CHAPTER ONE
INTRODUCTION

1.1 GENERAL INTRODUCTION

Until the 1960s and the excavations of Crystal Bennett, research into the archaeology of the land of Edom proceeded in a rather uneven manner. Early traveller's accounts are usually of little use for although most will speculate on biblical accounts of Edom (for instance, Stephens 1837 (1970 edition): 284f.; Doughty 1888: 83) archaeological information is confined to descriptions of large Nabataean sites such as Petra. Bruennow and von Domaszewski's great survey (1904, 1905, 1909) was concerned mostly with Roman antiquities and has little to say on the Iron Age. Frank (1934) and Alt (1935a, 1935b, 1935c) in the Wadi Arabah were more broad-ranging but, as Glueck remarked (1935: 3) "the value of Fritz Frank's important survey of the 'Arabah is lessened by his failure to evaluate properly the pottery found on the sites he visited". The same problem exists with Musil's (1908) detailed survey of Arabia Petraea.

For the Iron Age (c. 1200 - 500 BC) the first archaeologically useful coverage of Edom did not occur until the extensive surveys east of the Jordan made by Nelson Glueck in the 1930s (Glueck 1933, 1935, 1939a, 1951). Here Glueck discovered on many sites the painted pottery characteristic of the cultures of Ammon, Moab and particularly Edom which he dated, in a combination of biblical history and parallels with Late Bronze Age pottery, to the 13th century BC onwards. He saw the major floruit of these cultures as being between the 13th and the end of the 9th centuries BC with a complete gap in occupation between the early 6th century and beginning of the Hellenistic period (332 BC) (Glueck 1935: 137 ff).

The site of Umm al Biyara was sounded (Glueck 1933), Glueck identifying it with biblical Sela'. He also excavated the site of Tell el Kheleifeh on the Gulf of Aqaba (Glueck 1938a, 1939b, 1940a, 1940b, 1941, 1967) which he identified with biblical Ezion-geber and at which he discovered late (7th century BC) Edomite occupation.

Full-scale excavations in the Edomites' mountainous homeland on the plateau to the east of the Wadi Arabah did not commence until the

1960s with the work of Crystal M. Bennett at Umm al Biyara (Bennett 1966a, 1966b) and later, Tawilan (Bennett 1971b). None of the material from these two sites could be identified as being earlier than the late 8th century BC and similar material from other sites in Ammon and Moab led to a questioning of Glueck's hypothesis (Sauer 1986).

Excavations in the 1970s and 1980s (including, in Edom, Buseirah (Bennett 1973, 1974, 1975, 1977), Tawilan (Bennett 1984) and Ghrareh (Hart 1987a, 1987b, 1988)) have revealed a flourishing culture in the 8th through the 6th centuries BC and Glueck's hypothesis is no longer followed (Sauer 1985, 1986). In Edom itself there is no firm evidence for substantial settlement before the 8th century BC (see Chapter 6 for a full discussion).

Although a quarter of a century has now passed since excavations started on the Edomite plateau, our understanding of the Edomite material culture is still limited, largely because no final site publications have yet appeared. The major work on Edomite pottery (Oakeshott 1978), while being an excellent typology, is limited because it is not tied to any stratigraphy. Thus in attempting to deal with Edomite pottery Mazar (1985) sets himself an impossible task which quickly devolves into a circular argument wherein his pottery phasing is based on Oakeshott's Buseirah "occupation phasing" (Oakeshott 1978: 77-79) which in turn is based solely on her analysis of the pottery.

The writer is fortunate in having access to much of the excavated material from Edom, both Bennett's and his own, together with survey material from much of the plateau. The main purpose of this thesis is to present this material and to discuss its implications towards a new understanding of Edomite archaeology.

To this end the following original material will be discussed:

1. Ghrareh (Chapter 2): the results of the writer's 1986 excavations are presented here. Ghrareh is basically a single period, Edomite fortress site.

2. Buseirah (Chapter 3): Mrs Bennett has very kindly made available the stratified pottery from Area D which is analysed here. The Area

D corpus is not large but provides a useful indication of the Buseirah material in advance of the final publication.

3. Tawilan (Chapter 4): Mrs Bennett has also made available the pottery from Tawilan. It is not treated in as much detail as the two above sites but provides additional information.

4. Kh. Ishra, Kh. al-Megheitah (Chapter 4): the material from two small soundings made by the writer in 1985 is discussed here.

5. Survey material (Chapter 6): pottery from a survey made in 1984 and 1985, covering both Glueck's sites and new sites, is discussed, together with published material from other surveys.

Chapter 5 is an attempt to reach a relative chronology for Edomite pottery, based on the material presented in Chapters 2 to 4. Chapter 7 ties together the work of the previous chapters and attempts to place the Edomite material in its proper historical and geographical context.

1.2 OAKESHOTT'S POTTERY CLASSIFICATION

The major work on Edomite pottery to date has been Oakeshott's doctoral thesis (Oakeshott 1978), also presented in summary in a conference paper (Oakeshott 1983). Oakeshott has catalogued and classified a great deal of material from Buseirah in a system that appears to work well. This work will generally follow that system but, being concerned with a broad range of material, will only use the large categories, that is Bowl Types A, B, C etc and not subgroups A1, A2, A2a and so forth which require large corpora of material (as at Buseirah) to be effective.

The type-categories used in this thesis are:

Bowl, Type A: platters and flat dishes.

Bowl, Type B: carinated bowls.

Bowl, Type C: straight rimmed carinated bowls.

Bowl, Type D: bowls with triangular-section rims. Type E, with a bar handle or a ridge below the rim is subsumed into this type.

Krater: this term is used in preference to Bowl, Type F.

Negev Ware: this term is used in preference to Bowl, Type G.

Bowl, Type J: fine ware. Type H bowls are generally listed under Type J as the distinction between "thin" and "fine" is often subjective and difficult to define.

Bowl, Type K: "Assyrian" bowls.

Bowl, Type L: mugs (bowls with a single handle).

Bowl, Type M: deep bowls with a straight, flaring neck. This form is very rare outside Buseirah.

Bowl, Type N: deep bowls with short necks.

Bowl, Type O: straight-sided cups. This type is difficult to define in an incomplete vessel and several possible examples are classified as Type J.

Bowl, Type P: rough bowls with flat or slightly rounded base. This category is not often used as it is ambiguous for rim fragments.

Bowl, Type Q: censers. This form is very rare outside Buseirah.

Very Large Bowl: this term is used in preference to Bowl, Type R.

Bowl, Type S: white ware chalices. This form has not been found outside Buseirah.

Bowl, Misc.: all bowl forms which do not fit into the above categories.

Cooking Pot, Type A-B: Oakeshott distinguishes between Type A (rim continuing line of shoulder) and Type B (pots with short necks) cooking pots but the distinction is artificial as there is a continuum between those that have necks and those without.

Cooking Pot, Type D: pots with a simple rim.

Cooking Pot, Type E: pots with a double-fold rim, similar to kraters.

Storage Jar: this term is used in preference to Jar, Type A.

Ovoid Jar: ovoid jars with no neck and thickened rim.

Jar, Type C: small jar without neck.

Ridge-necked Jar: similar to Type C Jug but with shorter neck.

Short-necked Jar: this term is used in preference to Jar, Type D.

Long-necked Jar: equivalent to Oakeshott's Rim-type 13, 14 and 15.

Jar, Misc.:	all jar forms which do not fit into the above categories.
Flask:	pilgrim flask.
Bottle:	small, elongated jar form.
Jug, Type B:	large jug with a ridged rim.
Jug, Type C:	decanter with a ridged neck.
Miscellaneous:	miscellaneous categories such a lids, lamps or double-bowls are used as necessary.

1.3 BRIEF HISTORICAL OUTLINE

The kingdom of Edom is one of a number of small states that existed in the Palestine region during the first millennium BC (Map 2). Most of our knowledge of its history comes from the Bible, particularly the books of Kings, Chronicles and the prophets Ezekiel, Jeremiah and Obadiah. Egyptian texts of the 14th - 11th centuries BC refer to the Bedouin (shasu) tribes of Edom (Pritchard 1969: 259). Assyrian records tell us of the kings Kaush-malaku in the 8th century (Pritchard 1969: 282), Qaush-gabri (Pritchard 1969: 291, 294) and Aiarammu (Pritchard 1969: 287) in the 7th century and seals and ostraca from southern Palestine attest Edomites and theophoric names compounded with the Edomite god QWS.

There are references to the Edomites during the Exodus (Num 20:14f) where the Israelite tribes are refused access to the Kings' Highway. They appear in the time of the united monarchy. Saul fought them successfully (I Sam 14:47) and David apparently subjugated them completely (II Sam 8:13f) "And he put garrisons in Edom: throughout all Edom put he garrisons and all the Edomites became servants to David". A certain Hadad of the royal Edomite line had to flee to Egypt. He returned during Solomon's reign and successfully regained the kingship, although whether he also regained full control over his kingdom is unclear. The dating and historicity of these events are much debated but are outside the

frame of reference of this thesis which is concerned with the archaeological evidence.

The historical event of major importance to this work is the invasion of Palestine by Tiglath-Pileser III, king of Assyria, in 734 BC. After this date, all the Palestinian petty-states were absorbed into the empire, either as Assyrian provinces or as tributary allies. Assyria retained control over the area for the next hundred years. But with the fall of Assyria at the end of the 7th century the Empire was taken over by Babylon.

In 587 BC King Nebuchadrezzar of Babylon destroyed Jerusalem. The Edomites contributed their share to this destruction and much of the inherent anti-Edom bias in the Old Testament can be said to originate with this event (Cresson 1963: 142). About this time also Edom began to expand its interests to the west, into the Negev and southern Judah, the area which in classical times came to be known as Idumea (for a detailed discussion see 7.3).

In 539 BC the Persians took control of the Babylonian Empire, including the city of Babylon itself. Relevant records from this period are scarce and the details of Edom's ultimate demise are unclear. It seems most likely that increasing pressure from desert-dwelling tribes caused settlement to break down on the plateau. Some of the settlers would have moved west into what was to become Idumea. Some would have stayed and mixed with the newcomers, among whom were the Nabataeans who were ultimately to take over most of Transjordan. As a coherent political entity, however, Edom probably ceased to exist sometime in the 5th century.

1.4 GEOGRAPHY

An understanding of the physical nature of Edom is essential to understand the forces shaping its history. Its fortress-like isolation and its low rainfall affect the types of settlement prevalent there.

1.4.1 TOPOGRAPHY

The heights of the Edomite homeland form a clear geographical area. The northern boundary is the deep valley of the Wadi el Hasa. It apparently formed a fixed and natural boundary with the state of Moab to the north. South of the Wadi Hasa, geological pressures associated with the great rift valley have pushed up a long ridge, much of which is over 1500 metres (Map 3) and this ridge is the basis of Edom.

It is a long narrow country, approximately 120 km north-south but only around ten kilometres wide between the scarplands to the west and the desert to the east. The scarplands are wide - up to 20 km - and steep and make a formidable barrier. At Ras en-Naqb the ridge and scarp curve to the east forming the southern boundary of the kingdom.

The country is divided into two unequal parts by the Feinan Embayment which cuts back into the scarp. The major geological component is the straight NE-SW fault of the Wadi Dana. Another E-W fault runs further south with several minor faults carving the final shape. In the mouth of the embayment is Feinan, ancient Punon, an important copper mining centre.

Northern Edom is much more rugged country than the south, being cut by large NW-SE faults such as the Wadi Tafileh and behind the faults on the plateau are a number of volcanic vents with associated discontinuous basalt outflows. Local topographical variation is also greater than in the south. South of this area the desert plain runs right up to the edge of the Feinan Embayment, completely separating the north and south and being a distinct military weak point against attacks from the desert.

Southern Edom - the area between Shobak and Ras en-Naqb - is longer (c. 60 km) and higher (over 1500 m) throughout. The Petra-Beidha sandstone platform sits at around 1100-1300 metres, brought to an end in the south when the ridge turns eastwards. On the eastern side of the ridge the wadis run due east, unlike the north where they tend to run radially from the basalt plugs. There are frequent springs and the number of settlements is significantly greater.

1.4.2 CLIMATE

Rainfall is carried into Transjordan from the Mediterranean and tends to decrease to the south and east, increasing on the seaward side of hills. The height of the Edomite hills counteracts the decreasing rainfall of the south. Average rainfall (Map 4) is still low (300 mm maximum, most of which falls in winter) but well above the desert surrounding it on three sides. In a good year (Map 5) it can rise to over 400 mm but in a bad year (Map 6) the area receives little over 100mm.

What this means in terms of dry-farming is illustrated in Maps 7 (Wheat) and 8 (Barley). Wheat is barely a feasible crop without irrigation. Barley, however, may be grown over much of the area two years out of three.

There is a temperature gradient of approximately 10 degrees celsius between the heights of the plateau and the Wadi Arabah. Maps 9 and 10 show the position during the coldest month (January) where the Wadi Arabah with a daily average of 10-18 degrees celsius is far more inviting than the freezing nights on the plateau. Conversely, in the summer months (Maps 11 and 12 - August) the Arabah becomes almost unbearably hot, the plateau being very pleasant by comparison.

The above figures are, of course, all of recent origin. The general climatic pattern (dry summers, wet winters) has not changed in the last few thousand years[2] and the same sorts of crops have been grown but after about 2000 BC evidences for climatic fluctuation are increasingly obscured by human activity. Evidence for the Levant is especially poor.

CHAPTER TWO
GHRAREH

2.1 INTRODUCTION

Ghrareh was first discovered by the Edom Survey Project in 1984 (Hart and Falkner 1985). It was sounded during the 1985 season (Hart 1987a and 1987b) and in 1986 a full season of excavation was undertaken. It is located (Fig. 2-1) at the head of the Wadi Delaghah, one of the few practicable access routes between the plateau and the Wadi Arabah to the west. It sits on a projecting spur (Fig. 2-2) which slopes steeply to the north, west and south and is approximately one kilometre from the nearest source of water - the perennial spring at 'Ain Reseis, at PGR 190895157.

The top of the hill was surrounded by an enclosure wall which might possibly (see discussion of Area C below) have been of casemate construction (Fig. 2-3). In the centre of the enclosure (Area A) is a single courtyard house with further structures attached to the south (Fig. 2-4). The main gate to the fortress was not found but was probably located at the eastern end of the site which has suffered badly from Nabataean stone-robbing and recent ploughing. It would appear from surface remains that most of the enclosure was open or contained makeshift structures.

The central building (Area A), fully excavated except for the north-east corner, is built of the local limestone using large blocks (up to 1.5 metres long) with some snecking. Walls are one course wide and survive to an average height of about one metre. Bedrock, plastered in places to smooth out irregularities, forms the only floor,

In plan the building consists of a central courtyard divided by a line of pillars. Rooms adjoin to the west and south. On the north side there is no room but rather a "verandah" raised on overlaid stones. Towers occupy the corners and at the front of the building (the east) project on either side of the doorway.

To the south of the building more structures are attached, associated with an underground cistern which can be accessed from three

separate directions. A second, larger cistern is located about 10 metres to the south of the building.

A sounding along the southern wall (Area D, Fig. 2-7) revealed a small postern gate protected by a projecting tower. Area B (Fig. 5) produced the only vertical stratigraphy where Iron Age surfaces overlie two earlier (probably Iron Age) tombs, both unfortunately robbed.

With this exception, the Iron Age occupation of the site appears to be single period only. Pottery is standard Edomite 7th-6th centuries BC with many parallels in the Buseirah and Tawilan corpora (Chapter 5, below).[3]

2.2.1 GHRAREH AREA A

The basis of Area A is a single house (Fig. 2-4 Rooms 1-10) built around a pillared courtyard. Other structures to the south are largely associated with a cistern which is cut into the bedrock under Rooms 11, 12, 15 and 18. All building is of stone found on bedrock which forms the only floor.

Room 1

This is the central courtyard. The main entrance to the building is in the south wall of this courtyard. A line of pillars running east-west divides the courtyard. The pillars are of different sizes and heights but are arranged against the slope of bedrock such that the tops of all are at much the same horizontal level. Roughly built walls block three of the gaps. Behind the pillars in the north-west is a large storage pit lined with mud-plaster. Numerous querns and grinding stones indicate that substantial food preparation took place in the courtyard.

Rooms 2 and 7

Two main rooms lead off the courtyard to the west and south, rooms 2 and 7 respectively. It was in these two rooms that the greatest number of finds occurred. Both contained numerous storage jars and other pottery. In both cases the doorways had been blocked with stone.

Rooms 8 and 9

Rooms 8 and 9 are located west of room 7. Both are open-ended towards the courtyard. The line of single stones dividing Room 9 from the courtyard is to demark space and has no structural purpose. Little

in the way of finds came from these rooms which might conceivably have been used for stabling.

Rooms 3, 6 and 10

Located in the NW, SW and SE corners of the building respectively there is no obvious access to any of these rooms and they appear to be tower foundations. It is possible that they were accessed from above for against the east wall of Room 3 is a confused group of stones which might have formed a bin. The north wall of Room 10 is very flimsy and it is possible that this "tower" was at least partially open on the north side. It is very likely that a second tower mirrored Room 10 in the unexcavated area on the opposite side of the main entrance.

Rooms 4 and 5

Rooms 4 and 5 are something of a puzzle. Room 5 consists of a raised platform built of overlaid stones behind the wall which separates it from Room 4. The bedrock of Room 4 has been cut into a stepped pit which slightly underlies the wall to the east. This would suggest that the wall postdates the pit but a step in the southern end of this wall suggests to the contrary that they are part of the one design. There is no obvious access between Room 5 and the courtyard (Room 1) but Rooms 3, 4 and 5 are all part of the main design as is shown by the large foundation stone in the NW corner of Room 3.

Rooms 19 and 20

Rooms 19 and 20 are outside the main building. The wall separating the two and a possible doorway dividing Room 20 indicate further unexcavated structures to the north.

Room 21

"Room" 21 is the area outside the front door of the main building. Ash and a pit in the northern end suggest food preparation and cooking took place here. Bedrock slopes away rapidly in the SE and was levelled with large stones.

The Cistern and its Outlets

The cistern is located beneath Rooms 11, 12, 15 and 18. It was plaster-lined although most of the roof and wall plaster had become detached after the cistern went out of use and formed a layer below the more recent silting. At time of excavation the cistern was silted to

the roof. Only about half the cistern was excavated (the area between C, D and E) with an exploratory area beneath "A" and the edge of "B". "A" is a natural hole in bedrock and "B" is where the roof of the cistern has become detached and sits on the silt underneath. The cistern beneath "A" is much shallower than elsewhere.

"C" in Room 15 is a sloping shaft leading into the cistern. It would have been difficult to draw water out of this hole and this may have been where it was poured in.

"D" forms a pool external to the cistern. A wall across it would prevent detritus from entering the cistern proper.

"E" is a vertical shaft on the eastern edge of the cistern. Bedrock slopes rapidly here and a step has been cut to aid in the withdrawing of water.

Rooms 11 and 12

Room 11 was a cooking area, as is shown by an ashy deposit, charcoal and burnt wood, and the blackened bedrock. Five small circular holes are in the bedrock in the western end of the room. There is a doorway in the west of the southern wall leading to Room 16. Room 12 is simply a place from which water was withdrawn (see above) with a doorway in the eastern end of the southern wall. The wall separating Rooms 11 and 12 is built of smaller stones than is normal and may postdate the original construction.

Room 13

"Room" 13 is a probe outside the buildings. There is no evidence of habitation here although many pottery fragments suggest the area may have been used as a dump.

Rooms 15 and 18

Rooms 15 and 18 appear to have no other purpose than to add water to or remove it from (respectively) the cistern (see above). Room 15 has two doorways in the east and west of the south wall, perhaps to allow easy passage of water bearers from 'Ain Reseis filling the cistern. Room 18, like Room 12, seems to exist only to provide access to the cistern water via the rock-cut channel "D".

Rooms 14, 16 and 17

Too little has been excavated of these areas to say much about their function. Room 16 is perhaps an outside access to Room 11 with a step

up to Room 17. No northern or western limits were found to Room 14 but pottery and a complete basalt bowl attest that the area was in use.

2.2.2 GHRAREH AREA B

Area B (Fig. 2-5) is located on the north side of the site in an open area about 10 metres behind the outer wall. The wall marking the eastern boundary of the trench is of later, probably Nabataean, construction. Unlike the other areas excavated, the natural base here is a thick clay/pebble mix rather than limestone bedrock.

Two tombs were cut into this clay in the southern end of the trench. Neither was fully excavated as it became apparent that they had been comprehensively robbed. The structure of Tomb 2 was the more intact and consisted of a short, stepped dromos leading into a probably circular chamber. Tomb 1 was of similar construction but the dromos was not located.

The major occupation in this area was an open area with hearths set onto, and partially cut into, the natural clay which formed the surface. The hearths were constructed of stone with some mud-brick. A thick, ashy layer marked the occupation. Much ash, bone and Iron Age pottery came from Tomb 2 suggesting that it had been robbed prior to the occupation and used as a refuse pit.

Overlying this phase is a trodden clay/mortar/earth surface with an ashy occupation layer above it. A possible area of stone pavement is the only associated structure but much bone and pottery was found, including a complete cooking vessel.

In summary, four phases are represented here:

Phase I (earliest) : Iron age tombs

II : Iron age occupation with hearths

III : Iron age occupation with stone surface(?)

IV : Nabataean occupation

2.2.3 GHRAREH AREA C

Area C (Fig. 2-6) consists of a single trench sunk behind the northern defensive wall in an attempt to determine its nature. Rubble in this area is extensive and proved a great hindrance, particularly as the trench deepened. Midway through excavation, nocturnal visitors pushed a number of very large boulders into the trench, bringing work to a halt there.

Thus the trench was not fully excavated. However, a second wall, parallel to the outer wall and two and a half metres behind it, had started to appear, with a one metre wide doorway through it. The rubble removed from the fill was sandy and free of organic content but with occasional sherds of Edomite pottery. No surface had been reached when excavation ceased.

2.2.4 GHRAREH AREA D

Area D (Fig. 2-7) is a small probe across the southern defensive wall which can, in part, be traced on the surface here. The southern end of the trench is heavily eroded but the general pattern is clear.

We would appear to have a narrow (c. one metre wide) postern entrance protected by a projecting tower. To the west of the entrance are two storage structures - a bin of built-up stone and a pit. The wall is therefore not of casemate construction at this point. The base of the tower was also used for storage and a number of large storage vessels were found therein. The stones in the south of the trench to the west of the tower appear to have existed to level the slope rather than to continue the wall, although with such heavy erosion it is difficult to be certain.

2.2.5 GHRAREH AREA E

Area E consists of the inside of a long corridor or room. Erosion has destroyed most of the walls leaving one, or at most two, courses of stone. In the north corner of the east wall the stones appear to form a step rather than a wall and this may have been the doorway. The few sherds indicate that the structure is contemporary with the main building (Area A) and Area E is remarkable only for producing a seal

depicting a grazing animal, from a crack in the bedrock.

2.3 POTTERY (Plates. 1-28)

The pottery from Ghrareh fits well into the general group known as "Edomite" which dates to the 7th-6th centuries BC. Notable characteristics are the banded decoration on the bowls (pls. 1-3, 6-8, 10-12), the "triple-ridged" storage jars (pl. 15: 1-14) and the general form of the cooking vessels (pls. 21-23). Oakeshott's (1978) broad classifications are used here (e.g. bowl type-A, bowl type-B etc) although her subdivisions of these types are not (see 1.2 above). The small amount of stratified material from Area B is discussed separately.

Type-A Bowls: (pl. 1: 1-3)

Only two small undecorated fragments of this type were found at Ghrareh (pl. 1: 1-2). Pl. 1: 3 is a similar form but deeper.

Type-B Bowls: (pls. 1: 4-10; 2; 3: 1-6)

This type is common at Ghrareh (pls. 1: 4-10, 2: 1-14, 3: 1-6) although the carination is seldom sharp and sometimes smooths into a continuous curve. The most common form of decoration is black banding on the rim and inside, with four equally spaced groups of slash marks around the rim (pl. 1: 4 is typical). Red is less common (pls. 1: 5 and 8, 2: 5). Many examples show light wheel burnishing.

Type-C Bowls: (pl. 6: 19-21)

This type is not common at Ghrareh, three examples only being found (pl. 6: 19-21). Wheel burnish on 6:19 is the only decoration.

Type-D Bowls: (pls. 3: 7-13; 4; 5)

This broadly-defined type is common at Ghrareh but is seldom decorated. The two painted examples (pl. 3: 7-8) are not dissimilar to the type-B bowls are perhaps belong there conceptually. Of the rest (pls. 3: 9-13, 4: 1-21, 5:1-29) there is little to be noted except the complete absence of the trumpet bar handle which identifies Oakeshott's Type-E bowls. Pl. 4:14-21 are only marginally within type-D and some such as 4: 14 would perhaps better be re-assigned to Kraters (type-F).

Miscellaneous Bowls: (Pls. 6: 1-18; 7; 12)

These represent a miscellaneous collection of bowls that do not fit particularly well into any category. Pl. 12: 7 shows the remains of four horizontal loop-handles, evenly spaced around the rim but they were apparently lost in the early firing stage. The double ring-base (pl. 12: 8) is an isolated example at Ghrareh but one may note a similar example from Tawilan (pl. 32: 6).

Type-L Bowls: (pl. 8)

These are apparently a local variant of the "Assyrian" bowl. The fabric is coarser, decoration is not used and a single loop handle is attached. This is a very common form at all Edomite sites and appears throughout Transjordan although seldom in Palestine (Oakeshott 1978: 205).

Fine-ware bowls: (Pls. 9; 10:1-4)

Pl.9:1-8 are the so-called "Assyrian" bowls (Oakeshott's type-K), influenced by Assyrian prototypes but manufactured locally (Oakeshott 1978: 42). They occur throughout Palestine in this period. Nos. 9-29 are fairly standard Edomite fine-ware (Oakeshott's type-J). No. 11 is exceptionally well-made and the fabric, slightly different from the Ghrareh standard, suggests that it may have been made in Buseirah. Fine-ware decoration is the usual bands of black paint, with red paint being slightly more common than in the larger bowl forms (cf. 9: 1,2,4,10,11,27 and 10: 1). White slip is used rarely (pl. 10: 2 and 4). Light wheel burnishing is common.

Necked Bowls: (Pls. 10:5-17; 11)

The standard decorative elements are in use (black bands, red and white slip, wheel burnishing) and pl. 11: 5 has a band of applied denticulation. Pl. 11: 6 is perhaps to be considered in Oakeshott's terminology as a Type-M due to its longer neck.

Kraters: (Pl. 13)

The only complete example found (pl. 13: 1) has four equally spaced strap handles and two or four handles would seem, from other sites, to be the norm. No decoration is used for this type.

Storage Jars: (Pls. 14, 15 and 16: 1-9)

The "triple-ridged" form (pl. 15: 1-14) is a common Edomite variant but a simpler, shapeless blob profile also occurs (e.g. pl. 14; pl. 15: 15 and 17). Pl. 16: 9 appears to be a miniature version of the triple-ridged form. Incised decoration is sometimes used: pl. 15: 20 has a series of irregular holes in the top of the rim and 16: 1 has some kind of incised pattern or potter's mark.

Very Large Bowls: (Pls. 16: 10-12; 17: 14-21)

This form (not isolated by Oakeshott) is best described as a hybrid Krater/Storage Jar. Some rims resemble the triple-ridged Storage Jar rims but with a much larger diameter (pls. 16: 10-12 and 17: 18-19) whereas others (e.g. pl. 17: 14, 17, 20-21) are closer to the Krater form. The category is an elastic one and some examples might better be classified as Krater variants. A larger corpus would be necessary to refine the details of classification.

Jars/Jugs: (Pls. 18, 19, 20)

The most common form is Oakeshott's Type-B, large jugs with a ridged rim, (pls. 18: 1-2 and 19: 1-7) and variants with a thickened rim (pl. 19: 10-13, 16, 18-20). Examples 18: 1 and 19:1 have both been warped in the firing process. Less common are the Type-J Jugs (pl. 19: 9 and 17) and Type-C Jugs, "Decanters" (pl. 20: 3-5) with the ridged neck. Only two juglets were found (pl. 20: 1-2). Pl. 20 no. 7 is not a standard Edomite form and may well be imported from southern Judah (cf Beit-Arieh 1985: 20 from Tel 'Ira).

Cooking Pots: (Pls. 21-23)

The great majority of the Ghrareh cooking vessels belong to Oakeshott's Type-A or Type-B with a ridged rim. Most of these would be classified as Type-A (rim continues the line of the shoulder), the exceptions being pls. 21:1,2; 23:7 (Type-B cooking pots with a short neck). Just how meaningful this division is is unclear as some examples are ambiguous (cf Buseirah pl. 53: 10-13). The other significant form is Oakeshott's Type-D where the rim is thickened in the manner of Kraters (Type-F bowls) (pl. 23: 9-11, 14, 16). A few miscellaneous fragments (pl. 23: 12-13,15) complete the collection.

Lamps: (Pl. 12: 10)

Only a single complete lamp is illustrated from Ghrareh (pl. 12: 10). It is of the typical Iron Age form and ware.

"Negev" Ware: (Pls. 24; 28: 7-17)

This is the coarse, handmade pottery, usually known as "Negev" ware (Oakeshott's "Kheleifeh" ware). No attempts have yet been made to classify this ware which occurs throughout Edom and the Negev. Current understanding indicates that its chronological span covers the entire Iron Age (Pratico 1985: 23).

Miscellaneous Vessels: (Pl. 25)

The fenestrated incense stand (25: 1) has parallels at Tell el Kheleifeh (cf Tell el Kheleifeh pl. 61: 22) and is most probably imported from that site. The pilgrim flask (25: 2) has a good parallel from Buseirah, R 415 (Oakeshott 1978 pl. 34:1). The spouted bowl has a parallel from Tawilan, R 645 (Oakeshott 1978 pl. 47: 9). The small sherd (25: 4) is of Midianite ware. This ware is presumed to date to the Late Bronze/Early Iron Age (Dayton 1970a), but no conclusions can be drawn from an isolated example.

AREA B POTTERY

The only pottery from stratigraphically separated periods at Ghrareh comes from Area B (pls. 26-28). The latest material associated with the rough occupation surface overlying the hearths (Phase III, see 2.2.2 above) is illustrated on pl. 26. The material actually associated with the hearths (Phase II) is illustrated on pl. 27:1-10 and pl. 21:1, and the material from inside Tomb 2 is illustrated on pl. 27:11-20 and pl. 28. Note that this latter material is not associated with the original use of the tomb but appears to be rubbish from the Phase II cooking hearths, as is indicated by the many animal bones found in the deposit.

The sample size is too small for many conclusions to be drawn here and the bulk of the vessels associated with the hearths are, unsurprisingly, cooking pots including "Negev" ware (pl. 28: 7-17). Noteworthy is the necked bowl from Phase III (pl. 26: 8) which is the only example of a painted geometric pattern found at the site.

2.4 EPIGRAPHIC MATERIAL

The epigraphic material from Ghrareh was disappointingly slight and of no help to the accurate dating of the site. I am grateful to Dr Axel Knauf for the interpretation of such material as exists (Knauf 1988, fc). Two items were found:

1. A coarse body sherd, obviously from a storage jar, with the name *Ram'il lightly incised before firing. The form *Ilram is attested in Ammonite (Jackson 1983: 95) but *Ram'il has only occurred in Safaitic to date (Harding 1971: 286). The name being common to Edomite and Ancient North Arabian is a further attestation for Arabic influence on, or presence within, Edom (Knauf fc and cf. Knauf 1985b). Palaeographic comments are difficult on such a flimsily written inscription but Knauf (fc) suggests a date around the end of the 7th century BC.

2. The Thamudic seal impression. The seal can be identified as Hijazi-Thamudic with one letter (no. 6: lam) still being Proto-Arabic (Knauf 1988). The most likely word order is:

1 2 3

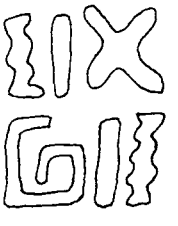
6 5 4

suggested by the orientation of the 1st and 4th signs, representing the same letter looking in opposite directions. Knauf suggests the reading as:

1) nrt

2) nrl

"Nurat, (daughter of) Nuril"



Nurat (today Nurah) is a common Arabic name, although not so far attested in Ancient North Arabian. Nuril is attested in Safaitic (Harding 1971: 585). Knauf (1988) notes that influential women, including queens and priestesses, are well attested for in Ancient Arabia, especially for the 8th through 7th centuries BC. The seal testifies to a close relationship between Edom and the Hijaz in the 7th/6th centuries BC (see 7.2 below).

2.5 CONCLUSIONS

Accepting that Edom was under Assyrian or Babylonian control during the settlement period of Ghrareh (cf 1.3 above and 7.1 below for a discussion of this point) the site suggests details of Edomite political organisation. The site is strong and well defended in a strategic position and it must have been under the control of an important personage. Unlike Buseirah where some Mesopotamian influence can be traced in the major buildings (Bennett 1982: 184ff),[4] the central building is Syro-Palestinian Iron Age.[5] It may be that, outside the capital Buseirah with its Assyrian/Babylonian representatives, Edom was administered by local authorities.

The material from Ghrareh fits well into the standard Edomite corpus. There is no evidence for an extended occupation at the site and even the small amount of stratified material (from Area B) is essentially the same from the different strata. Ghrareh therefore provides a chronologically tight corpus and as such forms a major component of the attempt to formulate a relative chronology of Edomite pottery, in Chapter 5 below.

CHAPTER THREE
BUSEIRAH

3.1 INTRODUCTION

Buseirah, identified with Bozrah, the capital of Edom, is the largest Iron Age site south of the Wadi Hasa and excavations by Mrs Crystal-M. Bennett in 1971-74 and 1980 have revealed strong fortifications and monumental buildings. It is located in northern Edom at Palestine Grid Reference 208018, approximately ten kilometres south of the modern town of Tafileh. In this position it guards both the Kings' Highway, a major route west to the Wadi Arabah and thence the Negev and southern Judah, and it is within striking distance of the Edomite copper mines in the Wadi Dana and Wadi Feinan some ten to fifteen kilometres to the south-south-west.

It is situated on a projecting spur, steep on the northern, western and eastern sides, joining the main land mass only to the south. In this natural defensive position strong walls, in part at least of casemate construction, enclose a site of some 3200 square metres (Bennett 1973:4) (Fig. 3-1). No water source has been found within the site, the main supply probably being the spring at 'Ain Jenin, about one kilometre east, which until recently also acted as the source for the modern village (Bennett 1973:6).

The excavations have produced two (in some areas, three) major phases of building in all areas with numerous re-buildings and sub-phases. The excavator has not yet determined exact dating for these phases but both would appear to fall within the confines of the 8th-6th centuries BC (Bennett 1977:9-10).

Four main areas have been excavated, designated A to D. Area A, the highest point on the site and the so-called "Acropolis" contains large public buildings. Areas B and D to the south-west and north-east of Area A respectively, contain private dwellings and Area B also contains a postern gate and a section of the city wall. Area C to the south of Area Contains more monumental buildings, probably residential but of higher quality than those in B or D.

With the permission of the excavator this chapter will present a detailed study of the stratified finds from the small residential area excavated in Area D. Areas A, B and C will be first presented in summary to provide an overall context. Much material from these areas has been analysed by Oakeshott (1978) and little new can be said about these finds in the absence of stratigraphy.[6]

3.1.1 EXCAVATION AND RECORDING METHODS

The stratigraphic analyses which follow, particularly for Area D, follow as much as possible the original recording methods to make it possible for future researchers to check against the notebooks if necessary. Six major unit descriptions are in use: Area, Trench, Locus, Layer/Level, Wall and Feature.

Area: the largest division. An Area is a portion of the site designated because of surface features or arbitrarily. Its borders are not clearly marked and need not be regular. An Area is designated by a capital letter. At Buseirah the major areas are designated A, B, C, D and H.

Trench: a subdivision of Area. A Trench is an arbitrary area within an Area, usually square or rectangular. The most common size is 5m x 5m but it is not limited to this and may also consist of two or more contiguous rectangular areas. The Trench is the major unit of stratigraphic recording, the vertical sides being drawn as Sections. Trenches are recorded as Roman numeral subdivisions of an Area (for example: A I, A II, A III etc). Trenches are numbered consecutively as required, not according to any preset grid pattern.

Locus: the main horizontal subdivision of a Trench. The subdivision is usually designated by architectural features (for example, the area inside a room) but need not be and can be designated artificially by the excavator. Loci are recorded as numerals following the Roman numeral trench designation (for example: A I 1, A I 2, A I 3 etc). The Locus is subdivided vertically by Layers/Levels

Layer/Level: this is the major vertical subdivison, its horizontal boundaries being defined by the Locus to which it belongs. A Layer is usually a natural division based on a change of soil type but arbitrary Levels may also be used (for example, 5 or 10 centimetre spits). Layers/Levels are recorded as a numeral following the Locus numeral

and separated from it by a point (for example: A I 1.1, A I 1.2, A I 1.3 etc).

Wall: a structure of stone or mud-brick or both, usually defining the edge of a Locus. Walls are designated with capital letters within a Trench unit (for example, A I, Wall A; A I, Wall B etc). Walls may also be given a feature number as well as, or instead of, a letter.

Feature: an architectural feature or permanent installation. Features include, but are not limited to, walls, floors, pits, benches, pillars and steps. They are recorded as Roman numerals within a Trench (for example: A I, Feature I; A I, Feature II etc).

3.2 AREA A

Two large buildings occupy the acropolis successively. Building A (Fig. 3.2), the later is 48 metres north-south and 36 metres east-west in plan and "winged", which is to say the corners curve outwards. It is similar to the Assyrian courtyard type of building and has on this basis usually been assigned to the Neo-Assyrian period (734-610 BC) but the excavator notes (Bennett 1977:3) that "the discovery of stratified Persian pottery in a late phase in a similar building in Area C has given rise to doubt". Building A overlies the southern part of Building B.

The plan of the northern part of Building B (Fig. 3-3) is clear, consisting of a large (c. 10 x 15 metres) courtyard, a central cistern, rooms on the northern, eastern and western sides and external access in the north-west corner. A monumental entrance, consisting of shallow steps flanked by a column plinth on each side, leads to the southern part of the building, the plan of which is mostly obscured. It would seem, however that this is the more important part of the building to which the courtyard acted as an entrance or antechamber.

3.3 AREA B

Area B, together with the small sounding in Area H (Bennett 1974: 13f), provides the details of the Buseirah fortifications. Area H (in the far north-east corner of the site) revealed a massive wall about four metres wide of coursed rubble with a rubble core. Outside, in both H and B, two successive plaster surfaces were associated, perhaps forming a glacis. A

later phase of the wall appears to be Roman (Bennett 1974: 13). The section of the wall in Area B is similar "It stands to a height of 3.80 m. and at the offset is almost as broad as high. It is constructed of coursed rubble with snecks" (Bennett: 1974: 18). The report does not state whether the wall is rubble filled but this is presumably the case.

A small gate pierces the wall at this point, presumably some sort of postern. The excavator (Bennett 1973: 11; 1974: 18; 1975:4; 1977:6) suggests with varying degrees of certainty the presence of casemate construction but the published evidence is inconclusive. The "casemate" walls run over Wall G (1974: 18) but the section (1972: Fig 13) appears to indicate that, in B II at any rate, Wall G belongs to the major phase and that subsequent construction must be very late. The "casemates" therefore might well belong to the later Iron Age housing complex.

The area between Area A and the postern gate is filled with typical Iron Age housing (1977: Fig. IB) although insufficient has been excavated to have produced any complete plans. The area was possibly separated from the citadel by an inner defensive wall (1975:4) but the chronological relationship of Area B to both the acropolis and the outer fortification wall is unclear.

The stratigraphy of Area B however is very complex and differs markedly within a very small area. In B III 4, 7 and 8 we have two major periods the later utilising mud plastered walls and clay floors, and in the earlier (which is represented by walls which appear only after the bottom course of the walls in the later period is reached (1975: 4)) the mud plaster contained traces of lime and the floors were plastered. In B VI and VIII, however, the houses belonging to the later phase rest on bedrock (1975:4). In B VII (1977: 7) there were three main building phases, the earliest phase utilising mud-brick extensively. In B X bedrock was not reached at 5 metres depth.

The impression therefore is one of a very complex stratigraphy on an uneven bedrock. Probably it is misleading to talk of "building phases" as rebuilding appears to have been a piecemeal process with changes to each house being made as necessary. Until the final report is produced little more can be said of this area.

3.4 AREA C

Area C lies to the south-east of Area A and is approximately 67 metres north-south and 105 metres east-west (Bennett 1974: 7). It contains what were obviously important buildings, bearing some relation to the monumental structures of Area A and containing extensive areas of plastered floor.

There are two main periods, the later of which contains pottery which is clearly Persian (Bennett 1977: 8). The excavator reports (ibid) a large quantity of pottery from stratified contexts in Area C and it may well prove to be the key to our understanding of Edomite pottery. However, the material is not available for this study and must await future work.

3.5 BUSEIRAH AREA D

3.5.1 INTRODUCTION

Area D is part of a small residential area to the north-east of the main acropolis, Area A, excavated in two trenches numbered D II and D III (Fig. 3.4). The area is stratified into three phases providing us with a rare example of stratified Edomite pottery. The sample size is unfortunately not large and the results are not as significant as one hopes Area C will prove to be (3.4 above).

Each trench has three main phases but there is no absolute proof that they correspond directly as no absolute levels appear to have been taken for D II and the baulk separating the two trenches was not removed. It is nevertheless likely that they do correspond and the analysis proceeds on that basis. Full details of material from each separate trench is presented in Appendix A.

3.5.2 AREA D II

Three main phases have been defined in Area D II. A phase is defined, in this context, as a floor or series of floors associated with a particular group of walls. The three phases have been numbered in reverse chronological order#1,#2 and #3 respectively. For the purpose of the pottery analysis to follow the following differentiations are used:

0 : material from a disturbed context (such as a wash-level), from a context not directly tied to any particular phase, or from a context

where the site notebook indicates confusion on the part of the site supervisor. Such material will not normally be used in this analysis.

#1+ : material from collapse or fill layers associated with #1.

#1 : material from on or in the floors of phase #1.

#2+ : material from the fill between the floors of #1 and #2.

#2 : material from on or in the floors of phase #2.

#3+ : material from the fill between the floors of #2 and #3.

#3 : material from on or in the floors of phase #3.

#4 : material from the fill between the floor of phase #3 and bedrock.

Where two or more floors are superimposed in the same phase the subdivisions A, B, C etc will be used in reverse chronological order (e.g.#3A, #3B, #3C etc).

PHASE #1 (latest) (Fig. 3-5)

Slope erosion has removed this phase in the northern part of D II. The floors are mostly of plaster (5.10, 8.6, 10.1). The ash layer 5.6 overlying a packed earth surface is probably a contemporary courtyard. Loci 1-4 were not excavated to an identified surface and so are not considered in the pottery analysis but they too probably formed parts of courtyards. A line of stones dividing loci 1 and 4 (not illustrated) probably belongs to an earlier phase.

Walls A, B, C and D are of dry-stone. Mud-brick wall 1, of red mud-brick, sits on the plaster surface 5.10. Mud-brick wall 2, of yellow mud-brick, is founded in phase #2 but continues into phase #1. Mud-brick walls 3 and 4 are hypothetical but the stone foundations are clear. Note these foundations are not to be confused with the stone walls F and G of Phase 2 which are on a slightly different alignment. A postulate of mud-brick walls therefore seems reasonable. Just beneath floor 8.6 is a concentration of pottery sherds, 8.9A, which chronologically is probably closer to Phase #1 than Phase #2.

PHASE #2 (middle) (Fig. 3-6)

The southern part of the western trench was not excavated and slope erosion has removed part of the northern edge of both trenches. Walls A and D from Phase #1 are still extant but a new Wall E appears in the

northern part of the western trench. Despite its alignment being different from Walls A and D it definitely belongs to the same phase. Its solidity suggests that it may have served a double function as both a terrace and a house wall. It may have had an unnoticed mud-brick superstructure (the site supervisor notes "an abundance of green clay, especially in the north-eastern part of the square" i.e. above Wall E (D II notebook p.28)) but this would in any case have mostly vanished due to slope erosion.

In the eastern trench the stone walls are F and G with F apparently joining Wall D in the western trench. Mud-brick wall 6 is hypothetical. Trench-built stone foundations were found but were excavated as a wall "of rough stones, not apparently coursed" (Notebook p. 48). Fig. 8 shows this "wall". The floor 8.17 does not run up to this feature in the photographic record although the notebook (p.47) indicates that it did. The relevant area of fill above the feature is described as being different from the western two-thirds of the trench and is a "brownish layer filled with numerous small rocks" which admittedly does not sound much like mud-brick. However the balance of probability is slightly in favour of such a wall and such a mixture of stone and mud-brick walls is consistent with the western trench. The point, in any case, makes little difference to the pottery analysis.

PHASE #3 (earliest)

As for Phase #2 the southern part of the western trench was not excavated and slope erosion has removed the northern edge of both trenches. No mud-brick structures are associated with this phase. Walls A, E, F and G are utilised as in Phase #2. Below mud-brick wall 2, the stone wall D continues, slightly offset to the east. It is assumed that floors 8.21 and 8.22 ran up to Wall H although this cannot be proved due to the foundations of MBW 6 of Phase #2.

The only clear floors are 10.10, 8.21 and 8.22. Layers 7.3 and 6.8 lie above a stone packing which acted to level bedrock but no surfaces are clear. Material from this packing is known, for convenience, as Phase #4.

Schematic D II

Phase

#1+	5.5		8.4		
#1	5.6=6.1,6.3	5.10	8.6		10.1=8.5
		5.11	8.9A		
#2+	6.2	7.1	8.9	10.2	
	6.4		8.12	10.3	
	6.5		8.13	10.4	
				10.5	
#2	6.6	7.2	8.15,8.17	10.6	(Floor?)
#3+	6.7	7.3	8.20		10.8
	6.8			10.9	
#3	-	-	8.21 (A)	10.10	
			8.22 (B)		
#4	6.9	7.4	8.23		

Notes: 5.11 and 8.9A are immediately under the floor and probably relate to the late phase.

10.6 is an ashy deposit that appears to relate to 8.15, 8.17.

Also to be assigned to the middle phase (#2) are the levels associated with the hypothetical mud-brick wall 6 - 8.14 (the wall itself); 8.18 (the stone foundations); 8.16 and 8.19 (the ashy deposit around the foundations).

8.21 and 8.22 are superimposed floors.

3.5.3 D III

D III is divided into two trenches(Fig. 3-7) the eastern one being virtually a single period of occupation. In the western trench, this same occupation is the latest of several phases. In view of the situation elsewhere on the site (see the description of Area B, above) this stratigraphic diversity is not surprising and, with the exception of the major buildings in Area A and perhaps also Area C, the site is probably not subject to overall phasing. In the residential areas such as B and D the process of building and re-building was apparently continuous and did not necessarily correspond from one building to the next.

The western trench has three main phases which are numbered in reverse chronological order *1, *2 and *3. These do not necessarily bear any relationship to phases 1, 2 and 3 in D II. Phase *4 will indicate material from below the floors of phase *3. For the purpose of the pottery analysis to follow the following differentiations are used:

0 : material from a disturbed context (such as a wash-level), from a context not directly tied to any particular phase, or from a context where the site notebook indicates confusion on the part of the site supervisor. Such material will not normally be used in this analysis.

*1+ : material from collapse or fill layers associated with *1.

*1 : material from on or in the floors of phase *1.

*2+ : material from the fill between the floors of *1 and *2.

*2A : material from on or in the floors of phase *2A.

*2B : material from on or in the floors of phase *2B.

*2C : material from on or in the floors of phase *2C.

*3+ : material from the fill between the floors of *2 and *3.

*3 : material from on or in the floors of phase *3.

*4 : material from the fill between the floor of phase *3 and bedrock.

Phase *1 is the latest clear occupation in the western trench and the period of the architecture in the eastern trench (Fig.3-7). Walls are A, C and D, G, H, J and K. Wall F is a later addition atop the plaster of locus 8 but is essentially of the same phase. Floor deposits are 1.3, 3.3, 6.5A 7.2, 8.2 and 9.2. Locus 10 provided no good floor surface. (In locus 2 there is a possible floor 2.2 which relates to a possible wall (B) which

ran parallel to Wall C and slightly to the east of it. The whole is too uncertain, however, to figure in this analysis).

Phase *2, associated with walls C and D, is divided into three sub-phases called, in reverse chronological order *2A, *2B and *2C. The area to the west of wall C is confused and the pottery from it does not figure in the analysis. *2A consists of an ashy deposit, 1.4 and 3.4 which runs under Wall A, and up to walls C and D.

Below this, in Phase *2B, the temporary wall E appears. No floor was identified by the site supervisor as being associated with Wall E but it seems likely that there was a rough earth floor beneath 3.13 and 3.10.

Phase *2C, the earliest associated with walls C and D lies under levels 3.16, 3.17, 5.1 and probably 1.7. The pit (in section Fig. 3.8) was probably cut from this surface although there is some confusion here. The section indicates that it was cut from surface *2B but as there was a wall (E - not illustrated) that ran directly over the pit this seems unlikely. The alternative solution is that Wall E was built during the *2B occupation after the pit had been filled.

Phase *3 is not associated with any walls except for a mud-brick feature in the north-west corner of the trench. Floor levels are 1.8, 1.9, 2.19, 3.19, 3.20.

Schematic D III

Phase								
*1+						7.1	8.1	9.1
*1	1.3	2.-	3.3	5.-	6.5A	7.2	8.2	9.2
*2A	1.4, 1.5		3.4					
*2B	1.6		3.10-3.13					
*2C	1.7		3.16-3.18	5.2	5.1-			
			3.23-3.24					
*3	1.8-1.9	2.19	3.19-3.20					
*4	1.11		3.22					

3.5.4 CONTRADICTIONS WITH PUBLISHED REPORTS

D II

Fundamentally the above stratigraphy agrees with the published descriptions (Bennett 1974, 1975). The excavator mentions five phases (1974:13) but describes only four. Of these four the earliest corresponds to Phase #3 of this analysis. The "absence of the normal painted Buseirah pottery" (ibid) in this phase is incorrect as closer investigation has produced some painted wares.

The second phase, the mud-brick walls below the plaster floor corresponds to Phase #2. The "later phase of mud brick building" (ibid) corresponds to Phase #1, utilising the plaster floors. The "final fifth phase of very poorly constructed thin stone walls over which were many tip lines and an earthfill" (ibid) could not be satisfactorily isolated. The pottery from the tip lines does not, in any case, figure in the following analysis as, although the deposit may be stratigraphically later than those below, there is no guarantee that the material within it is also

later. The "tip" may have resulted from levelling operations further uphill which mixed many different phases.

The report on the 1973 season states (Bennett 1975: 7) that "in A.I.11 the latest wall in stone had a mud brick wall beneath, built on a stone foundation exactly as in D II 7". I do not understand to what this refers unless there was a late, ephemeral stone wall above MBW 2 which rested on a stone foundation (a continuation of Wall D). There appears to be a mud-brick wall beneath wall G (= 10.11) and associated with floor 10.10.

Note that the plan of D II published Levant 6 (1974: Fig.7) combines all phases onto the one drawing.

D III

This analysis agrees in essence with the published descriptions of Area D III (Bennett 1975: 7 and 1977: 6). Bennett refers to four phases in the western trench in locus 3 (1975: 7) where three have been distinguished here but this is probably just a matter of deciding where to make the division. The evidence of mud-brick walling (ibid = locus 4) should not, however, necessarily indicate contemporaneity with the mud-brick walls of D II as we currently have insufficient information to say whether the use of mud-brick at Buseirah has any chronological significance.

3.6 AREA D POTTERY

A total of 371 sherds, from reliable levels, are considered in this analysis: 73 from Phase 1; 246 from Phase 2; 46 from Phase 3; and 6 from Phase 4. Because of this small sample size the tables showing the occurrences of types have been compressed on the assumption that the three phases in each trench correspond. While this correspondence seems reasonable it is not possible to demonstrate it conclusively. Absolute levels which might have provided a cross-check do not appear to have been taken in D II. Tables showing the full distributions are to be found in Appendix A.

As for Ghrareh (Chapter 2 above), Oakeshott's type-system is used in its broad categories. The system proves to be most satisfactory for bowl-

types and least satisfactory for jar-types. Further subdivisions of jar-types have therefore been made where necessary.

A Bowls (Pl. 50 :1-10)

Oakeshott's general definition of "Type A Bowl" (Oakeshott 1978: 28-30) is followed here, i.e. open bowls or platters without carination, but her more detailed subdivisions were not found to be useful for this particular sample. Ring bases (type A1) were uncommon, types A2 (flat base, roughly cut) and A3 (flat base, turned) predominated but few complete profiles were found so the following analysis is based mostly on rim forms. These were mostly simple and are divided here into three types:

1) cf R426 : simple rim

2) cf R427 : rim partially turned over but not past line of horizontal.

3) cf R440 : rim turned over past line of horizontal.

Mostly these are undecorated. Where decoration is indicated it is usually in the form of black bands below the rim internally. On the table below, the top three numbers represent totals, * represents number of which are painted,

B represents number of which are burnished.

Painted decoration does not appear earlier than Phase 2 in either trench and a single example of burnishing occurs in D III *3. Having allowed for the different sample sizes from each phase there is little indication of significant change in frequency of usage of different forms over time.

Type	1	2	3	4	
R426		7	11	1	
R427		6	31	4	1
R440		3	20	3	1
R426*	1	3			
R440*		3			
R426B		1	1		
R427B	1	12			
R440B	1				

B Bowls (Pl. 50:11-19)

Type-B (Oakeshott 1978: 30-33) refers to carinated bowls. They are occasionally decorated with black bands around the rim and sometimes burnished internally. Oakeshott's subdivisions (ibid) did not prove appropriate for this analysis as they distinguish base types and the Area D corpus consists mostly of rim fragments. As for the Type-A Bowls above, only broad categories are distinguished as the sample is too small for meaningful subdivisions. BB6 and BB8 refer to the larger and smaller varieties respectively with further examples showing decoration and burnishing. BB2 shows the less common form of "short" rim and BB4 the uncommon "continuous curve".

Painted decoration is not common and does not occur earlier than Phase 1 in either trench. The single example of burnishing was found in D III phase *3 (Pl. 50:16). There is a clear size division between the small (Pl. 50:11-13) and the large (Pl. 50:14-19) but this appears to have no chronological significance.

Type	1	2	3	4
BB6	5	21	3	
BB6*		2		
BB5*			1	
BB8	4	25	4	
R522*	1			
R521			2	

C Bowls (Pl. 51:1-3)

Oakeshott's (1978: 33-35) straight rimmed carinated bowls. When working with rims only there is little to distinguish between the types so the only division made here is between decorated and undecorated. Decoration consists of a red, brown or black band over the rim and sometimes a further band below externally as on the example illustrated (Pl. 51: 3).

The sample size here is too small to draw any significant conclusions but the relative frequency of the form in Phase 1 should be noted. The painted decoration on two examples in D II Phase *3 is unusual in this early phase.

Type	1	2	3	4
Pl. 51.1 (0)		6	10	1
Pl. 51.2		1		
Pl. 51.3 (0)			2	2

D Bowls (Pl. 51: 4-8)

This subsumes Oakeshott's (1978: 35-39) types D and E, bowls with triangular-section rims with (Type-E) or without (Type-D) bar handle or ridge below the rim. As Oakeshott notes (ibid p.36) "virtually no two vessels of types D and E are identical" and this makes any typological system virtually impossible. Oakeshott makes a brave attempt but is obliged to use four descriptive dimensions (size, conformation, rim shape and rim slope). To perform any multivariate analysis using this system would require a much larger sample than is available from Area D where surprisingly few examples of this form occur. A selection of the larger sherds is illustrated and any other examples tied in as well as possible.

The only painted example (Pl. 51: 5) comes from D II Phase #2+. All examples, with the exception of the small fragment from D II #4 (Pl. 51: 4) come from Phase 2 but with a small sample of this nature it is impossible to say whether this is significant.

Type	1	2	3	4
Pl. 51.4				1
Pl. 51.5		1		
Pl. 51.6		2		
Pl. 51.7		1		
Pl. 51.8		3		

F Bowls - see Kraters (infra)

G Bowls - ie "Negev ware". No examples from Area D.

H Bowls - category not used. Possible examples to be found under Misc. Bowls (infra)

J Bowls - Fine Ware (Pl. 51: 9-13)

These are thin-walled vessels, utilising both red-firing and white-firing clays. Nearly all examples are decorated, usually with red, brown or

black bands. Note the two examples with stamp seal impressions depicting grazing animals published by Bennett (1975: Fig. 8: 9 and 10) are from D III 2.3, a disturbed layer, probably consisting of material dumped, or washed down from Area A. They are therefore not considered here.

Only three examples of fine vessels made of white-firing clay (Pl. 51: 9) were found, two from Phase 2 and one from Phase 1. No examples occur earlier than Phase 2 in either trench.

(B/S refers to body sherds or indeterminate rim fragments of fine ware.)

Type	1	2	3	4
Pl. 51.9 (0)		1	2	
Pl. 51.10	1	1		
Pl. 51.11		1		
Pl. 51.12(0)		2	3	
Pl. 51.13		1		
B/S	2	3		

K Bowls - "Assyrian" bowls. No examples were found in Area D.

L Bowls - "Mugs". No examples were found in Area D.

M Bowls - Deep Bowls with straight, flaring neck. No examples were found in Area D.

N Bowls (Pl. 51: 14)

Only three examples of this type, deep bowls with short necks (Oakeshott 1978: 44) were found in Area D. The illustrated example (Pl. 51: 14) is from phase #3+ and phase #2 (there is some confusion here but probably two joining pieces were found from II 7.2 and II 7.3). Two other similar examples were undecorated fragments.

Type	1	2	3	4
Pl. 51.14		1	----	1
Undec.	1	1		

O Bowls - Straight-sided cups. No examples were found in Area D.

P Bowls - Rough bowls with cut bases.

This proved to be a difficult type to isolate. A few possible examples were found but do not figure in this analysis.

Q Bowls - Censers. No examples were found in Area D.

R Bowls - This type is subsumed by "Kraters" and "Miscellaneous Bowls"

S Bowls (Pl. 52: 1-12)

Type-S Bowls are made exclusively from a white-firing clay and appear to be unique to Buseirah. They are fairly common at Buseirah and this is presumably their point of manufacture. Usually they are undecorated but two examples (Pl. 52: 2,3) have bands of red or black paint. No complete examples have been found but the two bases Pl. 52: 11 and 12 are of the same ware and may be related. There is no significant change in shape or frequency over time. The painted example Pl. 52: 3 is from D II Phase #2. The painted example Pl. 52: 2 is from D II 8.10, a doubtful level which may belong to Phase #2 or Phase #3+.

Type	1	2	3	4
ALL	3	14	3	1

Kraters (Pl. 53: 1-8)

Kraters are Oakeshott's Type-F Bowls "Deep bowls with handles, thickened rim and ring base" (Oakeshott 1978: 39). Insofar as can be determined, the type has two or four handles. The rim is formed with one inward and two outward folds (ibid) and the complex nature of this operation tends to result in diverse rim forms which do not fit easily into types. Pl. 53: 1 is illustrated to show the shape of the handle but is from a wash level and should be disregarded as a type. Types are distributed fairly evenly. Only one example (Pl. 53: 3) came from Phase 3 but the small sample size suggests that this is probably not significant.

Type	1	2	3	4
ALL	6	9	1	

Cooking Pots (Pl. 53: 9-15)

Oakeshott (1978: 48-49) distinguishes 5 types of Cooking Pot:

Type A: rim continues line of shoulder

Type B: pots with short neck

Type D: pots with simple rims

Type E: pots similar to bowl Type-F

Type C: pots which do not fit into the other four categories.

The distinction between A and B was not found to be particularly useful as there is a continuum between the two and any division is necessarily artificial. Types E (cf Bennett 1975: Fig. 5.14) and C (ibid Fig. 5.15) were not found in Area D (except for a small fragment of a Type E in Phase *2C). Two types thus are distinguished - Type A-B (Pl. 53: 9-13) and Type D (Pl. 53:14-15).

Cooking pots in general were not common in Area D. Presumably, those areas excavated were not directly concerned with food preparation. In contrast to the rest of the site, Type D is by far the most common but there is no obvious reason for this. No Type D examples were found in Phase 3.

Type	1	2	3	4
CP A/B	2	3	1	
CP D	2	11		

JARS

Ridge-necked Jars (Pl. 53: 16-22)

Oakeshott's Type C Jugs (1978: 52) are ridge-necked but the necks are longer than in these examples. She produces no examples of this particular form. It is possible that some of these examples are jugs but the more general term, jar seems more appropriate.

Type	1	2	3	4
ALL		8	3	

C Jars (Pl. 53: 23-26)

All examples from Area D are Oakeshott's Type C2, small neckless jars with rims made with a single, outward fold continuing the line of the wall (Oakeshott 1978: 50).

Type	1	2	3	4
Pl. 53.23		3	1	
Pl. 53.24	1	3	1	
Pl. 53.25		3	1	
Pl. 53.26		2	1	

Ovoid Jars (Pl. 54: 1-4)

This type of jar is not common at Buseirah and may well be imported from Palestine where the shape is common. (Amiran 1969: 238 : (the form) makes its appearance in Iron II A-B and is destined to reach the height of its popularity in Iron II C). The graffito from D III 5.2 (Bennett 1975: Fig. 8.3) is probably also of this shape although the rim is missing.

Type	1	2	3	4
ALL	2	3	1	

Short-necked Jars (Pl. 54: 5-7)

Essentially, these are the equivalent of Oakeshott's Type-D Jar (Oakeshott 1978: 50). They are not at all common.

Type	1	2	3	4
ALL	1	4	1	

Long-necked Jars (Pl. 54: 12-16)

Oakeshott does not give this type of neck a separate designation but includes it within Rim-type designations 13, 14 and 15 (Oakeshott 1978: 54). The type here is defined as jars/jugs with long vertical, or near vertical, necks and a simple or slightly thickened rim.

Type	1	2	3	4
ALL	2	10	7	1

Miscellaneous Jars (Pl. 54: 8-11; Pl. 55: 7-10)

Included here are all the jar types which do not fit into the above categories. Because of their individual natures it is difficult to deduce anything meaningful about their stratigraphic distribution.

Type	1	2	3	4
Pl. 54.8		1		
Pl. 54.9			1	
Pl. 54.10	1			
Pl. 54.11		2	1	
Pl. 55.7	1	1		
Pl. 55.8		1		
Pl. 55.9		1		
Pl. 55.10		1		
Pl. 55.11		1		

JUGS AND FLASKS (Pl. 54: 19-27)

Jugs

Jugs are not common in Area D but Oakeshott's Type-B is the normal form (Oakeshott 1978: 51-53). Two fragments of Type C Jugs (ridge-necked) were found, one each in phases #1 (II 8.6) and #3 (II 8.22) (not illustrated). Fragments of Type D, white ware decanters were found in *1 (III 3.3) and #2+ (II 10.5).

Type	1	2	3	4
Pl. 54.17		1		
Pl. 54.18(0)		1		
Pl. 54.19(0)		2	2	
Pl. 54.20(0)		1		
Pl. 54.21			1	
Pl. 54.23			1	
Pl. 54.24			1	
Pl. 54.25		1		
Pl. 54.26			1	
Pl. 54.27			1	

Flasks (Pl. 54: 22)

Only one definite fragment of a flask was found in Area D, from Phase #1. It is possible that 54: 21 is also part of a flask, rather than a jug, but insufficient remains for certainty.

Type	1	2	3	4
Pl. 54.22	1			

Storage Jars (Pl. 55: 1-6)

Grouped here are the few examples of large, coarse pithos jars (Oakeshott's Type A jar). No complete examples were found and rims only are illustrated. Pl. 55: 3 is perhaps to be classed as a large bowl/jar rather than a storage jar in view of its large diameter (45cm). It is possible that the two examples of this type are the same vessel, which should therefore be ascribed to Phase #3B only.

Type	1	2	3	4
Pl. 6.1		1		
Pl. 6.2		1		
Pl. 6.3	1		1	
Pl. 6.4		2		
Pl. 6.5 (0)			1	
Pl. 6.6				1

3.7 CONCLUSIONS

Despite the detailed nature of the analysis undertaken in this chapter, the number of meaningful conclusions which can be gleaned from the material is minimal. Two major problems complement each other: the sample size available is quite small and there is very little difference in the corpora of the different phases. Because the corpora are so similar it follows that the phases must be very close chronologically and in this situation a large sample is required so that minute differences in occurrence frequencies can be examined statistically.

The incidence of painted pottery is low, and is lowest in the earliest phases (3 and 4) in each trench. However, as phases 3 and 4 also contain the smallest numbers of sherds, the extent to which this is

significant is not clear. Two categories which are normally common at Edomite sites, bowls types L (mugs) and K ("Assyrian" bowls) are both absent from Area D, but this is not true of Buseirah as a whole and may be an accident of distribution, or may be due to the utilisation purposes of the rooms excavated. There is a preponderance of Type-D cooking pots in Area D, which is unique among Edomite sites where Types A and B are by far the most common. Again, however, this may be due to a simple accident of distribution.

When more of the Buseirah material has been analysed it may be possible to put the different phases of Area D into a proper context. Until this time, however, it is difficult to draw any meaningful conclusions from the phases and the whole must be treated as a chronological unit, except in a few specific instances.

CHAPTER FOUR
OTHER EDOMITE SITES

4.1 INTRODUCTION

Unpublished material from the site of Tawilan has been made available to the author by kind permission of the excavator, Mrs C-M. Bennett. The author was helping Mrs Bennett to catalogue the pottery from the site and any references to the Tawilan pottery cards refer to cross-referencing undertaken during this work. The stratigraphy, however, has not yet been determined in detail so the pottery is not tied in to architectural details, as for Buseirah Area D.

Material from Umm al Biyara has also been included in this study but it is material which has already been presented either in the major preliminary report (Bennett 1966) or in Oakeshott's PhD thesis (Oakeshott 1978). Material from Tell el Kheleifeh has likewise been taken from the publications of Glueck (1938a, 1939b, 1940a, 1967) and Pratico (1982a, 1982b, 1985).

Material from Khirbet Ishra and Khirbet al Megheitah is from small soundings at these sites made by the author in 1985.

4.2 TAWILAN

4.2.1 INTRODUCTION

The site of Tawilan was first surveyed by Nelson Glueck who suggested (1935: 82-83, 177) that it might be identified with biblical "Teman" in the land of Edom. However, modern scholarship follows de Vaux (1969) who equates Teman with a region of southern Edom and the equation of Teman with Tawilan is no longer considered acceptable. No other biblical candidate for Tawilan has been suggested.

Tawilan is located in central Edom at Palestine Grid Reference 196972 (35 29'30" E, 30 20'0" N), near the modern village of Wadi Musa (El-Ji), just outside the Nabataean capital of Petra. The exact course of the Kings' Highway (the major north-south route through Transjordan) is unknown at this point but it presumably passed close to Tawilan. Access to the Wadi Arabah and the west is also possible here.

The site is situated on a terrace at the western foot of the Jebel Heidan. It seems to have been sited with a view to agriculture rather than defense as the terrace is fairly flat and the site is overlooked by a nearby slope. Glueck (1935:83) identified conjectural defensive walls but Bennett (1984:2) states that "nowhere in the excavations did we come across any fortifications or any structures which might be considered defensive". The closest known water source is the perennial 'Ain Musa, several kilometres to the south-east.

Excavations at the site have been undertaken by Mrs Crystal-M. Bennett under the auspices of the British School of Archaeology in Jerusalem (1968, 1969 and briefly in 1970) and the British Institute at Amman for Archaeology and History (1982). Three major trenches were opened, in which four phases of Iron Age occupation were isolated by the excavator (Bennett 1984:4):

Phase 1 : (Earliest) The site used as a source of clay with a settlement presumably in the vicinity.

Phase 2 : Uneven bedrock levelled with stone and clay. Flimsy stone partition walls and pillars in some places overlie the Phase 1 pits. Other pits constructed to house storage jars.

Phase 3 : Architecture becomes more elaborate with steps up to various levels.

Phase 4 : Doorways and entrances blocked and some of the major walls rebuilt or repaired.

These have been dated respectively to the 10th-9th centuries BC; 8th century BC; 8th-7th centuries BC; and 7th to 5th centuries BC. It should be noted however that these dates are highly speculative, particularly the 10th-9th century date for Phase 1 for which there is very little supporting evidence. This dating system arose from the previously held belief that "Negev" pottery found in the Phase 1 pits dated to the 10th-9th centuries (Bennett 1984: 14). It has now been demonstrated (Pratico 1985: 23-24) that this pottery is useless for dating purposes and existed throughout the Iron Age and possibly longer. Since occupation could be seen to be continuous (there are, for instance, no interspersed sterile layers), and since at least some of the pottery could be seen as dating to the 6th century BC, the above system was adapted.

The phases are mostly based on additions and modifications to existing structures and phases seldom overlie each other. It is quite possible therefore that the village was not occupied for more than about a

century. This becomes important in the overall analysis of Edomite pottery as Tawilan provides us with one of the few absolute dates available for this area.

The absolute date comes from Phase 4 where a cuneiform tablet was found in a blocked doorway in Trench III. It has been published by Dalley (Bennett 1984: 19-22) and is a business document recording the sale of livestock. It is dated to the accession year of a King Darius, mostly probably Darius I (521- 486 BC), indicating that Tawilan was still functioning at the end of the 6th century. An overall date of late 7th-6th centuries BC for Tawilan therefore seems most likely and the Phases cannot yet be accurately dated within this.

There is no evidence for substantial occupation of the site following the Iron Age. The site was used as a cemetery at some point, probably during the Romano-Nabataean period (c.2nd century BC to 3rd century A.D.). There is some evidence for a Mamluk period occupation but with no clear associated structures and a watch-tower of uncertain, but certainly Mamluk or later, date (Bennett 1971: v; 1985: 19).

4.2.2 TRENCH I (Fig. 4-1)

The remains seem basically to be all of one period (Phase 2) with a few earlier pits (Phase 1) and a few architectural modifications (Phases 2 and 3). As far as can be determined there are no superimposed occupation surfaces. There are three obvious house units:

House 1 : occupying the entire southern end of the trench together with the horse-shoe shaped walls in the middle (Walls XXXII, XIII and VI). The west and east sections might conceivably be separate and are called 1A and 1B respectively.

House 2 : occupying the north-west area of the trench and apparently extending into the unexcavated area to the north. It consists of two long, parallel rooms, the western one being subdivided into a storage area in the south.

House 3 : occupying the north-east area of the trench and apparently extending into the baulks in one or more directions. Insufficient of the plan has been revealed for useful comment.

4.2.3 TRENCH II (Fig. 4-2)

The trench can be divided architecturally into two phases with two obvious house structures (Houses 4 and 5) although the relation of these two phases to the phases of Trenches I and III is not clear. Phase 1 is

represented by the usual pits and there is some architectural modification and evidence, in House 4, of squatter occupation after the building was abandoned.

House 4 : occupying the northern end of the trench this is the earlier of the two housing units. It's construction is markedly different from the other domestic architecture excavated inasmuch as all walls are of double-stone width rather than single. It is also much more coherent in plan, being enclosed in a square approximately 10 x 10 metres and with a paved and pillared courtyard. It may well be that this is the house of the ancient "sheikh" of Tawilan and it is probably no coincidence that the site's only cuneiform tablet was found in this building.

House 5 : occupying the southern end of the trench, this building is constructed onto, or cut into, a surface which runs up to the southern wall of House 4 (Wall III) (Bennett 1984: 11). It is therefore later than House 4, although the time involved need not be significant. In construction it is like the houses of Trench I, built of a single width of stone and somewhat haphazard in plan. Some of the rooms have 2 or 3 superimposed floors. This area was badly disturbed by later burials and interpretation is difficult.

4.2.4 TRENCH III (Fig. 4-3)

Unlike Trenches I and II it is not easy to distinguish housing units in Trench III although there is a division in building style between the western and the central-eastern areas. Bienkowski (Bennett 1984: 18-19) suggests that, while the eastern area is of housing similar to elsewhere on the site, the western area reflects bedouin occupation and that the walls and pillars there are acting as space-dividers rather than walls.

Bienkowski (ibid) notes severe problems of interpretation due to inadequate documentation and the temporal relationship between the eastern and western areas is by no means clear. The earliest phase of the western part is taken as being earlier than the eastern but this appears to be on the erroneous basis of dating "Negev" ware to the 9th century (op. cit. pp 14 ff). Note that the statement that this pottery was found only within the earliest stone fill (ibid) is not correct.

4.2.5 TAWILAN POTTERY (pls. 29-49)

Details of the Tawilan stratigraphy are unfortunately not available for this study. Much of the pottery however has been catalogued and this is presented here. For reasons discussed above, this pottery is

provisionally presented as being all of similar date. This date is assumed to span the 6th century, stretching into the early 5th and the late 7th centuries.

The pottery from Tawilan fits well into the general group known as "Edomite" which dates to the 7th-6th centuries BC. Notable characteristics are the banded decoration on the bowls (pls. 29-33, 35-37), the "triple-ridged" storage jars (pls 41; 43: 1-3) and the general form of the cooking vessels (pls. 47-48). As for Ghrareh, Oakeshott's (1978) broad classifications are used here (e.g. bowl type-A, bowl type-B etc) although her subdivisions of these types are not (see 1.2 above).[7]

Type-A Bowls: (pls. 29 and 30)

This form is a common one at Tawilan, in many variations. The inside of the vessel is usually decorated with black bands and groups of slash or dribble marks on the rim are a common feature (pl. 29: 5, 7, 9, 12, 13; pl. 30: 1-2). Several examples (pl. 30: 1-4) have denticulations cut into the rim.

Type-B Bowls: (pl. 31: 1-12)

This form is quite common at Tawilan but is most commonly undecorated. The exceptions are decorated simply with simple black bands (pl. 31: 7, 12). Nos. 11 and 12 are larger and slightly more elaborate variants.

Type-C Bowls: (pl. 31: 13)

This type is not common at Tawilan. The illustrated example is of the standard carinated form with a band of black paint inside and out.

Type-D Bowls: (pl. 32)

This broadly-defined type is fairly common at Tawilan. Three examples (pl. 32: 2, 4 and 9) are decorated with simple black bands. The example with a small handle (pl. 32: 9) is perhaps a Type-E bowl.

Type-L Bowls: (pl. 34: 1-10)

These are apparently a variant of the "Assyrian" bowl. The fabric is coarser, decoration is not used and a single loop handle is attached. This is a very common form at all Edomite sites and appears throughout Transjordan although seldom in Palestine (Oakeshott 1978: 205).

Fine-ware bowls: (pl. 33)

Pl. 33 illustrates the fine-ware corpus from Tawilan. Nos. 18-22 are the so-called "Assyrian" bowls (Oakeshott's type-K), influenced by Assyrian

prototypes but manufactured locally (Oakeshott 1978: 42). Nos. 1-17 are fairly standard Edomite fine-ware (Oakeshott's type-J). The most common form of decoration is bands of black paint, with some burnishing (nos. 3 and 5) and some groups of slash or dribble marks over the rim (nos. 3 and 5). Characteristic of Tawilan is the use of thumb-impressions on the bodies of the vessels (nos. 9 and 10), some outlined with incision (no. 16). The more complicated decoration of nos. 14 and 17 is also a feature of the Tawilan corpus and relates to several Type-N bowl examples (below).

Necked Bowls: (pls. 35, 36)

Pl. 35, nos. 1-4 show the normal black-banded decoration and these, together with the undecorated examples (pl. 35: 5-8) would not be out of place at any Edomite site. The examples on pl. 36, however, show the more complicated decoration. Nos. 7-9 are similar to the Type-J examples (pl. 33: 14, 17). No. 2 shows the thumb-impressed decoration of the Type-J examples pl. 33: 9 and 10.

Miscellaneous Bowls: (pls. 34: 11-12; 37)

The full baroque possibilities of the decoration of the Type-N bowls on pl. 36 are realised on pl. 37. Nos. 1-3 are related to the Type-N forms but with more complicated shapes and with denticulation around the rim. Wavy lines, rows of blobs and criss-cross patterns are all features. Pl. 34: 12 is also related to the Type-N bowl but with an attached spout. Pl. 34: 11 is a small, white-slipped bowl which may be in imitation of the Buseirah Type-S form (pl. 52: 1-12).

Kraters: (pls. 38-40)

Pl. 38: 1-3 represent the more standard forms of the vessel. Some of the Tawilan forms are irregular (pl. 39: 1, 2, 4) but are of the same general shape as kraters and are more conveniently classified here than as a miscellaneous deep bowl. Pl. 40: 12 has a complex triple rim and a band of denticulation applied around the shoulder. It is related to the miscellaneous bowls of pl. 37 but is undecorated and with handles and is better grouped with the kraters.

Storage Jars: (pls. 41; 42; 43: 1-11)

The common Edomite "triple-ridged" form (pls. 41; 43: 1-3) occurs at Tawilan together with simpler profiles (pl. 43: 4-6). Pl. 42 has a double-ridged rim and a sagging, pear-shaped body, perhaps related to the Ghrareh example (pl. 15). Two examples (pl. 43: 7, 9) exhibit an

external ridge below the rim. Pl. 43: 11, with the cross-hatched rim, has no Edomite parallels.

Very Large Bowls: (pl. 43: 12)

Only a single example of this form (not isolated by Oakeshott), which is best described as a hybrid Krater/Storage Jar, occurs at Tawilan. The rim resembles the triple-ridged Storage Jar rims but with a much larger diameter although the exact diameter of the Tawilan example cannot be determined from the available fragment.

Jars/Jugs: (pls. 44-46)

Most of the Tawilan jugs belong to Oakeshott's Type-B, large jugs with a ridged rim, (pls. 44: 1, 2, 4; 45: 1-2 and probably 3-9) together with variants with a thickened rim (pl. 46: 1, 3). Pl. 46: 2 and 6 are probably smaller bodied. The single painted example (pl. 44: 3) is decorated with three double black bands on the shoulder and body of the vessel.

Cooking Pots: (pls. 47; 48: 1-12)

The majority of the Tawilan cooking pots belong to Oakeshott's Type-A or Type-B with a ridged rim. Most of these would be classified as Type-A (rim continues the line of the shoulder), the exceptions being pl. 48: 6, 7 (Type-B cooking pots with a short neck). Pl. 48: 8 is an unridged version of nos. 6 and 7. Pl. 48: 9-12 are variants of the miniature form.

Lamps: (Pl. 48: 13-16)

Four examples of the Tawilan lamps are illustrated. They are of typical Iron Age form and ware.

"Negev" Ware: (pl. 49)

Pl. 49 illustrates the range of the coarse, handmade pottery, usually known as "Negev" ware (Oakeshott's "Kheleifeh" ware), from Tawilan. No attempts have yet been made to classify this ware which occurs throughout Edom and the Negev. Current understanding indicates that its chronological span covers the entire Iron Age (Pratico 1985: 23).

4.3 UMM AL BIYARA

Umm al Biyara is a steep hill rising above the Nabataean city of Petra. There is clear evidence of Edomite settlement on the top and Glueck, who first sounded the site in 1933 (Glueck 1933 pp 13-14), identified it as biblical Sela', the Rock of Edom (cf. Judges 1:36; II Kings 14:7; II Chr. 25:11-12; Isiah 16:1, 42:11; Jeremiah 49:16; Obadiah 3). Morton

(1956: 26-36) sounded the site in 1955 and supported Glueck's conclusions.

However, excavations by Crystal-M. Bennett, who sounded the site in 1960 and conducted two seasons of excavation in 1963 and 1965 (Bennett 1966a, 1966b) have cast doubt on this identification as she found no pottery dating prior to the end of the 8th century BC. This is not in accord with II Kings 14:7 and II Chronicles 25:11-12 in which Sela is mentioned during the campaign of Amaziah, King of Judah (798-769 BC), against the Edomites. Starcky (1964) also argued against the equation of Umm al Biyara with Sela' on textual grounds, preferring a more northerly location. Bennett (1966:375) suggested that biblical Sela' be identified with a modern site of the same name a few kilometres north of the Edomite capital of Buseirah. Surface sherding there, however, has also produced no pottery earlier than the late 8th/7th centuries BC (Hart 1986). The matter remains unproved but current scholarship follows Starcky and Bennett and places biblical Sela' at either modern Sela' or at another site as yet unidentified.

Umm al Biyara is located in central Edom at Palestine Grid Reference 191970 (35 25'30" E, 30 19'30" N) inside the Nabataean city of Petra near the modern village of Wadi Musa (El-Ji). It is several kilometres off the presumed course of the Kings' Highway (the major north-south route through Transjordan) which must have passed close to Tawilan (see 4.1 above). By following the Wadi Musa west it is possible to reach the Wadi Arabah.

The site is situated on the flat top of an isolated sandstone massif and is virtually inaccessible. A series of steps, cut in the later Nabataean period, has obliterated any evidence of the Iron Age access route but it must have been a simple and difficult trackway. The name Umm al Biyara means in Arabic "Mother of Cisterns" and more than fifty large cisterns supplied water for the community.

Buildings are constructed of the local sandstone which breaks easily into slabs along natural striations. Houses were built to either side of a long north-south wall which ran along the entire area of excavation. Bedrock formed the only floor and their is little evidence of plaster being used on either floors or walls. The area was partly destroyed by fire at which point the settlement was abandoned.

Finds indicate a domestic settlement rather than a fortress, despite the strong natural defenses of the site. In many rooms, large caches of loom

weights were discovered. Pottery is typically Edomite in shape but, in contrast to other Edomite sites, is unpainted. It is not clear whether the reasons for this are chronological or relate to the nature of the site.

An absolute date is given by a royal seal impression which reads QWS G.... King of E.... This is almost certainly Qos Gabr whom we know from Assyrian annals to have been King of Edom around the year 670 BC. A general 7th century BC date for the site is most likely.

4.3.1 UMM AL BIYARA POTTERY (Pls. 56-58)

A representative selection of the pottery from Umm al Biyara is presented in Plates 56-58. Except for pl. 57: 12 which shows the remains of some cross-hatched painting, all are undecorated.

Type-A Bowls: (pl. 56: 1)

The Umm al Biyara form is a very simple flat platter. Inverted, it might easily become a lid (as pl. 57: 15-17).

Type-B Bowls: (pl. 56: 2-4)

The Umm al Biyara version of this bowl is the same as the simple, undecorated variants from other Edomite sites. Bases are flat, or slightly turned (pl. 56: 3).

Type-D Bowls: (pl. 46: 14, 16, 17)

This broadly-defined type is fairly common at Umm al Biyara. Pl. 56: 15 is a much thicker variant, perhaps better classified as Miscellaneous.

Type-L Bowls: (pl. 56: 11-13)

This form is common throughout Edomite sites and the Umm al Biyara examples exhibit the normal, characteristic shape and single loop handle.

Fine-ware bowls: (pl. 56: 5)

Type-J Bowls (fine ware) are not common at Umm al Biyara, only one example being recorded. There is a less fine equivalent (characterised by Oakeshott (1978) as Type-P) which appears to be the functional and formal equivalent(pl. 56: 6-7).

Necked Bowls: (pl. 56: 9-10)

The undecorated Umm al Biyara examples are of the normal Type-N bowl shape, characteristic of all Edomite sites.

Miscellaneous Bowls: (pl. 57: 12)

Pl. 57: 12 is related to the Type-N bowl form but it is larger and with an out-turned lip. Remains of painted decoration can be discerned on the outside below the shoulder, apparently cross-hatching in black paint.

Kraters: (pl. 57: 1)

The illustrated example is completely typical of the krater, or Type-F bowl, with a folded over rim, four strap handles and a ring base.

Storage Jars: (pl. 58)

The common Edomite "triple-ridged" form (pl. 58: 2-3, 5) occurs at Umm al Biyara. Nos. 1 and 6, with uncertain lumpy ridging may be related to this type. No. 4 is a variant with a simple rim.

Jars/Jugs: (pl. 57: 3-11)

Nos. 3-5 are either the common Type-B jug with the ridged rim, or the related Type-C jar form. No. 6 may be a drafting error as one handle, rather than the two drawn, would make the form a typical Type-B jug. The juglets and bottles (nos. 7-9) are unusually elongated for Edomite forms. Of the two ridge-necked jugs (nos. 10, 11), no. 10 is the more normal Edomite form, the bulbous shape of no. 11 being unusual.

Cooking Pots: (pl. 57: 12)

This example should be classified as a standard, Edomite Type-A cooking pot.

Lamps: (Pl. 57: 13-14)

Two examples of the Umm al Biyara lamps are illustrated. They are of typical Iron Age form and ware.

4.4 TELL EL KHELEIFEH

4.4.1 INTRODUCTION

Tell el-Kheleifeh was first visited by Frank in 1933 who identified the site with biblical Ezion-Geber (Frank 1934:243-45). Nelson Glueck conducted a surface survey in 1937 and three seasons of excavation between 1938 and 1940, preliminary results of which were published in the Bulletin of the American Schools of Oriental Research (Glueck 1938a 1939b 1940a). He too identified the site with Ezion-Geber. However, Pratico's recent re-examination of Glueck's material (Pratico 1985) suggests that the identification is not so clear cut.

The site is located at the north end of the Gulf of Aqaba at Palestine Grid Reference 150885 (35 0'30" E, 29 33'0" N) approximately mid-way between the modern towns of Aqaba and Eilat. It is approximately 2 kilometres from the modern shoreline and only a few metres above sea level. It is built entirely of mud-brick.

There are two main phases of occupation (Pratico 1985: Figs. 5-8). The earlier (Phase I) is a fortress about 45 metres square with an outer casemate wall and a courtyard house in the centre. The later (Phases II-IV) is a fortified settlement approximately 60 metres square re-utilising much of the earlier architecture. The main walls are built of an insets/offsets design. Entrance, through the southern wall, is through a "four-chambered" gate. There was some later occupation on the site (Period V - c. 5th century BC) but architecture is fragmentary.

4.4.2 PHASE I - THE CASEMATE FORTRESS

The casemate fortress was excavated on the western, southern and eastern sides of the enclosure together with the central courtyard house. It was dated by Glueck, on the basis of the pottery which was primarily "Negevite", to the 10th century BC and attributed its destruction to the Pharaoh Shishak (Glueck 1940:9). The field notes recorded some associated wheel-made pottery but there are no photographs, drawings or descriptions (Pratico 1985:13). Since "Negevite" pottery is now known to extend throughout the Iron Age and can only be dated by the associated wheel-made wares, all that can be said is that, as Glueck was able to distinguish Edomite pottery and does not record this material as being Edomite, it is probable that it is not Edomite although whether this means that it must predate the late 8th century BC or whether it is Judean is unclear.

Attempts to date the fortress by its groundplan also fail. Pratico (1985:15) who compares it with the Negev fortresses sums the situation up admirably: "In the light of current data, it appears that the groundplan is chronologically, functionally, and typologically irrelevant". The plan of the courtyard house inside the fortress is also of no chronological significance. Pratico (ibid) notes that in the Negev, structures of this type are normally to be found outside the fortress. Note however Ghrareh (above, Chapter 2) where a courtyard house is to be found inside a large enclosure wall.

4.4.3 PHASES II-IV THE FORTIFIED SETTLEMENT

Following the destruction of the casemate fortress the plan of the settlement was changed and enlarged. A settlement with an insets/offsets wall and a four-chambered gateway was created, utilising much of the casemate fortress as an inner courtyard. Glueck (1940a) makes three chronological divisions within this settlement:

Phase II - 9th century (Jehosaphat?).

No building inside the outer wall.

Phase III- 8th century. Jotham seal.

Some building with outer wall.

Phase IV - Edomite. Qaus-anal seal.

More building within outer wall.

To what extent this division can be trusted is unclear. Glueck himself does not inspire confidence when he states (1940a:4) "The employment of straight stratigraphic method of excavation at Tell el-Kheleifeh, however desirable it may be generally, would have produced dire results". Pratico moreover suggests (1985:14) "that the earliest phase (i.e. Phase II) was a fortified settlement with interior architecture. Unfortunately, the extent and plan of building within the walls cannot be reconstructed".

It seems likely therefore that building and rebuilding within the fortress was a continuous process rather than as series of definite phases. Glueck published a selection of Phase IV Edomite pottery (1967) but produced none of the alleged 9th and 8th century material. No such material has come to light and Pratico's conclusion (1985: 26) is that "the pottery that can be associated with the levels of the offsets/insets settlement dates between the 8th and early 6th century B.C.".

4.4.4 PHASE V - LATE SETTLEMENT

Following the major period of occupation a few walls may be isolated as belonging to a later settlement. Little now remains but sherds of Greek pottery and Phoenician and Aramaic ostraca indicate settlement into perhaps the 4th century BC. Pratico (1985:14) notes "a number of 6th-5th century B.C. bowls, jars and storage vessels" but does not specify.

4.4.5 TELL EL KHELEIFEH POTTERY (pl. 61)

Due to the uncertain nature of the stratigraphy from this site it is not intended to treat the pottery in any great detail. Plate 61 indicates a

selection of the material and it can be seen that most of the standard bowl forms are present. No. 1 is a Type-A bowl, no. 2 is a Type-B. Nos. 6-9 belong to the Type-D group and nos 10-13 are Type-L bowls, or mugs. Fine wares include the normal "Assyrian" bowl (nos. 16-17, 20-21) together with more complicated forms (nos. 18 and 19) not found at other Edomite sites. The fenestrated incense burner (no. 32) is characteristic of Tell el Kheleifeh.

4.5 OTHER SITES

4.5.1 KHIRBET ISHRA

The site of Khirbet Ishra was first surveyed by Nelson Glueck (1935:164) who referred to it simply as "a small Edomite site". It was visited by the Edom Survey Project in 1984 (Hart and Falkner 1985) which found both Edomite and Nabataean sherds. It was sounded in 1985 in an attempt to find a site with Edomite-Nabataean continuity (Hart 1987a:42-45).

Khirbet Ishra is located in central Edom at Palestine Grid Reference 199988 (35 30'0" E, 30 30'0" N), about five kilometres south of modern Shobak (Nijil). It is located west of the modern road between Shobak and Petra (perhaps corresponding to the ancient Kings' Highway), below the main edge of the plateau. A foot track leads down to the Wadi Arabah.

The site is situated on a small hill which slopes sharply to the north and west. Directly below it to the west is the strongly flowing spring of 'Ain Shammakh. The site appears to be a small fortress, the visible remains of which are mostly Nabataean but with an Edomite foundation.

Three trenches were sunk: T.1, against the eastern wall; T.2 inside the fortress; and T.3 to determine the line of the southern wall.

T.1 revealed two distinct phases of wall construction: the upper wall, constructed of large stones, some roughly squared, survives to a height of three courses above present ground level and a further three courses below. The lower wall, directly below, is on a slightly different alignment and is of similar construction although with noticeably smaller stones. It is built onto natural sand and survives to a height of 1.45 metres above it. Another wall, parallel to this, exists at the eastern end of the trench. Below topsoil the pottery is all late Iron Age. The lower wall is presumably Edomite, the upper Nabataean.

T.2 came down in the corner of a stone-paved room with plastered walls and stone benches against the wall in the corner. The floor was unfortunately devoid of finds but presumably dates to the Nabataean period. Beneath the flagstones was a compact layer of earth and crushed limestone, probably an intentional foundation for the floor. Beneath this a layer of loose grey soil continued down to a very irregular bedrock. All pottery from this layer was Edomite Iron Age.

The west wall is actually three superimposed walls on the same alignment but offset to form two ledges. The first ledge is just below the level of the flagstones and may be intentional support for them. The second is 80-100 cm below this. The lowest wall is presumably Iron Age and the highest Nabataean but it is not clear whether the middle wall is Iron Age, reused by the Nabataeans or built by the Nabataeans to support the flagstones. This is the first real evidence for Nabataean re-use of Iron Age structures but it is not adequate by itself to indicate direct continuity of occupation.

T.3 was sunk to find the southern wall of the fortress. Finds were few and all were Edomite sherds outside the wall.

Evidence for the last stage of building being Nabataean rather than Edomite rests on the style of the room in T.2 and on Nabataean surface sherds. This would appear, however, to be adequately conclusive. The heavy flagstones, plastered walls and stone benches in T.2 are not likely to belong to a small Edomite outpost.

The Iron Age pottery found is presented in Plate 60. The corpus is too small for the absence of any form to be significant. The most common form is the Type-D bowl (nos. 1-4, 17-18). Four examples of fine ware occur (nos. 5-7 and 19) but only no. 19 has painted decoration.The three cooking vessels are the standard Type-B form (nos. 10-12).

4.5.2 KHIRBET AL-MEGHEITAH

Khirbet al-Megheitah was first visited by Nelson Glueck (1935:72) who noted a two-stage occupation of the site, predominantly Nabataean but with a few Edomite sherds as well. The site was visited in 1984 by the Edom Survey Project (Hart and Falkner 1985) and as a result of this, a small sounding was made there in 1985 (Hart 1987a: 38-42).

The site is located in southern Edom at Palestine Grid Reference 194953 (35 20'0" E, 30 10'0" N), about two kilometres west of the modern village of Sadaqa (Roman Zodacatha/Zadaggata). It is on a modern east-west road running between the Wadi Delaghah (which runs

into the Wadi Arabah) to the west and, ultimately, to the Ma'an oasis in the east. The line of Iron Age and Nabataean sites along this road suggest that it was also a route in antiquity.

The site is situated on a rise at the edge of a small wadi. It is in no way defensible and a dam and several cisterns suggest that the primary reason for its location was to catch and store water from the winter rains. The closest source of water otherwise is the the perennial spring at 'Ain Sadaqa about two kilometres to the east.

The ruins are dominated by three large enclosures with massive walls, now collapsed into rubble. Downslope are the remains of several buildings, now eroded very close to bedrock. Two soundings were made here, the first (T.1) inside one of the enclosures; the second (T.2) across what proved to be a rock-cut pool.

Trench 1 was a two-metre square sounding located at the junction of two surface walls. The north-south wall (003) proved to be only one course deep and may have been the result of bedouin encampment. The east-west wall (004), however, is founded on bedrock. Stratigraphy is simple with various layers of fill above the trodden earth surface below 006. The finds, limited to a few sherds (pl. 59), are thus clearly divided into those above (nos. 1-14) and those below (nos. 15-23) the floor.

Trench 2 was a long trench cut across the edge of an open pool or cistern. The pool is cut to a depth of one metre with a single step at 50 centimetres. The bottom of the pool is cut smooth and level. Estimated storage capacity of the pool is about 200-250 cubic metres. The few sherds from within the pool were all Iron Age.

No Nabataean sherds were found below topsoil and it is significant that none were found within the pool. This suggests that the site had gone out of use by the time the Nabataean sherds were deposited. There is a substantial Nabataean village about half a kilometre to the south (Khirbet Mufleseh) and it is possible that the sherds come from farmers of the village or bedouin camping close to it.

The Iron Age pottery found is presented in Plate 59. The corpus is too small for the absence of any form to be significant. The pottery is mostly coarse and only two examples (nos. 1 - a Type-A bowl and 3 - a Type-D bowl) are painted. The three cooking vessels are the standard Type-B form (nos. 11-12, 21).

CHAPTER FIVE
EDOMITE POTTERY

5.1 INTRODUCTION

The following discussion of Edomite pottery concerns itself with the four sites of Buseirah (Area D), Ghrareh, Tawilan and Umm al Biyara. The sample from Tell el Kheleifeh is potentially of mixed periods (4.4 above) and is therefore mostly useless for the purpose and the samples from the soundings at Khirbet Ishra and Khirbet al Megheitah (4.5 above) are too small to be significant. The pottery from these three sites are not, therefore, examined in detail

There are three major problems associated with any attempt to determine the chronology of the Edomite material:

The first is the lack of absolute dating for much of the material (two dates exist within the borders of Edom, neither totally free from doubt, see 4.2.1 and 4.3 above).

The second is that all the material falls within a relatively short time span - approximately the two hundred years of the 7th and 6th centuries BC, with perhaps another fifty years allowed for error in each direction. In the absence of detailed decorative motifs (such as occur in, for example, Greece at this time) which necessarily show change over quite a short period of time, relative dating of the ceramics becomes difficult.

The third problem is that of Edom's geographical and cultural isolation which, combined with problem number two, makes it difficult to tie the material exactly to well dated sites elsewhere in Jordan and Palestine.

The purpose of this chapter is to address these problems and to determine relative and absolute chronology for Edomite pottery to the degree possible using current evidence. To this end a number of assumptions must be made and these are now discussed.

5.1.1 ASSUMPTIONS INHERENT

1. Pottery from within the same geographical area which is of the same form, fabric type and decoration is contemporary.

This is a standard assumption in archaeology which begs two questions:

a) what is "the same geographical area" and

b) what defines "the same form, fabric type and decoration".

In this instance, the geographical area is defined as the Edomite plateau region (see 1.4 above) with the cautious inclusion of the site of Tell el Kheleifeh on the Gulf of Aqaba.

"Form, fabric and decoration" is more difficult. Obviously, if millimetric correspondence were required there would be few parallels and the method would break down. The only answer is the unsatisfactory and subjective one of trying to determine what design the potter had in mind when he made the vessel.

Note also that the possibility of co-incidence cannot be ignored and the more corresponding examples, the stronger becomes the assumption of contemporaneity.

2. Given a sufficiently large sample size, sites of a similar period will produce a similar range of material.

The import of this assumption is that the absence of a type from a site is chronologically significant. It must be used with caution and commonsense: one would not, for instance, expect a camping site to produce the same range of material as a contemporary palace.

Within the context of this study it is assumed that the sites of Ghrareh, Tawilan and Buseirah should have similar corpora, with the proviso that Buseirah, being the Edomite capital, is likely to have an increased range. Umm al Biyara, sited on a barely accessible sandstone massif, is of a different order and it may only have been a temporary place of refuge and thus contain a partial corpus. Any absences of material from Umm al Biyara must be considered carefully in each specific case.

3. Any site providing material for analysis has been correctly excavated and recorded.

This is another standard assumption although one that is not often made explicitly. It is not absolute and each must be examined to determine the extent to which the assumption is true. In the case of this thesis, the following apply:

Ghrareh: excavated in 1986 by the writer. Area A, from which the majority of material comes, is a single period occupation with bedrock

as the only floor surface and the writer is confident that few serious stratigraphical errors were made (see Chapter 2).

Buseirah: only the material from Area D is considered and it has been rigorously examined by the writer by permission of the excavator, Mrs C. M. Bennett. Dubious material has been rejected and the remainder may be assumed to be mostly accurate (see Chapter 3 for a discussion).

Tawilan: evaluation of material from this site is difficult and it should be treated with caution. The assumption is made that this is basically a single period site and as such the material is treated as a whole with little regard to stratigraphy (see Chapter 4.2 for a discussion of this point). Much unpublished material is presented here by permission of the excavator, Mrs C. M. Bennett.

Umm al Biyara: this site has never been fully published and some of the material seems to have been lost. However, this is clearly a single period site (see discussion in Chapter 4.3) and such material as is known can be treated as a homogeneous group.

Khirbet Ishra and Khirbet al-Megheitah: only small sounding were made at these sites (by the writer) and the sample from each is necessarily small. Each sample should be treated as homogeneous but not necessarily representative.

Tell el Kheleifeh: unfortunately, the excavation results from this site are most unreliable (see discussion in Chapter 4.4). Any material from it must be used with extreme caution.

4. The seal impression from Umm al Biyara with the name QOS G.... refers to QOS GABR and that this QOS GABR is the same Edomite king as is mentioned in the Assyrian annals in the reign of Assurbanipal (c. 670 BC) (see 4.3 above).

5. The cuneiform tablet, dating to the accession year of a certain King Darius refers to the first Achaemenid king of that name (521 BC) and not Darius II (423 BC) or Darius III (335 BC) (see 4.2 above).

5.2 COMPARISON OF POTTERY TYPES BETWEEN SITES

5.2.1 GHRAREH and BUSEIRAH AREA D

Despite superficial similarities between the Ghrareh pottery and the pottery from Buseirah, Area D, there is remarkably little correspondence in detail. This is partly because many forms which are common to Buseirah as a whole do not appear in Area D (for example, Type K and Type L Bowls). Even where the forms do correspond, however, there is still a difference of detail.

Type-A Bowls: (Ghrareh pl. 1: 1-3; Buseirah pl. 50: 1-10)

Insufficient examples were found at Ghrareh to make meaningful comparison possible but note the rim of Ghrareh pl. 1: 1 is similar to Buseirah pl. 50: 5, 6, 8, 10).

Type-B Bowls: (Ghrareh pls. 1: 4-10, 2, 3; Buseirah pl. 50: 11-19)

There is a similarity of shape between the two sites, particularly among the smaller examples (Buseirah pl. 50:11-13 and Ghrareh pl. 3:1-5). Carination generally is more pronounced at Buseirah with many of the Ghrareh forms having a rounded profile. The Ghrareh examples are also more highly decorated. The two painted examples from Buseirah are both from Phase 2.

Type-C Bowls: (Ghrareh pl. 6: 19-21: Buseirah pl. 51: 1-3)

The possible Ghrareh examples (Ghrareh pl. 6:19-21) are almost vertical above the carination, unlike the Buseirah examples (Buseirah pl. 51:1-3) which lean outwards.

Type-D Bowls: (Ghrareh pl. 3: 7-13, pls. 4, 5, 6: 1-17; Buseirah pl. 51: 4-8)

The relative scarcity of this form at Buseirah Area D makes comparison difficult. Ghrareh pl. 5:4 is similar to Buseirah pl. 51:8 (Phase 2). No exact equivalent to Buseirah pl. 51:5 with the slash-painted decoration (Phase 2) exists although slashed decoration can be found painted (Ghrareh pls. 3: 7 and 6: 12-13) and incised (Ghrareh pl. 4: 18) at Ghrareh.

Type-J Bowls: (Ghrareh pls. 9: 10-29, 10: 1-5; Buseirah pl. 51: 9-13)

There is no equivalent to the white-ware bowl (Buseirah pl. 51:9) at Ghrareh. The very-finely stepped rim Buseirah pl. 51:10 also has no equivalent but Buseirah pl. 51:12, the fine necked bowl (Phases 1 and

2), may be compared to Ghrareh pl. 9:12. The slightly less fine bowl Buseirah pl. 51:11 (Phase 2)may be compared to Ghrareh pl. 10:1.

Type-K Bowls: (Ghrareh pl. 9: 1-8)

No examples found at Buseirah Area D.

Type-L Bowls: (Ghrareh pl. 8)

No examples found at Buseirah Area D.

Type-N Bowls: (Ghrareh pl. 10: 6-17, pl. 11; Buseirah pl. 51: 14)

There are insufficient examples from Buseirah Area D to make any valid comparisons. The single painted example (Buseirah pl. 51:14) could almost be placed in the fine-ware category and has no exact equivalent at Ghrareh.

Type-S Bowls: (Buseirah pl. 52: 1-12)

No examples found at Ghrareh.

Kraters: (Ghrareh pl. 13; Buseirah pl. 53: 1-8)

There is an interesting lack of correspondence between the two sites. The Ghrareh examples (Ghrareh pl. 13) are all inward-curving at the rim whereas the Buseirah examples tend to be upright, sometimes with a vertical section below the rim (Buseirah pl. 53.2 (Phase 1) and 4.4 (Phase 1)). However this is not true of Buseirah as a whole (cf. Oakeshott (1978) pl. 25:1, 2 and 5) and may simply be a result of the small sample size.

Cooking Pots: (Ghrareh pls. 21-23, 26: 14-15, 27: 2-10,19, 28: 1-5; Buseirah pl. 53: 9-15)

There is a good correspondence between the few Type A-B examples from Buseirah (Buseirah pl. 53:10-13) and Ghrareh (Ghrareh pls. 21 and 22) but no Type-D examples (Buseirah pl. 53:14-15) occur at Ghrareh. The two Type-E examples from Ghrareh (pl. 23: 10 and 27: 10) have no equivalent at Buseirah Area D.

Jars: (Ghrareh pls. 19: 3-10?, 12-14?, 18-20?, 17: 15; Buseirah pls. 53: 16-26, 54: 1-8)

Except for storage jars (see below) there are few examples of jars from Ghrareh. Ghrareh pl. 19:13-14 may be jars rather than jugs and be related to Buseirah pl. 54:10-11 (Phases 3 and 1 respectively).

Jugs: (Ghrareh pls. 18-20; Buseirah pl. 54: 19-20)

Correspondence between jug-types is poor in detail. Buseirah pl. 54:19 and 20 are of the same general type as Ghrareh pl. 18:1-2 and pl. 19:1-2ff (i.e. Oakeshott's Type-B) but the rim details are different. No other types correspond. The juglet rim Buseirah pl. 54:23 has some points of similarity with Ghrareh pl. 20:1 but the Ghrareh example is out-curving rather than vertical.

Storage Jars: (Ghrareh pls. 14-15; Buseirah pl. 55: 1-6)

There is some correspondence between the Ghrareh and Buseirah Area D types. Buseirah pl. 55:1,5-6 (spanning all four Phases) show evidence of the triple-ridging so common at Ghrareh (Ghrareh pl. 13:1-14) but in a much less pronounced (degenerate?) form. The ridge below the rim of Buseirah pl. 55:2-4 is broadly paralleled by Ghrareh pl. 16:1-2.

5.2.2 GHRAREH and TAWILAN

Type-A Bowls: (Ghrareh pl. 1:1-3; Tawilan pls. 29 and 30)

Insufficient examples were found at Ghrareh to make meaningful comparison possible. The rim of Ghrareh pl. 1: 2 is distantly related to Tawilan pl. 29: 6.

Type-B Bowls: (Ghrareh pl. 1: 4-10, pl. 2 and pl. 3:1-6; Tawilan pl. 31)

There is a general similarity of shape between the two sites (cf. Ghrareh pl. 3: 1 and Tawilan pl. 31: 2, with similar form if with different bases) but there are differences of detail. The Ghrareh examples tend to be thickened at the curve of the inner rim (see among others, Ghrareh pl. 1: 6-9) whereas the Tawilan examples all follow a simple line. Carination generally is more pronounced at Tawilan with many of the Ghrareh forms having a rounded profile. The Ghrareh examples are also more highly decorated.

Type-C Bowls: (Ghrareh pl. 6:19-21; Tawilan pl. 31: 13)

A few fragments of type-C bowls were found at Tawilan but only one complete profile (pl. 31: 13). Oakeshott's "C-bowl", her (1978) pl. 42: 20 is an extremely doubtful illustration of the genre. The Ghrareh examples are likewise doubtful. The form is not significant at either site.

Type-D Bowls: (Ghrareh pls. 3: 7-13, 4-5, 6: 1-17; Tawilan pl. 32)

Some similarity of form may be found at the two sites although in general the Ghrareh rims tend to curve inwards more than those from Tawilan. Compare Ghrareh pl. 5: 5 and Tawilan pl. 32: 10.

Type-J Bowls: (Ghrareh pl. 9: 9-29 and pl. 10: 1-4; Tawilan pl. 33: 1-17)

There is a similarity of form in the small, necked bowls (e.g. Ghrareh pl. 9: 21 and Tawilan pl. 33: 7; Ghrareh pl. 9: 18 and Tawilan pl. 33: 2) between the two sites. Simpler forms such as Ghrareh pl. 9: 27 and Tawilan pl. 33: 8 also show a correspondence. There is less similarity of decoration. Banded decoration tends to be more elaborate at Ghrareh, with burnishing quite common. The groups of vertical lines on the rim (Tawilan pl. 33: 3, 5) have no correspondence at Ghrareh nor do the dimple marks (pl. 33: 9, 10), the incision (pl. 33: 20) nor the more elaborate decorative elements (pl. 33: 14, 17).

Type-K Bowls: (Ghrareh pl. 9: 1-8; Tawilan pl. 33: 18-22)

Ghrareh K-bowls (pl. 9: 1-5) commonly have two sharp changes of angle below the flaring rim. The equivalent Tawilan example is pl. 33:20. On the whole, however, the Tawilan examples have a much more gentle angle. When the Tawilan examples are decorated, this usually consists of two black bands only (pl. 33: 18,19,21). At Ghrareh, decoration tends to be more elaborate, incorporating burnishing and red bands as well as up to three black bands.

Type-L Bowls: (Ghrareh pl. 8; Tawilan pl. 34: 1-10)

The Ghrareh and Tawilan mugs (type-L bowls) are essentially very similar, although at neither site has the potter expended much labour on the details of the form and few are exactly alike. Parallels include Ghrareh pl. 8: 5 and Tawilan pl. 34: 5; and Ghrareh pl. 8: 11 and Tawilan pl. 34: 2.

Type-N Bowls: (Ghrareh pls. 10 and 11; pl. 26: 8 and 9; Tawilan pls. 35 and 36)

The most common version of this form at all Edomite sites is either unpainted, or painted with black horizontal bands. Ghrareh and Tawilan examples are quite close in both form (e.g. Ghrareh pl. 10: 10 and Tawilan pl. 35: 2) and in decoration (e.g. Ghrareh pl. 10: 7 and Tawilan pl. 35 nos. 1-4). When decoration becomes more complicated, however, the difference is more marked. Tawilan has more examples with non-banded decoration (pl. 36 nos. 1-4 and 7-10) with only the solitary

example from Area B at Ghrareh (pl. 26: 8). The use of white and red paint is more common at Ghrareh (pl. 10: nos. 1, 2, 4, 6 and pl. 11: nos. 5, 6, 7, 9), although it does occur at Tawilan in the more complicated decorations (pl. 36: nos. 1, 2, 3, 4, 6, 9). Examples of light wheel burnishing may be found at both sites (Ghrareh pl. 10: 1; pl. 11: 3, 12; Tawilan pl. 36: 5) but in neither case is it a major feature of the form.

Type-S Bowls:

No examples at either site. There is a possible imitation form at Tawilan (pl. 34: 11) for a discussion of which see 5.2.3 below.

Kraters: (Ghrareh pl. 13; Tawilan pls. 38-40)

The Ghrareh and Tawilan kraters are similar in general form, although differing in the details of the rims. At both sites, the usual form involves a continuous smooth curve from rim to base unlike, for instance, some of the Buseirah Area D examples (e.g. Buseirah pl. 53 : 2). Rims at Ghrareh are often squared in section (pl. 13: 1-5, 11, 14), which does not occur at Tawilan but the Ghrareh rims are more homogeneous compared to the unusual examples from Tawilan (pl. 39: 4, pl. 40: 11, 12).

Cooking Pots: (Ghrareh pls. 21-23; 27: 3-10, 19; 28: 1-5; Tawilan pls. 47, 48: 1-12)

The Type-A and Type-B cooking pots correspond well between the two sites. The form with the well-defined neck (Tawilan pl. 48: 6-8) has only a few possible parallels at Ghrareh (pl. 27: 4, pl. 28: 1). The very small cooking-pot (Tawilan pl. 48: 9-12) has no exact parallel at Ghrareh although pl. 12: 9 is probably of the same genre. The two Type-E examples from Ghrareh (pl. 23: 10 and pl. 27: 10) have no parallels at Tawilan.

Jars:

Except for storage jars (infra) there are few examples of jars from either Ghrareh or Tawilan. The few possible jar rim fragments most probably belong to jugs and are discussed in that category.

Jugs: (Ghrareh pls. 18-20 and Tawilan pls. 44-46)

The major jug form at each site has a large, bulbous body, a single strap hand and a ridge below the rim externally (Oakeshott's Type B) (Tawilan pl. 44: 1-2, 4 and pl. 45: 1-9; Ghrareh pl. 18: 1-2 and 19: 1-7) and there is a close correspondence between forms and the two sites. Variations on this theme cause the rim to be thickened rather than ridged (Tawilan pl. 46: 1-3, 6-7; Ghrareh pl. 19: 8, 10, 11-13, 16) and once again the correspondence is quite close.

Ghrareh examples pl. 20: 3-5 with the ridged necks correspond to Tawilan examples not illustrated here: R600 (Oakeshott(1978) pl. 51:1) and R795 (Bennett(1984) Fig. 4:795). Painted examples are rare at both sites with only pl. 16:3 from Tawilan and juglet fragment pl. 28.6 from Ghrareh.

Storage Jars: (Ghrareh pls. 14-15; Tawilan pls. 41-43: 1-11)

Only four complete or near complete examples were found, one from Ghrareh (pl. 14:1) and 3 from Tawilan (pl. 41:1 and 42:1 and Oakeshott(1978) pl. 49:3). The Ghrareh example is similar to Tawilan pl. 42:1 in the bulging form of the body, although the Tawilan example is more elongated and with a more complex rim. Tawilan rim pl. 43:5 suggests a similarity to this Ghrareh example.

The triple-ridged form (Tawilan pl. 41:1, pl. 43:1-3 and Oakeshott(1978) pl. 49:3; Ghrareh pl. 15:1-8 and perhaps 15:9-14) is common at both sites.

Rims of storage jars are hand-made and often carelessly finished and a variety of miscellaneous forms occur at both sites (Ghrareh pl. 15:15-19 and Tawilan pl. 43:4-11).

Negev Ware: (Ghrareh pl. 24 and pl. 28:7-17; Tawilan pl. 49)

The very rough, hand-made nature of this ware, in which both diameter and inclination can only be approximated for any given sherd, makes comparison difficult. Ledge handles occur at both sites (Ghrareh pl. 16:1-10 and pl. 28:9,12 and 15; and Tawilan pl. 49:3, 6-8, 12) in double (49:3,6,8) and single (7,12) form at Tawilan and in a wide variety of forms at Ghrareh including loop handles (Ghrareh pl. 24:12-13 and probably 28:10). Incised decoration is a feature of the Ghrareh material (Ghrareh pl. 24:2,14 and pl. 28:9,11) which does not occur at Tawilan.

5.2.3 BUSEIRAH AREA D and TAWILAN

Type-A Bowls: (Buseirah pl. 50: 1-10; Tawilan pls. 29-30)

Despite some general similarities of form (eg Buseirah pl. 50: 1-2 and Tawilan pl. 29: 10; Buseirah pl. 50: 7 and Tawilan pl. 29: 5; Buseirah pl. 50: 10 and Tawilan pl. 29:13), the Type-A bowls (or platters) from Buseirah and Tawilan show many differences. The Tawilan examples are nearly all painted (Tawilan pottery cards record less than 10% of examples as unpainted) whereas at Buseirah Area D the converse is true (7 out of 111 examples are painted, with 16 of the latter showing some wheel burnishing). Possibly significant is that fact that the painted examples from Buseirah are from the late phases (1 and 2) although the small sample size (particularly from phases 3 and 4) means that this is uncertain.

Ring bases are common in the Tawilan examples (pl. 29: 1-3, 5, 8; pl. 30: 1-2) with only a single example from Buseirah Area D (pl. 50: 7) which, interestingly, is one of the few painted examples.

Groups of painted slash-marks on the rim occur at Tawilan (pl. 29: 5, 7, 9, 12, 13; pl. 30: 1-2) but not at Buseirah Area D. This seems to be a feature of Buseirah as a whole. Oakeshott publishes only two examples of this type of decoration (Oakeshott (1978) pl. 2: 7 and 17), one of which (no. 17) is also denticulated and with a ring base.

Type-B Bowls: (Buseirah pl. 50: 11-19; Tawilan pl. 31)

Correspondence between Type-B (carinated) bowls at both sites is much closer than for Type-A bowls. As for Type-A bowls, painted decoration is not a major feature at Buseirah Area D (4 examples out of 68) whereas at Tawilan the pottery cards indicated that more than 60% are decorated. The Buseirah painted examples are from phases 1 and 2 which, as discussed above for Type-A bowls, may perhaps be significant.

The four Buseirah examples with bases are all flat based (Buseirah pl. 50: 11-13, 15) whereas Tawilan has examples of ring bases (Tawilan pl. 31: 3, 9 and 12). The general form is similar from both sites and Buseirah D pl. 50: 12, 14 and 17 show the same sharp carination as Tawilan pl. 31: 3 and 8.

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Type-C Bowls: (Buseirah pl. 51: 1-3; Tawilan pl. 31: 13)

A few examples of this form occur at Tawilan but it is not at all common. All except one are fragmentary and that example is almost identical to Buseirah pl. 50: 1, except that it is decorated with a single black band below the rim inside and out.

Type-D Bowls: (Buseirah pl. 51: 4-8; Tawilan pl. 32)

The relative scarcity of this form at Buseirah Area D makes comparison difficult and no good parallels exist.

Type-J Bowls: (Buseirah pl. 51: 9-13; Tawilan pl. 33: 1-17)

Buseirah pl. 51: 12 is of similar form to Tawilan pl. 33: 1 and banded decoration is common to both sites but this is the limit of correspondence.

Red paint is common in the Buseirah examples but absent at Tawilan, as is the white-ware of Buseirah pl. 51: 9. The Tawilan examples include painted motifs absent at Buseirah Area D - specifically the grouped slash marks (Tawilan pl. 33: 3 and 5), zig-zags and dots (pl. 33: 17) and irregular vertical blobs (pl. 33: 14). The thumb-impressed decoration (Tawilan pl. 33: 9-10 and incised lines (Tawilan 33: 16) are also absent at Buseirah Area D.

Type-K Bowls: (Tawilan pl. 33: 18-22)

No examples from Buseirah Area D.

Type-L Bowls: (Tawilan pl. 34: 1-10)

No examples from Buseirah Area D.

Type-N Bowls: (Buseirah pl. 51: 14; Tawilan pls. 35 and 36)

There are insufficient examples from Buseirah Area D to make any valid comparisons. The single painted example (Buseirah pl. 51:14) could almost be placed in the fine-ware category and has no exact equivalent at Tawilan.

Type-S Bowls: (Buseirah pl. 52: 1-12; cf. Tawilan pl. 34: 11)

No actual examples of this form occur at Tawilan but there is a possible imitation S-Bowl fragment (Tawilan pl. 34: 11) which is of a similar shape to the Buseirah examples although with a larger diameter. It is in the standard orange-brown ware but is painted with a white slip inside and out.

There is some general correspondence between forms (for example Buseirah pl. 53: 2 and Tawilan pl. 40: 8; and Buseirah pl. 53: 4 is somewhat similar to Tawilan pl. 38: 2 and 3 although the similarity is not close) but the Buseirah examples tend to be more upright, whereas the Tawilan examples tend to curve in at the rim. Both the similar forms quoted are from Buseirah Phase I.

Cooking Pots: (Buseirah pl. 53: 9-15; Tawilan pls. 47, 48: 1-12, cf also Oakeshott (1978) pl. 48: 1-9)

There is a good correspondence between the few Type A-B examples from Buseirah Area D (pl. 53: 10-13) and Tawilan pls. 47-48. Tawilan pl. 48: 5 is a possible Type-D cooking pot, corresponding to Buseirah pl. 53: 4.

Jars: (Buseirah pl. 53: 16-26 and pl. 54: 1-18; Tawilan pl. 45: 3-8)

Except for Storage Jars *(infra)* there are few examples of jars from Tawilan. Tawilan pl. 45: 3-8 may be jars rather than jugs and be related to Buseirah pl. 54: 17-18.

Jugs: (Buseirah pl. 54: 19-20; Tawilan pls. 44-46)

The jug form is very common at Tawilan and presumably acted functionally in a similar manner to the many jars from Buseirah Area D. Buseirah pl. 54: 20 is related to Tawilan pl. 46: 1-2 although they are not identical. Buseirah pl. 54: 19 relates to Tawilan pl. 46: 6.

Storage Jars: (Buseirah pl. 55: 1-6; Tawilan pls. 41-43)

The triple-ridged storage jar (Tawilan pl. 41: 1 and pl. 43: 1-3) does not occur at Buseirah Area D although Buseirah pl. 55: 1 and 6 must be distantly related. The ridge below the rim evident on Buseirah pl. 55: 2-4 also occurs on Tawilan pl. 43: 7 and 9. The general relationship between the two sites is clear but in detail the correspondence is not close.

Negev Ware: (Tawilan pl. 49)

No examples from Buseirah Area D.

5.2.4 UMM AL BIYARA and TAWILAN

Type-A Bowls: (Umm al Biyara pl. 56: 1; Tawilan pls. 29-30)

With only a single published example from Umm al Biyara it is impossible to draw meaningful conclusions. The form of the Umm al Biyara example is similar to that of Tawilan pl. 29: 4 but undecorated.

Type-B Bowls: (Umm al Biyara pl. 56: 2-4; Tawilan pl. 31)

There are three examples only from Umm al Biyara. Umm al Biyara pl. 56: 2 is a close parallel to Tawilan pl. 31: 1. Umm al Biyara pl. 56: 3 is similar to Tawilan pl. 31: 9 and Umm al Biyara pl. 56: 4 shows the same high carination as Tawilan pl. 31: 3 and 31: 6. None of the Umm al Biyara examples are painted, unlike many of the examples from Tawilan.

Type-C Bowls: (Tawilan pl. 31: 13)

No examples from Umm al Biyara.

Type-D Bowls: (Umm al Biyara pl. 56: 14-17; Tawilan pl. 32)

A number of similar shapes may be found. Umm al Biyara pl. 56: 14 is similar to Tawilan pl. 32: 12. Umm al Biyara pl. 56: 17 is similar to Tawilan pl. 32:12. None of the Umm al Biyara examples are painted, unlike a number of examples at Tawilan (pl. 32: 2, 4, 9).

Type-J Bowls: (Umm al Biyara pl. 56: 5 and cf 6-8; Tawilan pl. 33: 1-17)

Type-J Bowls (fine ware) are not common at Umm al Biyara, only one example being recorded (Umm al Biyara pl. 56: 5). There is a less fine equivalent (characterised by Oakeshott (1978) as Type-P) which appears to be the functional and formal equivalent (Umm al Biyara pl. 56: 6-8). They have little in common with the Tawilan examples but may correspond broadly to Tawilan pl. 33: 12-13.

Type-K Bowls: (Tawilan pl. 33: 18-22)

No examples from Umm al Biyara.

Type-L Bowls: (Umm al Biyara pl. 56: 11-13; Tawilan pl. 34: 1-10)

This is essentially the same form at both sites, cf Umm al Biyara pl. 56: 12 and Tawilan pl. 34: 5. Umm al Biyara pl. 56: 13 with the outward-sloping rim, turning vertical at the lip (cf also Bennett (1966) Fig. 3: 7, 8) has no exact equivalent at Tawilan.

Type-N Bowls: (Umm al Biyara pl. 56: 9-10; Tawilan pls. 35-36)

The two Umm al Biyara examples are both unpainted and of the standard shape (cf. Tawilan pl. 35: 6 and 7). As such they compare with the Tawilan material but many of the Tawilan examples also have painted decoration.

Kraters: (Umm al Biyara pl. 57: 1; Tawilan pls. 38-40)

The Umm al Biyara example (cf also Bennett (1966) Fig. 2: 7, Fig. 3: 10 which are very similar) is generally thinner about the rim than the Tawilan examples although Tawilan pl. 38: 3 is reasonably close.

Cooking Pots: (Umm al Biyara pl. 57: 2; Tawilan pls. 47,48: 1-12)

Only one example of the Umm al Biyara cooking pot has been published. It is similar to Tawilan pl. 47: 3 but as the lower part of the body is missing, no clear deductions can be made.

Jars: (Umm al Biyara pl. 57: 3-5, perhaps 6; Tawilan pl. 45: 3-8)

Similar rim forms occur at both sites, showing the ridge below the rim, a form which is ambiguously a jar (Oakeshott's Type-C) or a jug (Oakeshott's Type-B) in the absence of knowledge of the handles.

Jugs and Bottles: (Umm al Biyara pl. 57: 6-11; Tawilan pls. 44-46)

Assuming Umm al Biyara pl. 57: 6 is a jug (see 4.3.1 above), this is a clear parallel for the standard Edomite form, cf Tawilan pl. 44: 2, 4 and pl. 45: 1-2. A second Umm al Biyara example is published in Oakeshott ((1978) pl. 55: 3).

The juglet Umm al Biyara pl. 57: 7 is similar to the Tawilan example published in Oakeshott (1978) pl. 51: 7. No parallels exist for the elongated bottles from Umm al Biyara pl. 57: 8-9.

The jug with the ridged neck, Umm al Biyara pl. 57: 10 is paralleled by Tawilan example Oakeshott (1978) pl. 51: 1 and Bennett (1984) Fig. 4: 795. The more rounded version (Umm al Biyara pl. 57: 11) does not occur at Tawilan.

Storage Jars: (Umm al Biyara pl. 58; Tawilan pls. 41-43)

Umm al Biyara storage jars are mainly of the triple-ridged variety and as such parallel Tawilan examples pl. 41: 1 and pl. 43: 1-3. The thicker Umm al Biyara variants (pl. 58: 1, 2 and 6) are not common at Tawilan.

There are no Umm al Biyara examples with the round rim and ridge below externally (Tawilan pl. 43: 7).

5.2.5 UMM AL BIYARA and GHRAREH

Type-A Bowls: (Umm al Biyara pl. 56: 1; Ghrareh pl. 1: 1-3)

There are few examples of this form from either site and no parallels.

Type-B Bowls: (Umm al Biyara pl. 56: 2-4; Ghrareh pls. 1: 4-10, 2, 3: 1-6)

The Ghrareh examples are most commonly painted, unlike those from Umm al Biyara. The Umm al Biyara shapes are broadly similar to the unpainted Ghrareh examples (e.g. Umm al Biyara pl. 56: 3 and Ghrareh pl. 2: 13).

Type-C Bowls: (Ghrareh pl. 6: 19-21)

No examples from Umm al Biyara.

Type-D Bowls: (Umm al Biyara pl. 56: 14-17; Ghrareh pls. 3:7-13, 4, 5, 6:1-17)

This is a very common form at Ghrareh, mostly unpainted, as are the examples from Umm al Biyara. There is some similarity of shape although the Ghrareh examples tend to be more rounded and the thickened rims tend to slope back outwards rather than inwards as at Umm al Biyara. Reasonably close are Ghrareh pl. 5: 13 and Umm al Biyara pl. 56: 14.

Type-J Bowls: (Umm al Biyara pl. 56: 5 and cf 6-8; and Ghrareh pls. 9, 10: 1-5)

Type-J Bowls (fine ware) are not common at Umm al Biyara, only one example being recorded (Umm al Biyara pl. 56: 5). There is a less fine equivalent (characterised by Oakeshott (1978) as Type-P) which appears to be the functional and formal equivalent (Umm al Biyara pl. 56: 6-8). They have little in common with the Ghrareh examples.

Type-K Bowls: (Ghrareh pl. 9: 1-8)

No examples found at Umm al Biyara.

Type-L Bowls: (Umm al Biyara pl. 56: 11-13; Ghrareh pl. 8)

These are essentially the same form at each site. The handles at Ghrareh tend to be more elongated (cf Ghrareh pl. 8: 1, 3, 5, 11, 15). Umm al Biyara pl. 56: 13 with the outward-sloping rim, turning ver cal at the lip (cf also Bennett (1966) Fig. 3: 7, 8) has no exact equivalent at Tawilan.

Type-N Bowls: (Umm al Biyara pl. 56: 9-10; Ghrareh pl. 10: 4-7, 11)

There are only two Umm al Biyara examples, both of which are undecorated and of a standard shape (cf. Ghrareh 10: 11-13).

Kraters: (Umm al Biyara pl. 57: 1; Ghrareh pl. 13)

The Umm al Biyara examples are flatter and rounder than the common Ghrareh examples although there are some similarities (cf. Ghrareh pl. 13: 5, 11). The general form is comparable cf. Ghrareh pl. 13: 1).

Cooking Pots: (Umm al Biyara pl. 57: 2; Ghrareh pls. 21-23, 24: 1-5)

Only one example of the Umm al Biyara cooking pot has been published. The Ghrareh examples tend to be more incurving but cf. Ghrareh pl. 24: 4.

Jars: (Umm al Biyara pl. 57: 3-5 and 6?; Ghrareh pl. 19?)

There are few unambiguous examples of jars (as opposed to jugs) from either site. These are discussed under the heading "jugs" following.

Jugs and Bottles: (Umm al Biyara pl. 57: 6-11; Ghrareh pls. 18-20)

Assuming that Umm al Biyara pl. 57: 6 is a jug (see 4.3.1 above) this is a clear parallel for the standard Edomite form cf. Ghrareh pl. 18: 1-2; 19: 1-8. Another similar Umm al Biyara example is published in Oakeshott (1978) pl. 55: 3.

There are no parallels for the juglets and bottles (Umm al Biyara pl. 57: 7-9). The jugs with the ridged neck have parallels (cf. Umm al Biyara pl. 57: 10 which is similar to Ghrareh pl. 20: 4). The more rounded form (Umm al Biyara pl. 57: 11) does not occur at Ghrareh.

Storage Jars: (Umm al Biyara pl. 58; Ghrareh pls. 14, 15, 16: 1-9)

Umm al Biyara storage jars are mainly of the triple-ridged variety and as such parallel Ghrareh pl. 15: 1-8. Thicker variants occur at both sites (cf. Umm al Biyara pl. 58: 1 and Ghrareh pl. 15: 13) which, while not identical, show a similar variant idea. The form with the rounded rim and the external ridge below it (cf. Ghrareh pl. 16: 1-3) does not occur at Umm al Biyara.

5.2.6 UMM AL BIYARA and BUSEIRAH AREA D

Type-A Bowls: (Umm al Biyara pl. 56: 1; Buseirah pl. 50: 1-10)

The single example from Umm al Biyara is similar to the Buseirah unpainted examples pl. 50: 1-2, although at a flatter angle.

Type-B Bowls: (Umm al Biyara pl. 56: 2-4; Buseirah pl. 50: 11-19)

The general form from each site is similar (cf Umm al Biyara pl. 56: 4 and Buseirah pl. 50: 4) but there are no exact parallels. None of the Umm al Biyara examples show the paint or burnishing of Buseirah pl. 50: 13, 15, 16.

Type-C Bowls: (Buseirah pl. 51: 1-3)

There are no examples of this form from Umm al Biyara.

Type-D Bowls: (Umm al Biyara pl. 56: 14-17; Buseirah pl. 51: 4-8)

There are few examples of this form from either site and no real parallels between them. Umm al Biyara pl. 56: 16 and Buseirah pl. 51: 8 have a similar shaped rim but the Umm al Biyara example curves inwards whereas the Buseirah example inclines outwards.

Type-J Bowls: (Umm al Biyara pl. 56: 5 and cf. 6-8; Buseirah pl. 51: 9-13)

Type-J Bowls (fine ware) are not common at Umm al Biyara, only one example being recorded (Umm al Biyara pl. 56: 5). There is a less fine equivalent (characterised by Oakeshott (1978) as Type-P) which appears to be the functional and formal equivalent (Umm al Biyara pl. 56: 6-8). They have little in common with the Buseirah examples.

Type-K Bowls:

There are no examples of this form from either site.

Type-N Bowls: (Umm al Biyara pl. 56: 9-10; Buseirah pl. 51: 14)

There are insufficient examples from Buseirah Area D to make any valid comparisons. The single painted example (Buseirah pl. 51:14) could almost be placed in the fine-ware category and has no exact equivalent at Umm al Biyara.

Type-S Bowls: (Buseirah pl. 52: 1-12)

There are no examples of this from from Umm al Biyara.

Kraters: (Umm al Biyara pl. 57: 1; Buseirah pl. 53: 1-8)

There is a poor correspondence of form between the two sites. The Umm al Biyara example is inward curving at the rim whereas the Buseirah examples tend to be upright, sometimes with a vertical section below the rim (Buseirah pl. 53: 2, 4). As noted previously, this is not a feature of Buseirah as a whole and may be the result of small sample size.

Jars: (Umm al Biyara pl. 57: 3-5 and 6?; Buseirah pls. 53: 16-26, 54: 1-18)

There are few unambiguous examples of jars (as opposed to jugs) from Umm al Biyara. These are discussed under the heading "jugs" following.

Jugs: (Umm al Biyara pl. 57: 6-11; Buseirah pl. 54: 16-20)

Umm al Biyara pl. 57: 6 is presumably a jug (see 4.3.1 above) and as such relates to Buseirah pl. 54: 17-18 and, more distantly, pl. 54: 20, but the correspondence is not close. Otherwise, forms are different. Neither the elongated bottles/juglet (Umm al Biyara pl. 57: 7-9) nor the jug with the ridged neck (Umm al Biyara pl. 57: 10-11) occur at Buseirah Area D.

Storage Jars: (Umm al Biyara pl. 58; Buseirah pl. 55: 1-6)

There is a very limited correspondence between the two sites. Umm al Biyara pl. 58: 1 and Buseirah pl. 55: 1 both derive from the triple-ridged form but they are not particularly close.

Negev Ware:

There is no example of this form from either site.

5.3 TOWARDS A RELATIVE CHRONOLOGY

Having compared the material from the various sites it is now possible to move towards a relative chronology. This may be undertaken through a series of hypotheses, each of which is testable to a greater or lesser degree.

5.3.1 HYPOTHESIS 1: UMM AL BIYARA AND TAWILAN

Hypothesis: that Umm al Biyara and Tawilan date to approximately 150 years apart, as is suggested by the Qos Gabr seal(above 4.3) and the Tawilan tablet (above 4.4).

Test: no absolute test is available but if the hypothesis is correct the sites should show both significant similarities and significant differences in their respective pottery corpora.

Observations: The most striking difference between the two sites is the lack of painted decoration at Umm al Biyara. The only example (Umm al Biyara pl. 57: 12) is a miscellaneous jar, somewhat related to the Type-N Bowl, decorated with bands and criss-cross pattern of black paint. At Tawilan, paint is used frequently on Bowl Types A, B, C, D, J, K and N together with miscellaneous bowls and one jug (Tawilan pl. 46: 3).

There is virtually no fine ware at Umm al Biyara. It may be that this is a function of the site type (Umm al Biyara as a barely accessible place of refuge might not use fine ware) but as there is a functional equivalent (Umm al Biyara pl. 56: 6-8 - Oakeshott's Type-P Bowl) it is feasible that this is a real difference and chronologically based. Type-K Bowls (commonly painted) and painted Type-N Bowls are also absent at Umm al Biyara.

The elongated bottles from Umm al Biyara (pl. 57: 8-9) have no parallel at Tawilan but many of the jug forms are very similar. The Type-B Jug with the ridged rim and the Type-C Jug with the carinated shoulder occur at both sites, but the more rounded form is apparent only at Umm al Biyara.

The triple-ridged storage jar occurs at both sites with many variants. The rounded rim with the ridge below it externally, however, is unique to Tawilan.

Other forms are mostly of too low a frequency at Umm al Biyara to make speculation worth while. One should note, however, that Type-L Bowls (mugs) could easily be interchanged across the sites. The single Umm al Biyara cooking pot would also fit well into the Tawilan corpus.

Conclusions: comparison of material from each site indicates that the test condition has been fulfilled: the similarities expected for sites close in time and space occur but there are also significant differences which may be accounted for by the passage of more than a century.

5.3.2 Hypothesis 2: GHRAREH

The general character of the material from Ghrareh suggests that site dates to somewhere between Umm al Biyara and Tawilan. Ghrareh is reasonably close to both sites (about 25 km to the south along the edge of the escarpment), with no major geographical boundary between the

two and it is reasonable to assume that its general corpus of material is close to that of Tawilan and Umm al Biyara.

Hypothesis: that occupation at the site of Ghrareh dates between that of Umm al Biyara and Tawilan.

Test: no absolute test is possible but the corpus of pottery at Ghrareh should have some characteristics of each of the corpora at Umm al Biyara and Tawilan.

Observations: comparing Ghrareh with Umm al Biyara the most obvious distinction, as with Tawilan and Umm al Biyara, is the lack of painted decoration at Umm al Biyara. At Ghrareh, as at Tawilan, paint is frequently used on Bowl Types B, D, J, K and N, the fenestrated incense burner (Ghrareh pl. 25: 1) and the small juglet fragment (Ghrareh pl. 28: 6). Unlike the majority of the Tawilan examples, the few Type-A bowls from Ghrareh (Ghrareh pl. 1: 1-3) are unpainted.

Generally Umm al Biyara and Ghrareh shapes are not close except for the ubiquitous Type-L Bowls (Umm al Biyara pl. 56: 5-7; Ghrareh pl. 8), Type-B jugs (Umm al Biyara pl. 57: 6; Ghrareh pls. 18: 1-2, 19: 1-8) and triple-ridged storage jars (Umm al Biyara pl. 58: 2, 3, 5; Ghrareh pl. 15: 1-8).

The observations about fine-wares for Umm al Biyara and Tawilan (Hypothesis 1, above) also hold for Umm al Biyara and Ghrareh. Comparing Bowl Types J and K from Ghrareh and Tawilan, the forms are reasonably close but there are differences in decoration (see 5.2.2 for details). A similar observation may be made for Type-N Bowls.

Cooking vessels from Tawilan are close to those from Ghrareh, as is the single Umm al Biyara example. Tawilan and Ghrareh jug forms are close.

As with the Umm al Biyara and Tawilan comparison the elongated bottle forms from Umm al Biyara (Umm al Biyara pl. 57: 8-9) have no parallel at Ghrareh, nor does the rounded jug Umm al Biyara pl. 57: 11. Similarly the storage jar with the ridge below the rim (Ghrareh pl. 16: 1-3) does not occur at Umm al Biyara.

Conclusions: comparison of material from Ghrareh with that from Umm al Biyara and Tawilan indicates that the test condition has been fulfilled. The evidence suggests that Ghrareh is closer in date to Tawilan than to Umm al Biyara (that is to say, there are more and closer comparisons with the Tawilan material) but it is not sufficient for this to be a firm conclusion.

5.3.3 HYPOTHESIS 3: BUSEIRAH AREA D

Preliminary observation suggests that the Buseirah material from Area D dates, as does the Ghrareh material, somewhere between Umm al Biyara and Tawilan. It is necessary to be more careful with the Buseirah material for three reasons:

1. the site is twice as far from Umm al Biyara and Tawilan as Ghrareh - some 50 kms - and it is north of the natural Edomite division (see Chapter 1.4 for a discussion of geographical features).

2. the site is on a greater scale than the others, being the Edomite capital, and some forms (for instance the Type-S Bowl) have not been found elsewhere in Edom.

3. the sample size from Area D is quite small. Thus the absence of a form is not necessarily significant.

These cautions noted, it is possible to proceed as before.

Hypothesis: that occupation at Buseirah Area D dates between that of Umm al Biyara and Tawilan.

Test: no absolute test is possible but the corpus of pottery at Buseirah Area D should have some characteristics of each of the corpora at Umm al Biyara and Tawilan.

Observations: there are three distinct phases of occupation at Buseirah Area D, plus a fourth early phase with only a few sherds, but the pottery is very similar across all three phases. The phases will therefore be treated together except where observations about the individual phases are significant.

As noted above, the presence of Type-S Bowls at Buseirah and not elsewhere is unlikely to be of chronological significance. The absence of Type-L bowls from Buseirah Area D is also unlikely to be of chronological significance as the form is common at Buseirah generally (Oakeshott (1978) 42) as well as at Umm al Biyara, Tawilan and Ghrareh. The absence of the form at Area D is probably due to either the nature of the function of the Area D rooms, or to a simple accident of distribution.

The absence of Type-K bowls from Area D may also be due to non-chronological factors but as the form does not occur at Umm al Biyara the possibility remains that the Area D occupation predates the introduction of the form and that Area D predates the major occupation at Buseirah.

The Area D Type-B Bowls are closer to the Tawilan forms than to those at Umm al Biyara (cf 5.2.3 and 5.2.6 above), although the Umm al Biyara sample size is very small. The Type-J Bowls do not have a great deal in common with the Tawilan examples nor with the Umm al Biyara equivalent. If Tawilan pl. 34: 11 is indeed an imitation Type-S Bowl, this would imply that Tawilan is the later site but this is extremely tenuous.

Krater forms do not correspond very well to either Umm al Biyara or Tawilan, although two examples from Buseirah Phase I have some similarity to Tawilan forms (cf 5.2.3). This may be a distributional accident as this is not true of Buseirah as a whole (cf Oakeshott (1978) pl. 25)

Cooking pot forms are close to the Tawilan Type A-B examples and to the single example from Umm al Biyara. The storage jar with the rounded rim and the ridge below occurs at Buseirah Area D (pl. 55: 2-4) and at Tawilan (pl. 43: 7, 9) but not at Umm al Biyara.

Conclusions: as expected, the Buseirah D material is less close to both Umm al Biyara and Tawilan than was the case for Ghrareh. Nevertheless the test condition is fulfilled. There is a slight indication that the Area D material dates more closely to Tawilan than to Umm al Biyara (ie there are more and closer parallels) but it is difficult to be certain.

5.3.4 RELATIVE DATING OF EDOMITE SITES

It is difficult to determine the relative dates of Ghrareh and Buseirah Area D and they are probably quite close. The difficulty is compounded by the distance between the two sites (some 75 kms). The lower incidence of painted pottery from Buseirah Area D and the absence of the Type-K "Assyrian" bowl from both Buseirah Area D and Umm al Biyara, suggests that Ghrareh may the later of the two but given the small sample size at Buseirah Area D this conclusion is uncertain at best.

Nevertheless, the best estimate for the relative chronology of the four sites discussed must be: Umm al Biyara (earliest), Buseirah Area D, Ghrareh and Tawilan (latest). It is most probable that there is considerable overlap.

5.3.5 CONCLUSIONS: RELATIVE DATING OF EDOMITE POTTERY

There is a great deal of overlap in the forms that occur on the different sites and some, such as Type-A-B cooking pots occur at all sites. However, the following suggestions may be made:

1. Painted decoration on Edomite pottery did not become common until at least later than c. 670 BC (ie the Umm al Biyara settlement).

2. Early forms:

Elongated bottles (cf. Umm al Biyara pl. 57: 8-9)

Rounded jugs (cf. Umm al Biyara pl. 57: 11)

3. Later forms:

Type-J bowls

Type-K bowls

Storage jars with a rounded rim and a ridge below externally.

4. Examples with elaborate painted decoration, plastic decoration, denticulation or complicated shapes are more likely to be of a late date. The majority of these examples occur at Tawilan (cf pls. 30,33,36-37). Ghrareh has a few examples (cf pl. 5: 10; pl. 11: 5; pl. 26: 8), Umm al Biyara has a single, badly worn, example (pl. 57: 12) and Buseirah Area D has none. Buseirah as a whole has many such examples (cf Oakeshott 1978: pls. 1-41) and the final analysis of the material should prove this point one way or the other.

CHAPTER SIX
SURVEYS

6.1 INTRODUCTION

Using the relative chronology established in the previous chapter it is now possible to address the question of survey material. The first modern survey of the region, using ceramics to date sites, was undertaken by Nelson Glueck in the 1930s (Glueck 1933, 1935). As a pioneer attempt it added greatly to our knowledge of the region but it now presents problems of interpretation, particularly in the Iron Age, as Glueck dated the painted Edomite pottery to the Late Bronze/Early Iron Age (Glueck 1935: pp. 124 ff). As Glueck only published a small percentage of the pottery he found, it is impossible to tell, in every instance, whether an "Early Iron Age" date is correct or not.

Recently, therefore several survey projects have been undertaken in Edom to address this problem. The writer has undertaken a broad area survey, the Edom Survey Project, between Tafileh and Ras en Naqb (Hart and Falkner 1985, Hart 1986b, 1987b); American teams have surveyed the area between Tafileh and the Wadi el Hasa (MacDonald 1980, 1982, 1983, 1984 MacDonald et al. 1982, MacDonald et al. 1983); German teams have surveyed the mining sites in the Wadi Feinan area (Bachmann and Hauptmann 1984, Hauptmann et al. 1985); and a British team, based at Udhruh has surveyed the area around that site (Killick 1986: 432).

The Udhruh surveys are still unpublished but preliminary reports exist for the American and German surveys and these are addressed in 6.3 and 6.4 respectively. The Edom Survey Project material is presented here in detail.[8]

6.2 THE EDOM SURVEY PROJECT

6.2.1 INTRODUCTION

The Edom Survey Project (Fig. 6-1) was undertaken in the years 1984 and 1985 by the author with the support of the British Institute at Amman for Archaeology and History, between the towns of Tafileh and Ras en Naqb in southern Jordan. The original aim of the project was to

revisit the sites mentioned by Nelson Glueck (1933 1935) as containing Iron Age material, in order to check the dating of those sites.

It soon became apparent that this aim was both too difficult and too limiting. Some of Glueck's sites proved very difficult to find and, while searching for these sites, one inevitably came across others which Glueck had not visited but which were nevertheless important. The aim was therefore modified. Glueck's sites were still visited but transects were made using the Institute land rover and on foot. In this manner, nearly all sites which had some remaining architecture visible, can be assumed to have been noted, but evidence of campsites and other transient occupation is not likely to have been uncovered.

The northern part of Edom is much more rugged than the south and is thus more difficult to cover by this method. Nevertheless, the smaller number of sites in the north would seem to be real and not just an artifact of the methodology. Presumably the rugged nature of the terrain also tended to deter potential settlers.

Sites are presented in the following format:

000 : a three figure running number for the survey as a whole. The numbers are not consecutive here as many sites with no Iron Age material are included in the list.

Name : follows the running number. This is the modern name of the site, if known. Some of the smaller sites, particularly, have no name and are referred to only by the running number.

PGR : a standard eight digit reference to the Palestine Grid. Occasionally, when it has not been possible to pinpoint the site accurately, this is reduced to a six digit number.

Edomite Period : short description of the apparent site use during this period. If use is not apparent, or a later occupation obscures the Iron Age remains, the term "Sherds only" is used.

Later Occupation : short description of the apparent site use subsequent to the Iron Age. Note that there is virtually no earlier (ceramic utilising) occupation of the region.

Detailed description : following the above information a more detailed description of the site is given.

Pottery : identifiable types of pottery have been drawn and parallels and dates are discussed here. At many sites the pottery, although clearly Edomite, was extremely fragmentary in nature and useless for detailed typing and has thus not been illustrated.

6.2.2 SITE LIST

001 Khirbet esh-Shedeiyid **PGR**: 19859343

Edomite period : Large Fortress

Late Occupation : Nabataean/Roman Village, Watchtower

The main ruins are of a very large Iron Age fortress (c. 160 metres long). It is now in a ruinous, tumbled state. Glueck's outline sketch plan (Glueck (1935) pl. 12) is essentially accurate but there are certain details that he missed.

The south-east wall is of casemate construction with a total width of 3.8 metres. Crosswalls are most obscured by rubble although one can be traced clearly. Whether the other walls are casemate cannot be determined. The abutting tower Glueck mentions (op cit p. 60) can still be seen. Its outer face has been modified at least once and its last phase is rounded rather than square. A number of rooms, of Nabataean/Roman date, can be traced outside the south-east and north-west walls.
Pottery: Plate 62 nos. 1-10

1. Bowl, Type D : cf Ghrareh pl. 6: 6.
2. Bowl, Type A : no exact parallel but cf Buseirah pl. 50: 6.
3. Bowl, Type D : cf Ghrareh pl. 5: 15 and Tawilan pl. 32: 10.
4. Bowl, Type J : cf Megheitah pl. 59: 19.
5. Krater : no exact parallel but cf Tawilan pl. 40: 10, Ghrareh pl. 17: 5.
6. Cooking Pot : closest example is Umm al Biyara pl. 57: 2 but similar forms exist at all sites.
7. Storage Jar : no exact parallel but cf Ghrareh pl. 15: 14.
8. Storage Jar : cf Umm al Biyara pl. 58: 6, Ghrareh pl. 15: 17.
9. Storage Jar : cf Tawilan pl. 43: 7.
10. Jar/Jug : no parallel. Perhaps relates to Ghrareh pl. 19: 18.

002 **PGR**: 19769345

Edomite period : Sherds

Late Occupation : Nabataean/Roman sherds

Apparently once a building, the only structures now are modern animal pens utilising the ancient stone.

004 Khirbet Ras en-Naqb **PGR**: 19559335

Edomite period : Sherds

Late Occupation : Nabataean/Roman Fortress

Fortress of the Nabataean/Roman period. Most probably an earlier Edomite fortress was sited in the same position.

Pottery: Plate 62 nos. 11-14

11. Bowl, Type D? : cf Ghrareh pl. 6: 5, at a slightly different angle.

12. Bowl, Type A? : no exact parallel but cf Buseirah pl. 50: 5.

13. Cooking Pot : cf Ghrareh pl. 21: 2. Similar examples from all sites.

14. Cooking Pot : no parallel but related to general cooking pot form.

005 **PGR**: 19529332

Edomite period : Watchtower

Late Occupation : Nabataean/Roman Sherds

Building most probably a watchtower associated with Khirbet Ras en Naqb (Site 004). Militarily it would have covered dead ground not observable from the main fortress.

Pottery: Plate 62 nos. 15-17

15. Bowl, Type N : cf Ghrareh pl. 10: 11.

16. Cooking Pot : no exact parallel but related to general cp form.

17. Cooking Pot : no exact parallel but related to general cp form.

011 **PGR**: 19679360

Edomite period : Watchtower

Late Occupation : None

Large mound of rubble on the crest of a hill, probably a tower or small fortress.

Pottery: Plate 62 no. 18

18. Negev ware : no exact parallel but cf Ghrareh pls. 24, 28 and Tawilan pl. 49.

012 **PGR**: 19659362

Edomite period : Building

Late Occupation : None

Small rectangular building just off the crest of a hill.

Pottery: Plate 62 nos. 19-22

19. Jar?, Misc. : no parallel.

20. Krater : cf Ghrareh pl. 13: 11.

21. Storage Jar : no parallel.

22. Storage Jar : cf Ghrareh pl. 14: 1, Tawilan pl. 43: 5.

014 **PGR**: 19639363

Edomite period : Fortress

Late Occupation : None

Large, squarish, mound of rubble on hill crest, probably a fortress.

Pottery: Plate 62 nos. 23-24

23. Bowl, Type D : cf Ghrareh pl.3:10,13; Tell el Kheleifeh pl.61: 9.

24. Krater : cf Ghrareh pl. 13: 19.

015 **PGR**: 19639362

Edomite period : Village

Late Occupation : None

Small ruined village on a low hill. Now mostly confused rubble.

Pottery: Plate 62 nos. 25-27

25. Bowl, Misc. : no exact parallel but perhaps the same genre as Ghrareh pl. 6: 12-14 and cf also Kh. Ishra pl. 60: 2.

26. Cooking Pot : cf Ghrareh pl. 24: 4 as the closest parallel but similar examples are found at all the main sites.

27. Cooking Pot : cf Ghrareh pl. 23: 7 and Megheitah pl. 59: 11 but without neck.

017 **PGR**: 19609367

Edomite period : Sherds

Late Occupation : Nabataean/Roman sherds

Hill with modern stone houses and threshing floors. All ancient architecture destroyed but extensive sherd scatter.

Pottery: Plate 62 nos. 28-30

28. Negev ware bowl : no exact parallel but cf Ghrareh pls. 24, 28 and Tawilan pl. 49.

29. Negev ware bowl : no exact parallel but cf Ghrareh pls. 24, 28 and Tawilan pl. 49.

30. Storage Jar : no exact parallel but cf Ghrareh pl. 23: 7 and Tawilan pl. 43: 10.

022 (Khirbet Bir Turki) **PGR**: 19379408

Edomite period : Sherds

Late Occupation : Nabataean village

Nabataean village a few hundred metres east of Rujm Bir Turki (023) situated in a small rise in a wadi bed.

023 Rujm Bir Turki **PGR**: 19349409

Edomite period : Fortress

Late Occupation : Nabataean/Roman sherds

A large tumble of stone, apparently an Edomite fortress or fortified farmhouse although located on only a small rise. No ancient wall lines can be traced in the rubble.

Pottery: Plate 62 nos. 31-33

31. Cooking Pot : cf Ghrareh pl. 21: 2 but similar examples exist at all the main sites.

32. Cooking Pot : no exact parallel but cf Ghrareh pl. 22: 8.

33. Bowl, Type D : no exact parallel but cf Ghrareh pl. 4: 7.

026 **PGR**: 19299418

Edomite period : Sherds

Late Occupation : Nabataean/Roman sherds

Collection of modern stone buildings, partly abandoned. Ancient wall lines are difficult to define and no clear idea of the ancient occupation here can be determined. Sherds of both Edomite and Nabataean/Roman date are scattered around the modern buildings.

027 **PGR**: 19259420

Edomite period : Sherds

Late Occupation : Nabataean/Roman sherds

Hill crest with no visible architecture and a small sherd scatter. Possibly a campsite or a small building destroyed by subsequent agricultural activity.

029 **PGR**: 19359424

Edomite period : Village

Late Occupation : Nabataean/Roman sherds

Ruined Edomite village situated on the edge of a wadi. Wall lines are difficult to trace in the rubble.

Pottery: pl. 62 nos. 34-37

34. Cooking Pot : cf Ghrareh pl. 22: 12 but similar examples exist at all the main sites.

35. Jar : no direct parallel but perhaps related to Tawilan pl. 40: 8-10

36. Krater : cf Ghrareh pl. 13: 12.

37. Bowl, Type N : cf the shapes of Ghrareh pl. 10: 6, Tawilan pl. 35: 4.

030 **PGR**: 19439426

Edomite period : Two Buildings

Late Occupation : Nabataean/Roman sherds

Two collapsed towers or small buildings on a hill crest. There are a few associated Nabataean/Roman sherds but the buildings are most probably of Edomite date.

033 **PGR**: 19299429

Edomite period : Village

Late Occupation : Village ?

Village located on a hill crest. Modern stone houses and threshing floor are located in the southern part of the site. A small, square tower in the southern corner is of Nabataean/Roman construction but it is unclear as to whether the village was also occupied during this period.

Pottery: Plate 63 no. 1

1. Krater : no exact parallel but cf Tawilan pl. 39: 3

036 **PGR**: 19489437

Edomite period : Sherds

Late Occupation : None

Ploughed crest of hill. There is no visible architecture but a moderately dense sherd scatter. Possibly a campsite or small buildings destroyed by subsequent agricultural activity.

039 Khirbet Buseiah **PGR**: 19109437

Edomite period : Hamlet

Late Occupation : Nabataean/Roman sherds

A small village site located on a long ridge. No distinct wall lines can be traced in the rubble but the site was clearly an Edomite hamlet, perhaps re-used in the Nabataean/Roman period.

Pottery: Plate 63 nos. 2-3

2. Bowl, Type A : cf Buseirah pl. 50: 3 and Tawilan pl. 29: 6.

3. Krater/Misc. Jar : no exact parallel but cf Tawilan pl. 40: 9 and Megheitah pl. 59: 5.

041 Jebel Juweibil **PGR**: 19039441

Edomite period : Sherds

Late Occupation : Nabataean/Roman sherds

Hill with large cairn on summit. No other architecture can be identified but there is a small sherd scatter.

042 **PGR**: 19059440

Edomite period : Hamlet

Late Occupation : Hamlet

Small site, now mostly rubble. No ancient wall lines can be traced but the site was clearly a small hamlet in the Edomite and probably also the Nabataean/Roman periods.

Pottery: Plate 63 nos. 4-5

4. Cooking Pot : cf Tawilan pl. 48 or Ghrareh pl. 22: 5, at a different angle although the angle of this example is uncertain.

5. Krater/Misc. Jar : cf Buseirah pl. 53: 3 or Tawilan pl. 40: 11.

043 **PGR**: 19089444

Edomite period : Sherds

Late Occupation : Ayyubid-Mamluk and modern village

Village of Ayyubid-Mamluk and modern date with a few Edomite and Nabataean/Roman sherds present.

044 **PGR**: 19269447

Edomite period : Village

Late Occupation : Sherds

Ruined Edomite village located on a spur. Ancient wall lines are difficult to trace in the rubble.

Pottery: Plate 63 nos. 6-8

6. Cooking Pot : cf Ghrareh pl. 22: 6 but similar examples exist at all the main sites.

7. Bowl, Type D? : no exact parallel but cf Ghrareh pl. 6: 12 shape or Ishra pl. 60: 17.

8. Bowl, Type D : cf Ghrareh pl. 4: 4 ff and Kheleifeh pl. 61: 7-9.

045 **PGR**: 19269447

Edomite period : Sherds

Late Occupation : Building

Large, rectangular building, probably of Nabataean date with a few Edomite sherds present.

Pottery: Plate 63 no. 9

9. Storage Jar : cf Umm al Biyara pl. 58: 5 and Ghrareh pl. 15: 1-6.

051 Khirbet Qurein South **PGR**: 19529453

Edomite period : Village

Late Occupation : Village

Extensive hill-top village to the south of the spring 'Ain Qurein. Occupied more or less continuously since the Edomite period and only abandoned in the last 20 years.

Pottery: Plate 63 nos. 10-19

10. Bowl, Type B : cf Tawilan pl. 31: 6.

11. Bowl, Type B : cf Buseirah pl. 50: 11-12, Ghrareh pl. 2: 9.

12. Bowl, Type D : cf Ishra pl. 60: 1, Buseirah pl. 51: 7.

13. Jar, Misc. : no parallel. Difficult to determine in the absence of information on the diameter but the vessel probably belongs to the short-necked jar form, related to Buseirah pl. 54: 8.

14. Krater? : no exact parallel but cf Buseirah pl. 53: 7-8.

15. Cooking Pot : the poorly defined rim has no exact parallel but cf Megheitah pl. 59: 11-12.

16. Bowl, Misc. : no parallel but perhaps related to Tawilan pl. 34: 7.

17. Krater less : no exact parallel but similar to Tawilan pl. 40: 7 or a pronounced version of Buseirah pl. 53: 2.

18. Storage Jar : cf Ghrareh pl. 15: 2.

19. Storage Jar : cf Ghrareh pl. 16: 2.

062 **PGR**: 19189456

Edomite period : Sherds

Late Occupation : Two Nabataean/Roman buildings

Two buildings of Nabataean/Roman date about one hundred metres apart with a few Edomite Sherds.

063 Rujm Dardan **PGR**: 19099456

Edomite period : Building

Late Occupation : Building

Remains of a small building or tower on a hill top. Ancient architecture is obscured by modern animal pens.

Pottery: Plate 63 nos. 20-21

20. Bowl, Type D : no exact parallel but cf Ghrareh pl. 4: 6.

21. Storage Jar : cf Tawilan pl. 43: 1 and, generically, Ghrareh pl. 15: 1-6

064 **PGR**: 19039458

Edomite period : Hamlet

Late Occupation : Hamlet

Hamlet or small village partly ploughed over and with some stone re-used in modern farm buildings and animal pens.

Pottery: Plate 63 nos. 22-27

22. Cooking Pot : cf Ghrareh pl. 21: 3 but similar examples from all main sites.

23. Jar : no exact parallel, perhaps cf Buseirah pl. 53: 24.

24. Bowl, Type D : cf Ghrareh pl. 5: 20.

25. Storage Jar : cf Ghrareh pl. 15: 3.

26. Storage Jar : cf Tawilan pl. 43: 3.

27. Krater : cf Tawilan pl. 40: 3.

065 **PGR**: 19009457

Edomite period : Sherds

Late Occupation : Nabataean/Roman building ?

A few indistinguishable architectural remains atop a high hill. The site may have been a watchtower.

067 Khirbet Khilal **PGR**: 19059472

Edomite period : Fortress

Late Occupation : Nabataean/Roman sherds

Edomite fortress, west of the main edge of the escarpment but on a separate rise. Presumably guards a secondary access route to the Wadi Delaghah.

Pottery: Plate 63 nos. 28-31

28. Bowl, Type D : cf Ghrareh pl. 5: 4.

29. Cooking Pot : cf Ghrareh pl. 22: 14, shape is less well defined than normal but it falls within the standard range.

30. Jar/Jug : no exact parallel. Related to Ishra pl. 60: 13 but more squared in shaped.

31. Jar? : it is difficult to be certain about this form without knowing the diameter. It is perhaps related to the Jar/Jug form cf Ghrareh pl. 19: 5.

071 Khirbet al Munsouria **PGR**: 19489437

Edomite period : Large Fortress

Late Occupation : Building

Walled Edomite Village or Large Fortress on the end of a low ridge. Defensive walls are constructed of large, squared blocks. A small Nabataean building is constructed in the ruins.

075 Khirbet Umm Hashas **PGR**: 19499474

Edomite period : Fortress

Late Occupation : Sherds

Large mound of rubble on a hill summit, presumably a fortress. No architectural details can be determined.

Pottery: Plate 63 nos. 32-38

32. Bowl, Type A/Lid : cf Tawilan pl. 29: 1, Umm al Biyara pl. 56: 1. If inverted the form might be a lid, cf Umm al Biyara 2: 17.

33. Bowl, Type B? : no exact parallel but cf Ghrareh pl. 2: 4.

34. Bowl, Type L? and : no exact parallel but cf examples Ghrareh pl. 8 Tawilan pl. 34.

35. Bowl, Type D : cf Ghrareh pls. 3: 13 and 5: 19.

36. Cooking Pot : no exact parallel but cf Tawilan pl. 47: 1 for sharp, pointed ridge.

37. Cooking Pot : cf Tawilan pl. 48: 7, to which this is generically related, although more rounded.

38. Jar/Krater : no exact parallel but related to Ghrareh pl. 17: 7 and Tawilan pl. 40: 8.

076 Khirbet Umm Ras **PGR**: 19549479

Edomite period : Sherds

Late Occupation : Nabataean village

Extensive Nabataean village on a flat-topped hill. A few Edomite sherds indicate earlier occupation but no details can be determined.

Pottery: Plate 63 nos. 39-41

39. Jar : no exact parallel but cf Ghrareh pl. 25: 4 (without decoration.

40. Cooking Pot : no exact parallel but generically related to standard form e.g. Ghrareh pls. 22-23, Tawilan pls. 47-48.

41. Bowl, Type D : cf shape of Ghrareh pl. 6: 13.

077 **PGR**: 19449477

Edomite period : Sherds

Late Occupation : Nabataean village

Small Nabataean village on the north-east slope of a hill with a few Edomite sherds.

Pottery: Plate 63 nos. 42-44

42. Cooking Pot : cf Ghrareh pl. 22: 14 but similar examples may be found at all the main sites.

43. Storage Jar : no exact parallel cf Umm al Biyara pl. 58: 1.

44. Storage Jar? : no exact parallel but perhaps cf Buseirah pl. 55: 5.

079 Khirbet Dhor **PGR**: 19609484

Edomite period : Sherds

Late Occupation : Nabataean/Roman fortress, Ayyubid-Mamluk village.

Nabataean/Roman fortress, still in fairly good repair. An extensive, semi-subterranaean Ayyubid-Mamluk settlement exists around the fortress. A few Edomite sherds suggest the site was also an Edomite fortress.

083 **PGR**: 19359481

Edomite period : Fortress

Late Occupation : Nabataean/Roman sherds

Edomite hill-top fortress. Now mostly rubble and few architectural details can be determined.

Pottery: Plate 63 nos. 45-47

45. Jar/Jug : cf Buseirah pl. 54: 18, Tawilan pl. 45: 6.

46. Jar : cf Tawilan pl. 40: 8.

47. Bowl, Type D : no exact parallel but cf Tell el Kheleifeh pl. 61: 6.

084 **PGR**: 19299483

Edomite period : Sherds

Late Occupation : Nabataean village

Large Nabataean village on an east-west ridge with a few Edomite sherds.

Pottery: Plate 63 no. 48

48. Storage Jar : no exact parallel but related to Ghrareh pl. 15: 1-6, Tawilan pl. 43: 1-3, Umm al Biyara pl. 58: 2-3.

087 Ain (Khirbet) Mudeilija **PGR**: 19089486

Edomite period : Fortress

Late Occupation : Nabataean/Roman fortress

Fortress atop a high spur overlooking the Wadi Delaghah. It is in two separate sections, an upper and a lower, but the pottery does not indicate any particular division of periods. A small, plastered cistern is to be found in the upper fortress.

Pottery: Plate 64.3 nos. 1-7 (upper) and 8-9 (lower)

1. Bowl, Type B? : fragment of Type A or B bowl. No exact parallel.

2. Bowl, Type A : cf Tawilan pl. 29: 9.

3. Bowl, Type D : cf Megheitah pl. 59: 15.

4. Bowl, Type N : cf Tawilan pl. 35: 3. Decoration of red between black bands and red burnishing reflects Ghrareh pl. 10: 6.

5. Bowl, Misc. : no exact parallel. Profile like Tawilan pl. 34: 7(Bowl, Type L) but the diameter is too large. Ghrareh pl. 26: 11 is of a similar diameter and may be a closer relation.

6. Cooking Pot : no exact parallel but similar to general form of Ghrareh pls. 21-22 or Tawilan pls. 19-20.

7. Cooking Pot : cf Ghrareh pl. 23: 14.

8. Jar : no exact parallel but cf Tawilan pl. 40: 6.

9. Storage Jar : no exact parallel but a flattened form of the triple ridged jar and as such relates to Tawilan pl. 41: 1.

090 Khirbet Rassif **PGR**: 19179491

Edomite period : Sherds

Late Occupation : Nabataean/Roman village

This site appears once to have been a small village but has now been mostly destroyed by modern threshing floors.

Pottery: Plate 64 nos. 10-12

10. Bowl, Type D : cf Ghrareh pl. 4: 19.

11. Cooking Pot : cf Ghrareh pl. 22: 17 but similar examples may be found at all main sites.

12. Cooking Pot : cf Ghrareh pl. 22: 8 but similar examples may be found at all main sites.

096 **PGR**: 19299498

Edomite period : Sherds

Late Occupation : Nabataean hamlet

Small Nabataean settlement located on the upper slope of a hill with a few Edomite sherds.

097 **PGR**: 19319507

Edomite period : Sherds

Late Occupation : Nabataean/Roman building

Solidly built Nabataean/Roman structure, probably a farmhouse, on a ridge with a few Edomite sherds.

099 Khirbet er-Reseis **PGR**: 18979514

Edomite period : Sherds

Late Occupation : Nabataean/Roman village

Small Nabataean/Roman village on the hill slope above 'Ain Reseis with a few Edomite sherds.

Pottery: Plate 64 nos. 13-14

13. Jar : cf Tawilan pl. 40: 9-10.

14. Jar : no exact parallel but perhaps related to the short-necked jar form cf Buseirah pl. 54: 5.

100 Ghrareh **PGR**: 19089515

Edomite period : Large Fortress

Late Occupation : Hamlet

Large Edomite fortress or fortified settlement atop a roughly conical hill overlooking the Wadi Delaghah. A small Nabataean settlement exists at the eastern end. (See Chapter 2 for more details on this site)

103 (Ain Jenab esh-Shamsh) **PGR**: 19259515

Edomite period : Sherds

Late Occupation : Nabataean/Roman building

Small Nabataean/Roman building with a few Edomite sherds.

Pottery: Plate 64 nos. 15-16

15. Cooking Pot : unusual shape with bulge below the rim externally. No parallels.

16. Jar/Jug : no exact parallel but cf Buseirah pl. 53: 23-26 to which it is related.

106 Rujm al-Niswan **PGR**: 19289522

Edomite period : Fortress

Late Occupation : Nabataean/Roman sherds

Edomite fortress located on a hill-top. It is apparently a twin to Rujm Juweiza (Site 111) on the opposite side of 'Ain Juweiza. The site is now mostly rubble and few architectural details can be traced.

Pottery: Plate 64 nos. 17-23

17. Bowl, Type B : rounded carination as at Ghrareh, cf pl. 2: 14.

18. Bowl, Type D : cf Buseirah pl. 51: 6.

19. Bowl, Type D : cf Ghrareh pl. 5: 6 but with rim bent inwards.

20. Cooking Pot : cf Ghrareh pl. 22: 11 but typical of the general form at all main sites.

21. Cooking Pot : no exact parallel and thinner than is normal.

22. Jar : no exact parallel but perhaps cf Ghrareh pl. 26: 6

23. Krater : squarish rim typical of Ghrareh cf pl. 13: 3.

111 Rujm Juweiza **PGR**: 19359531

Edomite period : Fortress

Late Occupation : None

Square fortress of Edomite date located on a hill-top. It is apparently a twin to Rujm al-Niswan (Site 106) on the opposite side of 'Ain Juweiza.

Pottery: Plate 64 nos. 24-30

24. Bowl, Type D : cf Ghrareh pl. 6: 4, Buseirah pl. 51: 6.

25. Bowl, Type N : fragment only, cf for instance Ghrareh pl. 11: 1.

26. Bowl, Type N? : possibly a Type-N Bowl, cf Ghrareh pl. 11: 3 or a miscellaneous relation cf Ghrareh pl. 26: 9.

27. Cooking Pot : cf Ghrareh pl. 22: 18 but many similar examples from all main sites.

28. Jar/Jug : no dia., but perhaps cf Ghrareh pl. 27: 15.

29. Krater : no exact parallel but cf Tawilan pl. 38: 1 and Ghrareh pl. 13: 19.

30. Storage Jar : no exact parallel but cf Tawilan pl. 43: 7-8.

115 Ain Juweiza esh-Sharquiyeh **PGR**: 19379525

Edomite period : Sherds

Late Occupation : Nabataean/Roman village

Nabataean/Roman village on a hill to the north of 'Ain Juweiza with a few Edomite sherds.

Pottery: Plate 64 nos. 31-32

31. Krater : no exact parallel but cf Ghrareh pl. 13: 16.

32. Storage Jar : cf Ghrareh pl. 15: 14.

116 Khirbet al-Megheitah **PGR**: 19429524

Edomite period : Hamlet

Late Occupation : Nabataean/Roman hamlet?

A small village of mostly Edomite date. A number of large enclosures cover about half of the site and may be of later date. (See 4.4.3 for more information on this site)

120 Rujm Sadaqa **PGR**: 19849526

Edomite period : Sherds

Late Occupation : Nabataean/Roman fortress

Ruined fortress of Nabataean/Roman date atop a high, isolated hill. A few Edomite sherds suggest the site was also a fortress in Iron Age.

Pottery: Plate 64 no. 33

33. Jar/Jug : no exact parallel but cf Tawilan pl. 46: 6.

124 Taiyiba **PGR**: 19399627

Edomite period : Village?

Late Occupation : Nabataean/Roman sherds

Stone-built village of recent date but now uninhabited. Numerous Edomite sherds suggest the site was also a village in the Iron Age.

Pottery: Plate 64 nos. 34-36

34. Ring base : from Type A or B bowl, cf Ghrareh pl. 2: 2

35. Bowl, Type D : no exact parallel but cf Ghrareh pl. 3: 10-11.

36. Large Bowl : no dia., but probably a large bowl cf Ghrareh pl. 17:18 and, more distantly, Tawilan pl. 43: 12.

125 **PGR**: 19399671

Edomite period : Hamlet

Late Occupation : Nabataean sherds

Small settlement on the west side of the modern road from Wadi Musa to Taiyiba, suggesting that this route was also used in the Iron Age.

Pottery: Plate 64 no. 37

37. Bowl, Type A? : denticulated. No exact parallel but concept similar to Ghrareh pl. 5: 10 and perhaps Tawilan pl. 30.

127 **PGR**: 19439681

Edomite period : Fortress

Late Occupation : Nabataean/Roman sherds

Edomite fortress on the west side of the modern road from Wadi Musa to Taiyiba. Roughly square in shape with some walls surviving.

Pottery: Plate 64 nos 38-40

38. Bowl, Type J : cf Ghrareh pl. 10: 4.

39. Bowl, Type D : no exact parallel but Umm al Biyara pl. 56: 14 is similar except for the external ridging.

40. Cooking Pot : cf Ghrareh pl. 22: 6 but many similar examples from all main sites.

129 Khirbet al-Maqdas **PGR**: 19879829

Edomite period : Village

Late Occupation : Nabataean/Roman village

Modern village (Maqdas) covering the remains of a Nabataean and Edomite village. The sherd scatter is wide although not numerically large. Many cisterns dot the site.

Pottery: Plate 65 nos. 1-2

1. Jar/Jug : no exact parallel. Perhaps related to Ghrareh pl. 19:12 or perhaps a very wide flask mouth cf Ghrareh pl. 25: 2.

2. Jar/Jug : cf Buseirah pl. 53: 16.

130 **PGR**: 19869846

Edomite period : Sherds

Late Occupation : Nabataean/Roman sherds

Small area of rubble with no definite walls or structures but a number of Edomite and Nabataean/Roman sherds.

131 Khirbet el-Kur **PGR**: 19879858

Edomite period : Village

Late Occupation : Nabataean/Roman sherds

Small Edomite settlement, possibly walled, and sited atop a small, rounded hill to the south of 'Ain al Iraq. Few architectural details can be traced in the rubble.

Pottery: Plate 65 nos. 3-14

3. Bowl, Type J : cf Megheitah pl. 59: 2-3.

4. Bowl, Type J : cf perhaps Ishra pl. 60: 6 but the sherd is too small to be definite.

5. Bowl, Type J? : cf Umm al Biyara pl. 56: 7. Perhaps a Type P Bowl?

6. Bowl, Type D : cf Ghrareh pl. 4: 8.

7. Bowl, Type B : cf Ghrareh pl. 2: 3 (without painted decoration).

8. Bowl, Type D : cf Tawilan pl. 32: 1.

9. Cooking Pot : cf Ghrareh pl. 22: 17 but many similar examples from all main sites.

10. Jar/Jug : no exact parallel but cf Tawilan pl. 45: 6, Buseirah pl. 54: 18 and Ghrareh pl. 19: 2.

11. Krater : no exact parallel but cf Ghrareh pl. 13: 4.

12. Bowl, Type D : cf shape Ghrareh pl. 4: 7, decoration Ghrareh pl. 3: 7.

13. Bowl, Type A? : no exact parallel but probably cf Tawilan pl. 29: 14.

14. Storage Jar : cf Ghrareh pl. 15: 2-3.

133 Khirbet al Iraq **PGR**: 19879864

Edomite period : Building

Late Occupation : None

A square structure, probably a house or farm building, to the north of 'Ain al Iraq. Glueck (1935:88) refers to a much larger site and it is possible to see the outline of where he meant but it is by no means clear whether the site does extend beyond the square structure.

Pottery: Plate 65 nos. 15-20

15. Storage Jar : no parallel.

16. Storage Jar : no exact parallel but cf Umm al Biyara pl. 58: 3.

17. Krater? : some similarity to the standard form, cf for example Ghrareh pl. 13, but no real parallel.

18. Storage Jar : cf Ghrareh pl. 15: 20 but with incised dots rather than slash marks.

19. Jar : no parallel but perhaps related to Ghrareh pl. 26: 20 or, more distantly, pl. 15: 18.

20. Handle : from Storage Jar. No parallel for this design.

134 Khirbet al-Weibdah **PGR**: 19929887

Edomite period : Hamlet

Late Occupation : Nabataean/Roman village

Hamlet or small village on a low hill-top, partially built over by modern stone buildings.

Pottery: Plate 65 nos 21-25

21. Jar : no parallel.

22. Cooking Pot : cf Ghrareh pl. 22: 12 but many similar examples from all main sites.

23. Jar : fragment too small to be certain but perhaps cf Buseirah pl. 53: 21.

24. Storage Jar : cf Tawilan pl. 43: 7.

25. Jar : no exact parallel but cf perhaps Ghrareh pl. 16: 7.

135 Khirbet Ishra **PGR**: 19929890

Edomite period : Fortress

Late Occupation : Nabataean/Roman fortress

Small Nabataean and Edomite fortress, partly destroyed by modern buildings. To the west is a cistern composed of two chambers off a central shaft. (See 4.4.2 for more details on this site)

136 Khirbet Shemmakh **PGR**: 19909894

Edomite period : Sherds

Late Occupation : Nabataean/Roman sherds

The site consists of a cluster of modern stone buildings on a knoll part-way up the hill to the north of the Wadi Shemmakh. Little ancient architecture remains but sherds indicate some sort of settlement.

Pottery: Plate 65 no. 26

26. Krater : no exact parallel but cf Tawilan pl. 40: 10.

139 Khirbet Usdur el Leweimeh? **PGR**: 19729897

Edomite period : Village

Late Occupation : None

Edomite village apparently guarding the Wadi Seil el Feid leading down into the Arabah. It does not fit well with Glueck's description of Khirbet Usdur el Leweimeh (1935:93) which must be nearby but could not be located.

Pottery: Plate 65 nos. 27-36

27. Bowl, Type B : cf Ghrareh pl. 2: 3 (without painted decoration).

28. Bowl, Type D : cf Ghrareh pl. 5: 15.

29. Bowl, Type D : cf Ghrareh pl. 4: 17.

30. Bowl, Type D: cf shape of Ishra pl. 60: 1. No parallel for decoration.

31. Cooking Pot : cf Ghrareh pl. 22: 15 but many similar examples from all main sites.

32. Cooking Pot : slightly smaller rim than is standard but falls within general range of variation of this form.

33. Cooking Pot : slightly smaller rim than is standard but falls within general range of variation of this form.

34. Krater : cf Ghrareh pl. 13: 6.

35. Krater : cf Ghrareh pl. 13: 12.

146 Khirbet Sihan **PGR**: 20169945

Edomite period : Sherds

Late Occupation : Nabataean/Roman sherds

Modern stone-built village by a spring, now mostly abandoned. Ancient walls intermix with modern buildings but details could not be determined.

171 Shajarat et Taiyar **PGR**: 21260040

Edomite period : Sherds

Late Occupation : Nabataean/Roman building

Basalt building or buildings situated west of Roman Road (Via Nova) and of classical construction. One Edomite sherd found.

179 **PGR**: 21320076

Edomite period : Fortress?

Late Occupation : Nabataean/Roman sherds

Large mound of substantial basalt blocks and rubble about one hundred metres west of the Via Nova but not connected with it. Apparently an Edomite fortress.

Pottery: Plate 65 nos. 36-38

36. Jar : band of thumb-impressed plastic decoration has no direct parallel.

37. Cooking Pot : no exact parallel, thinner than standard form.

38. Jar/Jug : possibly a ridge-neck jar cf Buseirah pl. 53: 20-21.

181 Rujm Izbale **PGR**: 21300084

Edomite period : Sherds

Late Occupation : Nabataean/Roman building

Small Nabataean/Roman building or watchtower on the summit of a hill. One Edomite sherd found.

186 Jebel ed-Dajaniya **PGR**: 21421969

Edomite period : Fortress

Late Occupation : Nabataean/Roman fortress

Basalt-built fortress atop a volcanic plug rising out of the plain. Predominantly Edomite with a smaller Nabataean/Roman tower about 50 metres east.

Pottery: Plate 65 nos. 39-41

39. Cooking Pot : no exact parallel but cf Ghrareh pl. 21: 1.

40. Jar : cf Buseirah pl. 53: 8.

41. Krater : no exact parallel but cf Buseirah pl. 53: 2.

187 Tell el Juheira **PGR**: 22250070

Edomite period : Fortress

Late Occupation : Nabataean/Roman fortress

Square fortress of Edomite and Nabataean/Roman periods, basalt-built atop a volcanic plug.

Pottery: Plate 66 nos. 1-6

1. Jar/Krater : no parallel, perhaps related to Buseirah pl. 53: 1-2.

2. Bowl, Type D : cf Ishra pl. 60: 1.

3. Bowl, Type D? : cf Ghrareh pl. 6: 7.

4. Jar : no exact parallel but perhaps cf Ghrareh pl. 16: 4.

5. Bowl, Type J? : perhaps cf Umm al Biyara pl. 56: 7 but sherd is too small for certainty.

6. Jar/Krater : no exact parallel but cf Buseirah pl. 53: 2 (without the burnished bands).

188 Jebel el Qiranah **PGR**: 22500144

Edomite period : Sherds

Late Occupation : Nabataean.Roman fortress

Basalt-built fortress built on the south peak of a twin volcanic plug. The ruins are probably Nabataean or Roman but some Edomite sherds were found.

Pottery: Plate 66 nos. 7-10

7. Jar : no exact parallel but cf Buseirah pl. 53 : 3, 8.

8. Jar : no parallel but perhaps a smaller version of Buseirah pl. 55: 3.

9. Jar : no exact parallel but perhaps cf Ghrareh pl. 16: 4.

10. Bowl, Type D : cf Tawilan pl. 32: 10.

190 Khirbet Ain Jenin **PGR**: 20970178

Edomite period : Tombs, Sherds

Late Occupation : Medieval and Nabataean/Roman village

Large, ruined medieval village overlooking Buseirah. There appears also to have been prior Edomite and Nabataean/Roman settlement together with rock-cut tombs of these periods.

191 **PGR**: 21040204

Edomite period : Sherds

Late Occupation : Nabataean/Roman hamlet

Small Nabataean or Roman hamlet with a few Edomite sherds.

192 Jebel el Hala **PGR**: 21140201

Edomite period : Fortress

Late Occupation : Nabataean/Roman building

Presumably Glueck's site 184 (Glueck 1935: 96) although further north than on his map. Rectangular Edomite fortress with additional Nabataean or Roman structures.

Pottery: Plate 66 no. 11

11. Bowl, Misc. : cf Ghrareh pl. 6: 13.

193 Khirbet Nijjid **PGR**: 21220208

Edomite period : Sherds

Late Occupation : Nabataean/Roman village

Large Nabataean/Roman village on a small hill crest with a few Edomite sherds.

Pottery: Plate 66 no. 12

12. Jar : no exact parallel but cf Ghrareh pl. 17: 6 and Buseirah pl. 53: 7.

194 Khirbet/Qalat es-Sela' **PGR**: 20490214

Edomite period : Village

Late Occupation : Village?

Sela' is an isolated, sheer-sided massif in the middle of a broad wadi. It is very similar to Umm al Biyara (See 4.2) in general appearance, defensibility and use. Many cisterns are cut into the top.

Pottery: Plate 66 nos. 13-30

13. Bowl, Type B : no parallel for groove at carination but general shape cf Buseirah pl. 50: 14.

14.Bowl, Type B : cf Ghrareh pl. 2: 9.

15. Bowl, Type A : cf Tawilan pl. 29: 1 (undecorated), Umm al Biyara pl. 56: 1 or inverted as a lid, Umm al Biyara pl. 57: 15.

16. Bowl, Type D : cf Tawilan pl. 32: 3.

17. Jar? : no parallel.

18. Bowl, Type D : cf Ghrareh pl. 5: 20.

19. Jar/Jug : no exact parallel, too small to be certain of details.

20. Jar/Jug : no exact parallel but perhaps a small version of Tawilan pl. 46: 3.

21. Jar/Jug : no exact parallel but cf Umm al Biyara pl. 57: 3, Ghrareh pl. 19: 2.

22. Cooking Pot : cf Umm al Biyara pl. 57: 2, with similar examples from the other main sites.

23. Cooking Pot : cf Tawilan pl. 47: 2.

24. Cooking Pot : cf Buseirah pl. 53: 14.

25. Bowl, Misc. : no parallel for plastic decoration cut into diamond pattern.

26. Krater : cf Ghrareh pl. 13: 19-20.

27. Storage Jar : cf Tawilan pl. 43: 8, Buseirah pl. 55: 4.

28. Jar : no parallel.

29. Storage Jar : no exact parallel but cf Umm al Biyara pl. 58: 3. Incised dot decoration is found on Ghrareh pl. 15: 20 although on the rim rather than the shoulder.

30. Storage Jar : cf Ghrareh pl. 15: 4, 8.

195 Khirbet Qasr ed-Deir **PGR**: 20620228

Edomite period : Sherds

Late Occupation : Nabataean/Roman village?

Nabataean or Roman settlement consisting of a building with arched underpinnings with many surrounding tombs and cisterns. A few Edomite sherds were found.

196 **PGR**: 21100229

Edomite period : Building

Late Occupation : None

Building or hamlet on a hill crest. Very little associated pottery, nearly all indeterminate Iron Age body sherds.

197 **PGR**: 2130249

Edomite period : Sherds

Late Occupation : Nabataean/Roman sherds

Summit of hill with modern animal pens and threshing floors. Sherds mostly Nabataean/Roman but a few Edomite.

198 Khirbet Abur **PGR**: 21820233

Edomite period : Sherds

Late Occupation : Medieval village, Nabataean/Roman sherds

Extensive medieval village with some recent stone buildings. Few sherds of Nabataean/Roman and Iron Age date.

6.3 THE WADI EL HASA SURVEYS

6.3.1 INTRODUCTION

The northern part of Edom, north of Tafileh and south of the Wadi el Hasa has recently been surveyed by an American team led by Burton MacDonald and published in a series of preliminary reports (MacDonald 1980, 1982, 1983, 1984, MacDonald et al. 1982, 1983).* The survey was undertaken on foot and in great detail and may be assumed to have discovered the majority of sites in the area, regardless of whether there were any associated structures.

Unlike the sites visited by the Edom Survey Project (6.2, above) which found very little that could not be related to the excavated material dating to the 7th-6th centuries BC, the Wadi Hasa survey found material across the full spectrum of the Iron Age.[9] This is an important difference, requiring explanation and before proceeding towards this explanation it is worth listing MacDonald's evidence.

The information has been extracted from the preliminary reports listed above and, for convenience, placed in a format similar to that of the Edom Survey Project Site List. Slight errors in the Palestine Grid Reference numbers may have occurred when aligning the published maps with the grid. MacDonald does not publish drawings of any sherds, but lists of the sherds found are included. Sherds from the sites of Khirbet Mashmil (WHS 23) and Khirbet Abu Banna (WHS 212) have been published separately by Weippert (1982) and are included here.

6.3.2 SITE LIST

WHS 6 Majadil **PGR**: 21110322

Edomite period: Sherds

Late Occupation: Byzantine and Late Islamic village

Pottery: 22 Iron I sherds, 4 possible Iron I sherds.

Extensive Byzantine village with many walls in a good state of preservation, together with underground tombs. Islamic structures at the centre of the site.

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* at the time of writing the final report of the survey was published but a copy could not be obtained in time for inclusion in this thesis.

WHS 9 **PGR**: 20970336

Pottery: 10 probable Iron I sherds.

WHS 10 Umm er-Rih **PGR**: 20920337

Edomite period: village

Late Occupation: Nabataean/Byzantine sherds

Pottery: 19 Iron IA sherds, 67 Iron I sherds, 9 Iron II sherds.

Located on a hill, with many chert and limestone walls. Possible towers or tombs around the edge of the site.

WHS 16 **PGR**: 20880350

Pottery: 26 Iron I sherds.

WHS 18 Haboul el-Hardhoun **PGR**: 20900359

Pottery: 95 Iron I sherds.

WHS 20 Naukha **PGR**: 21140300

Edomite period: Sherds

Late Occupation: Byzantine/Ayyubid/Mamluk village?

Pottery: 12 Iron I sherds, 3 Iron II sherds.

Site has been mostly converted into modern animal pens and it is difficult to distinguish ancient walls. There are many caves and cisterns and a modern well.

WHS 23 Mashmil/El Mushimmin **PGR**: 21310322

Edomite period: Sherds

Late Occupation: Byzantine/Ayyubid/Mamluk village

Pottery: 21 Iron I sherds, 8 possible Iron I sherds.

Very large site with the tops of many buried walls visible. A possible tower is located 200 m. northwest of the main site. 18 EB IVA sherds found.

Pottery from this site has been published by Manfred Weippert (1982) and will be discussed here. All are dated by him to Iron I, except for number 9 which he dates to Iron IIC.

Weippert's Pottery: pl. 67: 1-9

1-3. Kraters : this form has no parallels at the excavated Edomite sites. Parallels from elsewhere indicate that it is probably to be dated to the Early Iron Age cf. from Pella, Hennessy et al. (1983) fig. 13: 1.

4. Storage Jar : cf Ghrareh pl. 15: 20.

5-7. Jars/Jugs : these fragments are all really too small to be diagnostic and could equally well be early or late Iron Age. No. 5 could be from a flask (cf Ghrareh pl. 25: 2) or juglet (cf Ghrareh pl. 20: 1-2). Nos. 6 and 7 might be part of ridge-necked jars (cf Buseirah pl. 4: 22) or be related to more standard forms such as Buseirah pl. 5: 19.

8. Base : This form of base is not useful as a chronological indicator.

9. Storage Jar : no exact parallel on Edomite sites but cf Ghrareh pl. 14: 1 and pl. 15: 20.

WHS 24 Rujm Karaka **PGR**: 21380343

Edomite period: Watchtower

Late Occupation: Late Roman/Byzantine/Islamic sherds

Pottery: 71 Iron IC-IIA sherds, 11 Iron II sherds.

WHS 28 **PGR**: 21040296

Pottery: 56 Iron IA sherds, 7 Iron II sherds.

WHS 31 Khirbet Karaka **PGR**: 21320350

Pottery: 21 Iron IC-IIA sherds.

WHS 33 **PGR**: 21390360

Pottery: 5 Iron II sherds.

WHS 39 **PGR**: 21440343

Pottery: 4 Iron I sherds, 14 Iron IC-IIA sherds.

WHS 42 Umm Qreiqarah **PGR**: 21520388

Edomite period: Iron I sherds

Late Occupation: Cemetery

Pottery: 35 Iron I sherds

Stone enclosure containing a cemetery, with unidentified structures within the enclosure.

WHS 45 **PGR**: 21300395

Pottery: 6 possible Iron Age sherds.

WHS 47 **PGR**: 21220368

Pottery: 4 Iron I sherds.

WHS 55 **PGR**: 21190361

Pottery: 5 Early and 2 possible Iron I sherds, 4 Iron II sherds.

WHS 58 **PGR**: 21120360

Pottery: 5 Iron Age sherds.

WHS 61 Khirbet 'Ain Saubala **PGR**: 21120403

Edomite period: Village

Late Occupation: Nabataean/Byzantine sherds

Pottery: 135 Iron II sherds + 22 probable Iron II(but possible LB).

Large site on a plateau to the west of the Wadi 'Afra. Tower or stone platform on the northeast edge.

WHS 71 Al Habes North **PGR**: 21050345

Pottery: 15 Iron II sherds.

WHS 84 **PGR**: 21100388

Pottery: 3 possible Iron II sherds.

WHS 86 'Ain ad-Dahs South **PGR**: 21200415

Pottery: 19 Iron I sherds.

WHS 103 **PGR**: 21520334

Pottery: 1 Iron II sherd.

WHS 106 **PGR**: 21460375

Pottery: 16 LB-Iron IA sherds.

WHS 144 **PGR**: 21230430

Pottery: 20 Iron Age sherds.

WHS 145 Khirbet 'Ain el Ghuzlan **PGR**: 21400411

Edomite period: sherds

Late Occupation: Nabataean/Roman village

Pottery: 6 Iron I sherds.

Extensive Nabataean and Roman settlement with an aqueduct and many stone foundation walls.

WHS 147 Ash-Shorabat **PGR**: 21500424

Edomite period: Hamlet?

Late Occupation: Byzantine and Late Islamic sherds

Pottery: 35 Iron IA sherds, 15 LB-Iron sherds.

Rock platform and stone foundation walls, set in modern tomato patch.

WHS 148 **PGR**: 21370432

Pottery: 16 Iron Age sherds.

WHS 165 Beider Radwan **PGR**: 21250443

Edomite period: Buildings?

Late Occupation: Nabataean/Byzantine sherds.

Pottery: 23 Iron Age sherds.

Rock platform with two rectangular structures of uncertain date and purpose.

WHS 168 **PGR**: 21270440

Pottery: 22 Iron Age sherds.

WHS 171 **PGR**: 20670352

Pottery: 4 possible Iron Age sherds.

WHS 172 Rabab **PGR**: 20660365

Pottery: 26 Iron II sherds.

WHS 173 al-'Addanin **PGR**: 20590373

Edomite period: village/large fortress?

Late Occupation: Byzantine/Late Islamic sherds

Pottery: 187 Iron I-Iron IIA sherds.

Large site on a hill, c. 100 x 100 m. giving the impression of a "citadel". Similar concept perhaps to Ghrareh. Hill strewn with stones and traces of foundations.

WHS 174 **PGR**: 20570368

Pottery: 8 Iron I sherds, 5 probable Iron Age sherds.

WHS 175 **PGR**: 20650380

Pottery: 11 Iron Age sherds.

WHS 178 **PGR:** 20820379

Pottery: 10 Iron I-IIA sherds.

WHS 179 Umm Suwwaneh **PGR**: 20490390

Pottery: 25 Iron I sherds, 166 Iron Age sherds.

WHS 182 **PGR**: 20310385

Pottery: 8 Iron I sherds.

WHS 187 Al-Maqhaz **PGR**: 20600359

Edomite period: building?

Late Occupation: Byzantine/Late Islamic sherds

Pottery: 28 Iron I sherds, 32 Iron II sherds.

Stone platform with modern animal pens utilising robbed stone.

WHS 190 **PGR**: 20800389

Pottery: 78 Iron I-IIA sherds.

WHS 192 **PGR**: 21220316

Pottery: 10 Iron I sherds.

WHS 198 **PGR**: 21460335

Pottery: 11 possible Iron Age sherds.

WHS 200 **PGR**: 21020380

Pottery: 8 possible Iron I sherds.

WHS 201 **PGR**: 21020382

Pottery: 7 possible Iron Age sherds.

WHS 203 **PGR**: 21070393

Pottery: 4 possible Iron Age sherds.

WHS 210 **PGR**: 21040396

Pottery: 3 possible Iron Age sherds.

WHS 211 Khirbet el Bureis **PGR**: 21140314

Edomite period: village?

Late Occupation: Nabataean/Late Roman/Byzantine sherds

Pottery: 72 Iron I-II sherds, 38 Iron II sherds, 6 probable Iron I sherds.

Heavy sherd scatter with many buried or partially buried walls and remnants of rectangular structures.

WHS 212 Khirbet Abu Banna **PGR**: 21470316

Edomite period: village

Late Occupation: Nabataean/Byzantine/Late Islamic sherds

Pottery: 61 Iron IA sherds, 151 Iron I sherds, 150 IA Body sherds.

Large village built of chert blocks, with walls still standing in places to a height of 1-2 metres.

The site was also visited by Manfred Weippert who published 19 Iron Age sherds from the site (Weippert (1982) Figs. 7 and 8). Thirteen are identified as either Iron II or ambiguous. Six he identifies as being Early Iron Age:

Weippert's Pottery: pl. 67: 10-15

10. Bowl, Type D : cf Tawilan pl. 4: 10.

11. Bowl, Type D : cf Tawilan pl. 4: 3.

12. Jar : no Edomite parallel.

13. Jar : no Edomite parallel.

14. Bowl, Type D : cf Tawilan pl. 4: 3.

15. Bowl, Misc. : no Edomite parallel. For an Early Iron Age parallel cf perhaps Deir 'Alla (Franken 1969: fig. 49: 81).

WHS 248 Rujm Muhawish **PGR**: 21502487

Edomite period: large fortress

Late Occupation:

Pottery: Iron II sherds.

Large polygonal building with towers at the corners and long, narrow structures running between the towers.

WHS 270 **PGR**: 21830369

Edomite period: small fortress?

Late Occupation:

Pottery: 19 Iron IA sherds.

Modern building on the east side of the Wadi La'ban, possibly built of ancient blocks. Foundation walls are visible beyond the modern building.

WHS 282 Khirbet al-Draj **PGR**: 21660306

Edomite period: village

Late Occupation: Ottoman/modern village

Pottery: Iron II sherds

WHS 283 Khirbet al-Mdhaywit/Rujm Muhawish **PGR**: 21670310

Edomite period: village

Late Occupation: Ottoman/modern village

Pottery: Iron II sherds.

WHS 284 Khirbet Abu 'Usba' **PGR**: 2168037

Edomite period: village

Late occupation: Ottoman/modern village

Pottery: Iron II sherds.

WHS 311 Rujm Ja'is **PGR**: 22040380

Edomite period: fortress

Late Occupation:

Pottery: 209 Iron II A-B sherds.

Probably Glueck's Rujm Ja'ez (Glueck 1935: 102). Many foundation walls visible in a large area of rubble.

WHS 362 Khirbet al-Faridiyyeh **PGR**: 22160355

Edomite period: Sherds

Late Occupation: Mamluk/Ottoman village

Pottery: 59 IA body sherds, 11 Iron I-IIA sherds, 1 Iron IA "collared-rim" jar fragment.

Large farm or village on a terrace on west side of the Wadi Ja'is.

WHS 367 Ed-Dair **PGR**: 21660350

Edomite period: village?

Late Occupation:

Pottery: Iron I-II sherds.

Large site on the west slop of the Wadi La'ban. Tower and major building on north side of the site.

WHS 601 **PGR**: 23610301

Edomite period: sherds

Late Occupation:

Pottery: 1 Iron II sherd.

WHS 604 Al Mabra **PGR**: 22680358

Edomite period: village

Late Occupation:

Pottery: 50 possible Iron I sherds, 88 Iron I-II sherds.

Large village on west slope of the Wadi el 'Ali.

WHS 615 **PGR**: 22730347

Edomite period: village

Late Occupation:

Pottery: 606 Iron II sherds.

WHS 616 Al Qasr **PGR**: 22740356

Edomite period: sherds

Late Occupation: Nabataean/Roman tower

Pottery: 4 Iron I-II sherds

WHS 624 **PGR**: 22650366

Edomite period: building

Late occupation:

Pottery: 9 Iron I-II sherds.

Small site which might possibly be a farm.

WHS 644 **PGR**: 22660360

Edomite period: tomb

Late Occupation: none

Pottery: 9 Iron Age sherds.

Looted tomb to the northwest of site 604.

WHS 647 **PGR**: 22670368

Edomite period: fortress

Late Occupation:

Pottery: 12 Iron II sherds.

WHS 648 **PGR**: 22710355

Edomite period: building

Late Occupation:

Pottery: 5 probable Iron II sherds.

WHS 654 **PGR**: 22730349

Edomite period: building

Late Occupation:

Pottery: 4 Iron II sherds.

WHS 716 Rujm Bakher **PGR**: 298333

Edomite period: fortress?

Late Occupation: Late Roman/Byzantine sherds/ Ottoman watchtower?

Pottery: Glueck (1935: 107) claims to have found Iron Age sherds but none found by WHS.

Watchtower approximately 24 m square. Predominant pottery is Ottoman and there are late walls apparently constructed from an earlier structure.

WHS 732 **PGR**: 33500290

Edomite period: sherds

Late Occupation:

Pottery: 3 Iron I-II sherds.

Sherd scatter west of the Wadi er Ruweihi, in the east of the survey area.

WHS 764 Er Ruweihi **PGR**: 378292

Edomite period: sherds?

Late Occupation: extensive Nabataean to Byzantine village

Pottery: Glueck (1937: 24) claims to have found Iron Age sherds but none found by WHS.

Large village site with many extant walls, together with gateways and flanking towers.

WHS 1015 **PGR**: 23010381

Edomite period: sherds

Late Occupation:

Pottery: 8 possible Iron I-II sherds.

6.3.3 DISCUSSION

Fig. 6-2 shows the distribution of the Iron Age sites along the south side of the Wadi el Hasa. Circles indicate sites where the survey identified Iron I material. Triangles indicate purely late material.

Site distribution is much as would be expected. The majority of sites cluster in the western part of the survey area, where climate and rainfall are best suited to agriculture (cf Chapter 1.4 above). The line of sites stretching east along the line of the Wadi el Hasa are most probably part of the Edomite defensive system first proposed by Glueck (1935: 105-106) and discussed recently by MacDonald in the light of the new surveys (MacDonald 1984).

Where the results of this survey differ radically from those of the Edom Survey Project is in the presence of a large number of Early Iron Age sites. It is necessary to determine the extent to which this difference really exists. There are two possible areas of error:

1. There is an error in the interpretation of the Edom Survey Project material.

On the whole, this can be discarded as a reason. With a few minor exceptions the sherds collected can all be tied in to the corpora from Ghrareh, Buseirah, Tawilan and the other excavated sites (see 6.2 above). However, it should be noted that the project did not survey the northern area in as much detail as the south and it is possible that a few Early Iron Age sites there escaped notice.

2. There is an error in the interpretation of the Wadi el Hasa Survey material.

The pottery readings listed in 6.3.2 above are only field readings and as such may be expected to contain errors. Furthermore, no sherd drawings are published, so one is limited in the interpretation of these readings. Nevertheless, there is evidence for some Early Iron Age presence, in the kraters published by Weippert from Khirbet Mashmil (WHS 23) (pl. 67 nos. 1-3), in the bowl from Khirbet Abu Banna (WHS 212) (pl. 67 no. 15) and in the "collared-rim" jar fragment (a characteristic Early Iron Age form) from Khirbet al-Faridiyyeh, WHS 362. This being the case, the evidence is in favour of at least some of the Early Iron Age sherd readings being correct.

Accepting, therefore, that there is adequate evidence that this difference between the survey findings is real, one may argue that it is not so extensive as the Wadi el Hasa survey reports suggest. Small fragments of Iron Age vessel rims may often be ambiguous as to their date. Thus Weippert may interpret the bowl fragments from Khirbet Abu Banna (pl. 67 nos. 10,11,14) as being Iron I when, as demonstrated in 6.3.2 above, they might equally well be Iron II. In an area (Edom) in which there are no excavated sites of Iron I, any ambiguity should be resolved in favour of the known evidence, i.e. towards the excavated material of Iron II.

The Iron II pottery from Khirbet Abu Banna published by Weippert (1982: figs. 7 and 8) argues against the site being purely Iron I (MacDonald 1980: 175) and suggests that this kind of ambiguity resolution error has occurred. The problem is only compounded when working with body sherds, particularly in the absence of local Iron I material for comparison.

In conclusion therefore, an Early Iron Age presence has been established in the regions south of the Wadi el Hasa and north of Tafileh, although it is probably not as large as the Wadi el Hasa survey preliminary reports suggest. No Early Iron Age material has been found south of Tafileh by the Edom Survey Project but it is possible that some small sites in the northern part of the area may have been missed. Conversely, it can be stated with some certainty that there is no Early Iron Age material at the southern end of the plateau (between Sadaqa and Ras en-Naqb).

6.4 WADI FEINAN REGION

The copper mining sites of the Wadi Feinan area have attracted surveyors and explorers since the end of the last century. Musil (1907: 293-298) visited Khirbet Feinan in 1898; Frank (1934: 221-224) visited the Khirbet en-Nahas smelting site; and Glueck (1935: 20-51) visited the area as part of his Transjordan survey and was the first to recognise Iron Age remains although here, as elsewhere, he dated the Edomite pottery to the Early Iron Age. A German geologist, H.D. Kind (1966) visited and discovered many mining sites but his dating was based on Glueck's pottery methods. Recently the Jordanian Natural Resources

Authority have investigated several mines and in 1981-82 G.R.D. King (1985: 44-45) visited Feinan as part of his Southern Ghor survey.

By far the most useful work, however, has been done recently by the Deutsches Bergbau-Museum (Bachman, H-G and Hauptman, A. (1984) and Hauptmann, A. et al. (1985). The articles are primarily concerned with ancient metallurgical techniques but selections of sherds are also published and are assessed here.

The Iron Age pottery of the Wadi Feinan region is not so well understood as that of the plateau. Recently, Hart and Knauf (1986) classified it into three broad groups:

1. standard Edomite pottery: this is the material commonly found on the plateau and at all the excavated sites (cf chapter 5 for details).

2. "Jordanian Negebite" pottery: this is the coarse ware, also found on the plateau, and similar to the hand-made pottery found in the Negev (cf Ghrareh pls. 24 and 28 and Tawilan pl. 21).

3. non-Edomite Iron Age pottery: this is the difficult group. The ware is clearly Iron Age and the shapes are not completely unrelated to Edomite forms but the types are less precise and difficult to classify. Furthermore, the forms do not relate particularly well to Palestinian equivalents.

Knauf (Hauptman et al (1985) pl. 29: 1-6) initially classified this as Early Iron Age but later (Hart and Knauf (1986): 10) revised his position to one of less certainty. Type 3 material is usually found in association with standard Edomite pottery, with the singular exception of the Wadi Khaled mines where Type 1 was found in isolation.

The material has to be viewed in the context of the Wadi Arabah copper industries (cf Rothenberg, 1962) and some parallels can be found at Timna. Cf for instance, (p. 121: 5) and, from Timna, Rothenberg (1972) Fig. 45: 7 and Rothenberg (1971) pl. 32. This, taken together with the absence of Type 3 at Wadi Khaled, suggests that Type 3 is at least partially earlier than the standard Edomite 7th-6th century BC pottery, but the actual date of Type 3 and the extent to which there is chronological overlap with Type 1 remains unclear.

The material is therefore referred to as "Early Edomite" in preference to "Early Iron Age", as this implies only a relative rather than an absolute

chronology. It is to be hoped that excavations at sites such as Feinan will ultimately clarify this position.

6.5 OTHER SURVEYS

6.5.1 'AQABA - MA'AN

An extensive survey of the area between 'Aqaba and Ma'an has been undertaken by W.J. Jobling (1981, 1982, 1983a, 1983b, 1984, 1985). The main purpose of the survey has been to discover and record Thamudic rock inscriptions but Jobling also notes the discovery of several Iron Age sites.

The following are noted without specific locations (Jobling 1981: 110):

In the Wadi Rumman:	Rakbat Um Edgeyer (Iron I)
	Jebel Utud (Iron I-II)
	Jebel Abu Sagar (Iron Age?)
In the Wadi Dhiqa:	Dhega (Iron II)
In the Hisma:	Um Ghadha (Iron Age)

The Neolithic to Middle Bronze Age site, Tell el Kharaza (Jobling 1983a: 189), located at Palestine Grid Reference 194911 contains Iron Age surface sherds.

Beyond these few references, Jobling records no Iron Age material. As the region is very dry and infertile it seems likely that these scattered sites represent evidence of the caravans which undoubtedly continued through the Iron Age as throughout antiquity.

6.5.2 SOUTH-EASTERN DEAD SEA PLAIN

In a survey of the plain to the south-east of the Dead Sea in 1973, Rast and Schaub (1974) discovered Iron Age pottery at three sites: Es-Safi, Feifeh and Khanazir. The material from Es-Safi and Feifeh, and most of the material from Khanazir, is dated by the authors to Iron II (op. cit. pp. 16-18) and the material fits well into the general Edomite corpus.

The authors also suggest (ibid) that four of the sherds from Khanazir (op. cit fig. 11: 309-312) date to the Early Iron Age and this is not so clear. No. 309, could conceivably be from an Iron I chalice as suggested

but it is more likely that it is a fragment of a Type-B bowl, cf for instance Ghrareh pl. 2: 9. The three jar rims (nos. 310-312) are small fragments and indeterminate. No. 312 is close to a jug from Buseirah (pl. 54: 19) and nos. 309-310 are insufficiently diagnostic to confirm an Early Iron Age presence.

There is nothing in Rast and Schaub's survey to suggest that the southeastern Dead Sea plain need have had Iron Age settlement before the 7th century BC.

6.5.3 UDHRUH REGION

The area around Udhruh has been surveyed in extensively (Killick 1986: 432) but the details are as yet unpublished. Killick has reported (pers. com.) that the Iron Age occupation is extensive and there is no reason to assume that the area is much different from the rest of Edom. Near the Roman site of Udhruh is an Edomite hill fort (Killick 1983: 236 and Fig. 7a), Tell Udhruh.

CHAPTER SEVEN
EDOM

7.1 SETTLEMENT IN THE LAND OF EDOM

Settlement in the Edomite homeland has by no means been continuous over time. Evidence for settlement in the Middle and Late Bronze ages is weak (MacDonald 1980, 1982, 1983, 1984; MacDonald et al 1982, 1983; Jobling 1982: 468) and the sudden, dense settlement of the Iron Age requires explanation. The date at which this settlement commenced is has long been a matter of debate.

Nelson Glueck, the pioneer surveyor of Transjordan, argued for an Early Iron Age date (Glueck 1935: 125 ff) on the basis of Late Bronze Age parallels with the Edomite painted ware although, on the basis of the Tell el Kheleifeh excavations, he later re-dated the material correctly to Iron II (Glueck 1967).

Excavations by Bennett at Umm al Biyara (Bennett 1966 a, b, c; 1967), Tawilan (Bennett 1971b; 1984) and Buseirah (Bennett 1973; 1974; 1975; 1977) also failed to produce material earlier than c. 800 BC, which convinced many that settlement in Edom dated to Iron II (Bartlett 1972; Bennett 1971a; 1976; 1978; 1982).

Recently, however, Sauer (1985; 1986) has suggested a return to the earlier date "since recent surveys in northern Edom have produced Iron IA sites (e.g. Khirbet Abu Banna and Khirbet Mashmil) with typical primitive Iron IA pottery and pillared houses" (Sauer 1986: 10). While this view is not completely untenable there are a number of problems associated with it and it is worth discussing this article in detail.

It is, of course, pointless to attempt to date unexcavated "pillared houses" to Iron IA, particularly in view of the pillared house from Ghrareh (Chapter 2, above). The major problems which occur in the article, however, arise from the use of inappropriate terminologies, originally devised for material from a Palestinian context. Thus when Sauer refers to pottery of Iron IIA (which he dates to between 918 and 721 BC) from Buseirah (1986: 15) it

does not necessarily follow, as he implies, that the pottery actually dates to these years. All that can accurately be stated is that, were this material to have come from a Palestinian context, it would not be inconsistent with that date, which is not at all the same thing.

The following points may also be made:

1. Sauer suggests (p. 10) that two sherds published from Buseirah (Bennett 1975: fig. 8: 7-8) may date to Iron I. The first is the rim of a storage jar which relates to Tawilan pl. 15: 7. The second is a storage jar base and may be related to Tawilan pl. 14: 1 and Ghrareh pl. 14: 1. There is therefore no particular reason to date these sherds to the Iron I.

2. Sauer (p.14) quotes Bennett (1975: 16-18) as indicating 10th century finds coming from Buseirah. This is a gloss of what is stated by Milward and Bennett concerning a fragment of an Egyptian relief chalice. Milward gives a three and a half century range for this type of vessel (11th - 8th century). Bennett speculates fancifully that it might have been brought back by Prince Hadad after his sojourn in Egypt in the 10th century but there is no evidence for this. Moreover, with items such as this which potentially fall into the 'heirloom' category, there is no guarantee that it arrived at Buseirah near to its date of manufacture.

3. As stated above, the presence of so-called Iron IIA pottery at Buseirah and Tawilan (Sauer p. 15) does not necessarily indicate that the pottery actually dates to between the years 918 and 721 BC. Sauer does not, moreover, indicate which of the vessels published he considers to be the IIA examples.

Thus, Sauer has failed to demonstrate conclusively the presence of material pre-dating the 8th century BC from any of the excavated sites. The evidence for the Early Iron Age in the Wadi Hasa region was examined in the previous chapter (see 6.3.3). There is some evidence for an Early Iron Age presence in northern Edom but it does not seem to have been extensive. The evidence for sites like Khirbet Abu Banna and Khirbet Mashmil being large Early Iron Age settlements is dubious (6.3.3 above).

Therefore, while there may have been scattered settlement in Edom during the Early Iron Age, particularly in the north and in

the Wadi Feinan region, it is not until the 8th or 7th centuries BC that settlements suddenly appear across the plateau. The events which triggered this phenomenon must now be considered.

The geography and climate (see 1.4 above) are more conducive to nomadism than to permanent settlement (Hart 1986b). Winters on the plateau are cold and wet and the mild temperatures of the Wadi Arabah are just a few kilometers to the west. Conversely, summers in the Arabah are exceedingly hot and the plateau is cool and mild. Rainfall is not great and available grazing in a particular area is unlikely to support flocks on a year-round basis. A logical settlement pattern is to move between the two areas on a seasonal basis.

Patai (1958: 164-165) records the bedouin Howetat Ibn Jazi as following a similar logical pattern, occupying the high areas around Ras en Naqb in the summer dry season and moving into, in this case, the Eastern Desert during the winter wet. Henry (1982) postulates a similar model for prehistoric periods. It is reasonable to suppose that the scattered Early Iron Age remains in Edom are attributable to a similar pattern.

Some significant event would be necessary to change this obviously efficient pattern and the most likely candidate during this period is the invasion of the Levant by the Assyrians. The Levant had already suffered a brief visitation from the Assyrians during the reign of Adad-nirari III (811-784 BC) and many states, including Edom, had been forced to pay tribute (Pritchard 1969: 281) but a succession of weak rulers (Shalmaneser IV (783-774), Asshur-dan III (773-756) and Asshur-nirari V (755-746)) meant that this was never followed up. In 745 BC, however, the strong and efficient Tiglath-Pileser III took the throne and the Assyrian Empire once more expanded.

During the years 734-732 BC, Tiglath-Pileser undertook a series of successful campaigns in the Levant and extracted tribute from a variety of rulers, including Kaush-malaku of Edom (Pritchard 1969: 282). Oded (1970) argues convincingly that the Transjordanian states would have been absorbed into the Assyrian system of provinces but the timing of this is less easy. The northern part of Transjordan was probably absorbed immediately (ibid p. 178 ff.) but there is evidence that the Ammon and Moab were not absorbed

until somewhat later (p. 181) and the same presumably holds true for Edom.

By the time of Assurbanipal (668-631 BC) and his wars against the desert tribes of Arabia it is clear that Assyrian troops were stationed along the whole length of the desert frontier, including the land of Edom (Oded 1970: 184; Pritchard 1969: 297-298), although the actual dates of these wars are unclear. This system of forts, the so-called "Assyrian limes" (after the later Roman system) with the great Transjordanian north-south road of the Kings' Highway, was identified by Nelson Glueck and dated by him to Iron I in line with his mistaken dating of Edomite pottery (Glueck 1936; 1947; also 1935: 111-112). Bartlett, on the basis of II Samuel 8: 13f, suggests (1972: 29) that this date could be brought down to the time of David, and Bennett (1982: 182) on the basis of the pottery, dates the system to "the beginning of the 8th century BC at the very earliest".

It is feasible to bring this date down even further, to somewhere in the 7th century BC. Assyrian influence in Edom was minimal before Tiglath-Pileser and, initially at any rate, Edom seems to have retained the status of an independent, tributary kingdom after his invasion. At the time of the Edomite king QWS GABR, who is mentioned in the texts of Esarhaddon (680-669 BC) (Pritchard 1969: 291) and Assurbanipal (668-631) (Pritchard 1969: 293), at least some Edomites were still dwelling in high strongholds such as Umm al Biyara and producing a pottery which was still unpainted. Yet by the time of Assurbanipal's (imprecisely dated) campaigns against the Arabs the limes system was apparently functional.

There is no reason why the transformation should not have been a rapid one. The Assyrian system of organisation was well tested across its empire (Oded 1970: 178) and would have been swiftly implemented. The system usually involved mass movements of populations and the sudden origin of the painted pottery of Ammon, Moab and Edom may well be due to this factor. Whether QWS GABR was the last independent king of Edom is impossible to say, but the transformation to Assyrian vassaldom must have occurred around the time of his reign.

It is possible to assume that the Edomites built the border fortresses without direct Assyrian intervention but, in view of the similarity of the system throughout Transjordan, (Glueck 1939a: 74-75) it must still have been under pressure and advice. It is much more likely, however, Edom was absorbed along with the rest of Transjordan.

7.2 EDOM AND NORTH-WEST ARABIA

The degree to which Edomite influence and control extended into north-west Arabia is far from clear. The area has been surveyed (Parr et al. 1970, 1971; Parr 1978; Bawden 1979; Bawden et al. 1980) but no excavations have yet been undertaken and so exact dating of the local pottery is difficult. Dayton (1970a) distinguishes between Midianite (Late Bronze Age) and Edomite (Late Iron Age) painted potteries and notes Edomite pottery at Hereibe (or Khuraybah, in the Al-'Ula Oasis - ancient Dedan) and Qurayyah. He also records a possible Edomite goblet from Bahrain but unfortunately gives no details.

While no one has suggested that Bahrain was a part of the Edomite kingdom it seems likely that that Edom exercised some control over the area of north-west Arabia. Ezekiel 25: 13 refers to Edom being made desolate from "Teman even to Dedan" inferring quite clearly that Dedan was within the borders of Edom. This is confirmed by an inscription (Jaussen and Savignac 1909) JS 34 mentioning Galti-Qaus, the governor of Dedan, Qaus being the God of Edom (Vriezen 1965).

Several sherds from Khuraybah have been published (Parr et al. 1970: figs 5. 6. 7) and, although their local character is clear, some may be related to the Edomite material. Compare, for instance, Fig. 6: 15-16 with Buseirah pl. 4: 24-26 and Fig. 7: 3 with Ghrareh pl. 17: 6, 8. Interesting also is the painted pottery (ibid Fig. 5: 1-12) which may be compared to the so-called Midianite sherd from Ghrareh (pl. 25: 4) and to the more elaborately decorated pottery from Tawilan (pls. 8 and 9). Similar material has also been found at the nearby site of Khief el-Zahrah (Bawden 1979: pls. 45-47).

Epigraphic evidence suggests that Khuraybah was occupied no earlier than the 6th century BC (Parr et al. 1970: 213) and the fact that the most common use of elaborate painted decoration in Edom occurs at Tawilan, also to be dated to the 6th century, suggests that Edomite interest in north-west Arabia was heightened during that century. Parr (1982: 131) who has had the opportunity to handle sherds from both Khuraybah and Tawilan also notes "some remarkable similarities in appearance and 'feel'" (ibid). On the basis of the Tawilan comparisons we would disagree with Parr's suggestion (1982: 131f.) that the Khuraybah pottery dates primarily to the 4th-3rd centuries BC, although it might well have continued until that date.

In the year 552 BC, Nabonidus, King of Babylon took up residence in the oasis of Teima and remained there for almost ten years, indicating its importance as a stage on the trading routes. Old Testament references to Teima are ambiguous regarding its ownership. Both Bawden (Bawden et al. 1980) and Dayton (1970b: 255) translate the "Teman" of Jeremiah 49: 7 and Ezekiel 25: 13 as "Teima" but it has been demonstrated adequately (de Vaux 1969 and more recently Knauf 1985b: 249 f. and 1987) that Teman is probably a synonym for Edom and not another term for Teima.

Surveys and soundings (Bawden et al. 1980) revealed little that could be regarded as being Edomite in character and the pottery from the sounding in the Qasr al-Hamra Neo-Babylonian Temple (ibid pl. 64: 8-19) bears only a marginal resemblance to Edomite pottery of the same date. There is no painted pottery but some of the surface sherds (ibid pl. 66) are similar to Edomite counterparts. Teima pl. 66: 12 is related to the Edomite jug forms (cf Ghrareh pl. 19: 11) and Teima pl. 66: 9 is similar to Buseirah pl. 6: 10. The parallels are by no means conclusive and further work at Teima will be required before any definite statement can be made concerning Teima and Edom in the 6th century.

Coarse Iron Age wares, bearing some similarity to Edomite material, have also been found at Meda'in Salih (Parr, et al. 1971: 23 and fig. 3: 1-4) and at Mantar Bani 'Atiya, a small watch-tower about 8 km from Teima and possibly part of its defence system (ibid pp. 26-27 and fig. 3: 5-7). The remains from Qurayyah (Parr et

al. 1970) seem to be Midianite and therefore too early for the period under discussion although some of the plain wares (ibid figs. 17-18) perhaps bear some distant relation to the Edomite forms. One would certainly anticipate 7th-5th century remains at this important oasis but there is no conclusive evidence of this to date.

The archaeological evidence from N.W. Arabia is therefore far from clear. That Edomite influence extended into this area is clear from biblical references and from such evidence as the name of Galti-Qaus, the governor of Dedan. The extent to which the Edomites had a physical presence in the area is difficult to determine. Surface finds from Dedan (Khuraybah) suggest close contacts with Edom and a possible Edomite presence but at other sites, particularly Teima, the evidence is equivocal. It is to be hoped that further excavations in the area will clarify matters.

7.3 EDOM AND IDUMEA

Edomite interaction with the Negev and the southern part of Judah, the area which in Roman times would be known as Idumea, is well attested in both documentary and archaeological evidence. Relations, by and large, were poor, but there is evidence to support periods of relative calm when normal trading went on.

The Arad ostraca illustrate the point well (Aharoni 1970; 1981). Strata VIII through VI of the fortress (late 8th, 7th and late 7th/early 6th centuries respectively) are the relevant levels. Inscription 40 (Aharoni 1970: 28 ff; 1981: 70-74) from Stratum VIII is unclear in detail but, in essence, it is a letter excusing the writer from sending something to the King of Judah, and the excuse is the evil deeds of the Edomites. Whether the unknown evil is something as monstrous as aiding the Assyrians or just a simple border raid, Edom provides a (presumably) acceptable excuse.

Inscription 24 (Aharoni 1970: 18 ff; 1981: 46-49), probably dating to Stratum VI, orders the recipient to gather troops and "hand them over to Elisha', son of Yirmi-yahu in Ramath-negeb, lest anything should happen to the city. And the word of the king is incumbent upon you for your very life. Behold, I have sent to warn you today: (Get) the men to Elisha'! Lest Edom should come there".

There is a hint of panic in the letter, or at very least, a military commander reacting hastily to an awkward situation.

Yet, at the same date Inscription 26, from the archives of Eliashib, records what seems to be a simple trading transaction: "To Elia]shib. Take one (jar of) oil and two (measures of) flour and give them to Kaus'anal quickly ... ". The name Kaus'anal contains the Edomite theophoric element Kaus (or Qaus) and the same name is known from Tell el Kheleifeh at about this period (Glueck 1938b: 16).

Aramaic ostraca of the 5th-4th centuries were also found and the many personal names perhaps reflect the make-up of the population (Aharoni 1981: 176). Hebrew names are in the majority but there are a number of Arabic and general Semitic names and the Edomite theophoric element "Qaus" appears on six ostraca and under the handle of a jar.

At Beer-sheba, ostraca of the 4th century BC contain names which are mostly Arabic or Edomite (Naveh 1973: 82). Naveh (ibid) suggests that Beer-Sheba was the administrative centre of the Negev and that these ostraca contain the proper names of landowners scattered through the Negev area. None of the characteristic Edomite painted pottery has been found at Beer-Sheba although some of the unpainted forms from Stratum II (late 8th/early 7th century BC) are similar (Aharoni 1973: cooking pots pl. 60: 81-85, and type-F bowl pl. 64: 8 are similar to common Edomite forms and the pot stand pl. 63: 131 is very close to an example from Khirbet Ishra (pl. 60: 14)).

Edomite pottery has been found at the following sites (Mazar: 1985: 264): Tell Malhata, Tell 'Ira, Tell Masos, Aroer, Tell Sera'/Tell esh-Shari'a, Tell Haror, Kadesh Barnea, Tell Jemmeh and the shrine at Horvat Qitmit. All, with the exception of Kadesh Barnea in the western Negev, are located west of the south end of the Dead Sea.

The characteristic Edomite painted pottery is not usually abundant but many parallels may be found in the unpainted wares. Thus, from Tell Masos, only two clearly Edomite painted sherds were found (Fritz and Kempinski 1983: pl. 98: F and pl. 164: 9,10). The former has parallels at Buseirah (Bennett 1974: fig. 16: 3 and Bennett 1975: fig. 6: 14) and the latter at Tawilan (pl. 8 - shape) and

Buseirah (Bennett 1975: fig. 7: 12 - painted pattern). Among the unpainted wares, Fritz and Kempinski 1983: pl. 163: 201 is a Type-A Bowl, cf Ghrareh pl. 1: 1; ibid pl. 164: 5 is a krater cf Ghrareh pl. 13: 19, 20; ibid pl. 164: 7,8 are fine-ware bowls cf Ghrareh pl. 9: 25; ibid pl 165: 10-13 are cooking pots cf Tawilan pl. 20: 6-8; and so forth.

At Tel Malhata similarly, there is a single painted sherd (Mazar 1985: fig. 5: 2; Kochavi 1970) comparable in shape to Ghrareh pl. 9: 27 and in decoration to a Buseirah example (Bennett 1974: fig. 16: 3). Kochavi (1977: 772) publishes photographs of unpainted pottery that he labels "Edomite" and, with the exception of the decanter on the far right, the forms are standard Edomite (a ridge-necked jug/decanter, a type A-B cooking pot, a lamp, a type-J bowl (with painted bands?), a rounded jug, a small Type-N or Type-J bowl and a Type-L bowl (mug)).

Tell 'Ira (Beit-Arieh 1985, Biran 1985) contains two phases within the 7th century BC. The unpainted pottery (Beit-Arieh 1985: 20) contains parallels with Edomite unpainted material and five painted sherds were found in the later of the two phases (Mazar 1985: 264). The single example illustrated by Mazar (ibid Fig. 5: 3) has an unusual chequerboard pattern but is otherwise consistent with the Edomite forms.

Aroer in the Negev has produced several examples of Edomite painted pottery (Biran and Cohen 1981: pl. 14). Three examples of denticulated, Type-A bowls were found (ibid pl. 14: 8-10) and may be compared to Tawilan pl. 30: 1 and 3. The carinated bowl with applied denticulation at the carination (ibid pl. 14: 7) has no direct parallel in the stratified material discussed in this thesis but may be compared to an example from Buseirah (Bennett 1974: Fig. 16:4). The jar with the complicated geometric decoration (Biran and Cohen op. cit. pl. 14: 1) similarly has no exact parallel in the stratified material but the sawtooth decorative pattern may be compared to to a Buseirah example (Bennett 1975: fig 7: 12). Also noteworth from Aroer is the fine bowl with the thumb-impressed decoration (Biran and Cohen op. cit. pl. 15: 13) which also occurs at Tawilan (pl. 33: 9, 10, 16).

At Tell Sera' (Oren 1972, 1973, 1974, 1978), stratum VI contained (according to Mazar 1985: 264) "two decorated sherds .... in the same locus was East Greek pottery dated to 610 B.C.E.", which is not precisely what his reference (Oren 1978: 1062) states, but presumably includes further information from the excavator. The sherds are not illustrated but may be accepted as being Edomite.

Tel Haror is not published but apparently also contained "two decorated sherds ... in a seventh-century locus" (Mazar 1985: 264 quoting a pers. com. from Professor Oren). As for Tell Sera', the sherds are not illustrated but may be assumed to be identified correctly as Edomite.

Kadesh Barnea (Cohen 1983) has also produced Edomite pottery, two pieces of which are of particular interest. The first is a large decorated krater (ibid p. 12 - photograph and Mazar 1985: Fig. 8 - drawing) with an applied band of denticulation on the lower part of the body. The form of the vessel may be compared to Ghrareh pl. 11: 5 but the decoration is far more complicated. The panel decoration bears some relation to Ghrareh pl. 26: 8. Similar decoration may also be found on some Buseirah examples from contexts other than Area D (cf Bennett 1974: fig. 16:9). The band of sawtooth decoration is parallelled by another Buseirah example (Bennett 1975: fig. 7:12). The second item of particular interest is the small bowl with the thumb impressions (Cohen 1983: p. 12) which also occurs at Tawilan (pl. 33: 9, 10, 16).

Horvat 'Uzza (Beit-Arieh 1986a, Beit-Arieh and Cresson 1985) provides clear evidence of Edomite presence in the area. An ostracon dating to the late 7th/early 6th centuries BC contains the phrase "I bless you by Qaus". The equivalent "I bless you by Yahweh" may be found in several sources including
the Arad ostraca (see Beit-Arieh and Cresson 1985: 98 for a full discussion) but the invocation of the Edomite God Qaus is clear indication that the writer is, or at least considers it prudent to assume the identity of, an Edomite. Little pottery has been published from the site but Beit-Arieh (1986a: 37) illustrates what appears to be a Type-J bowl.

Horvat Qitmit, excavated between 1984-1986 has produced a unique Edomite shrine (Beck 1986; Beit-Arieh 1986b, 1986c; Beit-

Arieh and Beck 1986). Numerous ceramic figurines, both anthropomorphic and zoomorphic, are a feature of the site and thus far have few parallels in the Edomite homeland. The pottery is a mixture of Judahite forms of the late 7th and early 6th centuries BC and Edomite forms (Beit-Arieh 1986c: 18) with several decorated examples "painted in geometric patterns, and some decorated with triangular knobs" (ibid). Examples illustrated (Beit-Arieh 1986b: 77) are similar to the fine wares from Ghrareh (pl. 9) and Buseirah Area D (pl. 51: 10-14). With a significant sample of Edomite pottery, mixed with Judahite pottery, in a single period site, Horvat Qitmit should prove to be one of the keys to a fuller understanding of the Edomite ceramic tradition.

Although the number of examples of painted Edomite vessels from the Negev is not large, many of them exhibit quite complicated geometric decoration, sometimes with incised or applied denticulation. It was suggested in 5.3.5 point 4, that this might be a feature of later Edomite pottery. As the Edomite expansion into the Negev is a part of later Edomite history (cf Bartlett 1982: 15) the Negev evidence supports this conclusion. Except for Horvat Qitmit, the percentage of Edomite pottery in the sites of the Negev and Southern Judah is very small, suggesting that Edomite expansion into the area was a matter of slow absorbtion and integration rather than a massed invasion (cf Bartlett ibid).

7.4 GENERAL CONCLUSIONS

Our understanding of Edomite archaeology is still far from complete, and more excavations are needed in several areas. Nevertheless, there are a number of statements which can be made.

The main Edomite sites can be dated relatively as Umm al Biyara (earliest), Buseirah Area D, Ghrareh and Tawilan (latest), most probably with considerable overlap. On the evidence thus far it would seem that Area D is one of the earlier areas of occupation at Buseirah, where occupation extends into the Persian period in Area C (Bennett 1977: 8). Tell el Kheleifeh cannot easily be put into this sequence due to inadequate linking of the phases and the pottery by the excavator (Pratico 1985: 22)

Relative dating of the pottery is less certain. There is a great deal of overlap in the forms that occur on the different sites and some, such as Type A-B cooking pots occur at all sites. However, the following points may be made:

Painted decoration on Edomite pottery did not become common until at least later than c. 670 BC (ie the Umm al Biyara settlement).

Early forms are difficult to isolate but two possible forms are:

Elongated bottles (cf. Umm al Biyara pl. 57: 8-9)

Rounded jugs (cf. Umm al Biyara pl. 57: 11)

Later forms are also not completely certain but the following are suggested as being later developments:

Type-J bowls (fine ware)

Type-K bowls ("Assyrian" bowls)

Storage jars with a rounded rim and a ridge below externally.

Examples with elaborate painted decoration, plastic decoration, denticulation or complicated shapes are more likely to be of a late date. It is significant that many of the painted examples of Edomite pottery found in the Negev, an area of later Edomite expansion, exhibit quite complicated geometric decoration, sometimes with incised or applied denticulation.

Pottery from the Feinan region is slightly different from the pottery of the plateau. The standard Edomite forms occur but there is another group of "non-Edomite Iron Age" pottery (Hart and Knauf 1986) which may well be earlier than Edomite but which is not yet clearly understood. Excavations at one of the Wadi Feinan sites will be required to elucidate the details of this pottery.

The extent of the Early Iron Age settlement on the plateau is still uncertain. There is at least a small amount in the north of Edom, in the Wadi Hasa region, but it is not certain how far south this extends. There is no evidence for it at the southern, Ras en-Naqb, end of Edom.

One problem which has not been addressed by this thesis is the relationship, if any, between the Edomites and the Nabataeans, the subsequent settlers in the area. The principal reason for this

omission is that the problem is not fundamentally an archaeological one. There is very little evidence for continuity of occupation between the Edomite and Nabataean settlements. Khirbet Ishra (4.5.1) is almost unique in showing a Nabataean wall built directly onto an Edomite one, but even here the evidence for continuity of settlement is equivocal. It is hoped that further excavations will eventually settle this question.

The archaeology of the Edomites in the Negev and southern Judah is an area in which knowledge is expanding rapidly with Edomite pottery being found at Tell Malhata, Tell 'Ira, Tell Masos, Aroer, Tell Sera'/Tell esh-Shari'a, Tell Haror, Kadesh Barnea, Tell Jemmeh and the shrine at Horvat Qitmit. Most of these finds are very recent and are not yet finally published. It is clear, however that the Edomite pottery being found dates towards the end of the relative sequence established in this thesis, thus supporting historical notions of Edomite expansion into the area in the late 7th and 6th centuries BC.

The main problem with accurate dating of Edomite pottery has been a dearth of stratified material. While this thesis has attempted to attack the problem to a certain degree, matters will become much clearer with the final publication of Buseirah which should provide an adequate chronological range on a single site.