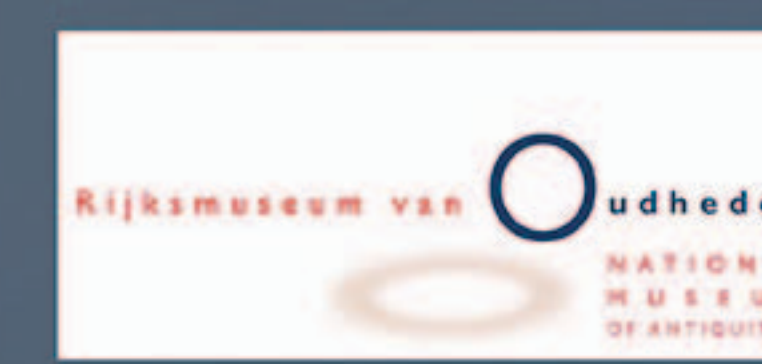


UNDOING THE NEW: Conservation of 21st Dynasty Egyptian Coffins and the impact of unsustainable treatments in the 20th century

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The objects mentioned on this poster are the coffin sets of Gautseshen (F93/10.1a) and Nesy-ta-neb(et)-taouy (F93/10.2a) both Chantresses of Amun in Thebes during the 21st Dynasty and the mummy board of Tjenetpenherunefer (F93/10.3b) Thebes 21st Dynasty, all in the collection of the Rijksmuseum van Oudheden.

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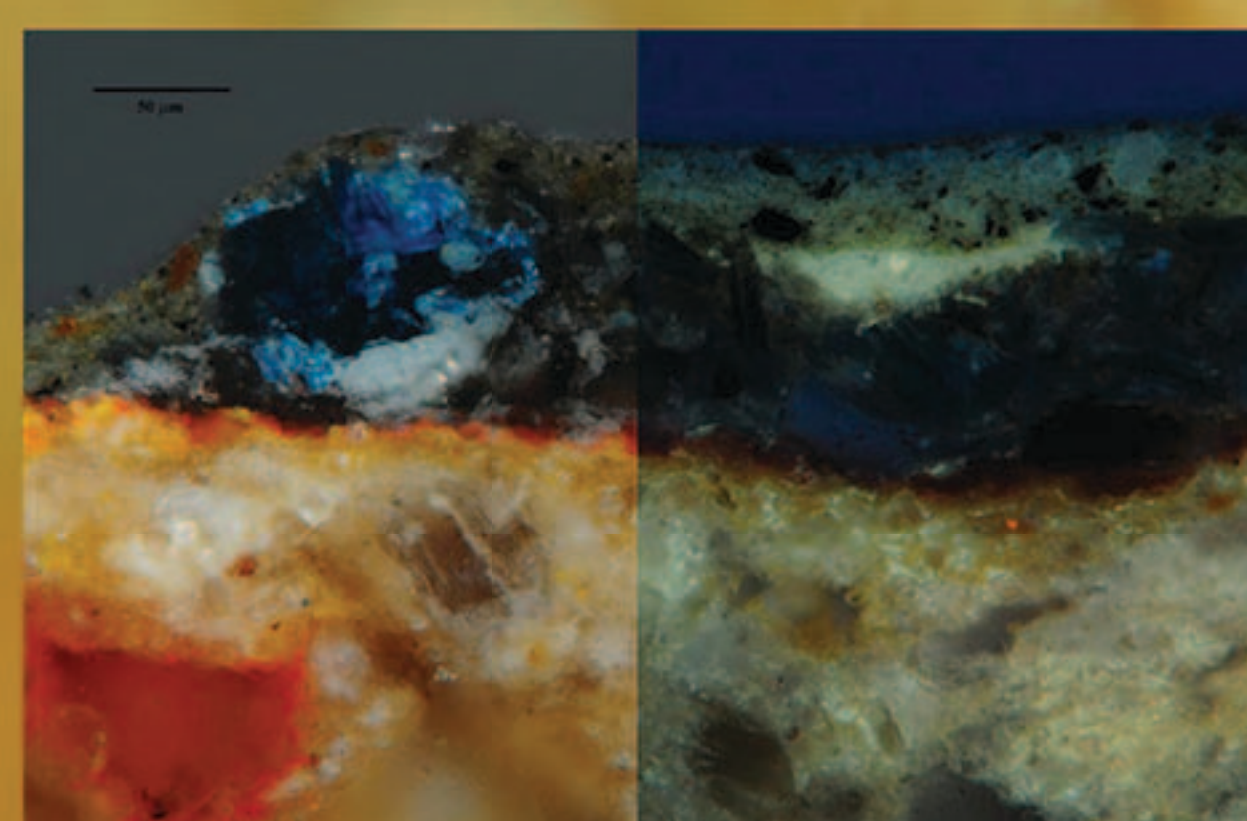
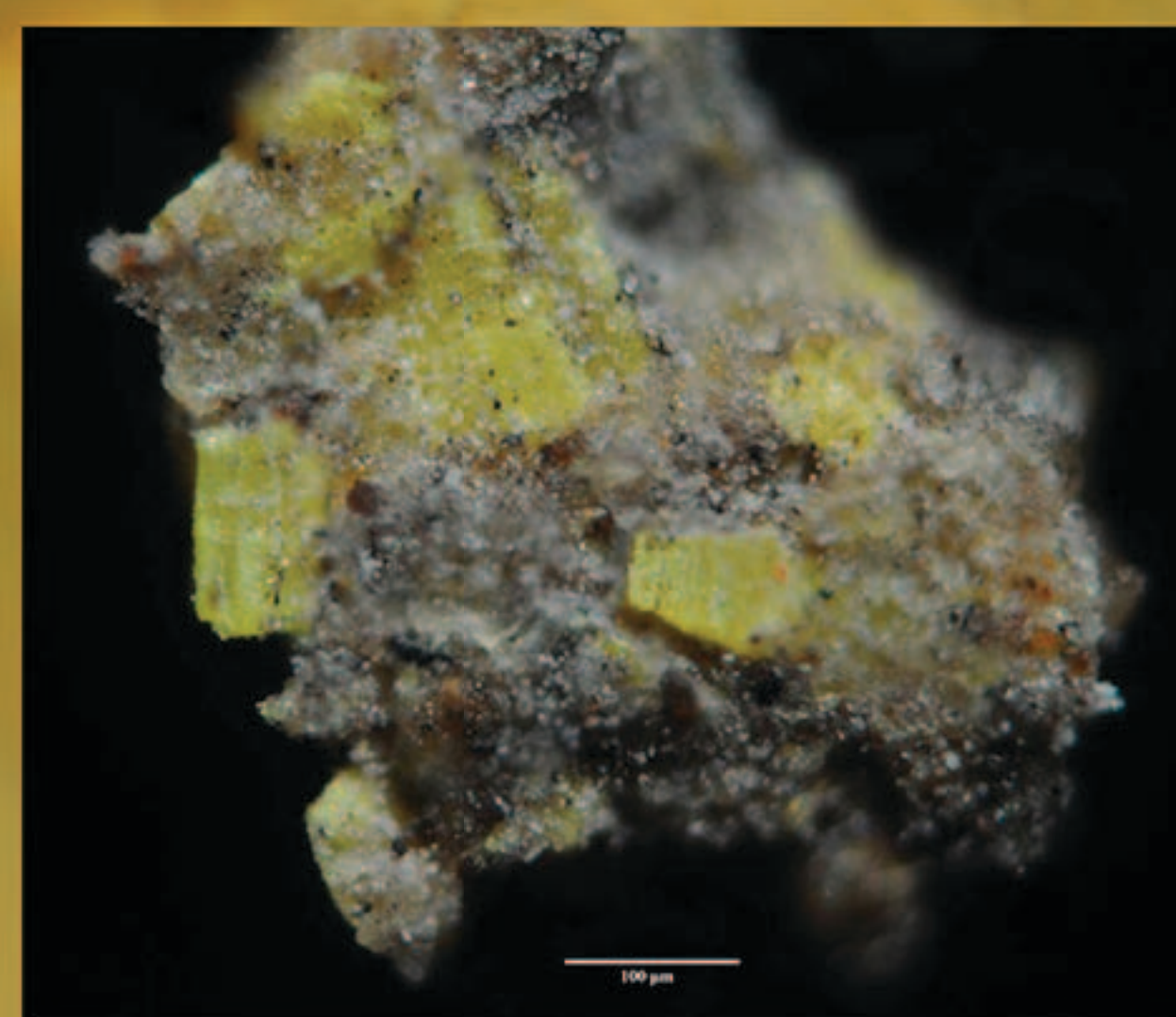


Introduction

After their discovery and excavation in 1893, several mummy coffin sets of the Bab el-Gasus corpus were given to the Rijksmuseum van Oudheden (Leiden, the Netherlands), among 17 international institutions. The polychrome mummy coffin sets originally belonged to Priest and Chantresses of Amun, in the Deir el-Bahari area during the 21st Dynasty.

Since arrival in the museum, many coffins, lids and mummy boards have had up to four different restoration phases (see Timeline). Incompatible materials introduced as fills, adhesives, and coverings have caused problems far beyond the inherent deterioration of the 3,000 year-old materials with the result that most of these objects ended in storage, un-exhibited, for at least 60 years. Conservation treatment carried out on the artifacts exemplify unsustainable 19th and 20th century interventions, the complex resulting damage, and the strategies that were undertaken in this project to mitigate the damage and secure the objects.

The Vatican Coffin Project, a collaboration between the Vatican Museums, the Louvre, and the Rijksmuseum van Oudheden, investigates and preserves these coffin sets in a coherent and sustainable way. Although research commenced in 2011, actual treatment was initially limited to five months in Summer 2013, taking place in front of the public as part of an exhibition, requiring careful prioritization of phased treatments.



Top: Orpiment particle, showing hardly any inherent deterioration (reflected light 10x, photo c/o Musei Vaticani)

Above middle: Incompatible coverings on top of original paint layering: 1. orpiment and yellow ochre, 2. haematite, 3. Egyptian blue, 4. black overpaint phase 1950-1980 (c/o Musei Vaticani)

Above: False Colour infra Red image of the inner side of the outer coffin of Gautseshen (c/o Musei Vaticani)

1893 - 1940: Mummy board Tjenetpenherunefer

After arrival at the museum in 1893 the coffin sets were exhibited almost immediately. Tjenetpenherunefer's mummy board was exposed to an unfortunate impact, resulting in fragmentation of large areas of the polychrome and *muna* underlayers. Fragments from the hands section apparently got lost or forgotten about, as that area was filled with a wax-resin mixture. This rigid fill dramatically altered the appearance, and as a result the board had not been exhibited for over 60 years. A great deal of the missing fragments were found again in recent years.

Treatment involved removal of the wax, and replacement of the large displaced fragments. Because of the condition of the mummy board, and the extensive restoration history of the coffin sets in general, it was decided to reunite the boards and the fragments in a complete reversible, non-interventive way. This was a very challenging decision, even for conservators with modern conservation ethics.

A removable support for the large fragments was cast out of pigmented West Systems® marine epoxy bulked with hollow 3M® glass micro-balloons, and buffered with a layer of Japanese paper. On top, the stabilized fragments are resting in place.



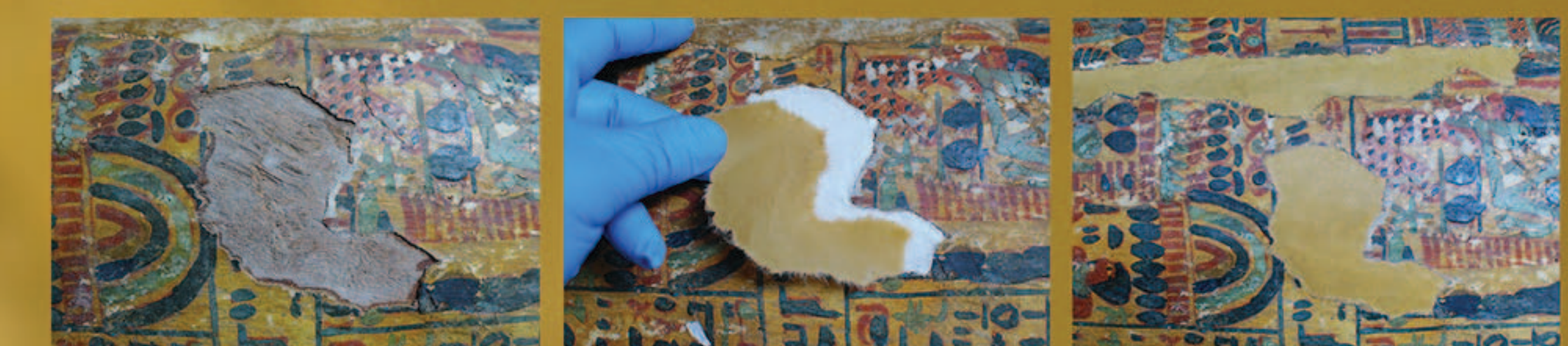
Above: Mummy board of Tjenetpenherunefer, before treatment (left) and nearing completion of reversible, non-interventive treatment (right)

Left: Missing fragments of the hands area were found again, and replaced on top of removable supports cast out of pigmented resin (shown far left)

1950-1980: Incompatible materials on coffin set of Gautseshen

Gautseshen's coffin set went through four restoration phases that did more harm than good. Previously applied fills had damaged and cracked the wood substrate, *muna* layers, and polychrome. In the post war period more fills were introduced, obscuring more of the painted surface. These obsolete fills were mechanically removed or reduced, and the exposed areas were visually integrated with reversible masks of toned Japanese tissue paper over more sympathetic fills consisting of Chinese and Japanese paper, and Arbocel® cellulose fibres with Klucel® G 10% a 1:1 distilled water/ethanol mixture. Surface treatments from prior restoration actions caused flaking and cupping of the water-sensitive paint and solvent-sensitive ancient mastix varnish. A new consolidation method was developed for these sensitive surfaces using facings of Japanese long-fibre Tengujo paper and sturgeon glue.

Far below: Flaking and cupping paint (left) was consolidated with sturgeon glue applied through Japanese paper (middle) which was left to dry, then remoistened and removed (right)



Above: Lid of the outer coffin of Gautseshen, during treatment (left) and nearing completion of treatment (right)

Below: Obsolete fills were removed (left), filled (middle) and visually integrated (right), using Chinese and Japanese papers.



Discovery of the Bab el-Gasus cache by Eugene Grebaut and his assistant George Daressy. Transport to the museum in Cairo.



Mummy boards hanging on walls and unsupported display of coffins resulted in structural damage and loss of significant fragments. More repairs and overpaint with materials that are typical for the period (wax-resin, oil paint, etc)



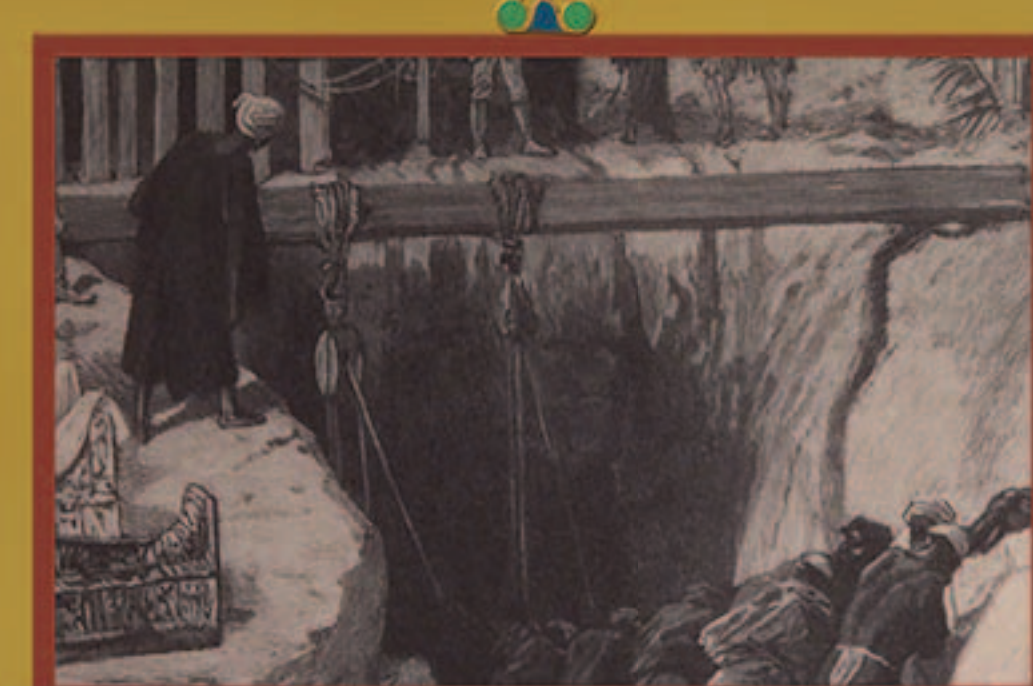
More fills in existing fill areas (now use of gypsum and acrylics) and extensive overpaint using poor quality paints (acrylics and acrylo-gouache).



1070-945 BCE

Burial of the coffin sets of the Priests and Chantresses of Amun, Deir el Bahari.

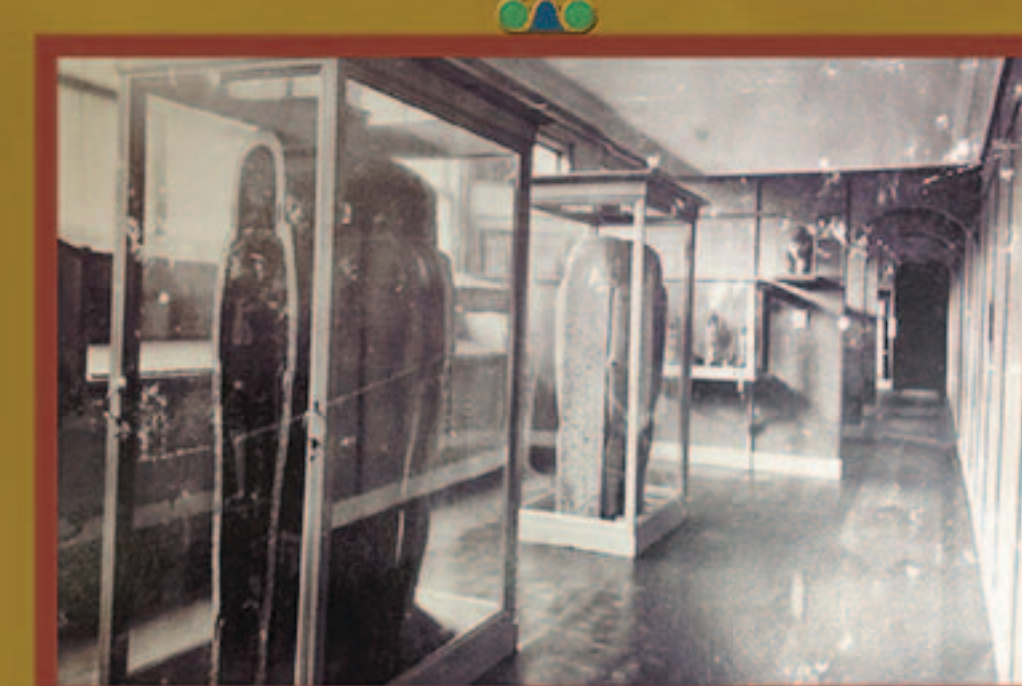
1891



1893

Dispersion of half of the coffin sets over 17 international institutions. Arrival in the Rijksmuseum van Oudheden and immediate repair of the coffins, lids and mummyboards with textile strips and fills

1920s-'30s



1950s-'60s

Lead white based filling material is introduced without removal of earlier fill materials. fills extend over ancient surface damaging and covering the paint and varnish.

1970s-'90s



2011 -

Since 2011 - Collaboration within the Vatican Coffin Project: material analysis, pigment identification, wood analysis and other investigations (following an analysis protocol) form the basis for conservation intentions and active conservation treatment (started 2013).