



AUSTRALIAN INSTITUTE FOR THE CONSERVATION OF CULTURAL  
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**Abstract**

**Title:**

Bag it and tag it: Plastic degradation in archaeological storage

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**Abstract:**

In archaeological excavations, the discovery of an artefact worthy of museum display is rare. The reality is bags and bags of ceramic sherds, broken glass, stone flakes, and bone fragments. Archaeologists and conservators alike know how to properly package and care for special finds, however bulk artefacts are often stored in resealable polyethylene bags which, despite their chemical stability, are not immune to deterioration. Such degradation is potentially devastating to the integrity of these collections as identifying labels on or within the bags are lost and artefacts that were specifically grouped together may become separated from their context.

Artificial aging experiments were conducted on four commonly used brands of resealable polyethylene bags with permanent marker labels to see how they would react to extreme environmental conditions. The results clearly demonstrate the potential problems with the products commonly used in archaeological long-term storage, and the environmental conditions of these storage facilities. As many archaeological collections go into long-term storage with no idea as to when they will next be examined, conservation methods of packaging and storage will need to be widely introduced into archaeological practice if these collections are to survive for future access and research.

**Brief Biography of the Author(s):**

Grace McKenzie-McHarg has just completed the Master of Cultural Materials Conservation at the University of Melbourne.

Petronella Nel has a BSc (Honours), PhD (Chemistry) and MA (Cultural Materials Conservation). She is about to commence leading an ARC-LP titled 'A national framework

for managing malignant plastics in museum collections?.

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