## THE HATSHEPSUT TEMPLE AT DEIR EL-BAHARI, 1992 SEASON

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In agreement with the protocol signed by the Polish Centre of Archaeology and the Egyptian Organization of Antiquities, the Polish-Egyptian Preservation Mission to the temple of Queen Hatshepsut, financed by the EAO and partly sponsored by the Polish Centre, resumed its work at Deir el-Bahari after a fouryear interval.1 Following decisions by the Egyptian High Committee, the program of the first season concentrated first and foremost upon preparations to continue the restoration of the Third Terrace, i.e., Upper Court, Royal Cult Complex and Re-Horakhte Complex. Provisional safeguarding in different parts of the temple and an initial conservation of limestone blocks and mural paintings were also included in the program. However, one of the pivotal tasks assigned to the mission was preparing an extensive survey to determine the condition of the temple on one hand and to point out ways and means of preservation and restoration on the other

<sup>&</sup>lt;sup>1</sup> The season lasted from 25 January to 10 April 1993. The mission included: Dr. Franciszek Pawlicki (director), Dr. Maciej Witkowski, Prof. Jan Krzysztof Winnicki, egyptologists; Messrs Andrzej Kwaśnica and Andrzej Beksiński, architects; Mr. Rajmund Gazda and Mrs. Dorota Witkowska, conservators; Messrs Krzysztof Złotkowski, Tadeusz Żukowski and Henryk Głażewski, civil engineers, and Mr. Waldemar Jerke, photographer. The mission wishes to express its gratitude and sincere thanks to the authorities of the Egyptian Antiquities Organization for their involvement and interest in the mission's organization and work.

Although the general trend has been towards an advanced restoration of the structure (following in this our predecessors<sup>2</sup>), it is our firm opinion after this season that the scope and nature of future work should be modified in accordance with the actual condition of the temple and developments in restoration methods. It is clear that the recent changes of microclimate at Deir el-Bahari are having a decidedly deleterious influence upon the ruins. The closeness of Esna shales, increasing humidity, insolation and sand and mechanical abrasions are among the phenomena causing the disintegration of the original stone structure and the peeling of plaster and paintings.

Of greatest danger to the temple is the degradation of the Esna shales through weathering, air humidity absorption and capillary infiltration. Eroded and degraded rocks form debris, which swells and presses against original walls, causing bulging deformations, thin cracks and fractures, mainly around the niches and entrances to the chapels. The following walls were affected by this phenomenon:

- wall of the Northern Colonnade of the Middle Terrace,
- northern wall of the Anubis Shrine (Hypostyle Hall),
- northern wall of the Sun Altar Court,
- northern wall of the Northern Chapel of Amun.

Gypsum control seals have been placed on the cracks on some walls to monitor movement and alterations. An engineering project for the protection of the northern wall in the Anubis Chapel has been prepared. The project requires all the weathered rock

<sup>&</sup>lt;sup>2</sup> The Polish Egyptian Preservation Mission to the Temple of Queen Hatshepsut was formed in 1968; it was directed for over 20 years by Mr. Zygmunt Wysocki from the PP PKZ (Ateliers for Preservation of Cultural Monuments).

debris to be removed and a supporting construction to be built of bricks and limestone blocks in a lime-and-cement mortar. An empty space will be retained between the buttresses and the mountain slope to allow for dilatation and systematic inspection. The planned reinforced construction will allow for thermal and linear expansion of materials, humidity, insulation and a drainage system, and will facilitate dismantling without causing irreversible damage to the original wall. The first step has been taken with conservators protecting detached painted plaster and reliefs.

Conservation concentrated mainly on the niches of the western wall of the Upper Court, which are exposed to considerable insolation. In several places salt crystallization has progressed noticeably on the surface of the paintings, as well as between the inner and outer plaster layers. Pulverization, flaking and peeling of the painted plaster is also progressing. As a consequence of progressing salt efflorescence and hollow blisters underlying them, the plaster has become detached from the stone bedding.

All the plaster and painted reliefs in the niches of the northern wing of the Western Wall have been protected. The detached parts of the decoration have been reinforced and reattached to the bedding.

The same process of disintegration of the stone structure was observed in several other places in the temple, as well as on blocks gathered in temple stores. Large salt efflorescence penetrating into the structure of the stone cause flaking, which in turn results in the loss of entire decorated surface. During the season 16 blocks from temple stores were provisionally protected, and five more were subjected to full conservation treatment. Twice they underwent hydrophobization and were then impregnated

and finally reinforced by filling all the holes and fissures. A number of blocks from the eastern wall of the vestibule of Re-Horakhte were treated on an emergency basis.

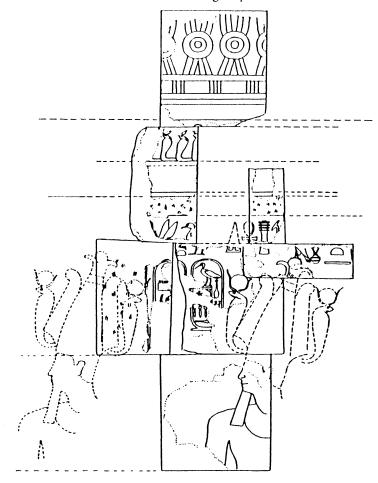


Fig. 1. The Royal Cult Complex. Blocks recently attributed to the southern wall of the vestibule.

The mission surveyed all parts of the temple systematically, picking out the most endangered places where immediate intervention is required. The walls of the corner of the Southern Lower Portico were cleared of bird excrement, peeling decoration was re-attached and empty joints between blocks filled in. The portico pavement was repaired with gravel to prevent air humidity from penetrating. Empty joints in the pillars of the portico of the Middle Terrace were filled with mortar by restorers from the EAO under the supervision of our conservators. Fissures and plaster cracks on the Osiriac statues in the Upper Portico have also been protected. Numerous blocks from the lower courses of the southern wall of the Upper Court were protected and prepared for the final stage of restoration.

The mid-season interruption of the work in January 1989 left the temple without appropriate protection, which combined with heavy rainfall in the winter of 1991 caused considerable damage, both to the ancient and the newly prepared limestone block substance. Almost all of the topmost drums of re-erected columns of the Upper Court had cracked and fractured and had to be repaired during the season. The Upper Court was partly covered with a layer of gravel to prevent salt from the soil from penetrating into the bases of the columns and the walls. The provisional roof over the Upper Chapel of Anubis was covered with a layer of tar paper to prevent damp from penetrating.

Egyptological and architectural research undertaken by the mission led to more than two hundred decorated blocks being identified, selected and attributed to respective parts of the temple. The mission paid special attention to the southern wall of the Upper Court in view of upcoming restoration work. A separate project for the western part of the wall was prepared.

Numerous scenes of a king or queen being led in procession by the gods indicate that the decoration of the wall was part of the iconographic program of the royal cult.

Astoundingly, over seventy of the decorated blocks belong to the vestibule of the Royal Cult Complex, making further restoration of this part of the temple possible (Fig. 1). This is perhaps one of the most important results of the season.

It is clear that the final arrangement of the Upper Court cannot be completed before the problem of the architraves is solved. The mission successfully identified several sets of architraves and some of them were attributed to specific locations. The total length of the reconstructed texts from the architraves of the Upper Court is about 40 m. There is no doubt that a study of the decoration of the upper registers of the walls and of the architraves themselves will provide the final answer concerning the colonnade of the Upper Court and its arrangement.