

# Franciszek Pawlicki

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## Deir El-Bahari: Hatshepsut Temple Conservation and Preservation Project 1994

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## **DEIR EL-BAHARI**

### **HAT SHEPSUT TEMPLE CONSERVATION AND PRESERVATION PROJECT 1994/5**

**Franciszek Pawlicki**

The third consecutive season of work in the temple of Hatshepsut at Deir el-Bahari lasted four months from December 1994 to March 1995.<sup>1</sup> The work programme originally approved by the Permanent Committee of the EAO was revised and partly modified to address the current situation in the temple after the heavy downpour which occurred at Deir el-Bahari twice in the autumn of 1994. The protection of the Upper Chapel of Anubis, conservation of paintings in the Southern Chapel of Amun, and restoration of the southern wall of the Re-Horakhty vestibule were included in the programme. A project to drain the area to the south of the temple has also been prepared. The autumn rainfall and resultant soil humidity has had a detrimental effect on several of the decorated blocks

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<sup>1</sup> The mission included: Dr. Franciszek Pawlicki in charge of works, Mr. Rajmund Gazda, Mr. Wojciech Myjak, Mrs. Agata Przychodzień, Mrs. Ewa Szydłowska, Mrs. Katarzyna Rachuta, conservators; Mr. Adam Matejkowski, Mr. Andrzej Łopiński, sculptors; Mr. Piotr Dąbrowski, Mr. Andrzej Kwaśnica, architects; Mr. Krzysztof Złotkowski, Dr. Barbara Tamowicz, civil engineers; Dr. Maciej Witkowski, Prof. Jan Winnicki, egyptologists; Mr. Waldemar Jerke, photographer. The Supreme Council of Antiquities was represented by Mr. Salah Bayumi who was working with the mission as inspector and Eng. Mohamed Shawky, representative of the Engineering Department. The mission wishes to express its deepest gratitude to Dr. Mohamed Soghir, General Director of the Antiquities in Western Thebes, for his friendly and efficient help in the fulfillment of our tasks, as well as to all Egyptian colleagues from the Gurna Inspectorate who have aided the Mission throughout the season. Without their personal commitment we would not have been able to accomplish our programme.

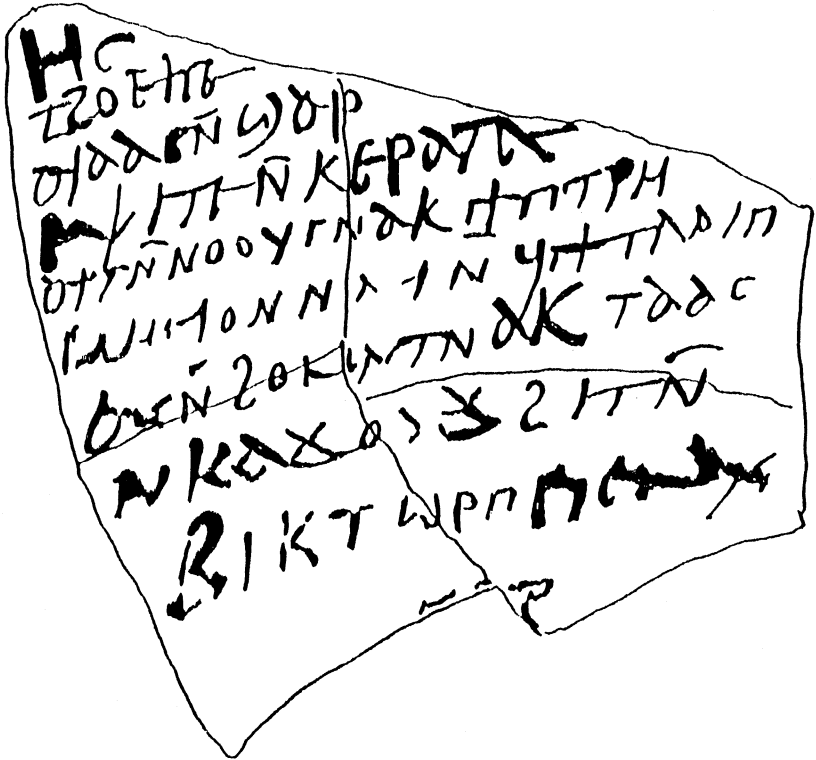


Fig. 1. Coptic ostracon found in the filling of the southern wall of the Upper Court.

gathered in the temple's open-air storage area, causing the salt crystallization process to begin in many cases. It was decided to remove as many of the original blocks as possible from the courtyards to the chapels or roofed porticoes.

This season's objective was to restore the eastern section of the southern wall of the Upper Court to its original form using decorated blocks previously identified and attributed. The

reconstruction of the entrance to the Royal Cult Complex was also planned as a means to join the eastern section of the wall to the western wing restored in the previous season. The wall was heavily damaged during Coptic times when monastery buildings were erected on the ruined third terrace of the temple. Thus, it was only to be expected that a cleaning of the inside of the southern wall would yield finds like a Coptic ostrakon (Fig. 1) and period pottery. This part of the wall was apparently used as a kind of quarry. Quite a number of decorated blocks have been identified as belonging to some of the upper courses, but the stones from other courses have disappeared completely. The bottommost courses of the wall had been reintegrated in part by E. Baraize almost half a century ago. Over the years the majority of the blocks had become dislodged and the entire part near the jamb of the entrance to the Royal Cult Complex has sustained deformation, causing cracks to appear around the edges of blocks and increasing erosion in the widened, empty joints. To restore the wall correctly, it was necessary to dismantle the deformed part down to the foundation, remove the eroded filling, and consolidate the structure. Disintegrated foundation blocks were replaced by new limestone and eroded Esna-shale debris was replaced by a red-brick structure. Mortar was used to fill in all the voids and joints between loosened bricks in order to reinforce the foundations and to prevent humidity from penetrating inside. The back of the blocks was reinforced with a solution of silicon-organic agent. Finally, course by course, the wall was re-erected to the top of the lower register of the decoration. This section of the wall includes the following architectural elements which were restored as well:

- entrance to an undecorated room (slaughter room),
- window of the undecorated room with inner staircase,
- entrance to the Royal Cult Complex.

An additional twenty-five or so original blocks were put back in this section of the wall. The central scene of the lower register (King Tuthmosis III consecrating offerings to the gods Amun-

Re) was restored. The restoration of the lintel above the so-called "window of appearance" led to the interpretation of the room situated to the south of the wall as a slaughtering room. The right jamb of the entrance leading to the undecorated room was restored using original blocks inscribed with a typical inscription containing the king's names and epithets. Considering that the re-erected inside face of the southern wall was also the back of the passage to the Royal Cult Complex, it was decided to restore it in twofold technique conditioned by structural requirements. The missing lintel of the entrance was restored in new limestone and joined to the western section of the wall. An original decorated block attributed to the central scene just above the lintel permitted the position of courses on either side of the entrance to be fixed, thus anchoring the present restoration.

Parallel with the rebuilding of the southern wall of the Upper Court, the entrance to the Royal Cult Complex also underwent restoration. Its western wall was partly reintegrated in the previous season. The outlined representation of Senenmut is the sole decoration of this wall. Four original stones were added to the eastern wall of the passage. The decoration was composed of one scene showing Tuthmosis III being led by the god Amun and goddess Hathor towards the chapel. Two blocks from the topmost course determined the height of the passage.

The rebuilding of the passage to the complex of royal chapels necessitated the restoration of the bottom courses of the eastern section of the northern wall of the Royal Cult Complex. The blocks were heavily eroded and disintegrated owing to the action of prolonged humidity, presumably during the Coptic period. There were two layers of crystallized salts running parallel to the surface and consisting mainly of chloride with an admixture of gypsum, with several additional russet stains on the surface resulting from chemical erosion. The salts were removed and the stone structure was reinforced with silicon-organic agents. Three original stones decorated in sunk relief were additionally replaced in the wall, adding to the scene showing

the king being led by gods. More than twenty stones have recently been attributed enabling restorers to undertake the restoration of the upper register including the lintel of the passage in the coming season.

During the season the mission began restoration works in the vestibule of Re-Horakhty. The lower part of the southern wall was preserved in situ with a few blocks added by our predecessors. This season an additional twelve decorated blocks were restored in the upper part of the wall just above the entrance from the Upper Court to the vestibule. The decoration depicts a kneeling king before an offering table and the seated god Amun. One of the newly attributed blocks came from the Room of the Bark where it had been used in repair work made in the Ptolemaic Period. It was cleaned of the soot and hardened to consolidate the surface. Decorated blocks from the upper part of the scene inside of the entrance were also put back into the wall. The wing of Tuthmosis III standing before Amun-Re-Kamutef, and his inscriptions below the representation of the vulture were restored (Fig. 2). The entrance lintel, which was found broken in two pieces, was consolidated and put together using tee bars. The missing parts of the original wall were re-erected in red-brick, then covered with artificial slabs and aesthetic plasters. The setting for the architrave of the inner colonnade of the vestibule was restored.

The decision to re-erect a further two Osiriac statues of Queen Hatshepsut in the Upper Portico was dictated by the need to protect original fragments of statuary and the desire to add vividness to the already reconstructed temple facade. Over eighty statuary elements, some with preserved polychromy, including original heads, were selected and used for the restoration. The lower parts of the statues (feet, legs) were made in new limestone blocks. The assembled original fragments of torso and shoulders underwent hardening treatment, then were mounted on a stainless steel construction. Gypsum casts were used to cast the missing elements in artificial stone. Once completed, the restored elements

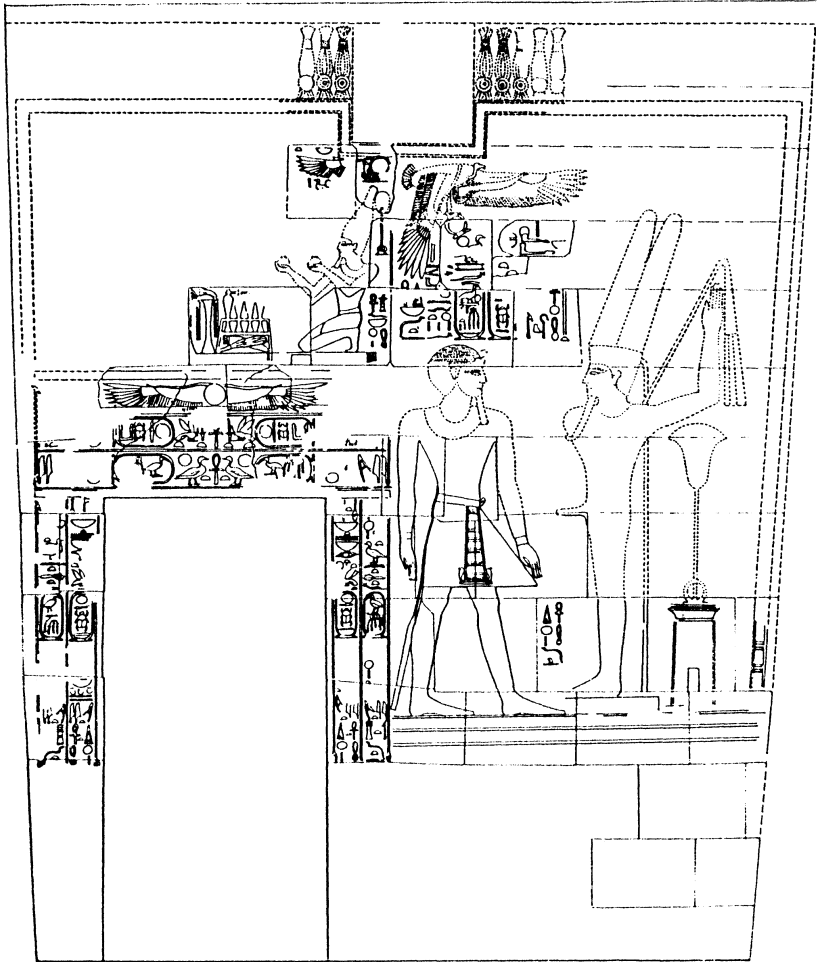


Fig. 2. Southern wall of the Re-Horakhty vestibule after recent restoration.

were re-erected and attached to the pillars of the portico. It was decided that the newly restored statues would be set up on either side of the Upper Portico's axis to give an immediate idea of what the temple facade originally looked like.

Protective works aimed at ensuring the structural safety of the temple continued to be carried out on an extensive scale during the current season. Areas affected by the deforming action of weathering Esna-shale deposits in the surrounding mountains, a constant problem which the mission has addressed over the past several years, were the focus of protective measures. A number of engineering projects was also prepared for future works, including a plan for draining the area north of the temple. The project calls for a series of parallel retaining walls to be built on the slope above the temple in order to keep rainwater from descending directly upon the structure. During the season the protective works behind the northern colonnade of the Middle Platform, and behind the western wall of the Upper Chapel of Anubis were completed. At the same time the project for protection of the northern chapel of Amun was elaborated.

The mission's intensive programme of conservation work initiated two years ago was continued. Additional tasks will be accomplished owing to urgent needs in several parts of the temple following recent rainfall. Nevertheless, the principles guiding the conservation are immutable:

- protection of the original substance of the parts of the temple already restored or preserved in situ against further disintegration (Lower Chapel of Anubis, Vestibule of the Royal Cult Complex, Vestibule of Re-Horakhty, Upper Court);
- preparation of decorated stones to be used in the coming restoration (blocks from the walls of the Upper Court, Royal Cult Complex, Northern Lower Portico);
- systematic preventive treatment of temple elements (Room of the Bark, Upper Portico);



- emergency intervention in units endangered by rainfall (Upper Chapel of Anubis, Southern Chapel of Amun, pillars of the porticoes of the Middle Platform, balustrades, cornices, etc.).

The technical project for the restoration of the sun altar was prepared this season. The conservation of this architectural unit assumes replacement of the completely disintegrated blocks, repairs and reconstruction of some elements. The project for the restoration of the northern wall of the sun altar court was prepared as well. Further progress has been achieved in the identification and attribution of fragments from the vestibule of the Royal Cult Complex, as well as from the northern and western walls of the Upper Court. The project for the restoration of the upper register of the eastern section of the southern wall of the Upper Court was completed and will be implemented in the coming season. The facade of Hatshepsut's Chapel has been recorded in 1:1 scale with a view toward completing the publication of the complex.