



3.3 Introduction to Pacific Collections: Hazards



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Hazards in Pacific collections



Please note: This information is not comprehensive and museum staff should consider the peculiarities of their own collections and what is, or is not, relevant to them.

Hazardous materials used on collections:

Pest Control

Objects made from organic materials have often been treated in order to prevent pest infestation and aid preservation. This has led to the application of a wide variety of hazardous materials. A useful rule of thumb is that anything collected before 1900 should be considered contaminated and anything collected before 1960 handled with caution. Fur and fabric in particular can harbour high amounts of pesticides.

Among the most common pesticides used are:

Arsenic and Mercury

Testing of ethnographic material has shown arsenic to be the most common treatment. Both arsenic and mercury were used as the main form of pest control throughout the 1800s and were applied as a powder at the point of collection before shipment as well as within the museum. They cannot be totally removed from artefacts.

Exposure to arsenic and mercury is cumulative so museum staff will be more at risk than visitors.

DDT (Dichloro-diphenyl-trichloroethane)

This was applied in museums as a preventative measure for pests.

Likely hazardous materials inherent in collections:

Poisonous plant materials used for beadwork, jewellery and ornaments

Most common in Pacific collections are seeds of the tropical and subtropical plant *abrus precatorius* (sometimes referred to as jacquirity seeds, or prayer liquorice). An image of *abrus* seeds can be seen at the top of the page. The seed is highly toxic when ingested. Punctured seeds, i.e. strung on a string, can also cause a mild skin irritation.

Weapons with tips coated with poisons

The most common types are spear and arrow tips and blowpipe darts. However it is material from the regions of Americas, Africa and South Asia that are most affected. One example of a poison is curare made from the bark of *strychnos toxifera* and used in the northern part of South America as an arrow poison. Curare has been shown to remain potentially toxic for over 100 years.

Produced as part of *Pacific Collections in Scottish Museums: Unlocking their knowledge and potential* project 2013-2014. For full information and resources visit www.nms.ac.uk/pacific

Good practice in handling museum objects made from organic materials:

Assume that hazardous pesticides are present unless testing has been undertaken.

Wear nitrile gloves while handling artefacts. These offer your hands more protection than cotton gloves.

When removing gloves, do not touch the exterior surface of the gloves.

Always discard gloves and wash hands with soap and water after handling an object, and especially before eating, drinking or smoking.

Wear a lab coat to keep dust off clothing and remove it when you leave the storage area or are no longer handling contaminated material.

Keep lab coats clean to avoid transferring dust and dirt.

If possible, work with artefacts in a well ventilated area. For example, examine objects in a conservation lab with proper ventilation or fume hoods.

Ensure work surfaces are well cleaned after they have been in contact with artefacts.

Keep tetanus vaccinations up-to-date.

Next steps to consider:

1. Provide staff training and risk assessments.
2. Produce guidelines for public access to collections by researchers or at visitor events.
3. Repatriation and visits from source communities: any visitors to ethnographic material need to be made aware of potential dangers. A disclaimer will be needed if agreement is made to return material to a community where the object/s may be put back into use, cremated, or have unrestricted access.
4. Conservation and cleaning: This needs to be undertaken by trained staff in controlled environments as staff are the most susceptible to the dangers given their potential long term exposure to hazards.

Important information to have available to staff:

- Knowledge of potential poisons in the collections
- Medical contacts such as the poisons department of the local hospital