A 12TH CENTURY A.D. SEQUENCE FROM SOUTHERN TRANSJORDAN CRUSADER AND AYYUBID OCCUPATION AT EL-WU'EIRA

by
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Introduction

Archaeologically, the 12th century A.D. has been one of the least known periods in the history of Transjordan. As part of a broader study in the Late Islamic archaeology of southern Transjordan, excavations were conducted at the Crusader fortress of el-Wu'eira (Petra) in order to correlate a ceramic sequence with a historically documented 12th century site. This investigation provided a stratified series of ceramic assemblages associated with the Crusader and Early Ayyubid occupation of the site.

The four week excavation at el-Wu'eira began in February 1987. The project was funded by the 1987-88 Teagle Fellowship grant from the American Schools of Oriental Research and directed by the writer. I am especially grateful to Dr. 'Adnan Hadidi, Director General of the Department of Antiquities of Jordan, for his support of the project. In addition, I wish to thank Dr. Ghazi Bisheh, Assistant Director of the Department of Antiquities; Mr. Inyazi Shab'an and Mr. Suleiman Farajat of the Department of Antiquities Petra Office; and Dr. David McCreery, Director of the American Center of Oriental Research in Amman for their generous assistance. I also extend my appreciation to the following specialist consultants to the project: Ms. Patricia Crawford (shells); Dr. Frank Koucky and Dr. Peter Sheppard (geologic samples); and Mr. Kevin Rielly (faunal analysis). Pottery sections were drawn by Dr. Khairieh 'Amr, plans and sections were inked by Mr. Mark Campbell, and maps prepared by Mr. Jonathan Mabry; to each of whom I am very grateful.

The complex political history of the 12th century reflects the demise of Fatimid hegemony, the rise of the Seljuk-Zengid aspirations, the Crusader invasion and colonization, and the foundation of the Ayyubid dynasty. These processes impacted the socio-economic environment in a variety of ways, yet there is very little data with which to approach the broad question of the extent to which these complex and fragmented political and economic frameworks affected the distribution of artefacts within the archaeological record. Several related questions concerning artefact patterning can be raised. First and foremost, what is the nature of the 12th century material culture repertoire? Second, to what extent can the cultural remains of the indigenous 12th century Arab population be perceived on the basis of artefact distributions at Crusader-occupied sites? Third, what aspects of the archaeological record pertain specifically to the socio-economic circumstances of the Crusader occupation? While these issues cannot be fully addressed in the context of this report, some preliminary observations concerning southern Transjordan will be presented in the discussion of the ceramics.

Description of el-Wu'eira

El-Wu'eira is part of the eastern mountain ridge of Petra (elevation 1060 m.) and is located approximately 1 kilometer north of the entrance to Petra National Park (Fig. 1). It lies to the north of the broad er-Ramlah mountain plateau and northeast of Jabal el-Khubtha. Deep wadi gorges encircle the plateau: Shu'b Qes to the southeast, south, and west, and Wadi el-Wu'eira to the east and north. The eastern summit of el-Wu'eira is dominated by the ruins of the Crusader fortress, but there are traces of a Nabataean presence as well, as evidenced by carved staircases and

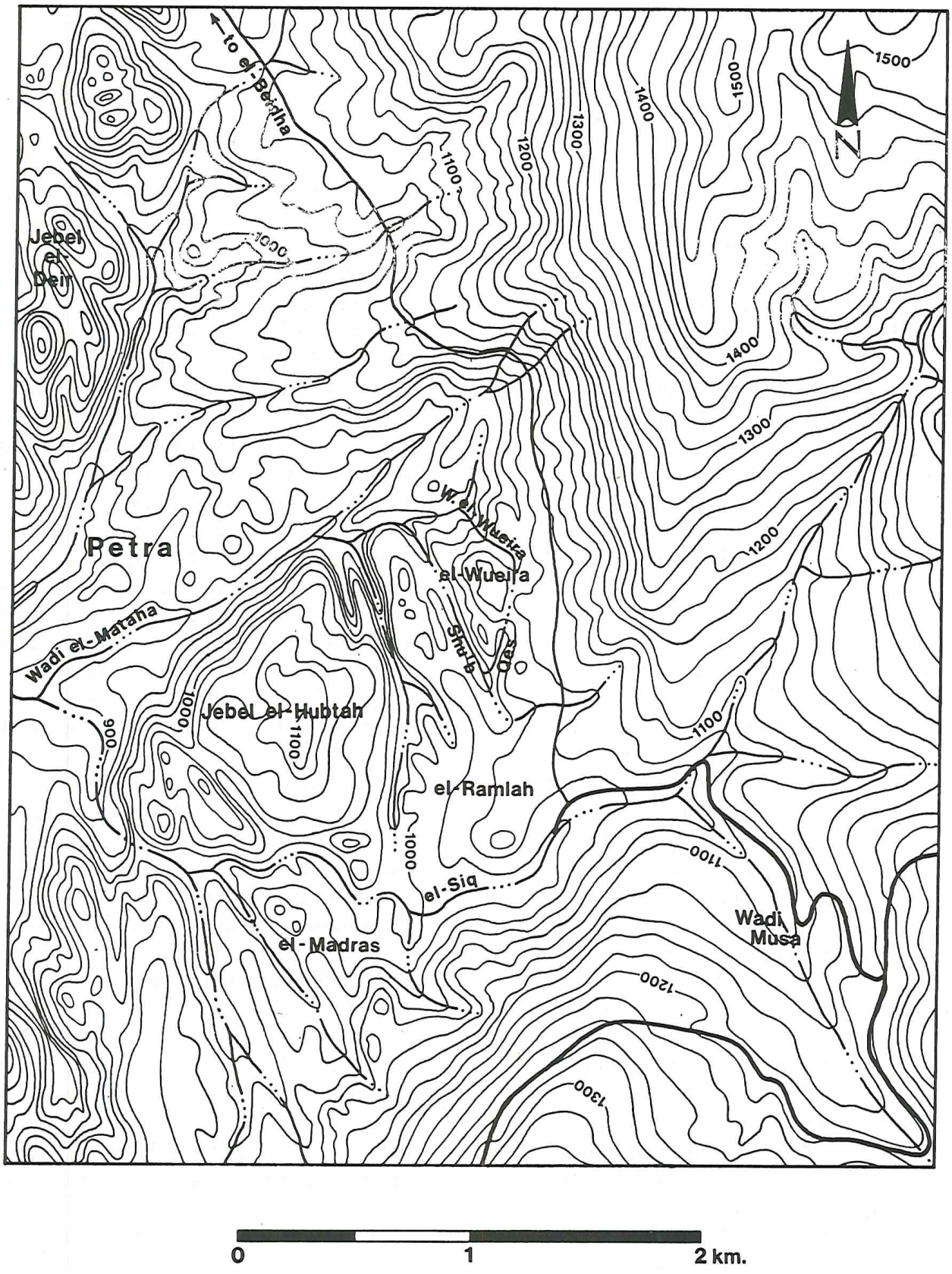


Fig. 1: Map of el-Wu'eira and its vicinity

chambers cut into the bedrock folds and outcrops. Yet, the deposition at el-Wu'eira appears to be exclusively from the medieval period, for no Nabataean deposits have been encountered.

Historical Summary

In A.D. 1115/6 Baldwin I led a campaign to establish fortified military garrisons in southern Transjordan (the Latin province of Oultre-Jourdain) to protect the eastern and southern flank of Crusader claims in the southern Levant and enable the Franks to control trade and communication routes from Egypt to Arabia and Syria. The campaign resulted in the construction of Crusader fortifications at Shobak (Mont Real), Jazirat Far'un (Ile de Graye); and 'Aqaba (Aila) (Runciman 1968: 98, Hammond 1970: 7). Also listed among the constructions of Baldwin I in 1115/6 is a fort at *Vallis Moyse,* which appears in the contemporary Arab chronicles as al-Wa'r. This fortress has long been associated with the present site of el-Wu'eira. As Hammond notes (1970: 35), however, references to Crusader fortifications in the Wadi Musa area range from A.D. 1108-1116, and thus construction of the *castrum* at el-Wu'eira could have begun before A.D. 1116. After the 1187 Battle of Ḥiṭṭīn, the 70+ year history of Crusader occupation at el-Wu'eira ends with its fall to Ṣalaḥ ed-Din's army in 1188 (Ibn al-Athir and Abu Shama: cited in Zayadine 1985: 167), the same year of the Crusader defeat at Kerak and shortly before the fall of Shobak in 1189.

Description of the Site

Of the few 19th-early 20th century travelers and explorers who visited the ruins Savignac (1903) and Musil (1907: 57-71) provide the most useful accounts. The Crusader fort is rectangular, set on a north-south axis, approximately 100m. north-south x 80-64m. east-west (Fig. 2). The irregularities of the plan are due in part to the terrain, for the architects founded the main fortification walls along natural sandstone ridges. The outer defensive walls were combined with a series of towers (Musil 1907: 66-9). The two primary bastions are the West Tower, set within the West Fortification Wall approximately midway between the northwest and southwest corners, and the Northeast Tower above the Wadi el-Wu'eira ravine. Other smaller towers were identified by Musil in the northwest, southwest, and southeast corners, as well as in various other locations. The entrance to the fortress is through a narrow rock-hewn tunnel southeast of the *castrum,* which was connected to a bridge spanning Wadi el-Wu'eira (*ibid:* 57-8).

Summary of the Excavations

Three areas were selected for excavation: 1) the Nabataean Rock-cut Chamber — Square 1, located south of the *castrum;* 2) the East Tower Area — Squares 2, 3, and 5, adjacent to the East Fortification Wall; and 3) the Northeast Tower Area — Square 4, immediately south of the tower entrance. The most complete sequence was documented in the Northeast Tower Area where two phases of medieval architecture and deposition were preserved. Table 1 outlines the chronology of these phases.

The absolute chronology of the phasing at el-Wu'eira is tentative, for no coins, inscriptions, or other specifically dated artefacts were retrieved in excavation. However, the two distinct medieval architectural phases can be assigned approximate dates on the basis of historical documentation and the ceramic assemblages.

THE NORTHEAST TOWER AREA (SQUARE 4)

The Phase I architectural features, dating to the construction of the Crusader fortress, include the prominent Northeast Tower and the remains of the flanking East and North Fortification Walls (Fig. 3). During the Phase II occupation a square Secondary Enclosure was established in front of the tower by the addition of a wall linking the Phase I East and North Fortification Walls. Square 4 was located a few

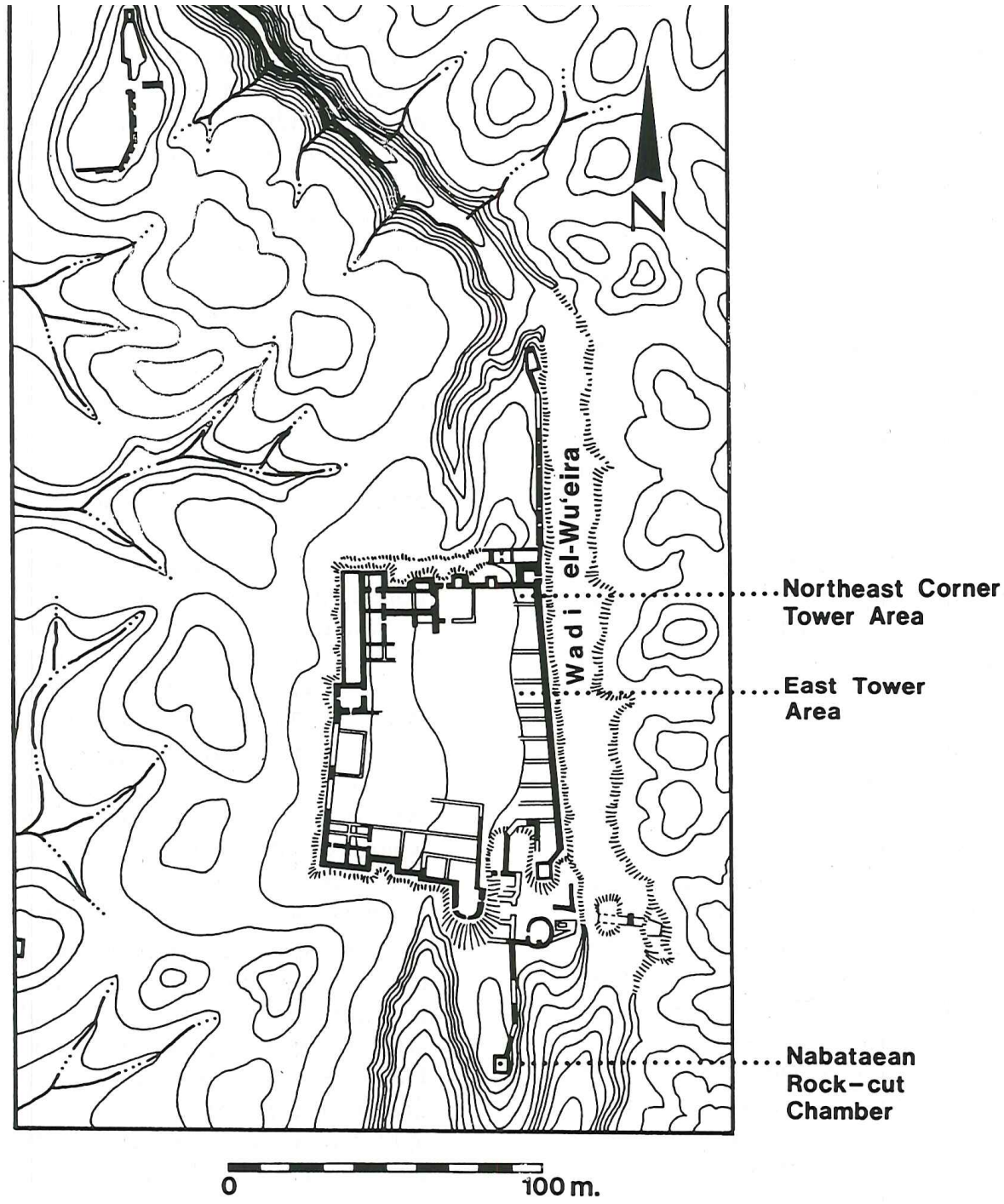


Fig. 2: Plan of el-Wu'eira fortress (after Musil 1907: 64)

Table 1: The Chronology of the Medieval Phases at el-Wu'eira

Phase	*Date*
I	Early 12th - late 12th c. A.D.: Crusader (1108/1116-1188)
II	Late 12th - early 13th c. A.D.: Early Ayyubid

meters south of the Northeast Tower and measured 2.25m. (north-south) x 2.80m. (east-west). The east balk followed the inner face of the Phase I East Fortification Wall and the south balk was set against the Phase II secondary wall. Deposition from both Phases I and II was present in Square 4. The Phase I occupation is divided into

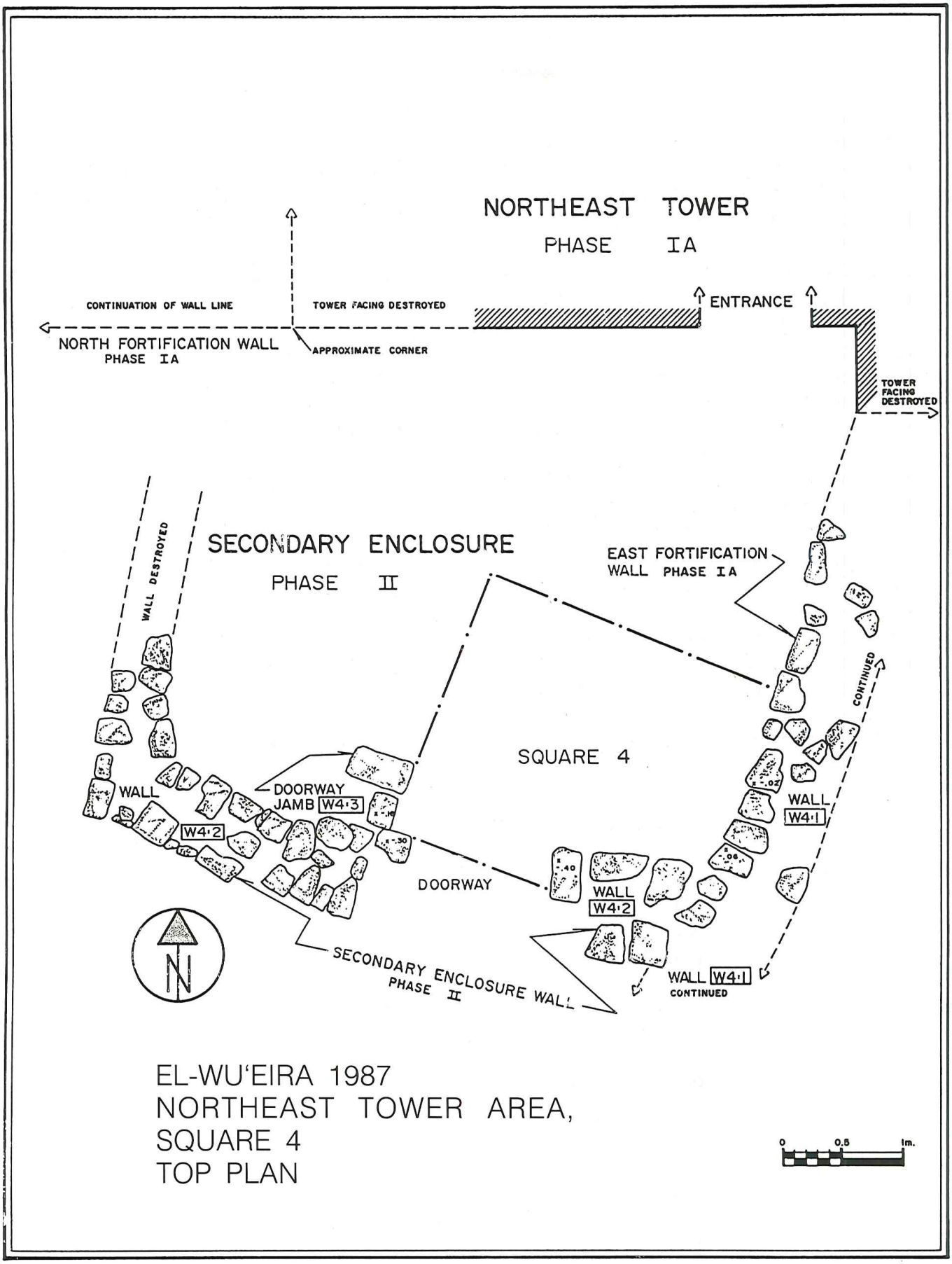

NORTHEAST TOWER
PHASE IA
CONTINUATION OF WALL LINE
TOWER FACING DESTROYED
ENTRANCE
NORTH FORTIFICATION WALL
PHASE IA
APPROXIMATE CORNER
TOWER FACING DESTROYED
WALL DESTROYED
SECONDARY ENCLOSURE
PHASE II
EAST FORTIFICATION WALL PHASE IA
CONTINUED
SQUARE 4
WALL
W4·2
DOORWAY JAMB W4·3
DOORWAY
WALL W4·2
WALL W4·1
SECONDARY ENCLOSURE WALL
PHASE II
WALL W4·1
CONTINUED
N
EL-WU'EIRA 1987
NORTHEAST TOWER AREA,
SQUARE 4
TOP PLAN
0
0.5
1m.

Fig. 3

two sub-phases designated IA and IB. The Square 4 loci are grouped accordingly in Table 2.

Phase IA

The earliest features in Square 4 include the East Fortification Wall W4:1 and a series of horizontally deposited soil layers that abut the lower courses of the wall (Fig. 4). The East Fortification Wall and the lowest occupation layer were founded upon bedrock. The initial soil and occupation debris locus W4:13 lay adjacent to the lowest course of Wall W4:1. Overlying this dense occupation was locus W4:12, another occupation layer. Deposited over W4:12, locus W4:10 consisted of three layers; the two lower units were unbaked mud brick debris and the upper unit was composed of a thin pebble wash. A cobble-lined fire pit, locus W4:11, was embedded within locus W4:10. The pit was filled with ashy soil and contained a few ceramic inclusions. The uppermost Phase IA layer, locus W4:9-7, was a mud brick and soil fill that included a large quantity of pottery. These Phase IA layers were deposited in the open yard or bailey that encompassed most of the fortress interior. The intensity of artefact debris within the Phase IA layers appears to be the result of outdoor activities associated with the maintenance of the fortifications and daily duties of the garrison.

Phase IB

The Phase IB sequence begins with floor W4:8 that, for the most part, sealed the Phase IA loci below (Fig. 4). Overlying the uppermost Phase IA layer (W4:9-7), the Phase IB floor consisted of a compacted finely crushed white sandstone bed up to .12m. in thickness. The floor implies that the area was converted from an open yard to an enclosed space, yet there is no architectural evidence for an enclosure in this phase. The Phase IB occupation debris loci associated with the floor include pit W4:6A and ashy soil fill layer W4:6. Situated against the west face of wall W4:1, pit W4:6A (.75m. diameter, .50m. depth) cut through the W4:8 sandstone floor and the underlying Phase IA layer W4:9-7. Overlying the W4:8 sandstone floor was an ashy fill layer, locus W4:6, which contained pottery and occupation debris. The Phase IB layers attest to domestic activity.

Phase II

The Phase II Secondary Enclosure

Table 2: Square 4 Locus Descriptions

Phase	*Locus*	*Description*
IA	W4:1	East Fortification Wall
	W4:13	occupation layer
	W4:12	occupation layer
	W4:11	fire pit
	W4:10	mud brick debris and pebble wash
	W4:9-7	mud brick fill
IB	W4:8	sandstone floor
	W4:6A	pit
	W4:6	ashy fill
II	W4:5	clay plaster floor
	W4:2	Secondary Enclosure Wall
	W4:3	doorjamb
Post-Occupation Debris	W4:4	debris accumulation and architectural collapse

was formed by the construction of wall W4:2, which was joined to the East and North Fortification Walls (Fig. 3). The doorway of the Phase II enclosure is situated within the south wall. Extending into Square 4, along the west balk, doorjamb W4:3 abutted the west side of the doorframe. The interior of the enclosure was plastered with a clay floor, locus W4:5 (Fig. 4). This floor was founded at the same elevation as the Phase II secondary wall W4:2 and sealed the Phase IB ashy fill layer W4:6. The thick clay plaster floor covered the entire excavation unit except along a portion of the west balk where it had deteriorated. The same clay matrix was plastered over the upper courses of the Phase IA East Fortification Wall. No occupation deposition is associated with the Phase II features, for a .80m. deep deposit of post-occupation fill (W4:4) lay directly over the clay floor. This fill suggests that Phase II consisted of a brief domestic occupation.

THE EAST TOWER AREA (SQUARES 2, 3, 5)

Two structures were investigated in this area; the East Tower (Phase IA) and the Secondary Enclosure (Phase II) (Figs. 5,6). The East Tower lies 34 meters south of the Northeast Tower along the alignment of the now largely-destroyed East Fortification Wall and parallel to the massive West Tower. Musil located several wall lines perpendicular to the East Fortification Wall (Fig. 2) but did not recognize the East Tower as a distinct unit, although his plan includes a number of other smaller towers. The East Tower is rectangular in plan and subdivided by an internal partition. The structure measures *ca.* 9.70m. (north-south) x 7.70m. (east-west). The entrance to the north room of the East Tower was set into the west wall, but the access to the adjoining south room is not evident. The west wall of the adjacent Secondary Enclosure abuts the northwest corner of the East Tower and extends north before turning east towards the ravine escarpment. The construction of the Secondary Enclosure was accompanied by a Phase II reuse of the East Tower interior.

Three excavation units were opened to expose the walls and deposition associated with these structures. Square 2 was located against the East Tower west wall (at the northwest corner). Square 3 lay adjacent to the north wall of the tower and was bisected by the west wall of the Secondary Enclosure. Excavation in Squares 2 and 3 (west) cut through naturally deposited wash layers. Square 5 was situated within the East Tower.

Phase I

Phase I is represented by the East Tower structure, which on architectural evidence can be ascribed to Phase IA. Phase I deposition was apparently removed by the Phase II occupants.

Phase II

Phase II occupation is marked by the construction of the Secondary Enclosure and the reuse of the East Tower interior. Within the Secondary Enclosure excavation terminated when a bedrock "floor" was encountered. This feature was cut by two troughs; the South Trough along the East Tower wall (W3:1) and the West Trough along the Secondary Enclosure wall (W3:2). In addition, two short cross-walls (W3:9 and W3:8) blocked the South Trough at the East balk and to the west, close to the juncture of Walls W3:1 and W3:2. The South Trough, the cross-walls, and the interior face of the Secondary Enclosure wall (W3:2) had been coated with clay plaster (W3:14) of the same type present in Square 4. Within the East Tower (Square 5) Phase II occupation was also founded upon bedrock. Here clay plaster covered a portion of the bedrock and the wall faces. A low stone alignment (W5:6) was set upon the plastered bedrock and to the south the bedrock was scorched in 2 places, indicating that fires had been set directly upon the sandstone "floor." Although stratified deposition was not present in either the East Tower or the Secondary Enclosure, the Phase II features seem to be primarily of a domestic nature.

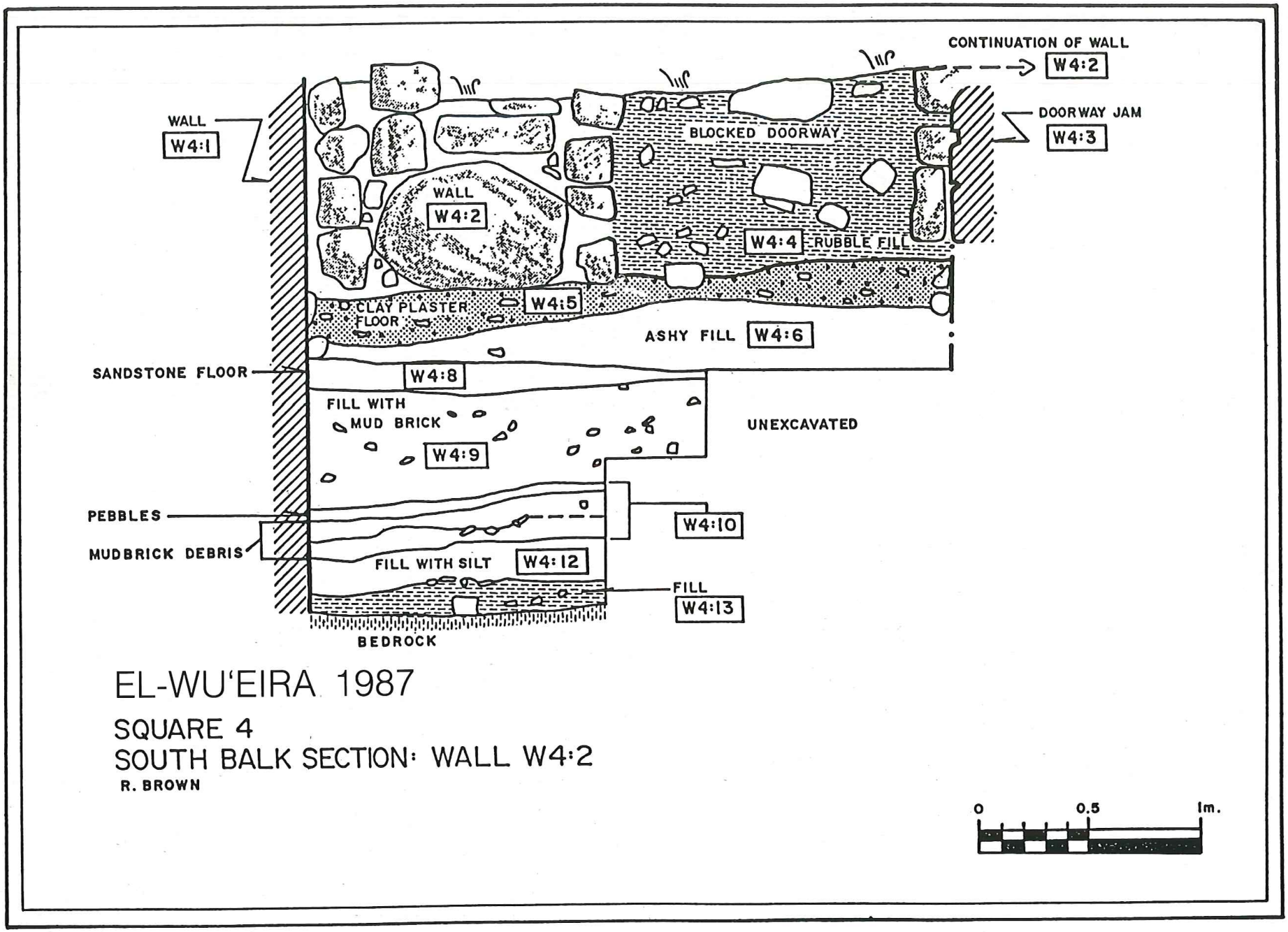

CONTINUATION OF WALL
W4:2
DOORWAY JAM
W4:3
WALL
W4:1
BLOCKED DOORWAY
WALL
W4:2
W4:4 RUBBLE FILL
CLAY PLASTER FLOOR
W4:5
ASHY FILL W4:6
SANDSTONE FLOOR
W4:8
FILL WITH MUD BRICK
W4:9
UNEXCAVATED
PEBBLES
W4:10
MUDBRICK DEBRIS
FILL WITH SILT W4:12
FILL
W4:13
BEDROCK
EL-WU'EIRA 1987
SQUARE 4
SOUTH BALK SECTION: WALL W4:2
R. BROWN
0
0.5
1m.

Fig. 4

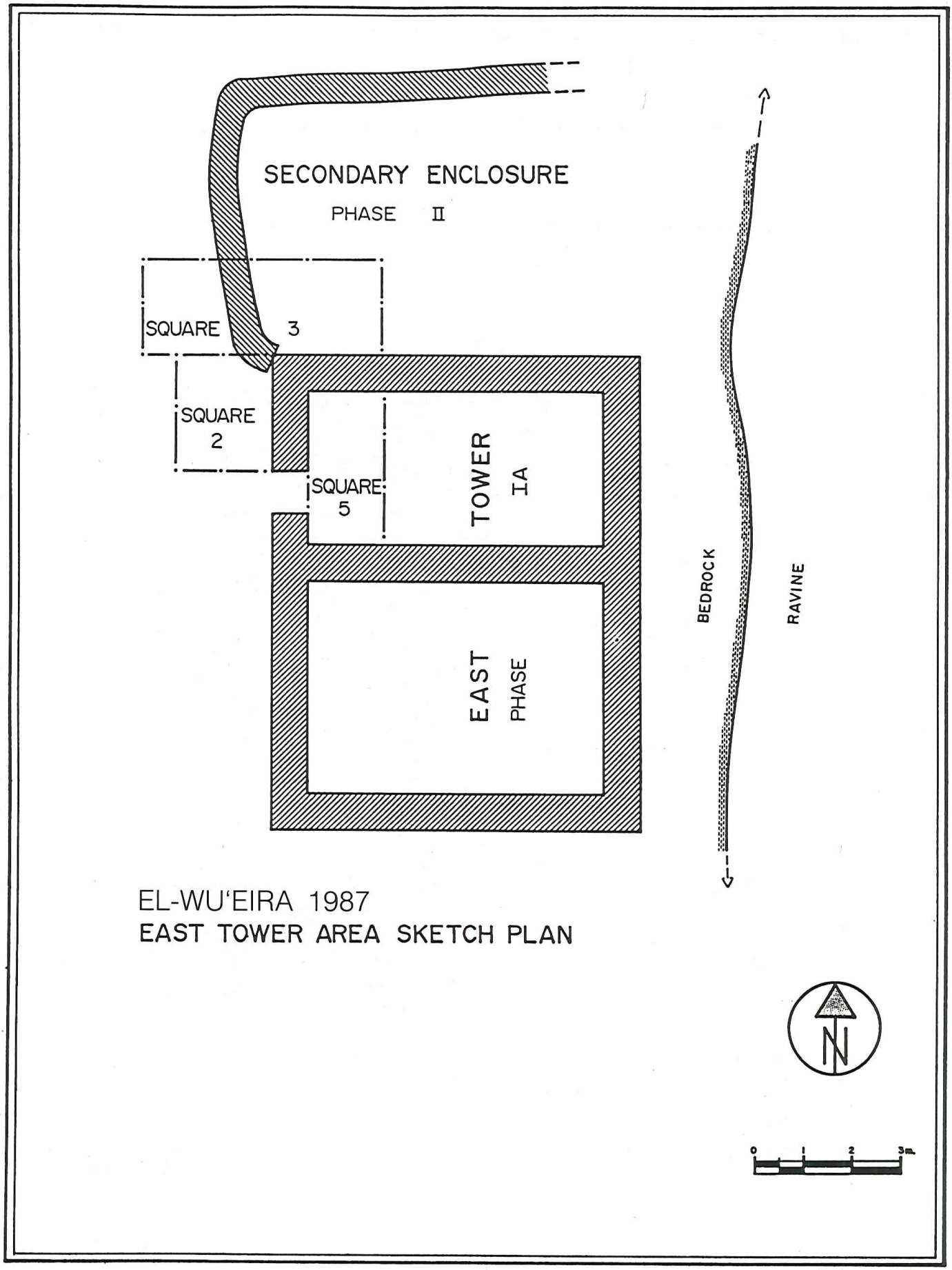

SECONDARY ENCLOSURE
PHASE II
SQUARE 3
SQUARE 2
SQUARE 5
TOWER IA
EAST PHASE
BEDROCK
RAVINE
N
0
2
3m.
EL-WU'EIRA 1987
EAST TOWER AREA SKETCH PLAN

Fig. 5

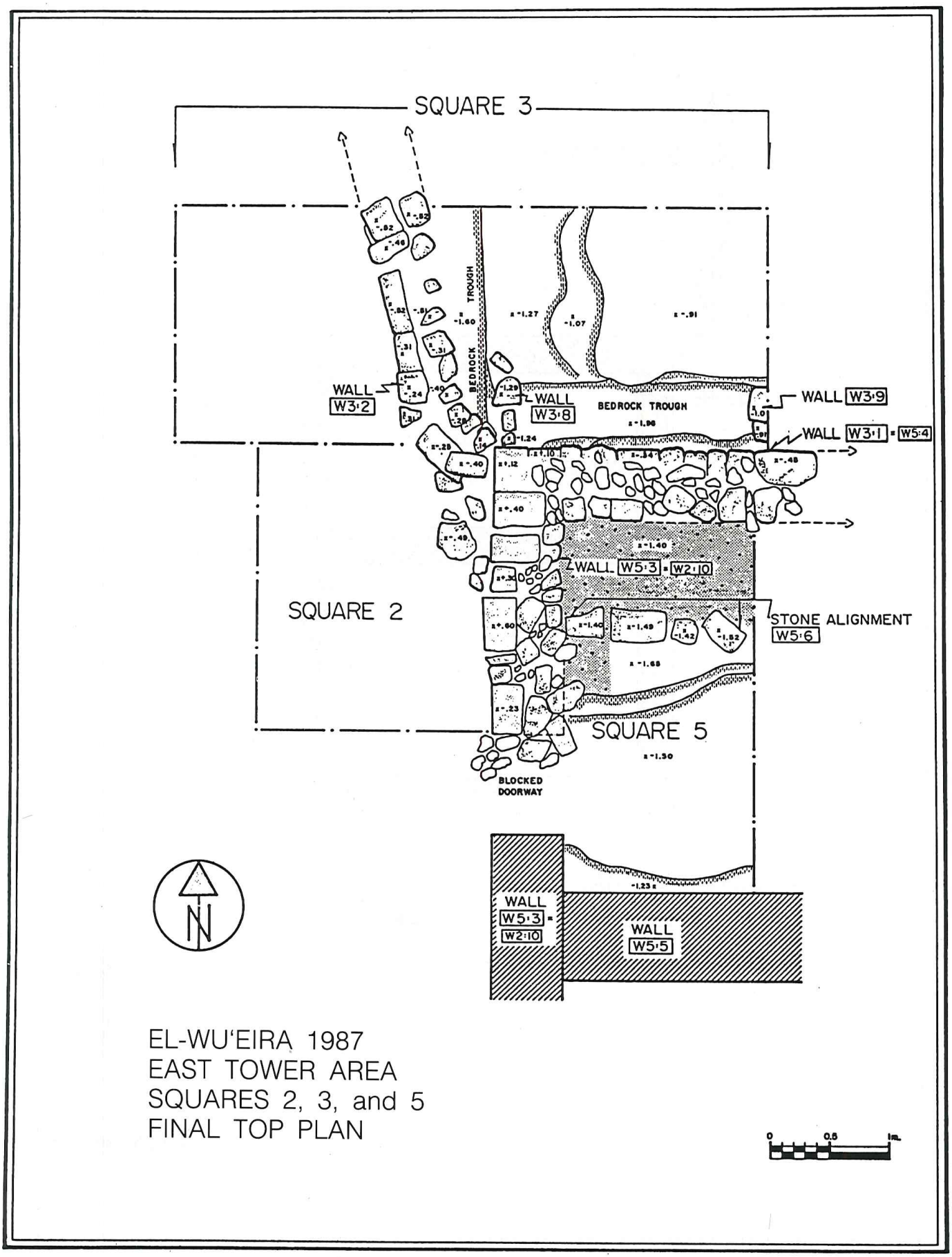

SQUARE 3
BEDROCK TROUGH
WALL W3·2
WALL W3·8
BEDROCK TROUGH
WALL W3·9
WALL W3·1 = W5·4
WALL W5·3 = W2·10
SQUARE 2
STONE ALIGNMENT W5·6
SQUARE 5
BLOCKED DOORWAY
WALL W5·3 = W2·10
WALL W5·5
N
EL-WU'EIRA 1987
EAST TOWER AREA
SQUARES 2, 3, and 5
FINAL TOP PLAN
0
0.5
1m.

Fig. 6

THE NABATAEAN ROCK-CUT CHAMBER (SQUARE 1)

A Nabataean rock-cut chamber stands to the south of the fortress, on a rocky spur overlooking the chasm of Wadi el-Wu'eira. Logically, the location of this chamber would have benefited the 12th century garrison as a watch tower, for it provides a view down Wadi el-Wu'eira and across the rugged sandstone ridges of el-Qararah. Excavation was carried out to determine whether medieval occupation was present. Unfortunately, the material culture remains associated with this excavation were unstratified and conclusions regarding the function of the chamber during the medieval period remain tenuous.

The chamber interior, hollowed out of sandstone, measures approximately 7.0m. (north-south) x 8.0m. (east-west). Sheer rock faces several metres high constitute the north, west, and south walls and the chamber is open to the east. Square 1 (4.20m. north-south x 2.90m. east-west) was located in the southeast corner of the chamber, between a robber trench and the east edge of the rock scarp (Fig. 7). Just beneath topsoil a number of walls emerged, each of which rests directly upon bedrock.

Discussion of the Phasing

Three architectural styles were identified among these walls that, on the basis of structural attributes, appear to represent distinct construction phases. To avoid confusion with the overall site phasing of the medieval periods, these architectural phases are designated alphabetically, from earliest to latest. It should be noted however that this proposed sequence is tentative.

Phase A) The south wall W1:2 is a solidly constructed feature that incorporated large dressed stones, including reused Nabataean sandstone blocks.

Phase B) The three parallel (east-west) Phase B partitions, W1:3/W1:6, W1:4, and W1:7 constitute the majority of the plan and define two alcoves. In contrast to the Phase A wall, these alignments consist of irregular coursing and stones of a variety of sizes and shapes. Four finely-carved white limestone blocks were inserted in the top course of wall W1:3. As these blocks probably originally belonged to a Phase I structure (possibly the chapel), the Phase B walls in the chamber may correlate with Phase II.

Phase C) Partition wall W1:5 reflects an informal construction style in which a single row of rectangular blocks was inserted between walls W1:2 (Phase A) and W1:4 (Phase B).

Square 1 contained an undifferentiated mixed fill (loci W1:1 and W1:1A) that included relatively few artefacts. This fill, extending from topsoil to bedrock, suggests that the north and south alcoves had been cleared at some point after the chamber ceased to be occupied, for the mixture of debris within the chamber was essentially non-occupational in nature.

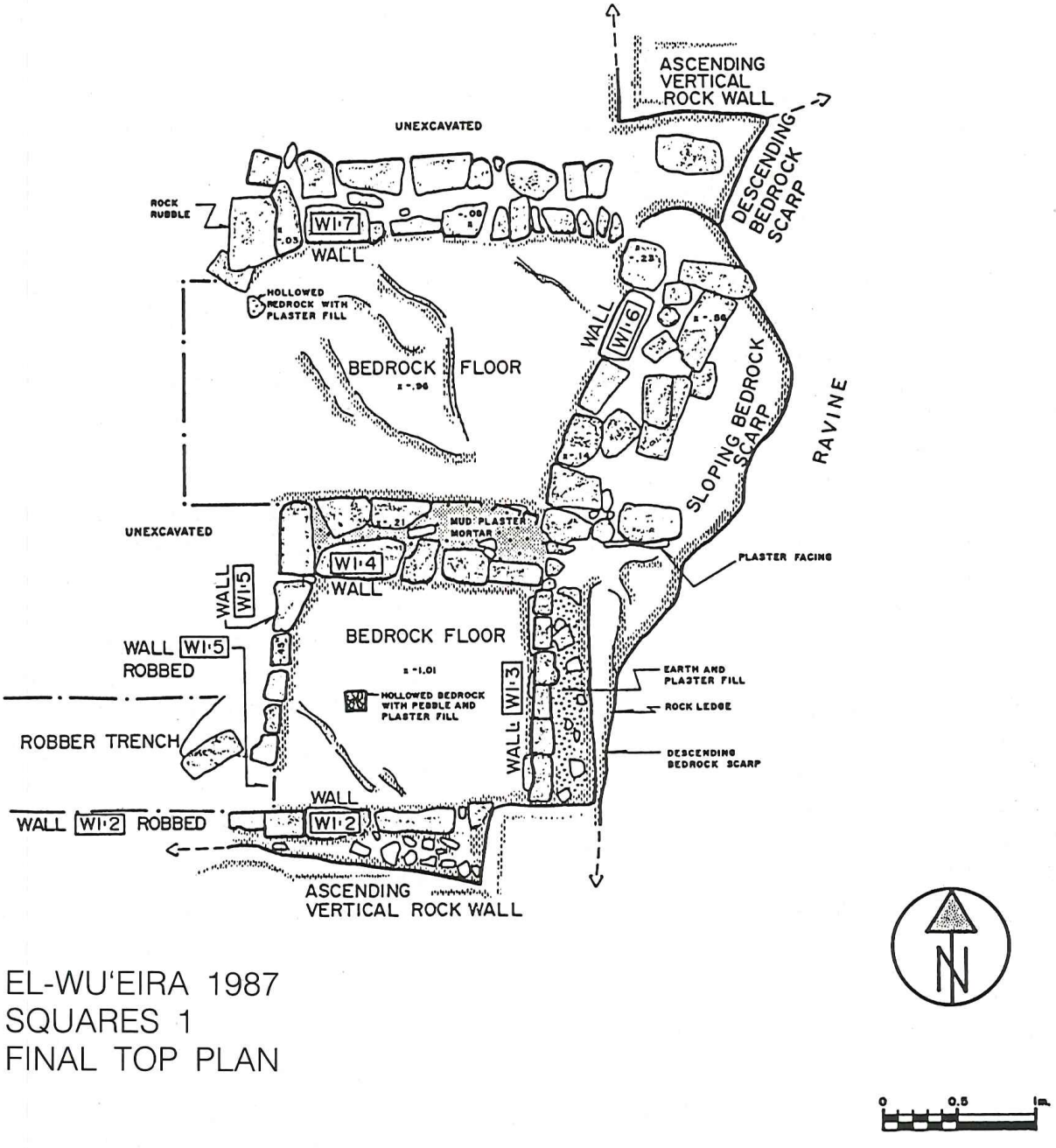
12TH CENTURY CERAMICS FROM EL-WU'EIRA

This discussion focuses upon a selection of stratified 12th century pottery from Square 4, in particular the handmade coarse-ware and glazed sherd categories listed in Table 3. Other ceramics in the assemblage are either pre-12th century residual sherds or represent types that presently remain undefined.

The handmade coarse-wares of Phases IA, IB, and II represent a rudimentary ceramic technology, for these products are characterized by thick black cores, poor levigation, heavy mineral inclusions and chaff-pocked surfaces. Of the applied slips, a thin mottled cream slip is common, while red slip occurs only occasionally. Painted decoration is limited to only a few sherds. Specific parallels for these forms are seldom encountered due to a lack of published 12th century assemblages and therefore citations for comparison are general.

Phase IA

Figs. 8-9 illustrate the handmade coarse-ware vessel group, with the exception of Nos. 13-15. Bowls with simple straight-sided or flared rims, Nos. 1-8, are among the most widely attested forms.



EL-WU'EIRA 1987
SQUARES 1
FINAL TOP PLAN

Fig. 7

Table 3: Distribution of Square 4 Sherd Counts According to Phase

Sherd Categories

Phase	*HMCW*	*Glazed*	*Nabataean*	*Other*	*UD*	*Total*
IA	780	0	108	196	79	1,163
IB	142	5	22	9	14	192
II	35	0	0	1	0	36

Note: HMCW = handmade coarse-ware, other = *zir* ware, a few Byzantine sherds, and *ṭabun* fragments, UD = unidentified.

Cups, Nos. 9-10, are distinguished by the presence of handles. Of the jars, the tall-necked jug/jar rim shown in No. 11 is typical and may be compared with an 11th century jug from Amman Citadel (Northedge 1984: Fig. 75:2). No. 12 shows a squat-necked, profiled jar rim. The hole-mouth jar pictured in No. 16 is one of the most common jar forms in the assemblage. Globular cooking pots with up-turned rims, Nos. 17-18, are also well-represented. Although these vessels are handmade, there is a similarity of form with a widely distributed class of wheel-thrown, often glazed, globular cooking pots; such vessels are known from the 11th-12th centuries at Amman Citadel, Stratum III (Northedge 1984: Figs. 76:2; 77:1); and the late 12th-13th centuries at el-Burj el-Aḥmar, Phase C (Pringle 1986: Fig. 48:36,38), Tell 'Arqa, Cistern (Thalmann 1978: Fig. 32:3); Buṣra, Phase V (Berthier 1985: Pl. 5:55-58). Among numerous other examples are vessels from Tell Qaimun (Ben-Tor *et al.* 1979: Fig. 5:11-2) and Caesarea (Pringle 1985: Fig. 2:7, Brosh 1986: Fig. 4:3). Of these vessels, the examples from el-Burj el-Aḥmar, Tell Qaimun, and Caesarea are attributed to Crusader occupations. A different form of cooking pot, shown in No. 19, displays a short neck and out-turned rim. The painted sherds display three categories of patterns: dots (No. 21); linear motifs (Nos. 8, 20, 22, 24); and geometric designs (No. 25). The paint on sherd No. 23 is unclassified.

Zir fragments are easily differentiated from the coarse-wares by form and fabric; examples are shown in Nos. 13-14. A wheel-thrown hole-mouth jar of possible Fatimid origin is shown in No. 15.

Phase IB

Phase IB handmade coarse wares are illustrated in Fig. 10, Nos. 26-27 and 29-35. Shallow bowl No. 26 has a simple rounded, tapered rim and flat base and can be compared with the larger Phase IA bowl No. 4. Profile No. 29 illustrates a simple rounded-rim bowl. No. 30 is less typical and could belong to either a jug/jar rim with pronounced undulation of the neck or a small bowl. The straight-sided cup, No. 27, has a thick disc base and a broken basket handle. Rim sherd No. 31 represents a straight-necked globular jar or jug. The slightly flaring profile is paralleled by a rim from a 12th-13th century deposit at Buṣra, Phase V (Berthier 1985: Pl. 4:41) and is associated with a well-known genre of Ayyubid and Mamluk geometric-painted jugs and jars. Among the painted wares, two decorative styles occur; linear designs are noted on sherds Nos. 29 and 32, and geometric patterns appear among sherds Nos. 30-31, 33-35. A wheel-thrown yellow glazed slip-ware bowl base is illustrated in No. 28.

Phase II

Handmade coarse wares also characterize the Phase II assemblage. Diagnostic sherds were infrequent, but a few examples are presented in Figure 10, Nos. 36-39. The rim of a hemispherical bowl is shown in No. 39. A wide-mouthed jug or jar with a thickened rim is illustrated in

Fig. 8: Ware Descriptions

Sherd No.	Sq/Loc/PB Reg. No.	Phase	Description: Form/Ware/Surface/Core
1	W4.13.23 14	IA	Bowl; W = 5YR 7/4 Pink; IS = 5YR 5/2 (m) Reddish Gray; ES = 2.5YR 6/6 (m) L. Red; C = 99%; D = 31
2	W4.9.18 18	IA	Bowl; IS = 7.5YR 8/4 Pink; ES = 10YR 8/3 V. Pale Brown; C = 100%; D = 22.5
3	W4.13.30 4	IA	Bowl; W = 2.5YR 6/6 L. Red; IS = 10R 6/6 L. Red; ES = 10YR 8/3 V. Pale Brown; C = 90%; D = 12.5
4	W4.13.23 6	IA	Bowl; W = 2.5YR 6/4 L. Reddish Brown; IS = 5YR 6/6 Reddish Yellow; ES = 10YR 8/2 (m) White; C = 90%; D = 17
5	W4.9.15 1	IA	Bowl; W = 2.5YR 6/6 L. Red; IS = 7.5YR 6/2 Pinkish Gray; ES = 7.5YR 7/4 Pink; C = 75%; D = 19
6	W4.9.16 28	IA	Bowl; W = 10YR 6/6 Red; IS = 2.5YR 6/6 (m) L. Red; ES = 2.5YR 6/4 L. Reddish Brown; C = 70%; D = 11
7	W4.11.24 2	IA	Bowl; W = 5YR 7/4 Pink; IS = 2.5YR 6/6 L. Red; ES = 5YR 7/4 Pink; C = 95%; D = 11
8	W4.13.22 4	IA	Bowl; W = 5YR 7/4 Pink; I&ES = 10YR 5/6 Red; C = none; D = 11
9	W4.9.16 29	IA	Cup; W = 5YR 7/4 Pink; Self Slip (m); C = 99%; D = 10
10	W4.9.19 7	IA	Cup; W = 2.5YR 6/6 L. Red; ES = 5YR 7/4 Pink; C = 70%; D = 9
11	W4.9.18 21	IA	Jug/Jar; W = 5YR 7/4 Pink; Self Slip; C = 80%; D = 11
12	W4.9.16 24	IA	Jar; W = 2.5YR 7/4 L. Reddish Brown; ES = 10YR 8/2(m) White; C = 95%; D = 13.5

Introduction to the ware descriptions: W = ware; S = slip; P = paint; G = glaze; I = interior; E = exterior; C = core; D= diameter; m = mottled. Numerical color values from: Munsell (1975) and Kornerup and Wanscher (1981).

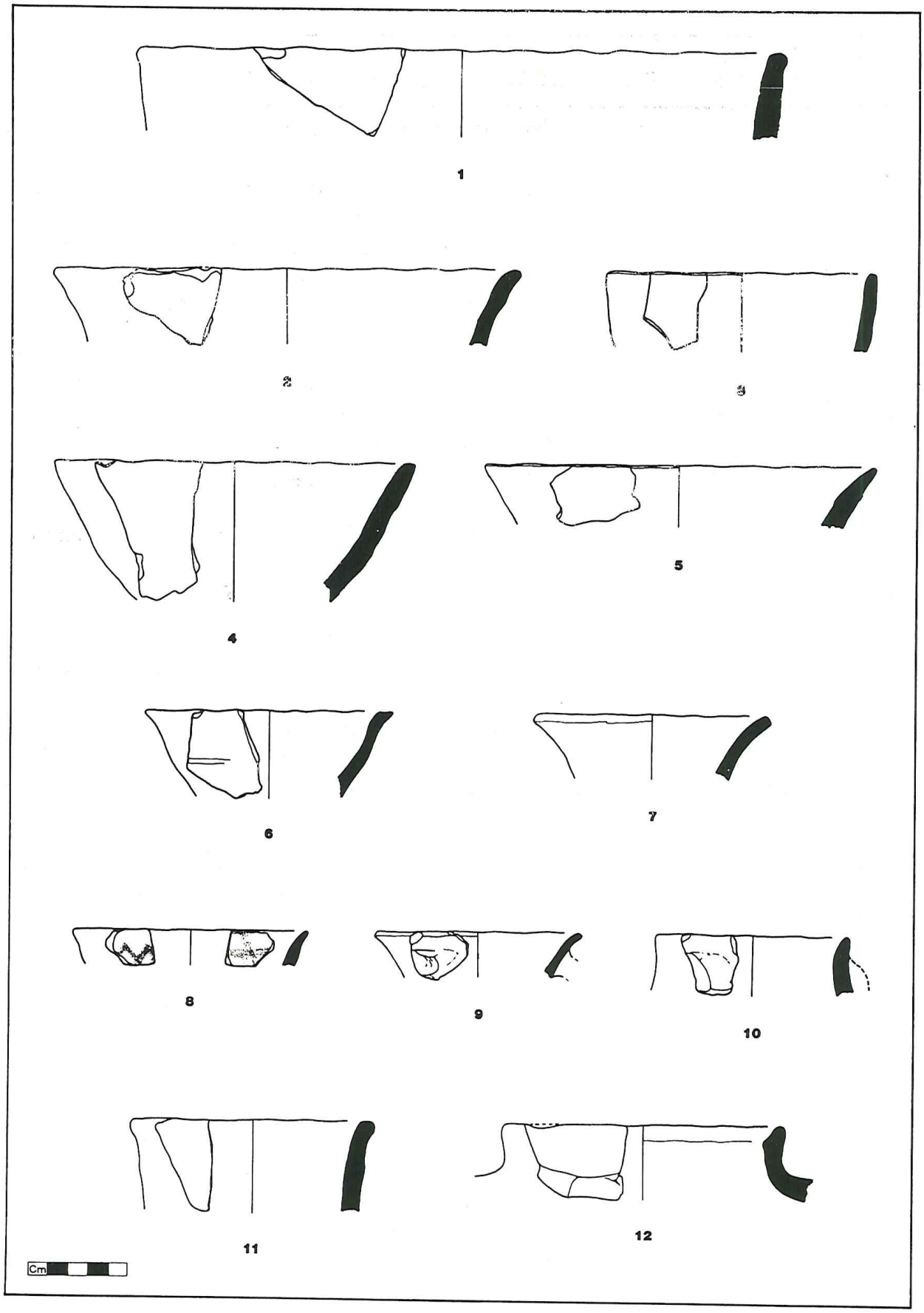


Fig. 8

Fig. 9: Ware Descriptions

Sherd No.	Sq/Loc/PB Reg. No.	Phase	Description: Form/Ware/Surface/Core
13	W4.10.28 4	IA	Zir; W = 5YR 7/4 Pink; ES = 10YR 5/1 Gray; C = 95%; D = 21
14	W4.10.20 1	IA	Zir; W = 5YR 6/3 L. Reddish Brown; ES = 5YR 6/4 L. Reddish Brown; C = 95%
15	W4.13.23 1	IA	Hole-mouth Jar (Wheel-thrown); W = 5YR 6/4 L. Reddish Brown; Self Slip; C = none; D = 20.5
16	W4.9.16 10	IA	Hole-mouth Jar; W = 10R 6/6 Red; IS = 5YR 7/4 Pink; ES = 10YR 8/2 White; C = 95%; D = 14.5
17	W4.9.16 16	IA	Cooking Pot; W = 2.5YR 6/6 L. Red; IS = 5YR 6/4 L. Reddish Brown; ES = 5YR 7/4 Pink; C = 90%; D = 12
18	W4.9.17 16	IA	Cooking Pot; W = 5YR 7/4 Pink; IS = 5YR 5/1 (m) Gray; ES = 5YR 4/1 (m) D. Gray; C = 95%; D = 12
19	W4.13.22 9	IA	Cooking Pot; S = ? — burned; C = 100%; D = 9.5
20	W4.9.16 22	IA	Body Sherd; W = 5YR 7/4 Pink; ES = 7.5YR 8/4 Pink; EP = 2.5YR 5/6 Red; C = 90%
21	W4.12.29 2	IA	Body Sherd; IS = 7.5YR 7/4 Pink; ES = 7.5YR 7/4 Pink; IP = 2.5YR 6/6 L. Red; C = 100%
22	W4.9.15 27	IA	Body Sherd; W = 5YR 7/3 Pink; IS = 7.5YR 7/4 Pink; ES = 7.5YR 7/4 Pink; IP = 2.5YR 6/4 L. Reddish Brown; C = 30%; Burnished
23	W4.9.15 4	IA	Body Sherd; W = 5YR 7/4 Pink; ES = 5YR 6/4 (m) L. Reddish Brown; EP = 2.5YR 4/4 Reddish Brown; C = 80%
24	W4.13.30 7	IA	Body Sherd; IS = 10YR 8/2 White; ES = 10YR 7/4 V. Pale Brown; IP = 2.5YR 5/4 Reddish Brown; C = 100%
25	W4.7.13 4	IA	Body Sherd; W = 5YR 7/4 Pink; IS = 2.5YR 6/6 L. Red; ES = 5YR 6/2 (m) Pinkish Gray; EP = 2.5YR 4/2 Weak Red (m) and 2.5YR 4/4 Reddish Brown; C = 99%

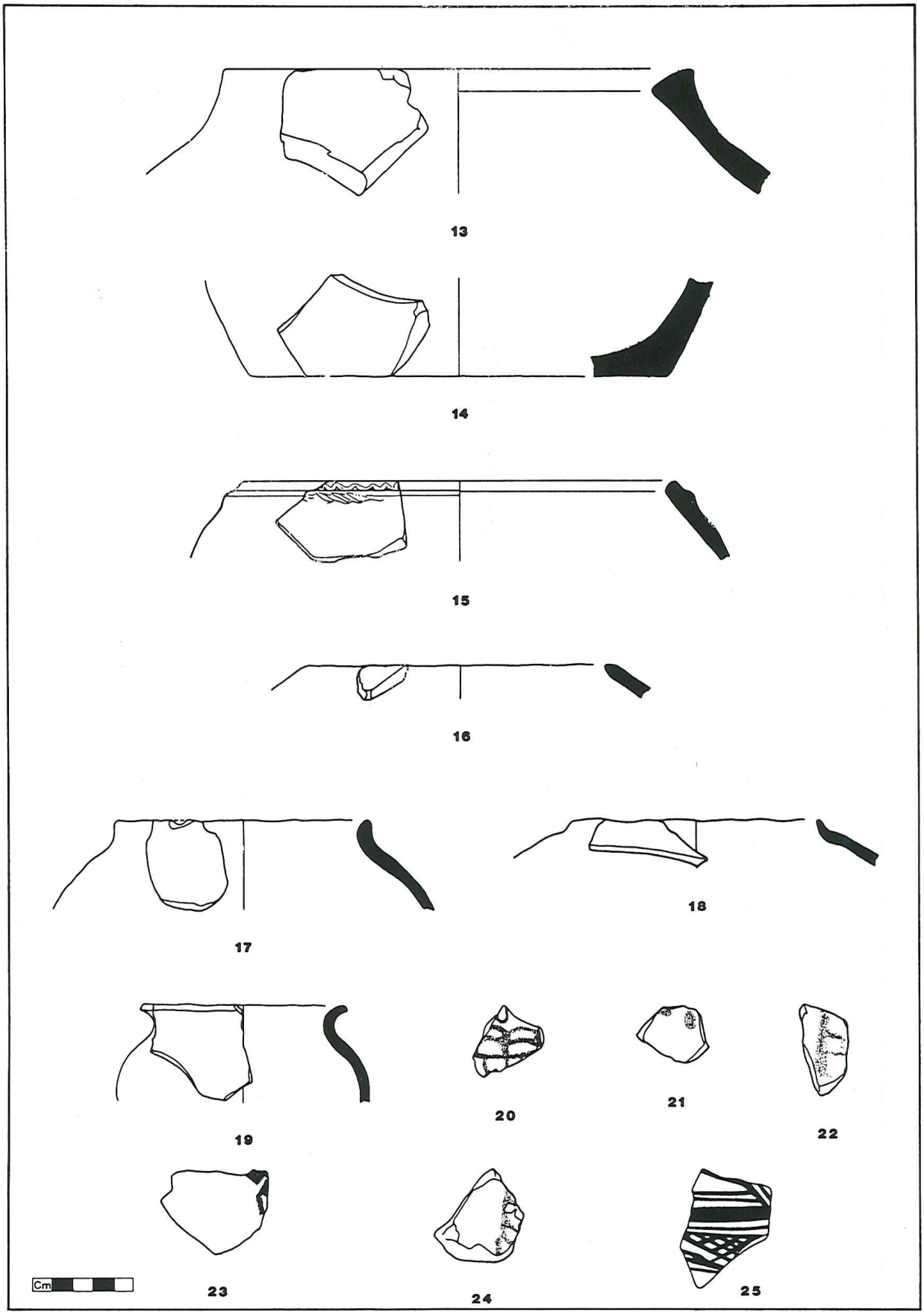


Fig. 9

No. 37. Body sherds Nos. 38 and 39 are the only Phase II painted fragments. No. 38 may be from a geometric-painted vessel, but this is not certain. However, the design represented in No. 39 clearly belongs to the geometric style.

Discussion

While clear continuity is reflected throughout the Crusader (Phase I) and Early Ayyubid (Phase II) occupations in the prevalence of the handmade coarse-wares, there are two trends that occur within the 12th century corpus; first, the development of painted decoration within the coarse-ware assemblage and second, the emergence of glazed wheel-thrown ceramics.

With respect to the stylistic development among the painted wares, most of the Phase IA painted sherds exhibit linear designs (Nos. 8, 20, 22, and 24) and in one instance dots appear (No. 21). There is only one example of geometric painting (No. 25) and this occurred in the uppermost Phase IA locus. In contrast, the seven painted sherds of the Phase IB corpus include two linear-painted sherds (Nos. 29 and 32) and five fragments with geometric painting (Nos. 30-31, 33-35). Although these samples are small, this distribution suggests that the geometric style, well-known from the handmade wares of the 13th and 14th centuries, was preceded by an earlier linear red-painted decorative repertoire. A similar sequence is noted at Shobak Castle (Brown, forthcoming) where pottery attributed to 12th century occupation includes red-painted linear designs and dots. Although lacking stratigraphic clarity, the medieval levels at Dhiban also contained examples of handmade red-painted ceramics, which were mixed with the geometric painted wares from the Ayyubid debris (Tushingham 1972: Fig. 7:30, Fig. 8:23, 26, 29, 32). Recent data from Syria indicates that this sequence is not simply a phenomenon of southern Transjordan, for at Buṣra linear red painting also appears as an antecedent to the geometric-painted style (Berthier 1985: 28-9, 36-7). While the absolute dates proposed for the Buṣra sequence are later than those suggested for the el-Wu'eira sequence, the transition in painting style is clearly similar.

The second trend is the appearance of wheel-thrown yellow and green glazed wares in Phase IB. Although these glazes are better known from later centuries there are a few contemporary occurrences. At the Crusader site of el-Burj el-Aḥmar monochrome glazed slip ware appears in the 12th century Phase B and the succeeding late 12th century-early 13th century Phase C (Pringle 1986: 147) and an even earlier piece is noted at the Amman Citadel in an 11th-12th century context (Northedge 1984: 277, Fig. 76:6). Thus there is precedence for the appearance of glazed wares in the 12th century. However, such products were not readily available at el-Wu'eira, for the 4 monochrome-glazed sherds from Phase IB represent only 2 different vessels. The presence of monochrome glazed ware in Phase IB at el-Wu'eira should not necessarily be interpreted as a chronological framework for determining a *terminus a quo* for this industry. However, when reviewed in relationship to the virtually exclusive handmade coarse-ware assemblage of Phase IA, the appearance of these glazed wares does suggest an increased availability of ceramic vessel types at el-Wu'eira during Phase IB.

In summarizing the 12th century pottery from el-Wu'eira, it appears that there is absolutely nothing specifically "Crusader" about it. The common cooking pot form can be traced to a Fatimid prototype. Sherds from handmade linear-style red-painted vessels have been noted at Dhiban and Buṣra, as well as Crusader-occupied Shobak. The handmade geometric-painted ware is clearly indigenous and has been closely identified with Arab occupations, e.g., at 'Atlit geometric-painted handmade wares appear only after the Mamluk destruction of the Crusader stables in the second half of the 13th century (Johns 1935: 56). Similarly, the common monochrome-glazed wares can be interpreted as local products (Pringle 1986: 76) and attributed to southern Levantine Arab industries.

Fig. 10: Ware Descriptions

Sherd No.	Sq/Loc/PB Reg. No.	Phase	Description: Form/Ware/Surface/Core
26	W4.6.8 4	IB	Bowl; W = 5YR 7/6 Reddish Yellow; I&ES = 7.5YR 8/2 Pinkish White; C = 40%; D = 12.5
27	W4.6.8 23	IB	Cup; 7.5YR 7/4 Pink; ES = 10YR 8/2 White; C = none; D = 7.5
28	W4.6.8 13	IB	Bowl; W = 5YR 7/4 Pink; IG = 4/7B Yellow; C = none
29	W4.6A.9 3	IB	Bowl; W = 7.5YR 7/4 Pink; IS = 2.5YR 6/6 (m) L. Red; ES = 7.5YR 6/4 L. Brown (m); IP = 2.5YR 4/2 Weak Red; C = 35%; D = 14
30	W4.6.8 1	IB	Bowl; W = 2.5YR 6/6 L. Red; IS = 5YR 6/4 L. Reddish Brown; ES = 5YR 7/4 Pink; EP = 2.5YR 6/4 Weak Red; C = 70%; D = 9.5
31	W4.6.11 8	IB	Jug/Jar (?); W = 2.5YR 6/4 L. Reddish Brown; ES = 7.5YR 8/4 Pink; EP = 5YR 3/1 V. Dark Gray; C = 90%; D = 11
32	W4.8.14 2	IB	Body Sherd; W = 5YR 6/2 Pinkish Gray; ES = 7.5YR 8/2 Pinkish White; EP = 10YR 6/1 Gray; C = 99%
33	W4.6.8 22	IB	Body Sherd; W = 10YR 6/4 Pale Red; ES = 5YR 7/4 Pink; EP = 5YR 4/1 D. Gray; C = 40%
34	W4.6.8 21	IB	Body Sherd; W = 2.5YR 6/6 L. Red; ES = 5YR 6/3 L. Reddish Brown; EP = 5YR 3/1 V. Dark Gray; C = 90%
35	W4.6.11 9	IB	Body Sherd; W = 2.5YR 5/2 Weak Red; ES = 5YR 7/4 Pink; EP = 2.5YR 5/4 Reddish Brown; C = 95%
36	W4.5.7 3	II	Bowl; W = 2.5YR 6/6 L. Red; IS = 5YR 6/4 L. Reddish Brown (m); ES = 5YR 7/4 Pink (m); C = 95%; D = 13
37	W4.5.10 2	II	Jug/Jar; W = 2.5YR 6/6 L. Red; I&ES = 10YR 7/3 V. Pale Brown (m); C = 90%; D = 9.5
38	W4.5.7 1	II	Body Sherd; W = 2.5YR 6/4 L. Reddish Brown; IS = 5YR 6/3 L. Reddish Brown; ES = 10YR 8/2 White; IP = 2.5YR 4/2 Weak Red; C = none
39	W4.5.7 2	II	Body Sherd; W = 5YR 7/4 Pink; ES = 7.5YR 8/4 Pink; EP = 10R 5/4 Weak Red; C = 90%

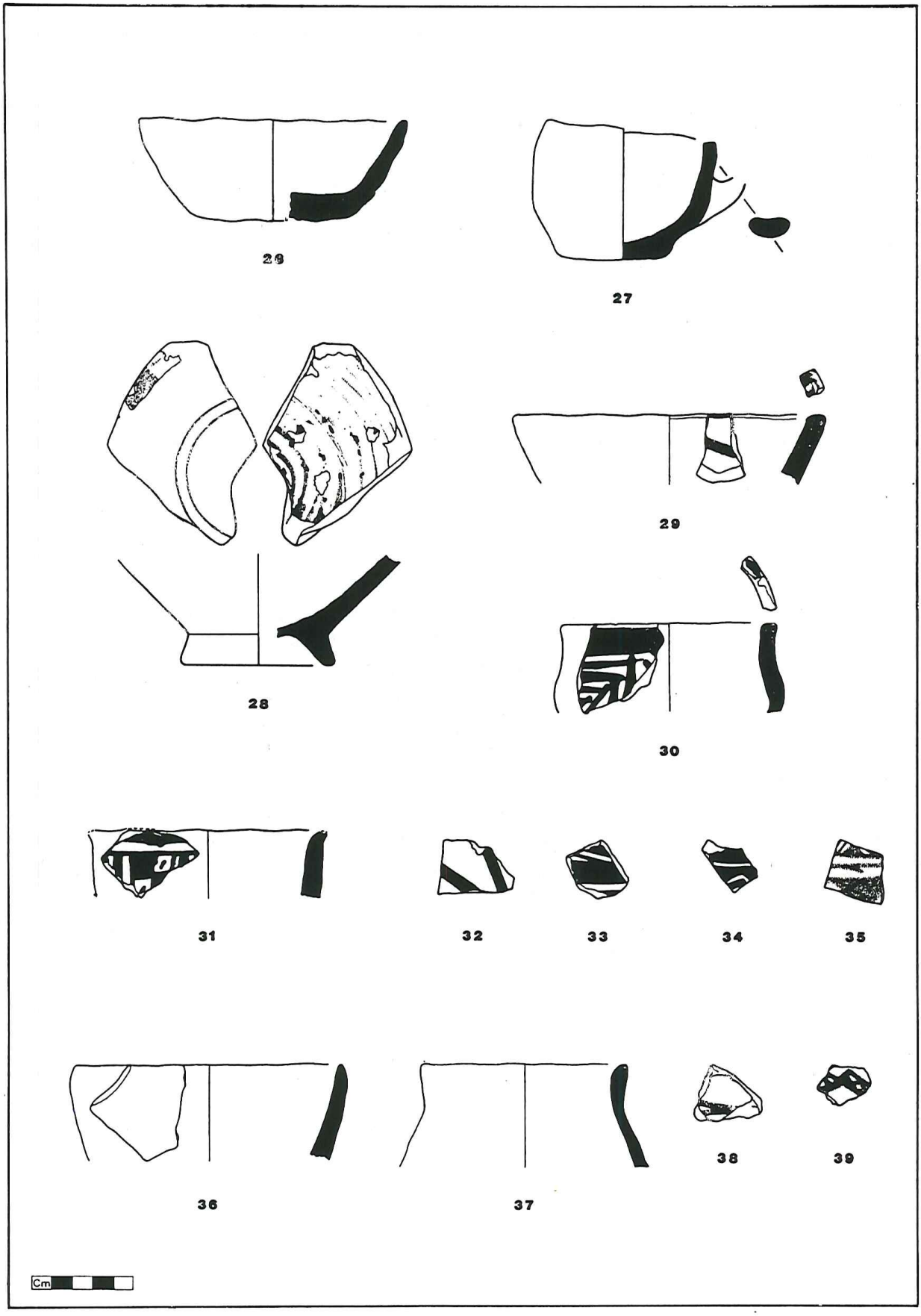


Fig. 10

The dominance of poor-quality handmade coarse-wares throughout Phases IA and IB, the presence of less than a half dozen wheel-thrown glazed wares, and the virtual absence of luxury wares suggest that the Crusader garrison at el-Wu'eira was isolated from the circulation of technologically specialized products and wholly dependent upon locally produced ceramics. Indeed it is probable that the coarseware vessels were manufactured by the Arab population of Wadi Musa and thus represent a 12th century industry that is native to the region. Therefore, while the cultural and political divisions between the Crusader garrison and local Arab population may be archaeologically documented in the military and religious architecture of the el-Wu'eira fortress, this ethnic distinction is not evident in the consumption of ceramic vessels.

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