

A SALVAGE OPERATION AT BĀB ADH-DHRĀ‘

by

David W. McCreery

Background

Illicit excavations at Bāb adh-Dhrā‘ have been conducted for at least the past 70 years. The first documented occurrence of this activity comes from the 1924 expedition of W.F. Albright (1924) and A. Mallon (1924) who found the site on the last day of their survey and identified recently robbed Early Bronze Age tombs. In the mid-1960's P.W. Lapp's attention was drawn to the site by thousands of Early Bronze Age pots that flooded the antiquities market in Jerusalem and 'Ammān (Lapp 1966; 1975:104-110). Over the past decade the tomb robbing activity has intensified. As one traverses the cemetery today, opened tombs or abandoned robber trenches are encountered approximately every meter. Given this situation, some have concluded that little remains to be

found *in situ* at the Bāb adh-Dhrā‘ cemetery.

During a visit to the site in mid-October 1995, the author noted recent illicit excavations south of Cemetery A (Figs. 1 and 2). Upon investigation, it was found that 39 new EBIA shaft tombs had been uncovered. Since this is a previously unexplored section of the cemetery (see Fröhlich and Ortner 1982:251, Fig. 2), containing a number of well preserved chambers and grave goods, a four day salvage project was mounted to map the site and collect representative pottery and bone samples.¹ No new excavation was initiated although the likely location of a number of unexcavated chambers was noted. The primary goals of the project were to: 1) map the locations of the looted chambers, 2) recover bones, pottery, and other artifacts from the tombs for further analysis, 3) de-



1. > S at Bāb adh-Dhrā‘ Cemmmtery “X”, from Cemetery A.

1. The project staff consisted of the author, Fulbright Fellow David Vila, Linda McCreery, and Krista McCreery.



2. > SW at Bāb adh-Dhrā' Cemetery "X", from Cemetery A.

termine the chronological relationship of this new area with previously excavated sections of the cemetery, and 4) formulate an estimate of the lateral extent of this portion of the cemetery and the intensity of its use.

This new sector of the Bāb adh-Dhrā' cemetery was designated Cemetery "X" for convenience sake. This is viewed as a temporary label which might be changed if, for example, Cemetery X proves to be simply a southern extension of Cemetery A.

Location of the Recent Excavations

Time and financial restrictions precluded making a detailed topographic map of the site. Using ACOR's Trimble GPS System with a Pathfinder Basic+ Rover Unit, it was possible to establish the location and elevations of a number of points, making it possible to position this new burial area in relationship to previously excavated areas.

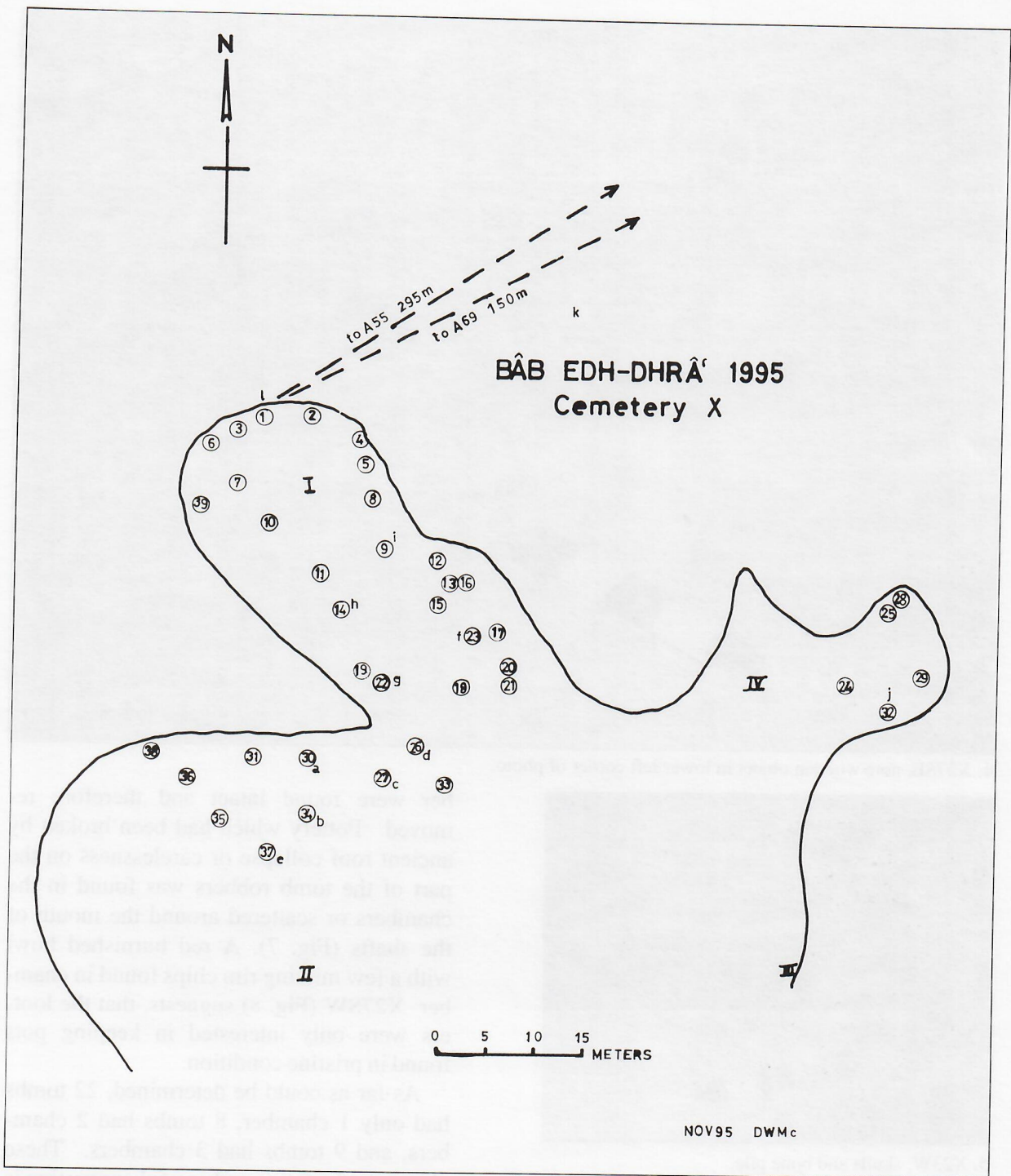
Four points (I-IV), were established to facilitate mapping the site (see Fig. 3). Point I

was located 50m directly N of point II and point III as established 50m E of point II. Point IV was set 50m ESE (bearing of 113°) of point I and 30m NNW (bearing of 353°) of point III. Twelve GPS locations/elevations (points a-l) were taken in Cemetery X and one (point m) in Cemetery A. Points "I" and "m" were used to spatially relate Cemeteries X and A. As is indicated in Fig. 3 and Table 1, point "m" (NE corner of A55), lies 295m ENE of point "I" (near X1S), at a bearing of 58°.

From published maps (Schaub and Rast 1989:23-24), it was also possible to determine that A69 lies 150m ENE of point "I" at a bearing of 63°. Cemetery A and X are separated by a 10-15m deep wadi that runs roughly E/W between them (see Figs.1 and 2; note point "k" in Tables 1 and 2 for the location and elevation of the wadi bed).

Description of the Tomb Chambers

The damage caused by looters places severe limitations on attempts to accurately de-



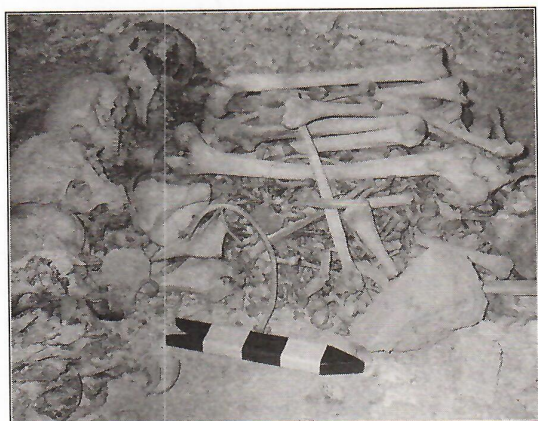
3. Bâb adh-Dhrâ' 1995 Cemetery "X" Plan.

scribe the orientation and original condition of the various tomb chambers. In some cases, the robbers came down through the roof or sides of chambers and did not expose the shaft and other chambers that might be associated with it. As Table 2 indicates, the il-

licit excavations exposed, at least partially, a total of 20 silted and 44 unsilted chambers. The state of preservation of some of the unsilted chambers is extraordinary with well preserved – although very friable – bones, reed mats, and pieces of wood (Figs. 4 and



4. X27SE, note wooden object in lower left corner of photo.



5. X23W, skulls and bone pile.

5). Unfortunately, most of the unsilted chambers contain a fair amount of backfill from the looting activity which often covers part or all of the bone pile (Figs. 6 and 7). The absence of pottery from well preserved chambers like X23W is probably due to the fact that all of the grave goods in this cham-

ber were found intact and therefore removed. Pottery which had been broken by ancient roof collapse or carelessness on the part of the tomb robbers was found in the chambers or scattered around the mouth of the shafts (Fig. 7). A red burnished bowl with a few missing rim chips found in chamber X27SW (Fig. 8) suggests, that the looters were only interested in keeping pots found in pristine condition.

As far as could be determined, 22 tombs had only 1 chamber, 8 tombs had 2 chambers, and 9 tombs had 3 chambers. These counts are tentative and careful excavation is needed to confirm them. It seems quite likely, in fact, that the looters failed to identify a number of chambers. Tombs X18, X21, X32, X33, X34, and X37 for example probably have 3 chambers rather than the one or two that are documented. Likewise, tombs X11 and X35 may have had four chambers

Table 1. Bāb adh-Dhrā' 1995 – Cemetery X Reference Points (as determined by differentially corrected Trimble Pathfinder GPS readings).

| Point | Description | UTM (WGS-84) Coordinates | Geodetic (WGS-84) Coordinates | Elevation (MSL) |
|-------|---|-----------------------------|----------------------------------|-----------------|
| I | Mapping reference point | 3459864.361N 740683.324E | 31°14'53.531"N 35°31'38.386"E | -269.820 m |
| II | Mapping reference point | 3459814.037N 740688.132E | 31°14'51.894"N 35°31'38.524"E | -268.071 m |
| III | Mapping reference point | 3459815.669N 740725.502E | 31°14'51.919"N 35°31'39.937"E | -267.529 m |
| IV | Mapping reference point | 3459846.240N 740730.494E | 31°14'52.908"N 35°31'40.152"E | -266.774 m |
| a | Top of X30 shaft | 3459833.259N 740685.431E | 31°14'52.520"N 35°31'38.439"E | -269.341 m |
| b | Top of X34 shaft | 3459828.717N 740687.974E | 31°14'52.371"N 35°31'38.531"E | -268.211 m |
| c | Top of X27 shaft | 3459836.260N 740694.480E | 31°14'52.611"N 35°31'38.783"E | -269.934 m |
| d | Top of X26 shaft | 3459838.977N 740699.222E | 31°14'52.695"N 35°31'38.965"E | -267.931 m |
| e | Top of X37 shaft | 3459830.547N 740683.917E | 31°14'52.433"N 35°31'38.379"E | -267.088 m |
| f | Top of X23 shaft | 3459848.240N 740698.416E | 31°14'52.996"N 35°31'38.942"E | -267.575 m |
| g | Top of X22 shaft | 3459846.707N 740692.535E | 31°14'52.951"N 35°31'38.719"E | -270.589 m |
| h | Top of X14 shaft | 3459855.105N 740688.810E | 31°14'53.226"N 35°31'38.585"E | -269.460 m |
| i | .5m above X9NW & X9SW entrances | 3459861.563N 740693.570E | 31°14'53.432"N 35°31'38.771"E | -271.052 m |
| j | Top of X32 shaft | 3459840.743N 740741.717E | 31°14'52.721"N 35°31'40.571"E | -267.312 m |
| k | Wadi bed between A Cemetery and X Cemetery | 3459888.977N 740709.367E | 31°14'54.310"N 35°31'39.391"E | -283.810 m |
| l | 3m N & .5m above X1 entrance | 3459873.857N 740679.583E | 31°14'53.842"N 35°31'38.253"E | -273.916 m |
| m | NE corner of Charnel House A55 | 3460031.115N 740878.398E | 31°14'58.797"N 35°31'45.899"E | -262.291 m |

-- distance from point l to point m = 295m at a bearing of 58° NE

-- distance from point l to A69 = 150m at a bearing of 63° NE

Table 2. Orientation, Condition, and Contents of Cemetery X Tomb Chambers.

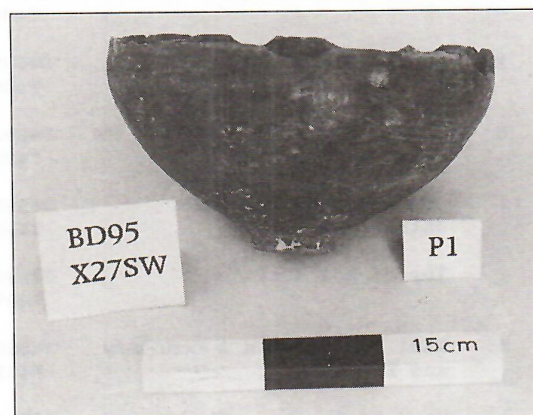
| Tomb No | Chamber | Silted | Ceramics | Wood |
|---------|---------|--------|----------|------|
| X1 | S | No | No | No |
| X2 | W | Yes | No | No |
| X3 | S | No | Yes | No |
| X4 | SW | No | No | No |
| X5 | SW | Yes | No | No |
| X6 | S | No | No | No |
| X7 | S | No | Yes | No |
| | NE | No | No | No |
| | NW | No | No | No |
| X8 | SW | Yes | No | No |
| X9 | NW | No | Yes | No |
| | SW | No | Yes | No |
| X10 | E | No | No | No |
| | NW | No | No | No |
| X11 | NE | No | Yes | No |
| | NW | No | Yes | No |
| | SW | No | No | No |
| X12 | S | Yes | No | No |
| X13 | W | Yes | No | No |
| X14 | S | No | Yes | No |
| | NE | No | Yes | No |
| | NW | No | Yes | No |
| X15 | N | Yes | No | No |
| | S | Yes | No | No |
| | E | Yes | No | No |
| X16 | SE | Yes | No | No |
| X17 | W? | Yes | No | No |
| X18 | SE | No | Yes | No |
| | NE | No | No | No |
| X19 | SE | Yes | Yes | No |
| X20 | W | No | No | No |
| X21 | N | Yes | No | No |
| X22 | SE | No | Yes | No |
| | NW | No | Yes | No |
| X23 | N | No | No | No |
| | W | No | No | Yes |
| | S | No | No | Yes |
| X24 | W | Yes | No | No |
| X25 | SE | Yes | No | No |
| X26 | W | No | No | Yes |
| | E | No | Yes | Yes |
| | S | No | No | Yes |
| X27 | N | No | No | No |
| | SE | No | No | Yes |
| | SW | No | Yes | Yes |
| X28 | S | Yes | No | No |
| X29 | N? | ? | No | No |
| X30 | N | Yes | No | No |
| | SW | No | No | No |
| | SE | No | Yes | Yes |
| X31 | W | Yes | No | No |
| | SE | Yes | No | No |
| x32 | E | No | No | No |
| X33 | NE | No | Yes | Yes |
| X34 | N | No | Yes | Yes |
| | SE | No | No | Yes |
| X35 | SE | No | Yes | No |
| | N | No | No | No |
| X36 | NE | No | No | No |
| | W | No | No | No |
| | SE | No | No | No |
| X37 | SW | No | Yes | No |
| | SE | No | Yes | No |
| X38 | S? | Yes | No | No |
| X39 | E? | Yes | No | No |



6. Bone pile and backfill in X27SW.



7. >SW at backfill and pottery in X9SW.



8. Tomb X27SW, from ceramic assemblage.

each.²

The single chamber tombs tend to have shallow shafts (1.5m or less), and are concentrated around the outer periphery of the slope at lower elevations (e.g. X1S, X2W, X3S, X4SW, X5SW, X6S, and X8SW, see Fig.3). These chambers are usually less than

2. Suspected unexcavated chambers include X11SE, X18NW, X19N, X21SE, X21SW, X32N, X32W,

X33NW, X33S, X34SW, X35S, X35W, and X37NW.

one meter below the modern surface and are prone to roof collapse. Tombs with multiple chambers were placed at higher elevations (-270.50m MSL and higher), had deeper shafts (1.7-2.7m; see Figs. 9 and 10), and tend to be better preserved than the single chamber burials. The placement and distribution of tombs is very similar to that of Cemetery A suggesting that Cemetery X was exploited as intensely as was Cemetery A. Honeycombing of chambers noted in X22NW and X27N further attests to the extensive use of the cemetery. Considering the density of tombs in the small area examined, it seems highly probable that Cemetery X extends further to the south and west.

Silting and extensive backfilling made it impossible to measure many tombs but a sample of the best preserved chambers and



9. Tomb X14 shaft.



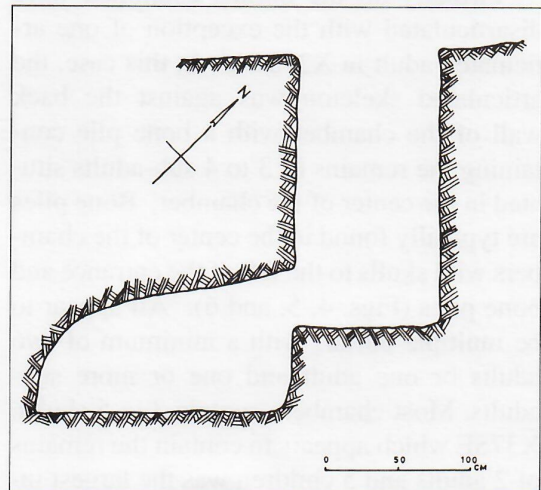
10. Tomb X27 shaft.

3. The length and width measurements for the chambers is based on a sample of 38. It was possible to determine the maximum height of only 24 chambers. The diameter of 22 shafts was measured but

shafts yielded the following results.³ The shafts range from 0.90-1.40 m in diameter with an average of 1.07 m. The depth of the shafts range from 1.13-2.70m with an average depth of 1.95m. The maximum chamber length, width, and height range from 1.26-2.15m, 1.17-1.95m, and 0.70-1.00m respectively with an average length, width, and height of 1.82m x 1.68m x 0.85m. The chamber floors were found to range from 0.25-0.70 m below the bottom of the entrance with an average of 0.53m. Most chambers have a slightly oval plan although some are almost circular. Chambers X23W and X37SW are unusual in that they have a rectangular plan with an off-center entrance providing access to the chamber near the south wall. In some chambers, the roof slopes up gradually toward the entrance (e.g. X27SW, Fig.11) while others are more dome-shaped in section with the maximum height near the center of the chamber (e.g. X23W, Fig. 12).

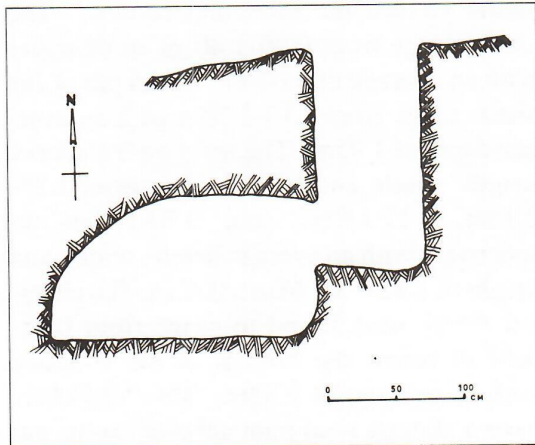
Description of Burials and Grave Goods

Those responsible for the most recent episode of looting at the Bāb adh-Dhrā' cemetery clearly have no interest in the bones



11. Section of Tomb X27SW.

the depth of only 11 shafts could be ascertained with a high degree of confidence. The size of the step from the bottom of the entrance to the chamber floor was measured in 16 cases.



12. Section of Tomb X23W.

and leave the burials themselves undisturbed as they collect the grave goods. Unfortunately, many of the burials were disturbed or destroyed when dirt from other chambers and shafts was thrown into the robbed-out chambers. Bones from some of the best preserved burials (i.e. X23W, X23S, X26S, X26E, X27SE, X27SW, X30SE, and X37SE; see Figs. 4, 5 and 6), were removed and are currently being analyzed by Mahmoud al-Najjar and Abdel Halim Al-Shiyab at the Institute of Archaeology and Anthropology, Yarmouk University.

Virtually all the burials examined were disarticulated with the exception of one articulated adult in X37SW.⁴ In this case, the articulated skeleton was against the back wall of the chamber with a bone pile containing the remains of 3 to 4 sub-adults situated in the center of the chamber. Bone piles are typically found in the center of the chambers with skulls to the left of the entrance and bone piles (Figs. 4, 5, and 6). All appear to be multiple burials with a minimum of two adults or one adult and one or more sub-adults. Most chambers contain 3 to 5 skulls. X37SE which appears to contain the remains of 2 adults and 5 children was the largest interment observed.

Although the ceramics remaining in the

tombs had been scattered it appears that most pottery had been placed to the right of the entrance extending about half way around the perimeter of the chamber. Remains of reed mats upon which the bone piles were placed were found in several chambers (e.g. X23W, X26S, X26W, X27SW, and X27SE) as were well preserved mat impressions (e.g. X27N) identical to those found in A85 (Schaub and Rast 1989:173, 531-532) and other EBIA, Cemetery A burials.

As noted in Table 2, uncarbonized wood fragments were found in 10 chambers. The most commonly represented wooden objects are staffs approximately 3cm in diameter but the remains of a wooden bowl (in X23W) and thick, flat, wooden 'pallets' are also represented (in X23S, X27SE, X34N, and X34SE; see Fig. 4). The 'pallets' or 'boards' range in thickness from 1.25–6.00 cm, and in two cases are perforated. The 1.25 cm thick fragment from X23S is perforated by a round hole, 1.5 cm in diameter. The best preserved example was found in X34SE and is 52cm long x 17cm wide x 5–6 cm thick. Two 2.5 cm x 3.0 cm rectangular holes 8 cm from the end and 3 cm from the side of the 'pallet' are well preserved and it appears likely that originally there were four such holes. The pallet is slightly bowed and worn on the edges, rough on the convex side and smooth on the concave side, giving it the appearance of a miniature threshing sled. Wooden objects were found both to the right and left of the chamber entrances as well as along the sides and at the back of the chambers. Additional organic material including what appears to be the remains of textiles, basketry, and leather was noted in chambers X23W, X30SE, and X37SW.

The total absence of basalt vases, mace-heads, figurines, beads, bracelets, and metal objects is noteworthy. If such artifacts were found in the unsilted chambers the tomb rob-

4. X30SE may also contain one articulated skeleton along with a disarticulated bone pile. Disturbance

and backfill from tomb robbers makes it difficult to reconstruct the original condition of the chamber.

bers would almost certainly have removed them. Clearance of the partially excavated silted chambers would probably yield some of these objects. The shattered remains of one basalt vase was found north and down-slope from tombs X25 and X28 and probably came from one of these tombs.

A total of 54 whole and 7 partial pottery forms were recovered from 14 tombs and 21 chambers (see Table 2). The distribution of the sherds from broken pots suggests that most ceramic objects were left where they were found. A few sherds from the surface outside the tombs were found to join with sherds inside the chambers indicating that broken pottery was being thrown around carelessly during the looting operation. Occasional joins from sherds found in different chambers served by a common shaft lends further support to this conclusion.

A number of ancient breaks caused by silting and roof collapse were observed but the vast majority of breaks were modern. It

seems reasonable to conclude that the tomb robbers were discarding most of the damaged material during their excavation and their rough treatment of the damaged goods resulted in additional breakage. Pot 1 from X30SE (Fig.13), provides one example of an ancient repair. The fact that there are only two mend holes in this large bowl indicates that it was cracked in antiquity but not broken before the vessel was placed in the chamber.

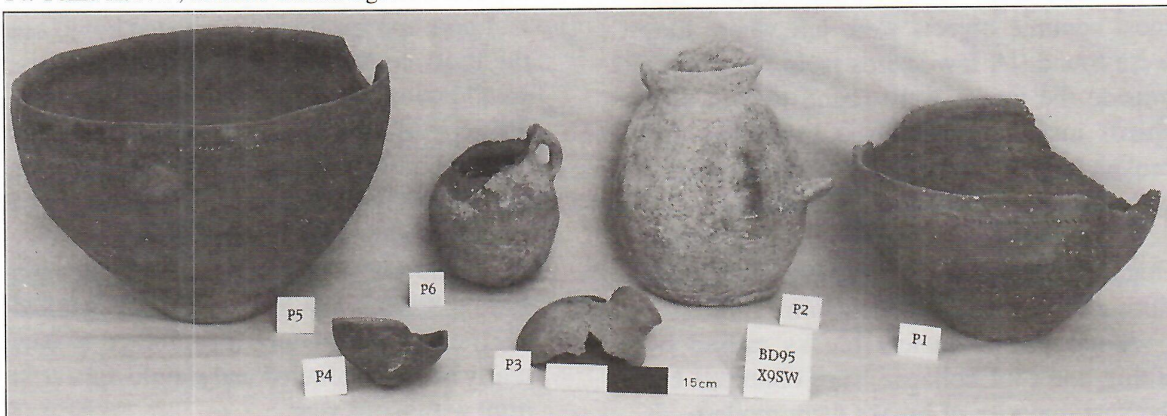
Large and medium "V" shaped bowls are the most common forms but medium jars, small bowls, and juglets are also well represented (see Figs. 8, and 13-19). A cursory analysis of the pottery assemblage indicates that it closely resembles the assemblages of early to middle EBIA tombs from Cemetery A at Bāb adh-Dhrā' (Lapp 1968; Schaub 1981a; Schaub and Rast 1989). A detailed analysis of the pottery assemblage is currently being conducted and should appear in print within one year.



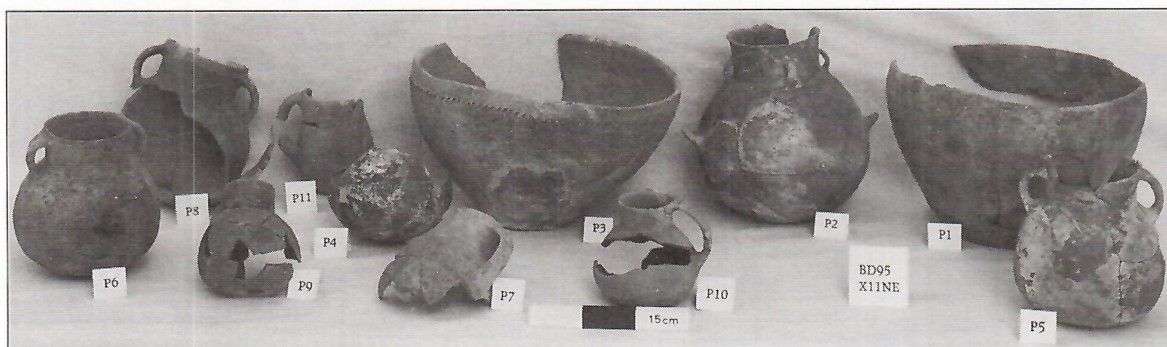
13. Tomb X30SE, ceramic assemblage.



14. Tomb X9NW, ceramic assemblage.



15. Tomb X9SW, ceramic assemblage.



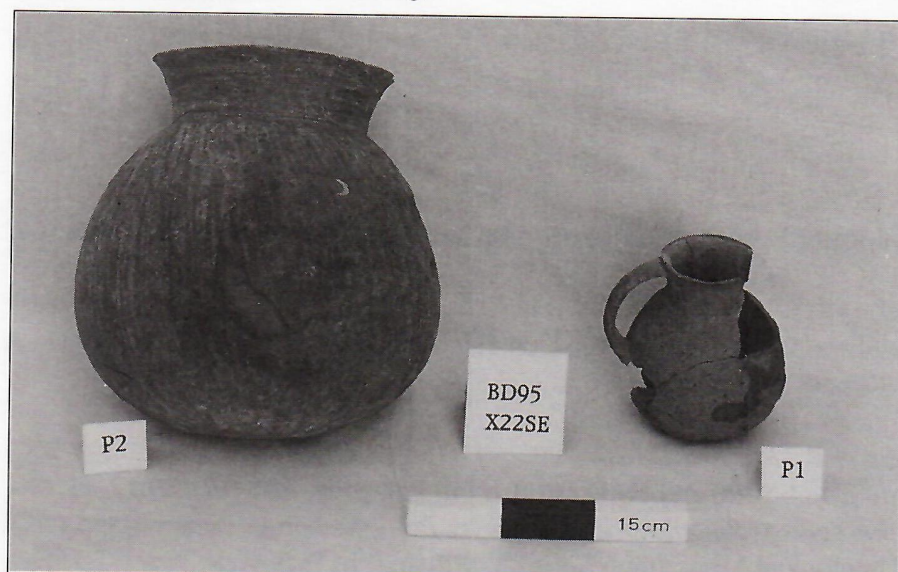
16. Tomb X11NE, ceramic assemblage.



17. Tomb X14NW, ceramic assemblage.



18. Tomb X22NW, ceramic assemblage.



19. Tomb X22SE, ceramic assemblage.

Conclusions

It is dangerous to claim definitive conclusions from the results of a salvage operation, especially one that relies strictly on observations of robbing activity as in this case. Nevertheless, a number of relatively secure conclusions can be deduced at this point.

- 1) The shaft tomb and burial typologies, as well as grave good assemblages, date these burials to the EBIA Period (see Schaub 1981b; Fröhlich and Ortner 1982).
- 2) The ceramic typology suggests that Cemetery X is contemporary with, and a southern extension of, the early to middle EBIA burials of Cemetery A (Lapp 1968; Rast and Schaub 1980:32-34; Schaub 1981a; Schaub and Rast 1989).

- 3) The placement and distribution of tombs indicate that Cemetery X was used as intensively as was Cemetery A and that several hundred to several thousand unexcavated tombs lie to the S, SW, and W of the area described in this report.
- 4) Although the Bāb adh-Dhrā' cemetery has sustained an alarming amount of damage in recent years, claims that nothing remains *in situ* in the cemetery are exaggerated.

It is quite clear from this brief field operation that very early, well preserved EBIA burials are to be found S and SW of the Bāb adh-Dhrā' A Cemetery. Although it seems doubtful that the cemetery extends all the way to the Arab Potash City, it does seem

likely that tombs will be found several hundred meters south and west of the area examined in this report. The recent explosion of tomb robbing activity at Bāb adh-Dhrā', aṣ-Ṣafī, and Feifeh coupled with the ambitious development plans for this region in the postpeace era, presents a compelling argument for intensified efforts to protect the antiquities of the Southern Ghawr and conduct further scientific investigations before more data is lost.

Acknowledgements

The salvage project was made possible by

the hard work of the volunteer staff and the support of Dr Ghazi Bisheh, Dr Pierre Bikai, and Glen Peterman. A word of thanks is also due to the Fulbright Commission and Dr Zeidan Kafafi and his staff for undertaking further study of the material and placing it on display at the Yarmouk University's Institute of Archaeology and Anthropology Museum.

D. W. McCreery
549 Hansen Ave.
Salem, OR 97302
U.S.A.

Bibliography

- Albright, W.F.
1924 The Archaeological Results of an Expedition to Moab and the Dead Sea. *BASOR* 14:2-12.
- Fröhlich, B. and Ortner, D.J.
1982 Excavations of the Early Bronze Age Cemetery at Bab edh-Dhra Jordan, 1981: A Preliminary Report. *ADAJ* 26:249-67.
- Lapp, P.W.
1966 Bab edh-Dhra'. *RB* 73:556-61.
1968 Babedh-Dhra' Tomb A 76 and Early Bronze I in Palestine. *BASOR* 189:12-41.
1975 *The Tale of the Tell: Archaeological Studies by Paul W. Lapp*. Nancy Lapp (ed.), Pittsburgh Theological Monograph Series 5. Pittsburgh: Pickwick.
- Mallon, A.
1924 Voyage d'exploration au sud-est de la Mer Morte. *Biblica* 5:413-55.
- Rast, W.E., and Schaub, R.T.
1980 Preliminary Report of the 1979 Expedition to the Dead Sea Plain, Jordan. *BASOR* 240:21-61.
- Schaub, R.T.
1981a Ceramic Sequences in the Tomb Groups at Bab adh-Dhra.. Pp. 69-118 in *The Southeastern Dead Sea Plain Expedition: An Interim Report of the 1977 Season*. *AASOR* 46. Cambridge, MA: ASOR.
1981b Patterns of Burial at Bab adh-Dhra. Pp. 69-118 in *The Southeastern Dead Sea Plain Expedition: An Interim Report of the 1977 Season*. *AASOR* 46. Cambridge, MA: ASOR.
- Schaub, R.T., and Rast, W.E.
1989 *Bab edh-Dhra' : Excavations in the Cemetery Directed by Paul W. Lapp (1965-67). Reports of the Expedition to the Dead Sea Plain, Jordan*. Volume I. Winona Lake, IN: Eisenbrauns.