
CONSERVATION WORK, 2004

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Conservation activities during this campaign were concentrated on the funerary chapel of Ny-anekh-Nefertem (no. 15). A review of the condition of the reliefs and polychromy confirmed the efficiency of treatment applied immediately upon discovery in the season of 2003.

Climatic conditions inside the chapel and neighboring chapel 16 have been largely stabilized in the effect of constructing a shelter above them to isolate them from their surroundings. Humidity data from the thermohygrometer (ROTRONIC) oscillated around 75%-65%, registering a sudden drop, below 60%, only in the second half of December and particularly in January and February. While temperatures changed in keeping with the season, the diurnal variations were insignificant.

No secondary destruction in the form of rifts or detachments of either the painting layer or parts of the reliefs executed in artificial mortar was observed. Parts of the decoration subject to intensive conservation treatment in the previous campaign were in particularly good condition. However, some hollows under the wall surface were identified by tapping and needed to be treated to avoid complete disintegration. Multiple detachments and peelings can be observed in the lower parts of the walls, which were overlaid with a thin layer of whitewash; parts have been mounted, but on too limited a scale until now.

The ceiling of the chapel proved a subject of concern. In 2003, the surface had been sprayed with a solution of PARALOID

B72 in acetone, the purpose being to protect the extremely thin layer of painting against powdering and splitting. Although this procedure proved generally efficient, there were still many tiny detachments of the polychromy visible all over the ceiling at the beginning of this season. The main problem, however, is the horizontal foliation typical of the rock here, witnessed by several delaminated rock fragments found during explorations.

The microclimate with increased air humidity ensured by the conditions inside the shelter has diminished the process of salt crystallization on wall surfaces, the painted surfaces in particular. Some salt concentrations have been noted, but their role in further destruction of the ancient substance is negligible. More extensive salt crystallization was observed on the façade, the ceiling of the doorway and in the southern part of the chapel (also on the ceiling). Salt concentrations in the form of very tiny, singularly distributed granules (Dia. c. 0.50 -1.00 mm) have appeared on the walls in places without painted decoration, located more than one meter above the mud floor (particularly on the east wall, and the southern part of the west one). They were easily removed with a soft brush.

A systematic mounting of detachments in the polychromy layer was carried out throughout the season. Used in this procedure was a water solution of PRIMAL E330 (~6%). It was preceded by damping of endangered places with ethyl alcohol mixed with water (1:1). After softening the sur-

face tension with this mixture, and dripping it with a viscous substance, each detachment was delicately adhered to the matrix with cotton wool tampons. Syringes and small brushes were used for these procedures, the latter tool being especially convenient for mounting the whitewash covering the lower part of the walls.

Rock detachments on the ceiling were mounted in similar fashion, using, however, a suspension made on the base of a water solution of PRIMAL AC33 (c. 10%) and mineral fillers and pigments. The suspension was injected with a convenient syringe. Not only numerous small fragments were mounted in this way, but also a large piece of ceiling in the northeastern corner of the chapel. The edges of the mounted fragments were reinforced by increasing the concentration of the solution up to 15%, and by adding some fine-grained, pure sieved sand to the suspension. The putty made this way was applied with a spatula.

Two fragments of the ceiling, measuring together c. 20 x 20 cm, were mounted in the entrance to the chapel. These fragments were stuck to a relatively thick putty made on the base of MOVILITH 50 (PVAc) dissolved in acetone, and subsequently diluted to c. 10-12% with pure ethyl alcohol. This

modification was necessary because of surface crumbling in the spots to be mounted, which resulted in voids being created. Mineral flours by Remmers, as well as pure, very fine-grained sand and pigments were used as fillers.

The chapel façade was cleaned. Dust and salt concentrations were brushed away from its surface. Detaching fragments of the rock in the inscription on the 'lintel' were mounted with PRIMAL AC33 (water solution, c. 10%). Some ancient gypsum-mortar fillings found in the uneven surface of the rock, as well as tiny remains of the whitewash were mounted with PRIMAL E330 (water solution, c. 6%).

Eroded sections of the façade in the center, tending to peel and fall at mere touch, were dripped with a FUNCOSIL ANTIHYGRO concoction, intended to diminish the hydrostatic heave of loamy minerals found in the rock. Subsequently, a suspension produced on the base of FUNCOSIL KSE 500 STE, mineral fillers FUNCOSIL KSE-Füllstoff A and B, and pigments, was injected into the crevices. These works are a continuation of procedures initiated in 2003.

Gypsum seals were fixed on the rifts crossing the ceiling and walls, for better control of rock stability.

SMALL OBJECTS

STONE

The 'false door' limestone stela of priestess Khekeret, found in Shaft 32, was cleaned [Fig. 1].¹ Loose dirt and two layers of whitewash were removed from the surface in order to reveal the reliefs (inscriptions and figures of the deceased), as well as remains of original polychromy. The cleaning was performed mechanically, using scalpels,

small brushes and wooden needles. The remains of polychromy were secured with a 2-3% solution of MOVILITH 50 (PVAc) in alcohol.

WOOD

Three figurines representing nude men (cf. Figs. 9 *a,b* on p. 156) were cleaned mechanically. Sand and dust were removed

1 Cf. contributions by K. Myśliwiec and K. Kuraszkiewicz in this volume.

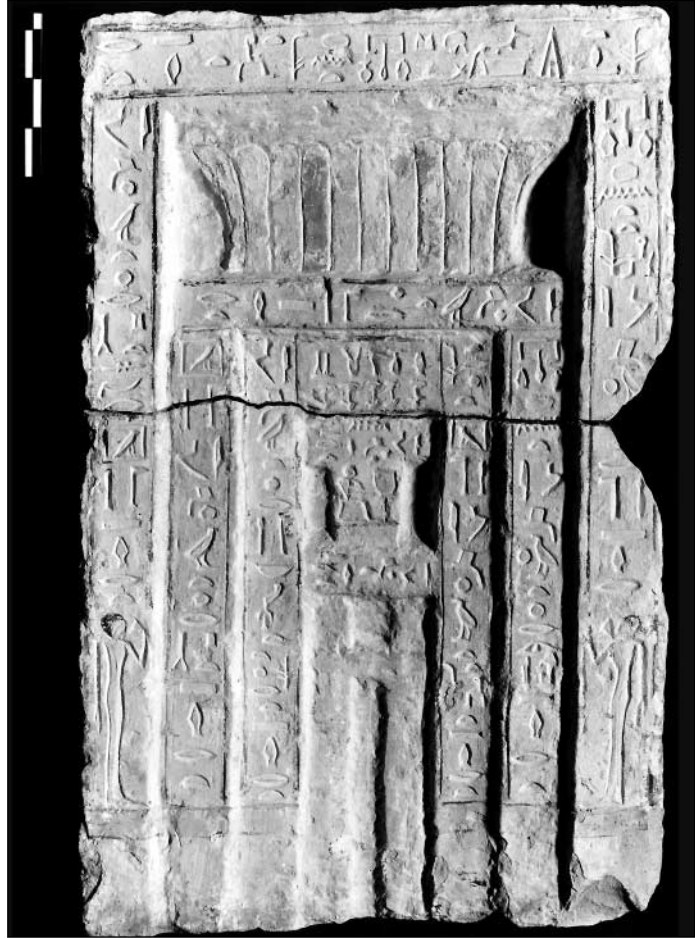


Fig. 1. False door limestone stela of Hathor priestess Kbekeret, found in Shaft 32, upon discovery (left) and after cleaning and conservation (Photo M. Jawornicki)

from their surface with thin soft brushes. Traces of polychromy were revealed on the painted wigs, black outlines of eyes and brows, pale layer of paint on the feet of one of the figures, and remains of red color on the body of the largest one.

The partly decomposed figures were stuck together (MOVILITH 50/PVAc, c. 20% in acetone). Balsa wood reinforcements were used for connecting the head and torso of the largest figure (same glue as above), as well as in some other places of the same figurine where wood deformation appeared to require it.

Two smaller figurines were dripped with a solution of PARALOID B72 in toluene (c. 7%), with added ethylene glycol in acetone (c. 20%) in 10:1 proportions, in order to reinforce the extremely damaged interior structure of the wood. The material of the largest figurine is in relatively good condition except for some deformations. Only small fragments of its surface denote deterioration requiring further treatment. These were reinforced by dripping with a c. 5% solution of MOVILITH 50 (PVAc) in acetone (used instead of paraloid which results in a much more substantial change of wood color).

POTTERY

Thirty vessels (28 from deposit 3 in ritual Shaft 49) were restored from sherds using a solution of MOVILITH 50 (c. 20%) in acetone.

COPPER

A group of model vessels made of copper, mostly in fragmentary condition, came from Shaft 32. Only two vessels were intact, preserving remains of a pinkish substance inside them. The surface of the metal fragments was cleaned mechanically. Thick layers of oxides, as well as soil, were removed with scalpels and glass fiber sticks. Ten objects, including seven vessels, were restored using a c. 20% solution of MOVILITH 50 in acetone. The surface of the reconstructed vessels was secured with a thin layer of PARALOID B44 (2-4% in acetone).

CARTONNAGES

Various elements of cartonnages, which were found in Shaft 21, either still attached to a mummy or scattered around it (cf. *Fig. 12* on p. 159), were dripped with KLUCEL GF (c. 2-3% solution in ethyl acetone) in order to reinforce, reintegrate and elasticize their technological layers comprised of cloth, ground and painting.