

## CHAPTER 5

### REPORT ON THE EXCAVATION OF FLOOR [873] OF THE OUTER HALL OF CHAPEL 561/450

by

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#### 5.1 Introduction

When floor [873] in the outer hall of Chapel 561/450 (the Main Chapel) was uncovered in 1983, it was noted that it contained a large quantity of embedded cultural debris (see *AR I: 20*, for details). This debris, which included among other things the remains of fish, seeds and wood shavings, suggested that a variety of activities may have been carried out in this part of the chapel.

Since that time additional gypsum plastered floors of chapels and other buildings have been uncovered, but none has been found to contain the quantity and variety of debris as did this floor. In fact, floors (other than those in animal pens) were generally clean (occasional ash deposits are an exception) leaving us without any trace of what activities were carried out upon them. Chapel floor [873] is thus apparently unique in that it does contain the remnants of past behaviours. As such it affords us, through the analysis of its contents, [1] with the rare opportunity of possibly ascertaining what transpired on its surface. With this objective in mind the excavation of floor [873] was carried out by the author during the 1985 season.

#### 5.2 Excavation procedures

After the removal of the protective sand, which was thrown over the entire surface at the close of the 1983 season, the area to be excavated was brushed clean. A rectangular space 2.20 m. by 2.70 m. was delimited, the south-west corner of which is located where floor [873] abutts the base of bench [866] at its western end (Figure 5.1). The longer dimension runs parallel to the bench and is the square's southern edge.

The topmost surface, which was first exposed in 1983 and which contains a wealth of embedded cultural debris, was labelled floor A. The remnants of at least four additional superimposed floor surfaces lay exposed in the south-west corner of this rectangular area; these were labelled, from top to bottom, B to E. The intention was to strip away one floor at a time, keeping the contents of each separate. This proved possible only for floor A, which besides being easily identified by its many inclusions, was also identified by its dark brown colour which distinguished it from the underlying light brown surfaces.

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[1] This is not strictly speaking a midden (here defined as secondarily discarded refuse) since these are primary floor deposits located inside a building, and more particularly, in a room of a presumed chapel complex.

## Floor deposits in the Main Chapel

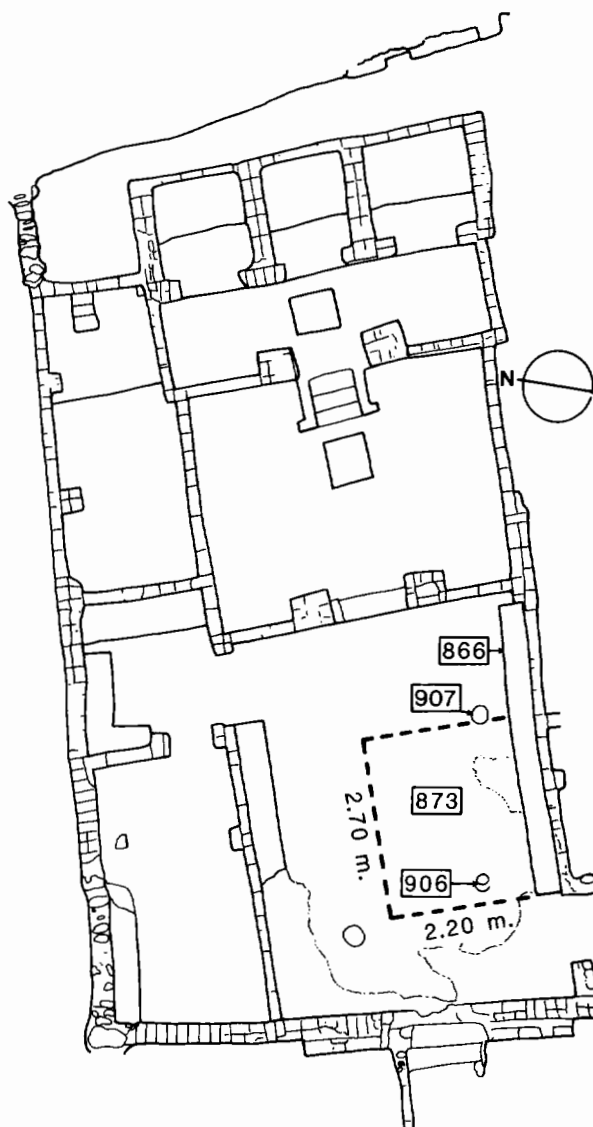


Figure 5.1. Outline plan of the Main Chapel showing the area of floor in the Outer Hall separately studied in 1985.

However, it soon became apparent that the peeling away of additional individual floors one at a time was an impossible task. This became particularly obvious when it was discovered that floors B and C (and most likely D and E as well) were in fact each a composite of several microlayers and probably individual floors themselves. The separate removal of floors was further complicated by the irregularity of these surfaces which most certainly existed at the time they themselves were laid down, and the fact that they were nowhere of an even thickness. Thus while the gypsum plaster of the floors was between 2.0 to 2.5 cm. thick at the base of the bench in some places, it was generally only several millimetres thick in others, usually in the northern half of the square. Furthermore, since the same type of gypsum surfacing material was used throughout, distinguishing between individual floors was extremely difficult even with the slight colour differences which were noted from time to time. The fact that large areas of some of these lower floors consisted of decomposed

gypsum plaster did not help matters. As a consequence it proved almost impossible to keep within the same floor, though this was still attempted by trying to excavate, at a minimum, each of the four remaining major [2] floor surfaces as a unit. All excavated deposits were sieved through a series of geological screens (screen sizes 22.7 mm. through 1.7 mm.) and the contents of each surface bagged separately.

### **5.3 Recovered contents from floor A and major floor surfaces B through E**

The contents of this excavation are listed below (Table 5.1) according to their abundance and their inferred associated behaviour, from the commonest to the rarest in that order. This ordering must be considered approximate at this time as the contents have not yet been systematically studied or quantified.

#### **I. Work and/or craft related activities:**

1. Wood shavings, chips and fragments
2. String, thread and woven materials
3. Rope and twine (palm-tree fibres)
4. Charcoal chunks and ash
5. Limestone chips/flakes

#### **II. Food consumption and/or preparation activities:**

1. Fish (skeletal remains; possibly three species)
2. Fowl (bones and feathers; possibly only one species)
3. Cereal grains and chaff
4. Edible plants (pips, seeds and shells; at least three species)
5. Mammal bones (goat and possibly cattle)

#### **III. Artefacts:**

1. Potsherds
2. Copper/malachite flecks or chips

#### **IV. Miscellaneous:**

1. Human hairs
2. Animal hairs
3. Insect casts

Table 5.1. Contents of the floors, listed according to relative abundance.

Most of these remains came from the surface of the uppermost floor A or the topmost portion of the underlying major floor surface B. The richest cultural debris area was located in the north-central part of floor A and was densest within a rough circle, approximately 25 cm. in diameter. This was the area of the largest number of burnt and unburnt wood shavings, charcoal, fish bones and seeds, but, notably, very little in the way of ash. Remains of all types were

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[2] The use here of the term "major" is intended to indicate that we are not dealing with individual floor surfaces but with a composite of several microlayers which themselves may once have been floors. Based on the examination of several sectioned pieces of gypsum plaster the two major floor surfaces B and C (and most probably D and E also) were each composed of between three to five microlayers.

generally more irregularly and more thinly distributed over the rest of the topmost surface.

In relative terms, the other major floor surfaces (B through E) were almost free of cultural debris, even if they were never completely sterile. This observation is compatible with what is known from the other gypsum plastered floors that have so far been found in and around the Walled Village, i.e. they were kept clean. This suggests that the debris-rich portion of floor A is somewhat of an anomaly and that generally the inhabitants cleaned up after themselves even if they did not do this daily or immediately upon the completion of a task. Moreover, it also means that old floors were cleaned before a new one was laid down and not when the debris on them reached an intolerable level. Since major floor surfaces C, D and E contained extensive areas of disintegrated gypsum plaster, it is likely that new floors were laid down when old ones had become mostly rubble.

#### **5.4 Observations on the recovered contents**

While a detailed analysis of the contents of these floors has yet to be done, several observations can still be made at this time. The discussion will be based on the relative quantities of the different classes of items recovered from these surfaces (and therefore the assumed frequency of their implied cultural behaviours) as listed above.

##### **I. Work or craft related activities**

###### *1. Woodworking*

Based on the large quantity of wood shavings, chips and fragments the most important or frequent activity carried out in the outer hall of the chapel had to do with the shaping of wood. No really large pieces of wood or identifiable wooden objects were found. Whether this woodworking was related to the manufacture of a wooden object or objects for, or to be used in, the chapel itself, is not known. That this type of activity was carried out here, there can be no doubt. Not only is wood embedded in floor A, but it is also found below it in the other major floor surfaces, albeit in much reduced amounts. In temporal terms, it would appear that woodworking activities were not as frequently carried out on major floor surfaces C through E. While this may be the case, it may also be a consequence of trampling wood fragments from floor A into the underlying major floor surface B. This would leave us with the impression that this activity was important on the lower floor as well. What is more likely is that all floors were regularly cleaned and what remained was whatever happened to become embedded in the gypsum plaster. Whatever the true situation, some wood was also found below major floor surface B, which could not have come from the topmost floor. This suggests that woodworking activities were frequently carried out in this outer chapel hall.

One other comment is in order, and that concerns the wood shavings themselves. Subjectively one gets the impression from the size and character of the debris that we are not dealing with whittling of small hand-sized wooden objects, but the hacking and shaping of much larger pieces, such as doors, panels or beams. This conclusion may also be a result of the differential

preservation and recovery of the different types of wood "debitage". That is, small wood shavings from the whittling of a knife handle, for example, may not survive as well as larger ones from the fashioning of big wooden objects such as beams. The identification of the plant species may help to resolve this question if different woods are present and if they were used for different purposes.

### *2. Activities involving string, thread and woven materials*

The second most common activity carried out in the outer hall appears to have involved string and thread. And if we add to this the few patches of woven fabric that were also recovered, it is very likely that they concerned the repairs of garments and other cloth objects. It is also possible that string and/or thread were made here.

Concerning the string and threads themselves, those pieces that were found were never very long, usually under six centimetres, and were apparently all undyed. None was found to be knotted. They were also not all of a uniform diameter, which is why we suggest some may have been string and others thread. A detailed study of this material should be able to identify the source of the fibres used and whether they were treated or not.

### *3. Rope- and twine-making and related activities*

The third most commonly found class of material recovered consisted of palm-tree fibres and the remains of rope and/or heavy twine. This rather rough distinction has to do with the number of fibres (strands) and whether these were in turn combined into multiple units, or "braids".

Today this material is used for the manufacture of ropes and nets. The latter are often further made into camel and donkey saddle-bags. The bedouin fashion these rope nets into makeshift animal pens for their goats and sheep. The heavy twine could have been used in the making or repairing of whisk brooms such as those found in various units of the excavation (and see *COA I*: Plate XXI.3).

### *4. Warming, cooking or craft-related fires*

There is clear evidence that working or functional fires were present in the outer hall of the Main Chapel. It is extremely difficult, however, to claim that these fires were an activity unto themselves and unrelated to the assumed more frequent activities and behaviours listed above. Charcoal chunks and flecks were moderately ubiquitous throughout the square, both horizontally and vertically. While it is very likely some of the fires were related to craft or work (food preparation), some may have served only to warm their makers. Still others may have been used to burn incense (cf. the remarks on incense-burning in Chapter 7) or to provide illumination. Whatever the truth, charcoal fragments and thus evidence of controlled fires were sufficiently common in this square that it is worth commenting on them in their own right.

Except for one small concentration of ash, there is very little evidence that whatever fires were present rested directly on the floor, at least in this part of the chapel. On the contrary, the evidence for fires that is present points more strongly to their having probably been primarily restricted to portable ceramic containers or braziers that raised the fires above the surface of the floor. This is based on the character of the small area of burnt and charred wood shavings

from the north-central part of floor A, [3] the apparent lack of associated ash and the overall quantity and distribution of charcoal chunks and flecks (and general lack of ashy remains) throughout all the floors.

The one possible exception to the above observation is a small fine ash and charcoal concentration from the southern half of the square and the lower portion of major floor surface B or top of C (70 cm. from the south margin and 95 cm. from the east margin of the square). This single deposit was found in a shallow depression approximately three cm. deep; its horizontal dimensions were roughly 20 x 10 cm., with the long axis oriented more or less north-south. However, for the reasons given above, it is felt that functional fires directly in contact with the chapel floor were not the usual practice.

#### 5. *Stone working*

Enough limestone flakes were found, particularly in the lowermost floor surfaces, to suggest that the shaping of blocks of this material may also have been carried out in this part of the chapel. Some examples of limestone artefacts which could have been shaped here are the troughs found in the animal pens and the "tables" and bed-leg supports found in the Walled Village (cf. COA I: 62). It is also possible that these flakes were brought in, accidentally or deliberately, as part of the process of laying or maintaining these plastered floors. In any case, based on the relatively small quantity of the limestone flakes uncovered, the working of stone was not a very common activity here. In this context it may be important to note that only one large stone [4] was found in the the area excavated.

## II. Food consumption and/or preparation

The remains of a variety of edible plant and animal species were found throughout the floors in sufficient quantities that it is hard to escape the conclusion that some foods were processed and/or consumed in the outer hall. Similarly, based on their relatively small overall quantity, one must also conclude that these activities, taken together, were second to craft production or repairs. What follows is a discussion of the different foodstuffs in order of most to least frequently occurring in the deposits. A more complete discussion will have to wait the final species identification and quantification of these remains.

### 1. *Fish (bones and articulated skeletal elements)*

Of all the food remains found on and in floor [873], the most abundant were those of fish. Several intact skulls and fins were uncovered embedded in the floors. Unfortunately, however, most of them disintegrated when their removal was attempted, despite the application of diluted PVA. At least two, if not three, species of fish are indicated, and none of them appears to have been catfish.

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[3] This 25 x 20 cm. area rich in charred wood shavings and charcoal also contained unburnt and partially burnt wood lying side by side and in no apparent order which would indicate the presence of an *in situ* "hearth". Rather what is suggested is that a brazier-contained fire was accidentally tipped over and that its burning contents ignited some of the wood shavings on the floor before the fire was extinguished.

[4] This flat stone, of unidentified composition, was approximately 6 cm. thick. It came from the lower part of major floor surface B or the top part of C. Its other dimensions were roughly 15 x 13.5 cm.

Based on the size of skulls and vertebrae (the most abundant skeletal element recovered) they were small species, though some of them could have been young individuals of much larger species. The single very small otolith that was retrieved (the first to be found at Amarna) also points in the same direction.

One more comment is in order. Many of the fish bones were very small and delicate and yet they were still found articulated, i.e. nearly complete skulls, intact fins and long sections of the vertebral column. This is surely an indication that they were dropped directly on the floor and not brought in from elsewhere, that is, as rediscarded refuse from some other dwelling area or with the gypsum plaster when a floor was being laid. At the same time, no fish scales were found and a superficial examination of the fish bones did not turn up any that were burned. This would suggest that they were probably processed elsewhere (cleaned, smoked, dried and/or pickled). In this context it may be significant that some of the few potsherds that were found on this floor came from a small storage vessel.

## *2. Fowl (bones and feathers)*

Second in frequency were the remains of fowl; possibly only a single species is involved. If we include feathers (all of them white) in this count and that they were from larger animals than the small fish species noted above, it is possible that fowl provided more edible meat than did fish. Based on a preliminary identification of these bones and the colour of the feathers it is likely that we are dealing with a variety of duck.

## *3. Cereal grains and chaff*

Cereal grains and chaff (including stems and stalks) were found in these floor deposits in a fair amount. Whether their presence in the chapel is evidence that grains were stored here, being processed into an edible form, or both, is at present impossible to ascertain. It is also possible that some may be the result of the wind having blown them into the chapel.

## *4. Edible plants (pips, seeds and shells)*

The pip, seed and shell remains of at least three species of edible plants were recovered from the floor deposits. The seeds have been tentatively identified as possibly one or two species of melon. A small number of hard-shelled pips with wrinkled surfaces were also recovered. These look like olive pips but this identification requires confirmation. In addition an as yet unidentified nut was also found. Considered together the plant remains had a rather infrequent occurrence in these deposits, and until they are more fully identified and quantified not much more can be made of them at this time.

## *5. Mammal bones*

Only two mammal bones were found in these floor deposits: a rib fragment, possibly from cattle, and a complete third (distal) phalange from a small or young goat. The former came from floor A and the latter from the upper part of major floor surface B. The fact that we are dealing with so few mammal bones, when the remains of other edible foods were significantly more numerous, is very interesting. It could be that their presence in the chapel was accidental and not as remnants of a meal. This is because these particular bones provide little or no meat (the rib and the phalange respectively). If mammal meat was not consumed or prepared in the chapel while other foods (both plant and

animal) were, it raises more questions than can be answered at this time.

### III. Miscellaneous contents from floor [873]

The remaining contents recovered by the excavation of floor [873] can be summed up briefly as follows:

*Pottery*: less than 15 potsherds were found, and, based on their fabric, at least some came from a typical storage vessel (P. Rose, personal communication). That so few sherds were uncovered here, when they are found in abundance in other parts of the site, further supports our contention that these floors were generally kept clean of cultural debris and that the contents of floor A were anomalous.

*Copper or malachite flakes or chips*: two tiny amorphous flakes or chips of this metal were identified amongst the debris. These two specimens are just enough to suggest that some small amount of metal working (perhaps just sharpening of a blade or point, such as the javelin-head found in the chapel in 1983, object no. 5294) may also have been occasionally carried out in the chapel.

*Human hairs*: a quantity of human hairs, all dark coloured, were collected. Nothing else can be added at this time except that similar hairs are frequent in the various rubbish deposits excavated so far.

*Animal hairs*: numerous white to grey animal hairs were recovered. None of these hairs appears to be similar to the long bristle-like specimens reported from other deposits at the site and provisionally identified as coming from pig (see section 4.8 of this volume).

*Insect casts*: several insect casts were recovered. We await their analysis, since they are important to our understanding of the environmental situation in which the inhabitants of the village lived.

### 5.5 Discussion

The excavation of floor [873] has provided us with a substantial quantity of cultural information which more than justified its excavation. While by no means a microcosm of all the activities of daily life in this village, the remains do afford us with a good glimpse of many of them. In this context what is missing or very rare is just as significant as what was recovered. For example, leather and/or pieces of hide, so frequently encountered elsewhere in the deposits from the village, were not found. Mats or matting were also totally absent. Mammal remains, most particularly those of pig, were all but absent. Most surprising of all, not a trace was found of incense, which is preserved well as small brown crystalline pieces. It has been noted in several of the rubbish layers (e.g. AR II: 177), and was burnt in other parts of this very chapel, namely the Sanctuary and Side Chapel, as the pottery records shows (see Chapter 7). Finally, potsherds seem also to be underrepresented. In large part this odd assemblage of finds can be explained by the inhabitants' practice of generally keeping chapel floors clean, but it does not explain it entirely.

The findings from this exercise in intensive excavation can also be related to two previous finds, one made in 1979, the other in 1984. The former occurred in square P18, immediately in front of the entrance to Building 450, the southern



annexe to the Main Chapel. The entrance stood at the end of a short path leading from a well-made T-shaped basin (Kemp 1980: 13-14, Figure 5, Plate II.1; *AR I*: 16-17, 23-24). Where the path met a step of stones just in front of the threshold, on the south side, the angle was filled with a thin deposit of organic material, unit [2051]. [5] This consisted of wood fragments, some of them shavings, pieces of sharpened sticks up to 30 cms. long, grass, string, chaff and, in one spot 70 cms. west of the entrance, a group of white feathers. This deposit resembles closely the contents of floor [873], and its location makes it clear that it is a pile of floor debris swept out of the building and left. From its small size we can judge that it represents only a single sweeping. The normal practice must have been to gather the sweepings into a basket and to empty them into one of the nearby rubbish pits. The contents of these pits vary a good deal in their composition, but include the materials found in floor [873] and unit [2051]. On the subject of the habits of the keepers of this building, it might also be noted that a load of black ash had been left in the north-west corner of the front court of Building 450 (unit [2052], [6] see Kemp 1980: 13-14, Figure 5). Now that we know what the rest of this building looks like (*AR I*: 16, Figure 2.1; 23-24) we can judge that it derives from the oven in one of the rear chambers.

The 1984 find probably relates to the adjacent Chapel 522. It may be recalled (cf. *AR II*: 11-13, and Figure 1.2) that in front of Chapel 522 and abutting the rear part of the Main Chapel lay a narrow terrace [1151], reached by a flight of steps [1123]. After the construction of the steps and the low retaining wall of the terrace [1124] a bank of sand and gravel [1128] had been laid against it. Where this debris approached the corner with the stairs, however, it gave way to a dense deposit of wood shavings, ash, sherds and organic material [1150]. It measured 1.35 m. from south to north, and ran for one metre to the section face at the western edge of the square, sloping downwards as it did so. The density of the pieces and shavings of wood distinguish this deposit from the other referred to, but their origin must be similar: they must have been swept there either from the terrace itself or from within Chapel 522. The embanked debris of which they formed part was laid down probably in the final stages of construction. We can claim this because the plastering on the north side of the staircase extends down only as far as the top of the deposit. We can thus interpret the deposit as being debris left over from fashioning the wooden roofs inside the Chapel. This is unlikely to have been the case, however, with the other two deposits, particularly floor [873] which contains the remains of more than one event.

As already noted above, floor [873] is so far unique at the site in that its surface was not free of debris. Why this is the case we can only conjecture. One possible explanation focuses on several indications that large pottery jars stood on the floor of the Front Hall and were kept upright by resting them in hollows scooped in the floor (units [884, 906, 907]). One of them is actually within the area under consideration (see Figure 5.1). If this jar regularly contained water it would have created a permanent damp patch around it, ancient water jars

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[5] Equivalent to Feature P18/1 in the old notation.

[6] Old notation feature P18/2.

## Floor deposits in the Main Chapel

being porous to some degree. The trampling of feet around the jar would press small pieces of debris into the plaster made soft from the dampness, so that when the whole floor was swept some debris was always left behind in this patch.

In spite of unanswered questions one thing is certain. This chapel room was used for very pedestrian activities, a finding which is in itself significant. It suggests that this part of the chapel was a place where mundane and commonplace tasks could be carried out which may have had nothing to do with the "true" function of the chapel as a place for quiet prayer and contemplation. To our Western sensibilities this may seem incongruous, but it may not have been to the inhabitants of the Village over three thousand years ago. If this conclusion is correct, then it will shed light not only on the uses to which chapels were put, but possibly also on the relationship between work and/or craft activities and contemporary religious beliefs and values as well.

In conclusion, many questions, some of them old, some of them new, have yet to be answered by the excavation of floor [873]. What is remarkable is how fruitful a small patch of floor can be, and much more information can still be garnered from these six square metres when the recovered contents have been fully analysed.