

**DEEP SOUNDING ON THE LOWER TERRACE
OF THE AMMAN CITADEL:
FINAL REPORT**

by

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with contributions by

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Introduction

The Deep Sounding on the Lower Terrace of the Amman Citadel was part of the Amman Citadel Salvage Excavations, carried out from 8 November 1987 to 17 January 1988.¹ A preliminary account of those excavations has appeared previously (Zayadine, Najjar and Greene 1987). This report focuses specifically on the Deep Sounding, presenting a final analysis of the ceramics along with specialist studies of bone, seeds, flint, stone and shell, and an integrated interpretation of the data in the light of evidence from elsewhere on the Citadel. In some respects this fuller analysis has altered and improved earlier interpretations; in others, it has confirmed them.

The Amman Citadel Salvage Excavations were begun in response to the proposed construction of a new school on the Lower Terrace of the Citadel. In addition to a large foundation trench for the school structure itself, the building contractor had dug a small, shallow pit, approximately 1.30×1.30×2.0m deep, as a waste water sump for a nearby portable construction office. Archaeological stratification visible in the sides of this pit as well as sherds and bone in the spoil at the surface invited further investigation. There-

fore the sides and bottom of the pit were cleaned and stratigraphic excavation begun in the undisturbed layers of the pit, while maintaining its original dimensions. Since the location of the Deep Sounding did not conform to the regular site grid on the Lower Terrace, this accounts for its somewhat anomalous designation, M26-27.

The wholly accidental placement of the original pit permitted the probing of stratification in the hitherto unexplored western end of the Lower Terrace. Earlier work had been confined to the southeastern edge of the Lower Terrace (Zayadine 1973, "Areas A, B, C"; see now Zayadine, Humbert and Najjar 1989) and to the depression at its southwestern corner (Dornemann 1983: 105, "Area VII") (Fig. 1). The completed Deep Sounding revealed a depositional sequence at the ranging, with interruptions, from the Early Bronze Age to the Umayyad period.

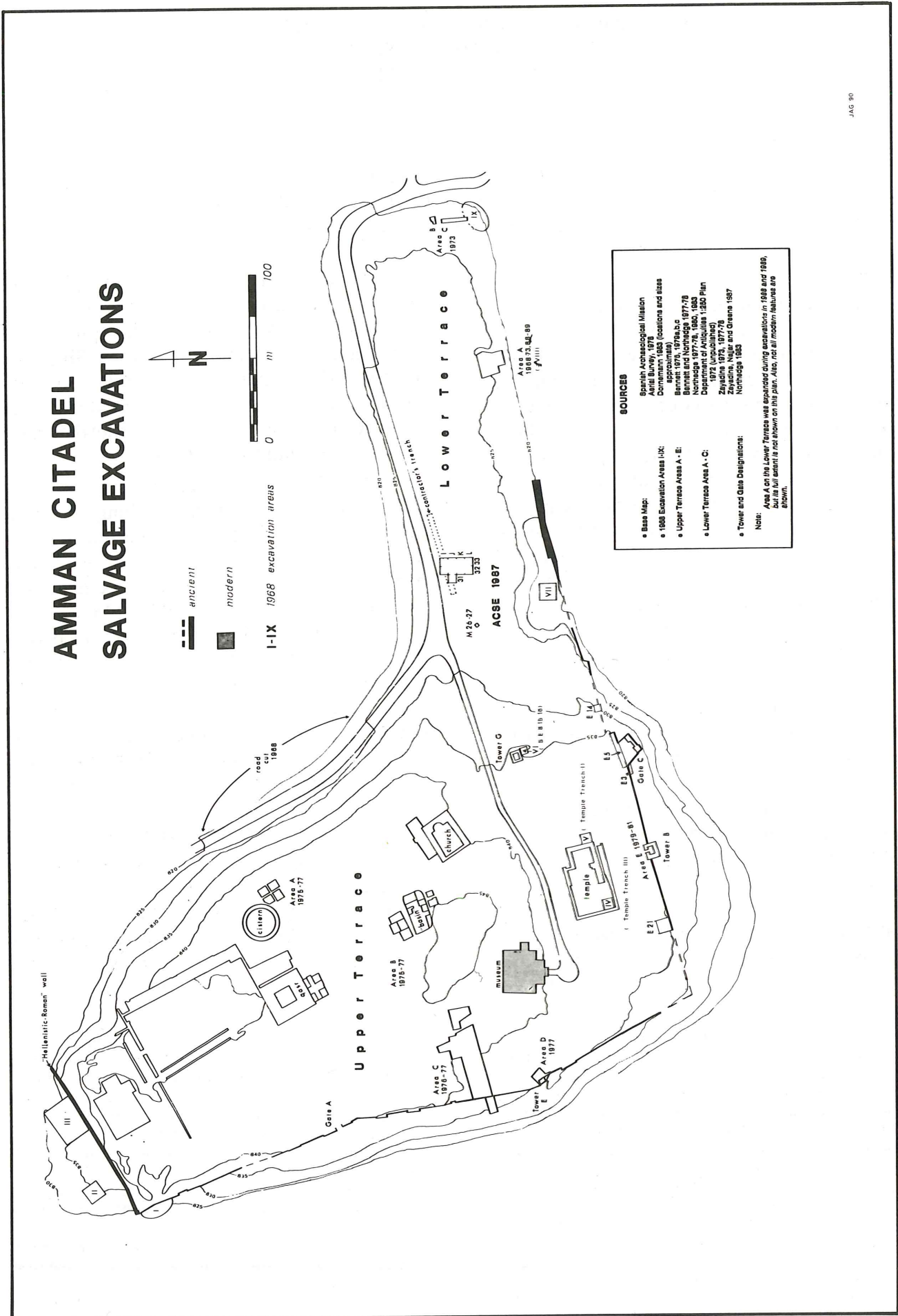
Stratigraphic Summary and Chronology

Twenty-three separate layers or features — including bedrock — were identified in the Deep Sounding (Fig. 2). Several of the uppermost layers (Loci 1 to 7 and 23) were observed but not excavated stratigraphically, as they had already been removed wholly or

1. The Department of Antiquities, then (1987/88) under its past Director-General Dr. Adnan Hadidi, supported the Amman Citadel Salvage Excavations (ACSE) by providing excavation equipment and the professional personnel who formed part of the excavation team. These were: Dr. Fawzi Zayadine (Deputy Director of Antiquities) and Dr. Mohammad Najjar (now head of the Excavation Section) who served as project co-directors, assisted by Dr. Khairieh 'Amr. From the Registration Centre Ms Hanan Kurdi, as Registrar assisted by Mss Hanan Azar and Rula Quossous, oversaw the processing of the finds. Under the direction of Dr. Khairieh 'Amr, these same three helped the authors analyze and draw for publication all of the Deep Sounding pottery. Drs. Fawzi Zayadine, Asem Barghouti, James Sauer, Chérie Lenzen, Carol Redmount and Mr. Jonathan Mabry offered advice on the ceramics, but the authors

alone are responsible for the final conclusions.

ACSE was part of the Cultural Resource Management (CRM) Project which was funded jointly by the Department of Antiquities, the American Center of Oriental Research (ACOR) and the United States Agency for International Development (USAID). In addition to support from the Department of Antiquities and from ACOR (then directed by Dr. David McCreery), ACSE also had invaluable assistance from Mr. Lou Reed, then director of the AID Mission-Jordan, and from the Mission Environmental Officer, Eng. Abdullah Ahmed. In the field Dr. Joseph Greene, USAID CRM Consultant to the Department of Antiquities, had specific responsibility for the Deep Sounding. Excavation of the Deep Sounding was started by Dr. Robert Schick and continued by Marcus A. Woodburn and Michael Rowlings.



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Fig. 1. Amman Citadel. Excavation areas, 1960's-1988.

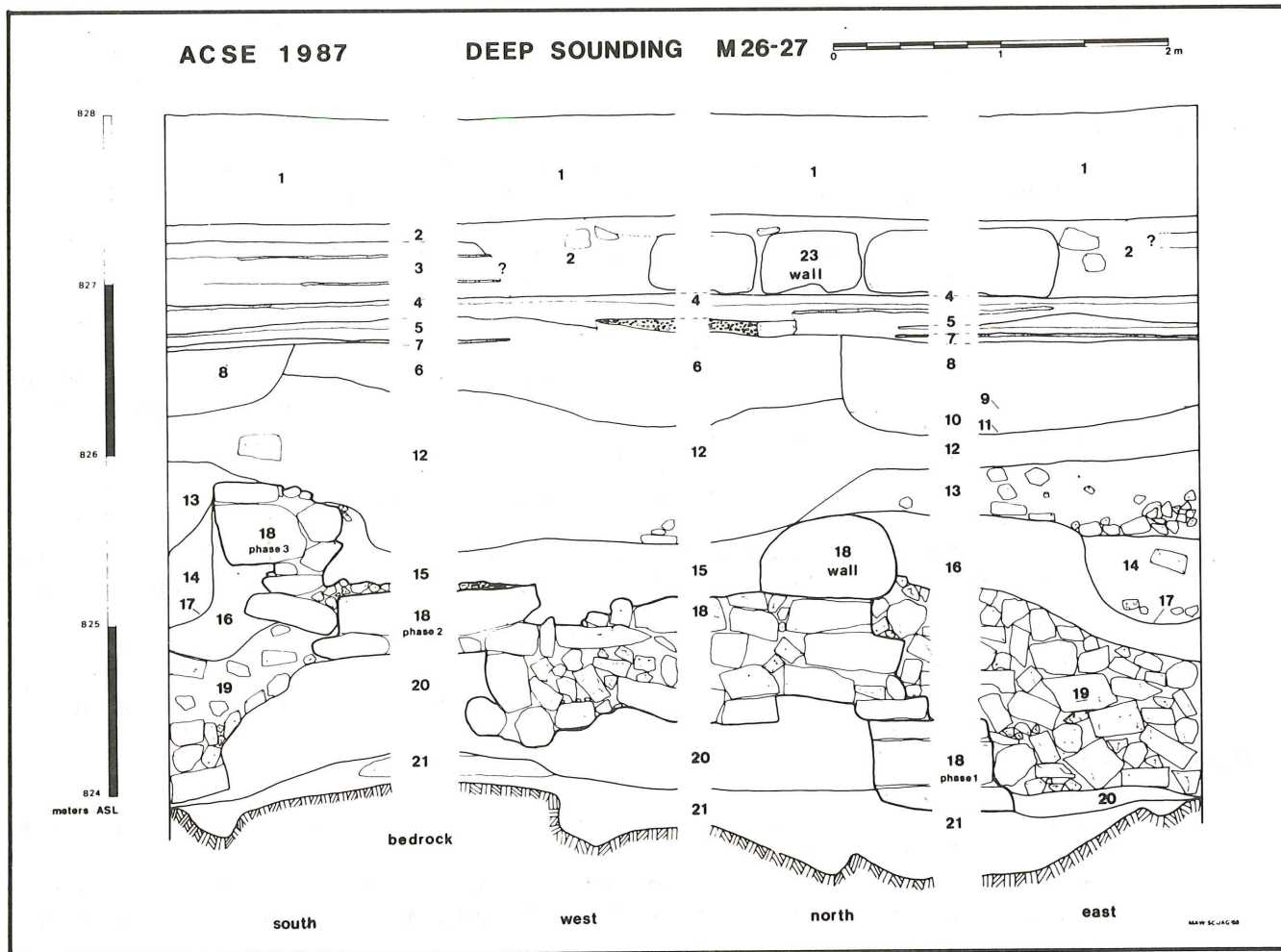


Fig. 2. Sections of the Deep Sounding.

Fig. 2. Deep Sounding Section Key: Locus Descriptions and Datings

Modern (AD 1968)

Loc. 1 Dumped fill: compacted clay, flint pebbles and cobbles, very little cultural debris (red 5YR 4/6).

Byzantine/Umayyad

Loc. 2 Fill: compacted silt, few limestone and flint cobbles and pebbles, some ceramic (pale brown 10YR 6/3).

Loc. 23 Wall: single course of unsmoothed, roughly squared local limestone blocks, oriented approximately east-west.

Loc. 3 Plaster floor: two poorly preserved layers of plaster (pink 7.5YR 8/4); subfloor fill: compacted silty soil, ceramics, mortar fragments, and pebbles (pale brown to light yellowish brown, 10YR 6/3 to 10YR 6/4).

Loc. 4 Plaster floor: thick layer preserved in all baulks (pink 7.5YR 8/4); subfloor fill: loosely compacted soil, much charcoal, many pebbles (yellowish brown 10YR 5/4).

Loc. 5 Plaster floor: uneven and broken plaster (pink 7.5YR 8/4); subfloor fill: loose, silty soil, few small limestone cobbles (light gray 10YR 7/2).

Loc. 7 Plaster floor: moderately thick, broken in places (pink 7.5YR 8/4); immediately above Loc. 6, no subfloor fill.

Roman

Loc. 8/10 Pit fill: very loose silty soil with ceramics, bone, charcoal, and some small flint cobbles; Loc. 10, otherwise identical to Loc. 8, is more compacted and contains much less ceramic (both: brown 10YR 5/3).

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- Loc. 9/11 Pit cut into which Loc. 8/10, pit fill, was dumped.
Loc. 6 Dumped debris: loose to moderately compacted ashy silt, cobbles and pebbles of flint and limestone, some ceramic and bone fragments (dark brown 10YR 3/3).

Hellenistic

- Loc. 12 Dumped debris: successive layers of uncompacted ashy silt with intervening layers of clay, large granules and chunks of charcoal, much bone, some ceramics, few small-to-medium sized limestone and flint cobbles (grayish brown 10YR 5/2).
Loc. 13 Fill: compact, clayey soil with medium-to-large sized cobbles of flint (yellowish brown 10YR 5/4).
Loc. 14 Pit fill: very loose silt with ceramics, flint and limestone cobbles grading into moderately compacted silty loam with inclusions of ceramics, bone, charcoal, flint pebbles and small cobbles (brown 10YR 4/3).
Loc. 17 Pit cut into which Loc. 13, 14, pit fills, were dumped.
Loc. 15 Fill: moderately compacted, silty loam with ceramics and some cobbles of flint and limestone (brown 10YR 4/3).
Loc. 16 Dumped debris: compact silty loam with lumps of clay, very few small cobbles of flint and local limestone, bone fragments, some ceramic (yellowish brown 10YR 5/4).
Loc. 18 Wall: uncut and roughly cut limestone and flint blocks in three phases. -Phase 3: smaller, roughly coursed boulders and cobbles, above Loc. 19 and tumbled debris from Phase 2 and partially above Loc. 16.

Middle Bronze II

- Loc. 18 -Phase 2: massive flint boulders partly atop Phase 1 and to the west, cut deeply into Loc. 20 on the west, above it in the north and south sections
-Phase 1: three aligned blocks visible in the north and east sections, cut slightly into Loc. 21 and abutted east and west by Loc. 20.
Loc. 19 Stony debris: thick layer of roughly cut flint and limestone boulders mixed with sandy soil (dark yellowish brown 10YR 4/4).
Loc. 20 Dumped debris: moderately compacted dark brown silty deposit with pebbles and cobbles of limestone and flint, ceramics, bone, charcoal, plaster and mudbrick fragments (dark yellowish brown 10YR 3/4).

Early Bronze IB

- Loc. 21 Dumped debris: fine brown silt with gravel, small cobbles of limestone and flint, ceramics, bone and chipped stone (dark brown 10YR 3/3).
Loc. 22 Bedrock

partially in the digging of the original pit. Controlled excavation began with Locus 8 and continued to bedrock. The descriptions and dating of the loci are summarized in the section key (Fig. 2) and in the sequence diagram (Fig. 3).

The principal (indeed, almost the only) architectural feature in the Deep Sounding was the large wall, Locus 18, consisting of three phases. Phase 1, visible in the north and east sections, was formed of three squared, well coursed blocks. This earliest phase cuts into the EB IB basal cultural layer, Locus 21,

and is associated stratigraphically east and north with a layer of MB II debris, Locus 20. This indicates a Middle Bronze date for the founding of the wall. An extensive rebuilding of the wall on its original foundation (Phase 2) is associated with Locus 19, consisting largely of stony debris, and is also of MB II date. This fact and the lack of any clear evidence for the continuation of Phases 1 or 2 of the wall in the south section of the Sounding, suggests that the wall turned a corner from north to east at some point within the limits of the Sounding, perhaps forming

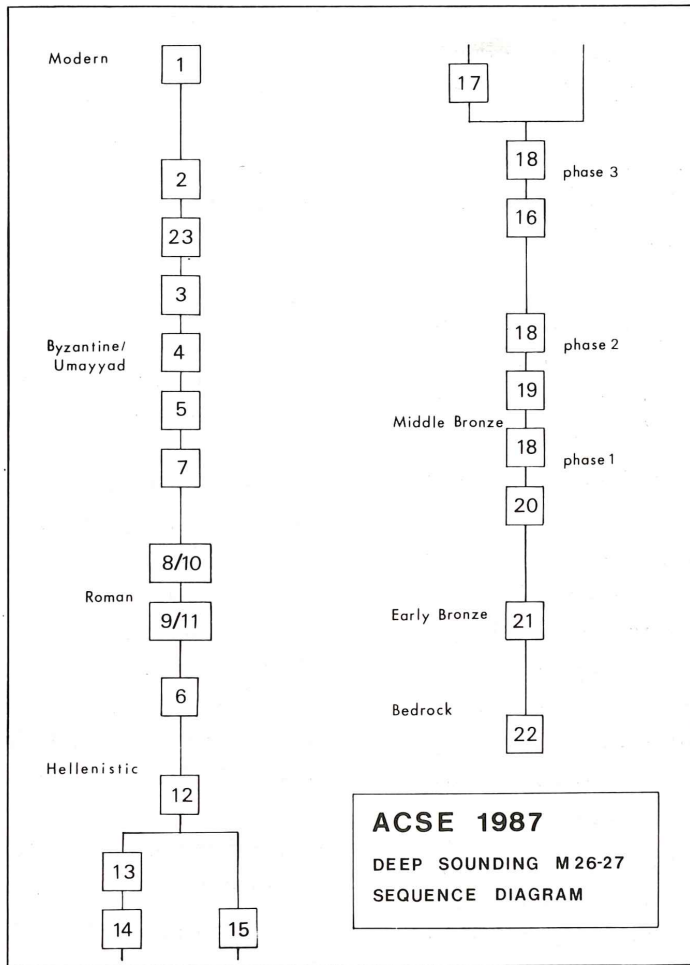


Fig. 3. Deep Sounding sequence diagram.

part of a tower or gate. The massive rock tumble comprising Locus 19 in the east section may then be collapse debris from such a tower or gate. In its final, late Hellenistic phase (Phase 3) the wall, Locus 18, does seem to continue southward into the south section, resting partly atop Locus 19 and partly atop Locus 16, another layer of late Hellenistic (second-first centuries BC) debris.

The wall then went out of use and was covered by deliberately dumped or casually accumulated Hellenistic debris, represented on the east and south by Locus 13 (which seals a Hellenistic pit, Locus 14/17 in the southeast corner) and on the north and west by Locus 15. These were succeeded by fills Locus 12 (Hellenistic) and Locus 6 (Roman) which were later pitted and backfilled (Loci 8/10, 9/11, all of Roman date). Finally, the area around the Sounding was leveled for the laying of a series of thick plaster floors and subfloor fills (Loci 7, 5, 4 and 3). The last of this series of floors was cut by a construction

trench (Locus 2) for the wall (Locus 23) which rests immediately atop the uppermost floor (Locus 4). Whatever superstructure existed above this wall is now missing and, since all of these levels were disturbed before excavation, the proposed “Byzantine/Umayyad” dating for the entire sequence of floors is conjectural. Finally the top level of the Deep Sounding was composed of a 20th century AD layer of imported red clayey fill, Locus 1.

The Pottery

The Deep Sounding produced 288 sherds in total. All excavated soil was screened through 0.5cm wire mesh, ensuring almost total retrieval of cultural material.

Most of the excavated layers had residual material from earlier periods. Selected sherds are illustrated in Figs. 4-10 (Catalogue of illustrated pottery). The ceramics descriptions for the pottery figures are for the most part self explanatory, but a few require further elaboration. Omission of a feature

(slip, core, etc.) from a ware description indicates its absence. Dating is by cultural horizon, consistent with normal usage for Jordan.

Core: core dimensions: very thin (v. thin: less than 15% of sherd thickness), thin (15-30%), medium (md: 30-60%), thick (60-90%), very thick (more than 90%).

Inclusions (incls): typically minerals, occasionally grog (ground ceramic), shell or organic (remaining only as casts or voids). Colour of inclusions: light (lt) or dark (dk).

Voids (vds): all holes in fabric or on the surfaces of the sherd.

Frequency (voids and inclusions): rare (less than 5% of section surface area), few (5-10%), some (10-50%), many (over 50%).

Size (voids and inclusions): very small (v. sm: barely visible to the naked eye), small (sm: less than 0.2mm dia), medium (md: 0.2-0.5mm dia), large (lg: 0.5-1.0mm dia), very large (v. lg: greater than 1.0mm dia).

Shape (voids and inclusions): angular (anglr: flat planes, angular edges), subangular (subanglr: flat planes, rounded edges), rounded (rd: completely curvilinear).

Hardness: hardness of fabric: soft (sf), medium (md), hard (hd), very hard (v. hd: metallic).

Chipped Stone (contribution by Alison G. V. Betts)

Description

A total of 87 pieces of chipped stone was recovered from the Deep Sounding in M26-27. Of these, most were roughly struck flakes and fragments of flint with edge damage. Differential patination on the flake removals suggests that the pieces may have suffered damage on more than one occasion. Some chipping could be the result of use of unretouched flakes shortly after manufacture. Other damage clearly postdates initial blank production.

Most pieces are of poor quality light grey chert, but a small number are made from a finer dark brown or pinkish flint. Striking platforms are generally broad and irregular, although two blades with preserved proximal ends have punctiform platforms. Evidence

from pieces with cortex preserved suggests that the grey chert occurred in nodular form. Tabular flint appears not to have been exploited. A brief description of the pieces is given in Table 1. None of the pieces is illustrated.

Summary

The total collection contains no diagnostic pieces and very few retouched tools. It is likely that some mixing has occurred and that pieces from the upper levels may have come originally from earlier deposits. However, the overall trend seems to have been one in which some deliberate though very unsophisticated knapping was taking place, aimed perhaps at the production of roughly retouched flake tools or of blanks for use without further modification. Blades are not numerous and the examples noted may have been derivatively or accidentally produced.

Animal Bone (contribution by Kevin Rielly) *Introduction and Chronology*

A total of 1706 bones and bone fragments were recovered from the Deep Sounding. These are divided in Table 2 into four major chronological groups, from EB IB through Late Roman/ Byzantine, corresponding to the major phases of occupation distinguished in the Sounding. All measurements taken are listed in Table 5.

Evaluation of the Assemblage

A majority of the bone was in good condition and exhibited only a moderate degree of fragmentation. This latter observation is based on a comparison of the numbers of loose sheep/goat teeth and the numbers of unidentifiable bones (Table 3). There is a direct proportional relationship between these two categories and the degree of fragmentation. Since the degree of fragmentation of bone directly affects the number of pieces counted in any given sample, which in turn affects the validity of any attempt at intra- or inter-site comparison, it is important to evaluate possible causes of fragmentation relevant to this assemblage. There are three broad categories.

1. *Recovery*: It is inevitable that excava-

Table 1: Chipped stone from the Deep Sounding.

Locus 16 (Hellenistic)

1 used blade segment, snapped at both ends (S-53)

Locus 19 (MB II)

1 retouched blade, broken (S-54) 2 chips
1 splintered piece

Locus 20 (MB II)

2 blades, broken (S-56, S-57) 14 flakes
1 retouched flake (S-96) 17 chips
1 burin spall 18 chunks

Locus 21 (EB IB)

2 blades (S-58, S-59) 3 retouched blades 3 chunks 8 flakes
1 flake scraper (S-55) 1 retouched flake 7 chips

tion techniques will affect degree of fragmentation. The Deep Sounding was dug with small tools only (hand picks and trowels), yet there are still a large number of bone fragments with fresh breaks. Wherever possible, bones with such breaks were reunited. It is assumed that excavation techniques were uniform for each locus, meaning that similar recovery pressures were exerted on the entire assemblage. All soil excavated in the Deep Sounding was screened through 0.5mm wire mesh, therefore the rate of recovery of small fragments was probably quite high.

2. *Post-depositional*: The main factors in post-depositional breakage is the method of dumping, either deliberate or casual, the nature of the deposit and later redeposition. Few bones were recovered from loci determined to be waste dumps on the basis of independent artifactual and stratigraphic evidence, the exception being Locus 8/10, a Roman pit. The horizontal spreading of these materials does not, however, necessarily suggest a casual accumulation of domestic refuse. Indeed, the high density of bones in the Hellenistic loci (especially 12, 13 and 15; 43% of the entire assemblage was recovered from Locus 12 alone), rather suggests a process of deliberate dumping. Bones dumped as refuse in such a way should survive in larger fragments than those disposed of casually, especially if those bones were poorly buried and exposed to scavengers such as dogs. It was found that only a very small proportion of the bones in the assemblage showed signs of gnawing by scavengers: MB II - 1.2%, Helle-

nistic - 0.1%, Late Roman/Byzantine - 1.4%. This may suggest deliberate rather than casual dumping on this part of the site in each period. While some loci were found to contain a certain amount of residual pottery, the general picture is one of deposits either *in situ* or else exhibiting only a small degree of redeposition. It is clear that the greater the movement and mixing of bone-bearing deposits, the greater degree of fragmentation. As the Deep Sounding deposits show little or no sign of movement, this factor can be discounted as a possible cause of fragmentation in the assemblage.

3. *Butchery*: Bones fragmented by butchery can be assessed by noting certain consistent fragmentation patterns, particularly if they coincide with observable butchery marks.

Owing to the small size of the assemblage, however, a detailed analysis of these three factors is little relevant to the present study. They are mentioned here to emphasize the diversity of factors affecting the formation of the archaeological record. The details noted above are intended to show the context of the site assemblage by which the integrity of the data and the conclusions drawn from them should be judged.

Species Representation

Table 2 clearly shows that sheep/goat predominate each of the four major chronological assemblages. The quantitative method used in the table — the total fragment count

Table 2: Species representation by total bone fragment count.

Period	EB	IB	MB	IIB/C	Hellenistic	LR/Byzantine
<i>Identified Species</i>						
Sheep/Goat		3		109	290	24
Sheep				6	22	4
Goat		1		8	32	1
Cattle				8	16	4
Horse		1			3	
Pig				4	9	2
Gazelle				1	2	
Small Rodent				2		
Tortoise				1	2	
Chicken					11	1
Duck				1		
Dove				2		1
Raven						3
Hooded Crow						2
Fish						1
<i>Unidentified Species*</i>						
Mammal		65		373	628	34
Bird		1		2	24	
Total		71		517	1047	71

Grand Total 1706

*Includes all vertebrae (except atlas, axis, and sacrum), ribs, and nonspecific longbones and indeterminate fragments.

Table 3: Degree of fragmentation.

Period	EB	IB	MB	IIB/C	Hellenistic	LR/Byzantine
A. Unidentified	92.9%		72.5%		62.2%	47.8%
B. Loose Teeth	--		21.8%		15.3%	--

A. Number of bones of unidentifiable species divided by total number of bones x 100 (numbers taken from Table 2).

B. Number of loose teeth divided by total number of identifiable sheep/goat bone fragments x 100 (numbers taken from Table 4).

— has one main disadvantage. It tends to over-emphasize the proportions of the larger species (i.e. cattle and larger), since the bones of these larger species tend to fragment more highly and even when so fragmented, tend to be more easily identifiable than those of smaller animals. This bias, however, cannot radically upset the proportions of sheep/goat bones in each assemblage. Further, the vast majority of the bone fragments in the “Un-

identifiable” category in Table 2 are of small animals.

Both sheep and goat bones were identified in the site assemblage using bone reference collections in the British Institute at Amman for Archaeology and History, as well as the published works of Boessnek (1969) and Payne (1985). Generally it was found that only a small part of the total number of sheep/goat bones from each period could be

Table 4: Sheep/goat skeletal part representation by total fragment count.

<i>Skeletal part</i>	MB II		Hellenistic	
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
Skull/Maxill	14	11.8	67	19.8
Mandible	11	9.2	29	8.6
Loose Teeth	26	21.8	52	15.3
Scapula	7	5.9	15	4.4
Humerus	5	4.2	27	8.0
Radius/Ulna	9	7.6	18	5.3
Pelvis	5	4.2	11	3.2
Femur	6	5.0	7	2.0
Tibia	3	2.5	14	4.1
Tarsal/Carpal	9	7.6	27	8.0
Metapodial	12	10.1	37	10.9
Phalange	10	8.4	31	9.1
Atlas/Axis	2	1.7	3	1.3
	119	100.0	338	100.0

*Other skeletal sheep/goat parts recovered but not in statistically relevant quantities were sesamiod bones: 1 in MB II, 5 in Hellenistic.

distinguished as either “sheep” or “goat”. The largest and therefore most reliable sample, that from the Hellenistic loci, shows that goat bones slightly outnumber those of sheep in the proportion of 1.4 to 1.

Evidence for the age of sheep/goat is extremely limited, nevertheless, certain conclusions can be made regarding the Hellenistic period. The tooth eruption and wear data from the Hellenistic levels, using a system devised by Payne (1973) can be summarized as follows:

<i>Age in years</i>	<i>No. of mandibles</i>
0-1	4
1-2	2
2-6	6
4-8	1

This wide range of ages is also shown by the epiphyses fusion data. Both sets of evidence therefore point to mixed farming subsistence strategies, without reliance on any single product such as wool or meat. Evidence that might permit sexing is limited to a single instance: a female pelvis fragment from Locus 12.

Table 4 shows the sheep/goat skeletal

part representation for the MB II and Hellenistic periods. The majority of the skeletal parts are represented for each period, including both the meat-bearing long bones and ribs, and the waste bones (metapodials, phalanges, and possibly the cranium). Further a large number of “small” vertebrae and rib fragments were recovered. These almost certainly belong to sheep/goat, the best represented “small” species. These represent the full spectrum of butchery activities, from initial cleaning of the carcass to final trimming of kitchen waste. Since no step in the process is disproportionately represented, this assemblage may suggest that the entire process took place on the Citadel itself. This may, however, be valid only for the larger sample from the Hellenistic period.

A few bones with butchery marks were recovered, in all but two cases from the Hellenistic period (the exceptions were from Late Roman/Byzantine levels). In these cases, five of seven distal humerus fragments plus both the pelvic ilial shaft/blade fragments show cuts providing evidence of first jointing and then dismemberment. Other butchery cuts indicate that the foreleg may have been

removed by chopping through the scapula, that the practice of splitting the carcass by sagittal chops through the vertebrae existed at this time, and that ribs may have been split into approximate halves to provide usable joints. Few whole bones were recovered and only a small number of bones showed knife cuts: one humerus fragment from the Hellenistic levels and one humerus fragment from the Late Roman/Byzantine levels. Taken together, the absence of whole bones and of knife cuts on bones would suggest a preference for boneless joints of meat. The latter factor would be more decisive in demonstrating the point, since whole bones are unlikely to survive intact. On the other hand, the above mentioned humerus and rib evidence may show, at least during the Hellenistic period, that meat on the bone was preferred. Finally, signs of a single chop removing the distal extremity of one distal metapodial condyle probably indicates that the method employed to skin the animal began with removal of the toe bones.

Little can be said about the remaining species represented at the site due to the very small sizes of the samples. Conclusions are again mainly limited to the Hellenistic assemblage. The majority of the cattle bones in this period are from mature animals, with the exception of an unfused calcaneus. This would indicate at least one individual under age 3 to 5 years (Silver 1969). That the cattle were allowed to reach maturity would suggest that these animals were used in the fields for traction as well as for sources of milk and meat. There is certainly a tradition of using cattle as work animals in Jordan where the apparently indigenous *Baladi* cow has evolved to serve the triple purposes of milch cow, beast of burden, and, ultimately, source of meat (Aresvik 1976: 194). In the same period there is a wide distribution of cattle skeletal parts suggesting, as with the case of sheep/goat noted above, that the full range of butchery activities took place within the Citadel. Unfortunately, there are no cattle bone fragments with butchery marks that might support this surmise.

Both donkey and horse appear to be

present in the Hellenistic assemblage, the former represented by a deciduous incisor and the latter by a distal tibia fragment (Table 5 indicates the sizes of these pieces). Apart from the donkey bone fragment, all of the equid bones represent mature animals.

Immature pig are represented in the MB II and Hellenistic assemblages, while no obviously mature individuals are noted in any period. Sample sizes are too small to form any conclusions regarding possible pig raising practices. The larger sample of pig bones in the Hellenistic assemblages show a wide distribution of skeletal parts, though no pig bones with butchery marks were observed.

Chicken bones were found in the final two periods of occupation. This bird was introduced into the Near East early in the first millenium BC (Cansdale 1970: 164). The Hellenistic assemblage displays a wide range of skeletal parts, the majority of which are mature, indicating a reliance on chickens for egg production and/or a preference for mature birds. One bone (from a Hellenistic level) could be sexed: a tarsometatarsus with a spur indicating a male bird.

A few species of wild game were noted: gazelle, dove and duck. The dove is probably the Rock or Stock dove (*Columbia livia* or *C. oenus*) while the duck may be a mallard (*Anas platyrhynchos*). Both resemble the wild species in size. The rock dove is present year-round in modern day Jordan while stock doves and mallard are migratory winter visitors (Heinzel *et al.* 1979). It is possible that these birds represent wild game, yet it is also possible that they could have been domesticated. The Romans are known to have domesticated both types (André 1961: 132-133). Whether or not these two birds represent domestic species, it is clear that wild animals and birds provided only a small part of the meat consumed throughout the periods of occupation on the Citadel represented in the Deep Sounding.

A single fish and two bird bones remain to be identified. The remaining species represented are likely to be accidental occurrences, such as the crows and the tortoise, or intrusive — as the small rodents.

Table 5: Sizes of animals and birds represented in the bone assemblage.

Bone	Period	Species	Measurements (mm) *				
Lower M3	Hel	<i>Bos</i>	10L	10B			
			39.2	14.6			
Scapula	MB II	Sheep	GLP	LG	BG	SLC	
		Goat	34.6	27.4	22.1	--	
	Hel	Goat	37.0	29.0	25.2	--	
Humerus	Hel	Goat	Bd	BT	Hdm		
			35.0	33.7	20.5		
			--	33.2	--		
			--	30.7	19.7		
			Sheep	--	31.2	19.6	
			30.5	29.6	18.8		
			35.4	32.1	20.0		
	32.2	30.0	19.5				
LR/Byz	Sheep	Cattle		56.0	34.0		
		Sheep	--	--	20.6		
Radius	Hel	Sheep	Bd	BFd			
			30.0	26.0			
Tibia	Hel	Goat	Bd	Dd			
			--	23.6			
			--	19.6			
			29.6	22.7			
			25.5	20.5			
			Sheep	29.0	22.6		
Horse	59.5	38.5					
Calcaneus	Hel	<i>Ovis</i>	GL	GB			
			61.7	--			
			69.5	19.0			
Astragalus	Hel	<i>Capra</i>	GLm	GL1	D1		
			32.6	34.3	20.0		
Carpo- metacarpus	Hel	Chicken	GL	Bp	Bd		
			40.5	11.5	7.6		
					6.5		
Tarso- metatarsus	Hel	Chicken	GL	Bp	SD	Bd	
			70.7	12.0	5.6	11.4	

*All measurements after von den Driesch 1976.

Plant Remains² (contribution by David W. McCreery)

Three flotation samples from Loci 12, 20 and 21 were collected from the Deep Sound-

ing. All three samples were relatively small and yielded correspondingly small amounts of carbonized botanical material. Seed identifications are summarized in Table 6.

2. Dr. Kay Prag kindly allowed us to use the flotation set-up on Wadi Hesban, which was at the time used for the flotation of soil samples from the Tell Iktanu excavations.

Table 6: Summary of flotation results.

Specimen	Locus 12	Locus 20	Locus 21
<i>Hordeum</i>		23*	
<i>Triticum</i>		20	
<i>Lens</i>		10	
<i>Vicia</i>		11	
<i>Vitis vinifera</i>		78	
<i>Ficus</i>		2	
<i>Pistacia</i>		1	
Chenopodium		5	
Wild grasses		5	
Unidentified	440	5	
Snail shells	1	37	46
Bone fragments	1	2	

* Number of seeds represented.

Table 7: The shells from the Deep Sounding.

Reg.	No.	Provenance	Identification	Locus	Ceramic Dating
SH 1		M26-27.12, B7	6 <i>Melanopsis</i>		Late Hellenistic
SH 2		M26-27.20, B19	1 <i>Melanopsis</i>		Middle Bronze II
SH 3		M26-27.12, B6	5 <i>Melanopsis</i>		Late Hellenistic

The sample from Locus 12 (Hellenistic) yielded approximately two tablespoons of charcoal and hundreds of tiny (1mm or less) wild grass and weed seeds. No positive identifications have been made but there appear to be over forty different species present. No cultigens were found.

The Middle Bronze Age sample from Locus 20 produced the largest amount of charcoal, about 1/2 cup, and was the only sample in which cultigens were found. The cultigen assemblage in this sample includes barley, wheat (emmer), lentil, bean, grape, fig and pistachio. Locus 21 (EB IB) produced no seeds whatsoever.

Because of the small sample size, caution is required in interpreting the significance of these samples. Nevertheless, it is interesting to note that the flotation results correlate well with what is known about the EB IB, MB II and Hellenistic occupation of the citadel.

The large number of weeds and lack of cultigens in the Hellenistic sample suggests

that this part of the site was not the scene of domestic occupation during the Hellenistic period. The MB II sample on the other hand, which contains a variety of cultigens, indicates domestic activity in this area during the MB II. The total absence of all botanical material in the EB IB sample is not inconsistent with the observation of the excavators regarding the apparently ephemeral nature of the EB IB occupation.

Worked Stone (contribution by Frank Koucky)

Only one probable architectural fragment could be identified from the Deep Sounding. The fragment comes from a Late Hellenistic level, Locus 16, registration number S18. It is of grey banded marble, 2.25cm thick.

Shell (contribution by David S. Reese)

Only 12 *Melanopsis* shells were retrieved from the Deep Sounding (but also see Table 6). Their provenances are given in Table 7.

Occupational History

Direct information to be gained from the Deep Sounding about the occupational history of the Amman Citadel is clearly limited. The lateral exposure is small ($1.30 \times 1.30\text{m}$), the finds few (less than two hundred identifiable sherds) and the upper layers much disturbed. Nonetheless a reasonably coherent picture emerges when these data are seen in the context of what is known from other exposures elsewhere on the Citadel. This is the case especially for the earlier periods for which the Citadel is so little understood.

Early Bronze Age

In the Early Bronze Age the southeastern limits of occupation on the Citadel may have fallen somewhat west of the Deep Sounding, i.e. nearer the Upper Terrace. The basal level in the Sounding, Locus 21, is a secondary deposit of EB IB domestic debris, not *in situ* occupational debris associated with discernible architecture. The character of the material — individual sherds with no joins, highly fragmented domestic animal bone, a high percentage of weedy plant remains and broken, crudely worked flints — suggests that this layer (Locus 21) may have been part of a rubbish dump at the southeastern edge of the Early Bronze I settlement.

Only on the Upper Terrace have Early Bronze I levels been found in conjunction with features. In a sounding in Square 2 of Area A, Zayadine found on bedrock a “plastered installation” of undetermined function associated with EB IA sherds (Zayadine 1977-78: 28). Here too the lateral exposure is limited (approximately $1.50 \times 3.00\text{m}$) and the datable finds few: only three diagnostic sherds. At the north end of the Upper Terrace, on bedrock outside the “Hellenistic-Roman” wall, Dornemann found debris layers containing “EB material,” (not otherwise described in the report) below the remains of a supposed Middle Bronze glacis (Dornemann 1983: 18-19, “Area III”). Taken together, these data suggest that the earliest Early Bronze Age occupation on the Citadel was confined to what is now the Upper Terrace. Confirmation of this, however, must await deeper excavation on the Lower Terrace in areas east of the

Deep Sounding.

Ceramic evidence for occupation on the Citadel during the remainder of the third millennium (EB II-III and IV) is meagre and occurs only in secondary contexts. In the Deep Sounding, there is a few EB II-III residuals in succeeding Middle Bronze levels (Loci 20 and 19, see Figs. 8: 1, 4, 8, 9; 9: 1, 3, 4, 6). In Area A on the Lower Terrace “Chalcolithic to EBII-III” sherds are reported (but not illustrated) as deriving from a fill between walls supporting a Middle Bronze Age glacis (Zayadine, Humbert and Najjar 1989: 359). The Upper Terrace is more problematic. There are as yet no stratified remains or even mixed layers with EB II-III debris known from this part of the Citadel (for unstratified EB II-III sherds, see Dornemann 1983: 12).

No purely EB IV level was isolated in the Sounding, though there are residual EB IV sherds mixed with the MB II ceramics of Locus 20 (Fig. 9). From the Upper Terrace Bennett reported (but did not illustrate) fragmentary EB IV (“EB-MB”) pottery in pockets above bedrock in Square II of Area B (Bennett and Northedge 1977-78: 178; cf. Bennett 1978: 2, n. 9). A number of EB IV tombs are known from the vicinity of the Citadel (Dajani 1967-68; Zayadine 1978; Hadidi 1982; Suleiman 1985), but so far occupational deposits of EB II-III and IV on the Citadel itself have proved elusive.

There is evidence that in certain places such deposits no longer exist. Harding’s 1949 investigations on the site of the current Jordan Archeological Museum revealed “in pits sunk down to bedrock...only a jumbled, comparatively sterile layer” below early Umayyad houses. There were no traces of Bronze Age, Iron Age or classical period occupation (Harding 1951: 7). Zayadine’s sounding in Area A on the Upper Terrace found EB IA on bedrock succeeded immediately by late Hellenistic levels (1977-78: 28, 44). Likewise, Bennett’s excavations in Area B on the Upper Terrace revealed “EB-MB” vestiges on bedrock followed directly by Byzantine occupation. In all these cases it is not clear whether the missing levels had been removed or simply were never there.

Middle Bronze Age

In the Deep Sounding there are two deep Middle Bronze deposits (Loci 20, 19) associated, respectively, with the two earlier phases of the wall (Locus 18). The ceramic indicators from these layers are preponderantly MB IIB/C, though a single MB IIA red slipped juglet handle was found in Locus 20 (Fig. 9: 14). There is, however, no pure MB IIA layer in the Sounding, nor anywhere else on the Citadel. The Upper Terrace was certainly occupied during the latter part of the Middle Bronze Age. There are tantalizing scraps of what is thought to be a Middle Bronze glacis at the north end of the Upper Terrace, beyond the line of the "Hellenistic-Roman" wall in Area III and also possibly in Area I (Dornemann 1983: 18-19). At the western edge of the Upper Terrace in Areas C.O and C.XXX, Bennett uncovered (but was unable to investigate thoroughly) debris layers and architectural features which she dated provisionally as "late MB/LB" (see below). In addition there are three intramural tombs: one below the southeast room of the *qasr* ("Umayyad palace", Ma'ayeh 1960) and two southeast of the modern archaeological museum, one of which is solely MB II (Najjar 1991) and the other, late MB II with a possible extension into LB I (Ward 1966; Piccirillo 1978).

The sum of the evidence suggests that in the later Middle Bronze Age occupation on the Citadel expanded eastward onto the Lower Terrace, giving the site its present shape. Viewed from the north, the characteristic "tell" shape of the Lower Terrace — flat summit and steeply sloping sides — is readily apparent, as is its attachment to the higher ground of the Upper Terrace. There is clear evidence of a glacis fortification along the southern side of the Lower Terrace in the MB II. The line of the fortifications of that period seems to have defined the limits of the site for successive rebuilding of the city walls as late as the Abbasid period (Zayadine, Humbert and Najjar 1989: 359; cf. Northedge 1983: 457).

Late Bronze Age, Iron Age and Persian

The few identifiable late MB II/LB sherds in the Deep Sounding were found in

much later contexts (Hellenistic Loci 13 and 16; see Figs. 6; 7). There was no separate Late Bronze phase. Only at the far western edge of the Upper Terrace in Areas C.O and C.XXX did Bennett encounter a layer of pure LB pottery and a wall of suspected MB II/LB date (Bennett 1979a: 159). In addition to the tomb of MB/LB aspect noted above, the only other Late Bronze material known from the Citadel comes from unstratified contexts (Dornemann 1983: 22). There are no separate phases of Iron I, II or Persian (Iron III) in the Deep Sounding, despite the fact that both Iron Age I and II occupation are well attested in Area A farther to the east (Zayadine 1973; Zayadine, Humbert and Najjar 1989). Evidence of Persian period occupation is so far almost completely absent on the Citadel (but see Fig. 7: 6), though it is not altogether missing from the Amman region (see Hadidi 1987).

Massive Hellenistic building activity at the western end of the Citadel might account for the absence there of all coherent vestiges of the Iron Age. Such wholesale obliteration of earlier strata occurs elsewhere on the Citadel. On the Upper Terrace in Area C inside the fortification wall "substantial Byzantine occupation" is founded on bedrock with no evidence of intervening levels. In the same area outside the line of the walls (in C.O and C.XXX), Early Roman architecture rests immediately above remains of the late MB/LB; Iron Age levels are absent (Bennett and Northedge 1977-78: 178; Bennett 1979a: 157). This seems also to be the case for Areas A and B on the Upper Terrace, as well as in Harding's 1949 soundings below Umayyad houses at the site of the present archaeological museum.

There are, however, some indication that Iron Age layers remain intact in the lowest levels investigated in the Main Trench (Square I-33, Locus 16; Mohammad Najjar, personal communication). Preserved Iron Age levels at depth in the Main Trench suggest an abrupt change in level due perhaps to the existence of the line of a terrace somewhere between the Deep Sounding and the Main Trench. If this were the case, it is possible for large scale Hellenistic earth moving to have displaced earlier levels in the

vicinity of the Deep Sounding without disturbing them in the nearby Main Trench. There is some confirmation of this in the succeeding Hellenistic phase.

Hellenistic

In the Hellenistic period the final phase of the wall, Locus 18, probably did not mark the eastern limits of occupation on the Citadel. In Area A to the east there is clear evidence for several phases of Hellenistic occupation (Zayadine 1973: 25-28; 1990: 79-80; Zayadine, Humbert and Najjar 1989: 362-363). This fact and the absence of Iron Age stratigraphy in the Sounding, contrasted with its possible continuity in the Main Trench, support the interpretation that a north-south terrace line existed somewhere in the vicinity of the Deep Sounding and that Phase 3 of Wall 18 lay along that terrace. Such a wall would have been part of a larger system of terraces stepping down toward the east along the natural trend of the bedrock underlying what is now a level Lower Terrace. Bedrock beneath the Lower Terrace undoubtedly slopes away to the east. At the bottom of the Deep Sounding it is at an absolute elevation of 823.50m above sea level. Just above the bedrock is EB IB debris. In the Main Trench 30 meters to the east, excavation north of Wall 111 in Square I-33 reached, *at the same absolute elevation*, layers of late Hellenistic debris mixed with Iron Age II pottery (Zayadine, Najjar and Greene 1987: 305, Fig. 2). This suggests a significant difference in the absolute levels of contemporary living floors over a rather short lateral distance, as would occur in terraced hill slopes.

In the Main Trench there are what may be the remains of other terrace walls contemporary with the one in the Deep Sounding. In the contractor's cut through the Main Trench are visible several large north-south walls that are not clearly connected with occupational levels (Zayadine, Najjar and Greene 1987: Figs. 1, 2).³ None of these presumed "terrace walls" was excavated to foundation level, so

their founding dates are uncertain; nor is their proposed function confirmed. If they were in fact terrace walls, it is possible that they were in use from the Iron Age II continuously into the Hellenistic, though they seem to have been abandoned before the Roman period. Whether the Middle Bronze phases of the wall, Locus 18, were part of a terracing arrangement as early as the Middle Bronze Age is difficult to say. The wall in these phases did not continue from north to south through the Sounding, but seemed to turn a corner to the east. Only deeper excavation in the Main Trench eventually linking it to the Deep Sounding could resolve this.

Roman

Roman occupation on the Upper Citadel was known to be extensive (e.g. Hadidi 1978; Almagro 1983; Northedge 1983), but the structural and functional connection between the Upper and Lower Terraces in the Roman period is not well understood. So far there is only limited evidence for Roman levels on the Lower Terrace. Excavations in Area A on the Lower Terrace uncovered first century AD architecture and habitation levels succeeded by third century burials (Zayadine 1973: 22-25) and a massive Late Roman fortification wall (Zayadine, Humbert and Najjar 1989: 359). In the Deep Sounding, Roman levels are confined to a fill (Locus 6) above the wall, Locus 18, which went out of use by the end of the Hellenistic period. There are no certain Roman architectural remains to which to relate these levels. A later Roman phase (how much later is unclear) is represented only by a pit (Loci 8/9 and 10/11).

Byzantine/Umayyad

The succession of plaster floors in the uppermost levels of the Deep Sounding suggests that the western end of the Lower Terrace underwent architectural replanning, possibly in conjunction with the initial construction or renovation of the large building uncovered in the uppermost phase of the Main Trench (Zayadine, Najjar and Greene

3. In the section drawing (Zayadine, Najjar and Greene 1987: Fig. 1) these walls are Nos. 11 and 12 in the South Section; Nos. 39 and 53 in the North Section. They are equivalent

respectively to Walls 113, 119, 219 [not visible] and 112 in the plan (Zayadine, Najjar and Greene 1987: Fig. 2).

1987: 299-305). The earliest of the series of plaster floors was laid directly atop a Roman(?) fill, Locus 6.⁴ This first floor was succeeded by several other floors of similar construction, each founded on a layer of deliberate fill. Within the limits of the Sounding, it is impossible to determine whether these floors were laid within a structure or were outdoor courtyard surfaces. The cutting of the latest floor and the laying of a single-coursed wall, Locus 23, directly above the floor, Locus 4, suggests a further replanning of this portion of the Lower Terrace. This may have occurred in the Umayyad period, at which time the major building in the Main Trench underwent modification (Zayadine, Najjar and Greene 1987: 310-311). There is, however, no direct evidence from the Sounding to confirm this. This wall, Locus 23, represents the final architectural phase at the western edge of the Lower Terrace.

Post-Umayyad

The ruins of the structures in this uppermost phase must have been exposed at the surface into the 20th century of this era. The uniform layer of red clayey fill (put down reportedly in AD 1968) lies immediately above the final architectural phase both in the Deep Sounding and in the Main Trench (Fig. 2; Zayadine, Najjar and Greene 1987: Fig. 1). In this part of the Lower Terrace there is almost no debris dating later than Umayyad and no trace of later medieval occupation known to have existed elsewhere on the Citadel (Northedge 1980: 153-154).

Conclusions

An outline of Deep Sounding stratigraphy and chronology is summarized in Fig. 3. Conclusions regarding the occupational history of the Lower Terrace are briefly summarized:

1. In the Early Bronze Age I, settlement on the Citadel was confined to the Upper Terrace. The earliest occupation on the Lower Terrace is probably EB II-III.
2. During the Middle Bronze II, expansion of

the city likely gave the Lower Terrace its present lateral extent.

3. In the later Iron Age and Hellenistic periods, the area of the Lower Terrace was covered with a system of terrace walls creating a series of building levels stepping down from the southeastern corner of the Upper Terrace. This system was out of use by the late Hellenistic/early Roman period.
4. In the Byzantine and Umayyad periods the Lower Terrace was occupied at nearly its present level. There was no significant later occupation.

Results of the excavation in the Deep Sounding raised as many questions as it answered about the topography and sequence of occupation on the Lower Terrace and its relationship with the upper Citadel through time. This report attempts both to present those answers and raise new questions about the history of the Amman Citadel. It also presents for the first time faunal, botanical and lithic analyses from classical and Bronze Age levels on the Citadel. While these are admittedly too meagre to be meaningful in themselves, they have the potential of being combined with what is hoped will be larger, more representative collections from subsequent excavations. A full history of the Amman Citadel awaits final publication of the results of previous excavations (as well as the excavations of the church and Temple of Hercules that were carried out since 1988) and an integration of those results with multi-period settlement data collected by the Archaeological Survey of Greater Amman (see Abu-Dayyah *et al.* 1991) and other surveys in the Amman region. Only then may we seek to answer more complex questions about the history of settlement and land use in the region of Amman, the major ancient urban centre of central Jordan.

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4. Locus 6 was not excavated but is presumed to be Roman. The only ceramic artifact from Locus 6 was an almost

complete Late Hellenistic lamp found while baulk trimming (Fig. 5: 15).

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Catalogue of Illustrated Pottery

Fig. 4. Loci 3, 8, 10.

No.	Reg.#	Form	Dia. (cms)	Dating
1	1001	bowl rim	38.6	Late Byzantine
		Wheelmade; ware/ext/int: 7.5YR 7/6 reddish yellow; thick core: 7.5 YR 6/4 lt brown; some md-v. lg anglr dk/lt mineral incls; some sm-lg rd vds; hd ware (L 3, PB 8).		
2	1002	bowl rim	14.5	Late Byzantine
		Wheelmade; ware: 5YR 7/6 reddish yellow; ext/int slip: 5YR 6/6 reddish yellow; some sm-md subanglr mineral incls; few sm rd vds; md hardness (L 3, PB 8).		
3	1009	jar rim	22.5 (outside)	Middle Bronze II
		Wheelmade; ware: 7.5YR 6/6 reddish yellow; md core: N 5/0 grey; some sm-md (rare: lg-v.lg) rd-subanglr lt/dk/red mineral/grog incls; some md-v. lg anglr vds; hd ware; ext smoothed (L 10, PB 24).		
4	1005	store jar rim	17	Late Iron II
		Wheelmade; ware: 2.5YR 6/8 lt red; ext/int: 5YR 7/6 reddish yellow; thick core: N 5/0 grey; some sm-lg (rare: v. lg) anglr lt/dk mineral incls; numerous sm-v. lg anglr-rd vds; hd ware; ext/int wheel-marked (L 8, PB 3). Parallels: Dornemann 1983: 114 Type LVIII, Figs. 57.629, 76.629 (Amman); Pritchard 1985: Fig. 4.23 (Tell as-Sa'idiyeh).		
5	1127	cooking pot rim	11	Roman
		Wheelmade; ware: 2.5YR 5/8 red; thick core (handle): N 5/0 grey; ext/int slip: 2.5YR 5/8 red; some sm rd lt/dk mineral incls; few sm rd vds; md hd ware (L 8, PB 3).		
6	1004	bowl rim	13.4	Hellenistic
		Wheelmade; ware: 2.5YR 4/8 red; ext slip: 7.5YR 4/2 dark brown; int slip: 2.5YR 4/8 dk red; thick core: N 4/0 grey; few sm rd lt mineral incls; few sm rd vds; hd ware; ext/int wheel marked (L 8, PB 3).		
7	1003	bowl rim	16 (outside)	Late Hellenistic
		Wheelmade; ware: 2.5YR 6/8 lt red; ext slip: 5YR 3/4 dk reddish brown; int slip: 2.5YR 4/6 dk red; few sm rd lt mineral incls, lime spalls; few sm subanglr vds, straw casts; md hardness; wheel marked (L 8, PB 3).		
8	1007-1008	bowl rim/base	13	Late Hellenistic
		Wheelmade; ware: 2.5YR 6/8 lt red; ext: 2.5YR 6/8 lt red; ext slip over rim: 5YR 3/1 v. dk grey; int slip: 5YR 4/6 yellowish red; few v. sm rd lt mineral incls; few sm rd vds; hd ware; wheel-marked where not slipped (L 10, PB 24) Parallels: McNiccoll <i>et al.</i> 1982: Pl. 128.7 (Pella); Hennessy 1970: Fig. 9.17 (Samaria).		

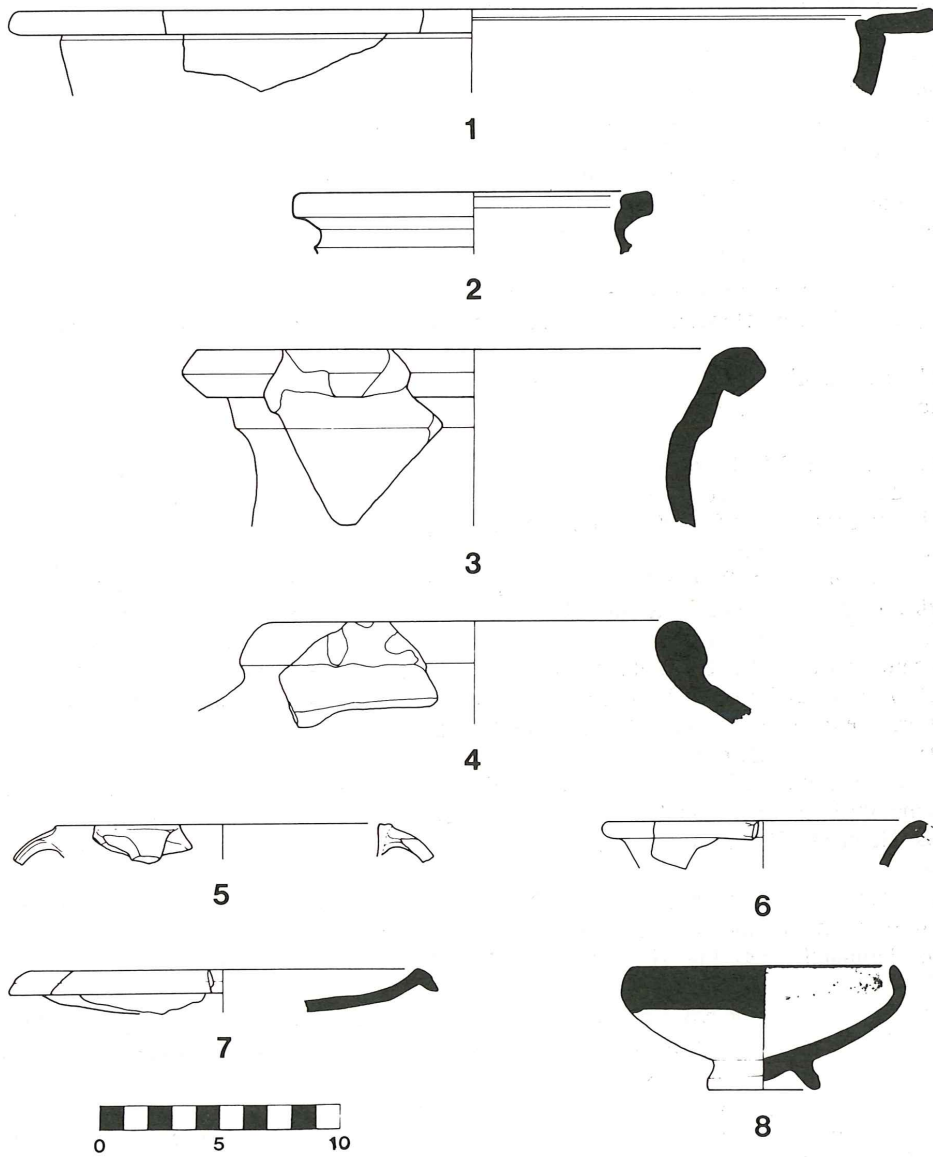


Fig. 4. Pottery from Loci 3, 8, 10.

Fig. 5. Loci 6, 12.

No.	Reg.#	Form	Dia. (cms)	Dating
1	1038	bowl rim	34	Late Hellenistic
		Wheelmade; ware: 7.5YR 7/4 pink; thick core: 7.5YR 7/6 reddish yellow; int slip: 2.5YR 5/8 red to 2.5YR 3/2 dk reddish brown (mottled); ext slip: 2.5YR 5/5 reddish brown; some sm (rare: lg) subanglr lt/dk mineral incls; few sm rd vds; md hd ware; ext wheel marks beneath slip; slightly lime encrusted (L 12, PB 29).		
2	1011	small crater rim	16	Hellenistic
		Wheelmade; ware: 5YR 6/6 reddish yellow; int: 7.5YR 7/4 pink; ext slip: 7.5YR 3/2 dk brown to 5YR 5/4 reddish brown (mottled); few sm rd lt/dk mineral incls; few sm rd vds; hd ware; int wet smoothed (L 12, PB 6).		
3	1030	bowl rim	9	Hellenistic
		Wheelmade; ware: 10YR 6/8 lt red; md core: 7.5YR 6/4 lt brown; ext/int slip: 2.5YR 5/8 red; some md-v. lg anglr-subanglr lt/dk mineral incls; few sm-md subanglr vds; wide wheelmarks visible beneath badly abraded slip; mends with PB 25 bodies (L 12, PB 7).		
4	1026	incurved bowl rim	11.5	Hellenistic
		Wheelmade; ware: 7.5YR 7/4 pink; ext slip: 10YR 3/2 v. dk greyish brown; int slip: 2.5YR 5/6 red; few sm rd lt mineral incls; few sm rd vds; hd ware; closely spaced wheel marks (L 12, PB 6).		
5	1034	holemouth jar rim	8	Iron II
		Wheelmade; ware: 2.5YR 6/8 lt red; v. thick core: N 3/0 v. dk grey; ext/int slip: 2.5YR 5/8 red; some md-v. lg anglr lt mineral incls; few md-lg subanglr vds, straw casts; md hd ware; ext smoothed (L 12, PB 7). Parallels: McNicoll <i>et al.</i> 1982: Pl. 125.3 (Pella).		
6	1016	cooking pot rim & bodies	8.5	Late Hellenistic/Early Roman
		Wheelmade; ware: 2.5YR 5/8 lt red; ext/int slip: 2.5YR 5/6 red; some sm-md rd red grog incls; some sm rd vds; md hardness; surface abraded; 10 joining sherds (L 12, PB 6). Parallels: Pritchard 1985: Fig. 20.6 (Tell as-Sa'idiyeh).		
7	1012	jar rim	11.4	Hellenistic
		Wheelmade; ware: 2.5YR 6/8 lt red; ext slip: 7.5YR 8/4 pink; int: 2.5YR 6/8 lt red; some sm-md subanglr lt/dk mineral incls; some sm-md rd vds; md hardness; wheel marked (L 12, PB 6).		
8	1013	jar rim	11.3	Hellenistic
		Wheelmade; ware: 7.5YR 8/2 pinkish white; ext slip: 7.5YR 6/2 pinkish grey to 10YR 5/1 grey; int slip : 7.5YR 7/4 pink to 7.5YR 6/2 pinkish grey; some sm-md rd dk mineral incls, lime spalls; some sm rd vds; hd ware; ext wheel marked; int hand smoothed (L 12, PB 6).		
9	1020	jar rim	10.8	Hellenistic
		Wheelmade; ware: 2.5YR 5/6 red; md core: 5YR 5/2 reddish grey; ext/int slip: 10YR 5/3 brown; some sm-lg subanglr lt/dk mineral incls; many sm-md subanglr-rd vds; hd ware; wheel smoothed (L 12, PB 6). Parallels: Hennessy 1970: Fig. 11.24 (Samaria).		
10	1024	jar rim	10	Late Hellenistic
		Wheelmade; ware: 2.5YR 8/6 pale brown; ext/int slip: 5YR 7/3 pale yellow; few sm rd lt mineral incls; some sm rd vds; md hardness; lime encrusted edges (L 12, PB 7). Parallels: Tidmarch 1990: Fig. 10.7 (Pella); McNicoll <i>et al.</i> 1982: Pl. 127.11 (Pella).		
11	1021	bowl rim	8	Hellenistic
		Wheelmade; ware: 2.5YR 6/8 lt red; thick core: N 5/0 grey; ext slip: 7.5YR 7/4 pink; int slip: 5YR 6/6 reddish yellow; some sm rd lt/dk mineral incls; some sm-md rd vds; hd ware; ext/int wheel marked (L 12, PB 6).		
12	1037	jar rim	7	Hellenistic
		Wheelmade; ware: N 8/0 white; ext/int: N 2/0 black to N 7/0 lt grey; few sm rd dk mineral incls; few sm rd vds; hd ware; ext finger smoothed; encrusted (L 12, PB 7).		
13	1123	bowl ring base	6.2	Hellenistic
		Wheelmade; ware: 2.5YR 5/8 lt red; ext: 10YR 7/3 v. pale brown; thick core: 5YR 6/3 lt reddish brown; int slip: 2.5YR 4/8 red; some sm-md subanglr lt/dk mineral incls; some sm-lg rd vds; hd ware; ext slip abraded; string-cut bottom, ring base added; wheel marked (L 12, PB 6).		
14	1130	fish plate ring base	6.4	Late Hellenistic
		Wheelmade; ware: 2.5YR 6/8 lt red; thick core: 5YR 5/1 grey; ext/int slip: 2.5YR 6/8 red to 5YR 5/8 yellowish red (mottled); few sm rd dk mineral incls; few sm rd vds; md sf ware; ext slip thin; bottom int of ring base wheel smoothed (L 12, PB 6). Parallels: Tidmarch 1990: Fig. 10.1 (Pella).		
15	94	lamp		Late Hellenistic
		Mouldmade; ware: N 8/0 white; ext top/slip: N 5/0 grey; ext bottom/no slip: N 6/0 grey; int: N 7/0 lt grey; few v. sm rd lt/dk mineral incls; some sm-lg subanglr vds; v. hd ware; slip on top surface to below mould line; int fingermarked, cracked at mould line (L 6, PB 31).		

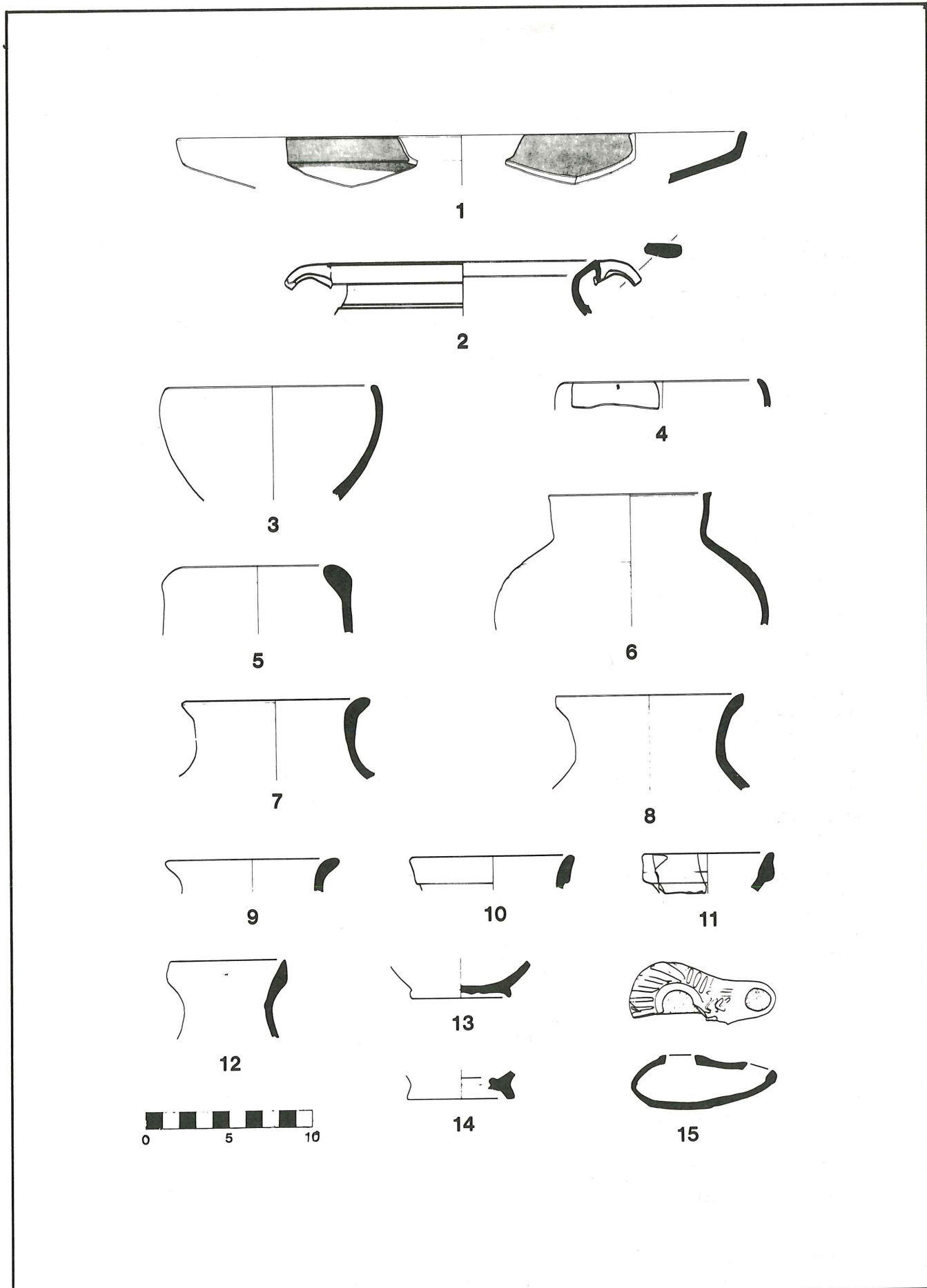


Fig. 5. Pottery from Loci 6, 12.

Fig. 6. Loci 13, 14, 15

No.	Reg.#	Form	Dia. (cms)	Dating
1	1058	bowl rim	26.2	Iron II
		Wheelmade; ware: 5YR 5/6 yellowish red; int slip: 5YR 5/8 yellowish red; some md-lg anglr/subanglr lt/dk mineral incls; some sm-v. lg subanglr vds; md hardness; ext slip abraded; encrusted with ash (L 13, PB 9). Parallels: Dornemann 1983: Type XXIV, Fig. 53.194 (Amman); Kenyon and Holland 1982: Bowl D.V.b, Fig. 199.1 (Jericho).		
2	1074	bowl rim	14.8	Middle/Late Bronze
		Wheelmade; ware: 5Y 7/3 pale yellow; ext/int slip: 2.5Y 8/2 white; some md-v. lg anglr lt/dk/red mineral/grog incls; some sm-lg subanglr vds; md hardness; ext paint: 2.5YR 3/2 dusty red. "Chocolate on White" ware (L 13; PB 26).		
3	1072	bowl rim; painted	18	Iron II
		Wheelmade; ware: 5YR 6/6 reddish yellow; thick core: 5YR 6/1 grey; ext slip: 5YR 5/4 reddish brown; int slip: 5YR 5/6 reddish brown; some sm-md subanglr lt/dk mineral incls; few sm rd vds; hd ware; horizontal burnish lines on rim, 2mm wide; painted stripe below rim: 5YR 4/1 dk grey, 2mm wide (L 13, PB 11). Parallels: Dornemann 1983: 109-110, Type XLVI, Figs. 55-56: 73-74 (Amman); Kenyon and Holland 1982: Bowl B.II.k, Fig. 196.20 (Jericho).		
4	1064	bowl rim	17.8	Hellenistic
		Wheelmade; ware: 2.5YR 6/8 lt red; thin core: N 6/0 grey; ext slip: 2.5YR 4/2 weak red; int slip: 2.5YR 5/6 red; few sm-md subanglr lt/dk mineral incls (sand?); sm rd vds; hd ware; wheel smoothed (L 13, PB 11).		
5	1066	bowl rim	12	Middle Bronze II
		Wheelmade; ware: 5YR 4/6 yellowish red; v. thick core: 7.5YR 4/6 strong brown to 5YR 4/6 yellowish red; ext/int slip: 7.5R 4.5/6 strong brown; some sm-md subanglr lt/dk/red mineral incls; some sm-md (rare: lg) subanglr vds; md hardness; wheel smoothed (L 13, PB 11). Parallels: Dornemann 1983: Fig. 51.87 (Amman); 1990: Fig. 6.30 (Tell Nimrin); Kenyon and Holland 1982: Bowl J.I.a, Fig. 119.9 (Jericho); McNicoll <i>et al.</i> 1982: Pl. 110.11 (Pella).		
6	1050	fish plate rim	12	Late Hellenistic
		Wheelmade; ware: 5YR 7/4 pink; md core: 5YR 7/2 pink; ext slip: 2.5YR 5/6 red; int slip: 5YR 7/3 pink; few v. sm-md rd lt/dk mineral incls; few sm rd vds; hd ware; wheel smoothed (L 13, PB 9).		
7	1067	bowl ring base	9	Late Hellenistic/Early Roman
		Wheelmade; sigillata ware: 10YR 8/4 v. pale brown; thick core: 5YR 7/4 pink; ext/int slip: 10R 5/8 red to 10R 3/6 dk red (mottled); v. few v. sm rd lt mineral incls; v. few v. sm rd vds; md hardness. "Eastern Sigillata A" (L 13, PB 11).		
8	1070	bowl ring base	7	Hellenistic
		Wheelmade; ware: 5YR 7/6 reddish yellow; ext: 5YR 7/6 reddish yellow; md core: 5YR 3/2 v. dk grey to 5YR 7/1 lt grey; int slip: 2.5YR 5/8 red; few sm (rare: md) rd dk mineral incls; few sm rd vds; hd ware; wheel marked where not slipped (L 13, PB 11).		
9	1078	jar rim	10	Hellenistic
		Wheelmade; ware: 5Y 8/2 white; ext: 5Y 8/3 pale yellow; int: 5Y 8/2 white to 5Y 7/2 lt grey; some sm-md subanglr lt/dk mineral incls; some sm rd vds; sf ware; ext wheel marked (L 14, PB 15). Parallels: McNicoll <i>et al.</i> 1982: Pl. 127.10 (Pella).		
10	1075	bowl rim	7	Hellenistic
		Wheelmade; ware: 5YR 7/6 reddish yellow; md core: N 6/0 grey; ext slip: 10R 5/6 red; int slip: 2.5YR 6/8 lt red to 2.5YR 5/4 reddish brown; few v. sm rd dk mineral incls; few sm rd vds; hd ware; ext slip abraded (L 14, PB 15).		
11	1039	bowl rim	23	Middle Bronze
		Wheelmade; ware: 5YR 6/4 lt reddish brown; thin core: 2.5YR 5/8 red; ext/int slip: 10YR 8/3 v. pale brown; some sm-md subanglr-rd dk mineral incls; some sm-md subanglr vds; hd ware; paint on rim: 2.5YR 4/6 red; wheelmarked (L 15, PB 12).		
12	1041 +1063	bowl rim	20	Late Hellenistic
		Wheelmade; ware: 7.5YR 7/4 pink; md core: 10R 6/6 lt red; ext slip: 7.5YR 7/4 pink; int slip: 7.5YR 5/2 brown; some sm subanglr lt mineral incls; few v. sm rd vds; md hardness; ext wheel marks; mends with 1063 from L 13, PB 11 (L 15, PB 12).		
13	1042	jar rim	9	Late Iron II
		Wheelmade; ware: 7.5YR 7/2 pinkish grey; ext: 10YR 8/1 white; int: 10YR 8/2 white; md core: 10R 6/6 lt red; some md-v. lg subanglr-anglr lt/dk mineral incls; few v. sm rd vds; straw casts; hd ware; int wheel smoothed (L 15, PB 12).		
14	1129	lamp spout	-	Late Hellenistic
		Mouldmade; ware: N 8/0 white; ext slip: N 4/0 grey; ext where not slipped: N 5/0 grey; int: N 7/0 lt grey; few v. sm rd lt/dk mineral incls (rare: lg granules of lime); some sm subanglr vds; v. hd ware; ext smoothed (L 15, PB 12).		

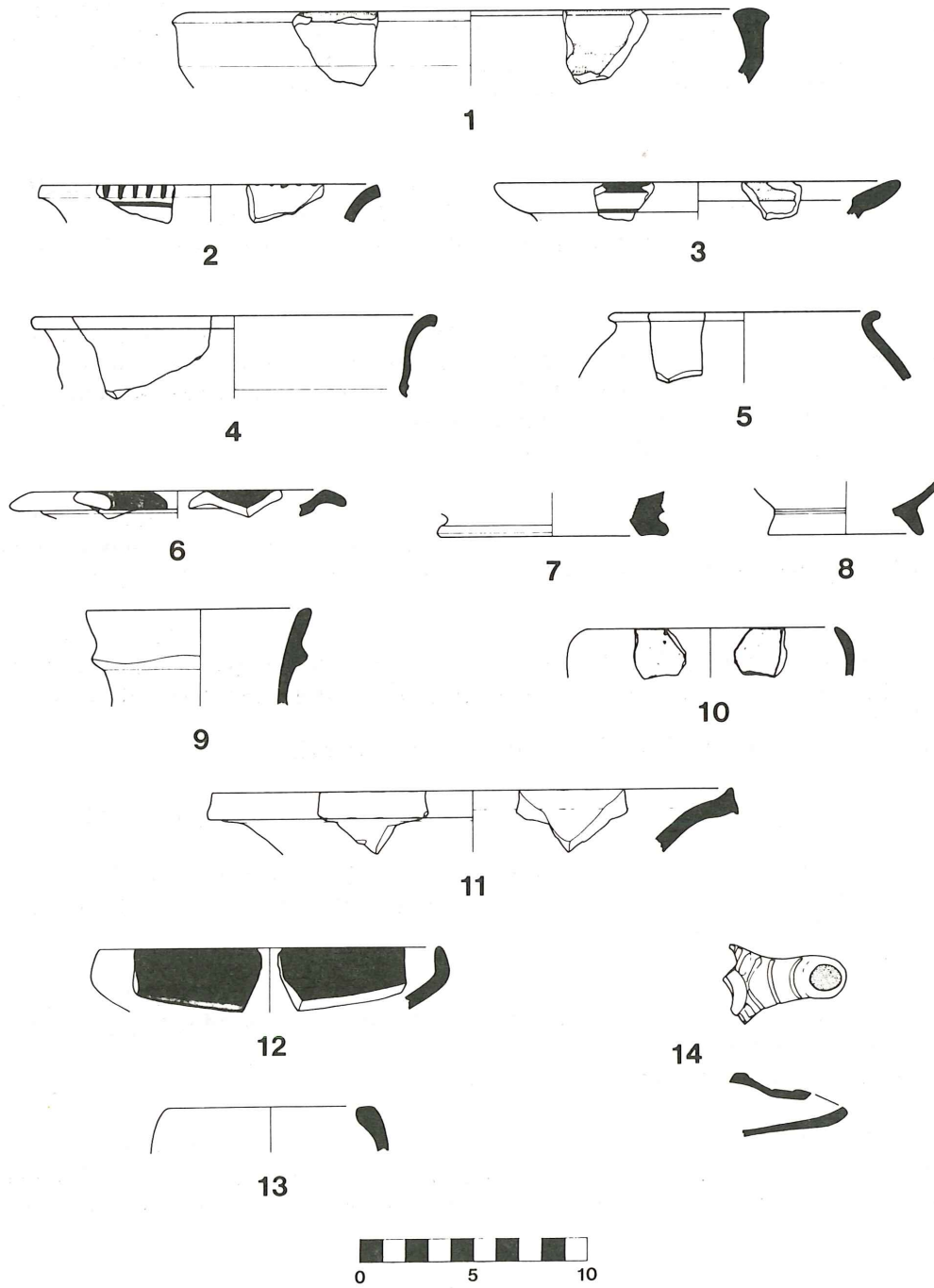


Fig. 6. Pottery from Loci 13, 14, 15.

Fig. 7. Locus 16.

No.	Reg.#	Form	Dia. (cms)	Dating
1	1090	jar rim	20	Middle Bronze II
		Wheelmade; ware: 5YR 8/3 pink; thin core: 5YR 8/1 white; ext/int slip: 5YR 7/6 reddish yellow; some sm-lg rd-subanglr lt/red mineral/grog incls; some sm-md rd vds; hd ware (L 16, PB 14). Parallels: Kenyon and Holland 1982: Storage Jar I.D.1.a, Fig. 131.16 (Jericho); Cole 1984: JI.43, Pl. 35.a (Balata).		
2	1089	holemouth rim	20.4	Middle Bronze II
		Wheelmade; ware/int: 2.5YR 5/8 red; ext: 5YR 5/6 yellowish red; md core: 5YR 5/6 yellowish red; some sm-v. lg rd-anglr lt/dk mineral incls; few sm subanglr vds, straw casts; md hardness; wheel smoothed (L 16, PB 14).		
3	1088	bowl rim	26	Middle Bronze II
		Wheelmade; ware: 7.5YR 7/4 pink; ext/int: 5YR 6/4 lt reddish brown; md core: 10YR 6/4 lt yellowish brown; ext slip (abraded): 7.5YR 8/2 pinkish white; some sm-md subanglr lt/dk mineral incls; some sm (rare: lg) rd vds; hd ware; thick smoothed ext slip (L 16, PB 14). Parallels: Dornemann 1983: Fig. 51.48 (Amman).		
4	1083	jug rim	11	Middle/Late Bronze
		Handmade; ware: 7.5YR 8/2 white; ext/int slip: 2.5Y 8/2 white; some md-v. lg anglr lt mineral incls; some sm rd vds; md hd; thick smoothed slip; ext paint: 5YR 4/6 yellowish red (L 16, PB 14).		
5	1092	bowl rim	14.4	Middle Bronze II
		Wheelmade; ware: 5YR 7/8 reddish yellow; ext/int: 5YR 5/8 yellowish red; ext/int slip: 5YR 3/1 v. dk grey; some sm (rare: md) rd lt/dk mineral incls; few sm rd vds; hd ware; wheel smoothed; thick ext/int slip, abraded (L 16, PB 30). Parallels: Kenyon and Holland 1982: Bowl H.III.b, Fig. 118.22 (Jericho).		
6	1087	lid	12	Iron III/Persian-early Hellenistic
		Wheelmade; ware: 5YR 7/8 reddish yellow; thick core: 5YR 6.5/1 lt grey; top slip: 2.5YR 3/2 dusty red; bottom: 2.5YR 4/6 to 4/8 red (mottled); few sm-md rd dk mineral incls; few sm rd vds; hd ware; thick top slip; wheel marks on bottom (L 16, PB 14).		
7	1080	bowl rim	11.2	Late Hellenistic
		Wheelmade; ware: 5YR 8/3 pink; ext/int slip: 2.5YR 6/6 lt red; few v. sm rd lt/dk mineral incls; few sm subanglr (ext: rare lg anglr) vds; sf ware; ext/int slip abraded (L 16, PB 13). Parallels: Pritchard 1985: Fig. 19.11 (Tell as-Sa'idiyeh).		
8	1081	bowl ring base	10	Hellenistic
		Wheelmade; ware: 5YR 6/4 lt reddish brown; ext slip: 5YR 4/1 dk grey; int slip: 5YR 4/4 reddish brown; few v. sm rd lt/red mineral/grog incls, lime spalls; few sm (ext: rare md-lg) rd vds; hd ware; ext slip wheel-marked (L 16, PB 13).		
9	1091	bowl rim	15	Late Hellenistic
		Wheelmade; ware/ext: 10YR 8/4 very pale brown; int slip: 5YR 3/4 dk reddish brown; few sm rd-subanglr lt mineral incls; few sm rd vds; md hardness; ext wheel smoothed; int slip badly abraded (L 16, PB 30). Parallels: McNicoll <i>et al.</i> 1982: Fig. 128.9 (Pella); Hennessy 1970: Fig. 9.17 (Samaria).		
10	1082	jar/jug base	4.2	Middle Bronze II
		Wheelmade; ware/int: 5YR 6/6 reddish yellow; thick core: 5YR 6/1 grey; ext slip: 10YR 5.5/2 lt brownish grey; some sm-md (rare: lg) subanglr lt/dk mineral incls; few sm rd vds; hd ware; int wheel-marked; ext burnished (L 16, PB 13).		

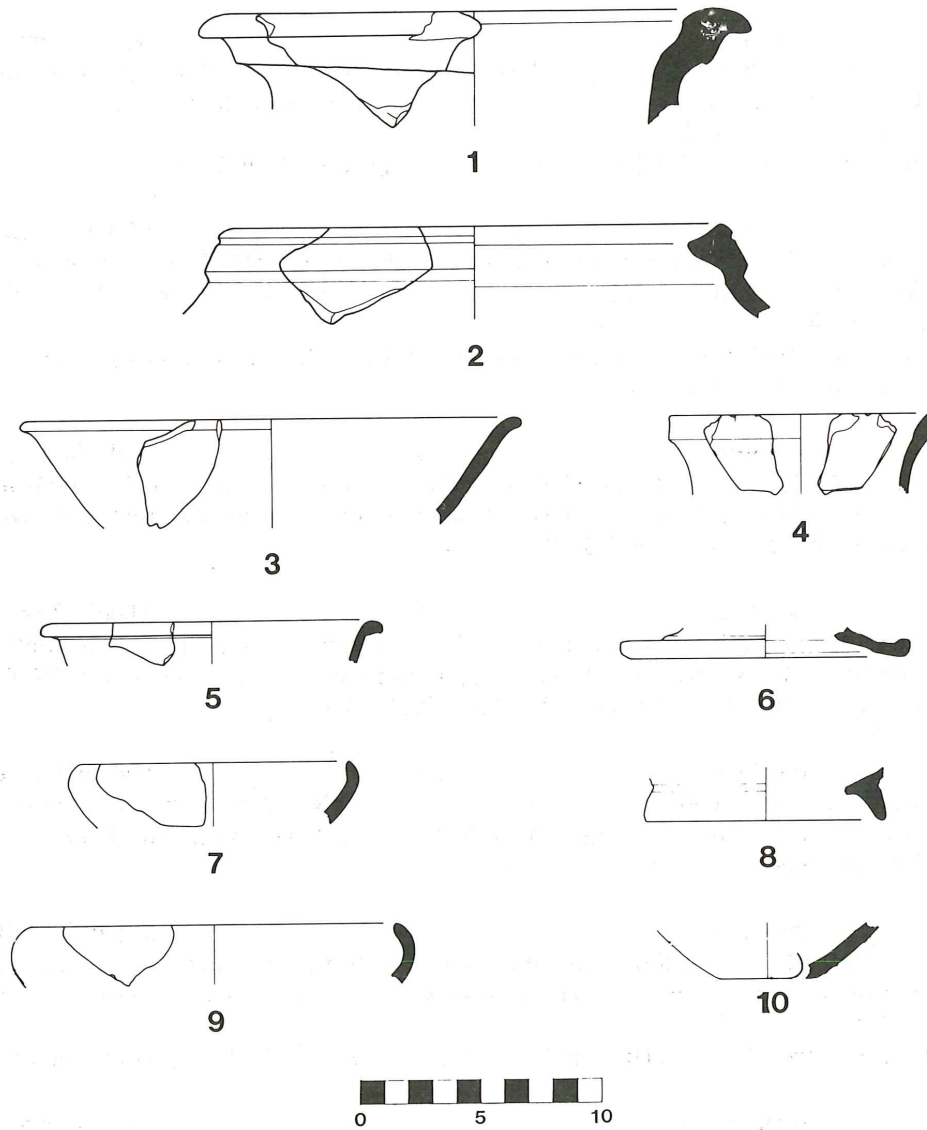


Fig. 7. Pottery from Locus 16.

Fig. 8. Locus 19.

No.	Reg.#	Form	Dia. (cms)	Dating
1	1094	bowl rim	14	Early Bronze II-III
	Handmade; ware: 7.5YR 5/4 lt brown; ext/int slip: 5YR 7/7 reddish yellow; some md-v. lg anglr-subanglr lt/dk mineral incls; some sm-md rd vds; ext: some straw casts; md hardness; ext/int thick slip; uneven burnish ext/inside over rim (L 19, PB 17). Parallels: Kenyon and Holland 1982: Bowl A.I.c, Fig. 49.12 (Jericho).			
2	1095	jar rim	16.4	Middle Bronze II
	Wheelmade; ware/ext/int: 10YR 7/4 v. pale brown; thick core: 10YR 7/1 lt grey; some md-v. lg anglr-subanglr lt/dk mineral incls; some sm rd vds; ext: straw casts; shrinkage cracks; hd ware; ext finger smoothed; int abraded (L 19, PB 17). Parallels: Kenyon and Holland 1982: Storage Jar V.A.I.a, Fig. 134.25 (Jericho).			
3	1096	bowl rim	7.4	Middle Bronze II
	Wheelmade; ware: 10YR 4/2 dk greyish brown; ext/int slip: 10YR 4/2 dk greyish brown; some sm-md (rare: v. lg) anglr-subanglr lt/dk mineral incls; few sm rd vds; hd ware; ext burnish below rim; ext/int thin horizontal smoothing lines (L 19, PB 17). Parallels: Dornemann 1983: Fig. 51.87 (Amman); 1990: Fig. 6.22 (Tell Nimrin); Kenyon and Holland 1982: Bowl G.I.a, Fig. 115.2 (Jericho).			
4	1101	bowl rim	9	Early Bronze II-III
	Handmade; ware: 5YR 7/3 pink; ext slip: 5YR 6/6 reddish yellow; int slip: 5YR 5/4 reddish brown; some md subanglr lt (rare: dk) mineral incls; some sm rd-subanglr vds; hd ware; ext thick slip, wheel smoothed; ext pt: 2.5YR 3/4 reddish brown (L 19, PB 18).			
5	1093	bowl rim	10	Middle Bronze II
	Wheelmade?; ware/int: 7.5YR 5/4 lt brown; ext: 7.5YR 6/4 brown; some md rd-subanglr lt/dk mineral incls; few sm-md subanglr vds, ext: some straw casts; hd ware; ext/int wet smoothed (L 19, PB 17). Parallels: Kenyon and Holland 1982: Bowl B.I.b, Fig. 109.15 (Jericho).			
6	1099	bowl base	10	Middle Bronze
	Wheelmade; ware: 5YR 6/6 reddish yellow; ext/int slip: 7.5YR 8/2 pinkish white; some md-lg anglr-subanglr lt mineral incls; few sm-md rd vds; md hardness; unevenly smoothed slip (L 19, PB 17). Parallels: Najjar 1991: Fig. 7.1 (Amman).			
7	1100	jar/jug neck	-	Middle/Late Bronze
	Wheelmade; ware/int: 10YR 8/6 yellow; md core: 10YR 7/1 lt grey; ext slip: 10YR 10/2 white; some md anglr-subanglr lt mineral incls; few sm (rare: md) rd vds; hd ware; ext thick burnished slip; ext paint: 2.5YR 3/6 dk red; (L 19, PB 17). Parallels: McGovern 1986: Fig. 19.3 (Baq'ah Valley); Dornemann 1983: Fig. 8.67 (Amman).			
8	1097	ledge handle	-	Early Bronze II-III
	Handmade; ware/ext/int: 10YR 5/2 greyish brown; many md-lg anglr-subanglr lt/dk mineral incls; few md rd vds; md hardness; ext fire blackened: 10YR 3.5/1 v. dk grey (L 19, PB 17). Parallels: Kenyon and Holland 1982: Ledge Handle E.I.b, Fig. 78.4 (Jericho).			
9	1098	jar handle	-	Early Bronze I-III
	Handmade; ware: 5YR 4/6 yellowish red; ext: 5YR 3/1 v. dk grey; int: N 2/0 black; some sm-md subanglr lt mineral incls; many md-lg subanglr vds; md hardness; ext/int fire blackened; possibly a broken reshaped jar handle (L 19, PB 17). Parallels: possibly Kenyon and Holland 1982: Ledge Handle A.II.a, Fig. 76.3 (Jericho).			
10	1137	jar/jug handle	-	Middle Bronze
	Handmade; ware/ext/int: 10YR 8/4 v. pale brown; core: 10YR 7/1 lt grey; some sm-md subanglr lt mineral incls; v. many sm anglr-rd vds, ext: few straw casts; ext pt: 2.5YR 3/6 dk red (L 19, PB 17).			

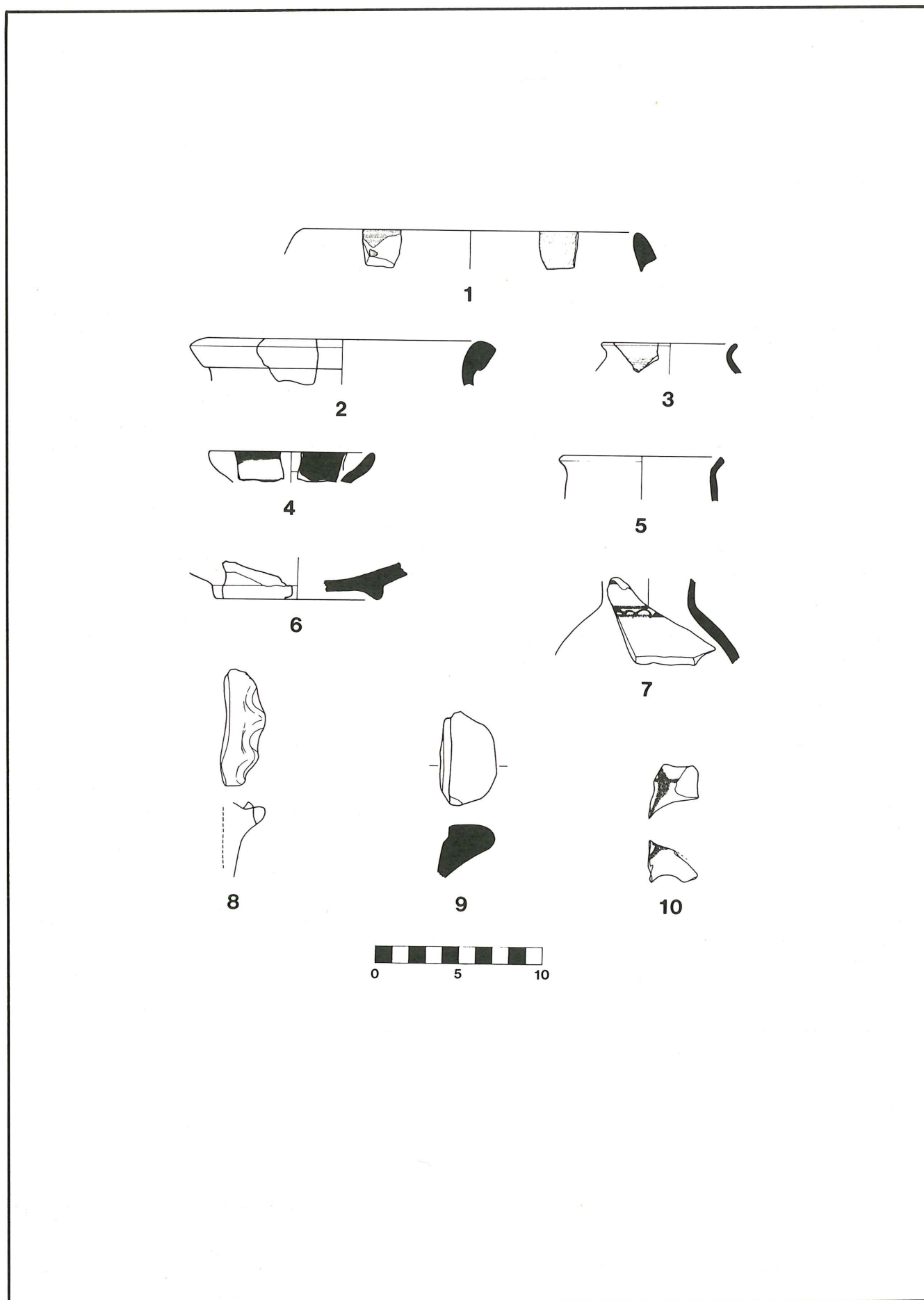


Fig. 8. Pottery from Locus 19.

Fig. 9. Locus 20.

No.	Reg.#	Form	Dia. (cms)	Dating
1	1103	bowl rim	27	Early Bronze II-III
		Wheelmade; ware/ext/int: 10YR 6/3 pale brown; md core: 10YR 5/1 grey; few v. sm (rare: md) subanglr lt mineral? incls; few v. sm rd vds; hd ware; ext horizontal burnish (L 20, PB 19). Parallels: Kenyon and Holland 1982: Bowl F.II.a, Fig. 54.9 (Jericho).		
2	1107	bowl rim	35 (outside)	Early Bronze IV
		Handmade; ware/ext: 7.5YR 7/4 pink; int: 7.5YR 6/4 lt brown; md core: N 5/0 grey; some md-v. lg anglr-subanglr lt mineral incls; some sm-md rd vds; md hardness; int horizontally hand smoothed (L 20, PB 19). Parallels: Prag 1971: Figs. 25.6 (Iktanu), 45.11 (Tell Umm Hammad al-Gharbi).		
3	1106	holemouth jar rim	18	Early Bronze II-III
		Handmade; ware: 10YR 5/3 brown; ext: 10YR 4/1 dk grey; int: 10YR 5/3 brown to 10YR 4/1 dk grey; many lg-v. lg anglr-subanglr lt mineral incls; few md-lg anglr vds; hd ware; ext fire blackened; int lime encrusted (L 20, PB 19). Parallels: Kenyon and Holland 1982: Holemouth Jar F.I.a, Fig. 67.13 (Jericho).		
4	1108	holemouth jar rim	18	Early Bronze II-III
		Handmade; ware: 10YR 7/6 yellow; ext: 10YR 6/6 brownish yellow; int: 5YR 5/6 yellowish red; thick core: 10YR 4/4 greyish brown; many md-lg anglr-subanglr lt mineral incls; some md rd vds; md hardness; ext blackened at rim: 10YR 4/2 dk greyish brown (L 20, PB 19). Parallels: Kenyon and Holland 1982: Holemouth Jar F.I.b, Fig. 67.18 (Jericho).		
5	1125	holemouth jar rim	16	Early Bronze IV
		Handmade; ware: 10YR 4/1 dk grey; int: 10YR 5/6 yellowish brown; v. thick core: 10YR 4/1 dk grey; ext slip: 10YR 6/6 brownish yellow; many md-v. lg anglr lt mineral incls; some sm rd vds; md hardness (L 20, PB 25). Parallels: Johnston and Schaub 1978: Fig. 3.20, 21 (Bab adh-Dhra`).		
6	1114	holemouth jar rim	13.5	Early Bronze II-III
		Handmade; ware: 7.5YR 4/0 dk brown; v. thick core: N 4/0 dk grey; ext slip: 7.5YR 5/4 brown; int slip: 7.5YR 4/4 dk brown; many md anglr lt mineral incls; some sm rd vds; md hardness (L 20, PB 19). Parallels: Kenyon and Holland 1982: Holemouth Jar A.II.e, Fig. 64.18 (Jericho).		
7	1110	jar rim	12	Early Bronze IV
		Handmade; ware/ext/int: 10YR 7/4 v. pale brown; md core: 10YR 6/1 grey; many md-v. lg anglr-rd lt/dk mineral incls; some md-lg rd vds; md hardness; ext wet smoothed; int cracked; lime spalled (L 20, PB 19). Parallels: Zayadine 1978: Fig. 3.13 (Amman); Prag 1971: Fig. 42.9 (Meshra al-Abyad).		
8	1109	cooking pot rim	?	Middle Bronze II
		Handmade; ware: N 2/0 black; ext/int: 7.5YR 4/4 dk brown; many md-v. lg anglr lt/dk mineral incls; many md-v. lg anglr-rd vds; md hardness; ext blackened: 7.5YR 3/2 dk brown; applied rope decoration below rim (L 20, PB 19). Parallels: Kenyon and Holland 1982: Cooking Pot I.D.1, Fig. 144.2 (Jericho); Cole 1984: Cf A.3 (Balata).		
9	1153	jar base	14.2	Early Bronze IV
		Handmade; ware/ext: 10YR 7/3 v. pale brown; int: 10YR 6/4 lt yellowish brown; many md-v. lg anglr-subanglr lt/dk mineral incls; some sm-md rd vds; md hardness; ext vertical combing (4mm wide); int cracked; lime spalled (L 20, PB 19). Parallels: Johnston and Schaub 1973: Ware I (Bab adh-Dhra`); Schaub 1973: Figs. 7.21, 8.25 (Bab adh-Dhra`); Prag 1971: Fig. 35.1 (Beitrawi); Olavarri 1969: Fig. 5.14 (Ara`er).		
10	1104	bowl rim	10.3	Middle Bronze II
		Wheelmade; ware/ext: 10YR 7/3 v. pale brown; int: 10YR 8/3 yellow; few v. sm (rare: md) subanglr lt mineral? incls; many sm-md rd vds; md hardness; ext pt (trace at rim): 10R 3/6 dk red (L 20, PB 19). Parallels: Kenyon and Holland 1982: Bowl H.III.a, Fig. 118.21 (Jericho).		
11	1157	incised jar neck	14.2	Early Bronze IV
		Handmade; ware/ext/int: 7.5YR 5/4 brown; thick core: 5YR 6/1 grey; some sm-md (rare: v. lg) rd-subanglr lt mineral incls; some md-lg rd-subanglr vds; md hardness; ext vertical incising (L 20, PB 19). Parallels: Zayadine 1978: Fig. 3.4 (Amman).		
12	1158	jar body w/incised sign	14.2	Early Bronze IV
		Handmade; ware: 2.5YR 5/8 red; ext/int: 7.5YR 5/4 brown; many md-lg anglr-subanglr lt mineral incls; some md-lg anglr vds; md hardness; grafitto incised before firing (L 20, PB 19).		
13	1155	bowl fragment	-	Early Bronze IV
		Handmade; ware/ext/int: 10YR 8/3 v. pale brown; thick core: 10YR 5/1 grey; many md-v. lg anglr-subanglr lt mineral incls; some md-lg anglr-subanglr vds; md hardness; applied rope decoration (L 20, PB 19). Parallels: Prag 1971: Fig. 39.7 (Mu`amariyeh).		

- 14 1112 juglet handle — Middle Bronze IIA
 Handmade; ware: 10YR 7/3 v. pale brown; ext: 7.5YR 7/6 reddish yellow; int: 10YR 7.5/4 v. pale brown; ext slip: 10YR 4/8 red; few v. sm-md subanglr dk mineral incls; few sm rd vds; md hardness; slip badly abraded (L 20, PB 19).
 Parallels: Price Williams 1977: Figs. 8.10; 81.3 (Tell Fara); Najjar 1991: Fig. 12.22 (Amman).
- 15 1113 folded ledge handle — Early Bronze IV
 Handmade; ware: 5YR 5/6 yellowish red; ext: 7.5 YR 7/6 reddish yellow; int: not preserved; md core: 5YR 5/1 grey; ext slip: 2.5YR 5/6 red; many md-v. lg anglr-subanglr lt/dk mineral incls (one rd grog; 1cm dia); some md-v. lg anglr-rd vds; md hardness; smoothing marks top/bottom (L 20, PB 19).
 Parallels: Zayadine 1978: Fig. 3.1, 5 (Amman); Prag 1971: Figs. 20.4, 22.1 (Iktanu).

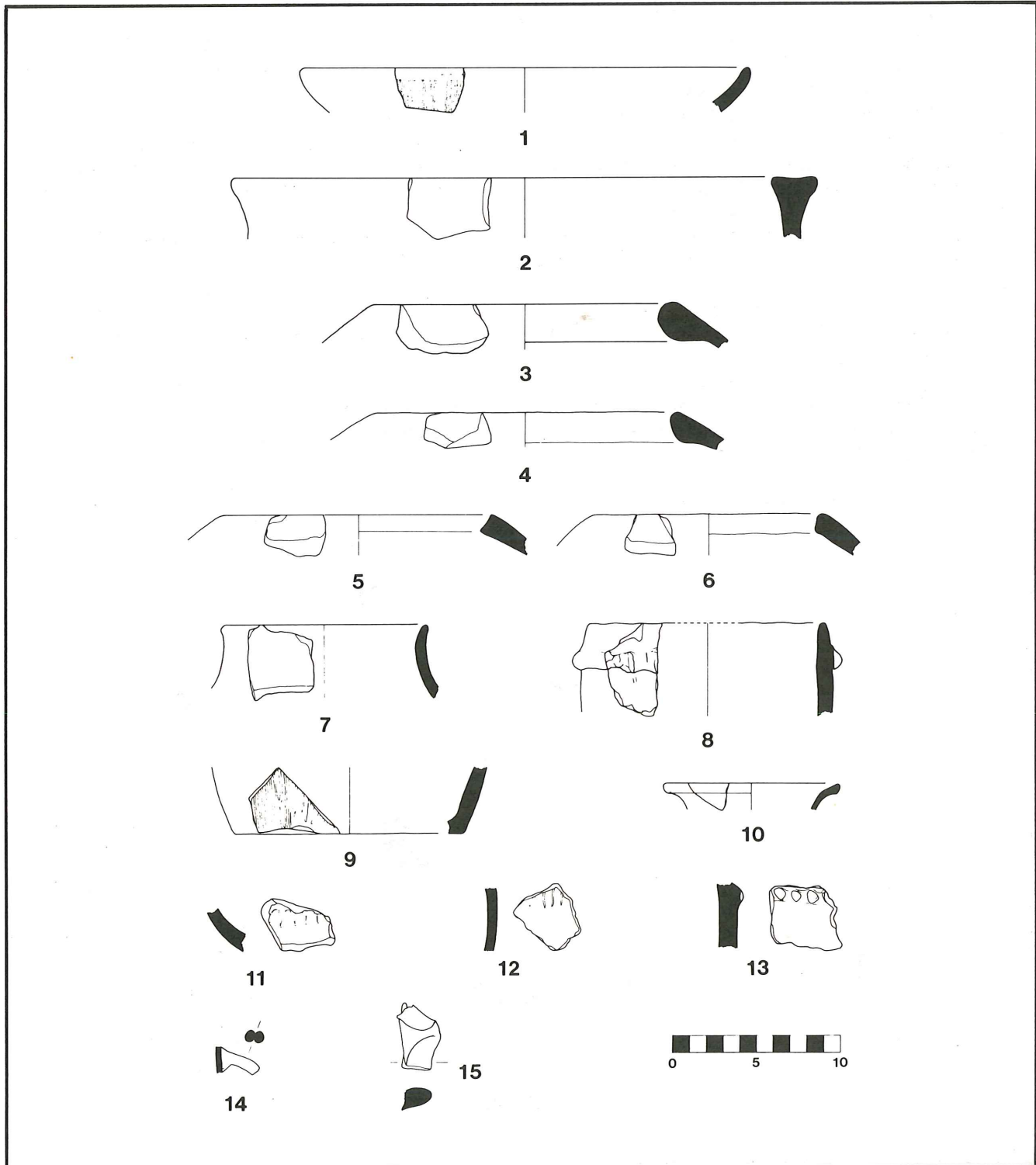


Fig. 9. Pottery from Locus 20.

Fig. 10. Locus 21.

No.	Reg.#	Form	Dia. (cms)	Dating
1	1121	jar rim	19	Early Bronze IB Handmade; ware: 7.5YR 8/6 reddish yellow; ext/int: 5YR 7/8 reddish yellow; md core: 5YR 7/1 lt grey; many sm-v. lg anglr lt mineral incls; few sm-md subanglr vds; md hardness (L 21, PB 23). Parallels: Kenyon and Holland 1982: Jar C.II.b, Fig. 37.27 (Jericho).
2	1116	jar rim	13	Early Bronze IB Handmade; ware/ext/int: 7.5YR 7/6 reddish yellow; many md-v. lg anglr lt/dk mineral incls; some sm-md rd vds; md hardness (L 21, PB 20). Parallels: Kenyon and Holland 1982: Holemouth Jar A.I.b, Fig. 39.3 (Jericho).
3	1135	bowl rim	11	Early Bronze IB Handmade; ware/ext/int: 7.5YR 7/6 reddish yellow; md core: 10YR 7/4 v. pale brown; some md-lg anglr-rd dk/red mineral/grog incls; few sm-md rd vds; md hardness; ext/int paint: 2.5YR 4/6 red (L 21, PB 20). Parallels: Kenyon and Holland 1982: Bowl B.I.a, Fig. 34.6 (Jericho).
4	1150	jar base	14.4	Early Bronze IB Handmade ware/ext/int: 7.5YR 8/6 reddish yellow; thick core: 5YR 6/1 grey; many md-v. lg anglr lt/dk mineral incls; some md-v. lg subanglr voids; md hardness; ext blackened (L 21, PB 20).
5	1117	knob handle	--	Early Bronze IB Handmade; ware/ext: 10YR 7/4 v. pale brown; int: 2.5YR 5/2 greyish brown; some md-lg subanglr lt mineral incls; few sm-md subanglr vds; md hardness (L21, PB 20).
6	1151	jar body	--	Early Bronze IB Handmade; ware/int: 10YR 8/4 v. pale brown; thin core: 10YR 7/1 lt grey; ext slip: 10Y 8/6 yellow; some sm-md rd-anglr lt/dk mineral incls; few sm rd vds; md hardness; ext paint: 7.5YR 6/6 reddish yellow; "grain washed" (L 21, PB 21).
7	1119	jar body	--	Early Bronze IB Handmade; ware/ext/int: 2.5YR 5/2 greyish brown; md core: 10YR 5/1 grey; ext slip: 5Y 8/3 pale yellow; some sm-md rd-subanglr lt mineral incls; some sm-md rd vds; md hardness; ext paint: 10YR 5/2 brown; int lime encrusted; "grain washed" (L 21, PB 21).

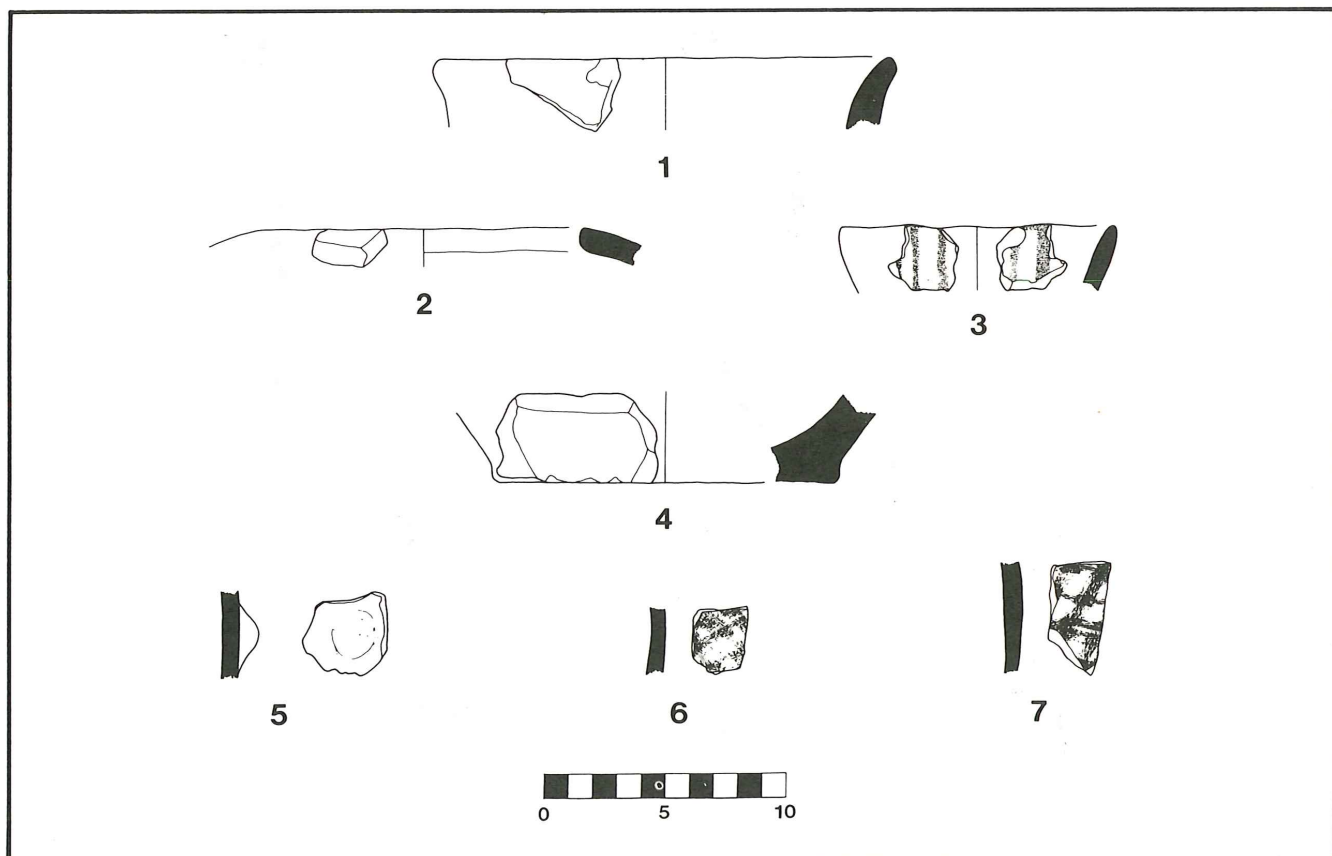


Fig. 10. Pottery from Locus 21.