

THE 1993 AND 1994 SEASONS AT UMM AL - JIMĀL  
THE 1994 UMM AL-JIMĀL CEMETERY EXCAVATIONS: AREAS AA AND Z

by  
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### Introduction

During the 1994 field season at Umm al-Jimāl, excavation of burials was undertaken with the objective of providing a systematically collected sample that could be used to address a number of questions regarding the inhabitants of the site. Of particular interest was the role that plague may have played in the depopulation of the site during the late antique period. De Vries (1981, 1982, 1993, 1995) and others (Cheyney 1995) have suggested that endemic, cyclical plague contributed to the depopulation and instability of the community during the centuries prior to the great earthquake of 747 AD. While the community continued into the ninth century, buildings that had collapsed during the earthquake were not restored (de Vries 1995) possibly because there simply were not sufficient people to undertake the job. Therefore, a primary objective of the 1994 excavations in areas AA and Z, was to collect information from tomb excavations that could address the question of site abandonment.

This information is also useful for questions about the general health, diseases, burial customs, physical characteristics, demography and socio-economic status of the residents of Umm al-Jimāl.

Areas selected for excavation were chosen based on prior knowledge of tomb locations. Excavations during 1993 (Cheyney 1995) revealed tombs in two areas, though other areas of the site also produced tombs (Butler 1913; de Vries 1981, 1982, 1993, 1995).

Area AA, located near the Umm al-Jimāl girls' school approximately 200 m W of the main area of ruins (Fig. 1) is a level space with no evidence of tombs on the surface, though several small depressions from an

old olive grove are visible. It includes a roughly semi-circular stone wall remnant, several modern fence rows and late 20th century construction including the girls' school of Umm al-Jimāl, a house built in 1993 and roadways.

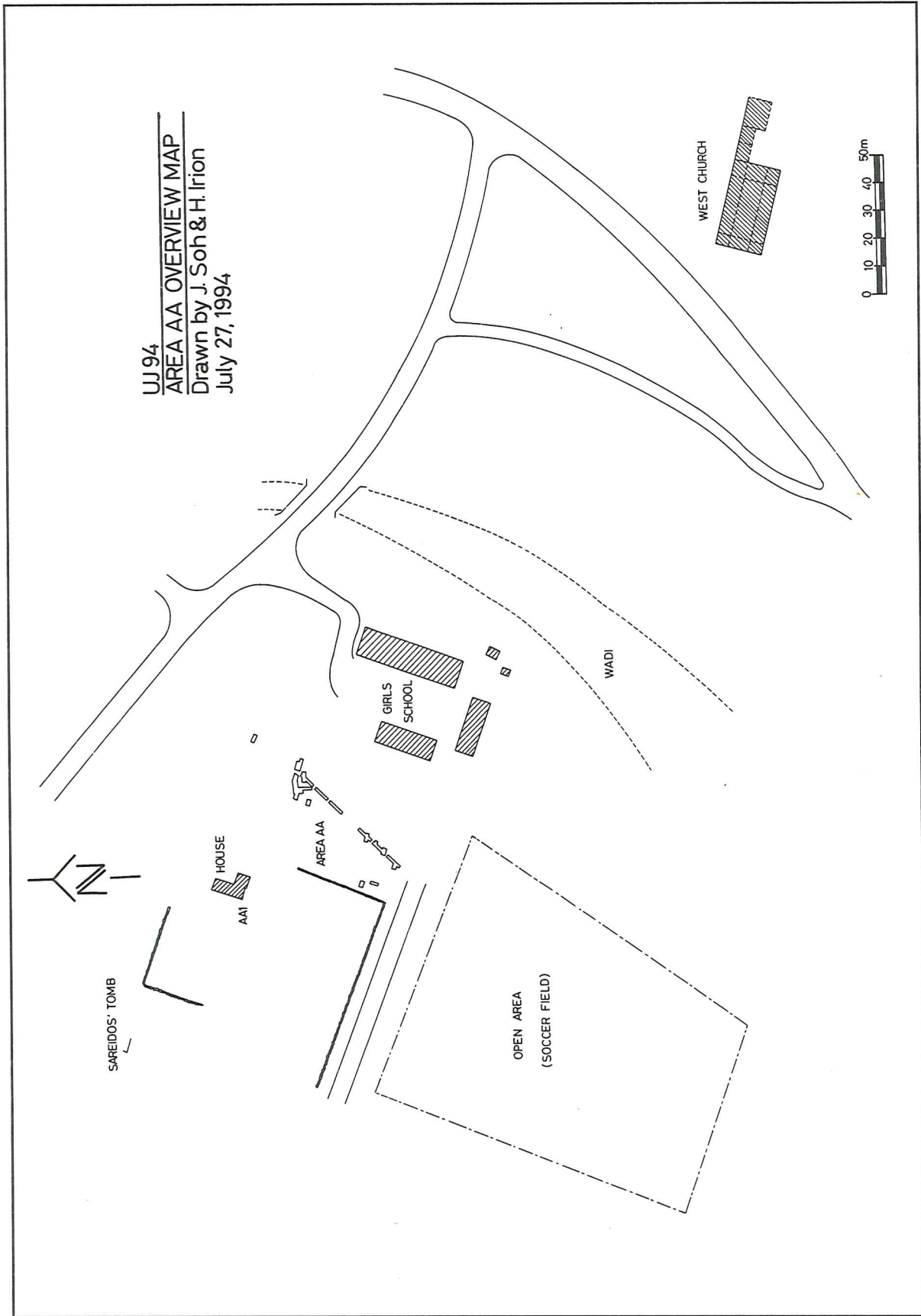
Area Z, situated in the olive grove of Sheikh Hail es-Serour on the E side of a wadi, approximately 75 m W of the S limits of the main part of the ruins today (Fig. 2), is covered with olive, grape and pomegranate, a small shed and is bounded by the Sheikh's house and driveway to the W and two roads to the E and N.

### Excavation Strategy

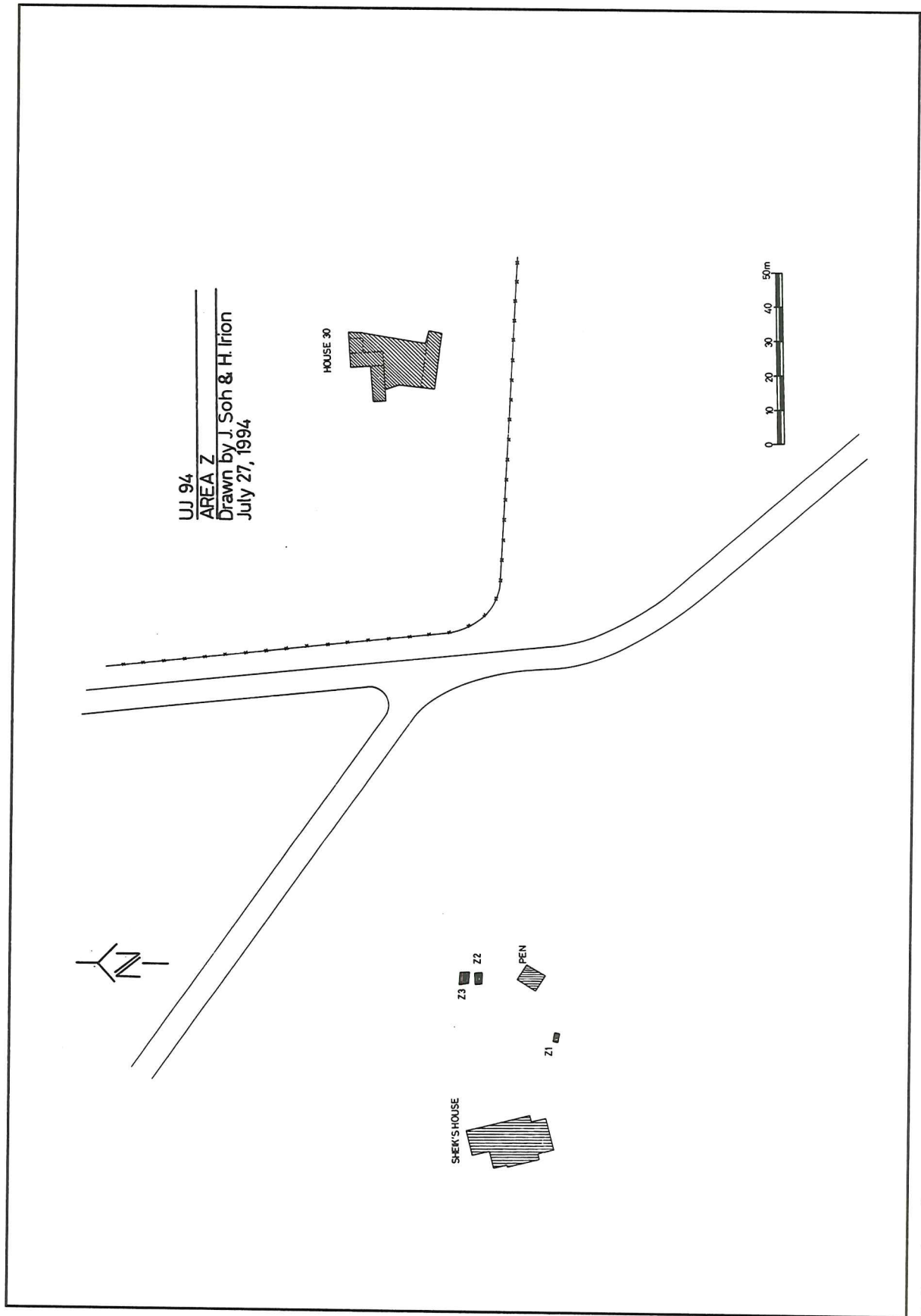
Because tomb location was unknown and unpredictable from surface examination, initial excavation in area AA was undertaken relying on three different strategies. Six 1 x 6 m trenches (AA.2, 3, 4, 12, 13, 14) were excavated at an orientation 45 degrees E of N (Fig. 3). Each trench was separated from the next by a 1 x 1 m balk that was not excavated.

This series of trenches roughly spans the length of the open area behind the girl's school from one end of the rock wall remnant on the SW to the NE. Tombs were located in four of the six trenches (AA.2, 3, 4 and 14).

In addition to these trenches, squares were excavated relying on the local tomb robbing method of discovery. A thin steel rod pounded into the hard soil of this area produced differential resistance based on the presence of tomb cover stones in several cases. Squares AA.5 through AA.11 were situated using either this method, or were located based on surface evidence of concentrated rock. Of these, three squares contained tombs: AA.8, 9 and 11. AA.10, the only

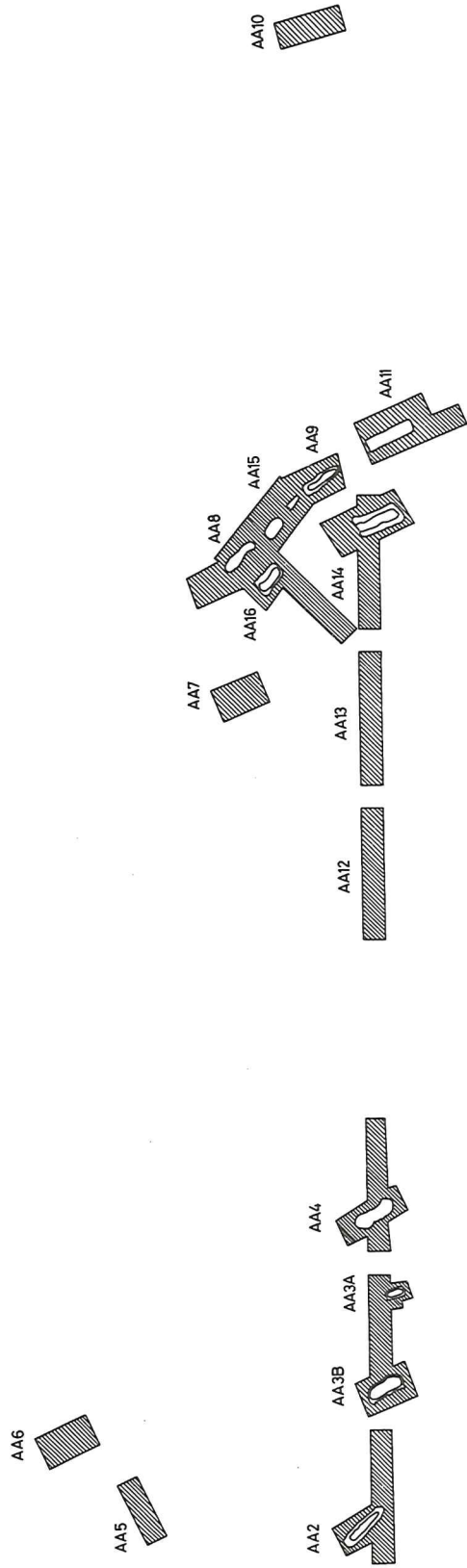


1. Location of Umm al-Jimāl Area AA (Drawing by Hervé Irion and John Soh).



2. Location of Umm al-Jimāl Area Z (Drawing by Hervé Irion and John Soh).

UJ 94  
AREA AA  
Drawn by J. Soh & H. Irion  
July 27, 1994



3. Area AA showing locations of trenches and tombs ( Drawing by Hervé Irion and John Soh).

square of these not located in the immediate vicinity of the trenches was placed E and N of the remnant rock (cemetery?) wall in an area that was slightly higher and contained abundant surface rock.

Finally, two other squares, AA.15 and 16 were located in areas where judgment suggested that there should be tombs based on architecture extending into balks. Square AA.15 connects two squares (AA.8 and AA.9) and AA.16 is a 1 by 5 m trench that proceeds on a N-S axis from AA.8 toward AA.13 and AA.14.

In Area Z two squares were located on prior knowledge of where tombs were located in the cemetery (Fig. 2). Previous excavation of Z.1 by Cheyney (1995) and the landowners revealed a pattern of tombs. Squares were located between already excavated tombs by probing for cover stones with a steel rod. The two squares laid out (Z.2 and Z.3) were located adjacent to each other and had beginning dimensions of 2.2 x 3.0 m based on the results of the probing.

### Progress of Excavations

Excavations on both areas AA and Z produced a consistent stratigraphic sequence of soils deposited through natural processes, interrupted by tombs excavated in antiquity to eroded bedrock. Excavation proceeded by removing 1 - 4 loci (0.4-1.0 m) of geologically deposited red-brown aeolian soil until possible burial pits were identified, or until tomb architecture (cover stones) was encountered.

In most cases, tombs extended beyond the limits of trenches so that probes had to be excavated to expose their full extent. Articulated tomb cover stones were drawn and removed, revealing in most cases a pit defined by less compact soil, or tomb side architecture. Fill that had seeped in above burials was removed following the pit outline or side architecture. Burials were articulated *in situ*, photographed, drawn and field

determinations of age, sex, obvious pathologies, and burial position *vis-a-vis* the tomb and any grave objects were recorded.

In the case of tomb Z.3, repeated mapping, photographs and careful labeling were required to document multiple individuals present. Fill immediately surrounding most burials was screened with 3 mm mesh screen, especially in areas where beads or other artifacts were found. Soil samples were taken from the region of the *os coxae* when possible. As bones were removed, they were wrapped in newspaper and labeled.

In-field laboratory work included re-packing and registering burials from the area. Registration included determining which bones were present, more refined aging and sexing and additional examination of skeletons for pathologies. No wet cleaning was done, though dirt accumulated in the calivaria was removed, and some bone was dry brushed. All skeletal material was packed for shipment.

Due to time constraints several burials from Area AA and all of the Z burials were not registered in the field. Analysis of these materials is currently underway by M. Cheyney at Western Michigan University.

### Summary of Results: Area AA

Table 1 presents descriptive data on burials from Area AA. Excavation produced evidence of eleven tombs containing the remains of 13 individuals. One small tomb had no preserved skeletal remains. All tombs were identified by the presence of cover stone architecture located beneath between 1 and 4 loci of naturally deposited wind blown silt. The upper layers of deposits contained modern debris (in the top 0.1 m) but only ceramics from Late Roman through Byzantine were found below in both the naturally formed soils and infrequently in the tombs. Sherds all but disappear more than 0.4 m below the surface in squares excavated to deeper levels in

Table 1. Summary of burial data from area AA.

Provenience	Age	Sex	Orientation	Body Position	Number in grave	Grave associations	Tomb type	Preservation conditions	Source of disturbance
AA.2	adult (45-60)	female	west	extended	one	none	stone capped pit	good	post mortem settling
AA.3A.1	infant (12 +/- 3 mos.)	indeterminate	west	extended	two	none	stone capped pit	fair	post mortem settling
AA.3.2	infant (12 +/- 3 mos.)	indeterminate	west	extended	two	none	stone capped pit	fair	post mortem settling
AA.3B	adult (25-35)	female	east	extended	one	one bead, ring	stone capped pit	good	post mortem settling
AA.4	adult (35-45)	female	west	extended	one	glass beads, frit core bead, limestone bead	stone capped pit	fair	post mortem settling, rodents? roots?
AA.8	adult (25-50)	male	west	extended	one	none	stone capped cist	poor	rodents, roots, post mortem settling
AA.9	sub-adult (8 +/- 1 yr.)	indeterminate	north	indeterminate	one	none	stone capped wood coffin	good	dismembered in antiquity
AA.11.1	sub-adult?	indeterminate	east	flexed?	two	none	stone capped coffin surface	poor	post mortem tomb robbing?
AA.11.2	adult	indeterminate	east	slightly flexed?	two	none	stone capped wood coffin	poor	post mortem tomb robbing
AA.14	adult	indeterminate	west	extended	one	none	stone capped pit	poor	post mortem settling, roots rodents?
AA.15A	infant	indeterminate	west	indeterminate	one	beads, gold earrings	stone capped pit	poor	post mortem settling
AA.15B	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate/none	none	stone capped pit	indeterminate	indeterminate
AA.16..1	sub-adult (5 +/- 1 yr)	indeterminate	west	extended	two	none	stone capped cist	good	post mortem settling
AA.16..2	sub-adult (5 +/- 1 yr)	indeterminate	west	extended	two	none	stone capped cist	good	post mortem settling

search of tombs.

It seems likely that tombs in Area AA originated in deposits that are currently 0.2 - 0.4 m below the surface. In several cases (AA.3A and B and AA.16) a pit containing soil much softer than adjacent soil was identified lying above the cover stone architecture, suggesting that pits were dug, burials put in pits or cists and covered with stones and then covered with loose fill.

It is difficult to ascribe any precise dates to the tombs based on the few sherds that were found in the fill that had dribbled in. With a few exceptions (sherds on the surface primarily), these sherds appear to come from mixed Late Roman through Byzantine, but most likely Late Roman/Byzantine use of the area for purposes other than burial was very minor considering the density of materials recovered from excavations in the main portion of Umm al-Jimāl.

Grave objects found within only three of the tombs, (AA.3B, 4, and 15A) are not diagnostic, or temporally sensitive including a copper or brass ring, an array of glass, limestone and frit core beads, and a pair of gold boat-shaped earrings (Figs. 4, 5), which are of a style apparently found in Nabataean through Byzantine contexts elsewhere including the 'Ammān Airport site (Ibrahim and Gordon 1987). None of these objects is likely to afford more accurate dating for the three tombs.

Though there are only eleven tombs and 13 individuals, considerable diversity exists in the burial sample. Four different patterns



4. Earrings, gold with stone inset (Photo by Sarkis Lapagian "Abu Hanna").

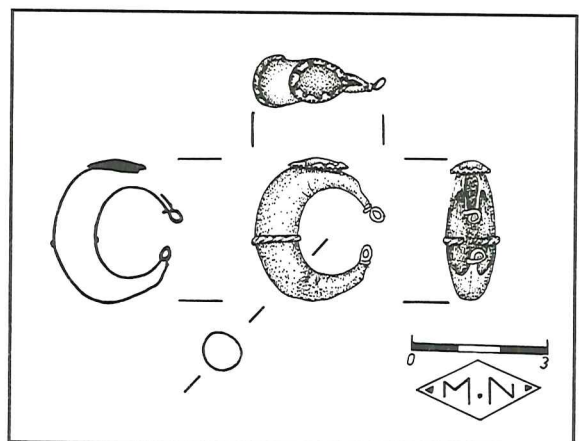
of burial present include the following:

- 1) burial of individuals in unlined pits with heads to the W, with no grave objects, as single interments;
- 2) single individuals buried in unlined pits, heads W, with associated grave objects;
- 3) individuals buried in well-constructed stone-lined cists, with no objects; and
- 4) individuals buried in or on coffins without objects.

Most burials in simple pits were likely wrapped in shrouds. Two burials suggest post-burial tomb disturbance, possibly robbery. In one case (AA.9), an eight year-old was found at the east end of a well-built coffin, more than adequate for the body that was dismembered at the fourth thoracic vertebrae, roughly in the middle of the back.

Other body parts were also disarticulated, though some portions were intact, suggesting that disarticulation occurred before soft tissue decomposed. In a nearby tomb, one individual found inside a coffin was only partially articulated, and a second individual was casually placed on the lid of the coffin. No objects were found associated with either tomb.

Burial of single individuals in one tomb is modal, but two cases occur of similar ages, viz., sub-adult individuals interred in the same tomb. In one tomb, a simple



5. Earrings as in Fig. 4 ( Drawing by M. Nasir).

stone-capped pit, two infants approximately one year in age were buried together, probably at the same time. The second example is the burial of two five-year-old children in an unusually well prepared stone-capped cist tomb. The cover stones and side architecture of the tomb were made of carefully dressed stone, and the inside walls of the cist were coated with mud plaster.

None of the patterns described above predominate nor do they present the image of affluence typical of Late Roman and Early Byzantine loculus burials at sites such as Jarash, Pella and Umm al-Jimāl itself. Less than 250 m NE of the area excavated is the large chamber tomb of Sareidos. Other chamber tombs and well-constructed cist tombs have been identified or excavated in other areas of the community (Butler 1913; de Vries 1993: 444-5; Cheyney 1995).

Compared to preliminary analysis of other excavated tombs at Umm al-Jimāl (see below and Cheyney 1995), tombs excavated in area AA in 1994 seem to contain the earthly remains of people who had access to the fewest resources in the Umm al-Jimāl community. If access to resources is a measure of status, then the burials excavated in Area AA represent low or poor status.

The possibility that the variation observed in Area AA is time dependent rather than class dependent does not seem likely, given the apparently planned nature of the cemetery area, and proximity to the elaborate chamber tomb. Within the 1994 excavated tombs, some attributes do segregate by area (all of the coffin burials and stone-lined cist burials occur in the NE portion of the 1994 excavated area) but grave goods, skeletal orientation, and other characteristics vary across the area.

In sum, Area AA presents one of the first systematic examinations of a low-status Late Roman-Early Byzantine cemetery.

### Summary of Results: Area Z

Tombs in Z.2 and Z.3 were located 0.7

and 1.0 m below the present surface, covered by naturally deposited fine red-brown silt with little pedogenesis of caliche layers above the tombs. Though predominantly dry, some soil was moist due to irrigation of the surface. Tomb Z.2 contained the remains of four individuals located in a wood coffin lacking a lid covered with field-dressed basalt cover stones.

The individuals in the coffin included two well preserved, articulated infants found in mostly extended position at the E end of the coffin. Both infants had the heads at the E and occurred stratigraphically above the other two burials, those of adults who occupied a position more central in the coffin.

With the two adult burials, orientation of the heads would have been to the E, but the heads were removed and placed on the mid-section of the individuals. Excavators suggested that the tomb was robbed, based on the lack of grave goods (only a single large bead was found near the wrist of one adult) and the disturbance done to the skulls of the two adults.

An alternative explanation is that the two adult burials were buried first, the coffin was then re-opened for the two infants, at which time the heads of the adults were moved.

The latter interpretation seems plausible, since the first individuals were not disturbed with the exception of the heads, and other examples of tomb robbing such as Z.1 (Cheyney 1995) show much disturbance to the skeletal material. As in the case of AA.9, the post-mortem alteration to the adults seems to have happened while the bodies were still articulated.

Z.3 is the most complex tomb encountered during the 1994 excavations. Tomb construction itself is well executed, with carefully dressed and chinked basalt cover stones (Fig. 6) overlying a neatly laid series of cobbles above large well-dressed side stone architecture. At the W end of the



tomb, a series of dressed and fitted stones present the image of a "monument" or complex headstone that may have marked the cist location prior to placement of the tomb cover stones.

Deteriorated fragments of plaster from the surface of side stone architecture occur in the fill soil within the tomb. Within the cist is a wooden coffin consisting of a thin boarded construction, most of which had deteriorated (especially at the W end) leaving wood traces and impressions in the soil, especially at the E end of the cist. The burials occur stratigraphically within this structure, which is covered by a large wooden cover constructed of beams 0.08 - 0.12 m. thick on four sides and thin slabs lapped over the tops of the end beams.

The coffin was held together with metal brackets found at each of the four corners near the top of the cover section and the top and bottom of the thin box section. Stout metal dowels served to fix the coffin parts together. Preliminary analysis of one beam by P. Bikai indicates it may be wild pistachio. The wood is relatively well preserved, and it will be possible to date the

age of the beam(s) using dendrochronology or radiocarbon.

Remains of at least 14 individuals based on a field count of intact skulls ranging in age from infant to adult occur in the tomb. This number does not include remains of possible fragile neonates or others lacking skulls. Burials all appeared to be articulated and oriented in two directions predominantly with heads at either the E or W end of the coffin. Only a few sub-adult individuals had heads which occupied a more central position in the coffin. Bodies appear to have been placed so as not to disturb the heads of individuals already in the tomb.

Little or no post-mortem disturbance of any of the burials (with the exception of settling and in filling of the coffin by fine silt soil) is indicated by the presence of a variety of grave objects including an Early Byzantine cooking pot remodelled into a chalice with plaster (Fig.7a), a mirror and make-up palette made of glass and plaster (Fig. 8), a tear drop glass bottle with snake motif on the neck; a head ornament consisting of woven or braided copper and bone hairpins; a bone "make-up" bottle



6. Tomb Z. 3 cover stones *in situ* ( Photo by G. Hammink).

with copper spatula (Fig. 9); a juglet with copper spatula (Figs. 7b,10), several bracelets and rings of copper and iron; and numerous glass beads of various sizes, colors and construction.

Beads were most frequently associated with sub-adult individuals in the tomb. Some beads were extraordinarily small, and may represent items attached to clothing or shrouds of the individuals with whom they are associated (de Vries, personal communication). The depth of 0.75 m from the top of the side architecture to the bottom of the coffin, and 0.49 m within the coffin itself, suggests that Tomb Z.3 was used over a period of time long enough to allow settling of remains.

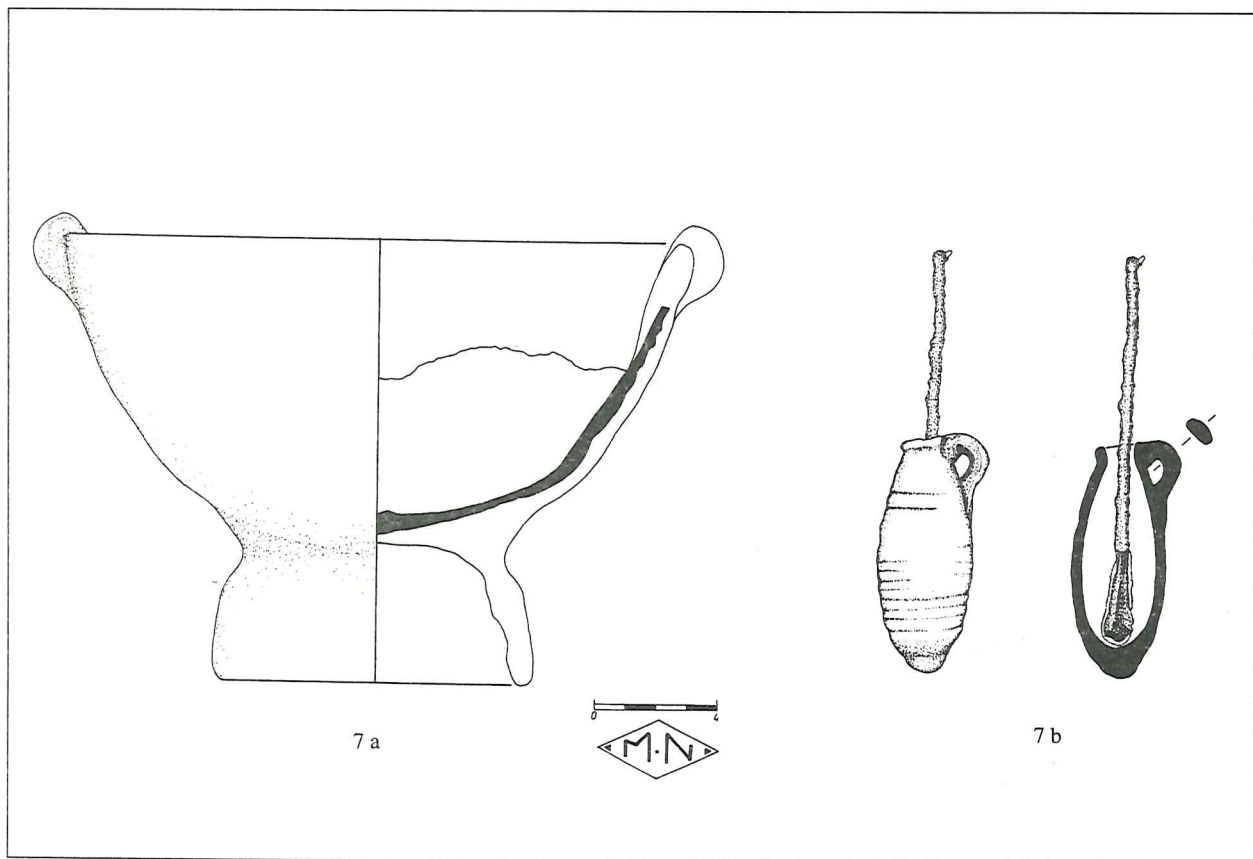
Several lines of evidence have yet to be explored including genetic studies which may indicate whether this was a family

tomb, or a tomb of strangers.

Z.2 and Z.3 differ from each other markedly in construction, number of burials, burial orientation, associated grave objects and perhaps length of use. In all cases, Z.3 presents evidence of a more carefully executed type of burial than Z.2. It is possible that Z.3 and Z.1 (Cheyney 1995) were more similar to each other, but the robbing of Z.1 in antiquity prevents close comparison of Z.1 with many attributes of Z.2 and 3.

Given the apparent presence of loculi tombs, cist tombs and coffin-lined tombs in area Z, a range of socio-economic level may be represented within this cemetery area. The difference between Z.2 and Z.3 is sharp, but perhaps not as sharp as that between a loculus tomb and Z.2 would be.

Without final analysis, Z.2 appears to be a tomb of relatively poor individuals while



7a. "Heirloom" chalice, plaster moulded around core of Byzantine cooking pot. (Drawing by M. Nasir)

7b. Ceramic juglet with copper wand/spatula. (Drawing by M. Nasir)

Z.3 appears to contain remains of people with access to more resources than Z.2. Chamber/loculi burials could be indicative of the most prosperous residents of Umm al-Jimāl.

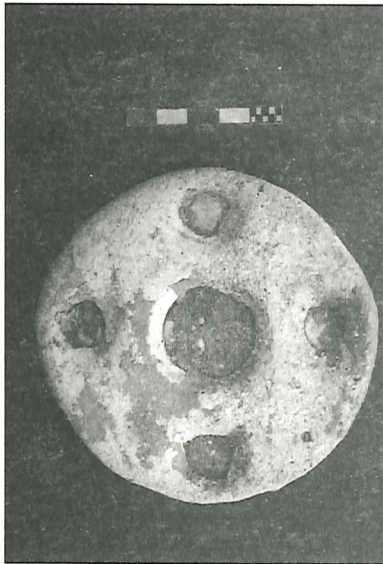
Specific comparisons remain to be completed for each of these tombs and an overarching interpretation needs to be undertaken of all known tombs at Umm al-Jimāl though some brief comparisons are presented below.

### Comparison of Areas AA and Z and Future Research

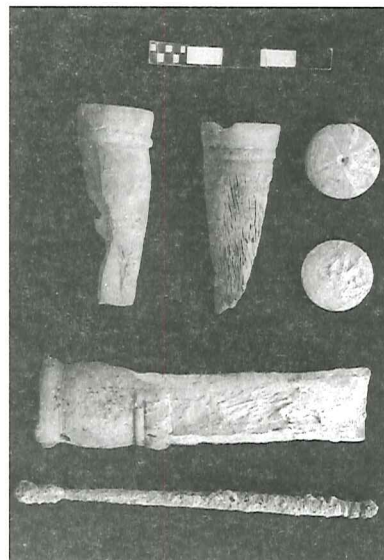
Excavation in Areas AA and Z during the summer of 1994 produced a variety of different tomb construction styles, burial orientations, associated grave objects and other information which from this preliminary analysis present a picture of considerable diversity. Area Z contains remains of perhaps average to more prosperous members of the community, though tomb Z.2 is more modest than others. Rather, Z.2 is much more like several tombs from Area AA in its construction and contents. But do

the elaborate construction and the presence of more numerous objects outweigh the presence of gold earrings in AA.15A? Care should be exercised not to impose Euro-American value systems (gold, more elaborate construction = "upper class") on burial programs from 1500 years ago. Using an ethnographic interpretation, the gold earrings may be indicative of poorer more mobile nomadic women who carry the extent of their wealth on their persons. Thus, AA.15A could be the burial of an infant of a poorer woman, consistent with the general trend of area AA as a cemetery of somewhat poorer people. The fact that similar style earrings occur in the 'Ammān Airport Cemetery, interpreted as a Bedouin/nomads' burial ground (Ibrahim and Gordon 1987), leads to the hypothesis that Area AA too may have been the cemetery for nomadic "dwellers-around" at Umm al-Jimāl, who lived in a symbiotic relationship with more affluent settled agriculturalists and trades' people of the community.

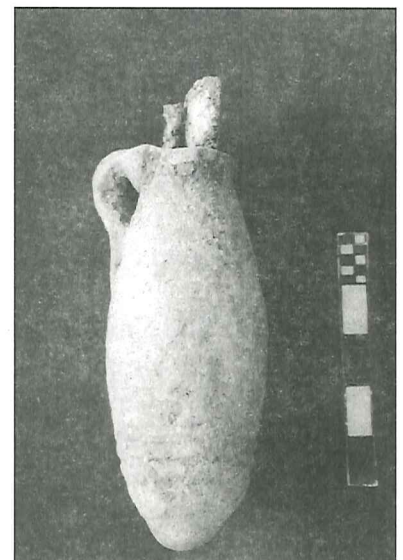
Another provocative line of inquiry will be to explore the apparent relationship be-



8. Mirror and makeup palette, plaster with glass insets (Photo by Sarkis Lapagian "Abu Hanna").



9. Bone makeup bottle with copper wand/spatula (Photo by Sarkis Lapagian "Abu Hanna").



10. Ceramic juglet with copper wand (Photo by Sarkis Lapagian "Abu Hanna").

tween poorer burials and more elaborate loculi/chamber tombs and what that might say about social organization and status in the community.

Future research will include statistical analysis of the cultural dimensions of the tombs such as different types of tomb construction, grave objects, orientation, and cemetery planning in conjunction with analysis of the age, sex, demography, stature, paleo-pathology and health status of burials from the two areas excavated this summer, as well as other burials excavated at Umm al-Jimāl in the past.

A comprehensive map of tombs and cemeteries associated with Umm al-Jimāl is planned 1996.

Finally, anatomical (facial and body) reconstruction is clearly possible with several individuals excavated during the 1994 season so that the people who once thrived and died at the site may live again through the evidence of their remains.

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