

THE BERKELEY MAP OF THE THEBAN NECROPOLIS



REPORT OF THE
FIFTH SEASON, 1982

THE BERKELEY MAP OF THE THEBAN NECROPOLIS

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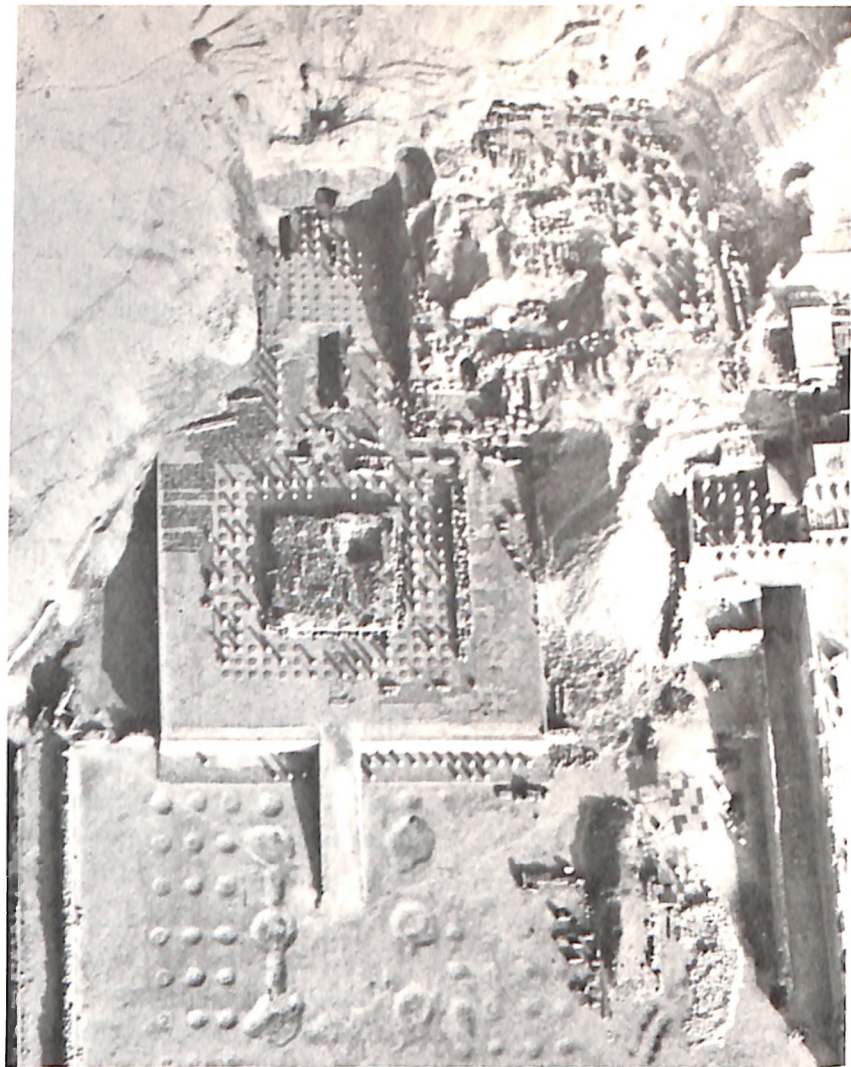
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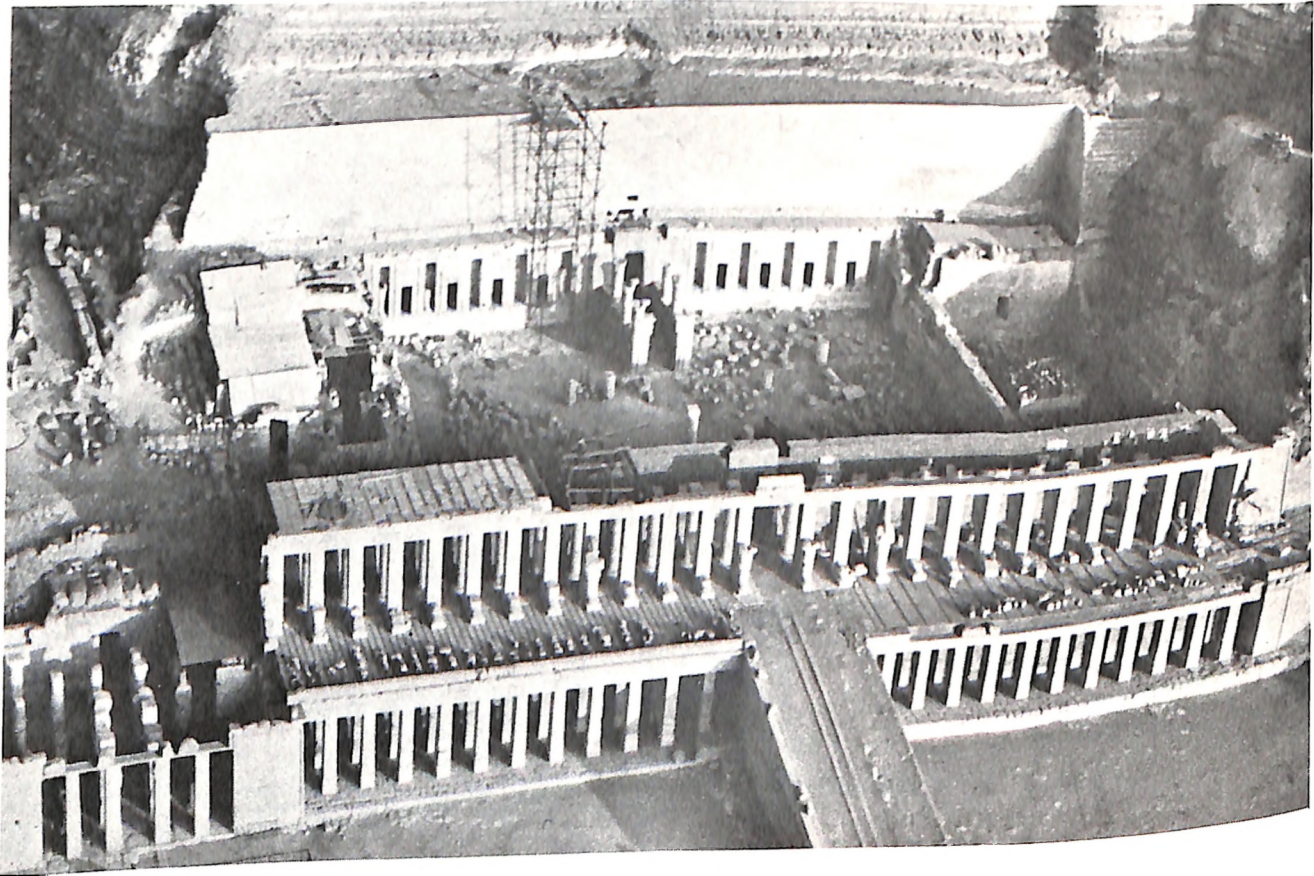
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Balloon near the Colossi of Memnon



Mortuary temple of Nebheptre Mentuhotep



SUMMARY

No area of the world contains as many famous and important archaeological monuments as the West Bank at Luxor. Yet, in spite of centuries-old interest in such features as the Valley of the Kings, the Tombs of the Nobles, and scores of other monuments, there exists no accurate or complete map of the Theban Necropolis. Fewer than ten per cent of its monuments have ever been mapped and planned, and very few of these have been plotted accurately.

This project seeks to establish a survey network over the Theban Necropolis; to prepare a suitable detailed 1:500 archaeological map with 1:200 and 1:100 plans and sections of significant archaeological features; to publish these maps and plans, together with more detailed records of measurements, in an accurate and permanent form, and to accompany these graphic aids with a concordance and catalogue of West Bank archaeological materials.

Such a project as this will provide a useful tool for Egyptologists; but it also will play a significant role in the preparation of long-range plans for the protection and preservation of the rapidly-deteriorating monuments at Thebes.

During the first season of the project, in 1978, a grid network was established on the West Bank and several tombs in the Valley of the Kings were planned.

During the second season, in 1979, the project obtained complete vertical aerial photographic coverage of the Necropolis. Two sets of each of two complete runs were made, two at 3,000 feet to provide stereoscopic photography for topographical maps at 1:500, and two higher runs, at 5,000 feet, for maps at a scale of 1:2,000. In addition, the project continued mapping tombs in the Valley of the Kings.

During the third season, in 1980, the project obtained a full series of oblique aerial photographs of all archaeologically important areas at Thebes. It completed its work in the Valley of the Kings.

During the fourth season, in 1981, the project mapped all accessible tombs in the Valley of the Queens and in several adjacent wadis. It also developed computer programs for the preparation of tomb plans, elevations, and axonometric drawings.

The fifth season, which ran from late March through mid-June, 1982, resulted in the completion of all topographic and architectural work in the Royal Necropoleis. All tombs in the several wadis lying at the southern end of the Necropolis were mapped and re-numbered. A re-examination of several tombs in the Valleys of the Kings and Queens was undertaken to insure the completeness of our field data. The use of ropes and rock-climbing equipment permitted us to inspect and plan several hitherto inaccessible cliff tombs. Two hot-air balloons were used to take a series of oblique aerial photographs of various parts of the Necropolis and to explore cliff faces for features of archaeological interest. Tombs not hitherto reported were discovered during these flights. The project now is channelling its resources to the publication of the Valley of the Kings *Atlas* volume. It will devote 1982-83 to the preparation of that volume and will return to the field in 1983-84.

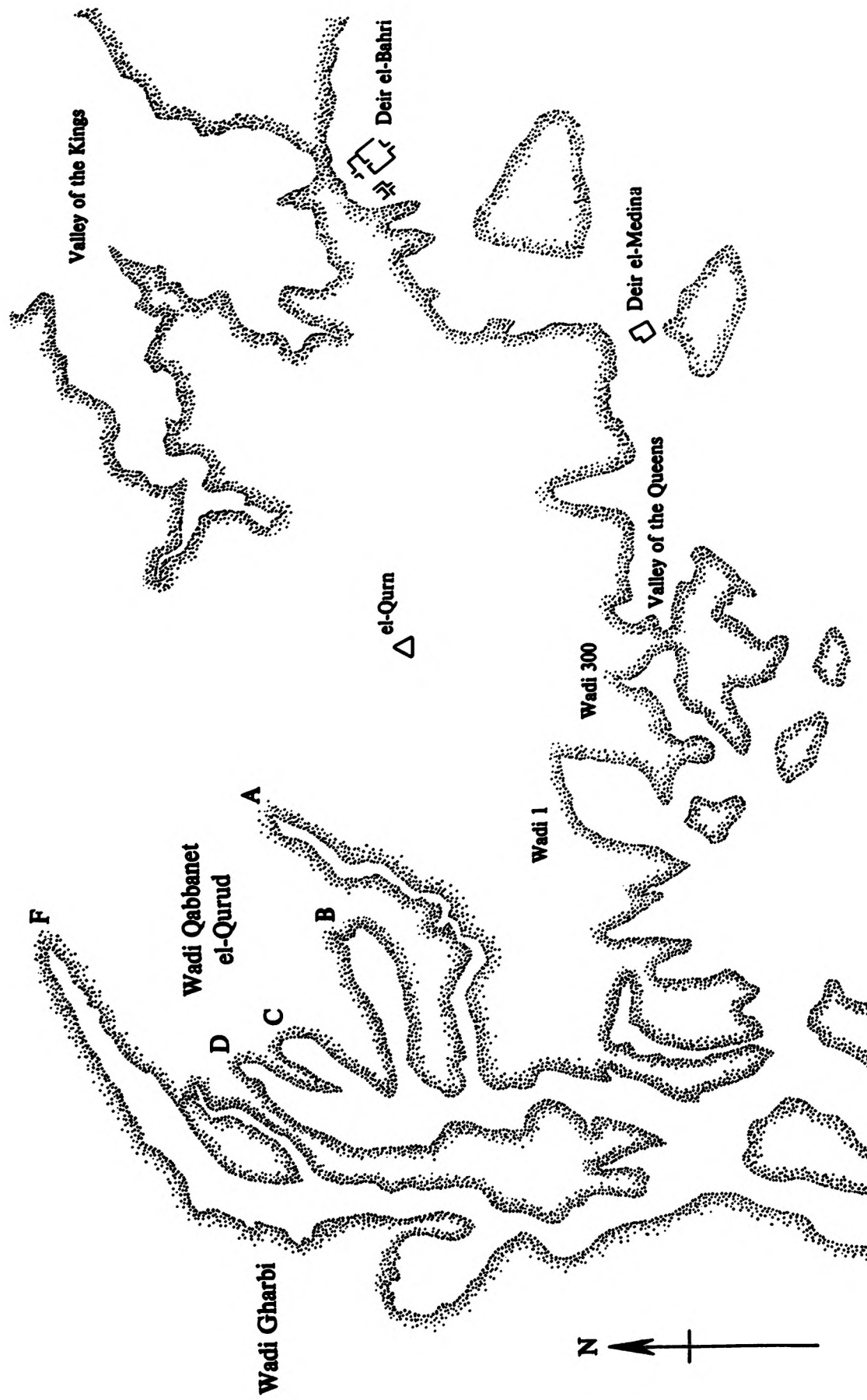


Fig. 1: The wadis of the southern Necropolis (after Carter, *JEA* 4)

PROGRESS DURING THE FIFTH SEASON

The fifth season of the Berkeley Theban Mapping Project was largely devoted to the establishment of survey control points in the valleys south and southwest of the Valley of the Queens and to the planning of the 39 pit and cliff tombs located in that area. All but two of the accessible tombs were mapped. Tomb 27, in Wadi 300, was extremely difficult to enter and seemed in such imminent danger of collapsing that it was decided to forego work there. Its walls and ceilings were, in any case, so badly broken that only minimal information could have been obtained about its original dimensions. The second exception was the tomb of the Three Princesses, tomb 1 in spur D of the large Wadi Qabbanet el-Qurud. Although we completed the mapping of the spectacular narrow crevice leading to the tomb's entrance and also mapped the entrance itself, work in the inner corridor and chamber was postponed until a later season. Only a crawl space remained between the deep rubble and the broken ceiling of this tomb, and a cobra seen in this crawl space made it impractical to proceed. (How the snake gained access to so awkwardly-located a tomb is not known. Presumably, there is a crevice that connects with the surface some 30 m. above.)

The first of the southern wadis completed this season was called Wadi 300 by Howard Carter (in *JEA* 4, 1917, pl. 19). The tombs in this valley have been given no official numbers by the Egyptian Antiquities Organization. All of them are pit tombs, most with single chambers, and many were cut in poor-quality stone that has badly deteriorated during the past three millennia. In 1959-60, Elizabeth Thomas examined the wadi and mapped 15 tombs. She divided them into three groups, giving the tombs within each group a letter designation. We have chosen to number the tombs successively, beginning with those on the southwestern slope, and continuing clockwise around the wadi. Each pit tomb was numbered, whether it was accessible to us or not. (Such a numbering system, we believe, is more internally coherent and more consistent with those used in other wadis). Of the 38 tombs thus numbered, 27 could be entered and mapped. It often was difficult to correlate the letter designations of Elizabeth Thomas with our numbers: tombs that she mapped are occasionally inaccessible today; conversely, we were able to enter some tombs that she could not. An attempt to integrate the two numbering systems to facilitate reference to Miss Thomas's excellent study (*The Royal Necropoleis of Thebes*, Princeton, 1966) may be found in Table 1.

Southwest of Wadi 300, the next wadi to contain known tombs was labelled by Carter Wadi 1. Here, there is one accessible tomb, which we have numbered Wadi 1,1 (and which corresponds to Miss Thomas's Wadi 1 B).

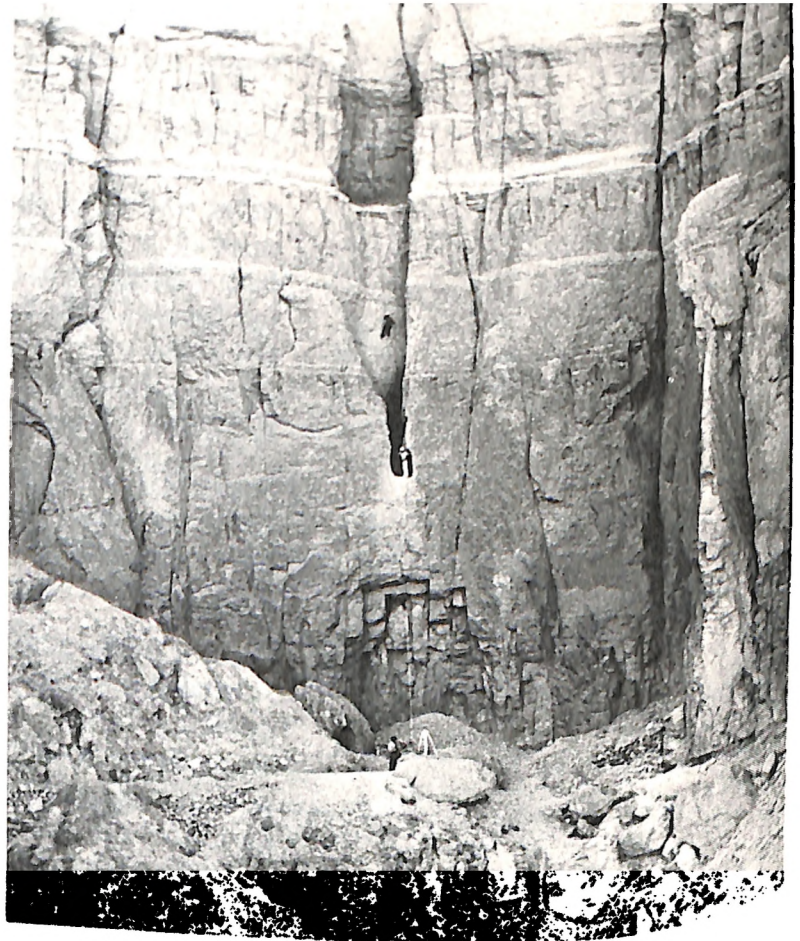
Further to the southwest, over a low extension of the gebel, are the several spurs that comprise the Wadi Qabbanet el-Qurud. These spurs are called by Carter Wadi A,B,C, and D. Wadi A is sometimes also called Wadi Sikket et-Taqa es-Zeide (see figure 1). These spurs contain four probable Queens' tombs in their cliffs, and six visible pit tombs. Again, no official numbers have been assigned to these tombs. We numbered them by wadi, with tomb 1 always being the major cliff tombs. The correlation of our system with those of Thomas and Carter is given in Table 2.

An examination of Wadi Gharbi (Wadi F), also shown on Carter's map, revealed no tombs at all.

A NOTE ON THE TOMB OF HATSHEPSUT

The entrance to Wadi A 1 (Hatshepsut) was originally cut into the cliff at the bottom of a deep crevice. Typical of Dynasty XVIII tombs, it consisted of a steep stairway leading to the first corridor of the tomb. Because of its position, the entrance would have been invisible from the valley below or from the surrounding cliffs. The neatly cut rectangular opening now visible at the bottom of the crevice was made by Baraize, who chipped away the entry steps to provide a level path for the removal of the sarcophagus. It still is possible to see the outline of the seven original steps along the western wall of the present entry, however, and a vague outline is also discernable along the eastern wall.

Inside the tomb, in chambers E and G, there are two sets of dressed limestone blocks separately mentioned by Carter and Baraize. Two blocks in E (presumably those mentioned by Carter) measure 1.13 x 94 x 16 cm. and would easily have covered the opening of corridor F that was cut into the floor of E. (This opening measures ca. 2.15 x 92 cm.) As there is no discernable recess cut into the floor, the slabs would have stood above the floor level and might have served as a plinth for the sarcophagus, a suggestion made by Carter (*JEA* 4, 1917, p. 114-5). Carter compared the slabs to those found in KV 20 and KV 38, where they may have been used to line the burial chambers.



Entrance to the cliff tomb of Queen Hatshepsut

In chamber G, the floor is lined with small dressed blocks that are similar to those which Baraize says were scattered through the tomb's debris. The blocks are themselves covered with debris and could not be accurately measured. They are approximately 30 x 40 cm. (with height not measurable).

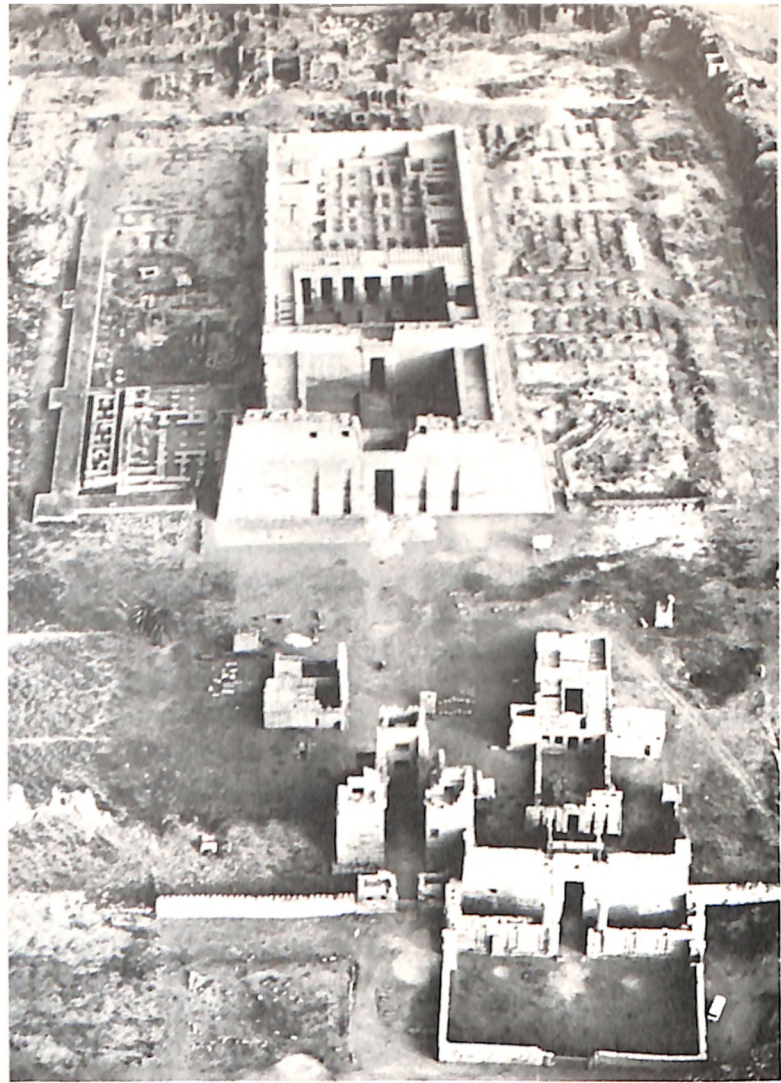
A few details in other outlying cliff tombs might also be noted. Wadi A 2 contained one dressed stone to the left of the doorway leading into chamber C. This is similar to one mentioned by Baraize, although of smaller size (42 x 23 x 9 cm., as opposed to 50 x 25 x 28). This may have been used to block the doorway to chamber C or to block the entry.

Two other dressed stones were found at the north end of the ledge into which Wadi A 2 is cut. These may be steps placed there either by Baraize (who entered the tomb along several ledges from that direction) or by ancient workmen to facilitate access to the tomb.

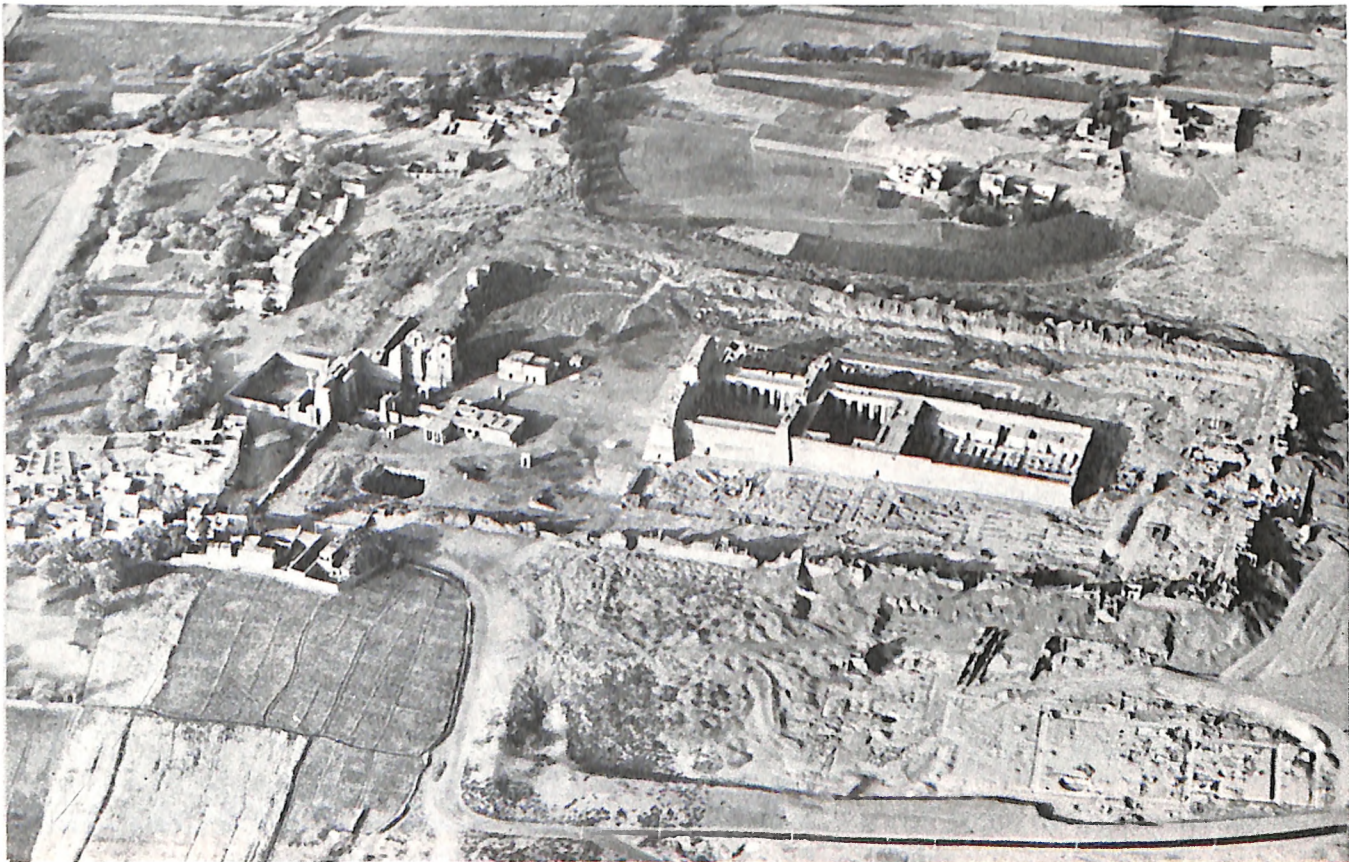
In Wadi C 1, the plastering in chambers C and D is unusual. In these two chambers, a layer of linen apparently was applied to the wet plaster. The linen was painted red with small splotches of black, reminiscent of the technique frequently used to imitate granite.



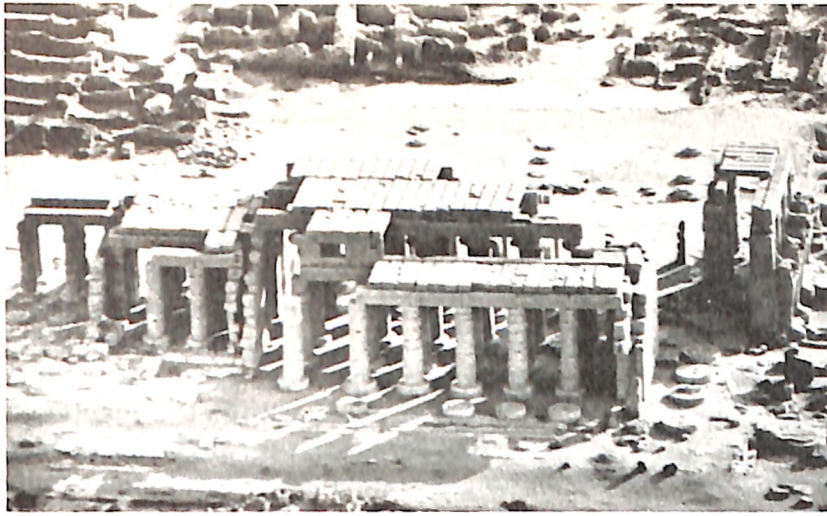
Exploring cliffs in the northern Necropolis



Medinet Habu



Medinet Habu



The Ramesseum



The Ramesseum

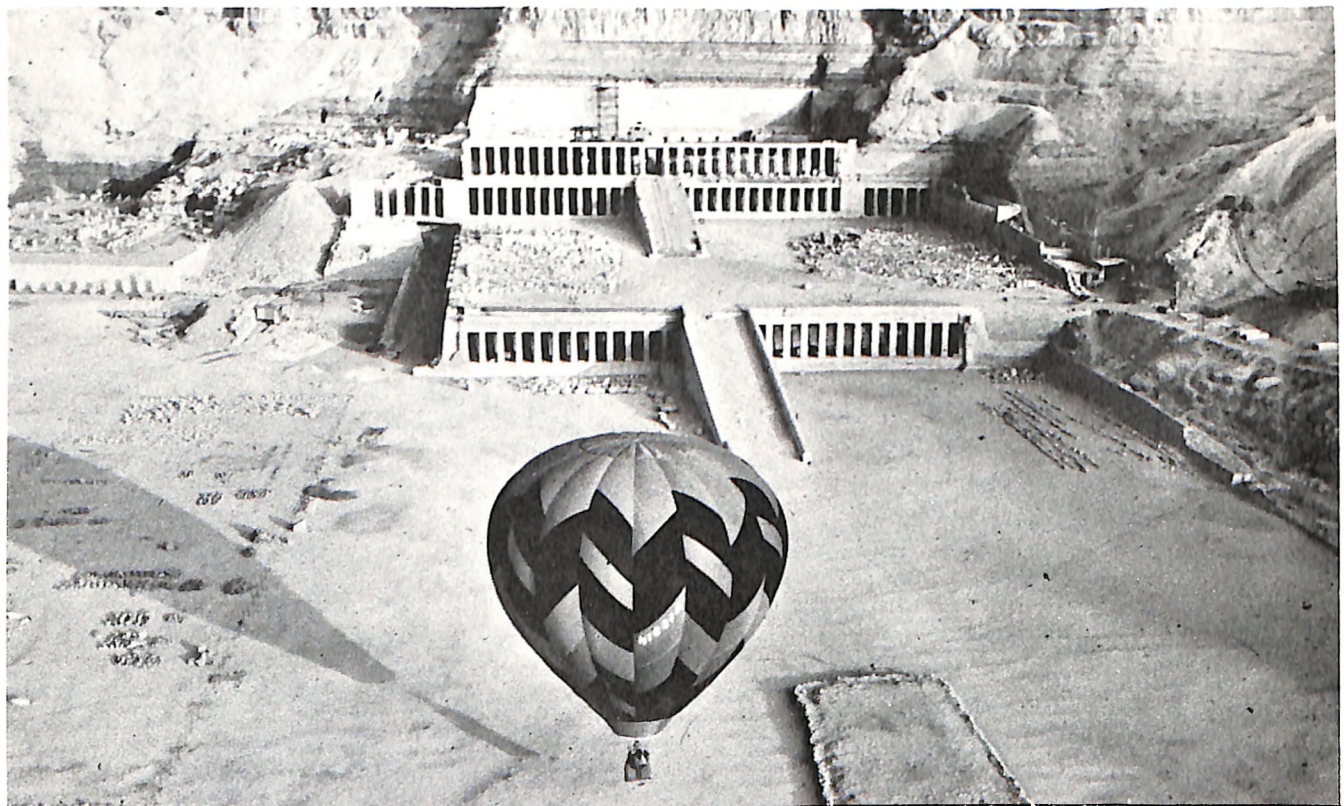
AERIAL SURVEYING

The use of hot-air balloons for archaeological surveying is by no means a new technique, but it is one that had not been used in Egypt until the 1982 season of the BTMP. Our reasons for wishing to make use of balloons for aerial photography were simple. During the second BTMP field season, in 1979, we had obtained two high-level stereoscopic runs of aerial photographs for the purposes of photogrammetric mapping. In our third season, a chartered DC-3 had been used for high-level oblique aerial photographs. Now, we hoped to obtain low-level photographs and, at the same time, to explore the numerous wadis and cliff faces in the Necropolis for archaeological features that had not yet been noted.

A balloon is the perfect vehicle for such work: it is able to fly very slowly, at very low altitudes, and provides a perfectly stable photographic platform. It also is inexpensive, burning only local Egyptian butagas (butane) as fuel.

During the last week of May and the first two weeks of June, we flew two balloons, chartered from a firm in Napa, California, and shipped to Egypt for our project. So successful was this work that the BTMP has purchased one of these balloons and plans to use it for several additional flights in future months, at different times of the year, under various lighting conditions, and, perhaps, at sites other than Thebes.

Approximately thirty hours were spent ballooning this season, and flights were made between 0500 and 0830 each morning that weather permitted. We hope in later seasons to obtain permits that will enable us to fly later in the morning and also during the later afternoon.



Balloon approaching Deir el-Bahri

Our take-off was generally from a stretch of desert near Carter House or from the Colossi of Memnon, with several flights also begun at Deir el-Bahari. The preferred landing site was at Malqata, although other sites, midway down the Necropolis, also were used. Flights, depending upon the areas or monuments to be photographed, might be at altitudes of as little as 3-4 metres, or as much as 500 metres. Speed, dependent upon the wind, was rarely greater than 1-2 km/hr.

The usefulness of low-level aerial photographs of the type most easily obtained from a hot-air balloon has long been known to archaeologists, and we believed that the samples shown here of the hundreds of photographs we obtained will demonstrate that fact. We find the photographs of particular usefulness for the study of architectural details, small-scale landforms, and for the plotting of unexcavated but, from low-level flights, nevertheless visible, archaeological remains.

Many of the photographs included in this report show temples and hill-sides from angles never seen before, and the opportunity to obtain bird's-eye views of the Theban Necropolis resulted in the discovery of several interesting features. Indeed, one of the more intriguing aspects of our aerial work this season was the discovery and study of archaeological features that probably would not have been seen had we not had the balloons available.



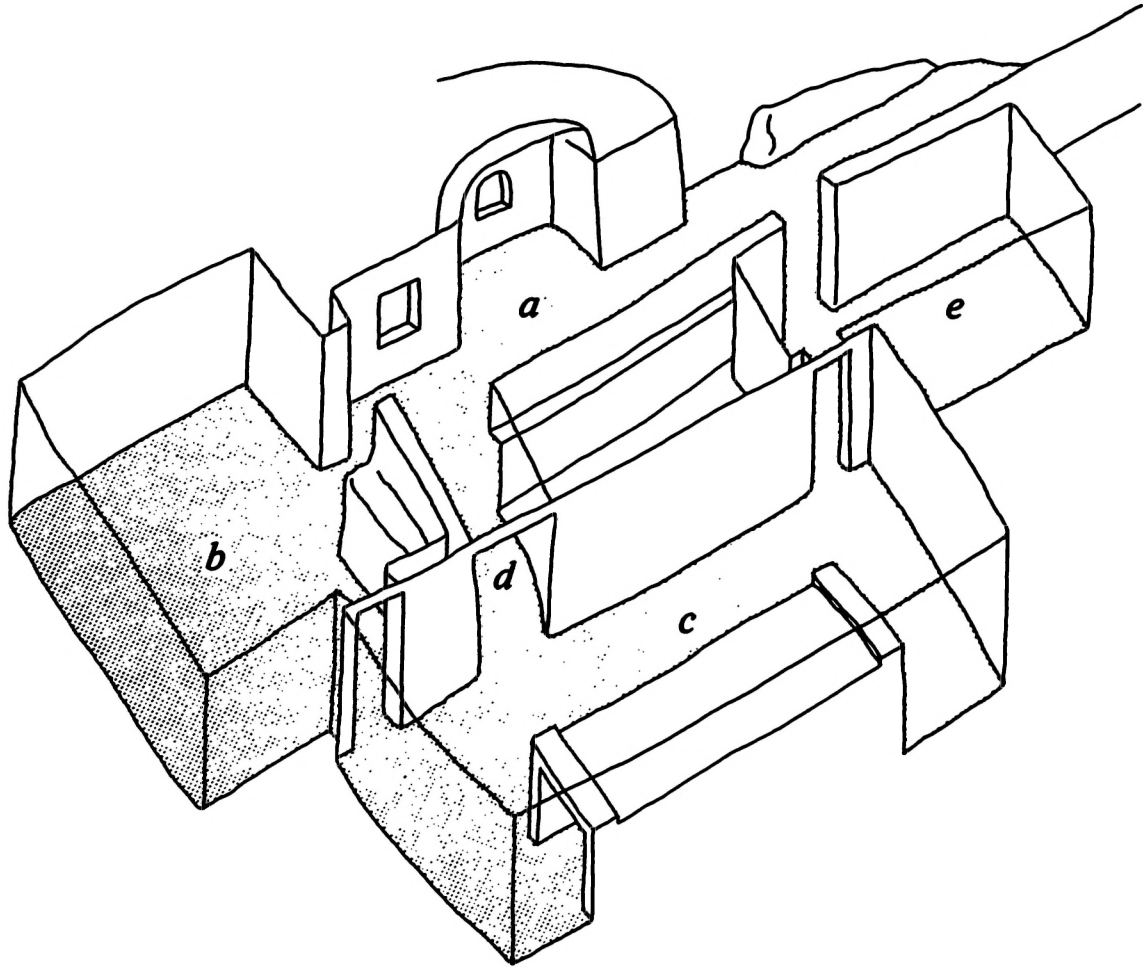
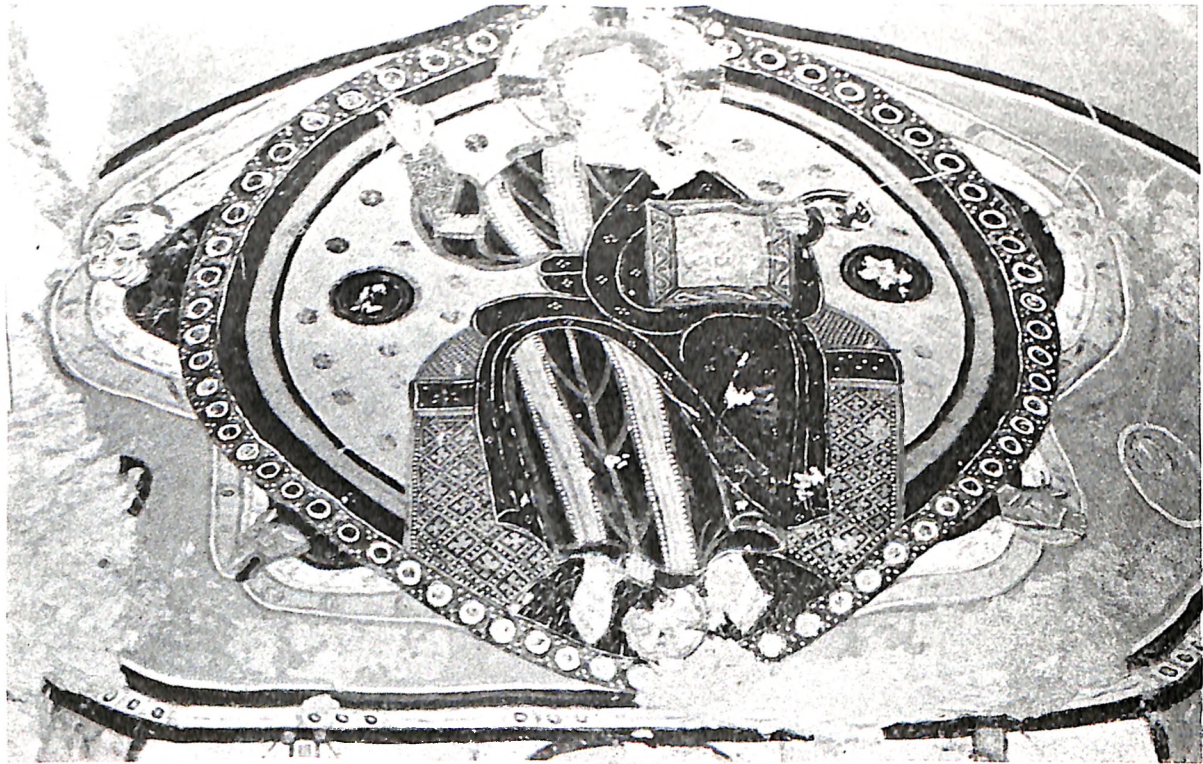


Fig. 2: Axonometric sketch of a Coptic hermitage in the northern Necropolis



Painted niche inside hermitage

During one of our flights, our balloon was blown slightly northward of its intended flight path, over the so-called "Thoth" Temple at the northernmost end of the Theban Necropolis. As the balloon descended the crew noticed a rectangular hole in the cliff of a small spit of the Wadi er-Rumella. The location of this opening led us to suspect that this might be a cliff tomb similar to those Queens' tombs of the New Kingdom. We marked the tomb entrance at the top of the cliff and, a few days later, surveyed its precise grid location and made plans to explore its interior.

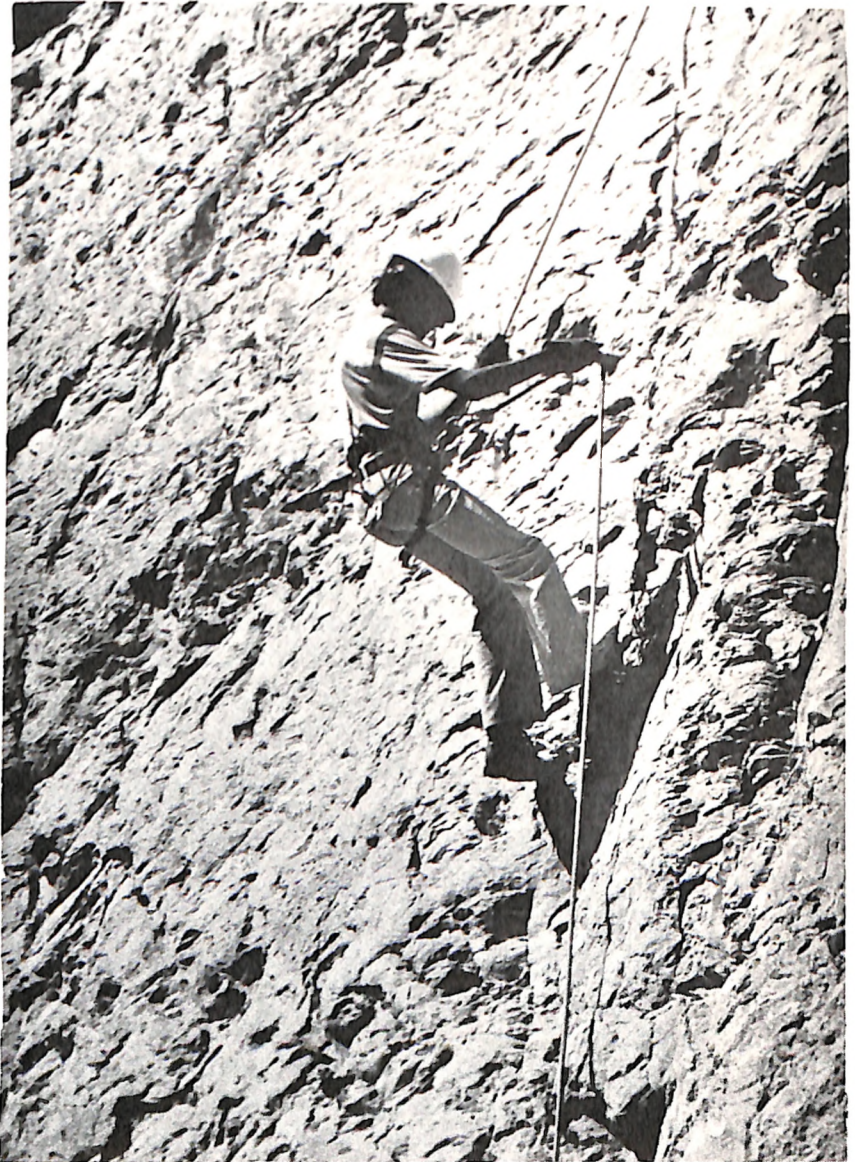
Lying about 15 metres above the base of the cliff and 20 metres from its top, the only way to gain access to the "tomb" was to rappel down the cliff face with ropes. (There is evidence that, in ancient times, a staircase or ramp-like structure gave access from the valley floor: traces of mud and mud-brick still cling to the cliff face). Fortunately, we had with us the necessary climbing equipment and several of our field staff were experienced rock climbers.

Inside, no traces were found that the chambers were of dynastic date. There is little that the chambers have in common with Pharaonic mortuary architecture, and either the chambers were completely recut in later times or they were not carved at all until later. All the material that was found--pottery, bricks, and elaborate paintings on the walls--was of Coptic date, possibly of the 7th century A.D., and it suggests that these chambers served as a Christian hermitage.

Our exploration of this Coptic hermitage occurred late in the fifth season, and no final plan therefore could be made. We include here simply a sketch to show the unusual configuration of its chambers (figure 2). The entry, *a*, is cut into a natural fissure in the cliff. From an open ledge, two entryways lead into chambers carved into the bedrock. Cut into the wall of *a* is a small niche, decorated with a very well-preserved painting of the seated Christ, surrounded by zoomorphic symbols of the four evangelists. From *a*, doorways lead into chambers *b* and *e*, and to a curving corridor, *d*, which in turn leads to the largest chamber, *c*. At the other end of the ledge, to the south of these chambers, lies another chamber, smaller and unfinished. Damaged decoration may be seen on several chamber walls, together with a number of graffiti and painted crosses. In *c*, what appears to be a sarcophagus has been carved from the bedrock, its back and base not yet freed from the native stone. There is no lid, but the southern end has been opened, and a lip around this opening suggests that a stone would have been placed here to seal the sarcophagus.

The carving of this hermitage was done in several stages, and the architectural peculiarities of its design pose a number of interesting problems. We have discussed the hermitage with a number of our colleagues in Egypt, Europe and America; we have consulted the major library facilities in Egypt; and we have asked a number of local villagers about it. None of them were aware of its existence. Schweinfurth's *Karte der westlichen Umgebung*, although noting other Coptic structure in this wadi, fails to indicate its presence. Nevertheless, there are indications that modern man has probed at least the base of the cliff in which the hermitage was dug, and we would be interested in hearing from anyone who knows more about recent exploration in this area.

Thanks to suggestions made to us by Mr John Rutherford, we returned this season to the tomb of Ramesses II in the Valley of the Kings and were able to explore the two side-chambers in that tomb that formerly we had believed inaccessible. There is, in fact, an 18-inch-high tunnel-like crawl space between the dense fill of these chambers and the ceiling. Our work there confirms our earlier assumptions about its plan.



Rappelling into the tomb of Hatshepsut

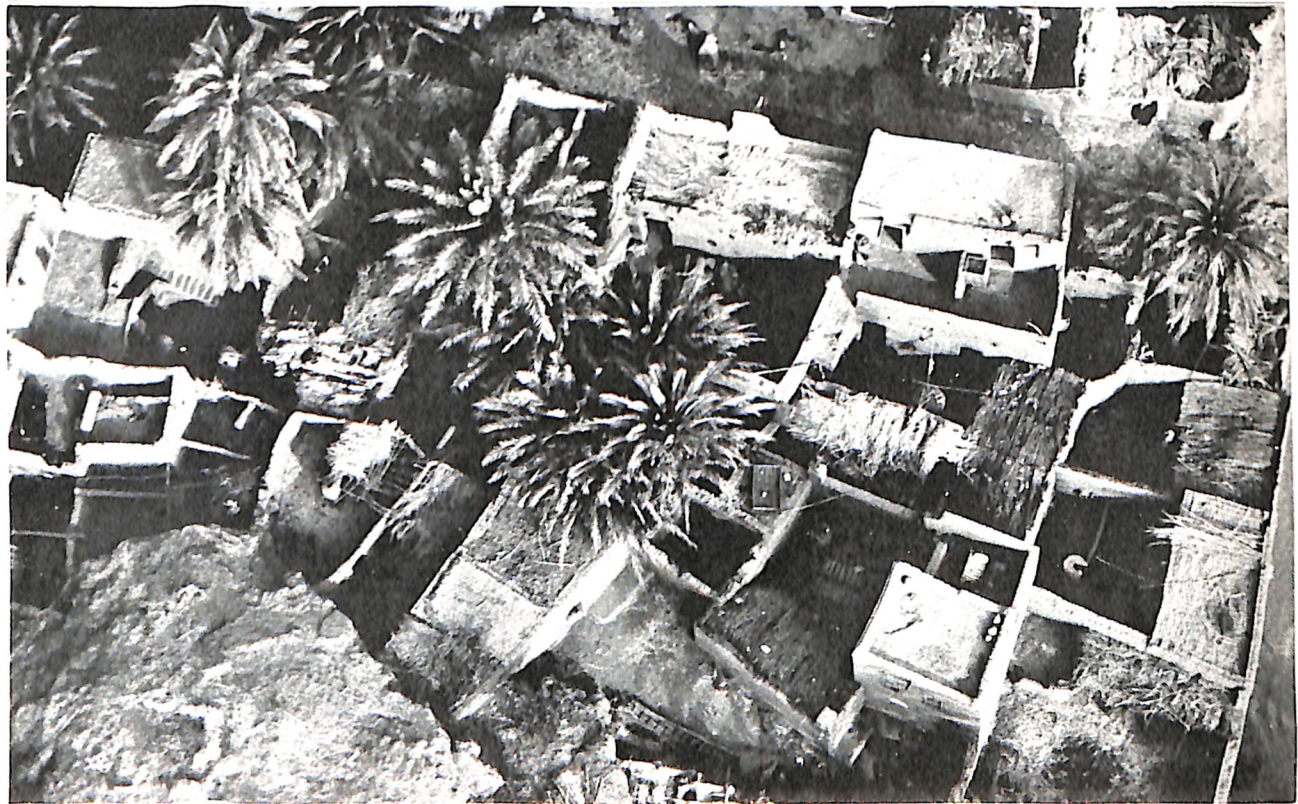
Table 1: Wadi 300 Pit Tombs

| BTMP | Elizabeth Thomas | Comments |
|------|-------------------|--------------------------------|
| 1 | III A | Inaccessible |
| 2 | III B or C | Mapped by BTMP |
| 3 | III C or D | Mapped by BTMP |
| 4 | III F or G | Inaccessible |
| 5 | III G or H | Inaccessible |
| 6 | III I (?) | Inaccessible |
| 7 | III J/K | Mapped by ET and BTMP |
| 8 | III M | Mapped by BTMP |
| 9 | III N | Inaccessible |
| 10 | III O | Inaccessible (ET mapped pit) |
| 11 | III P | Mapped by ET and BTMP |
| 12 | III Q | Mapped by ET and BTMP |
| 13 | III R | Mapped by ET and BTMP |
| 14 | Not noted | Mapped by BTMP |
| 15 | I A | Inaccessible (Mapped by ET?) |
| 16 | I B | Mapped by ET and BTMP |
| 17 | I C | Inaccessible |
| 18 | Not noted | Inaccessible |
| 19 | Not noted (II A?) | Mapped by BTMP |
| 20 | II A or B | Inaccessible |
| 21 | II C | Mapped by BTMP |
| 22 | II D | Mapped by BTMP |
| 23 | II E | Mapped by BTMP (ET map II F?) |
| 24 | II F | Mapped by BTMP |
| 25 | II G | Mapped by ET and BTMP |
| 26 | II H | Mapped by BTMP |
| 27 | II U | Pit mapped by ET and BTMP |
| 28 | II I | Mapped by ET and BTMP |
| 29 | II T | Mapped by BTMP |
| 30 | II J | Mapped by BTMP |
| 31 | II S | Mapped by BTMP |
| 32 | II L* | Mapped by BTMP (ET map II M) |
| 33 | II R* | Mapped by BTMP |
| 34 | II M | Mapped by BTMP (ET map II L) |
| 35 | II N | Mapped by BTMP (ET mapped pit) |
| 36 | II O* | Inaccessible |
| 37 | II P* | Mapped by BTMP |
| 38 | II Q | Mapped by BTMP |

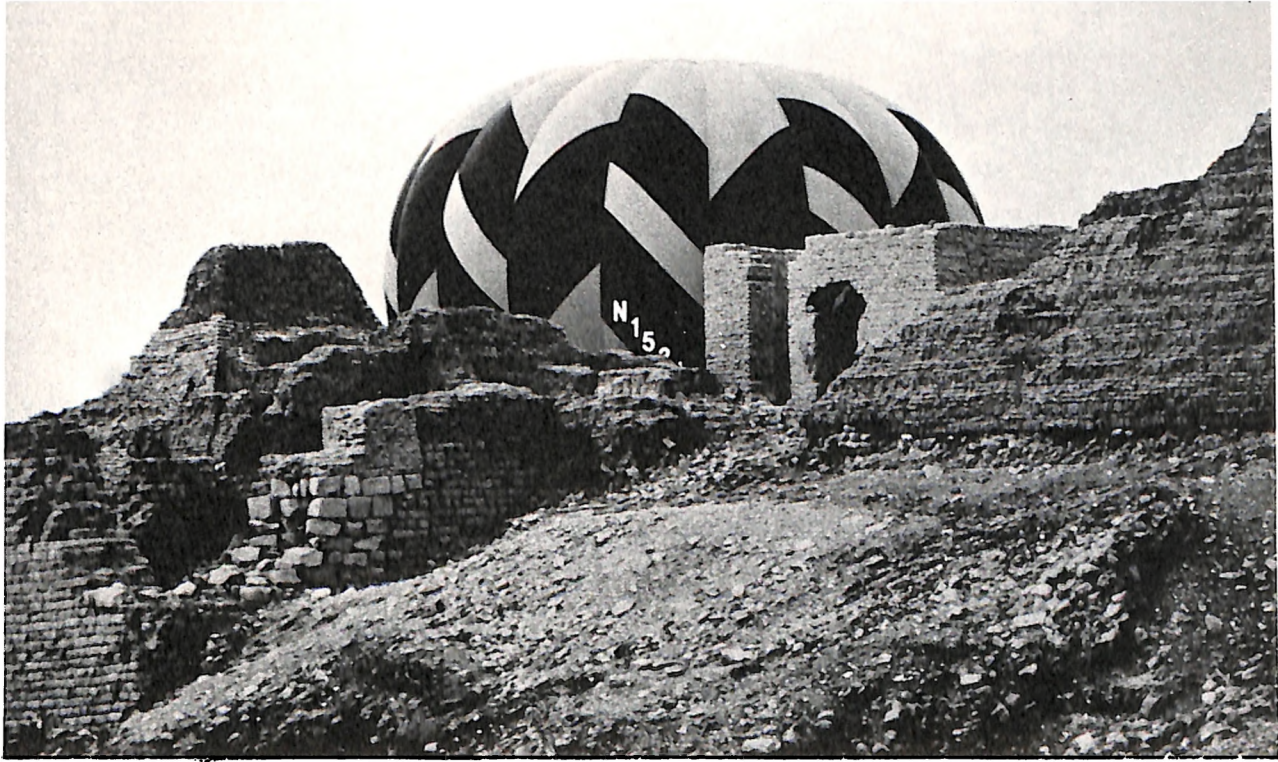
* Plans drawn by Elizabeth Thomas of tombs labelled II P, Q, and R do not correspond to the plans we drew of tombs located in those positions. Either these tombs were mislabelled or are now inaccessible.

Table 2: Wadi Qubbanet el Qurud

| BTMP | Elizabeth Thomas | Howard Carter | Identification |
|----------|------------------|---------------|--------------------|
| Wadi A 1 | Wadi A D | 22 | Hatshepsut |
| Wadi A 2 | Wadi A C | 21 | Unknown cliff tomb |
| Wadi A 3 | Wadi A B | no number | Pit tomb |
| Wadi A 4 | Wadi A A | 20 | Pit tomb |
| Wadi C 1 | Wadi C A | 60 | Neferure (?) |
| Wadi C 2 | Wadi C B | 61 | Pit tomb |
| Wadi C 3 | Wadi C C | 61 | Pit tomb |
| Wadi D 1 | Wadi D B | 70 | 3 Princesses |
| Wadi D 2 | Wadi D C | 71 | Pit tomb |
| Wadi D 3 | Wadi D D | 71 | Pit tomb |



A modern Egyptian village



Balloon approaching Medinet Habu