

## Conservation of a Roman Tomb House in Tuna el-Gebel, October/November 2020

Heike Pfund, 29.02.2020

### Funding

This project was supported by the German Foreign Office and its Cultural Preservation Programme, by the State Museum Hanover and by the Egyptian Museum Cairo. We are very grateful for all support.

The project incorporated stabilization work of the architecture, including a new roof for the connected chambers, and pre-consolidation of wall plaster and paintings.

### Stabilization of Wall Plaster - Preparation for the Conservation of Wall Paintings

Tomb house GB33 (M20) with two adjacent chambers has some of the most amazing wall paintings in Tuna el-Gebel. Though fragmented, the Egyptian paintings on ground floor level tell stories about funerary concepts and show individual and exceptional pictures. Paintings were much endangered due to several reasons: A partly collapsed roof of the antechamber was urgently asking for repair, mud brick walls were disintegrating and painted wall plaster had become loose.

Therefore, a first step to preserve the precious interiors was to stabilize the architecture. Restoration of antique mud brick walls and repair of the dilapidated roof of the antechamber, built in the 1930s, was imperative.

Before the roof could be touched, the masonry, plaster and paint-layers had to be pre-consolidated. A team of three conservator-restorers, two conservators from the Egyptian Museum in Cairo and one conservator from Germany, worked on walls in the antechamber (west and south walls), in the adjacent chamber (south and east walls) and in the main room (north and east walls).

The conservation concept developed between 2009 and 2012 by Prof.Dr. Nicole Riedl-Siedow and Dipl.-Rest. Alexandra Winkels had been applied successfully in several field schools from 2012-2018, and was consistently used in this campaign.

Conservation measures were done in consecutive steps: After careful dry cleaning with soft brushes and air blowers, the disintegrated surfaces of the mud bricks and the mud plaster were consolidated, to provide a solid substructure for the treatments to come. The whitewash-layers, wherever in need, were consolidated. After this, loose parts of the plaster were stabilized by rendering edges with a conservation plaster. Some of the detached plasters required an additional treatment to secure them. Injections of a fluid and fine-grained mortar (called "grout"), filled voids between plaster and brick walls, stabilizing areas of instable detachment. Two different recipes of grout were used, one for small hollow spaces and one for bigger spaces.



Hisham Elsheikh (left) and Mohamed Fattouh Sayed conserving plaster

All recipes were based on the Cellulose-Ethers Klucel E, M and Tylose MH 10.000 as reversible glues. For grouting an additional material was introduced, an aqueous silica acid dispersion (brand name “Ludox PX 30”).

Once the wall plasters had been stabilized, Japanese paper was glued on the painted surfaces for protection during roof works. Also, protective shields made from wood and plywood had been manufactured to stand in front of walls with wall paintings, to prevent damage by falling bricks and debris, whenever roof work was ongoing.

A recipe and material list can be found in the article [Conservation treatment for the plasters and wall paintings of Tuna el-Gebel's tomb houses.](#)<sup>1</sup> A thorough documentation of all emergency conservation measures in writing, by photographs and by hand mapping was executed.

#### [Wall Paintings in antechamber and chamber](#)



Before plaster conservation (left) and after (right). Cracks and holes were closed and edges rendered

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<sup>1</sup> [https://www.tuna-el-gebel.com/files/tuna/content/conservation/A%20Tuna%20website\\_conservation%20concept\\_wiederhergestellt\\_abga.pdf](https://www.tuna-el-gebel.com/files/tuna/content/conservation/A%20Tuna%20website_conservation%20concept_wiederhergestellt_abga.pdf)





Antechamber (GB33A) (left) and GB33B (right) with protective shields during roof work



Antechamber, west wall, left part, before conservation (left) and after (right)





Antechamber, west wall, middle part, before conservation (left) and after (right)



Antechamber, west wall, right part, before conservation (left) and after (right)



Antechamber, west wall, after facing with Japanese paper

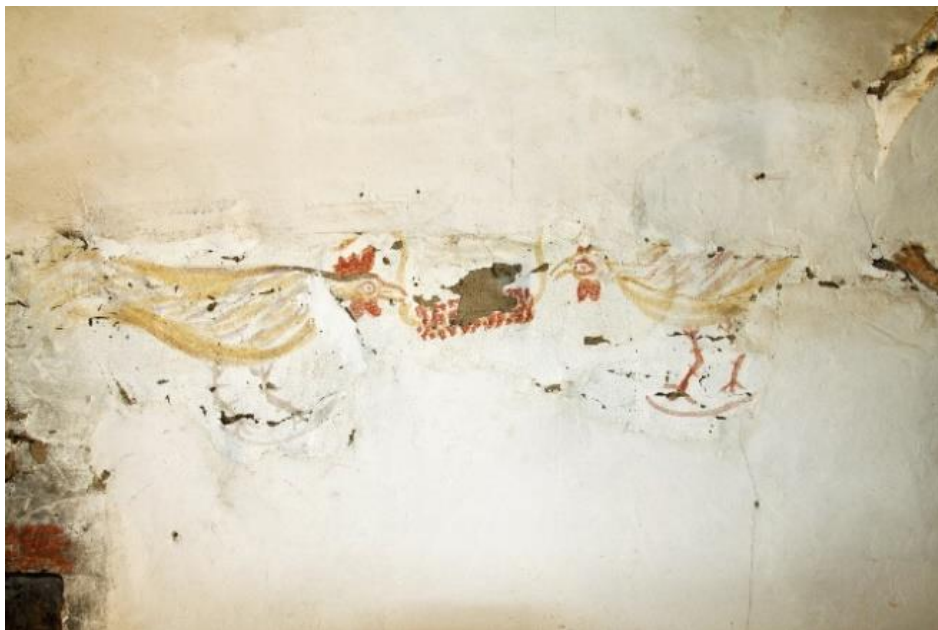


Antechamber, west wall, after facing with Japanese paper





Adjacent chamber (GB33B) east wall, before conservation treatment



GB33B, east wall, detail before and after conservation treatment of the plaster of 2019



GB33B, east wall, detail before and after conservation treatment of 2019



Main room, ground floor, south walls after conservation of 2019





Main chamber, east wall after conservation of 2019