WHO CARES?

Conservation and restoration at the Ethnologisches Museum and Museum für Asiatische Kunst

Exhibition brochure:
Conservation in Dialogue

A GLANCE BEHIND THE SCENES

In the years leading up to the opening of the Humboldt Forum, conservators prepared thousands of objects for display in the exhibitions. Because most of this work was done behind the scenes, unseen by visitors, we have compiled this brochure to showcase what we do and provide information about our methods and ethical principles.

We are a team of conservators who, thanks to our different educational backgrounds, specialize in a variety of fields: from specific materials such as paper, textiles, and metals to specific object groups such as ethnological and archaeological artefacts.

Based on our own expertise and experience as well as the exchange with various experts, for example elders or knowledge keepers from communities of origin, or ethnologists and natural scientists, we aim to make informed decisions on the appropriate methods to conserve and restore objects.

We hope you enjoy this brochure!

The team of conservators at the Ethnologisches Museum
and the Museum für Asiatische Kunst

A paper conservator at work

ETHICS

Our work is based on ethical principles that are laid down in national and international agreements and directives, such as the Code of Ethics of the European Confederation of Conservator-Restorers' Organisations (E.C.C.O.). These agreements serve as guidelines for how to professionally care for art objects and cultural belongings. One core principle is to keep interventions to a necessary minimum out of respect for the original work.

Ethical principles are subject to scientific findings and socio-political debates. In particular, museums with ethnological collections are increasingly taking into account the views of the communities of origin and working together with representatives from these communities. When decisions have to be made, it is becoming increasingly important to consider different cultural perspectives and to be aware of the **immaterial** aspects of cultural assets.

Immaterial means "intangible" or "non-physical". The term describes things such as traditions, stories, and knowledge that is handed down from generation to generation.

EXAMINATION AND DOCUMENTATION

Meticulous examination and documentation form the foundation of our work.

Every conservation project starts with a condition check of the artwork or cultural assets. This process yields important information about their history, manufacturing technologies, and their condition. The findings from this initial analysis are crucial for developing a conservation concept that aims to preserve the unique properties and historical value of the artefacts.

Documentation is important in order to enable later generations to reconstruct our findings and the interventions we perform on the basis of these findings. We compile condition reports, conservation reports, **mapping**, and photographs.

Photographs or drawings localizing damage and interventions are known as **mapping**.

Documentation of a model of a Japanese temple. The mapping shows such things as loose components, missing components, and previous reconstructions.

PREVENTIVE CONSERVATION

As museum conservators, our top priority is preserving cultural assets for posterity. This includes preventing damage from occurring as well as slowing down the ageing process. All interventions not made directly to the cultural belongings themselves, but rather in its surroundings, are described as preventive conservation. By ensuring stable, appropriate storage, and exhibition conditions, we can help to slow the pace of ageing processes and avoid potential damage before it occurs.

For example, excessive humidity can lead to mould or corrosion, while large fluctuations in humidity or overly dry air can cause wood and ivory to crack and layers of paint to be lost. Light and heat can also be harmful to certain materials. We therefore monitor environmental conditions, regulate light intensity and exposure duration, and select the appropriate materials for storing and transporting cultural belongings.

Headdress from Brazil: light and pest damage to the feathers

WHO LIKES TO EAT THE COLLECTION?

Clothing moth

Preventive conservation also includes *Integrated Pest Management* (IPM) to prevent, monitor and combat pest infestations. Hungry insects like carpet beetle larvae, woodworm and gray silverfish are combated without the use of pesticides, but rather with physical and biological treatments.

Soft powdery debris or excrement produced by insects, larval shells and damage to objects are signs of insect infestation. The extent of the infestation can be established by setting adhesive traps for monitoring in storage and exhibition spaces. Pests are especially fond of organic materials, such as feathers, fur, wood, and paper. When we discover an infestation, we treat the affected objects by placing them in special chambers for deoxygenation or freezing. Of course, prevention is always better than cure, so we make sure that storage and exhibition spaces are always clean while taking measures to prevent pests from entering so that damage doesn't occur in the first place.

Larva of the Berlin beetle

CONSERVATION

Conservation treatments on an object serve to preserve its condition and prevent further damage. One fundamental method for preserving an object is cleaning it. We remove superficial dust to minimise its harmful effects, working carefully to avoid damaging the surface.

So we use individually customized consolidants, for example, to stabilize flaking layers of paint and preserve the original substance. These can be applied below the paint layer using a paintbrush or syringe or aerosolized to spray a thin layer onto the surface. We may use specific stabilisation methods, such as backing with thin, colour-matched strips of Japanese paper, to protect fragments of plant materials at risk of loss and ensure the stability of an object. In the case of metal surfaces, applying a protective coating may be advisable to preserve the material and prevent the advance of corrosion and degradation.

Consolidation of powdering paint layers on a palm frond spathe from Papua New Guinea

RESTORATION

Restoration involves much more than merely stabilizing the condition in which we find an object. We carry out treatments to make it easier for visitors to understand the object. For example, we might reassemble a jar that has come down to us in fragments. We might also perform visual improvements, such as gap filling and inpainting of missing areas or removing older, aesthetically inappropriate treatments.

In order to comply with conservation ethics, however, all treatments should be kept to an absolute minimum. Interventions that falsify or correct the original are out of the question. In addition, former conservation treatments must be distinguishable from the original material by professionals. It is therefore of particular importance to precisely document every step during the treatment.

Mask from Sri Lanka: removal of overpaint

Before restoration: original covered by overpainting

During restoration, after removal of overpaint

After restoration, with new retouching

METHODS AND MATERIALS

Every object is unique and is treated as such. Conservation and restoration techniques, as well as choosing the appropriate materials, require comprehensive knowledge and careful consideration. We look at the specific properties of the original materials and take into account how they might react to certain substances. We also consider the durability and **reversibility** of the materials and methods we select.

Reversibility is an important principle of conservation and restoration. All treatments must be removable without damaging the original substance. For example, if an adhesive yellows with age, it must be possible to remove it easily, even decades later.

Selection of various consolidants and adhesives in the lab

EXHIBITIONS

Museum conservators are also responsible for preparing objects for display as well as for setting up and dismantling exhibitions. Working together with art handlers – specialists for installing artworks – we develop mounts for the presentation of the objects in the exhibition space. We also provide support with the assembly and installation of exhibits. This is where the requirements of preventive conservation come into play again: What criteria should a display case fulfill? What **lux** levels may be used to safely illuminate the object?

Lux is a unit of lighting intensity. In exhibitions, illumination significantly affects the impact of the exhibits. However, light can have harmful effects, causing colours to fade and ageing processes to accelerate. The extent of damage increases according to the intensity and duration of light exposure. Organic materials like feathers or dyed textiles are particularly susceptible to such damage, which is irreversible. Hence, we set conservation guidelines for the lighting.

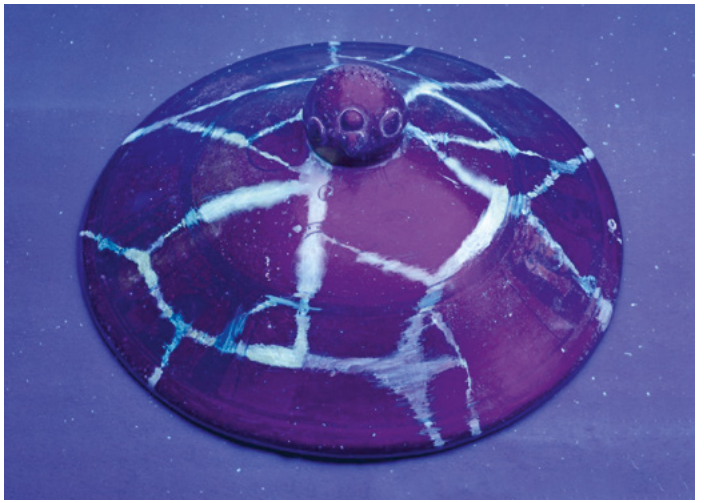
A conservator setting up a display case

CONSERVATION SCIENCE

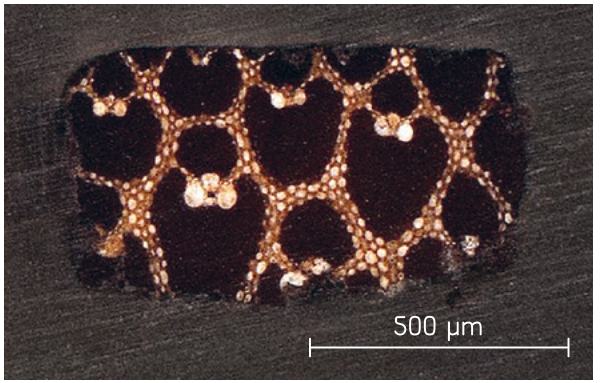
Scientific investigations provide insights into materials and manufacturing technologies as well as processes of ageing and degradation. We try to conduct studies that don't require samples to be taken from the objects, such as microscopic examinations as well as methods using radiation, like UV examination or x-ray fluorescence spectroscopy to determine the type of pigments.

We also employ x-ray imaging and computer tomography – procedures that are more commonly used in medicine – to make hidden information visible. Nevertheless, methods requiring minimal samples, such as **cross-section** and microchemical analysis, are also highly important. To facilitate more in-depth studies on an interdisciplinary level, it is important to work together with specialist laboratories such as the Rathgen-Forschungslabor of the Staatliche Museen zu Berlin. The knowledge this generates is crucial for developing a conservation concept and may also help to date an object or establish its provenance.

For a **cross-section** a tiny sample of material such as a painted surface is embedded in synthetic resin and polished. This can be examined with a microscope to study the sequence in which layers of pigment appear on a painting, how a lacquered surface was laid down, or the cellular structure of a wooden sample in order to identify the species of tree from which it came.



Ultra-violet light clearly reveals earlier restoration work on this Maya pottery



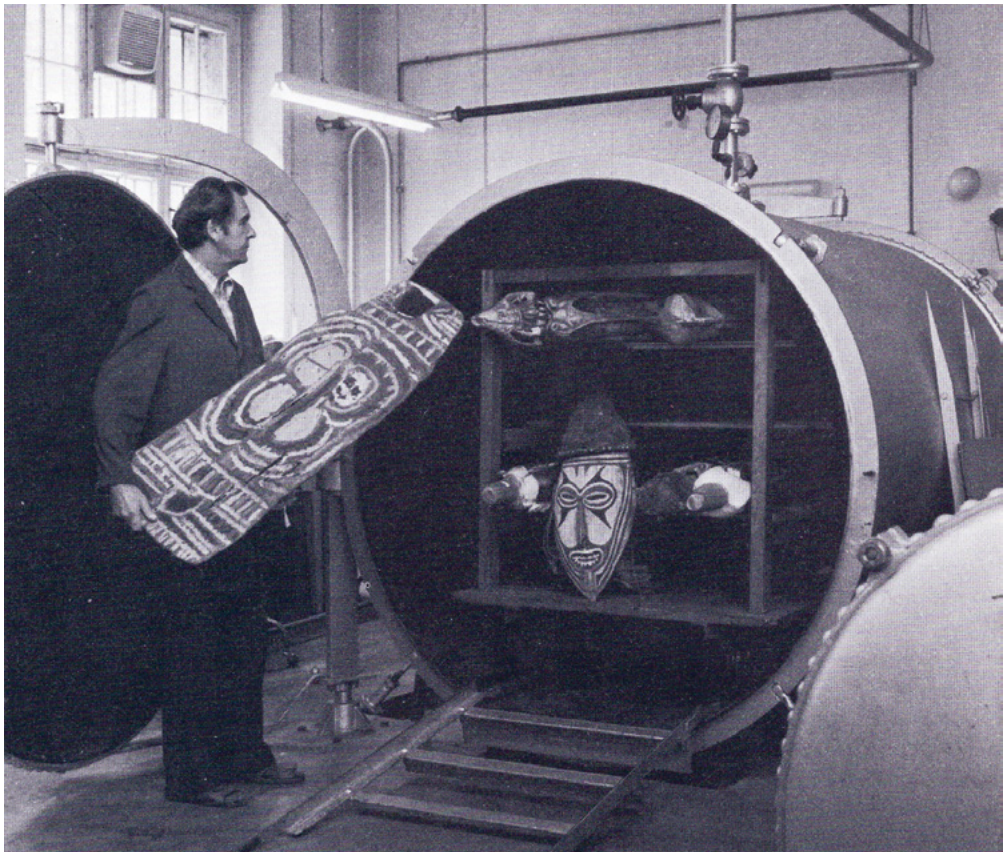
Viewed under a microscope, the woven material of a basket from north-eastern India can be identified as bamboo (above) and rattan (below)

BIOCIDE CONTAMINATION

From the late 19th century to the 1990s, large parts of museum holdings were treated with chemical substances to combat pests such as insects and fungus. Ethnological collections are particularly prone to insect damage as they are made of a wide variety of different materials. At the time, the use of chemicals seemed to be the best way to protect these objects. Today, however, we know that many of the substances that were used are carcinogenic and toxic, so we wear personal protective equipment (gloves, masks, and suits) when directly handling the objects.

Research is still being conducted to find a decontamination process that can be used for all types of materials as well as larger sets of objects without causing damage. There are already promising research results in this area. For the moment, we confine ourselves to removing contaminated dust particles to minimize the risk of exposure to harmful substances.

Hazardous substance warnings: Caution – health and environmental hazard!



Pest control at the Ethnologisches Museum Berlin between 1956 and 1970

Cleaning a Haida crest pole at the former site of the Ethnologisches Museum in Berlin-Dahlem: Conservators wearing protective suits, masks, and gloves to avoid exposure to toxic substances contained in the dust. Both poles on display at the Humboldt Forum were tested for contamination prior to being presented.

COLLABORATIONS

Conserving and preserving cultural assets requires not only care in dealing with the physical **objects**, but also awareness of their cultural and symbolic significance. A respectful approach is particularly vital in the case of ethnological collections, which are closely linked to the cultural, religious, or social identities of societies and communities. It is crucial to work together closely with communities of origin in order to take their perspectives and expectations into account during the conservation process. This may mean limiting access to certain **cultural belongings** to specific groups of people.

By going into exchange and cooperating with the communities of origin, we gradually learn their terms and concepts, which we adopt in order to correctly describe the objects. By working in partnership with representatives of communities of origin on an equal footing, as conservators we seek to ensure that both the material and the immaterial properties of the objects are respected and protected. This dialogue is an ongoing process based on sensitivity and respect and aims to harmonize scientific standards with cultural values.

Engaging respectfully with cultural heritage also involves thinking critically about language. As an example, conservators use the term **object** to emphasize that all cultural assets, from everyday utensils or works of art, are of equal value. However, some representatives of the cultures of origin regard the term as derogatory: in their view, it suggests that the items in question are mere objects. Instead, many prefer to use the term **cultural belongings**, which highlights that they embody the history, identity, and ideas of the cultural groups that created them. This perspective was shared with us during our dialogue with our partners throughout the collaboration.

Interview with the honourable Lama Ts. Altankhuu in the Dashchoilin Monastery in Ulaanbaatar, Mongolia

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SMB/SPK: Staatliche Museen zu Berlin – Preußischer Kulturbesitz

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S. 2: Staatliche Museen zu Berlin, Museum Für Asiatische Kunst, Foto: Anna-Isabel Frank
S. 5: Staatliche Museen zu Berlin, Ethnologisches Museum, Kartierung: Sophie Scholz
S. 6/7: Staatliche Museen zu Berlin, Ethnologisches Museum, Fotos: Daniela Drechsler
S. 8/9: Staatliche Museen zu Berlin, Rathgen-Forschungslabor, Fotos: Bill Landsberger
S. 11: Staatliche Museen zu Berlin, Ethnologisches Museum
S. 12/13: Staatliche Museen zu Berlin, Ethnologisches Museum, Fotos: Marieluise Michaelis
S. 14: Staatliche Museen zu Berlin, Ethnologisches Museum, Foto: Anna-Isabel Frank
S. 15: Staatliche Museen zu Berlin, Ethnologisches Museum
S. 17: Staatliche Museen zu Berlin, Ethnologisches Museum, Fotos: Anna-Isabel Frank
S. 18: UNECE / GHS
S. 19: Staatliche Museen zu Berlin, Rathgen-Forschungslabor
S. 20/21: Staatliche Museen zu Berlin, Ethnologisches Museum, Foto: Ronny Heuschneider
S. 23: Solongo Sudar

HUMBOLDT FORUM

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STIFTUNG HUMBOLDT FORUM IM BERLINER SCHLOSS

Ethnologisches Museum
Staatliche Museen zu Berlin

Die Beauftragte der Bundesregierung für Kultur und Medien

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CARE!