Conservation Report

GENERAL INFORMATION	
Project number	0162.REST.MS.I.1946.0924
UBG Signature	Ms I 1946 ("Graz Mummy Book")
Title	Banker's bill for various sums for beer and oil tax and other
Place	Place of excavation: El Hibeh, Egypt
Date	260 BCE
DESCRIPTION	
Object description	Papyrus fragment with a central fold, approx. 150x250 mm when not folded. One side (recto) contains text in carbon ink in two columns, whereby the right one was written over a *kollesis* (i.e., the join between two papyrus sheets when creating a scroll). The other side (verso) contains a layer of gesso and decoration covering just under half of the fragment´s surface and is indicative of the document´s re-use as mummy cartonnage (for details, see: https://mummybook.uni-graz.at/en/). The fragment is housed between two sheets of glass, presumably handmade, as it contains air inclusions and impurities. The glass sheets are sealed around the edges with a textile adhesive tape which appears to be a later addition or repair, as the tape partially covers the original label. Previously, the glazing appears to have been sealed with a black paper tape (also found on other fragments in the collection), residues of which were found underneath the textile tape. The label contains the handwritten inscription "Man.I.1946 Bankier-Rechnung ca. 260 v. Chr. Hibeh papyri 113 Part 1" and was probably added right after the fragment´s arrival in Graz and its glazing.
Condition before treatment	The fragment had been affixed to the glass with small spots of a wax-like substance but has since slipped between the glazing. On the recto, a section of the kollesis was repaired with a strip of glassine paper. On the right side of the fragment, the papyrus has a large tear which was probably caused by internal distortions and is presenting a risk of a large portion of the fragment breaking off. A small piece is loose and shifts inside the glazing when handled. The pressure of the glass sheets on the fragment during storage and handling is causing the gesso and pigment particles to crumble and detach from the papyrus surface. The papyrus had already suffered mechanical, insect and liquid damage when it was part of mummy cartonnage: the edges are frayed and brittle, there are losses and insect tunnelling (partially filled with frass) and large stains over both sides of the fragment. Individual papyrus fibres have lifted from the surface so that in some parts, only half of the fragment´s thickness is preserved.
TREATMENTS CARRIED OUT	
Opening the glazing	The glazing was opened by cutting the textile tape with a scalpel. The spots of a wax-like substance had already detached themselves from the fragment so that no further intervention was necessary to remove

	the fragment from the glass. The label was removed from the glass with a scalpel and the adhesive residue from the tape was mechanically removed from the paper surface.
Surface cleaning	Due to the fragility of the gesso and the high value of the fragment with all its parts – however small – the decision was made not to disturb the surface by cleaning the fragment.
Repairs	The strip of glassine paper over the kollesis was removed mechanically because it was covering potentially important information about the material nature of the fragment. It became apparent that this repair had held both parts of the fragment together as the adhesive used for the kollesis had failed. However, it was decided that the parts of the fragment would be stabilised by being held in the mount and that it was not necessary to intervene with any additional adhesives.
Mount	Four layers of Zerkall Alt Burgund Bütten paper (supplied by Römerturm) were laminated with wheat starch (supplied by GMW) to reach the exact thickness of the fragment at its thickest point. This laminate was cut to the dimensions of the new glass sheets. The exact outline of the fragment was traced onto a sheet of polyester film while still in its original glazing and transferred to the paper laminate with a needle. The inside of the outline was manually cut out with a scalpel and the shape further adjusted so that the fragment could fit within the mount without slipping. Because it would be sufficiently held in place by the shape of the surrounding mount, it was not deemed necessary to attach the fragment to the mount using adhesive (in the form of bridges or hinges). In a portion in the lower right corner of the mount, the uppermost layer was delaminated and the label was inlayed into this recess with wheat starch paste. The mount is intended to counteract the uneven thickness of the fragment caused by the gesso layer and so prevent any pressure on the fragment itself. Furthermore, it acts as a buffer between the fragment and the adhesive tape and environmental conditions outside the glazing. It also has the additional function of placing visual emphasis on the fragment within the mount.
Re-glazing	Together with the mount, the fragment was placed between two sheets of Artglass AR 99 (with 99% UV protection) (supplied by Bilderrahmen Bergmann) without the use of adhesive. The glazing was sealed with Filmoplast T adhesive textile tape (supplied by Schmedt) around the edges of the glass.
Protective enclosure	A protective enclosure was made out of acid free, ageing-resistant corrugated board by Klug Conservation and lined with Plastazote LD45 (inert polyethylene foam, supplied by GMW).
TREATMENT COMPLETED	
Conservator	Lena Krämer, Theresa Zammit Lupi
Date	16.09.2024

P H O T O S

Before treatment:

Recto

Verso

During treatment:

Laminating the mount

Tracing the outline

Details:

Before treatment:

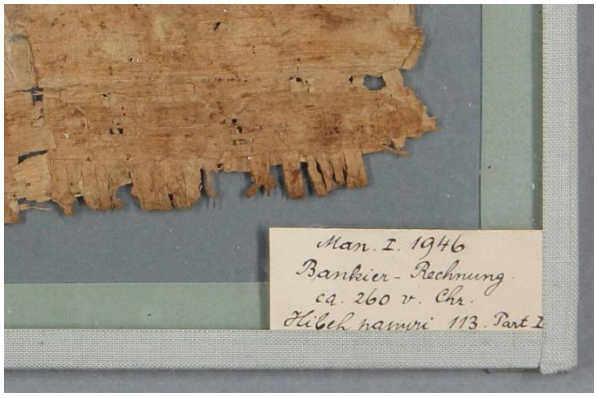
Loose fragment shifted between the glass

After treatment:

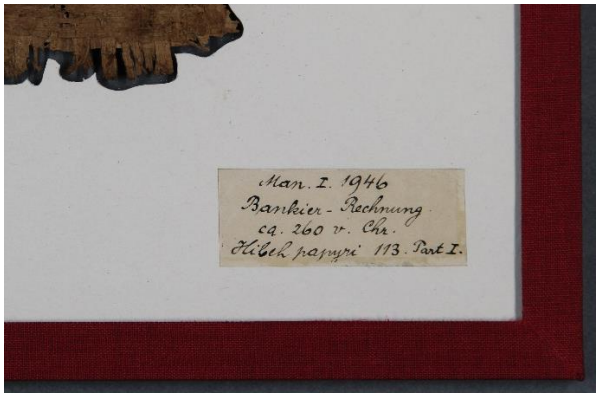
Loose fragment in its original and final position

Glassine paper repair over the kollesis

Kollesis after the removal of the repair



Label partially covered by the tape



Label inlaid into the mount

After treatment:

Recto

Verso

After treatment:

The treated and re-glazed fragment in its new protective enclosure

BIBLIOGRAPHY

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Thanks go to Eve Menei and Helen Sharp for sharing their knowledge on different mounting methods for papyrus fragments.