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DEIR EL-BAHARI

HATSHEPSUT TEMPLE CONSERVATION AND PRESERVATION PROJECT 1995/1996

Franciszek Pawlicki

The Polish-Egyptian Preservation Mission to the temple of Queen Hatshepsut at Deir el-Bahari, organized jointly by the Egyptian Supreme Council of Antiquities and the Polish Centre of Archaeology, conducted restoration and conservation works from November 9, 1995, until March 31, 1996, in continuation of activities carried out over the past three years.¹

A detailed work schedule, originally approved by the SCA, was partly modified to address the current situation. The emergency repair of one of the drains of the vaulted roof above the Lower Southern Portico (Obelisk Portico) was the mission's first task. It was agreed to provide for the provisional protection of the collapsed roof until the final portico rebuilding project is accepted. Accordingly and in compliance with the wishes of the SCA authorities, the preliminary project for the restoration of the temple's first causeway and pavements alongside the porticoes of the Middle Platform has been prepared. It

¹ See: *PAM* V, pp. 85-90; VI, pp. 53-59; VII, pp. 69-76. The expedition included Dr. Franciszek Pawlicki, who was in charge of the works; Messrs Rajmund Gazda, Wojciech Myjak, Andrzej Sośnierz, Miss Ewa Kapusta, Mrs. Katarzyna Rachuta, conservators; Messrs Andrzej Kwaśnica, Piotr Dąbrowski, architects; Messrs Krzysztof Złotkowski, Walery Kotlicki, civil engineers; Messrs George Johnson, Waldemar Jerke, photographers; Mr. Andrzej Ćwiek, Mrs. Hanna den Heijer, Prof. Jan Winnicki, Dr. Maciej Witkowski, egyptologists. The Supreme Council for Antiquities was represented by Mr. Azab Ismail Ali who worked with the expedition as inspector, and Eng. Mohammed Shawky, representative of the Engineering Department. We wish to express our deepest gratitude to Dr. Mohammed Soghir and to Dr. Sabri Abd el-Aziz for their friendly and efficient help in the fulfillment of our tasks.

was decided to repair the pavement in the Lower Chapel of Anubis as well.

The lower ramp, excavated by a mission from the Metropolitan Museum of Art² and then reconstructed by a team from the Service des Antiquites, was badly damaged recently by rains. Water washed out a thick layer of accumulated soil, pitting the surface that visitors walk on. The foot of the causeway was re-excavated in search of the original ramp, revealing some steps of huge limestone blocks. It became clear that originally the ramp had been paved on either side of the sandstone steps which run down the middle.

In the meantime, some original fragments with a sunken-relief representation of a lion were selected among the loose blocks and attributed to the causeway's northern parapet. They will be restored in the coming season. Concurrently, the conservation of the lowermost part of the southern parapet was completed. A badly eroded, gigantic block decorated with a lion representation and Hatshepsut's name carved in sunken relief was structurally stabilized and consolidated.³

The final stage of the restoration of the southern wall of the Upper Court was completed according to the program. Some twenty-three decorated blocks or fragments have been attributed to the upper register of the eastern section of the wall. One of them, representing the king and Amun, was recently removed from the modern retaining wall built in the Bark Room. The decoration of this section of the southern wall has been re-created. It presents the kings being led by the gods Amun and Montu, and celebrating the *heb-sed* jubilee in the presence of a pleiad of gods. Another scene showing a king procession is visible above the entrance to the Royal Cult Chapels. The decoration above the

² H. Winlock *The Egyptian Expedition 1924-1925*, p. 15, fig. 12.

³ The block was found by the American mission. See Winlock, *op. cit.*, fig. 16.

entrance to the undecorated room is composed of the typical scene representing the king kneeling in a kiosk in front of the gods Amun, Iwnmutef, Thoth and the representation of souls *Pe* and *Nekhen*, The missing parts of the original wall were re-erected in red-brick, then covered with artificial slabs and aesthetic plaster.

As a result of studies undertaken by the Epigraphic Mission⁴ several original blocks have been attributed to the northern wall of the Re-Horakhty vestibule. The said wall was previously partly restored by a team from the Service des Antiquites directed by É. Baraize. Missing elements were restored in new limestone blocks, while joints or losses were filled in with gypsum. The front slab of the niche ceiling was missing and the Esna-shale rock behind it was strongly eroded. Because all the gypsum fills have undergone heavy disintegration after the recent rainfall and the original elements required full conservation treatment, it was decided to dismantle the previous restoration and to rebuild this section again, all the more since there were some inaccuracies in the reconstruction of the king's figure. The bottommost courses were left untouched despite some bulges caused previously by the pressure of eroded Esna-shale rock.⁵

Almost fifty original blocks have been attributed to the wall and its decoration was restored (Fig. 1). It presents the scene of offering incense to the god Atum by Tuthmosis III. Course by course, the wall was re-erected to its original dimensions. Missing elements were replaced in red-brick. The restoration of the eastern corner will facilitate the attribution of blocks to the upper register of the east-

⁴ The mission directed by Dr. Janusz Karkowski delivered the preliminary project of the restoration of the northern wall, which was subsequently revised, completed and technically prepared by the preservation team.

⁵ The disintegrated rocks were removed from the area behind the wall and the protective supporting wall was built, leaving empty space between the wall and the slope of the mountain.

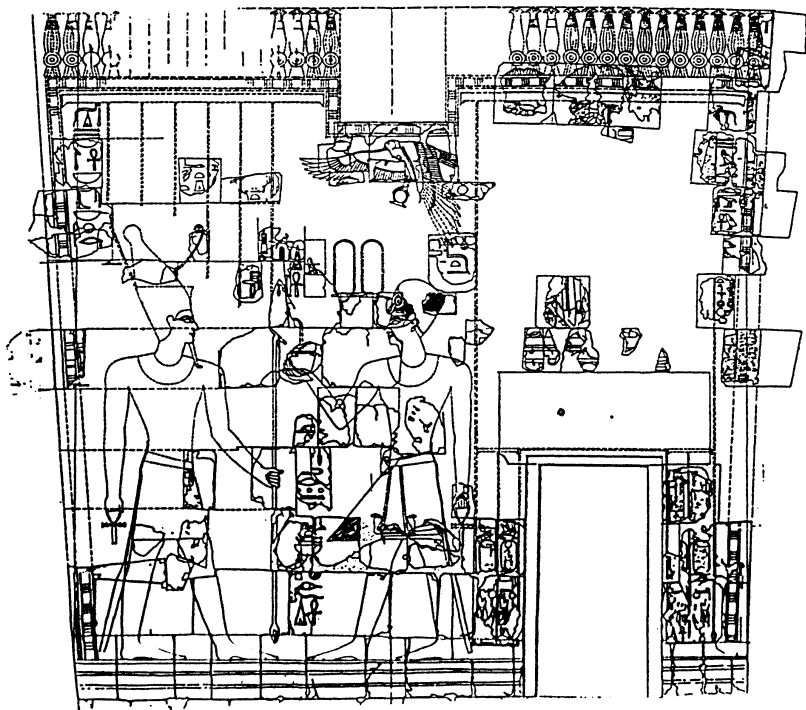


Fig. 1. Tuthmosis III offering incense to the god Atum from the northern wall of the Re-Horakhty vestibule.

ern wall just above the representation of the bark of the setting sun.

The conservation of a niche in the lower part of the eastern section of the wall has been completed. It involved injections for reattachment of detached plasters, mortar fills for cracks, losses and broken edges, consolidation of the top layer of painting. All previous repairs (cement or gypsum) were removed. Mortar made up of powdered limestone with polyvinyl solution was used instead of the gypsum. The top layer was

consolidated and protected with a solution of ethyl silicone in benzene. Salts affecting the northern and eastern walls were mechanically removed. For structural reasons, the lintel above the niche was executed in new limestone.

During the season a complete restoration program of the sun-altar was implemented. The altar's west side had been strongly affected by salts crystallizing on the surface; the steps and pavement were destroyed. Restoration involved conservation of limestone blocks and replacement of some of them. To restore the southern side of the sun-altar the upper course of blocks was dismantled and the accumulated soil and disintegrated Esna-shale debris removed. During the cleaning work two stages of altar construction were confirmed. The corner of the older and smaller altar as well as the older steps were unearthed. The steps of the final stage were rebuilt again. All blocks requiring restoration were treated by conservators. Epoxy resin was used to re-attach and reinforce some elements. Finally, all original blocks were protected by a solution of ethyl silicate and nine new limestone blocks were added to the course of the cornice and parapet to consolidate the altar's structure.

In accordance with a long-term work schedule for the temple's Third Terrace, the restoration of the Bark Room was included in this season's program. Some conservation was initiated in the previous season, when one of the scenes on the northern wall showing Tuthmosis I and Jahmes was cleaned of soot. Current works anticipated restoration and conservation of the western wall of the Bark Room, including the entrance to the main sanctuary, the westernmost scene of the southern wall, as well as restoration and conservation of the upper register of the northern wall.

The restoration of the western wall involved dismantling the retaining wall once built by the British team and replacing it with original stones. Recently attributed blocks include one with the representation of Queen Hatshepsut kneeling in front of the

seated god Amun, a winged solar disk and the Queen's epithet. On the inner face of the blocks from the door-jamb there is a personification of Upper Egypt in the form of a lady with offerings. On her head there is the Queen's cartouche and the name Djoser-akhet. The inscription on both door-jamb is the same: "Two Ladies, Fresh of years. Golden Horns: Divine of Crowns, Kings of the Lower and the Upper Egypt: Men-kheper-Re. She has made as her monument for her father Amun, the Lord of the Thrones of Two Lands. The door Amun receives the monument of Amun (...) was made for him. May she make the life eternally like Re".

The westernmost scene of the southern wall of the Bark Room presents a partly preserved representation of king Tuthmosis I and Queen Jahmes standing behind the sacred bark of Amun. Nine polychrome fragments belonging to the two figures were found. All of them were first protected by a solution of ethyl silicate in benzene, then recomposed and re-attached to the bedding. All the earlier cement fills were removed and replaced by powdered limestone mixed with polyvinyl.

Twelve original fragments were introduced into the northern wall of the chamber. Most of them belong to the representation of kings kneeling in front of the sacred bark of Amun. This part of the wall had already been reinforced with some new limestone blocks. Current restoration involved their removal and replacement with original blocks. A fragment above the niche was reattached by means of a stainless anchor and re-adhered with an epoxy resin (Araldite Ciba-Geigy).

The surface of the blocks in the Bark Room was completely covered by soot. Cleaning methods and techniques were tested during the pilot conservation program two years ago and during subsequent laboratory testing of various solutions and dispersion. Before cleaning, urgent consolidation of all fragile plasters and paints was conducted to secure detached plasters, flaking and peeling paintings. This involved several injections of a solution of Mowilith D-60 and a dispersion of Funcosil 510.

Cleaning was done with a solution of ammonia water used to wet repeatedly the sooted surface. Fiberglass pencils and scalpels were then used for the mechanical removal of soot remains. Except for the green and blue pigments, which are badly baked and scorched with the soot molecules, the results of the cleaning were fully satisfying.

The mission continued the restoration of the Osiriac statue in the facade of the Upper Portico. The restoration of the sculpture located in the southern wing of the portico, just above the Shrine of Hathor, was completed. The figure, erected some fifty years ago, was in very bad condition due to weathering, both the original structure and the fills used for the reconstruction. Upon removal of the disintegrated fills, it turned out that one cheek of the face, as well as a great part of the crown had been modeled in gypsum and painted by previous restorers.⁶ The original block mounted as the statue's right arm was in reality its left. Several other inaccuracies were also recognized. The statue was almost completely dismantled, all gypsum fill removed, the head and crown restored once more. Some original fragments including parts of the face were replaced. The original beard was restored as well. Missing elements were sculptured in a mortar made of powdered limestone, white cement and poly vinyl. Twelve original fragments were added to the upper part of the body and arms, anchored in place with stainless steel bars and stuck with epoxy resin. Salts were mechanically removed, and aesthetic plaster covered the surface of the missing elements.

Nine original fragments were also inserted into another statue in the southern wing of the portico. Some more statuary elements were selected and partly restored during the season. All of them will be used for the restoration of another statue in the northern wing of the Upper Portico.

⁶ The statue was re-erected during the restoration works conducted by É. Baraïze.

Several fragments belonging to the head of the gigantic Osiriac statue of Queen Hatshepsut were assembled and restored during the season. Missing elements were sculptured in mortar and covered by a layer of aesthetic plaster. This impressive portrait of Hatshepsut most probably belonged to the gigantic statue set beside the Southern Lower Portico.

The conservation of the cornices and balustrade of the Lower Shrine of Anubis was also completed during the season. Some of the elements, which had fallen away after the last rain, were re-attached and protected with ethyl silicate. Losses were filled in with mortar. For large recesses the filling was introduced in layers. The finishing coat of the fills is physically and mechanically compatible and similar in texture and color, thanks to the application of powdered rock. The upper part of the preserved gargoyle was protected with a solution of ethyl silicate; the missing, lower part of the gargoyle was reconstructed in new sandstone. Large, empty voids between the stones of the facade of the Anubis Shrine were filled with mortar and cotton. Liquid mortar was injected into cleaned joints and fissures. The parapets of the Upper Portico and the cornices of the Shrine of Hathor were protected as well.

The program for the full-scale conservation of the painted reliefs in the Lower Chapel of Anubis was implemented three years ago. During this season conservation works were executed on the western wall of the hypostyle hall. Detached plasters were consolidated, small fissures and blisters filled in with injections, salts removed mechanically. The inner edges of the joints and wide crevices were additionally protected. A final cleaning of the surface dirt was accomplished with a solution of ammonia water and acetic acid. The techniques used for conservation consolidated the powdering or flaking paintings without any visible changes in surface color or texture.

During the season several projects for further restoration have been reviewed and completed. Researches concerning the attribution of the decorated blocks to the pillars of the porticoes of the Middle Platform were advanced considerably.⁷ Eighteen blocks now in the stores were selected to complete the Birth and Punt Porticoes. Further progress has been achieved in the identification and attribution of blocks belonging to the upper register of the northern and southern section of the eastern walls of the Upper Court. Many original blocks have been attributed to the western wall (so called wall with niches) of the same court.

During the season the eastern wall of Hatshepsut's Chapel was recorded in 1:1 scale with a view toward completing the publication of the Royal Cult Complex.

⁷ During the restoration of the pillars conducted by H. Carter and continued by Émile Baraize, several mistakes were made. Some of the blocks were placed in the wrong position, others even in the wrong portico.