salvage was difficult due to the fragile nature of the collection - natural history specimens and small nature of shells.

After stabilisation the objects are registered. All digital records lost. They were in process of changing labels from handwritten to laminate. The laminated labels were mostly preserved. Now completing change from paper base. Computer records was lost. Now use cloud storage. Previous directors list was useful but 2 years old.

Biggest collection of shells. Labels lost. Now re-identifying specimens and labelling. Some labels in plastic were preserved but immersed in contaminated seawater. Paper has salt crystals growing causing additional problems.

Paper objects were washed initially to rinse contaminated seawater. Now being sterilised with Sodium Hydrochlorite (NaOCl). Rinsing occurs after initial categorisation to ensure no water soluble ink is washed. Levels of contamination materials are monitored. Desalination takes about a week. Monitored for second peak. Then removed and dried. Stabilised paper materials are then left to dry. Paper damaged with losses is lined/backed front and back with very thin Washi paper and starch paste. Stains from mould are present.

Objects are stored in a custom built facility which is situated in the gym hall. A box within a box. Similar wall material to that seen in **Fukushima** are used. These objects will remain there until the opening of the new museum.

The intension is to keep the centre active after the new museum is open. It will retain its storage function.

The team there show huge dedication and pride in what they have achieved. They are making efforts to turn the lessons and experience of the disaster into something positive for the future and the world.



Dinner on Tuesday, 10th September was hosted by Iwate Prefecture Museums. This was termed an 'information exchange meeting'. A further video of the tsunami was shown and both Japanese and ICOM-CC tour members expressed the lessons learned during the tour.

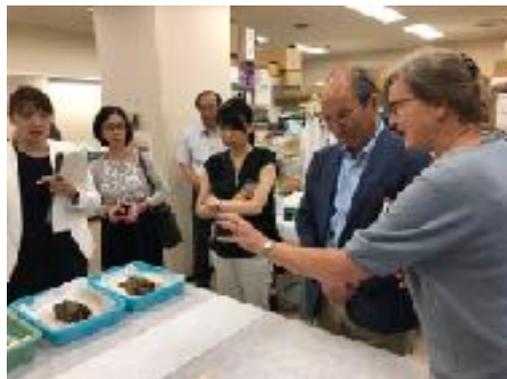


**Day 4: Wednesday 11<sup>th</sup> September**  
**Iwate Prefectural Museum, Marioko**

Meet Director Hiroaki OOKUBO Iwate Prefectural Museum

Director Dr OOKUBO met the group again at the Iwate Prefectural Museum. The museum is celebrating its 40th anniversary. It opened in 1980. The collection consists of departments representing history, archeology and culture (folk art).

After a short lecture by the director, the group were shown the conservation laboratories where much of the salvage work is being carried out. Conservators were washing insect specimens saved from the museums devastated by the tsunami. Trays of insects were filled with sludge water. This needs to be carefully washed off without using too much water which can cause deterioration of the specimens. Alcohol/water solutions are used and delicate areas such as legs are avoided.



It is now 8.5 years since earthquake and tsunami. The museum conservation department is supported by Japanese Museum Association (rep by Dr. Handa). It swell from a team of 2 to 17 of which 7-9 are paper conservators. Conservation work is carried out both at the elementary school and in the museum conservation studios. A purpose built annex houses a two-story conservation lab. Using this external facility reduces cross-contamination of the objects. Of the 5000000 objects rescued to date from 4 institutions, half are now restored.

Treatments carried out on paper objects in the conservation laboratories includes de-acidification using Bookkeeper (neutralising and buffer solution). Flattening planar distortions and wrinkles. Backing/lining fragile papers. Repair of lacunae with infills in paper pulp. Rebinding volumes.

Time is a big factor. The objects were Initially stabilised by rinsing. But further treatment is often delayed. In the last years since the first rinsing treatment occurred these objects have started to yellow and smell. The cause is likely to be the fish oils present in the sludge water. Problem is fish oil that comes from dead fish in tsunami water. Gives cheesy smell. Turns cellulose yellow and promotes mould. Washing paper objects with soluble ink is problematic. How to treat these objects further remains a question to be answered.

Other challenging objects include lacquer work, canvas paintings, watercolours and leather objects. The conservation of photographic collections is considered the most problematic. Research is ongoing at academic level and knowledge gained should be spread. Expertise can be shared to help those in similar circumstances. This is where the ICOM-CC network can benefit and assist the excellent work ongoing in the Tohoku district. ICOM-CC has a large network of experts at its disposal who are actively exchanging ideas. Our committee has an obligation to share questions with our membership. This can be done via our Working Group newsletters or via our meetings. Recommendations to the Japanese conservators should be to submit abstracts for posters on problematic treatments that can be discussed in poster sessions at the ICOM-CC Beijing Triennial Conference. Our journey to Japan and discovery of Japanese culture and the excellent work ongoing in the Sendai and Tohoku regions is ongoing. We have only just begun. It will continue across geographical borders via discussion and collaboration.



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