

## Moving toward a sustainable conservation – Experience of the Museum of Archeology and Ethnology (MAE-USP)

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Most of the ethnographic collections present in traditional museums in Brazil were formed by collectors, purchases, donations and exchanges by large encyclopedic, naturalist museums, typical of the 19th century. It is in this context, the Museum of Archeology and Ethnology (MAE-USP) collection were constituted.

The MAE has been made a big effort to guarantee their conservation. Preservation of tangible objects as well thousands of organic objects, composed of plant fibers, wood, skins, feathers, seeds and various materials, has always been challenging as they are prone to deterioration by biological agents such as insects, mold, bacteria and rodents.

Chemical treatments are traditionally examples of actions to preserve many museum collections around the world. Since the 19th century, collectors and museum professionals have applied a variety of toxic substances through fumigations and direct applications trying to enhance the conservation.

Although a well-intentioned practice, the application of pesticides to protect ethnographic objects could not predict the negative impact on the safety of those who would handle these objects in the future and by restricting the possibilities of using these collections by the descendants of their creators. Today, these contaminated objects cannot be touched without gloves or experienced by for example, indigenous groups.

The current insertion of native communities in curatorial actions at museums has made it possible to renew the way in which these institutions work. At this moment, it is no longer plausible that a museum institution continues to carry out toxic treatments on funerary, sacred objects, human remains, among others. The possession and use of these objects transcend the museum's borders and the possibilities of use must be considered in the perspective of the future.

Due to the renewal of the theoretical parameters of the conservation discipline, the Integrated Pest Management policy is more suitable for museological institutions. Efforts to prevent damage have been more effective than just thinking about curative conservation. In addition, the need to develop a more sustainable present and future has led institutions to develop greener prevention policies, without the use of toxic products, respecting the environment and the user.

In this scenario, since 2010, MAE-USP has abolished the use of pesticides to treat the collection. Since then, the institution has been dedicated to building a protocol to reduce risks related to infestations. This protocol encompasses, among other actions, the treatment of objects affected by biological agents and the preventive treatment of new objects through ionizing radiation.

The use of ionizing radiation for the disinfestation of museum objects is a very safe process and has proved to be a great alternative to traditional methods of disinfestation that involve pesticides of high persistence and toxicity. For this reason, we have also worked to disseminate the technique among conservators.

This work intends to share the actions carried out by MAE-USP in partnership with the Nuclear and Energy Research Institute (IPEN) to facilitate the treatment of ethnographic objects, as well as an important collaborator to make the conservation process at MAE more sustainable.

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