

## INTRODUCTION

During the summer of 2013, Collections Management Intern Stephanie Johnson and Conservation Intern Ida Pohoriljakova at the University of British Columbia Museum of Anthropology collaborated on an earthquake mitigation project in collections storage. The project took place in an area of the Museum of Anthropology's (MOA) Three Dimensional Storage that houses Chinese ceramics. Prior to the implementation of the mitigation project, the ceramics were stored in compactor shelving units without structural support.

- **Goal:** To improve the safety of the collections in the event of an earthquake.
- **Task:** To establish an economical and systematic strategy for storage that will be incorporated into the entire collection of three-dimensional objects.
- **Requirements:** To design a method that would
  - 1) be cost, time, and resource effective.
  - 2) be straightforward and able to be carried out by interns with minimal supervision.
  - 3) use conservation-grade materials.
- **Outcome:**
  - 1) Off-cut scrap materials from other museum projects were recycled for this project.
  - 2) An original design of a grid system created from Archival Corrugated (Blue) Board, Plastazote® LD45, and Hollinger Metal Edge trays for small and medium-sized objects and Coroplast® boxes for large objects was adopted.
  - 3) A flexible and adjustable storage solution.

These improvements are a continuation of the Renewal Project, a grant-enabled initiative that resulted in a significant transformation to the entire museum, including new collections storage areas.

## RESULTS & OBSERVATIONS

- 1) In all, one storage unit, which holds **150 objects** on seven removable trays and five shelves, was rehoused.
- 2) The chosen **storage materials** were easily obtainable and workable.
- 3) Once a design was established, the **preparation and implementation** were conducted without difficulty.
- 4) It was found that a **large time commitment** was required.
- 5) The ease but ample amount of time needed would make this an **ideal project for volunteers**.

## CONCLUSIONS

- 1) **Accessible, flexible, secure and aesthetically pleasing** storage solution.
- 2) **The method fulfilled the needs** of both collections management and conservation.
- 3) **Collaboration between departments** resulted in knowledge-exchange with the common objective of preserving the collection.

# EARTHQUAKE MITIGATION: Adapting the Collections for Seismic Activity at the University of British Columbia Museum of Anthropology

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## METHODOLOGY



Fig. 1: Stephanie (left) and Ida (right) presenting the rehoused storage unit in MOA's Three Dimensional Storage.

### Materials:

- 1) **Hollinger Metal Edge Trays with Tray Dividers**  
(L: 14 3/8, W: 12 3/4, H: 2 1/2, TH: 1/8 inch)
- 2) **Plastazote® LD45** (TH: 1/4 and 1/2 inch)  
*Low Density Polyethylene Foam*
- 3) **Ethafoam®** (TH: 1/8 inch)  
*Medium-Density Polyethylene Foam*
- 4) **MOA Custom Black Tray Mounts** (Beisel et al. 2010)  
*Museum-Quality 4-Ply Matboard  
Plastazote® LD45*
- 5) **Archival Corrugated (Blue) Board** (TH: 1/4 inch)
- 6) **Acid-Free Tissue Paper**
- 7) **Support 'Snakes'**  
*Corduroy, Sand*
- 8) **Coroplast®** (TH: 1/8 inch)  
*Polypropylene and Polyethylene Copolymer*

### Process: Storage Unit Trays

- 1) The sides and bottom of the storage unit trays and the Hollinger Metal Edge Trays were lined with Plastazote® LD45 (TH: 1/2 inch) and Ethafoam® (TH: 1/8 inch). Objects that had been previously displayed were stored in their custom-made MOA Black Tray Mounts (Beisel et al. 2010) (Fig. 2).

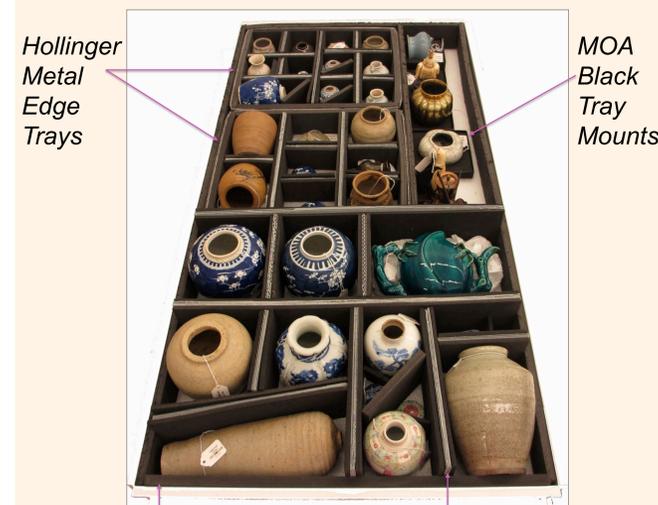


Fig. 2: Top view of a storage unit tray after rehousing.

- 2) The objects from each storage unit tray were laid out and organized according to size and shape. Small-sized objects were placed in Hollinger Metal Edge Trays (L: 14 3/8, W: 12 3/4, H: 2 1/2, TH: 1/8 inch); medium- and large-sized objects were organized around the Hollinger Metal Edge Trays (Figs. 2 and 3).

- 3) 'Blueboard Sandwiches' (Figs. 2 and 3) were created. Pieces of suitably sized Archival Corrugated (Blue) Board (TH: 1/4 inch) were padded with equally-sized Plastazote® LD45 (TH: 1/4) pieces on each side.
- 4) The 'Blueboard Sandwiches' were inserted into the storage unit trays creating a grid around the objects. The 'Blueboard Sandwiches' were held in place through the force of the grid system.



Acid-Free Tissue Paper

Fig. 3: Close-up top view of a storage unit tray after rehousing.

- 5) If additional support was required, acid-free tissue paper (Fig. 3) and support 'snakes' were used.

### Storage Unit Shelves

- 1) The storage unit shelves were lined with Ethafoam® (TH: 1/8 inch).
- 2) Objects were placed in Coroplast® (TH: 1/8 inch) boxes that were made specifically for each object.

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## REFERENCES

Beisel, C., Hommenick, K., Swierenga, H., and M. Toutloff. 2010. A Guide to Foam and Black Tray Mounts. [http://moa.ubc.ca/research/conservation/resources/pdf/black\\_tray\\_manual.pdf](http://moa.ubc.ca/research/conservation/resources/pdf/black_tray_manual.pdf) (accessed 02/20/14).

## SELECTED SOURCES OF MATERIALS

**Plastazote® LD45:** Norseman Allfoam  
9080 196A Street  
Langley, B.C., Canada  
V1M 3B4

