

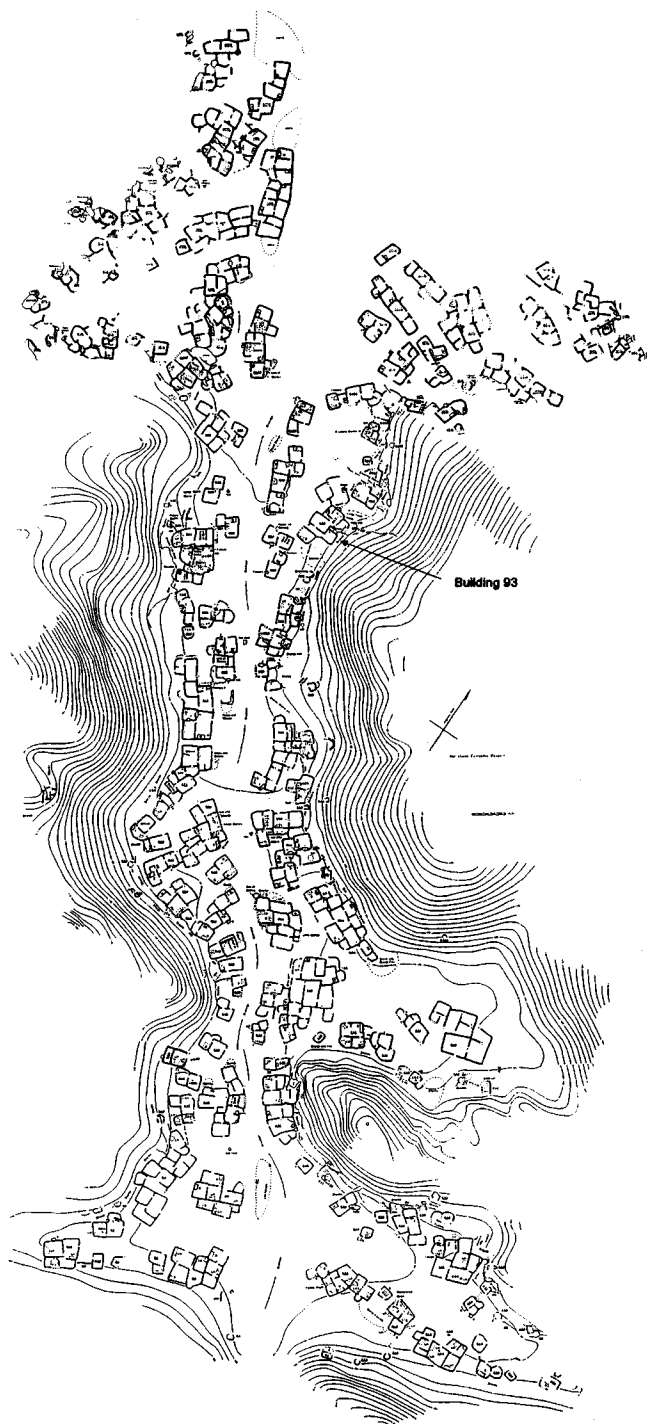
## BIR UMM FAWAKHIR

Carol Meyer

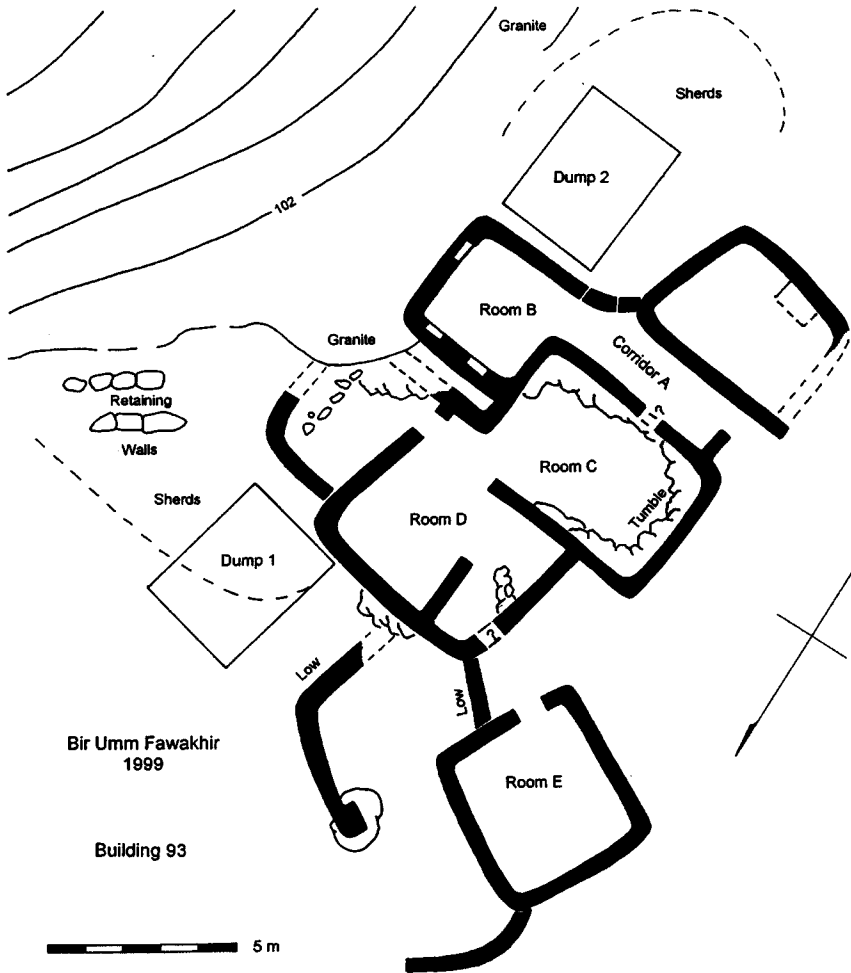
After four seasons of survey work, the 1999 season was the Bir Umm Fawakhir Project's first opportunity to excavate. The site, a fifth–sixth century Byzantine/Coptic gold-mining town in the central Eastern Desert of Egypt, has now been mapped in detail, fourteen outliers of the same date have been documented, and special studies of the local geology, ancient mines and mining and ore reduction techniques, pottery, population size, and historical background have been undertaken, but there were questions about the site and its inhabitants that only excavation could address. The assumption was that the site was basically one period, but was it inhabited more or less continuously for 150 years or so, or were the mines worked for a while, abandoned, and then reopened like the Roman granite quarries at Mons Claudianus? All evidence so far points to the workmen being Egyptians and not Nubians as has been suggested, and career miners, not slaves or prisoners as is often assumed. But could the contents of the houses and their adjacent trash heaps shed further light on the inhabitants and their families?

The team was in the field from 5 February through 5 March and excavated two houses, two trash heaps, one outbuilding, and erected a barricade at the entrance to the main settlement. The team consisted of Carol Meyer as field director, Clare Leader, archaeologist; Henry Cowherd, photographer; Mohamed Badr el-Din Omar, geologist; Richard Jaeschke, conservator; and Thomas Roby, architectural conservator. Job titles, however, became more than a little flexible, and no six people could have accomplished more in so little time. We were assisted by Seif Shard Mahmud, our fine rais, and nine Qufti workmen; Girges Samwel of El Mohandes for Construction; Abd el-Jalil Mohamed Samir, driver; and Wail Karam and Ayman Hindawa, inspectors.

Building 93 (figs. 1–2) in the middle of the main settlement was selected as being an utterly ordinary five-room house, well preserved, unlooted, and flanked by two promising trash heaps. Excavations within the house, under the supervision of Clare Leader, began with a back room, B, at the foot of the cliff. A friable amphora body was set into the floor, perhaps as a drain, perhaps as a fireplace, though ash



**Figure 1. Bir Umm Fawakhir areas mapped in 1992, 1993, and 1996, showing location of Building 93**



*Figure 2. Plan of Building 93 and Dumps 1 and 2 before excavation*

was not abundant. Close by lay an iron ladle upside down (fig. 3). Corridor A had one easily distinguishable floor level rich in matted, brownish, organic material. The fill below contained numerous animal bones, some articulated, but the surprise was half a copper-gold alloy bracelet. Room C was only partly cleared for fear that removing too much of the rock tumble would cause some of the dry stone masonry walls to collapse. Still, the northern half revealed a bin sided and floored with granite slabs, but filled with a fine silt that gives no immediate clues as to its original contents. Nearby, resting upside down on the floor was an intact pot (fig. 4). Lifted with a certain amount of fanfare, it had nothing underneath but some whitish powder, which was collected for analysis. Building 93 yielded a surprising array of other finds: an iron wedge, a Bes amulet (fig. 5a) — this in a supposedly Christianized town — beads, an agate ring bezel or gem, two tiny coins, and six emeralds. All the emeralds are unworked crystals, and they probably came from the emerald mines at



*Figure 3. Building 93, Room B. Granite bedrock to right, amphora segment and iron ladle in angle of meter sticks, threshold stones in lower right corner*

Gebel Sikait near Berenice (modern Mersa Alam) far to the south. What they are doing at Bir Umm Fawakhir is unknown, but they do seem to have been collected as items of value, and their presence here does not suggest absolute imperial control over the emerald mines. Room D was only sampled the last few days of the project, but the southwest corner revealed a deep, stone-lined feature. It is too small and badly located for a well and it is not lined for water retention, so it may be a carefully constructed drain. Room E was similarly tested on the last three days. It proved to be filled with 40 cm of fine, windblown silts over a layer of stone tumble that may mark the beginning of occupational debris. Still, it does indicate that buildings near the wadi bottom and the main street probably are not so badly ruined as they appear, just deeply sanded up.

A  $3 \times 4$  m trench in the trash heap on the north side of Building 93 was expected to be about half a meter deep and full of organic debris pertaining to Building 93, and perhaps ostraca. Organic debris was in abundance, and also potsherds, but we almost immediately encountered layers of fine gray ash as much as 40 cm deep. These proved to be fill around four ovens or tabuns (fig. 6). The largest, tabun 1, has a ceramic liner surrounded by packed ash and a stone rim about knee high. The ceramic liner of tabun 2 had collapsed into the inside of the oven, but the pieces permitted us to see that it had been constructed of broad slabs of clay set edge to edge and smoothed down. The oven was also full of dung, and an experiment with modern dung produced the same kind of fine gray ash as that packed around the tabuns. This answers one question about the ancient site, namely what the inhabitants were using for fuel in the desert. The third tabun had no lining, only a rim of stones, and the fourth consisted of a ceramic rim ruined to the floor level of the other three.

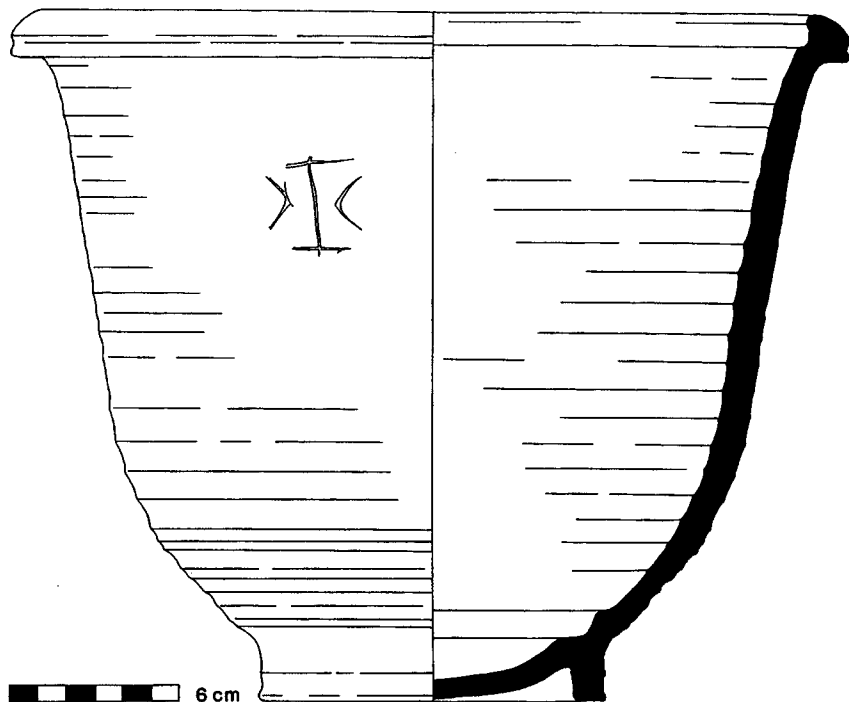
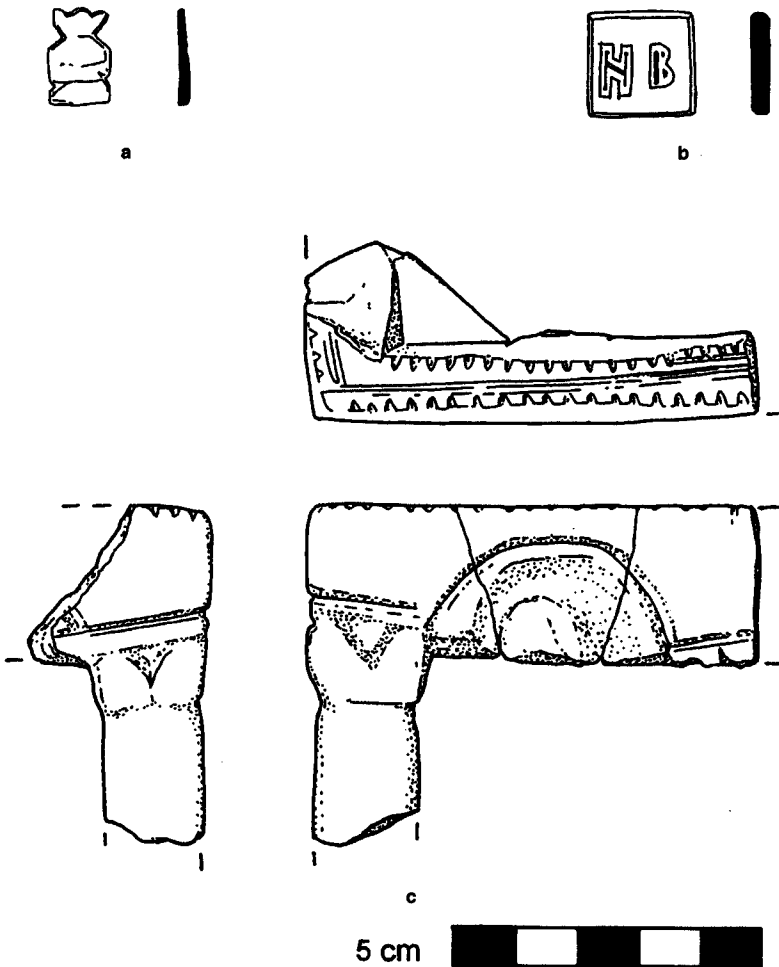


Figure 4. Vessel from Building 93, Room C

We wanted to leave the tabuns intact but also to reach bedrock, so we laid out a smaller  $180 \times 150$  cm trench in the northwest corner. This revealed some large stones set at an angle with evidence of burning in the corner. Fill below that level was a fine, sandy silt that preserved two intact pots resting on a floor of packed silt (fig. 7). The taller of the two had five holes deliberately punched in the bottom. Our best estimate at the moment is that it was used for making the soft white cheese still popular in local villages. The other pot was large, rounded, and wide-mouthed, perhaps for milk. Cheese-making is in any case a good solution to the problem of keeping milk in the desert. Probably unrelated, the complete skeleton of a rodent larger than a mouse was recovered at the north balk.

At this point we were 1.40 m down without sign of bedrock, and it was becoming difficult to work in the small trench. Therefore we laid out a second  $3 \times 4$  m trench on the sherd dump to the south of Building 93. Again, it yielded masses of sherds and organic material: bones, sometimes with hide still attached, teeth, charcoal, dung, wood, twigs, bark, olive and date pits, shell, bits of fabric and yarn, twine, and scarab beetles. Once again, the debris proved to cover a kitchen area, this time with three tabuns (fig. 8). The largest was ceramic lined and partly rimmed with stones. Instead of ash fill, however, it contained a mixture of organic materials, including the largest pieces of fabric recovered. The middle tabun looked like a pot smash at first, but turned out to be the top of an amphora, rim, neck, handles, shoulder, and painted dipinto, set upside down and used as a miniature stove or oven. The third tabun consisted of the middle section of a ribbed amphora set in a rim of

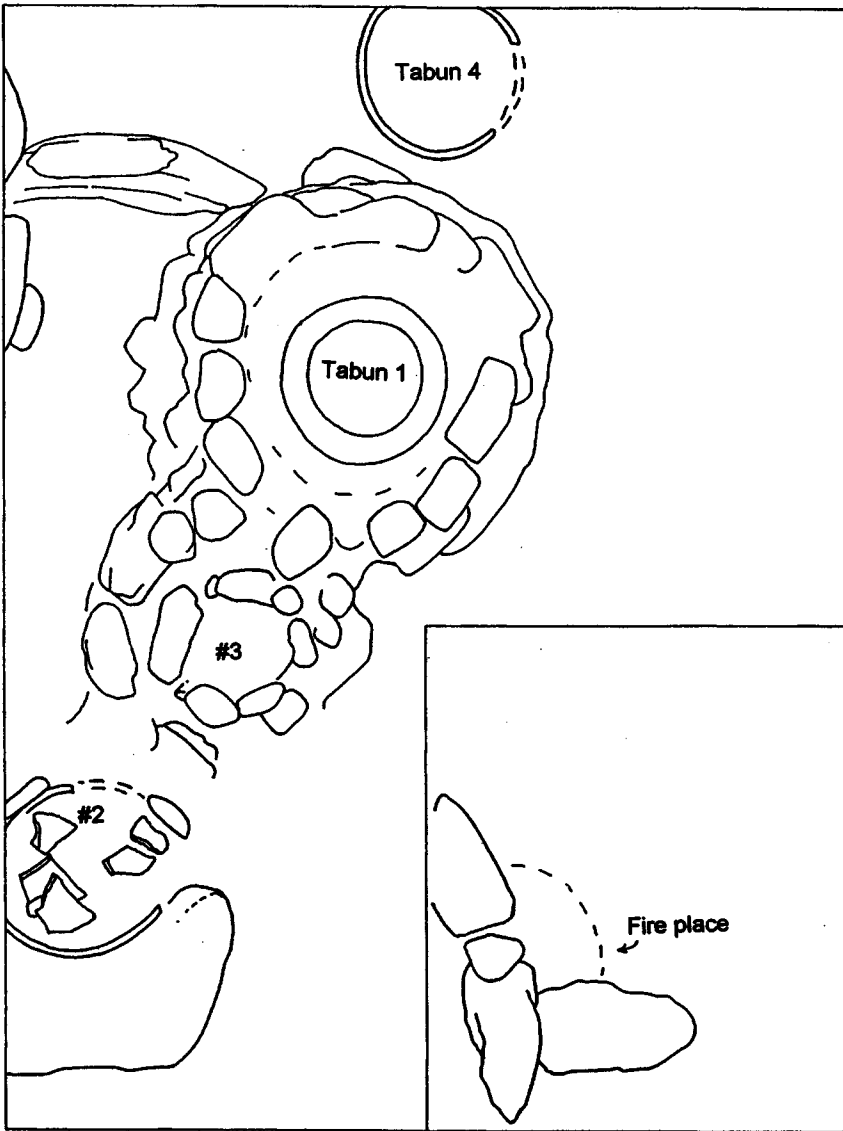
## ARCHAEOLOGY



**Figure 5. (a) Copper-bronze Bes amulet, (b) copper-bronze weight, and (c) incense burner-like artifact**

stones. The ground here slopes steeply down from the cliff on the eastern side, so neither bedrock nor a good floor was reached on the western side; it would have been necessary to extend the trench. However, it does seem that the dump 2 installation, approached from the west, would have looked like a low kitchen range at least knee high. The two kitchen areas partly answer another question about the settlement. In addition to the two- and three-room houses and the larger agglomerated units, a large number of one-room outbuildings are scattered around the site. Their function is unknown, whether storerooms, workshops, animal shelters, latrines, or other, but it now seems that they would not normally have been needed for kitchens.

The second house excavated, Building 177 (figs. 9–10), was selected as perhaps being a little different from the others at the site. From north to south there is no obvious differentiation between the houses, construction techniques, or the debris around them. Building 177, however, is situated high on a granite knob called



Bir Umm Fawakhir 1999 Dump 1

1 m

Figure 6. Plan of Dump 1, four tabuns (upper floor) and fire place (middle level)

the Hillock overlooking much of the site, and more fancy stamped plates and dipinti (painted wine jar dockets) were recovered on and around the Hillock than elsewhere. Building 177, however, proved to have a much simpler occupation history than Building 93. In most cases bedrock was only a few centimeters below surface. The exception was Room A, which had a clearly marked floor level of brownish or-



*Figure 7. Dump 1, fireplace stones in lower right, two intact jars on lowest floor*

ganic matter, and where bedrock dipped steeply, much fill below. The only internal installation was a small fireplace made of thin granite slabs and partly filled with burnt twigs, branches, and charcoal, but no dung. Small finds include more beads, four tiny coins, five more emeralds, all three pendants recovered, a small copper-bronze weight (fig. 5b), and pieces of two incense burner-like artifacts. The latter are rectangular with a shallow depression on top and carved from very soft stone (fig. 5c). The fancier of the two has legs in the shape of columns and arches carved on the side. Two similar items were recovered in 1997, and none of them have any sign of burning. They may be church related, but exactly what they are is still unclear.

Clare Leader also excavated Building 181 on the Hillock. It is a one-room out-building, consisting primarily of large granite boulders closed off in the back to make a small room. It had a sandy floor and yielded some beads and glass sherds but few other finds, not even pottery, though it does not seem to have been a latrine.

Conservation is always a concern for archaeological sites, so with the support of the Egyptian Antiquities Project we constructed a boulder barricade at the entrance to the site to keep vehicles from driving up the ancient main street and possibly damaging the dry stone masonry walls of the houses. Large boulders matching those on-site were moved from three locations along the Quft-Quseir road and spaced at the entrance to the site in a double line in order to permit water from flash floods to rush out and visitors to walk in, but no cars. The work was undertaken by El Mohandes for Construction from Luxor, under the supervision of Girges Samwel, engineer, and Thomas Roby, conservator.

In addition to the finds mentioned above, the project recovered 73 dipinti, both the large and small types of inscriptions, though as usual most are fragmentary,





*Figure 8. Dump 2. Three tabuns (sherds have been removed from middle one)*

faded, and hard to read. One small inscription painted under an amphora handle reads “tetra,” but we do not know to what the “four” pertains (fig. 11a). Sixteen sherds with stamped designs were also found. The motifs are generally Christian: crosses, Chi-Rho, palm branches, and one that may be a dove, but looks more like a duck (fig. 11b). Ray Johnson of Chicago House said that it reminded him of nothing so much as the “Sa Re” hieroglyphs, or “Son of Re,” the ancient title of kings.

Have we answered the questions we asked initially? Room C of Building 93 has at least two floors, and the dump 1 kitchen installation has at least three occupation levels. The lowest levels reached, the one with the upside-down pot in Room C and the “cheese factory,” were thick layers of fine, sandy silt, presumably wind-blown. This suggests a hiatus in the use of this area at least, as if the settlement and mines were used for a while, abandoned, and then reopened. We still cannot say whether all or almost all the buildings in the main settlement were inhabited simultaneously or not; only two have been sampled and as far as surface finds go, there is little to distinguish one part of the site from another. Whoever lived in Building 93, at least in the latest stage, however, was not poverty stricken, judging from the copper-gold bracelet, gem stone, coins, emeralds, and other finds. The large amount of bone from sheep, goats, and larger animals, the olive and date pits, the presumed cheese-making installation, and the large number of wine amphorae do not suggest a particularly impoverished diet either. None of this supports the old idea of miners as slaves or prisoners. Rather, the data are much more in line with the new evidence about the quarrymen at the Roman site of Mons Claudianus to the north, who were paid some 26 drachmas per month plus a grain ration and at times a wine ration. Work there, however, depended on imperial commissions such as the Pantheon that required special granite columns. Between commissions the site might have been

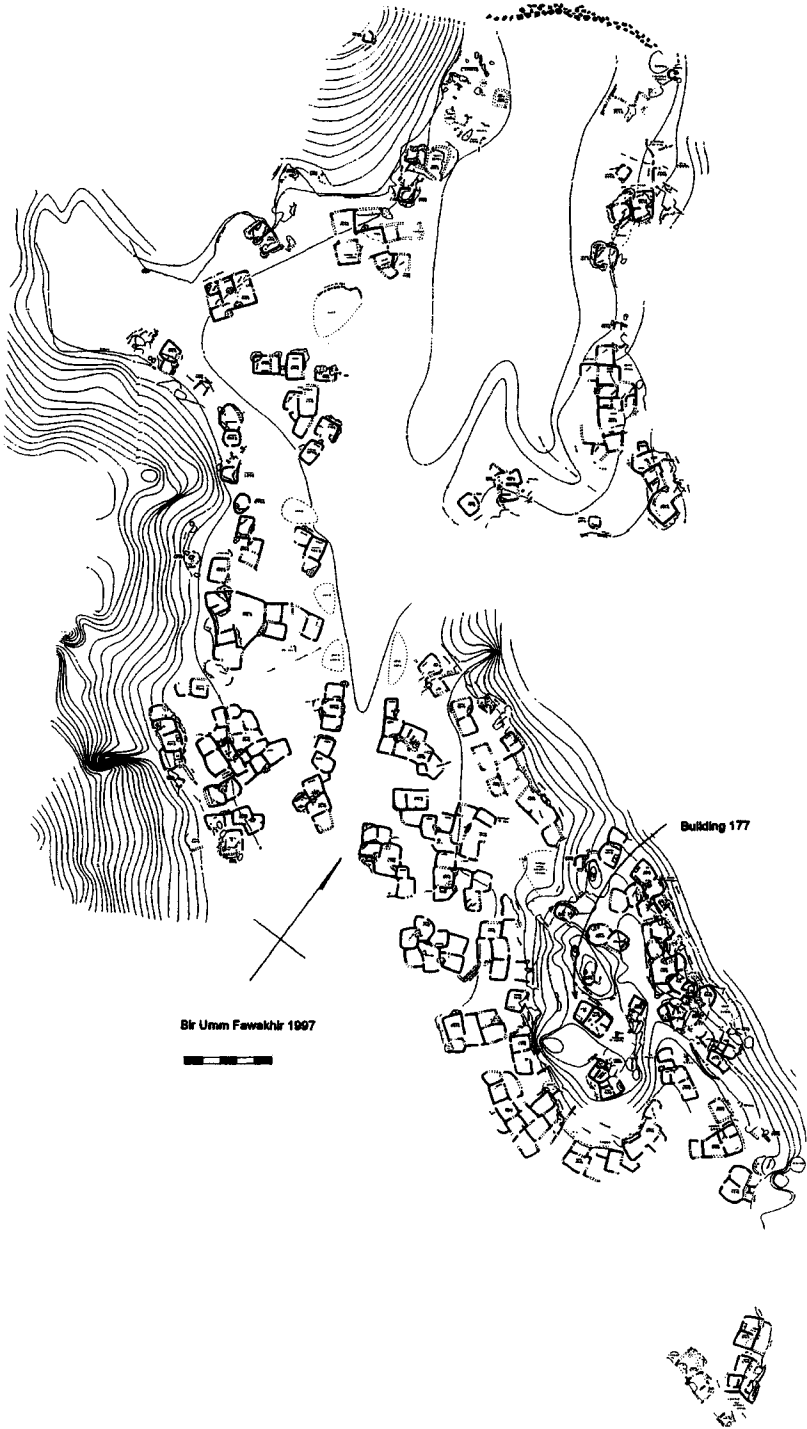
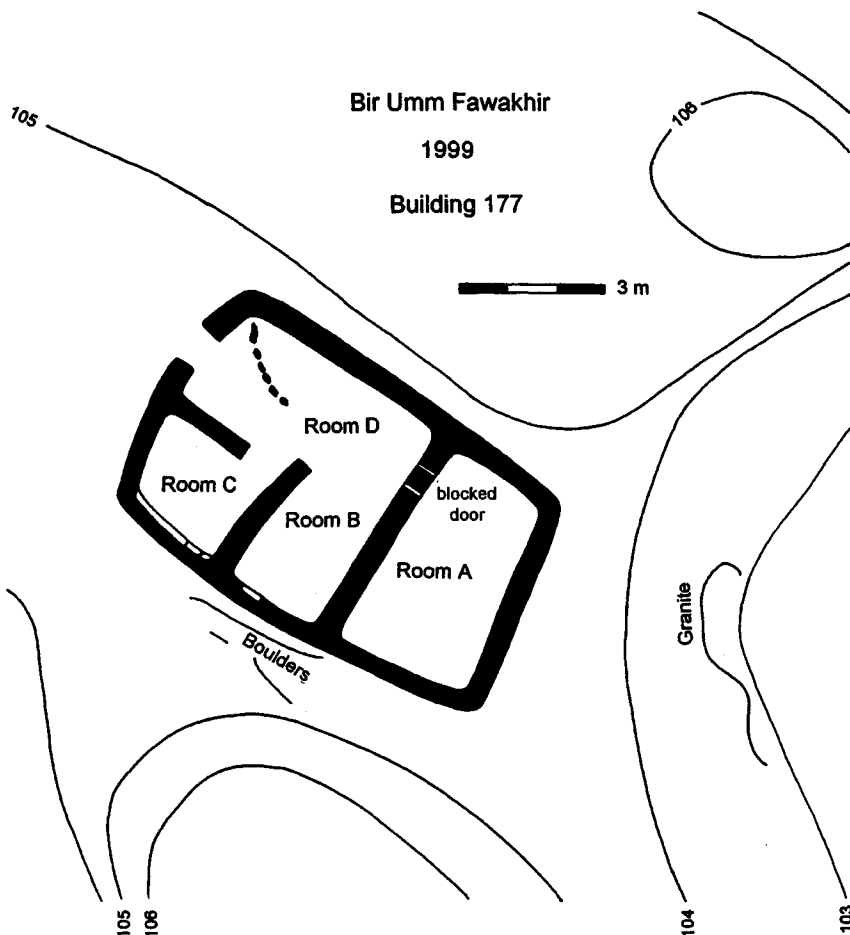


Figure 9. Bir Umm Fawakhir area mapped in 1997, showing location of Building 177



*Figure 10. Plan of Building 177 before excavation*

abandoned for a generation or so. Work at Bir Umm Fawakhir similarly must have depended on the imperial need for gold, which was urgent, and the willingness to expend grain and other resources to get it. Since this is hard rock mining of a difficult ore, sulfides in quartz veins in Precambrian granite, the mining would have required a very large work force, far beyond the reach of the individual miner seeking to pan out alluvial gold. It is hard to see who, at this period, apart from the government, could have financed, organized, and supplied the workers at Bir Umm Fawakhir. Pots are not people, but in this case we have about six Nubian handmade sherds to bucket after bucket of Nile silts, marls, Aswan pinks, and amphorae, and there is nothing else so far to suggest that the workers were not Egyptians. By the fifth century they should be Christian or at least Christianized, but the Bes amulet and the duck-stamped plate suggest that something of the old beliefs survived or the new beliefs were being interpreted in light of the old. A similar pattern at Berenice

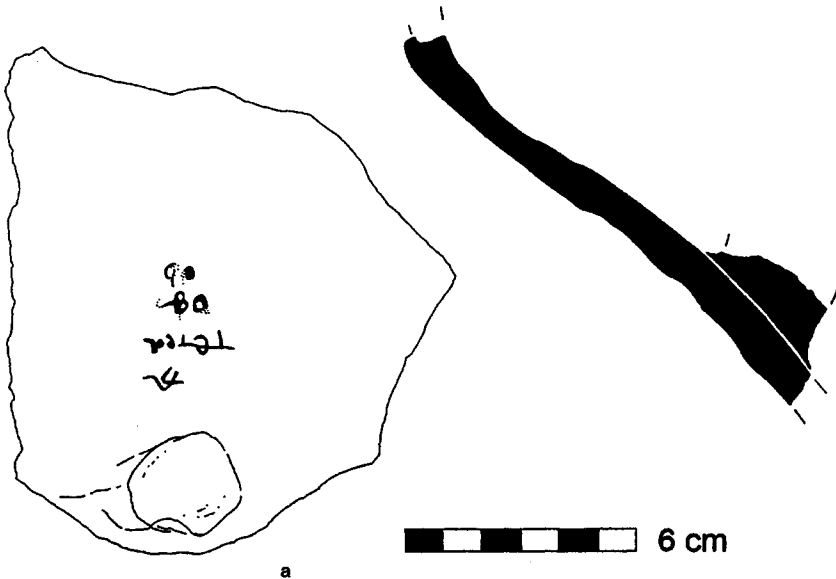


Figure 11. (a) Dipinto with "tetra" inscription and (b) sherd with bird stamp and palmettes

on the Red Sea suggests that paganism in the remote regions of the empire was not quite as dead as Justinian might have wished.

Much remains to be done. The bones, teeth, and other animal remains in particular need to be retrieved from storage in Quft and analyzed. If at all possible, the

floral material should be studied as well, and documentation for the dipinti, stamps, and sherds must be completed, hopefully during a study season in 2001. The trenches may be backfilled, but further discoveries surely await.

As usual, thanks are due to many people: Gene Gragg, Director, John Sanders, Michelle Wong, and Donald Whitcomb of the Oriental Institute; Dr. Gaballa Ali Gaballa, Dr. Mohammed Sughair, and Mohammed Nasr of the Supreme Council of Antiquities; Mr. Mohammed el-Hinnawi, Dr. Abd el-Aziz, and Dr. Gaber Naim of the Egyptian Geological Survey and Mining Authority; Robert K. Vincent, Cynthia Scharzter, and Jaroslaw Dobrowolski of the Egyptian Antiquities Project; Mark Easton and above all Mme Amira Khattab of the American Research Center in Egypt; Raymond Johnson, Ahmad Harfoush, Sue Lezon, Yarko Kobylecky, and especially Tina Di Cerbo of Chicago House in Luxor; and Worldwide Chain Store Systems. Support for the project was provided by the National Geographic Society, the Egyptian Antiquities Project, Mrs. Catherine Novotny-Brehm, Pennzoil, Mr. and Mrs. H. I. Meyer, Dr. Robert K. Smither, Diana Grodzins, and Leila Foster.

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