# Building capacity for post-disaster recovery of museum collections in Nepal

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## ABSTRACT

This paper describes the learning approach, the methodology, and the outcomes of a capacity-building workshop for the post-earthquake recovery and the re-housing of displaced museum collections in Nepal. The aim was not only to recover from the physical damage and the resultant loss of income, but to reduce risks and improve access to the affected collections. The workshop enabled the creation of a visible but secure sample storage space at the National Museum of Nepal. Here, researchers and visitors are able to see objects in their respective housings and explore associated values and meanings through thoughtfully prepared text panels and photographs.

## INTRODUCTION: BUILD BACK BETTER

Two earthquakes in 2015, on April 25 and May 12, devastated parts of central Nepal. Approximately 9,000 people lost their lives. Massive economic losses were recorded, which directly impacted the lives of around eight million people. The damage caused to Nepal's tangible heritage was estimated to be around 169 million USD, and 17 million USD was registered as the associated loss of income (National Planning Commission 2015). These estimates, however, do not include the damage caused to the intangible heritage and the associated creative industries.

From the very beginning of the humanitarian relief and recovery phase, the United Nations and its related aid agencies vowed to 'build Nepal back better'. This is now a commonly advocated guiding principle for post-disaster recovery, first used in 2005 for the post-tsunami reconstruction efforts in Aceh, Indonesia. The idea behind 'build back better' is simple: reconstruct and restore what is lost, but make it safer, and protect it from future disasters (Fan 2013). The Government of Nepal endorsed building back better as the guiding principle for recovery and reconstruction in all sectors. Yet, the question remains: can this principle be applied to recover damaged cultural heritage? And if yes, what would that entail?

Immediately after the earthquake, the Department of Archaeology of Nepal (DOA) carried out a first damage assessment in the affected areas, assisted by the Kathmandu office of the United Nations Education, Scientific and Cultural Organization (UNESCO).

A month after the earthquake, i.e. in May 2015, the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM) formed an international alliance of partners including the International Council on Monuments and sites (ICOMOS-ICORP), the International Council of Museums (ICOM), the Smithsonian Institution, and the Prince Claus Fund to assist the DOA in enhancing its capacity for planning as well as implementing emergency first aid to over 700 cultural heritage sites that contained movable, immovable, and intangible components.

The collections of several museums had been evacuated from damaged buildings and temporarily moved to different locations, including exhibition halls or galleries. The museum buildings were either partially or fully

**Figure 1.** Main historical building of the National Museum, heavily damaged by the 2015 earthquake

closed, which in turn resulted in a significant drop in visitor numbers. In early 2016, the DOA again invited ICCROM to initiate a second set of activities aimed at recovery and risk reduction. Embracing the principles of 'build back better', two hands-on workshops were organized in February in Kathmandu. Their aim was to develop a shared vision and framework for the recovery of damaged cultural heritage sites, and the re-housing of the displaced cultural collections. The workshops were held in collaboration with Ritsumeikan University, Japan, and ICOMOS Nepal. The initiative was realized through the generous contributions of the Norwegian Ministry of Climate and Environment and the Kathmandu office of UNESCO. This paper focuses on the movable heritage workshop.

## WORKSHOP ON POST-EARTHQUAKE RECOVERY, SAFE STORAGE, AND ACCESS OF MUSEUM COLLECTIONS

Twenty-seven participants drawn from ten affected museums and from mixed educational backgrounds were selected by the DOA for the weeklong workshop. Only a few of them had received professional training in preventive conservation or museum studies. Nonetheless, all participants shared a common objective: to re-house displaced collections, ensure their safety, and bring visitors back to their museums. After initial discussions, and with the agreement of key decision makers within the DOA, participants decided to explore the idea of 'visible storage', which is increasingly used in museums worldwide as a way to engage visitors and attract potential donors.

## PUTTING IDEAS INTO PRACTICE

The case study site for the workshop was the National Museum of Nepal at Chhauni, Kathmandu. The oldest building owned by the museum had suffered heavy damage in the earthquake (Figure 1). This building contained the historic collection of the arms and armory of General Bhimsen Thapa, a military leader who defended Nepal's sovereignty against annexation by the British East India Company in the late 18th century (Nepali and Tuladhar 1965). He was also the founder of the National Museum of Nepal.

Declared unsafe by structural engineers after the earthquake, the building could no longer house the collection. The Nepalese army was called in to help evacuate over 4,000 objects. As the museum did not have extra storage space available at the time, most of the evacuated objects were placed on the floor of one of the exhibition galleries. The goal of the workshop was to re-house this collection in a new site allocated for its long-term storage, within the museum compound, as a direct application of the concept 'build back better'.

With 27 participants, there was a large amount of energy and goodwill. The project was supported by the National Museum of Nepal and the DOA. The restricted time frame of six days and practically no access to electricity during the workshop hours, required precise planning to achieve the commonly agreed-upon objectives. These included: learning how to design and implement a workflow for re-housing evacuated objects; acquiring skills for updating previous documentation; enhancing

skills for handling and surface cleaning; and learning how to design safe housings for individual objects and create a storage space that is attractive to visitors.

While the overall planning for the move of the collection at the National Museum was undertaken collectively, the work was then broken into specific tasks requiring specific skills, and participants chose their teams accordingly. The need for teamwork was highlighted through simple group exercises such as building bridges with newspapers and paper cups within five minutes. These exercises helped the teams to set clear objectives, plan their tasks, and implement them in a coordinated way. Short lectures and structured learning sessions preceded the practical work carried out on each day of the workshop. During the week, participants from other affected museums were given time to outline plans for creating similar spaces in their respective institutions.

## STORAGE ORGANIZATION: THE WORKFLOW

Embracing the principle of 'learning by doing', the workflow for designing a new space and moving the evacuated objects was divided into three main stages that were further broken down into smaller steps, as depicted in Figure 2 and detailed below.
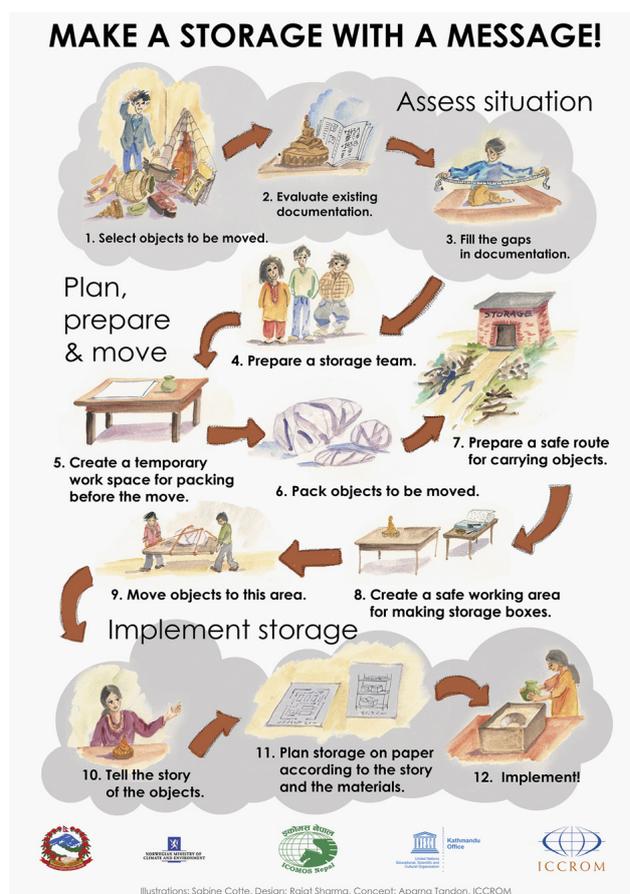


**Figure 2.** Illustrated poster designed as a pedagogical tool to communicate the storage organization workflow

*1. Assess the situation*

The curators at the National Museum of Nepal chose 300 objects of different shapes, and made of different materials, for moving to the new storage. This selection reflected the diversity of the collections of the participants' home institutions.

**Figure 3.** Members of the documentation team engaged in filling in gaps in existing information



**Figure 4.** The packing of uniforms in a temporarily set-up working space outside the Portrait Gallery at the National Museum of Nepal

Once the selection was made, the existing documentation for the objects was examined and some gaps were identified. To address these, the documentation team created a new form to record the original location of the objects and track their subsequent movement (see Table 1). At the same time, the team recorded the physical characteristics and the current condition of the objects (Table 2). The Object ID (ICOM) standard was used as a reference to update the information for individual objects and group them by material and size.[1] For example, the dimensions of each army uniform were recorded, which enabled a local tailor to prepare customized muslin covers for their re-housing within a couple of days (Figure 3).

*2. Plan, prepare and move*

Once the documentation was ready, the storage team packed and moved the objects. The team was divided into two sub-teams, one stationed at the original location of the objects and the other at the new storage venue. All steps of the move were pre-planned and addressed. These included:

a) Setting up of a temporary workspace for the pre-move packing. The landing in front of the Portrait gallery at the National Museum was cleaned and covered with heavy-duty plastic sheets to provide this workspace. Materials were selected for safe but light packing. These could be recycled for housing objects.

b) Packing of the objects to be moved: this took into account the safety of the people moving the objects as well as of the objects themselves. Heavy or bulky objects were secured on 'stretchers' and carried by two people. For example: heavy metal swords were carried in batches, covered with muslin and secured by rope on wooden trays; series of three or four uniform jackets were wrapped in muslin and affixed onto cardboard sheets with flat cotton tape; long rifles were held in place on a cardboard sheet by wrapping them in muslin (Figure 4).

c) Preparation of a safe route within the compound: in collaboration with an architect, the storage team identified the shortest and safest route for transporting objects. They removed the obstacles that could cause tripping and installed a wooden plank as a makeshift ramp over a big step (Figure 5).

d) Creation of a safe receiving area: the vast and well-lit landing area adjacent to the new storage room was used for receiving objects. The storage team installed several tables covered with protective plastic

**Table 1.** Movement tracking form

| Date moved | Moved by | Signature | Received by | Signature | New location | Remarks |
|---|---|---|---|---|---|---|
| 21/2/2016 | Nina | xxxxxx | Karuna | xxxxxx | S2.3D | none |

**Table 2.** Object identification and original location form

| Serial no. | Original no. | Type of object | Material | Weight/ dimensions | Period | Description | Photo/ drawing no. | Location of photo/ drawing | Original location | Condition | Treatment given | Date of treatment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6325 | Dagger | Iron alloy | 2.5 kg/ 12×15×5 cm | 18th century | Engraved handle | 12 | Curator's office | G3 | Broken into 3 pieces | none | none |

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**Figure 5.** A safe route was prepared and a makeshift ramp was put in place to ensure the safety of objects and people



**Figure 6.** Facilitated discussion on exploring values and meanings associated with the evacuated objects helped to build a storyline for organizing the new storage



**Figure 7.** Guided tour of new storage given for officials, sponsors, and potential donors

sheets to allow unloading of the objects and recycling of the carrying trays for a new batch. The space was also used for recounting objects moved, checking the necessary documentation, storing supplies, disposal of waste, and superficial cleaning before re-housing. In the new storage area, large sheets of plastic were laid to receive the objects that had been cleaned and required labels as well as individual housings.

e) Moving the objects: thorough preparation and division of the space allowed for a fluid flow of people and objects. As a result, 300 objects were documented and moved within two days.

*3. Setting up of a visible storage*

Creating a visible storage is an interdisciplinary task involving several different skills. Nepalese experts were called in to impart some of the most crucial ones, such as space management, information design, and storytelling. A renowned Nepalese historian, Anil Chitrakar, facilitated the storytelling session. Fully engaging the participants, he encouraged them to express their views on how to tell a story through museum objects.

During the session, a group discussion helped to establish various meanings and values associated with the objects that had been moved. The outcomes were used to build a storyline, which included multiple perspectives as well as linkages between the past and the present. Assisted by a local graphic designer, a small team then created the signage, the text panels, and a photo story to turn the storage into a visitor-friendly space (Figures 6 and 7).

The same team also planned the layout of the new storage space with the help of an architect. The planning took into account the limitations of the available space and adapted it accordingly. As it was not possible to retrofit the building, care was taken to choose sturdy cabinets, which could be affixed to the floor. Access, use, and functionality of the space were given due attention while arranging the furniture in the new storage space.

## SUSTAINABILITY: USE OF LOCALLY AVAILABLE MATERIALS

Sustainability was a key concern for all involved. A conscious effort was made to rely on locally available materials. All individual supports and housings were made from materials commonly available in Kathmandu. The participants identified resistance to degradation, rigidness or flexibility according to purpose, ability to absorb shocks, efficiency in protecting objects from light and dust, and affordability as some of the key criteria for purchasing the requisite materials.

Customized housings were made in order to reduce exposure of the objects to hazards, both slow (e.g., light, dust) and fast acting (e.g., fire, earthquake). The storage solutions included wrapping of individual objects, as well as various ways of affixing them to the shelves to prevent them from falling over and damaging other objects. The participants did recognize regular maintenance as key to retaining the accessibility and long-term preservation of objects.

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**Figure 8.** Customized housings for knives and swords made with locally available materials

Much lateral thinking was used to find innovative ways of designing individual housings. For example, cardboard was used most creatively: for transporting the objects; as support for knives and swords, or wrapped in unstarched muslin to create flat housings for very fragile textiles. Trekking mats made of rubber were used to line the shelves, their shock absorbing quality helping to mitigate the risk of damage due to physical forces. Long-fibered Nepalese paper, widely available at a reasonable price, was used for lining, wrapping, and padding the housings for the textile collection. As far as possible, the objects were individually wrapped in envelopes made of clear and high-quality polyethylene to allow easy monitoring of their condition. Care was taken to ensure that objects such as knives and swords were dry, and that they were wrapped in an environment of low humidity (February has an average rainfall of only 14 mm/day in Kathmandu), thus minimizing the risk of condensation. High-quality polyethylene foam commonly used in cushions was cut in dented shapes to support and hold the swords' handles. Foam and muslin leftovers were recycled to pad coat hangers. Individually wrapped knives were secured on cardboard supports by flat cotton tape. The knives with their supports were placed on shelves lined with trekking mats, and again affixed to the shelf with cotton tape (Figure 8).

## FOLLOW-UP ACTIVITIES

During the workshop, all participants were engaged in developing plans for re-housing the evacuated objects in their own respective museums. One of the participating museums, the Bhaktapur Art Museum, designed a new storage space immediately after the workshop. The non-availability of funds for museum sector, however, continues to be a challenge to the full recovery and resumption of services.

At the National Museum of Nepal, a follow-up project was undertaken between May and October 2016. Building on the workshop's momentum, and driven by a sense of urgency as the building where the evacuated objects were temporarily stored had started to leak due to the incessant rains, the museum director decided to move the remaining 4,000 objects to the new visible storage. Fourteen staff including curators, gallery assistants, and cleaning staff were mobilized for this project. Based on the training provided by ICCROM in February 2016, the museum also identified the number of storage units required, and created a storage layout to house the remaining objects. The Kathmandu office of UNESCO provided the necessary funds for the purchase of storage units and other equipment required for the project.

## LESSONS LEARNED

The follow-up project at the National Museum of Nepal provided great insights into some of the challenges faced in institutionalizing the good practices introduced during the workshop. The experience revealed that a commonly shared vision for the institution, leadership, the availability of the necessary resources, and the capacity of the staff to implement projects are essential for a sustainable post-disaster recovery.

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The key findings of the project are noted below.

### Institutional framework

Founded in 1928, the National Museum of Nepal was the first museum of the country. It initially served as a repository for the weapons as well as the private art collection of the Royal family, but now houses an impressive mix of pre-historical, archaeological, historical, and cultural objects. Like many other museums in the country, the National Museum of Nepal has grown organically. It lacks centralized conservation and collection management policies. Therefore, while the museum has taken significant strides to make its collections accessible, there is a considerable amount of work yet to be done to create interactive displays, implement a program of preventive conservation for the collections, and develop activities to engage the visitors.

### Long-term capacity building

The National Museum has limited staff. Most of the staff is administrative and/or support staff. This was one of the key challenges faced during the follow-up project. Out of the 14 staff involved, only six had been trained during the February 2016 ICCROM workshop. Furthermore, the administrative hurdles contributed to significant delays in the project, planned initially to be completed within two months, but which required six months to move the objects and organize them in the new space.

### Size and condition of the objects

The objects moved during the follow-up project were not easy to store, as they varied considerably in size, weight, and fragility. Some objects were bulky and heavy, while others were very long or large. The condition of the objects also varied significantly. Many objects had not been stored safely and were covered in a layer of dust. Some objects had active infestations and were isolated. Therefore, careful intervention was required to ensure the objects were treated and safely moved. Some of the issues were overcome by referring to the RE-ORG methodology (ICCROM 2011).

### Documentation

While a registry book does exist at the National Museum of Nepal, it does not provide sufficient information for each object, such as its dimensions. Furthermore, objects are grouped, numbered, and identified according to the name of the donor and their physical location. These are historical locations whose logic developed throughout the years as per successive acquisitions. Documentation and grouping of the objects according to size and material type was attempted in the follow-up project, but in the end it was not possible. Consequently, the heterogeneity of objects and their organization according to donor or origin resulted in some loss of space.

### Long-term planning and continuity

Functioning in an overall constrained financial environment, the National Museum of Nepal is unable to develop a long-term plan of activities. As a result, projects undertaken by the museum tend to suffer delays and are often not completed in time. This was also the case with the recent

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follow-up project. Getting funds approved for the storage units took a significant amount of time.

**Suitability of storage space**

Whilst Nepal has some good examples of traditional buildings being converted into museums, such as the Patan Museum, the building of the National Museum has not been suitably retrofitted. This brings up several challenges in terms of the required environmental controls for humidity, air circulation, and natural light. For example, the new storage hall did not have sufficient air circulation and exhaust fans had to be installed.

## CONCLUSION

This workshop was successful in providing an effective model for the safe re-housing of displaced collections and in creating awareness of the need to provide greater access to the collections held in museum storages.

Within six days, a team of 27 museum professionals learned how to document, stabilize, and re-house displaced collections. Moreover, they were successful in creating a visible storage within given means. On the last afternoon, the participants gave guided tours of the new storage to the local officials, invited guests, and potential donors.[2] The participants also had the opportunity to discuss and plan similar projects for their respective institutions.

The project was innovative, as it led to local solutions that combined risk reduction with sustainable use of materials to promote greater access. However, as pointed out in the section on lessons learned, full recovery or 'build back better' goes beyond the creation of new spaces or the restoration of physical infrastructure. It also involves organizational reform to ensure that collections are well documented, safe, and accessible. In other words, without a common vision, leadership, sufficient resources, and cohesive institutional policies, museum collections in Nepal will continue to be under-utilized and under-protected.

### NOTES

[1] J. Paul Getty Trust, ICOM. Object ID standard. http://bit.ly/2foy4lQ (accessed 17 November 2016).

[2] A video of the workshop entitled *From Response to Resilience* is available at http://bit.ly/1SNnmXP (accessed 17 November 2016).

### REFERENCES

FAN, L. 2013. Disaster as an opportunity? Building back better in Aceh, Myanmar and Haiti. London: Overseas Development Institute. http://bit.ly/2g2PDrF (accessed 17 November 2016).

ICCROM, UNESCO. 2011. RE-ORG – Tools for museum storage reorganization and documentation systems. http://re-org.info/en(accessed 17 November 2016).

NATIONAL PLANNING COMMISSION. 2015. Post-disaster needs assessment, vol. A: Key findings, 15–20. Kathmandu: National Planning Commission, Government of Nepal. www.npc.gov.np (accessed 17 November 2016).

NEPALI, C. and T.R. TULADHAR. 1965. *The Shah Kings of Nepal.* Kathmandu: Dept. of Publicity, Ministry of Panchayat Affairs, Nepal.