

PUBLICATION OF THE TEXAS
FOUNDATION FOR ARCHAEOLOGICAL AND HISTORICAL RESEARCH

PRELIMINARY REPORT ON THE EXCAVATIONS
AT ZUR NATAN
1989 AND 1990 SEASONS

HOUSTON, TEXAS

NOVEMBER 1990

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Donations From:

P.F.C.S., Inc.

George and Elaine Miner

Robert and Dorothy Neidinger

David P. Seikel

And

Contributions From:

Ford and Hazel Bankston

Eulah Matthews

Jean McCaine

William Neidinger

Vana Reid

David Warden

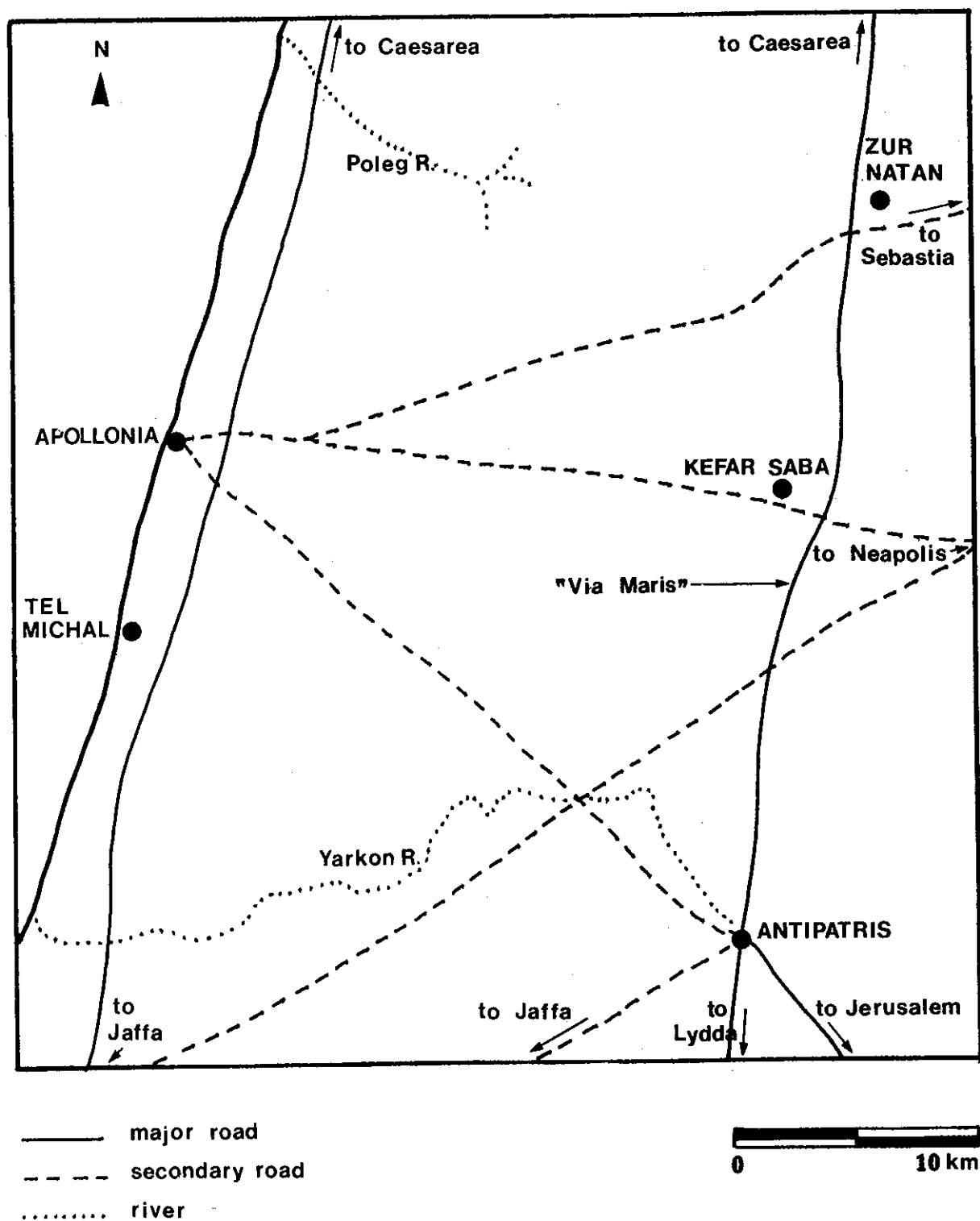
Bernard Yudowitz

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1. Map showing the location of Zur Natan and ancient roads.

Introduction

by William Neidinger

Zur Natan is a modern settlement situated on the fringes of the Samarian Hills about thirty-two kilometers northeast of Tel Aviv. The hill upon which the moshav of Zur Natan was built is the site of numerous ancient ruins and remains. Indeed, an ongoing survey conducted by the Eretz Israel Museum and the Department of Antiquities has collected finds dating from the Chalcolithic to the late Ottoman eras. An ancient Roman highway, dubbed the "Via Maris" by modern archaeologists, passed just below the hill of Zur Natan and was intersected by an east-west road that connected the coastal cities with the hill country (see Figure 1). The settlement of Zur Natan overlooked this important intersection.

Dominance of this strategic intersection was not the only enticement for settlement at this site. The hill, some 3 x 1.5 kilometers, had, undoubtedly, a more pleasant climate, being about 200 meters above sea level. Not only was the site elevated high above the surrounding plain, but also the geologic formations, steep ravines on three sides, rendered it easily defensible. It also had easy access to the rich valley soils, suitable for wheat and barley cultivation, and the more rocky hill terrain, more appropriate to the growing of the olive and the vine. Finally, a steady water source, the Springs of Ein Dardar, ensured at least a minimal supply of water. It was necessary, however, to store water from the seasonal rains in large, underground cisterns, many of which were located and noted by the survey team.

The ancient name of the site remains unknown. The ruins on the hill were known in the twentieth century to the local Arabs as "Khirbet Mejdel," that is, "The Ruins of the Tower." The reference is surely to the remnants of a large (4.75 x 9.25 m.) vaulted room of finely cut ashlar blocks. The vaulted chamber has tentatively been identified by some as the ruins of "Casal Moyen" of the Crusader era, a village granted to the Hospitallers by the Leper King, Baldwin IV of Jerusalem, in 1176. A positive Crusader dating of the vault has, however, not yet been established and very few Crusader coins have been found either in the survey or the excavation. There is some speculation among the archaeologists now working at the site that the vaulted room may date back to Roman times and

may conceivably have been re-used in the Crusader period. Such a re-use is, of course, common in the Middle East.

The first important survey of the area in modern times was by the British in the late nineteenth century, in which ancient walls, tanks, caves, cisterns, and tombs were noted. Several of the agricultural installations were mentioned in passing in a more recent survey by S. Dar. D. Pringle discusses the vaulted room in his work on the Plain of Sharon in medieval times. Since the hill is very rich in ancient remains, it was decided in May of 1987 to conduct a more systematic survey of the area; the survey was conducted on behalf of the Eretz Israel Museum, Tel Aviv University, and the Department of Antiquities. Preliminary reports of the survey include the mapping of more than 100 wine presses, 25 olive oil presses, 35 cisterns, and 35 tombs - almost all of the Roman and Byzantine periods. Work is being done to determine whether or not these installations fall into any recognizable patterns. Only partial excavation had been done on less than a dozen of these installations.

In 1989 members of the Texas Foundation For Archaeological and Historical Research (TFAHR) were contacted by their counterparts from the "Man and His Work Pavilion" of the Eretz Israel Museum, and the invitation was extended to the TFAHR to jointly excavate the site of Zur Natan. It was decided to use the results of the Museum's survey as a basis upon which to begin exploration of this previously untouched site.

The strategy of the 1989 season was to dig a number of large exploratory trenches at different points on the hill where surface finds seemed most promising. The results of that season's excavation were more than had been expected and it was agreed upon to continue work at the site.

In 1990 we concentrated upon a point near the summit of the hill where a number of medieval walls still protruded through the ground. The walls proved to be the remains of houses of the Mamelukan era. But continued excavation beneath the floors of these houses showed them to have been constructed upon the ruins of a large, solidly built structure of the Byzantine period. As the season progressed, it soon became obvious that the Byzantine building was not merely a private home

or even a large country manor, but a substantial complex of long hallways, storage rooms, and possibly living and working quarters that were all connected with one another. From the nature of this large complex and from the finds within, our

predominant sentiment, at this point, is that we are excavating the remains of a Byzantine Christian monastery; the proof for this we hope to present in the following articles. Definitive proof will come, we hope, from the results of the 1991 season.

Preliminary Report on the 1989 & 1990 Excavation Seasons at Zur Natan

by Eulah Matthews, William Neidinger & Etan Ayalon

The major architectural find of the 1989 and 1990 excavation seasons was a large complex of adjoining rooms which the authors believe to be the remains of a Byzantine (sixth-eighth century A.D.) monastery. The monastery is located in an area which had previously been designated as "Area B" by the survey team.

Area B (see Figure 2) surrounds a terrace atop which is located the approximately two-hundred year old tomb of Sheik Musharef and a modern Arab cemetery. The terrace's walls seem to be the remains of an earlier structure, perhaps dating back to the Roman or Byzantine eras. This particular spot on the hill of Zur Natan has an unobstructed view to the north, south, and west, a fact which probably accounts for the location of the large ancient building and the later sheik's tomb. Because of the presence of the cemetery surrounding the sheik's tomb, excavations in Area B were conducted along the ancient walls that serve as the retaining walls of the terraced cemetery; those trenches to the south of the tomb and terrace are designated as B1, those to the west, where the monastery was uncovered, B2, (see Figure 3).

AREA B2.

Stratum I (see Insert A)

In the 1990 excavation season soundings placed some twenty meters northwest of Sheik Musharef's tomb uncovered the complex of rooms believed to form the Byzantine monastery. The decision to uncover and preserve as much as possible of the monastery precluded the possibility of conducting, in the 1990 season, extensive probes beneath the level of the monastery complex. Only to the east, where it is believed that one of the monastery's closing walls (B13) was found, was it possible to excavate beneath the floor level of the monastery. But due to the proximity of the graves

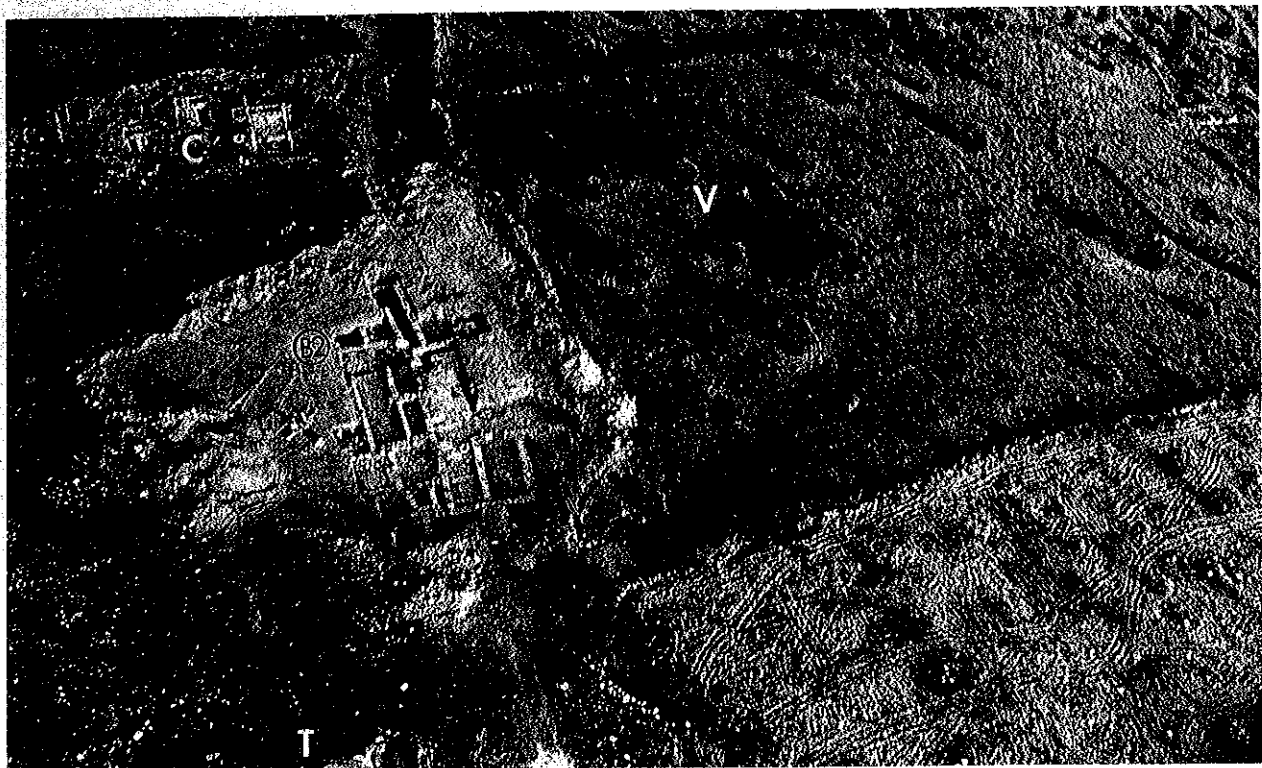
on the terrace, only a narrow, two-meter trench was dug. Here were uncovered a number of east-west walls (B52, B50, B53, B10, B11, B28, and B29) abutting a north-south wall (B12), which lays immediately beneath the monastery's eastern closing wall (B13). Between walls B10 and B11 the sounding was taken down to bedrock. Beneath the crude beaten-earth floor between these two walls was found a thick pottery fill (2034) with sherds dating from the Iron Age to the first century A.D. When the fill was cleared it revealed a small quarry cut into the bedrock. Walls B10, B11, and B12 were set exactly along the quarry's edge. The positioning of the walls in such a manner would seem to indicate that the quarrying operation and the construction of the Stratum I building were nearly contemporaneous events.

The extremely limited space in which to excavate made it impossible to ascertain the nature or function of this earlier building and only hypotheses concerning its dating can be made. First, the fact that the material of the quarry fill (2034) beneath the floor level dates no later than the second century A.D., gives us a good terminus post quem for the building's construction. The material from the various floor levels of the building (2030 and 2022) gives a similar second-century A.D. date. But the time and cause of the building's destruction remain uncertain. Second, the fact that the monastery wall B13 rests immediately atop B12, and that B27, B28, and B29 are in fair alignment with many of the monastery walls, indicate that substantial remains of the Stratum I building were probably visible at the time of the construction of the monastery and, in fact, the monastery most likely utilized some of the earlier building's walls and rooms.

Only in subsequent seasons, when soundings can be made beneath the floors in the monastery, can more about Stratum I be ascertained.



2. Aerial view of Zur Natan showing areas A, B1, B2, C, D, V (the underground vaulted room), and T (the tomb of Sheik Musharef).



3. Aerial view of B2(the monastery), C(the olive oil press), V(the underground vaulted room), and T(the tomb of Sheik Musharef).



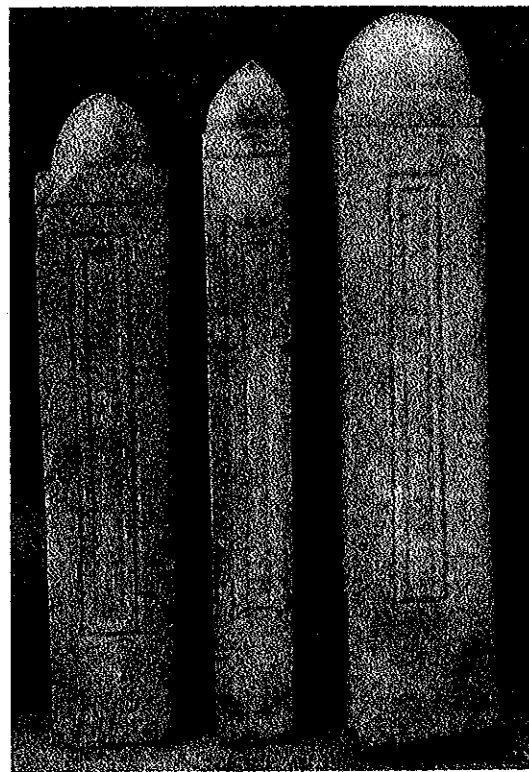
4. Aerial view of the monastery in B2.

Stratum II "The Monastery"

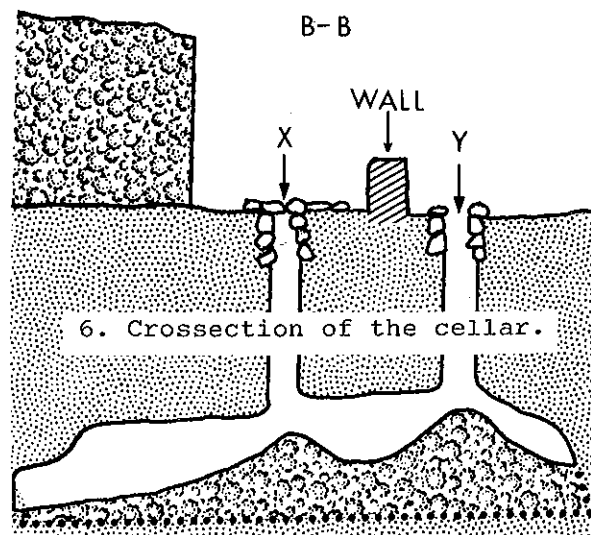
A number of factors led us to believe that the complex of rooms we are excavating are the remains of a Christian monastery. First, the extent and solid nature of the construction of the building far exceed those of the typical country villa of this era in this area (see Figure 4); there are, moreover, no major towns known to have existed here in the Byzantine era, negating the possibility that this may have been a major civic structure. Second, in one of the rooms (2029) three imported marble chancel posts, 1.10 m. high, were discovered (see Figure 5). Such posts, typical of monasteries and churches in the Middle East, served to hold the screen that separated the altar from the congregation. On the globular heads of these posts are small circular holes that held metal crosses at one time. Third, from another room (2021) came fragments of a glass oil bowl that was part of a larger candelabrum, a fixture found usually only in wealthier churches and monasteries. And fourth, from the same room (2021) and from the underground cellar (2036) four "oil rationing" beakers were found; these beakers, still to be encountered in their metal and plastic versions in today's monasteries, were what the monks used to draw their rations of olive oil for the day or week. While such factors lead us to the hypothesis that the Area B building is a monastery, definitive proof can be obtained only by further excavation.

The ceramic and numismatic material recovered from the monastery point to a lifespan that stretched from the sixth to the eighth centuries A.D. This correlates well with known historical events. The monastery was probably constructed in the aftermath of one of the Samaritan uprisings of the sixth century as part of the imperial "Christianizing" efforts among the Samaritans and Jews; the monastery continued to flourish under the tolerant rule of the Umayyads, and was abandoned or destroyed under the far less tolerant Abbasid caliphate.

Our excavation has shown that during the lifespan of the monastery there were three major phases of construction, or, more precisely, after the initial construction, there were two phases of repair or rebuilding. Although evidence of three construction phases can be found in all parts of the monastery, there is no hard evidence that indicates that the two subsequent repair phases were simultaneous in all parts of the complex. But for clarity's sake, each phase will here be treated as

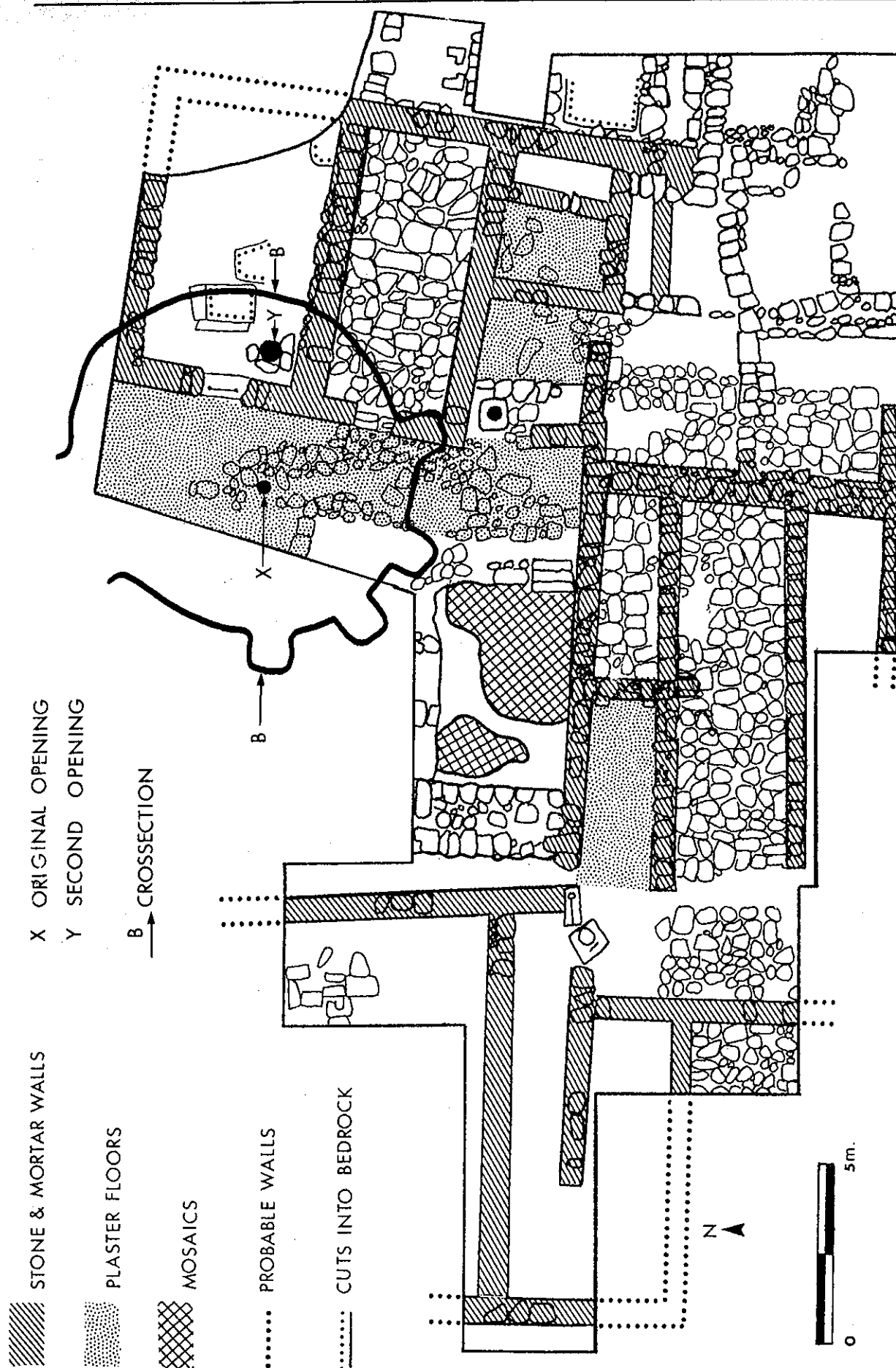


5. Marble chancel posts found in room 2049. Note the small holes in the heads of the posts where crosses were inserted.

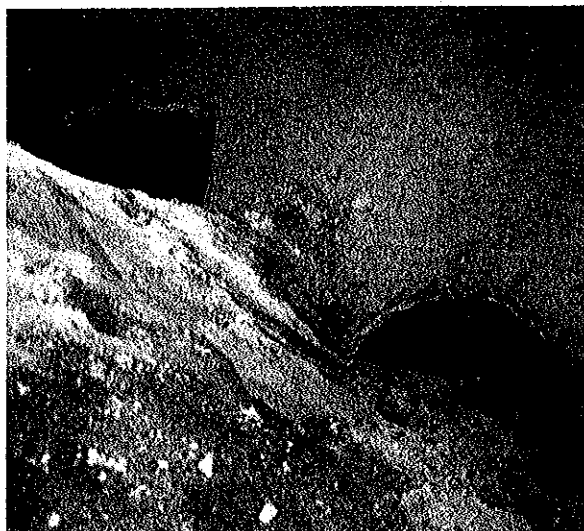


6. Cross-section of the cellar.

..... PROBABLE EXTENT OF CELLAR
 [Pattern] BEDROCK [Pattern] UNEXCAVATED SOIL
 X ORIGINAL OPENING Y SECOND OPENING



7. Thick black line shows the extent of the cellar.



8. Entrance to two small rooms of cellar. Note dirt accumulation from original entrance, ("X" in Figures 6 and 7).



9. Excavating in the cellar.

contemporary in each part of the monastery.

Stratum II Phase I (see Insert A)

In the initial construction phase of the monastery the walls were solidly built of well cut ashlar and small field stones held together by mortar bonding; the floors in most rooms (2029, 2026, 2019, 2038, 2037, 2045, and 2055) were built of large, irregularly cut limestones, which are not native to the Zur Natan region. Many of the stones of these floors (2029 and 2038) were later robbed out. The orientation of the rooms, that is, the long axis, is east-west. Three large halls (2029, 2026, and 2019) open onto a small courtyard (2051) that used the bedrock itself as the floor (see Figure 4). To the west of this courtyard were a series of smaller rooms, delineated by walls B36, B37, and B38, but the presence of a later mosaic (2056) prevented any extensive excavation to determine the exact size and nature of these rooms. To the southwest of the courtyard are three long, narrow rooms (2037-2052, 2045, and 2055) that give the appearance of having been storage rooms or magazines. 2045 originally was probably divided in half, like 2037-2052, but the dividing wall was removed in a later phase; the form of 2055 has yet to be determined. The western closing wall of these magazines was later robbed away, but one can assume that it more or less continued the southern line of B36. The magazines

opened onto another small court (2053-2054) whose northern half (2053) was also subsequently quarried out.

To the west of the complex of rooms we have been discussing there begins another complex separated from the eastern one by a small alleyway (2044) and the courtyard (2053-2054). Not enough clearance of this western complex was accomplished in the 1990 season to allow us to form any definitive opinion as to its function or to what construction phase of the monastery it belongs. The only thing that may be stated with any certainty is that B46 is probably the western closing wall of the monastery. If this is indeed the western closing wall, and we have the eastern closing wall in B 13, that gives us at least two of the parameters of the monastery, assuming a fairly regular shape for the complex. The northern and southern limits, therefore, have yet to be determined. In addition to the halls, magazines, and courtyards of the monastery, in Phase I there was a large underground complex, a cellar, that one gained access to through an opening in the courtyard 2051. This cellar (2036) was hewn into the bedrock to a depth of approximately seven meters (its floor has not yet been reached) and has an irregular dome shape, taking advantage, in part, of a natural cavity in the bedrock (see Figures 6, 7, 8, and 9). Stemming off from the main chamber of the cellar are four smaller rooms, two of which have their walls and ceilings plastered. To the northeast

of the main chamber there is an entrance to what appears to be another, possibly larger, complex of rooms. The accumulation of dirt and debris prohibited access to this second cellar and only a glimpse was afforded to us. The cellar probably served as some sort of storage area for the monastery.

Some sort of minor destruction seems to have befallen the monastery at the end of Phase I, necessitating the repair works of Phase II. The date of this destruction and repair is not known, although they seem to have followed rapidly upon one another.

Stratum II Phase II (see Insert A)

Phase II does not represent a drastic restructuring of the monastery but, rather, a set of repairs, reinforcements, and minor alterations, there being no significant change in the monastery's groundplan. The major activity seems to have been: 1) a reinforcement of existing walls (B14, B15, B17, B22, and B31) by the addition of a thin line of small stones bonded to the original walls with mortar; 2) the rebuilding of certain walls (B37 and B38), perhaps where damage was heaviest; and 3) the blocking of certain doorways, in walls B17 and B41.

The only significant restructuring of the ground plan occurred in room 2019 where the pavement was partially destroyed to allow for the division of the hall into three smaller rooms by the addition of walls B20 and B21. These three small rooms, all opening to the south, could have been some of the cells or living quarters of the monks.

In Phase II the cellar, although still in use, had its original entrance in courtyard 2051 paved over with large flagstones (2032), necessitating the drilling through bedrock of a new entrance, this one in the southwest corner of hall 2029.

The small rooms of Phase I formed by walls B36, B37, and B38 (rooms which may have been the monks' cells of Phase I) were eliminated by the laying down of a substantially thick plaster floor that covered walls B37 and B38, making one large room bounded by B36, B17, B39, and a subsequently robbed wall running parallel to B17.

Stratum II Phase III (see Insert A)

Phase III shows evidence of a cleaning and refurbishing of the monastery. Certain walls (B22, B39, and B23) were reinforced. Rooms 2021 and 2028 served as trash pits into which was thrown an

enormous quantity of pottery, glass, and broken stoneware. This dumping probably represents a thorough cleaning out of the monastery. Most of the ceramics and glass are easily dated to the late Byzantine-early Arabic period, sixth to eighth century A.D. It should be noted that similarly dated pottery was to be recovered, also *en masse*, from the cellar (2036), indicating that it too was used in Phase III as a dump and, therefore, ceased functioning as a storage area. But, in addition to the sixth through eighth century material, later pottery and glass was found in the cellar, leading to the conclusion that at the end of the monastery's lifespan the cellar once again served as a dump for whatever squatters came to inhabit the buildings.

In the southernmost hall, formerly 2019 which had been in Phase II subdivided into three cells, the dividing walls (B20 and B21) were removed and a plaster floor was laid over the three small rooms of Phase II, making it into one large room once again. In the entrance to this new room a cistern was dug into bedrock (2057) making access rather awkward. In another room (2037) the remains of a large basalt grindstone were found (see Figures 10 and 11).

The main improvement of Phase III was the laying of a multi-colored mosaic in the room (2056) west of the central courtyard (2032) (see Figure 12). This was accomplished by the rebuilding of wall B39, the addition of a new wall (B40), and the laying down of approximately .40 meters of small rubble fill over the previous plaster floor of Phase II (see Figure 13). The mosaic was bordered along the edges and consisted of a net of interlocking diamonds with a central cross. The tesserae were white, red, and black. Between B40 and B36 a thick stone floor was built; the purpose and extent of this floor is not yet known.

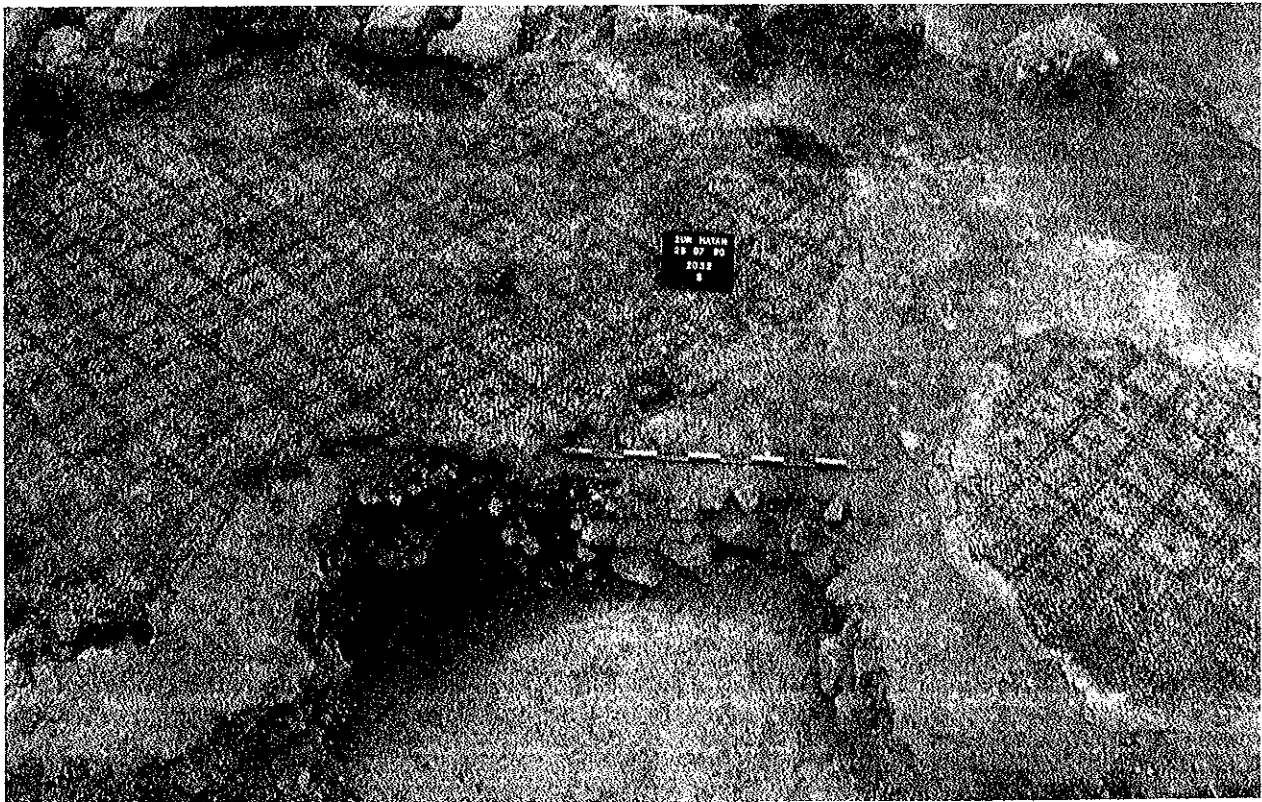
As mentioned earlier the complete extent of the monastery has yet to be determined, as do more precise dates for its initial construction and abandonment. Still the finds allow us to place its lifespan between the sixth and eighth centuries, after the Samaritan revolt and up to the Abbasid caliphate. A more difficult task may be the determination of the perimeter of the monastery, for to the east we are hampered by the modern Arab cemetery surrounding Sheik Musharef's tomb and to the north is an olive grove, containing the underground vaulted room (see Introduction), in which permission has not yet been granted to excavate. In addition, modern terracing operations around the cemetery may have destroyed a good



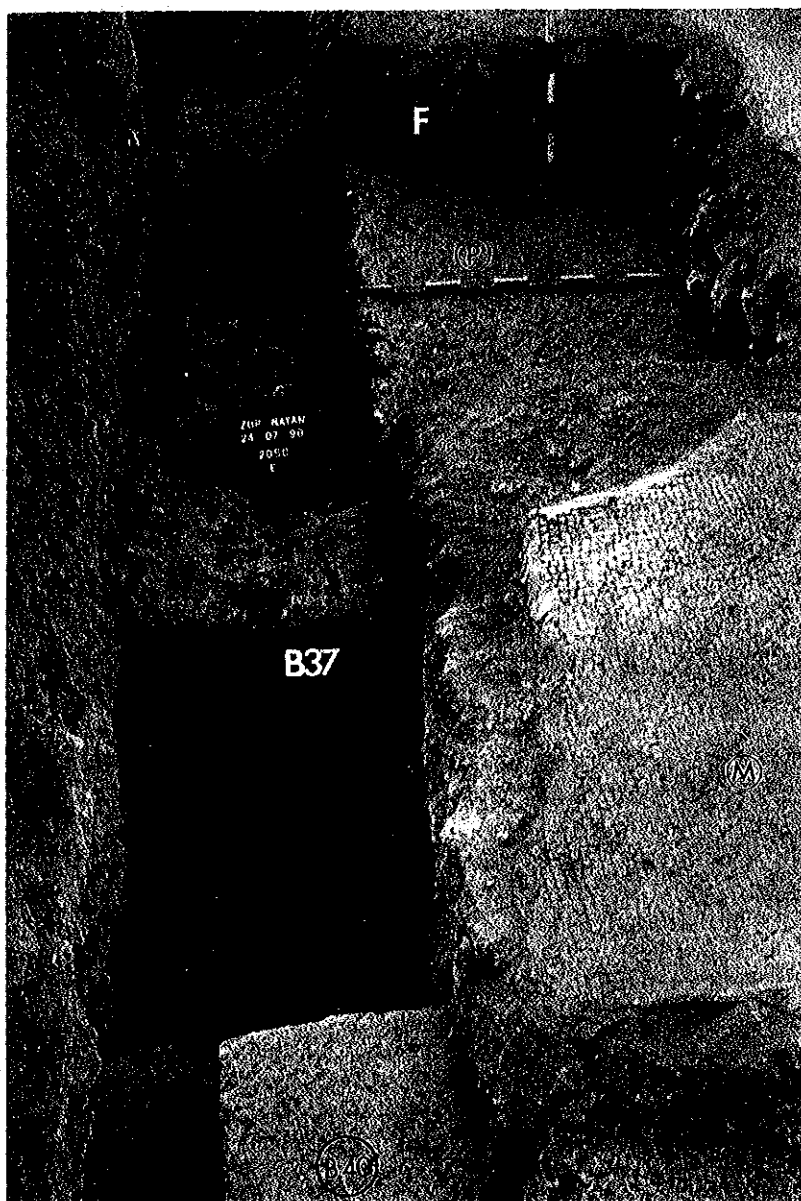
10. Room 2037 with fragments of a basalt grindstone in situ.



11. Grindstone reconstructed.



12. Mosaic floor, stratum III, phase III.



13. Sounding showing:
M (mosaic floor of stratum III, phase III),
F (rubble fill between floors P and M); P (a plaster floor of stratum III, phase II); wall B37 (stratum III, phase I); and wall B40 (stratum III, phase III, foundation course).

deal of the monastery's outbuildings. It is fairly certain, for example, that the olive press discovered in 1989 in area C (see below) was part of the monastic complex, being similar in construction and the material being of a similar date.

AREA B1

On the southern side of the terrace which supports Sheik Musharef's tomb and the cemetery two exploratory trenches were dug in 1989 along the substantial ancient walls that serve as retaining walls for the terrace. What was uncovered in these

trenches may have been part of the monastery; only with additional excavation along the terrace's western edge can the monastery be linked to these trenches.

The easternmost trench was laid out around a large cistern hewn into the bedrock, which was clearly visible from the surface, as were a number of walls adjacent to the cistern. The walls turned out to be the remains of a small plastered reservoir (see Figure 14) connected to the cistern. The lower part of the cistern was cut into the bedrock, while the upper part was constructed of small field stones and mortar. The cistern measured 2.70 x 2.35 meters

and is 2.25 meters deep. Five steps lead down to the bottom of the cistern. All the angles of the walls were reinforced with a rounded buildup of plaster, as was typical of the late Roman and Byzantine water installations.

From the scarring on the plaster walls of the cistern it becomes evident that the installation underwent three phases of construction: 1) initial construction, 2) the laying in of a new floor which diminished the holding capacity of the tank, and 3) removal of the floor, bringing the cistern back to its original capacity. The reasons for the renovations remain obscure.

The cistern was eventually filled in with stones, soil, and debris; finds from the fill include: ribbed storage jar sherds, some with painted white lines, and fragments of fifth to sixth century oil lamps of the "late Samaritan" type.

Excavations conducted outside the perimeter of the reservoir down to bedrock yielded sherds dating from the Hellenistic to the Byzantine period.

A second trench was dug 6.50 meters west of the cistern along the southern terrace wall, in which a north-south wall was unearthed that intersected with the terrace wall, which runs east-west. Two superimposed plaster floors were excavated to the west of the north-south wall; both floors (2004 and 2006) yielded fourth and fifth century pottery sherds. A fill or dump to the east of the north-south wall produced Hellenistic and Roman material.

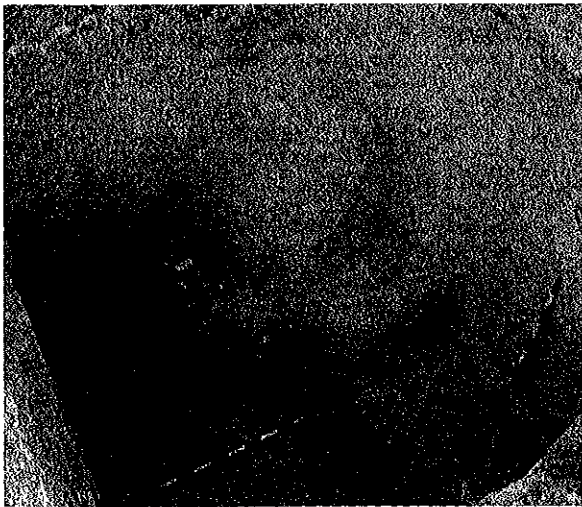
The southern terrace wall continues to the

west for another thirteen meters and connects with another north-south wall. This second north-south wall is in general alignment with the eastern closing wall of the monastery, B13. This would seem to point to one of two possibilities. Either the terrace upon which the cemetery rests was once part of the monastery, or the monastery utilized or was built up against, and, therefore, in alignment with, an earlier structure.

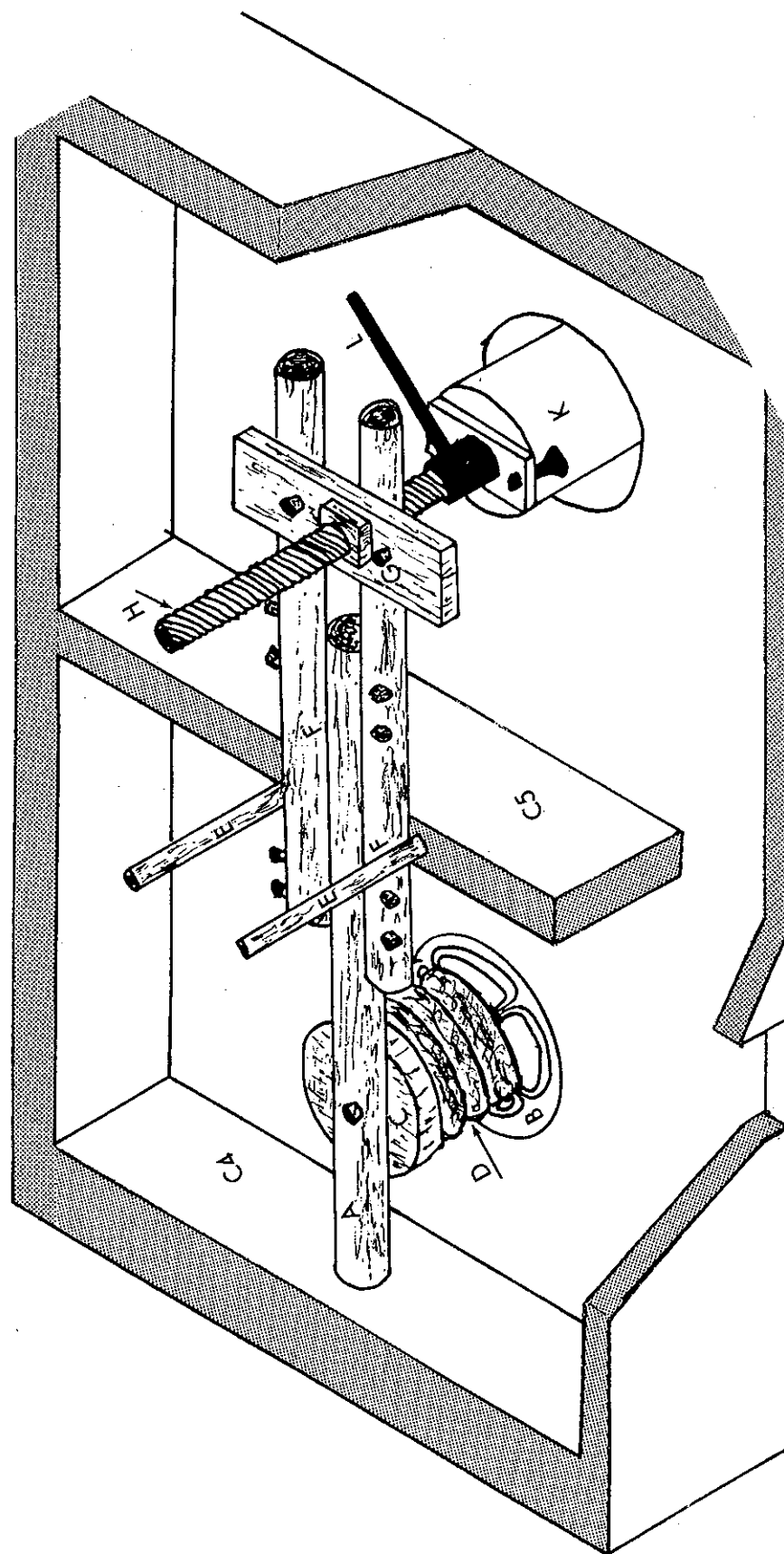
AREA C

Area C lies approximately 80 meters west of the tomb of Sheik Musharef on a lower terrace than that of the monastery (see Figure 2). Although separated from the monastery by about 25 meters, the style of construction of the Area C buildings and the fact that the ceramic finds are contemporary with those of the monastery indicate that these buildings may have been part of the monastery complex. At one time buildings covered most of this lower terrace, but later medieval pillaging and modern terracing have destroyed all but the lowest courses of the foundation substructures of the buildings. Only one building, the northernmost, was preserved to any great extent, enough in fact, to allow us to determine with certainty its function and date.

This northern building (see Figures 16 and 17), divided into two rooms (3015 and 3021), served as the olive oil press of the monastery. If this oil press is indeed associated with the monastery, as we firmly believe it was, that explains an enigma with which we were presented at the end of the 1989 season, after the discovery of the oil press and before the 1990 discovery of the monastery - namely, that there are dozens upon dozens of small olive oil presses all over the hill of Zur Natan, each probably utilized by individual families; most can be dated from their style to the Roman era. Why should there be amongst all these family presses one gigantic press, much larger than warranted by any domestic enterprise? If the monastery was constructed in the wake of one of the Samaritan revolts against Constantinople as part of the imperial "Christianizing" efforts to tame the rebellious Samaritans, it seems logical that the monastery should consolidate in its hands some of the economic activities of the region, i.e. olive oil production and wine production (for excavation of the large wine press, see below under Area D). This would necessitate a much larger structure than the small familial presses.



14. Cistern in B1.



15. Reconstructed olive oil press.

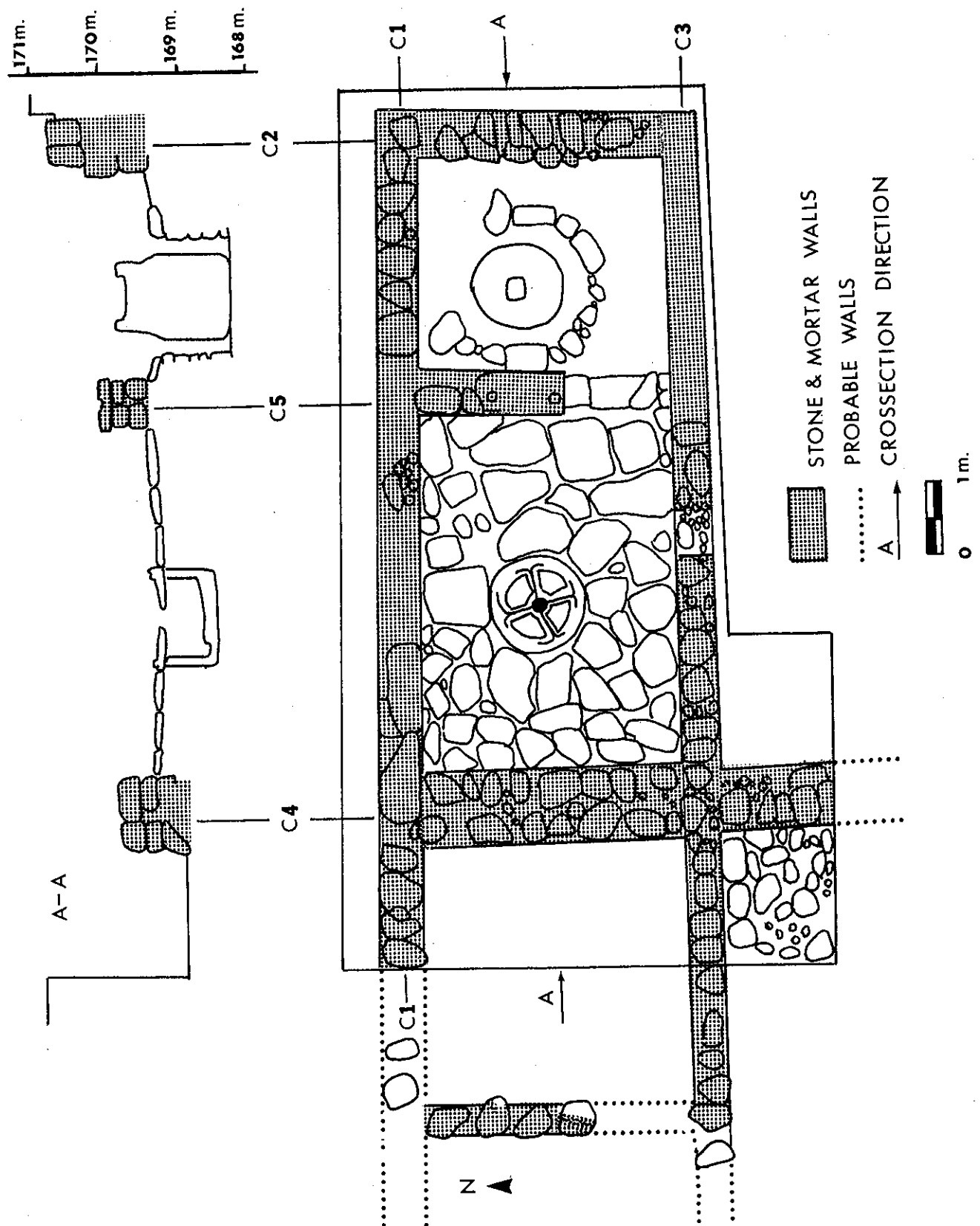


16. Photo of olive oil press showing: W(stone weight), V(vat), and walls C4 and C5.

The press is thought to have operated in the following manner (see Figure 15). The operational basis of the press is that of a beam secured by a wooden screw to a large stone weight. First, one end of the beam, the fulcrum (A), was anchored into wall C4 - note that wall C4 is considerably wider and more substantial than the other walls, probably for just this reason. The beam then passed directly over the pressing stone and vat (B). A large wooden pressing board (C) rested atop a pile of wicker baskets (D) filled with crushed olives. As the baskets were pressed (by the weight exerted on the beam by the stone weight), the oil ran out of the baskets and into the vat (3019). The pressure from the stone weight was supplied in the following manner: the beam passed from wall C4, over the vat (B), over wall C5 (sockets carved into the uppermost stone of C5 probably anchored timbers (E) attached to the roof to stabilize the beam-stone weight apparatus), and into room 3021. As the beam passed over C5 into room 3021, two additional timbers (F) were probably attached to it

giving it a forked appearance; or a naturally forked tree could have been used. The two timbers (F) were then secured to a board (G) which contained the spiraling cuts of the "nut" through which the screw (H) passed. The wooden screw was, in turn, secured to the stone weight (K) by additional boards (I) attached to its base and wedged into mortices (J) which were carved into the stone weight. The screw itself (H) was placed into the stone weight (K) in the round indentation on the top of the stone and then passed through the "nut board" (G). As the screw was turned (L), pressure was placed on the beam resting on the baskets with the crushed olives. As the screw was turned further, the stone weight (K) would have been lifted off the ground. Eventually the weight of the stone and the force of gravity would have brought the stone to rest back in its pit.

In addition to a pressing room there normally would also be found in an olive oil factory a crushing room, where the fresh olives would be crushed or cracked before they were placed in the



17. Plan of olive oil press.

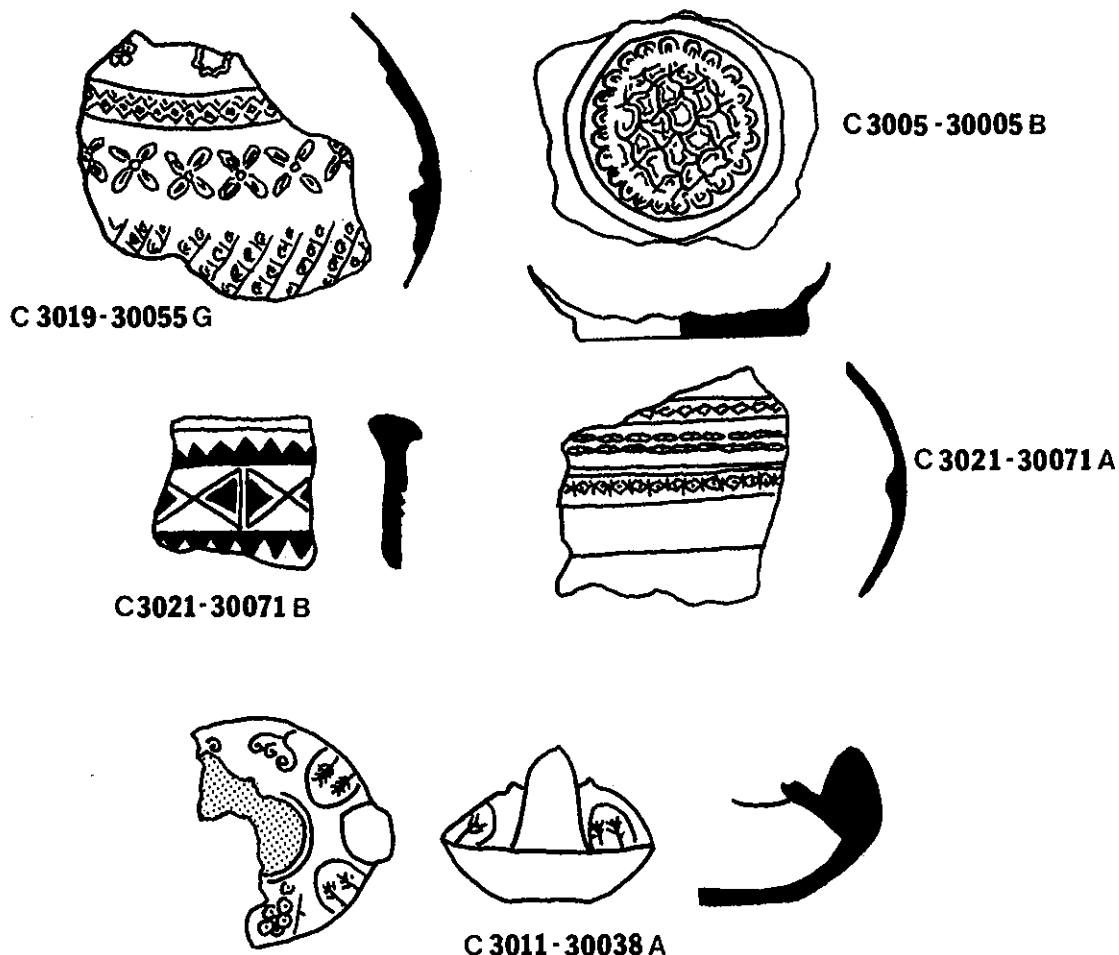
baskets beneath the pressing board. But due to the extremely poor state of preservation of the buildings in Area C, it was impossible to determine what the nature of the rooms adjacent to this pressing room was, although seven fragments of a large (1.43 meters diameter) circular, limestone crushing stone were found south of wall C3 in a destruction layer.

The date of the oil press was determined by the ceramic finds. From 3015 (the room with the vat), 3019 (the vat itself), and 3021 (the room with the stone weight) there came an almost perfectly "clean" assemblage of pottery from the late Umayyad period, c. 700-750 A.D. This assemblage consists not only of ceramics that continue the Byzantine tradition (ribbed ware, some with white decoration), but also buff colored, incised Mafjar ware, sherds of "Kerbschnitt" bowls, and fragments of early Arab oil lamps (see Figure 18). These latest ceramic finds are contemporary with the latest

finds of the monastery of Area B2, indicating a simultaneous abandonment of both.

AREA D

Area D, dubbed "the industrial zone," lies on the northernmost slope of Zur Natan about 800 meters from the tomb of Sheik Musharef (see Figure 2). In this area there are clearly visible on the surface a large number of cisterns, tombs, wine presses, olive presses, and quarries. It was decided in the 1989 season to excavate three of the most prominent of these installations: a kiln, a wine press, and a "columbarium."



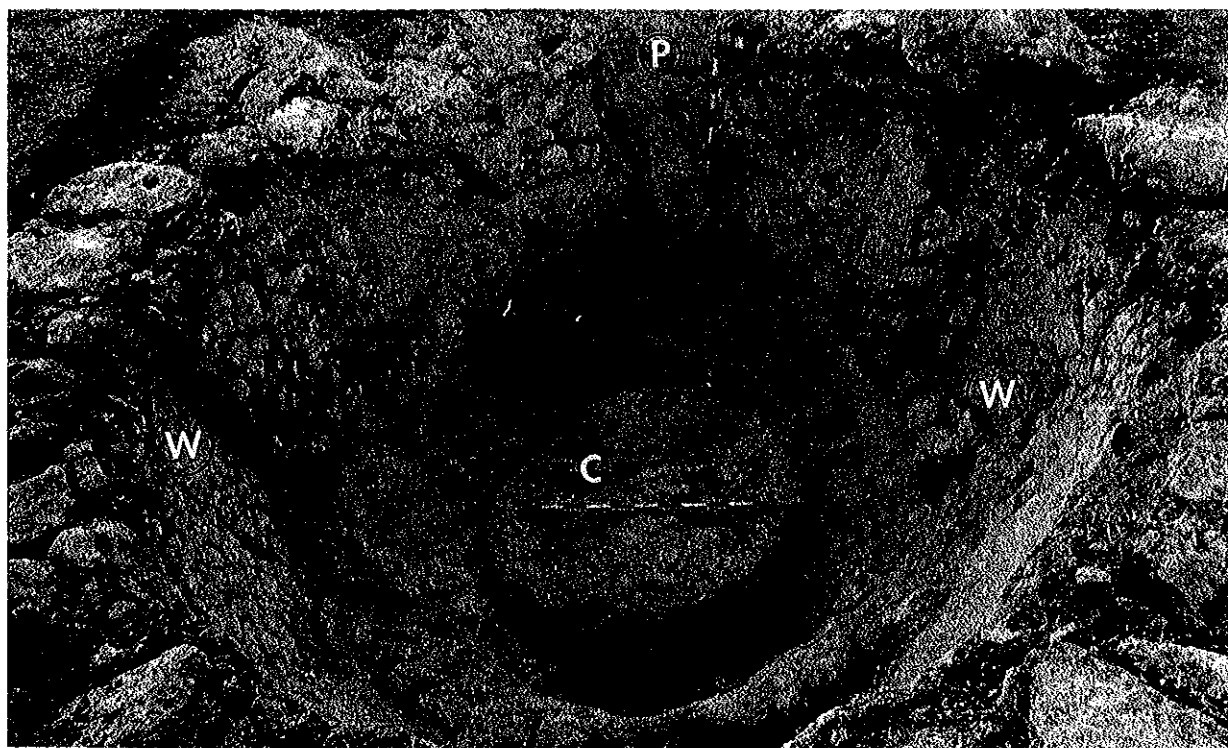
18. Profiles of some eighth century wares found in press area.

The Kiln

Visible on the surface was a large (3.15 meters diameter) ring of flat, irregularly carved flagstones encircling what proved to be a pottery kiln carved down into the bedrock (see Figure 19). Whatever superstructure may have existed on the kiln was missing and only the part built beneath the ground level has survived. The bedrock itself served as the substratum of the kiln's walls, and a careful cleaning revealed that the walls had been remade a number of times with mortar and inlaid stones. The "core," in the center of the kiln, which would have supported the floor on which the pottery was placed to be fired, was extant only to a height of .65 meter; no trace of the floor was discovered. The opening of the kiln, the praefornium, was oddly enough to the east, not to the west where it could have taken advantage of the prevailing daily breezes from the coast. A mass of broken small bowls at the entrance to the kiln dated the structure to the first and second centuries A.D.

The Wine Press

To the northwest of the kiln there was clearly carved into the bedrock a large (7.0 x 10.50 meters) rectangular depression, which excavation showed to be a wine press with subsidiary treading and pressing installations surrounding it (see Figures 20, 21, and 22). The southern part of the main installation was a treading floor which was originally covered with white mosaics, as shown by the remains of tesserae imbedded into the floor against the eastern, southern, and western walls. In the center of the treading floor was a circular pit, .75 meters diameter and .75 meter deep. This pit was all that remained of a wooden screw press apparatus that would have been employed in a second pressing of the grapes after their treading. In the southern wall of the treading floor another compartment was carved into the bedrock; this compartment may have served as some sort of storage area. Into the western bedrock wall of the treading floor there were discovered two circular



19. Kiln: P(praefornium), C(core), W(points where successive remakings of the wall of the kiln can be easily seen).

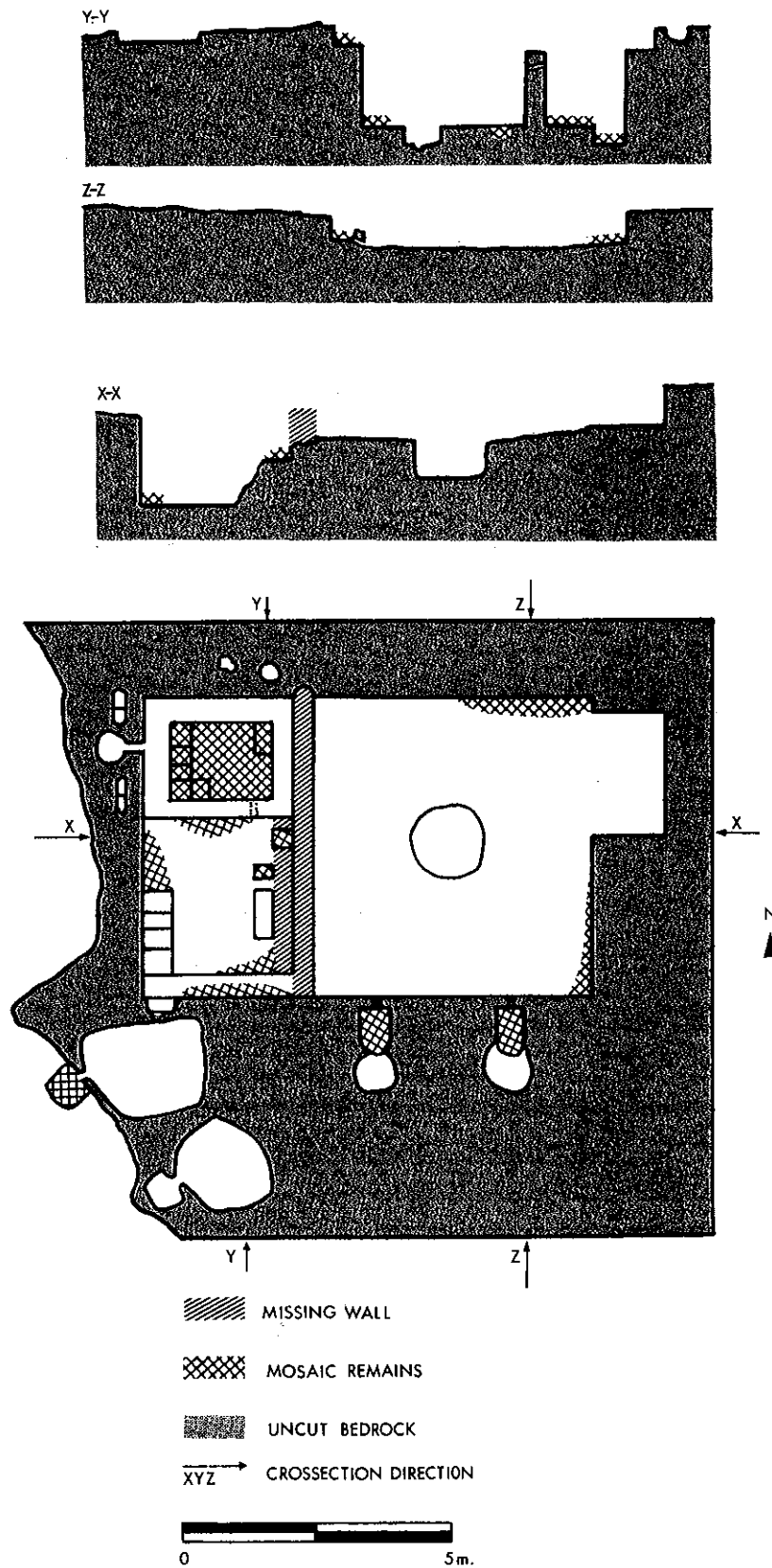


20. Wine press of area D before excavation.



21. Wine press of area D after excavation.

EXCAVATIONS AT ZUR NATAN - A PRELIMINARY REPORT



22. Plan (lower) and three crossections of wine press.

pits whose floors were lined with white tesserae. At ground level to the west of the two pits the bedrock was cut into smooth, flat, though irregularly shaped surfaces. A thin wall separated the pits from the treading floor area, although in the undamaged wall of one pit a channel was carved through the separating stone wall. Certainly these were two small pressing complexes where either additional grapes or herbal additives could be pressed and the liquid joined to that flowing in the treading room. The treading floor sloped south to north, there being a difference of .14 meter between the floor level at the southern wall of the treading room and the floor level at the wall which separated the treading room from the collection vats. Only slight traces of this .50 meter thick wall remained.

The two collection vats on the northern end of the installation were separated from the treading room and from one another by walls. A channel sloping down from the eastern to the western vat allowed the juice to overflow from the smaller to the larger vat. The bottoms of both vats were reached by flights of four steps carved into the bedrock along the northern walls of the vats. The capacity of the larger vat was 20 cubic meters and that of the smaller vat 6.5 cubic meters. Remains of the white mosaic floors were found in both vats and small sump pits were also found in both floors. A mosaic-covered shelf carved into the bedrock went around the northern, eastern, and western edges of the vats.

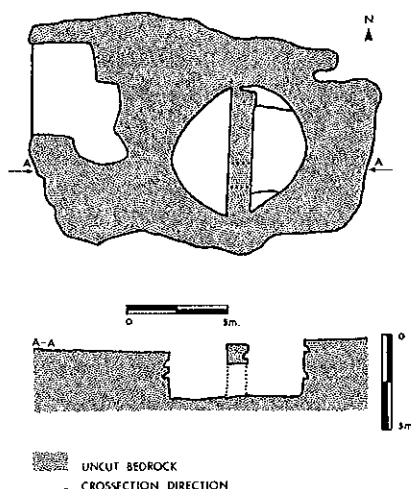
Two rectangular and one circular cut in the bedrock north of the vats may have been the sockets for timbers of another smaller wooden beam wine press.

To the west of the wine press are two large, irregularly shaped but smooth surfaces cut into the bedrock. These treading surfaces have channels leading down not into the main vats, but into two small rectangular plaster and mosaic lined pits to the northwest of them. Their relationship to the main vat remains enigmatic.

The wine press, although cut into the bedrock, was badly damaged when the complex ceased being used as a wine press, sometime during the early Arabic period; it was then subsequently used as a lime kiln. With this transition to use as a lime kiln, the mosaic floors of the press were destroyed, the wall separating the treading floor from the vats was removed, and substantial damage to the bedrock walls of the larger vat was sustained from the intense heat of the fire of the kiln. In the larger vat there was encountered a vast mass of ash, charcoal, and charred limestone.

The "Columbarium"

Between the wine press and the kiln a small (3.50 meters diameter) circular pit was carved into the bedrock; a wall (that is, uncut and unremoved bedrock) divided the circle into halves. A small arched doorway carved through this wall allowed for



23. Plan and crossection of "columbarium."



24. Photo of "columbarium" showing doorway.



25. Photo of "columbarium" showing niches.

passage between the two halves of the circle (see Figures 23 and 24). Forty small niches were carved into the separating wall and the semi-circular walls of the two rooms (see Figure 25).

A never-ending debate ensues concerning the nature of this type of structure dubbed a "columbarium." The word "columbarium" was used in Roman times to designate either a dove cot (*Columella* 8:8.3) or a mortice into which a beam was set (*Vitruvius* 4:2.4); in late antique times it came to designate a rowlock or oarlock (*Isidore* 19:2.3). The same term was applied by the great German classicist Theodore Mommsen to the funerary chambers of the *collegia* or large households of the imperial families or aristocracy into which cinerary urns were placed in small "loculi," shaped like pigeon holes - hence the name "columbarium," place of the birds. It should be noted that in Etruria and Latium, where these funerary columbaria are found, actual vessels or urns with the ashes are built into the lower part of the "pigeon hole."

In the "columbarium" of Area D no such provision was made in the small niches for the location or fixing of a cinerary urn. This would seem to argue against the idea of the pit having been used as a funerary structure. But neither again are the niches large enough to shelter but the smallest of birds. Although columbaria carved into rock are known in the Roman and Byzantine eras (note, for example, the cliffside columbaria at Goreme, Turkey, carved into soft tufa), it seems to be an extraordinary effort to carve a columbarium down into the limestone bedrock. It is possible that a superstructure existed atop this circular pit, and, in fact, eighteen "capital-shaped" stones were removed from the pit which may have supported some type of roof, but no evidence exists that shows just where or how such a theoretical roof might have covered the pit.

The possibility always remains, of course, that a third, as yet undiscovered use may have been made of such a columbarium type structure.

AREA A (see Insert B)

Area A (see Figure 2) is located in an olive grove about 50 meters northeast of the tomb of Sheik Musharef. Approximately 180 square meters was excavated down to bedrock in this area (see Figure 26). The reason for digging here was that local farming operations had uncovered with the plough a pottery dump of the fifth century A.D., a large

quantity of Roman bricks and tiles, and the tops of intact walls. Although the sherds gathered from the surface and from later excavation dated to the Chalcolithic, Early Bronze I, Middle Bronze IIA, Iron Age II, Persian, Hellenistic, Roman, Byzantine, and Mamelukan periods, there were only five architectural strata uncovered in the 1989 excavation (not including modern tombs).

Stratum I (see Insert B)

At the northern edge of Area A there was uncovered a curved wall (A17) lying immediately beneath and partially destroyed by the walls of later strata. A17 is extant only to a height of .40 meter and consists of two courses of uncut field stones. Two successive floors of packed lime were associated with this wall, as well as a mixture of Iron Age and Roman pottery sherds. The wall's advanced state of destruction and the broad mixture of pottery make it virtually impossible to fix a definitive date to this stratum.

Stratum II (see Insert B)

Before the construction of the buildings of stratum II, there seems to have been considerable quarrying activity at the site. Although it is impossible to ascertain the exact date of this quarrying, a "terminus ante quem" is established by the structures of Stratum II themselves, many of which follow the orientation of the quarry lines. The numismatic and ceramic evidence from this stratum gives it a first century A.D. date. The structures of stratum II are divided into eastern and western complexes, both part of either a very large farm complex or a small rural farming village.

The eastern complex was a large, eighteen meter long building with a series of rooms using A5 as a common back wall. The easternmost room (1064), though largely destroyed by the construction of the later stratum III pool (1007) yielded a vast quantity of easily dateable pottery, including first-second century A.D. storage jars, bowls, and an Herodian oil lamp. A probe (1066) beneath the floor revealed a fill of mixed pottery sherds which extended down to bedrock. A doorway in wall A20 allowed passage between rooms 1064 and 1043. A thick destruction layer of ash and heavy rubble covered the floors in both rooms. The western wall (A4) of room 1043 was at a slight diagonal to the rear wall (A5), since A4 followed the earlier quarry ridge.



26. General view of area A.

The central room (1011) of the western complex seems to have been a large courtyard using the site's bedrock as a floor. Its probable threshold, now destroyed, would have been to the south, in wall A18. The court's western wall (A6) is built of finely cut ashlar stones, which are in secondary use; there is a definite curvilinear profile to the stones. In the southeast corner of room 1011 there is a shaft leading down to an underground chamber hewn into the bedrock. This chamber consists of three steps leading down to a bottle-shaped entrance to a bell-shaped room. The steps and entrance are finely cut and shaped, but the room is roughly cut and appears to be unfinished. Finds from the underground room (1051) are of the same date as the finds from the upper room (1011), indicating that the two rooms were in use simultaneously in the first and second centuries A.D.

The two westerly rooms (1018 and 1023), defined by walls A5, A6, and A9, had their floors destroyed by the building operations of Stratum IV.

To the north of wall A5 and room 1023 there is a small structure defined by walls A5, A11, A26, and A25. Many of the stones of this structure are well cut ashlars in secondary use. A tightly packed fill between these walls covers the earlier

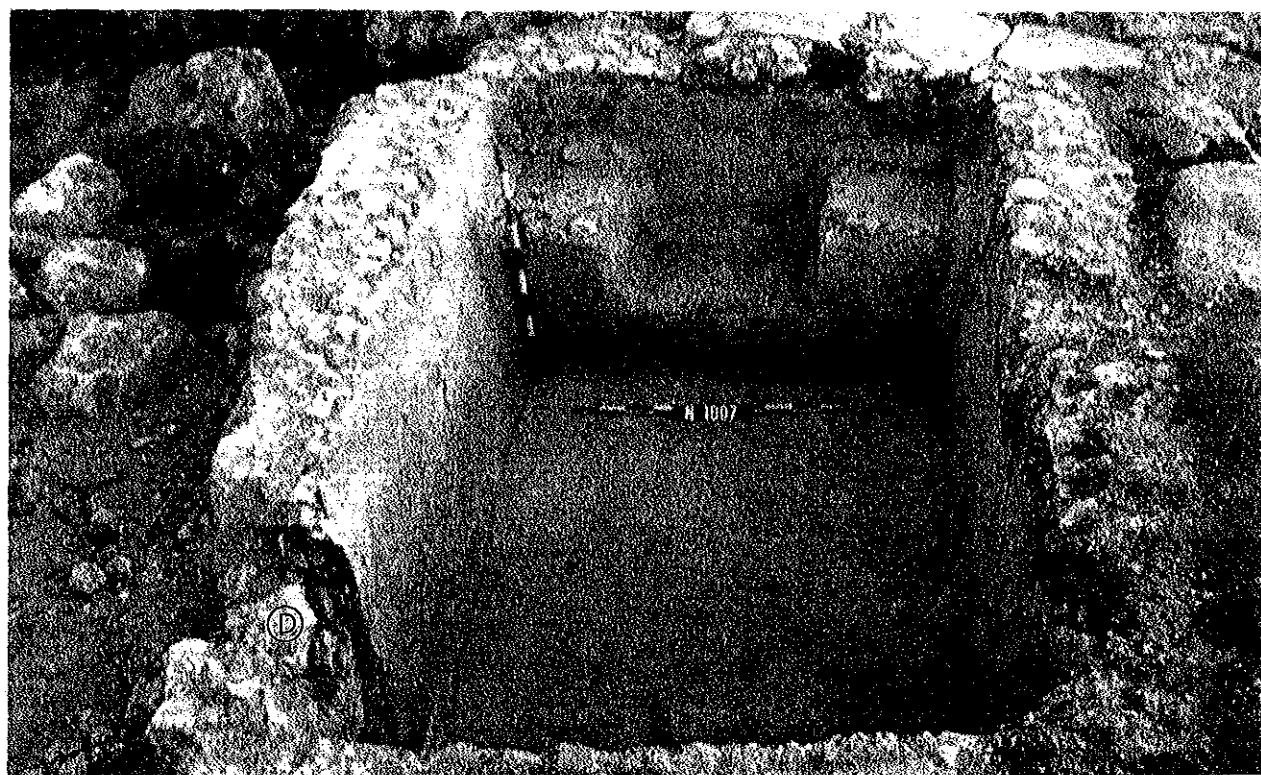
Stratum I wall (A17). This small grouping of ashlars may have been the substructure for a tower or stairwell.

The western complex of Stratum II was tenuously connected to the eastern complex by bordering on a common quarry and by a hard packed lime surface that skirts the quarry and the northern edge of both complexes; this lime surface may have been a pathway or a common court area. The largest room (1056) of the western complex measures 4.50 x 1.75 meters. Although a fine plaster floor was found in this room, no dateable material was recovered due to the later destruction and intrusion by a Stratum IV mosaic press and vat installation (1031) and a later Turkish pottery dump (1033).

Two of the walls (A16 and A19) of two other rooms (1045 and 1053) of the western complex follow earlier quarry lines; hard beaten-earth and plaster floors with little ceramic material were found in these rooms.

Stratum III (see Insert B)

The sole architectural feature of stratum III is a small pool or reservoir (1007) measuring about 1.75 x 2.60 x 1.15 meters (see Figure 27). The walls



27. Mosaic-floored pool (1007); D marks destruction by modern burial.

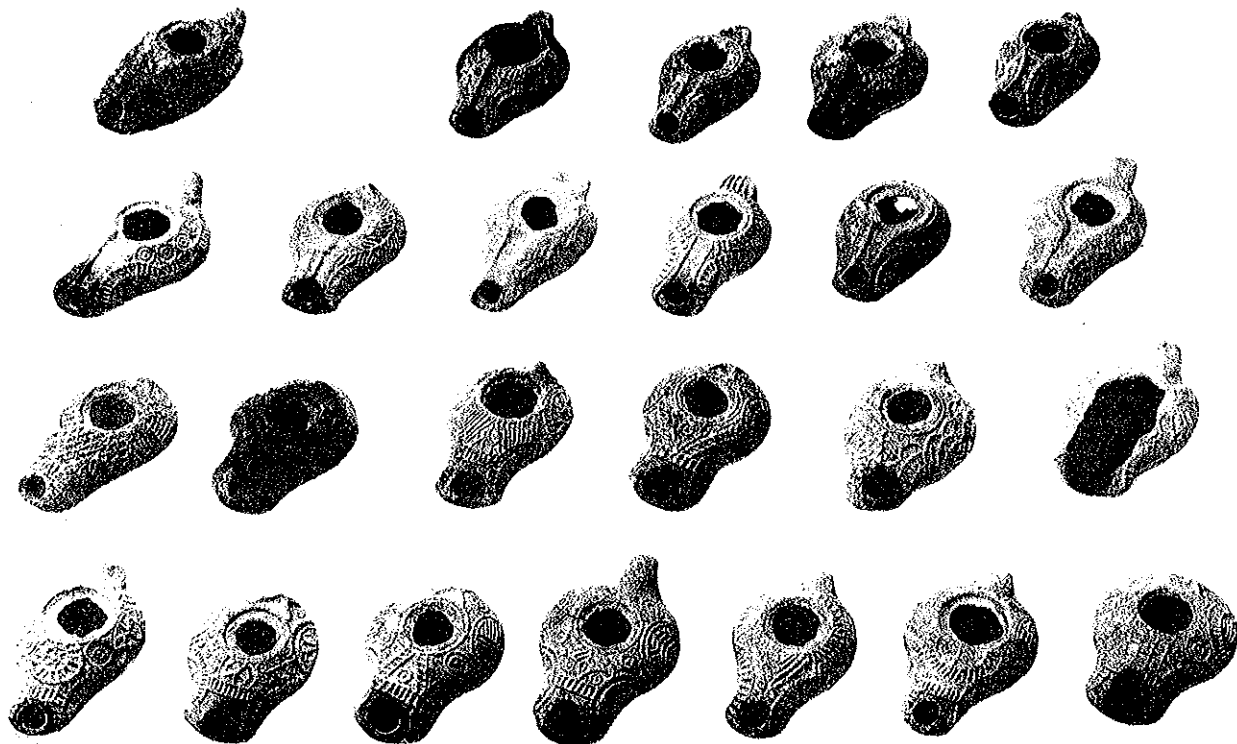
of the pool are about .35 meter thick and are built of small uncut stones bonded together with mortar. Three steps on the north side lead down to the white mosaic floor of the pool. The tesserae of the mosaic floor are laid in an irregular pattern and are of two sizes, the smaller ones seemingly being a repair job on the floor. The western wall of the pool was damaged by a modern burial.

The pool's age can be determined by two termini; post quem - built over room 1064; and ante quem - it was used as a dumping spot and packed with glassware and pottery dating from the third and fourth centuries A.D., including a good number of "Samaritan" type oil lamps (see Figure 28). Thus, it was constructed some time after the destruction of room 1064, in the late first or early second century A.D., and went out of use sometime in the fourth century.

In the fill of a Stratum IV room (1004), seven meters to the west of the pool, there was unearthed a tremendous quantity of tile, pipework, and bricks typical of a Roman bath complex. It is possible that the pool and the fill debris were part of the same bath building of the second or third century A.D.

Stratum IV (see Insert B)

Stratum IV shows an extensive re-use of the walls of earlier structures and the enlargement of these structures to the south. Walls A9 and A7 were extended southwards to connect with a new east-west wall (A3), which replaced A18. Excavation between walls A9 and A7 provided reliable dating material for the termini of this new construction phase. Within the stones of wall A7 was discovered an oil lamp typical of the late third and early fourth century A.D. And partially covering this same room (1013) was a massive pottery dump with a number of intact "Samaritan" oil lamps of the late fifth to early sixth century A.D. Therefore, Stratum IV construction began sometime around 300 A.D. and the buildings remained in use until about 500 A.D. In addition to the southerly extensions of the earlier Stratum II rooms to wall A3, it appears that another set of rooms was added even further to the south of A3; the remains of these rooms are evidenced by walls A1, A2, and A29. Since walls A1 and A2 rest atop bedrock and were badly damaged by modern ploughing, no definitive evidence for dating was available. Only one room south of A3 was found



28. Oil lamps of the third to fourth century A.D. from pool 1007.

intact, that is, the one defined by walls A29, A22, A23, and A24. Into this trapezoidal room was placed an installation (1031) with a mosaic floor and a sump pit (1033). It remains unclear whether this pressing installation was inside or outside of the main stratum IV building or whether it even belongs to stratum IV, the possibility being that it was a later addition, and its date is uncertain due to its re-use (or construction) in the Turkish period.

In Stratum IV the largest quarry area of the site (1017) was bounded to the west by a new wall (A12) and was probably used as a cellar. When a later medieval wall (A13) was removed and the soil beneath excavated, it revealed a small pottery dump (1052) up against A12 and A15; in it were numerous pottery and glass sherds and oil lamps similar to those of the Stratum III pool, dating to the late third or early fourth century A.D. This confirms the beginning terminal date of c. 300 A.D. for Stratum IV.

The evidence for dating the beginning of Stratum IV came from the small dump built up against the quarry-cellar's retaining wall (A12) and from the oil lamp found within wall A7; both suggest a c. 300 A.D. date. Stratum IV's terminal

date can be set from the evidence from room 1013 and the quarry-cellar (1017). Room 1013 was eventually filled in with ceramic debris dated to about 500 A.D. In similar fashion the quarry-cellar came to serve as a dump in the late fifth or early sixth century A.D. From this latter extensive dump (see Figures 29 and 30) came an enormous quantity of intact oil lamps, pitchers, broken storage jars, and cooking pots of a date contemporary with the dump in room 1013. In addition, from the quarry dump came an intact iron plough (see Figure 31). Stratum II structures went out of use, therefore, about 500 A.D.

The destruction of the Stratum IV buildings may represent the devastation that followed in the wake of the Samaritan revolts against Byzantine imperial power; only further excavation will provide definitive evidence for this. But if this thesis is correct, then what we may have here at Zur Natan in areas A, B and C, and D, is a neat succession of habitation layers dating from Roman times, through the period of relative toleration towards the Samaritans, the staging of their revolt, and finally the construction of the monastery as an imperial effort to tame the Samaritans.



29. Excavating the quarry-cellar.



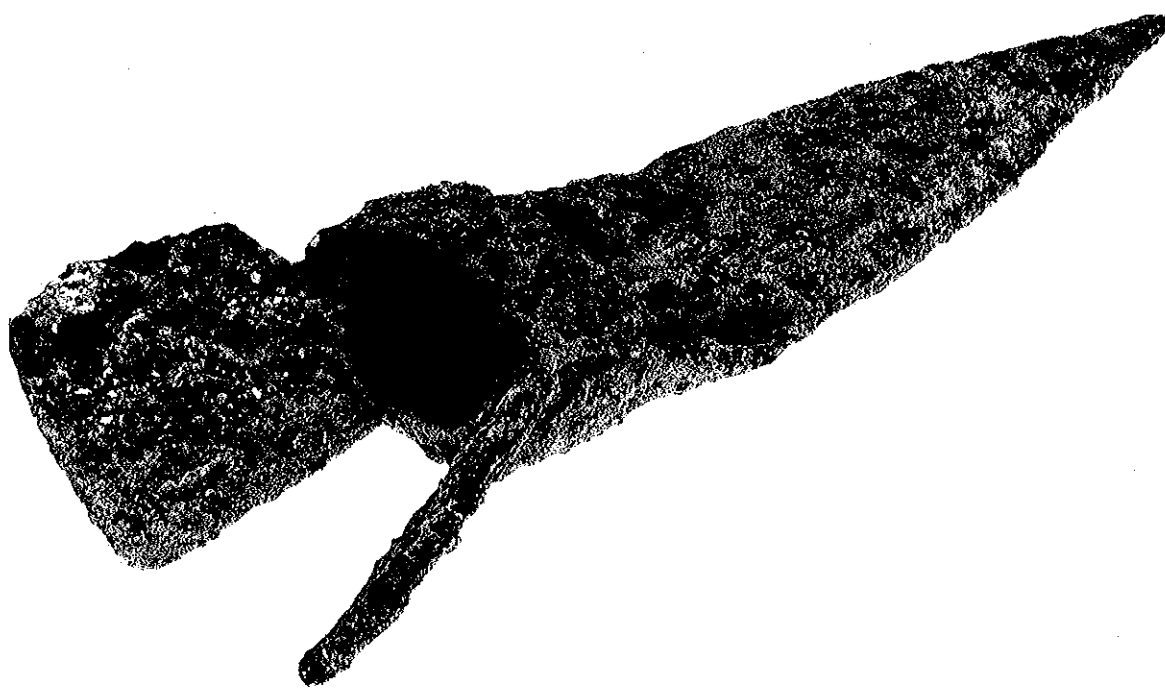
30. Pottery fill in quarry-cellar.

Stratum V (see Insert B)

As previously indicated by surface finds, the remains of Stratum V were found only in the western end of Area A. Here, nearly a millennium after the abandonment or destruction of the Stratum IV buildings, people returned to the area and rebuilt it, using, in fact, some of the earlier structures. Two large rooms were unearthed which used the earlier Stratum IV structures; these two Mamelukan era rooms are defined by walls A14, A13, A24 and A24, A23, A16, and A19. Both

rooms had hard packed lime floors on which were found quite a number of glazed Mamelukan sherds. The sump pit of the mosaic floor installation of Stratum IV (1033) was filled in with large stones and a considerable quantity of Mamelukan era pottery.

Numerous sherds of the Mamelukan period (fourteenth to fifteenth century A.D.) were discovered in the western end of area A, including: hand-made wares, red slip ware, Glazed bowls with incised geometric decorations, and hand-painted ware.



31. Iron plough found in quarry-cellar 1017.

The Finds of Zur Natan

by Eulah Matthews

The survey and excavations at Zur Natan have yielded a wide variety of artifacts, many of which have been cited in the text above. An array of tools and agricultural implements, such as the plough pictured in Figure 31, and the grain mill (Figure 11) have been found, complementing our knowledge of the industrial and agricultural life of Zur Natan. The vast quantity of glass - in its raw form and in slag, as well as in vessels - suggests the presence of a glass industry in the area. Further, the discoveries at Zur Natan will contribute considerably to the study of the "Samaritan" type oil lamp, which is well represented at Zur Natan (Figure 28).

What follows below is a discussion of the coins and pottery of Zur Natan; a full catalogue of finds, to include small metal finds, glass, jewelry, and other items, will appear in the final publication of the site.

Over three hundred coins have been discovered at Zur Natan in the survey and excavations. These coins range in date from the Hellenistic period to the Ottoman era. As has been indicated in the article above, the coins found in the excavations of Areas A, B, and C have been used in conjunction with ceramic evidence to date the strata and buildings found. Coin 154 (see below), for instance, was found amidst an assemblage of Early Roman pottery and an Herodian oil lamp, supporting a first century A.D. date for Area A, Stratum II.

The importance of the ceramic finds has been noted in the text above. Not only has the pottery been used for dating purposes, but ceramic evidence has also provided significant clues to the use of certain buildings. The discovery of several intact oil beakers in Loci 2021 and 2036 (see Area B, Beakers, below) supports the identification of the large building in Area B as a monastery, since these vessels were typical of Byzantine Christian monasteries.

Some Early Roman material has been found at the site, such as the bowls, juglets, and unguentaria from Locus 1064 (see Area A, Stratum II below). Of greater interest, however, may be the assemblage of Byzantine and Early Arabic pottery which is coming up at Zur Natan. A large quantity of Byzantine red and white painted ware, as well as Byzantine thin-walled painted bowls (see Area B, Bowls numbers 4, 11, 16, 20) have been found. Typical Early Arabic types, such as the high-necked jar, are well represented among the ceramic finds, as are vessels decorated in typical Early Arabic style, i.e. with incised circles and geometric designs (see Area B, soapstone box and lid, below) or with incised waves or "combing" (see Area B, Hole Mouth Jar number 10). The Zur Natan Byzantine and Early Arabic material promises to be an important source for the study of types poorly attested at other sites in Israel.

The Coins of Zur Natan

by Eulah Matthews and Yeshua Dray

JEWISH/EARLY ROMAN

152 **HEROD THE GREAT, 40(37)-4 B.C.** Locus A1005. Perutah, minted in Jerusalem. Obv: HPW [BAΣIA], anchor. Rev: double cornucopias with caduceus. Above cornucopia, 4 dots.

153 **FESTUS (under Nero), 59 A.D.** Locus A1051. Obv: NEPWNOΣ within wreath. Rev: LEKAIC APOC, wheat.

154 **NERO, 54-68 A.D.** Locus A1064. City coin of Caesaria. Obv: [NEPΩN]KAIPAP, bust right, laureate, undraped. Rev: [KAIE]APIA H ΠP[O]Σ Σ[EBAΣTΩAIMEN], turreted Tych, short chiton, mantle hanging over left arm, parazonium at side, standing left, right foot on prow, resting left on crosshead standard, holding in right hand a human bust.

LATE ROMAN/BYZANTINE

70 **CLAUDIUS II GOTHICUS, 268-270 A.D.** Locus A1008. AE antoninianus. Obv: [IMP C] CLAUDIVS AVG, radiate head, right. Rev: CONSER AVG, Serapis standing, left, holding scepter.

84 **MAXIMIANUS, 286-310 A.D.** Locus A1049. Antoninianus. Obv: IMP C M A MAXIMIANVS AVG, radiate, draped and cuirassed bust, right. Rev: CONCORDIA MILITVM, Maximianus standing, right, receiving Victory on a globe from Jupiter standing, left.

86 **LICINIUS I, 308-324 A.D.** Locus C3000. AE 3. Obv: IMP LICI[NIV]S AVG, laureate bust, left, wearing imperial mantle and holding mappa, globe, and sceptre. Rev: IO[VI] CONSERVA[TORI AVGG], Jupiter standing, left, captive at feet.

73 **CONSTANTINE I, 307-337 A.D.** Locus A1003. Obv: CONSTA[N]T[INVS] P F AVG, laureate head, right. Rev: D N CONSTANTINI MAX [AVG], in wreath: VOT XX.

58 **CONSTANTINE I, 307-337 A.D.** Surface. AE 3/4. Obv: CONSTANTII[NVS], diadem, draped bust, right. Rev: [GLO]RIA EXERCITVS, two soldiers standing either side of standard.

72 **CONSTANTINE I, post-337 A.D.** Locus A1000. Obv: DV CONSTAN[TINVS PT AVGG], veiled head, right. Rev: No legend, Constantine in quadriga galloping right; above, hand of God.

92 **CONSTANTIUS II, 337-346 A.D.** Locus A1000. AE 4. Obv: [D N] CONSTAN [TIV]S P F AVG, diadem head, right. Rev: Inscription in wreath, VOT XX MVLT XXX.

55 **CONSTANTIUS II, 337-346 A.D.** Locus A1011. AE 4. Obv: D N CONSTANTIVS P F AVG, diadem head, right. Rev: GLORIA EXER[CITVS], two soldiers standing either side of standard.

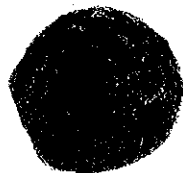
52 **CONSTANTIUS II, 346-361 A.D.** Locus A1012. AE centenionalis. Obv: [D N] CONSTANTIVS P F AVG, diadem, draped and cuirassed bust, right. Rev: FEL TEMP [REPARA]TIO, soldier advancing left, spearing fallen horseman.



152



73



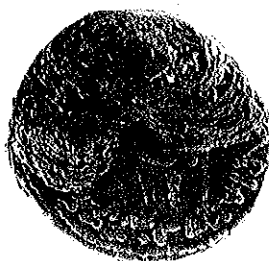
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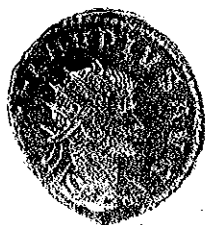
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154



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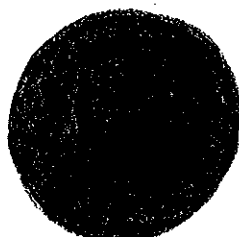
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92



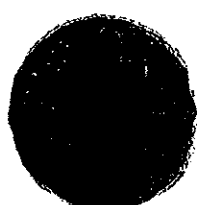
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55



86



52



53 **CONSTANTIUS II, 346-361 A.D.** Locus A1000. AE centenionalis. Obv: D N CONSTANTIVS P F AVG, diadem, draped and cuirassed bust, right. Rev: FEL T[EMP] REPARATIO, soldier advancing left, spearing fallen horseman.

69 **JULIAN II, 360-363 A.D.** Locus A1011. AE 1. Obv: D N FL CL IVLIA[NVS] P F AVG, diadem, draped and cuirassed bust, right. Rev: SECVRITAS REIPVB, bull standing right; above, two stars.

95 **VALENTINIAN II, 375-392 A.D.** Locus A1000. AE 4. Obv: [D N VAL]ENTINIANVS P F AVG, diadem, draped and cuirassed bust, right. Rev: SALVS R[EI]P[VBLICAE], Victory advancing left, carrying trophy and dragging captive.

87 **ARCADIUS, 383-408 A.D.** Locus C3000. AE 4. Obv: D N A[RCADIVS] P F AVG, diadem, draped and cuirassed bust, right. Rev: SALVS REI[P]VBLICAE, Victory advancing left, carrying trophy and dragging captive.

61 **HONORIUS, 393-423 A.D.** Locus C3004. AE 3. Obv: D N HONORIVS P F AVG, diadem, draped and cuirassed bust, right. Rev: CONCORDIA AVG[G], cross.

60 **ANASTASIUS I, post 498 A.D.** Locus A1017. 40 nummia. Obv: D N ANASTASIVS P P AVG, diadem, draped and cuirassed bust, right. Rev: M, cross above, A below, stars left and right.

59 **JUSTINIAN I, 527-565 A.D.** Locus A1017. Obv: D N IVSTINI[ANVS], diadem, draped and cuirassed bust, right. Rev: M, cross above, C right.

66 **BYZANTINE.** Locus A1017. Copper follis. Obv: [] P P AVG, diadem, draped and cuirassed bust, right. Rev: M, crosses above, right, and left.

ISLAMIC COINS

9 **UMMAYYID, ANONYMOUS RULER, 8TH CENTURY A.D.** Area A Survey. Minted at al-Ramla. Obv: There is no God but Allah alone (in Arabic script). Rev: Mohammed is the Apostle of Allah, branch.

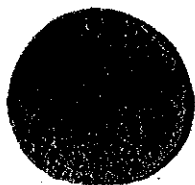
11 **MAMELUK, AL-NASIR NASIR AL-DIN HASAN, 1354-1361 A.D.** Area E Survey. Minted at Damascus.

14 **MAMELUK, BARQUQ (?), ca. 1400 A.D.** Area E Survey. Double struck coin.

206 **OTTOMAN COIN.** Area B Survey.



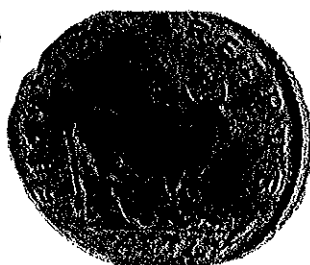
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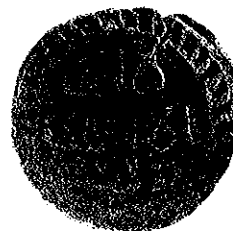
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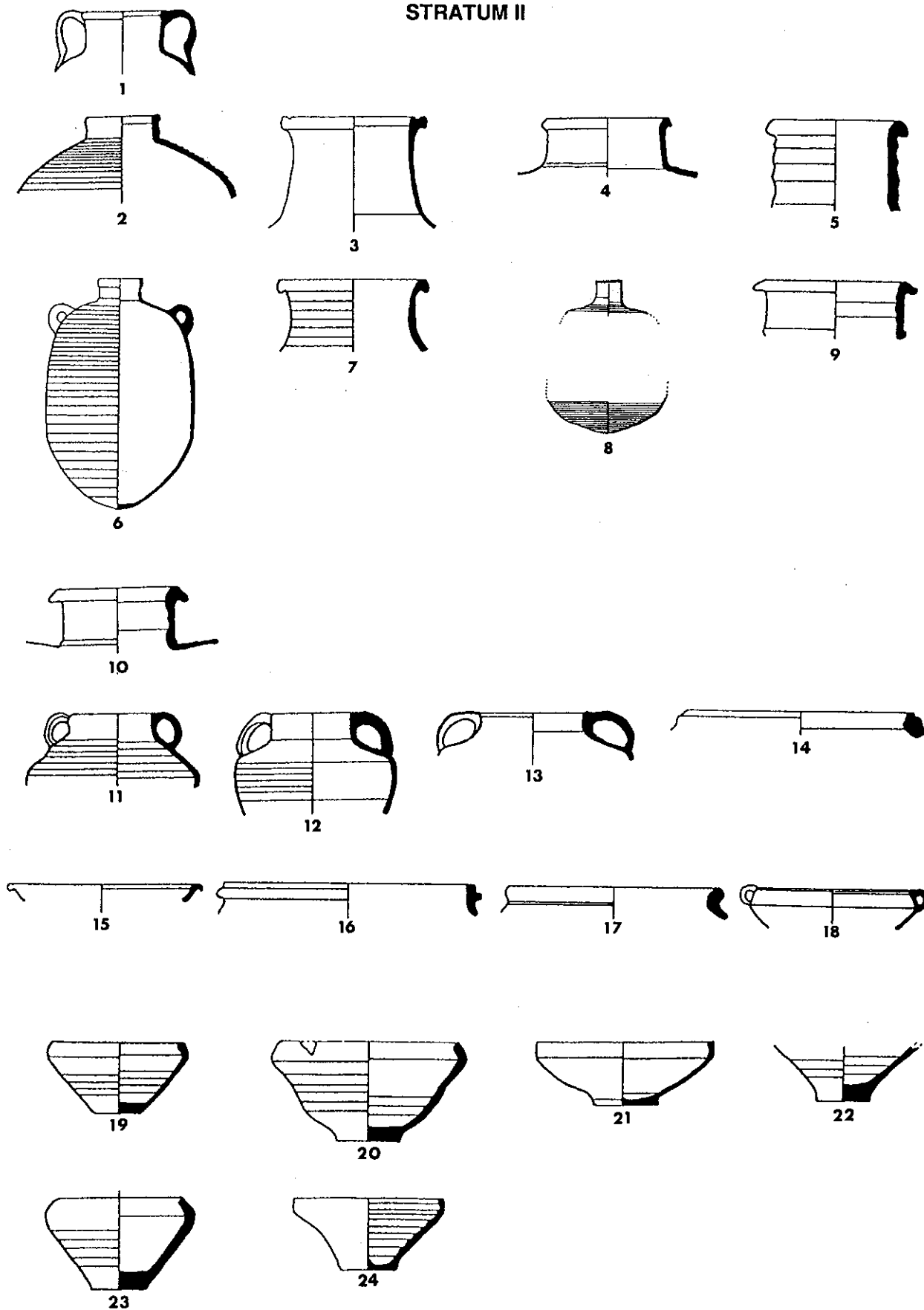
The Pottery of Zur Natan

by Ann Fowler

AREA A

TYPE	LOCUS	DESCRIPTION	SCALE
STRATUM II			
JARS			
1	1011	EXT/CORE 7/5YR 8/3 light yellowish orange	1:10
STORAGE JARS			
2	1011	EXT. 7.5YR 8/4 light yellowish orange; CORE 5YR 7/4 dull orange	1:10
3	1011	EXT/CORE 2.5YR 7/8 orange	1:5
4	1011	EXT. 2.5Y 8/3 pale yellow; CORE 5YR 6/6 red yellow orange	1:5
5	1011	EXT/CORE 7.5YR 8/6 light yellowish orange	1:5
6	1064	EXT/CORE 5YR 7/4 dull orange	1:20
7	1064	EXT/CORE 7.5YR 8/4 light yellowish orange	1:5
8	1064	EXT/CORE 2.5YR 6/6 light red	1:2
9	1064	EXT/CORE 5YR 7/6 orange; CORE blackened	1:5
10	1064	EXT/CORE 5YR 7/6 orange	1:5
COOKING POTS			
11	1011	EXT. 2.5YR 5/6 bright brown; CORE 2.5YR 4/6 reddish brown	2:3
12	1011	EXT/CORE 5YR 6/8 bright reddish brown	2:3
13	1011	EXT/CORE 2.5YR 6/6 light red	2:3
14	1064	EXT/CORE 2.5YR 6/6 light red	2:3
15	1064	EXT/CORE 10YR 8/2 light grey; INT black grey	2:3
16	1064	EXT/CORE 2.5YR 5/6 bright brown	2:3
17	1064	EXT/CORE 7.5YR 7/3 dull orange	2:3
18	1051	EXT/CORE 2.5YR 6/4 light reddish brown	2:3
BOWLS			
19	1064	EXT/CORE 5YR 8/4 pale orange	1:6
20	1064	EXT/CORE 5YR 8/4 pale orange	1:6
21	1053	EXT/CORE 5YR 8/4 pink	1:6
22	1051	EXT/CORE 5YR 7/6 orange	1:6
23	1051	EXT/CORE 5YR 8/4 pale orange	1:6
24	1018	EXT/CORE 2.5YR 7/4 pale reddish orange	1:6

STRATUM II

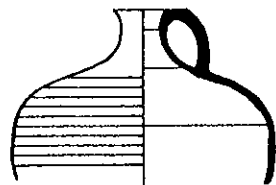


EXCAVATIONS AT ZUR NATAN - A PRELIMINARY REPORT

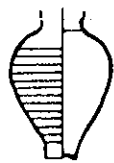
TYPE	LOCUS	DESCRIPTION	SCALE
PITCHERS			
25	1011	EXT/CORE 10R 5/4 reddish brown	1:15
26	1051	EXT/CORE 2.5YR 7/6 orange	1:15
JUGLETS			
27	1043	EXT/CORE 7.5YR 8/4 light yellowish orange	1:6
28	1064	EXT/CORE 2.5YR 7/6 orange	1:6
29	1064	EXT/CORE 7.5YR 8/4 light yellowish orange	1:6
MISCELLANEOUS			
30 UNGUENT JAR	1043	EXT. 2.5YR 7/6 orange; CORE 2.5YR 6/6 light red	1:5
31 UNGUENT JAR	1051	EXT/CORE 5YR 7/6 orange	1:5
32 SHERD	1064	red figured	1:2
STRATUM III			
JARS			
1	1007	EXT. 10YR 4/3 dull yellowish brown (burnt); CORE 2.5YR 4/6 reddish brown	1:10
2	1007	EXT/CORE 10YR 7/3 dull yellowish orange	1:10
STORAGE JARS			
3	1007	EXT/CORE 2.5YR 6/8 light red	1:10
4	1007	EXT/CORE 2.5YR 7/6 orange	1:10
5	1007	EXT/CORE 10R 6/6 reddish orange	1:10
6	1007	EXT/CORE 2.5YR 7/6 orange	1:20
7	1007	EXT/CORE 5YR 7/6 reddish yellow	1:10
8	1007	EXT. 7.5YR 8/1 light grey; CORE 2.5YR 7/4 pale reddish orange	1:10
9	1007	EXT/CORE 10YR 6/6 reddish orange	1:10
10	1007	EXT/CORE 2.5YR 5/8 bright brown	1:20
COOKING POTS			
11	1007	EXT/CORE 10R 6/4 dull reddish orange	2:3
12	1007	EXT. 10R 6/4 dull reddish orange; CORE 2.5R 6/6 light red	2:3
13	1007	EXT/CORE 10R 6/6 reddish orange	2:3
14	1007	EXT/CORE 10R 5/6 red	2:3



25



26



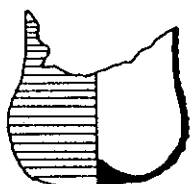
27



28



29



30

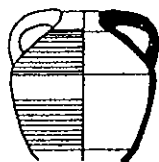


31

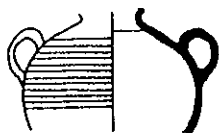


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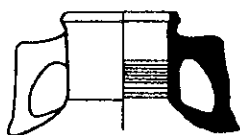
STRATUM III



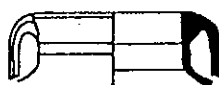
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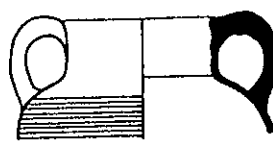
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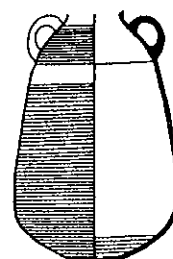
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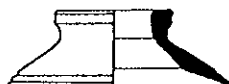
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5



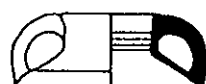
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7



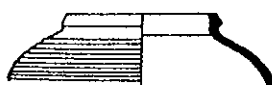
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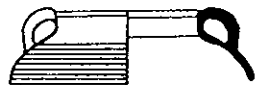
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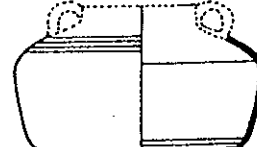
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11



12



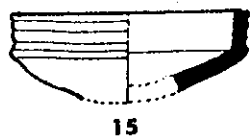
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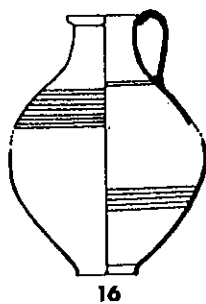
14

EXCAVATIONS AT ZUR NATAN - A PRELIMINARY REPORT

TYPE	LOCUS	DESCRIPTION	SCALE
BOWLS			
15	1007	EXT/CORE 5YR 6/2 greyish brown	1:6
PITCHERS			
16	1007	EXT. 7.5YR 8/6 light yellowish orange; CORE 2.5YR 7/8 orange	1:7
STRATUM IV			
JARS			
1	1017	EXT/ CORE 2.5YR 6/6 light red	1:5
STORAGE JARS			
2	1017	EXT 10R 5/6 red; CORE 10R 4/6 red	1:10
3	1017	EXT/CORE 2.5YR 7/6 orange	1:10
4	1017	EXT/CORE 7.5YR 8/3 light yellow orange	1:5
5	1052	EXT/CORE 10R 5/6 red	1:5
6	1052	EXT/CORE 2.5YR 7/6 orange	1:10
7	1052	EXT/CORE 2.5YR 7/6 orange	1:10
COOKING POTS			
8	1017	EXT/CORE 2.5YR 5/8 bright brown	2:3
9	1017	EXT/CORE 2.5YR 6/4 light reddish brown; CORE blackened	2:3
10	1017	EXT/CORE 5YR 7/6 reddish yellow	2:3
11	1017	EXT/CORE 2.5YR 6/6 light red	2:3
12	1017	EXT/CORE 2.5YR 4/6 reddish brown	2:3
BOWLS			
13	1017	EXT/CORE 5YR 7/4 dull orange	1:6
14	1017	EXT/CORE 5YR 7/4 pink	1:6
15	1017	EXT/CORE 5YR 7/4 dull orange	1:6
16	1017	EXT/CORE 10YR 4/6 red	1:6
17	1019	EXT/CORE 5YR 7/4 dull orange	1:6
PITCHERS			
18	1017	EXT/CORE 5YR 6/6 reddish yellow	1:7
19	1017	EXT/CORE 5YR 8/3 pink	1:7
20	1017	EXT/CORE 2.5YR 7/6 orange	1:7
21	1017	EXT/CORE 2.5YR 7/4 pale reddish orange	1:7



15

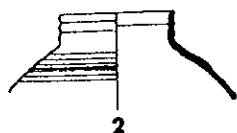


16

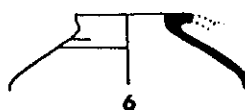
STRATUM IV



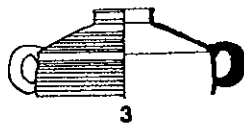
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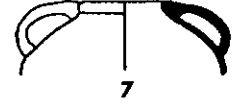
2



6



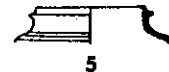
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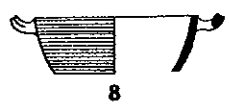
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4



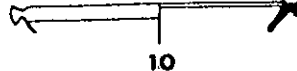
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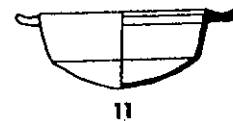
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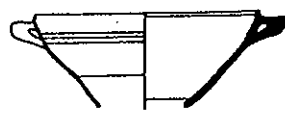
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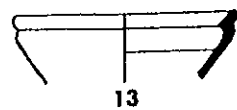
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11



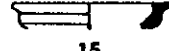
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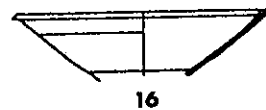
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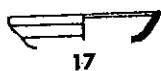
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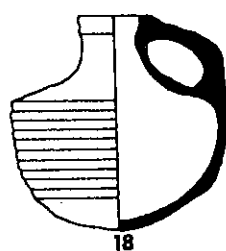
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16



17



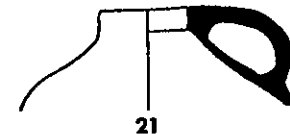
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19



20



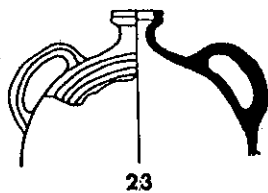
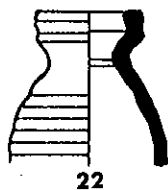
21

EXCAVATIONS AT ZUR NATAN - A PRELIMINARY REPORT

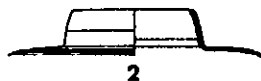
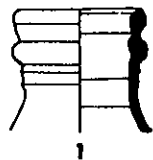
TYPE	LOCUS	DESCRIPTION	SCALE
JUGLETS 22	1017	EXT/CORE 7.5YR 8/4 light yellow orange	1:5
MISCELLANEOUS			
23 Pilgrim Flask	1017	EXT/CORE 10R 4/8 red	1:5
24 Stopper	1017	EXT/CORE 2.5YR 7/4 pale reddish orange	1:5

STRATUM V

JARS 1	1033	EXT. 2.5Y 8/3 pale yellow slip; CORE 2.5Y 3/2 brownish black	1:25
STORAGE JARS 2	1033	EXT/CORE 2.5YR 7/6 orange	1:20



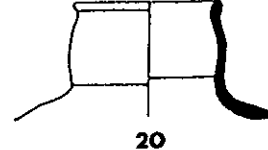
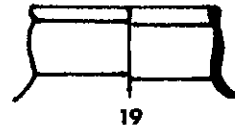
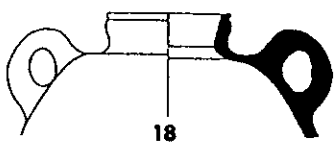
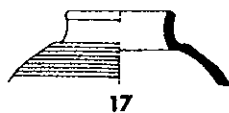
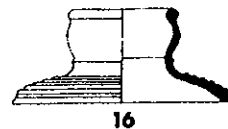
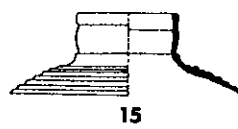
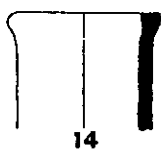
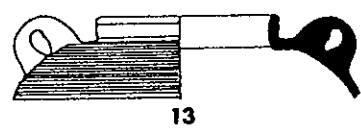
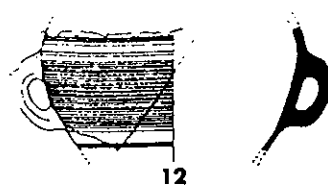
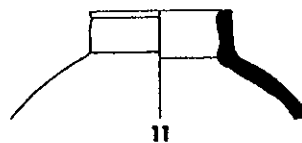
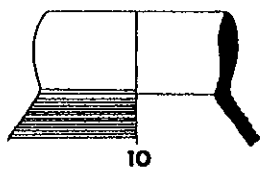
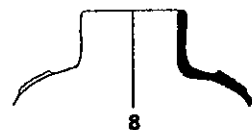
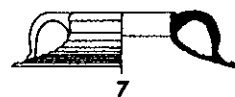
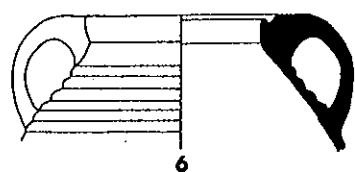
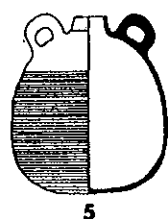
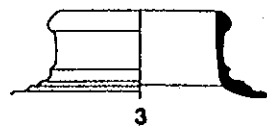
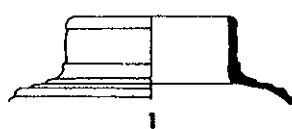
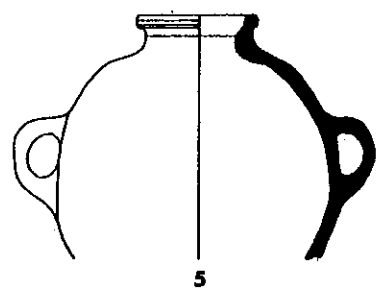
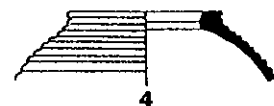
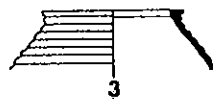
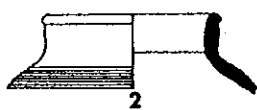
STRATUM V



EXCAVATIONS AT ZUR NATAN - A PRELIMINARY REPORT

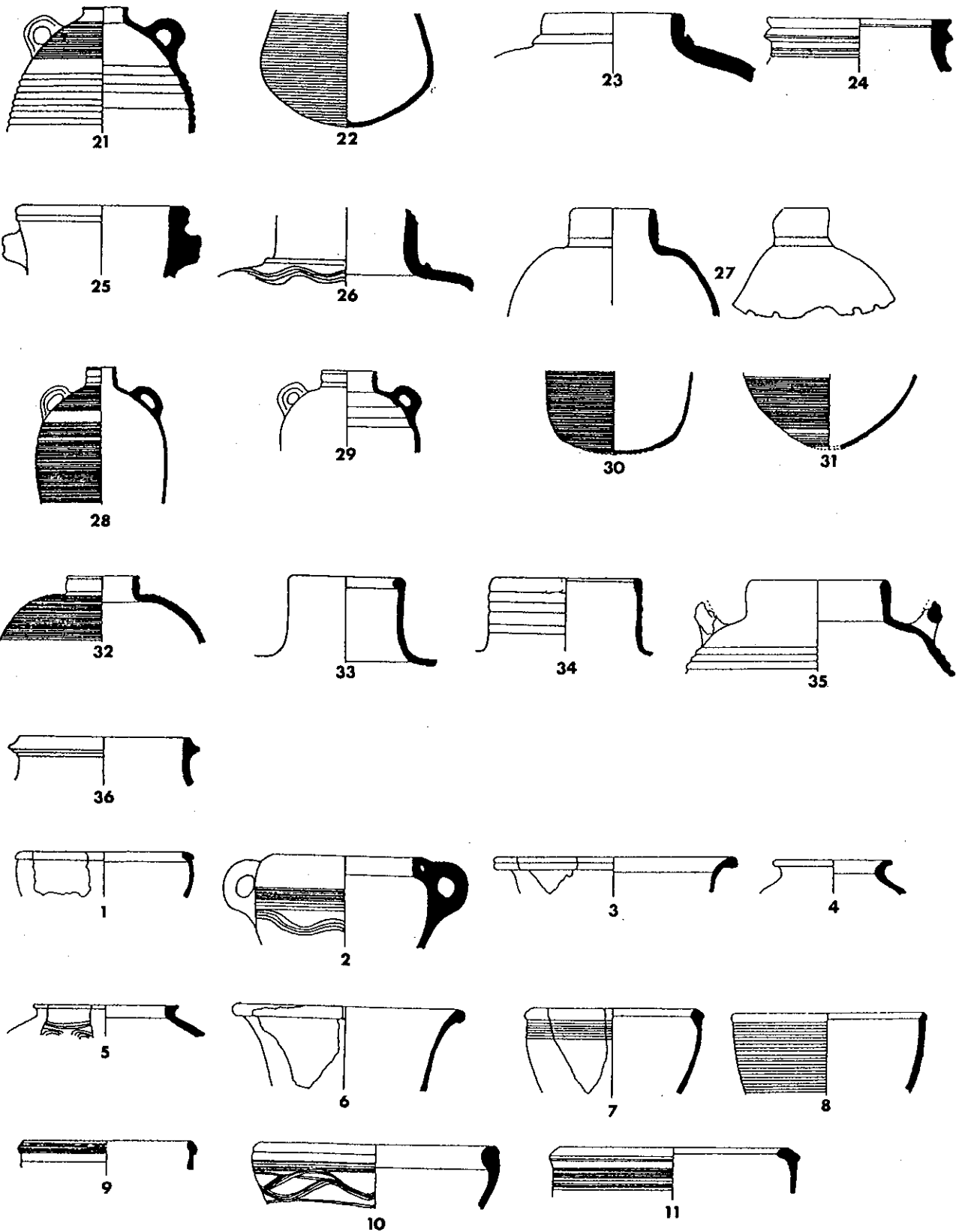
AREA B

TYPE	LOCUS	DESCRIPTION	SCALE
JARS			
1	2021	EXT/CORE 7.5YR 6/4 light brown	1:8
2	2021	EXT/CORE 10YR 6/6 brownish yellow	1:5
3	2021	EXT/CORE 7.5YR 4/0 dark gray	1:8
4	2021	EXT/CORE 7.5YR 6/0 gray	1:5
5	2023	EXT/CORE 5YR 7/6 reddish yellow	1:4
STORAGE JARS			
1	2020	EXT/CORE 5YR 7/6 reddish yellow	1:5
2	2020	EXT/CORE 2.5YR 6/6 light red	1:5
3	2020	EXT/CORE 5YR 7/6 reddish yellow	1:5
4	2021	EXT 2.5YR 5/0 gray; CORE 2.5YR 4/8 red	1:5
5	2021	EXT/CORE 5YR 7/6 reddish yellow	1:24
6	2021	EXT/CORE 5YR 7/4 pink	1:8
7	2021	EXT/CORE 2.5YR 6/6 light red	1:8
8	2021	EXT/CORE 2.5YR 5/0 gray; INT 2.5YR 6/6 light red	1:8
9	2021	EXT/CORE 10YR 4/1 dark gray	1:8
10	2021	EXT/CORE 2.5YR 5/6 red	1:5
11	2021	EXT/CORE 2.5YR 6/4 light reddish brown	1:5
12	2021	EXT/CORE 10YR 7/4 very pale brown	1:8
13	2021	EXT/CORE 5YR 5/6 yellow red	1:5
14	2021	EXT/CORE 7.5YR 8/4 pink	1:4
15	2022	EXT/CORE 2.5YR 6/6 light red	1:8
16	2023	EXT/CORE 2.5YR 6/6 light red	1:8
17	2029	EXT/CORE 5YR 7/4 pink	1:8
18	2029	EXT/CORE 2.5YR 6/6 light red	1:8
19	2029	EXT/CORE 10R 4/4 weak red	1:4
20	2029	EXT/CORE 5YR 6/6 reddish yellow	1:4



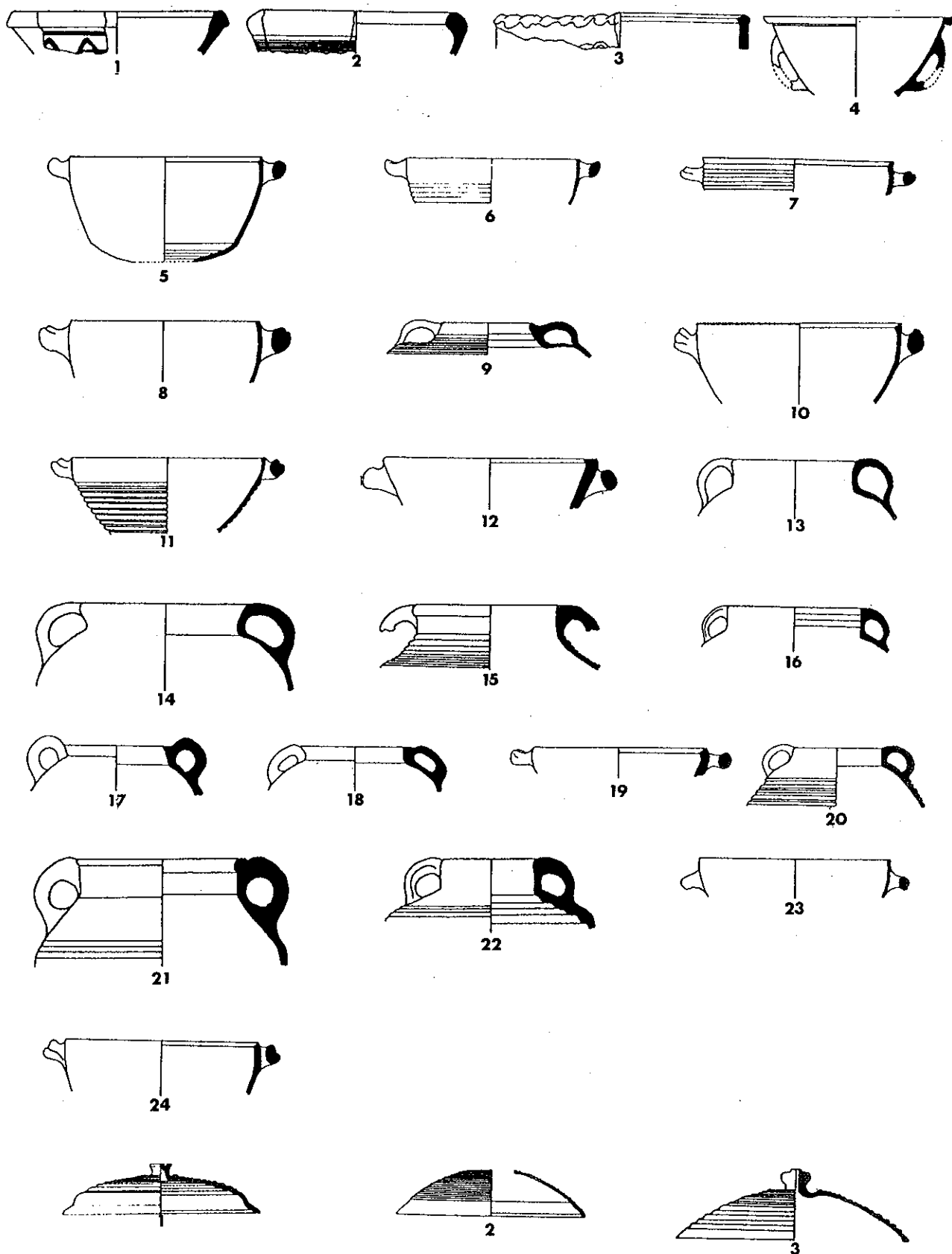
EXCAVATIONS AT ZUR NATAN - A PRELIMINARY REPORT

TYPE	LOCUS	DESCRIPTION	SCALE
21	2030	EXT/CORE 2.5YR 6/6 light red	1:10
22	2032	EXT/CORE 5YR 7/6 reddish yellow	1:12
23	2034	EXT/CORE 2.5YR 6/4 light reddish brown	1:8
24	2034	EXT/CORE 10YR 8/2 white	1:8
25	2034	EXT/CORE 7.5YR 8/6 reddish yellow	1:5
26	2036	EXT/CORE 10YR 4/2 dark grayish brown	1:5
27	2036	EXT/CORE 5YR 7/6 reddish yellow	1:5
28	2036	EXT/CORE 5YR 7/8 reddish yellow	1:15
29	2036	EXT/CORE 5YR 7/6 reddish yellow	1:12
30	2036	EXT/CORE 5YR 7/6 reddish yellow	1:12
31	2036	EXT/CORE 5YR 7/6 reddish yellow	1:12
32	2036	EXT/CORE 5YR 7/6 reddish yellow	1:8
33	2036	EXT/CORE 7.5YR 6/0 gray	1:4
34	2036	EXT/CORE 10R 5/3 weak red; INT 5YR 6/4 light reddish brown	1:4
35	2043	EXT 2.5YR 6/0 gray; CORE 10R 5/6 red	1:8
36	2045	EXT/CORE 2.5YR 8/2 white	1:5
HOLE MOUTH JARS			
1	2014	EXT/CORE 10YR 8/3 very pale brown	1:8
2	2014	EXT/CORE 5YR 8/2 pinkish white	1:8
3	2020	EXT/CORE 7.5YR 7/4 pink	1:8
4	2020	EXT/CORE 7.5YR 5/0 gray	1:8
5	2020	EXT/CORE 7.5YR 5/0 gray	1:8
6	2020	EXT/CORE 5YR 7/4 pink	1:8
7	2021	EXT/CORE 7.5YR 6/4 light brown	1:8
8	2021	EXT/CORE 10YR 5/2 grayish brown	1:8
9	2034	EXT/CORE 5YR 5/6 yellowish red; STRIPES 5YR 3/1 very dark gray	1:8
10	2038	EXT/CORE 5YR 8/2 pinkish white	1:8
11	2045	EXT/CORE 10YR 8/1 white	1:8



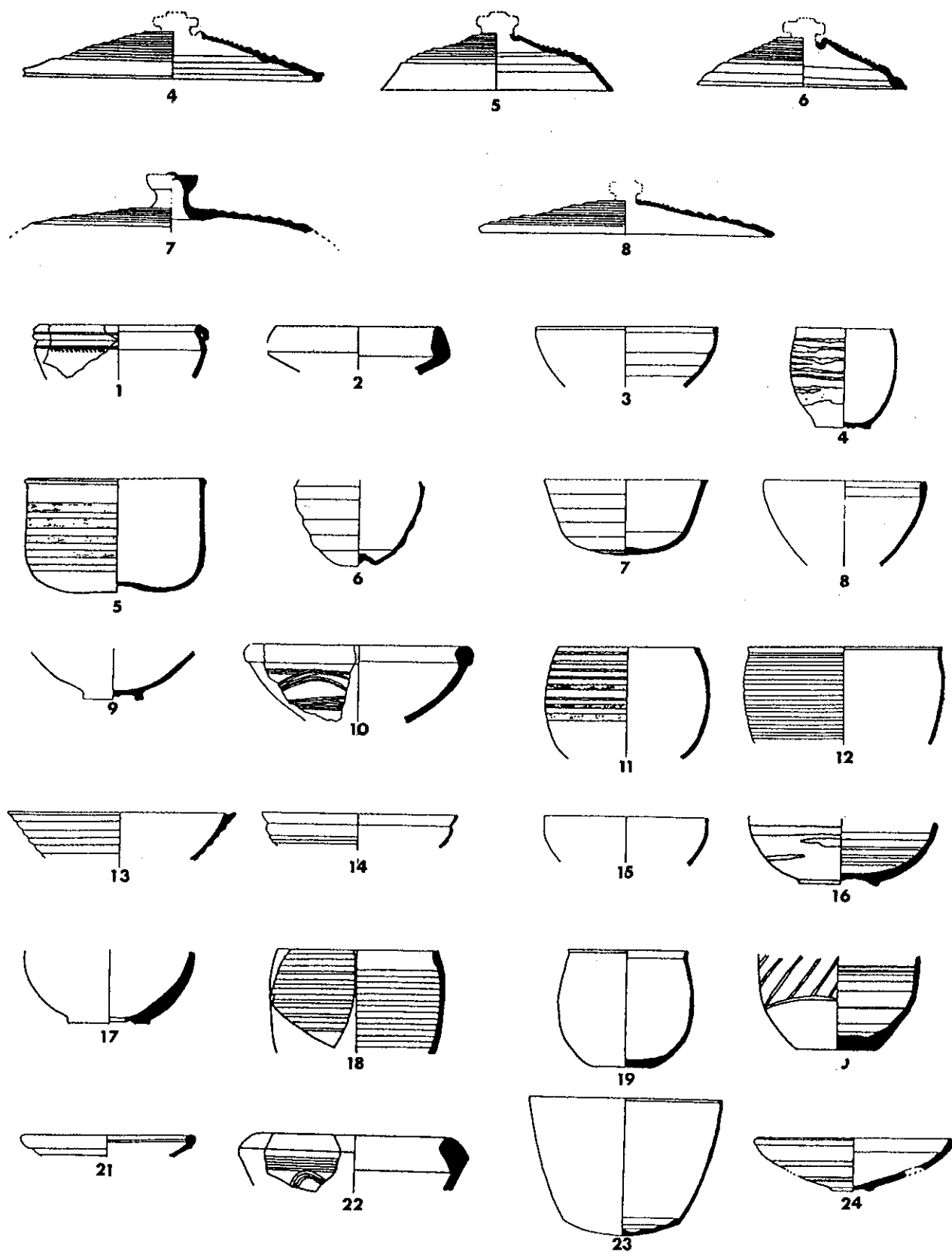
EXCAVATIONS AT ZUR NATAN - A PRELIMINARY REPORT

TYPE	LOCUS	DESCRIPTION	SCALE
COOKING POTS			
1	2021	EXT/CORE 5YR 5/6 yellowish red	1:8
2	2021	EXT/CORE 10YR 7/4 very pale brown	1:8
3	2021	EXT/CORE 5Y 7/3 pale yellow	1:8
4	2021	EXT/CORE 5YR 6/8 reddish yellow	1:8
5	2021	EXT/CORE 2.5YR 5/6 red	1:8
6	2021	EXT/CORE 10R 4/6 red	1:8
7	2021	EXT/CORE 2.5YR 5/8 red	1:8
8	2021	EXT/CORE 2.5YR 5/6 red	1:8
9	2021	EXT/CORE 10R 5/4 weak red	1:8
10	2021	EXT/CORE 10YR 5/1 gray	1:8
11	2021	EXT/CORE 5YR 6/6 reddish yellow	1:8
12	2021	EXT/CORE 2.5YR 4/6 red	1:8
13	2021	EXT/CORE 7.5YR 7/6 reddish yellow	1:4
14	2021	EXT/CORE 10YR 6/6 brownish yellow	1:4
15	2021	EXT/CORE 2.5YR 4/6 red	1:4
16	2022	EXT/CORE 10YR 5/6 red	1:8
17	2022	EXT/CORE 5YR 4/2 dark reddish gray	1:8
18	2022	EXT/CORE 2.5YR 5/8 red	1:8
19	2022	EXT/CORE 2.5YR 4/6 red	1:8
20	2022	EXT/CORE 10R 5/4 weak red	1:8
21	2022	EXT/CORE 2.5YR 5/6 red	1:4
22	2023	EXT/CORE 2.5YR 4/2 weak red	1:4
23	2032	EXT/CORE 10R 3/6 dark red	1:8
24	2036	EXT/CORE 10R 6/4 light brown	1:8
COOKING POT LIDS			
1	2021	EXT/CORE 2.5YR 5/8 red	1:8
2	2021	EXT/CORE 10R 4/6 red	1:8
3	2021	EXT/CORE 10R 4/6 red	1:5



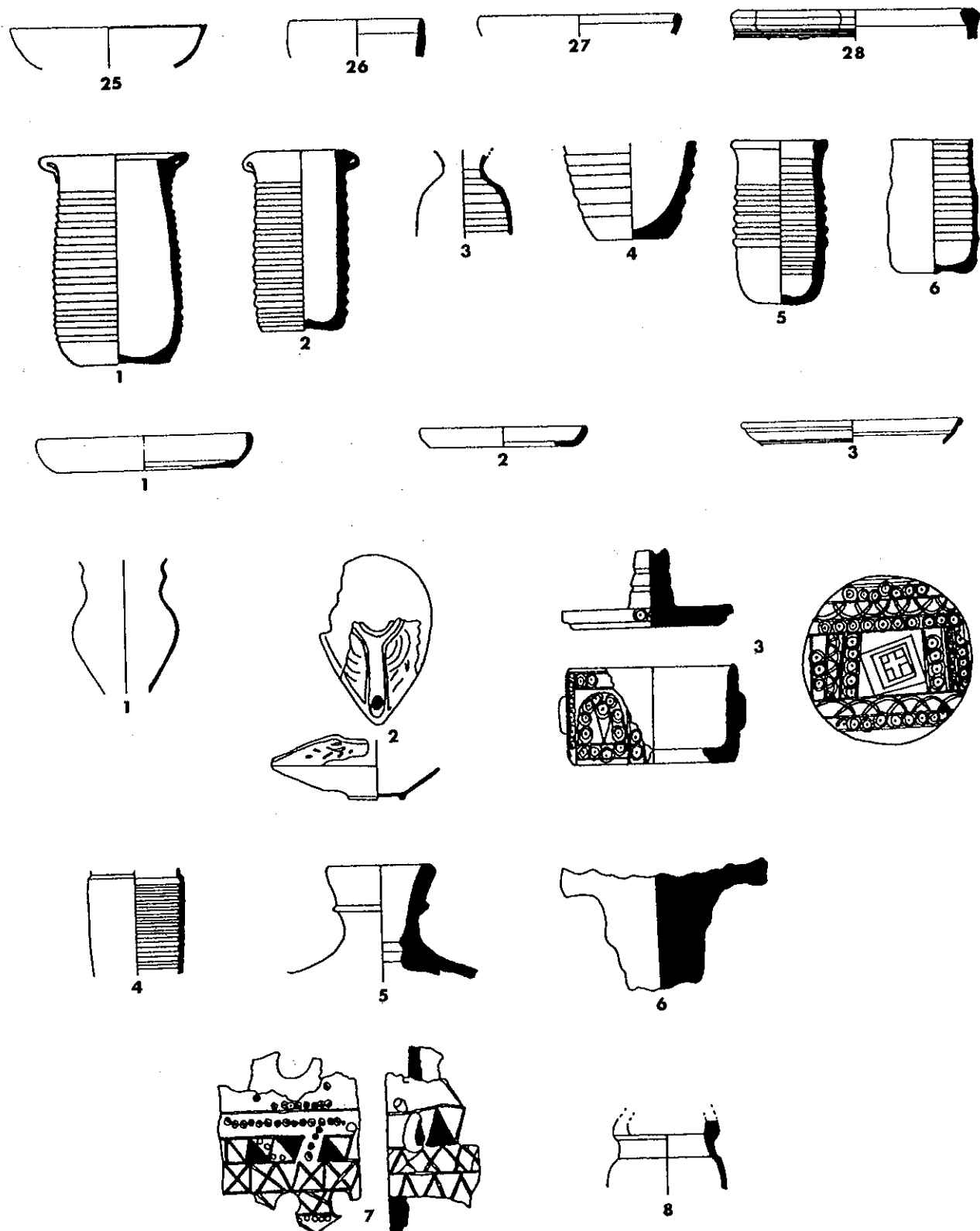
EXCAVATIONS AT ZUR NATAN - A PRELIMINARY REPORT

TYPE	LOCUS	DESCRIPTION	SCALE
4	2021	EXT/CORE 2.5YR 4/8 red	1:5
5	2021	EXT/CORE 10R 4/6 red	1:5
6	2021	EXT/CORE 10R 4/6 red	1:5
7	2021	EXT/CORE 2.5YR 5/8 red	1:5
8	2021	EXT/CORE 10R 4/6 red	1:5
BOWLS			
1	2020	EXT/CORE 2.5YR 5/6 red	1:8
2	2020	EXT/CORE 5YR 7/6 reddish yellow	1:5
3	2021	EXT/CORE 10YR 7/3 very pale brown	1:8
4	2021	EXT/CORE 5YR 8/4 pink; STRIPES 5YR 6/1 gray	1:5
5	2021	EXT/CORE 10YR 4/1 dark gray; STRIPES 2.5YR 8/1 white	1:5
6	2021	EXT/CORE 10YR 6/1 gray	1:8
7	2021	EXT/CORE 2.5YR 5/8 red	1:8
8	2021	EXT 5YR 8/2 pinkish white; CORE 5YR 6/8 reddish yellow	1:8
9	2021	EXT/CORE 5YR 8/2 pinkish white	1:8
10	2021	EXT 5YR 7/6 reddish yellow; CORE 5YR 6/6 reddish yellow	1:8
11	2021	EXT/CORE 5YR 7/6 reddish yellow; STRIPES 5YR 4/2 dark reddish gray	1:5
12	2021	EXT/CORE 2.5YR 5/8 red	1:8
13	2021	EXT/CORE 2.5YR 5/8 red	1:8
14	2021	EXT/CORE 5YR 5/4 reddish brown	1:8
15	2021	EXT/CORE 2.5YR 5/6 red	1:8
16	2021	EXT/CORE 2.5YR 6/0 gray, 5YR 7/6 reddish yellow; INT 5YR 7/6 reddish yellow; STRIPES gray/blue	1:3
17	2021	EXT/CORE 10YR 7/4	1:4
18	2021	EXT/CORE 5YR 7/3 pink; STRIPES 2.5YR 5/6 red	1:4
19	2021	EXT/CORE 2.5YR 8/1 white	1:4
20	2021	EXT/CORE 2.5YR 6/6 reddish yellow, blue decoration; INT 2.5YR 6/6 light red, STRIPES gray/blue	1:3
21	2022	EXT/CORE 2.5YR 6/6 light red	1:8
22	2029	EXT/CORE 5YR 6/6 reddish yellow	1:4
23	2032	EXT/CORE 10R 3/6 dark red	1:8
24	2036	EXT/CORE 10R 6/8 light red	1:8



EXCAVATIONS AT ZUR NATAN - A PRELIMINARY REPORT

TYPE	LOCUS	DESCRIPTION	SCALE
25	2036	EXT/CORE 2.5Y 7/4 pale yellow	1:8
26	2036	EXT/CORE 7.5YR 8/4 pink	1:8
27	2036	EXT/CORE 2.5YR 3/0 very dark gray; INT 2.5YR 3/4 dark reddish brown pink	1:8
28	2036	EXT/CORE 7.5YR 8/4 pink	1:8
BEAKERS			
1	2021	EXT/CORE 5YR 7/8 reddish yellow	1:3
2	2021	EXT/CORE 7.5YR 5/0 gray	1:4
3	2021	EXT/CORE 5YR 6/6 reddish yellow	1:3
4	2034	EXT/CORE 5YR 7/4 pink	1:5
5	2036	EXT 2.5YR 4/0 dark gray; CORE 2.5YR 5/6 red	1:5
6	2036	EXT/CORE 10YR 5/1 gray	1:4
PLATES			
1	2020	EXT/CORE 5YR 5/3 reddish brown; INT 2.5YR 4/6 red	1:8
2	2034	EXT/CORE 5YR 7/6 reddish yellow	1:5
3	2048	EXT/CORE 5YR 6/6 reddish yellow	1:8
MISCELLANEOUS			
1 UNKNOWN	2021	EXT/CORE 10YR 8/4 very pale brown	1:8
2 OIL LAMP	2021	EXT/CORE 10YR 7/2 light gray	1:4
3 BOX AND LID	2021/2036	SOAPSTONE	1:3
4 PIPE	2036	EXT/CORE 7.5YR 8/4 pink; INT 2.5YR 6/6 light red	1:5
5 PILGRIM JAR	2037	EXT/CORE 5YR 5/8 yellowish red	1:3
6 STOPPER	2037	EXT/CORE 2.5YR 5/4 reddish brown	1:3
7 LANTERN	2042	EXT/CORE 10YR 5/2 grayish brown	1:5
8 BASKET	2045	EXT/CORE 2.5YR 6/6 light red	1:3



CREDITS

INTRODUCTION by William J. Neidinger. The contents of this article were derived by and large from an article by Etan Ayalon, Yonel Charvit, and Amnon Qidron entitled "Grouped Installations from the Roman and Byzantine Period in the Fields of Zur Natan," Eretz Israel Museum Yearbook, V-VI, and from the conclusions drawn by Eulah Matthews, William Neidinger, and Etan Ayalon at the excavation site. Plan by William Neidinger.

PRELIMINARY REPORT ON THE 1989 & 1990 EXCAVATION SEASONS AT ZUR NATAN, by Eulah Matthews, William Neidinger, and Etan Ayalon. The conclusions reached in this article are tentative and subject to confirmation in the 1991 excavation season. Plans and diagrams by Catherine Dodson and William Neidinger. Photographs by William Neidinger, Etan Ayalon, Vana Reid, and Tony Mendelowitz. See inside back cover for members of excavation team.

THE COINS OF ZUR NATAN by Eulah Matthews and Yeshua Dray. A full catalogue of all coins discovered will appear in the final publication of the excavations. Coin cleaning by Yeshua Dray. Coin identification by Yeshua Dray, Eulah Matthews, and Ariel Berman. Photography by William Neidinger.

THE POTTERY OF ZUR NATAN by Ann Fowler. A full catalogue of pottery found at Zur Natan will appear in the final publication. Pottery profiles by Ann Fowler, Dorothy Neidinger, William Neidinger, Elizabeth Hunter, and Vana Reid. Pottery identification by Etan Ayalon. Restoration by Robert Neidinger, Eulah Matthews, William Neidinger, and Andrew Davidson. "

INSERTS A AND B by Catherine Dodson and William Neidinger.

This publication of the Texas Foundation for Archaeological and Historical Research, **PRELIMINARY REPORT ON THE EXCAVATIONS AT ZUR NATAN, 1989 and 1990 SEASONS**, was designed and laid out by Robert Neidinger, William Neidinger, Eulah Matthews, Ann Fowler, and Dorothy Neidinger.

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We would also like to thank the groups of young people who volunteered their time and energy to the excavation, especially Mike, Emily, Daniel, and Nitzan.

"Salaam aleikum" to Ibrahim, Ahmed, and all members of their family.

THE ZUR NATAN EXCAVATION TEAM

TFAHR MEMBERS

Andrew Davidson 1989, 1990
Catherine Dodson 1989, 1990
Yeshua Dray 1989, 1990
Ann Fowler 1989, 1990
Bill Higdon 1990
Elizabeth Hunter 1990
Eulah Matthews 1989, 1990
Dorothy Neidinger 1989, 1990
Robert Neidinger 1989, 1990
Jordan Neidinger 1989, 1990
William Neidinger 1989, 1990
Vana Reid 1989
John Stuber 1989, 1990
Jon Stuber 1990
Kathy Timler 1989
David Warden 1990
Dan Warden 1990
Bernard Yudowitz 1989

ISRAELI MEMBERS

Etan Ayalon
Bracha Azati
Aviva Bushnino
Yonel Charvit
Meir Friedman
Amnon Qidron
Amnon Sheffer