

THE IRON I POTTERY OF KHIRBAT AL-LĀHŪN

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Introduction¹

The site of al-Lāhūn / Lahun or Khirbat al-Lāhūn is located in Jordan, on the northern plateau of the Wādī al-Mūjīb. The area between the Wādī al-Mūjīb (biblical Arnon) in the south and the Wādī al-Wālā/ Wādī ath-Thamad in the north is considered to be the heartland of ancient Moab.

Al-Lāhūn was excavated during seventeen seasons between 1978 and 2000, by the Belgian Committee of Excavations in Jordan in close collaboration with the Department of Antiquities of Jordan. The excavations were directed by P. Naster (1978 - 1984) and D. Homès-Fredericq (1978 - 2000). Al-Lāhūn is a large site of 1100 by 600 m (66 ha), and is divided into different natural sectors (excavation areas

A - D). Brought to light were an Early Bronze Age fortified town in area C and a walled Iron Age I village with a later square fortress in area D. Traces were also found of Nabataean and Roman occupation (areas A and B), as well as remains from the Islamic period (area A).

The pottery discussed here comes from the Iron I village in area D and from Iron I levels inside the later square fortress (**Fig. 1**).²

The Iron I village was surrounded by a case-mate wall with a total width of *c.* 4.00 m. The

outer wall was *c.* 0.7-0.8 m wide, the inner wall 0.75 m and the space between the walls was 2.2 m. There are no joints visible in the wall (see Homès-Fredericq 1997: fig. 32), and according to the excavator the wall was built in one stretch. The total length of the wall is *ca.* 700m, of which 500 m was clearly traceable. About 350 m of wall was exposed. The wall encloses an area of 17.000 square meters (1.7 ha) and was clearly visible at the north, west and south sides of the village. At the eastern side the terrain slopes down and the wall was found to be severely eroded there.

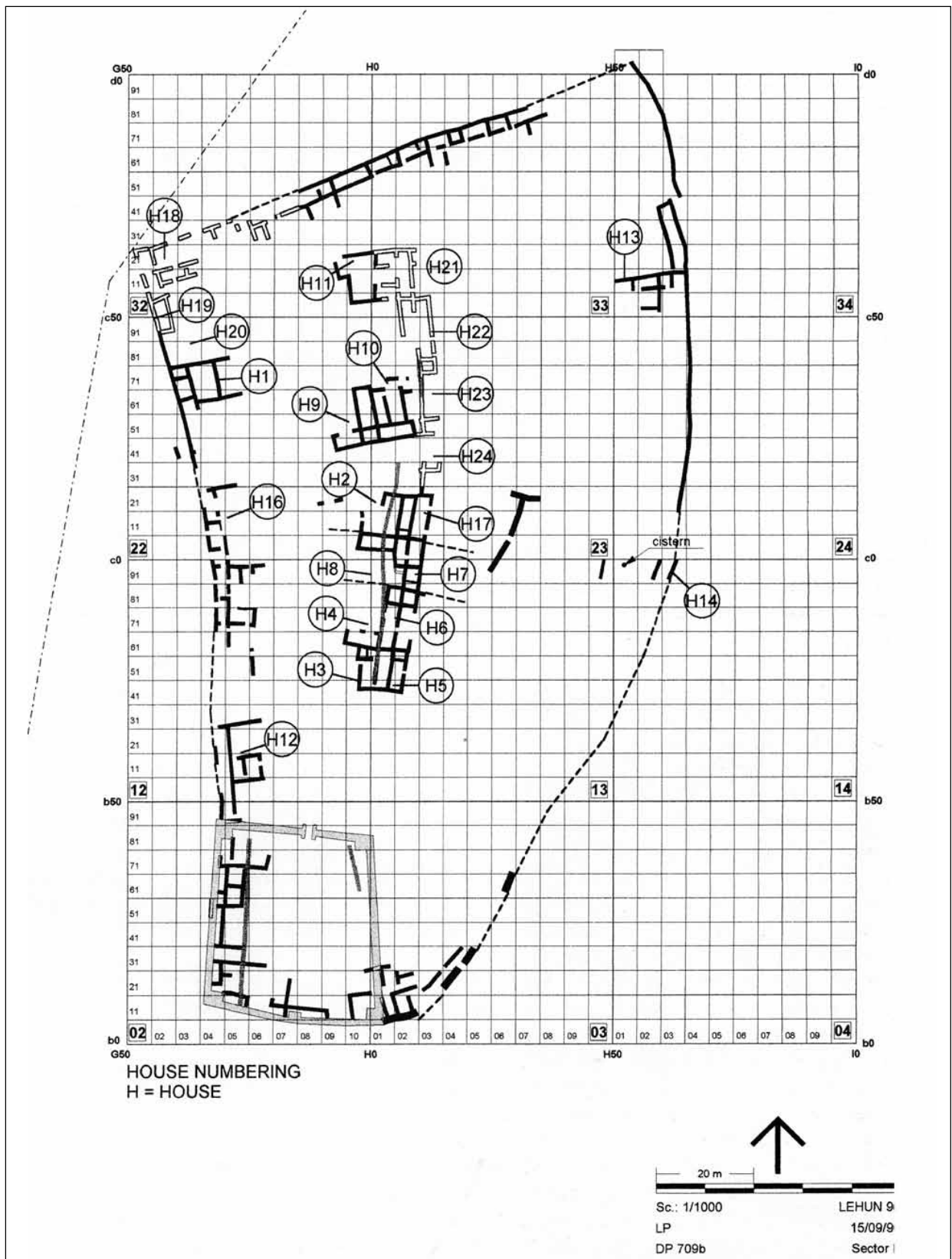
A total of twenty-four structures was completely or partly excavated. Additional structures were located below the square fortress but these could not be adequately examined. Only four houses were excavated down to bedrock: Houses 1, 2, 11 and 12. Of the others only the outlines were uncovered and some rooms excavated. At the east side of the village a stone-lined silo with a paved floor was found. No diagnostic sherds were found inside the silo, and it is not clear if it belongs to the Iron I village or to a later period.

At the southern side of area D a square fortress had been built over the remains of the Iron I village, possibly in the Iron II period. The size

1. This study was made possible through a generous grant of the Shelby White-Leon Levy Program for Archaeological Publication. Prof. Denyse Homès-Fredericq, Director of the Belgian Excavations in Jordan, kindly made the pottery available to me and provided me with information on the excavations. The pottery was stored at the Royal Museums of Art and History in Brussels, and its curator, Dr. Eric Guebel, gave us access to the store rooms and provided us with workspace. Ms. Ingrid Swinnen, who is publishing the Early Bronze Age pottery of Khirbat al-Lāhūn, was helpful in many ways. The Laboratory for Ceramic Studies of Leiden University did the technological analysis of the material

and provided much appreciated work space. Jeannette Boertien helped with the selection and analysis of the pottery, and Ellis Grootveld and Eveline van der Steen made the drawings. In Jordan Ali Khayyat, antiquities inspector, went with us through the store rooms of the Archaeological Museum in Madaba. Larry Herr kindly provided me with the unpublished pottery plates of Tall al-Umayrī and Hisbān.

2. For a survey of the results of the excavations see Homès-Fredericq 1997. Special finds were described in Homès-Fredericq 1982, 1987 and 1995. The architecture of the Iron I village has been published in Swinnen 2009.



1. Plan of Khirbat al-Lahūn, area D (courtesy of Homès-Fredericq 1997, fig. 41).

of the fortress was 33/37 x 43 m. with an open courtyard inside. The main entrance was at the northern side and consisted of a gate, 1,5 m wide, with a stone threshold. A smaller opening was found at the southwestern side of the fort.³ The walls of the fortress were ca 1.30 m wide and still stood to a height of 1.50 m. The outside of the walls was covered with a 3 cm thick plaster layer. At the south and west sides, the walls were built on top of an older wall that protruded some 10-16 cm (see Homès-Fredericq 1997: fig. 48). These earlier walls are the remains of the casemate system of the Iron I period discussed above.

The stratigraphy of the trenches and squares excavated in 1980 and 1983-1985 has been analyzed by Yvo van Hemelryk in his unpublished Ph. D. thesis (1987). Further information can be found in Homès-Fredericq 1997 and 2009.

Van Hemelryk's analysis shows that within the area of the fortress four surfaces or floors could be distinguished. The lowest floor belongs to the Early Bronze Age. Some EB occupation is to be expected as a fortified EB town was located nearby in area C. A higher floor and debris on top of it belongs to the Iron I village. On top of that a plastered surface, a partial pavement and some small silo's were found, which may belong to the period in which the fortress was built. Still later occupation layers include a floor, debris and a wall from the Islamic period.

Method of Excavation and Registration of the Sherds

The excavation of Area D started in 1980 with the opening of four excavation trenches inside the square fortress. From 1983-1987 excavations continued in that area. The fortress was provisionally dated to the Iron II period because of the sherds found in its upper layers (see also Homès-Fredericq 2009). Underneath the southern and western walls of the fortress remains of an earlier casemate wall were discovered. From 1992 - 1997 research focused on the casemate wall and houses north of the fortress, dating to Iron I.

The four original excavation trenches were called DI - IV in 1980. With the resumption of the work in area D in 1983, these trenches were

extended and a new numbering system was introduced. Now excavation took place in squares of 5 x 5 m which were consecutively numbered as work went along. In 1984 the area of the fortress was divided into a hundred 5 x 5 m. squares, and the old squares were renumbered. When in 1986 several squares were opened north of the fortress to trace the casemate wall, this new area was called DN(orth).

In 1987 a new topographical system was introduced and the whole area of al-Lāhūn was divided into squares of 100 x 100 meter. These squares were subdivided into four 50 x 50 m squares (called D1 - D64 in area D) and each of these squares subdivided again into a hundred 5 x 5 m. squares (for instance D1.1-100). The squares already excavated received a new number once again - see **Fig. 1**.

Thus from 1983 onwards the excavation took place in 5 x 5 m squares with baulks of one meter wide at the southern and eastern sides. The soil layers (and floors) excavated within a square did not receive a separate context number. So for much of the pottery only the square in which it was found was recorded, but not the exact layer it belongs to, nor its exact location inside the square (and thus house and room number). To overcome these handicaps I have in general assumed that large sherds and (almost) complete pots were found on the floors of the village houses (as is also shown on some photographs made during the excavation). Smaller fragments are assumed to have come from the destruction and wash layers covering the ruins, and very small sherds from the mixed top layers; often is it impossible to date them reliably because of their small size.

According to the excavator all pottery from area D was sent to the store rooms in Brussels. Together with my colleague Jeannette Boertien I have checked 176 boxes (large and small) that according to their label contained the Iron Age (I and II) pottery from Area D. We registered the diagnostic sherds, that is: all rim sherds, a selection of bases, some handles, mendable body sherds of large jars and most decorated wares. All in all this amounted to 269 sherds that could be assigned to the Iron I period. The sherds were taken to Leiden for further study.

3. On most plans this opening is not shown, but see

Homès-Fredericq 1997, fig. 50.

Not included in this number are four restored Iron Age vessels.⁴ One was a complete strainer-spouted jug (jug A), which came from square D12.60 (House 3). The bodies of three other vessels (storage jar B, painted jar C and biconical jug D) could be reconstructed, but the rims were missing. The stratigraphic context of these vessels is unknown – all four will be discussed below.

In Leiden a first classification of the Iron I material was made based on shape, size, function and finish of the sherds. The following classes were distinguished in the Iron I material:

<i>Classes</i>	<i>Number of diagnostic sherds</i>
Storage jars (StJ)	6
Smaller jars and jugs (JJ)	36
Kraters (Kr)	19
Small and medium bowls (B)	132
Cooking pots (Cp)	8
<i>Total number of rim sherds</i>	<i>201</i>
Body sherds	42
Handles	3
Bases	23
<i>Total number of Iron I sherds studied</i>	<i>269</i>

The amount of pottery found in the Iron I village of al-Lāhūn is surprisingly small. Only 201 Iron I rim sherds as well as four more or less complete pots were found during the twelve seasons of excavations in area D. Compare this number for instance with the more than 6000 Iron I rim sherds excavated at Dayr ‘Allā in an area of only 30 x 30 meters during four excavation seasons (Franken 1969: 242).

Because very little pottery was retrieved from area D, and very few data on the context of the excavated pottery was available, the conclusions in this report are restricted to the typology and technology of the vessels and a general dating of the repertoire.

4. As far as I am aware of, these jugs have no registration number. For convenience sake I identify them as vessels A-D.

Technological Analysis of the Pottery

The sherds were then studied by Mr. Loe Jacobs, potter of the Laboratory for Ceramic Studies⁵ of Leiden University (see also Steiner and Jacobs 2008). He could distinguish three basic forming techniques:⁶

a) *Turning on a slow wheel*

Large storage jars and large open vessels were made in parts on a rather heavy slow wheel.

Storage jars were made of coils and turned at low speed (less than 20 rotations per minute), possibly alternated with phases of higher rotation speed. After drying, a new coil of clay was added and fixed. From this quantity of surplus clay the wall was raised five to ten centimeters. The rim was thickened by pushing the clay up and down again, combined with slightly folding.

Kraters and medium bowls were turned (less than 30 rpm.) in an upright position. During turning twice a coil of clay was added at the top, to have enough clay to form the upper part of the body. After some drying two or more handles were pulled from pieces of clay which were stuck to the rim. The lower attachment of a handle was reinforced with some extra clay.

b) *Throwing on a fast wheel*

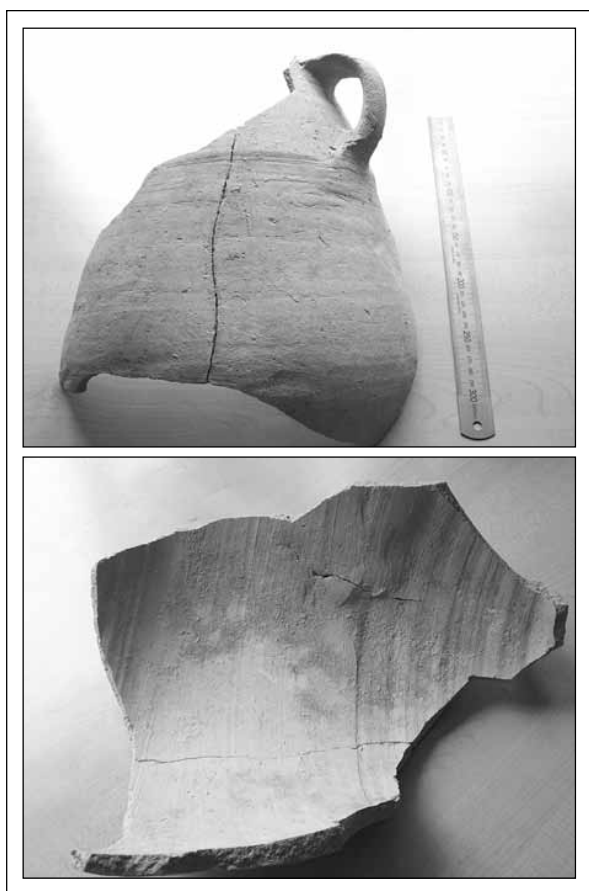
Smaller jars, jugs and smaller bowls were thrown on a faster potter’s wheel (more than 30 rotations per minute), with normal rotation speed. Traces of this method were clearly recognizable on the inside of the vessels (see **Figs. 2a and 2b**). The small bowls were made in an upright position after which their bases were scraped upside-down.

c) *Mould-making and throwing*

Cooking pots were made in the following way. The convex base was made by pressing a clay slab into a mould, probably a porous saucer made of baked clay. Then the mould was placed on the head of a potter’s wheel. One or two coils of clay were fixed around the edge of the clay slab that was still in the mould. From the extra clay of these coils the upper part of the cooking vessels was thrown and eventually handles

5. Formerly the Department of Pottery Technology.

6. It is important to note that only the rims and some bases of the vessels could be studied, not the whole vessels.



2. Photo showing body fragment of large jar (2a) and the ribbing inside the sherd (2b) indicating the jar was thrown on a fast wheel.

were fixed. Still inside the mould the vessel was set aside to dry for a while. Then the vessel was removed from the mould, reworked where necessary and left to dry in an upside-down position. Making use of a mould allowed the potters to apply very 'short' clay-sand mixtures. Thus a good heat-shock resistance and a better durability could be obtained.

A sample of 27 sherds was then selected for a low-tech fabric analysis executed by Loe Jacobs. The sherds were cut by hand to get a first impression of their hardness. They were then re-fired under oxidizing conditions at a temperature of 800 degrees Celsius. The color was noted, and the fabric of the sherd was analyzed under a binocular microscope up to 50x. It was not always possible to distinguish between the clay matrix and the added temper as some mineral inclusions may have been part of the clay matrix.

Several fabrics could thus be distinguished, all kiln-fired under neutral to oxidizing conditions:

Fabric A

This fabric contained ferruginous basaltic rock fragments and iron oxide concretions as the main ingredients. These grains are likely to have been part of the clay matrix. Mudstone grains and limestone grains are present in lower quantities. Sporadically some flint, quartz grains, siltstone grains, hematite or shale occurred, and very seldom small amphibole and pyroxene grains. About half the samples contained some fibers, not more than 2% by volume and very small in size. This organic material was probably added as dung, to improve the plasticity of the clay for throwing. After re-firing the colors vary from pink and pinkish gray to reddish yellow, and most of the black cores, if present, were burned away. This fabric was used for large storage jars, most smaller jars and jugs, and for medium and small bowls.

Fabric B

Fabric B contained no basaltic rock fragments as the main ingredient but mudstones, limestone, calcite and shale. Less frequently several types of siltstone and grains with iron oxide do occur. If organic fibers are present, they are less than 2% by volume. Colors after re-firing vary between pink and light reddish brown. This fabric was used solely for kraters.

Fabric C

The dominant grain type in fabric C is crystalline calcite. Ferruginous rock fragments are present in lower quantities. Mudstone and or siltstone and some small quartz grains are present in relatively small amounts or sporadically. The re-fired colors vary from light reddish brown to reddish brown. Only cooking pots were made in fabric C.

Fabric D

A fourth fabric was identified during the technological analysis and is included here only for completeness as it occurred exclusively in Iron II sherds. The dominant grains in this particular fabric are microfossils of the ostracoda type, combined with some calcite and siltstone

grains. Sometimes organic fibers were added to the clay, probably to improve the coherence of the substance. This fabric also occurs in the pottery repertoire of Khirbat al-Mudayna ath-Thamad ca 1 km to the north (see Steiner 2006; 2009) and the vessels may have been imported from that region.

Clay Sources

In October 1992, during the Lāhūn excavation campaign, Abraham van As and Loe Jacobs, then director and potter of the Laboratory for Ceramic Studies, took about thirty clay samples in the Wādī al-Lāhūn, on top of the plateau, and three clay samples in the Wādī al-Mūjib, situated under the plateau. Some results of the analysis of this clay have since been published (As van, and Jacobs 1995). These clays from the Wādī al-Lāhūn and the Wādī al-Mūjib have now been compared with the fabric of the pottery samples described above and with pottery samples from the Early Bronze Age town in area C1.⁷

It seems that the EBA potters used clays from the Wādī al-Lāhūn to produce their vessels. However, these clays lack the necessary plasticity for throwing, and thus the Iron Age potters collected their clays from the Wādī al-Mūjib or from some deposits further away.⁸

The technological analysis discussed above showed that the large vessels (storage jars, kraters and medium bowls) were coil-made and turned on a slowly-rotating potter's wheel, while jars, jugs and small bowls were thrown on a faster wheel. The bases of cooking pots were mould-made, while the upper parts were thrown. The potters producing for Lāhūn thus used both a slow, heavy wheel for turning and a lighter, faster wheel for throwing.

Most vessels were made of a plastic clay, tempered with some sand and dung (fabric A), serviceable for both the slow and the faster wheel, and fired in a kiln at a temperature of 750-800 degree Celsius. Kraters, however, were made of a slightly different fabric (fabric B) that may have served some special purpose, although it is not quite clear what that purpose is.

Ethnological and ethno-archaeological research has shown that potters or pottery workshops usually use only one kind of fabric. Potters may mix clays to suit their needs, but they do not use different fabrics to produce different vessels in one workshop (see for instance London 1991: 403-5). We may thus suggest that large kraters were made in a specialized workshop or by a specialized potter who used his/her own fabric to work with. This potter used a slowly-rotating wheel, just as the potters who made the storage jars and medium bowls in fabric A.

Cooking pots were made of a clay tempered with crystalline calcite (fabric C). Calcite was used to temper cooking pots for millennia. These potter(s) used a different technique (a combination of mould-making and throwing), so we may postulate a third pottery workshop in the region producing only cooking pots.

Thus the small village of Lāhūn, with 300-500 inhabitants (Swinnen 2009), may have retrieved pottery from three different potters / pottery workshops. All potters used clays from deposits in the Wādī al-Mūjib.

Typological and Comparative Discussion of the Iron I Pottery

The pottery repertoire as described above is quite limited: two types of storage jars (and of each type only a few specimens were found), four different types of smaller jars and jugs, two types of large kraters, six types of small and medium-sized bowls and only one type of cooking pot. Small juglets and lamps have not been found at Lāhūn.

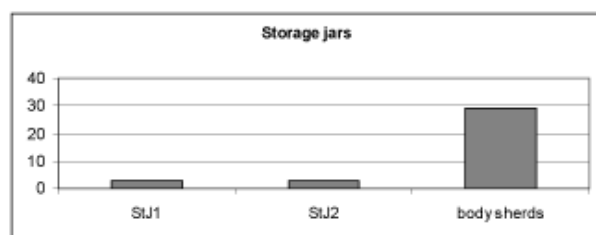
White slip occurred only rarely (7x): one krater, two jug fragments and four small bowl rims were white-slipped. Three of these bowl rim fragments had a red painted line around the rim and they may have belonged to the same vessel. Only six other sherds had painted decorations of bands and stripes: four jar fragments and two body sherds (possibly also of jars). None of the 269 Iron I sherds was burnished.

To put the Lāhūn pottery in its regional context and to date it, parallels are mainly taken for well-dated sites in Central Jordan.

7. The Early Bronze Age pottery is currently being studied by Ingrid Swinnen.

8. Several Iron Age I sherds have also been analyzed by

Benjamin Porter, who conducted an INAA analysis of sherds from four Iron I sites (see further Porter 2007).



Many fragments of storage jars (large, heavy jars with flat, rounded or pointed bases and two or more handles) have been excavated, but only six of these were rim sherds. The other sherds were all body sherds; it is not clear which type of rim belongs to the bodies. I have counted 29 large sherds or collections of mendable sherds found together. Four sherds had a flat base, one had a pointed base and one had a round base.

These storage jars were made of coils using a slow wheel, and the three analyzed sherds were made in fabric A.

StJ1 (**Fig. 3: 1-2**) is a jar with a short straight or inverted rim and a collar. The edge of collar is vague. Diameter of the mouth is 14 cm. Two specimens were found; of one jar several rim and body sherds were found as well as a pointed base; of the other jar only a rim sherd was retrieved. Collared rim jars have been found widely east and west of the river Jordan, and are generally dated from the end of the 13th to the 9th centuries B.C.

At Tall al-‘Umayrī the earliest Iron I collared rim jars have flaring thick rims and longer necks, while the neck tends to become shorter over time - see for instance the pottery from Field B (Clark, nyp: Fig. 4-29). At Khirbat al-Mudayna

al-‘Aliyā, one collared rim fragment was found as well as several body fragment with a collar. These sherds are very similar to the Lāhūn specimens (Routledge 2000: fig. 7.1, 2008: 3). From Iron Age Dayr ‘Allā only one collared rim jar was published (Franken 1969: fig. 47:1). This one has a short rim and a noticeable collar.

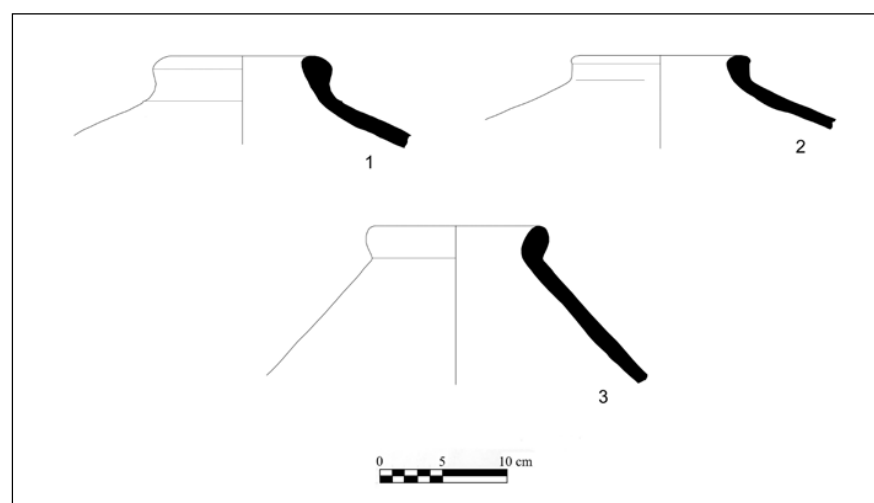
Swinnen (2009) stated (on my advice) that the collared rim jars found at Lāhūn were to be dated to the Iron II period. This conclusion was based on their find spot. Two mendable rim fragments were found in different squares, *ca.* 15 m. apart. This makes it unlikely that they were found on the floors of the buildings. On the other hand, from one jar several rim and body fragments were retrieved, and as stated above I have in general assumed that large fragments came from the Iron I buildings. So I have revised my opinion and assigned these collared jars to the Iron I village layers.

That only two collared rim jar have been found is worth noting. While in some sites in Ammon (‘Umayrī, Saḥāb) collared rim jars from Iron I are quite ubiquitous, they seem to be very rare in contemporary sites in the Jordan Valley (Dayr ‘Allā) and Moab.

StJ2 (**Fig. 3:3**) is a neck less jar with flattened or rolled rim. Diameter of the mouth is 14-15 cm. I have yet to find any parallels.

One storage jar (jar B) has been (partially) restored in Brussels. The original rim was missing and the jar was given a new heavy rolled rim, which may or may not have been the original type of rim – see **Fig. 4**.

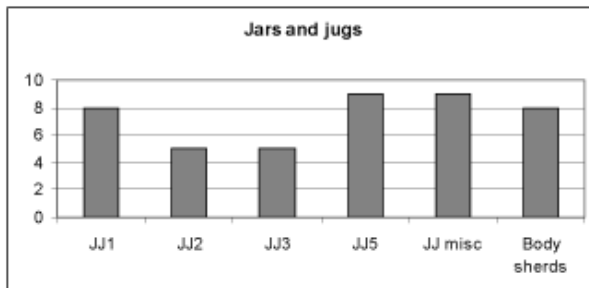
Rim fragments of thin-walled jars and jugs



3. Storage jars (1-2: StJ1, 3: StJ2).



4. Storage jar B, with reconstructed rim.



occur more frequently (36 x) than those of the large storage jars discussed above (6x). No distinction could be made between the rim fragments of jars and jugs; the eight (collections of) body sherds, however, all belonged to thin-walled jars. They were thrown and the four analyzed JJ sherds were all made in fabric A. Most sherds were undecorated.

JJ1 (**Fig. 5: 1**) is a jar or jug with a simple rounded or slightly thickened rim. Diameter of the mouth is *ca.* 14 cm. One jar had a flat base. Jars with a simple rim were also found at Khirbat al-Mudayna al-‘Aliya (Routledge 2008:

fig.6: 9) as well as at Hesban Stratum 20 (Ray 2001: fig. 3.2: 10).

JJ2 (**Fig. 5: 2**) is a balloon-shaped or biconical jar or jug with straight or everted folded rims. One sherd had a handle, one jar had a flat base. Diameter of the mouth is 10-13 cm. One restored jar in Brussels (jar D) may be of this type – see **Fig. 12**.⁹ Balloon-shaped or biconical jars are commonly found in tombs from the 12th century in central Jordan, such as Mādabā tombs A (Harding and Isserlin 1953) and B (Piccirillo 1975; H.O. Thompson 1986), some Saḥāb tombs ((Dajani 1970: 55,76, 205) and the tomb in Jabal Nuzha (Dajani 1966).

JJ3 (**Fig. 5: 3**) is a vessel with a high neck and folded triangular rim. Diameter of the mouth is *ca.* 9 cm. One rim was decorated with three red painted lines on an unslipped surface. Jars with triangular rims have many parallels at Dayr ‘Allā in Iron Age phases A and B, both the plain variant type 1a-b (Franken 1969: fig. 43) and the painted variety (Franken 1969: fig. 46: 68-70; fig. 47: 5-8).

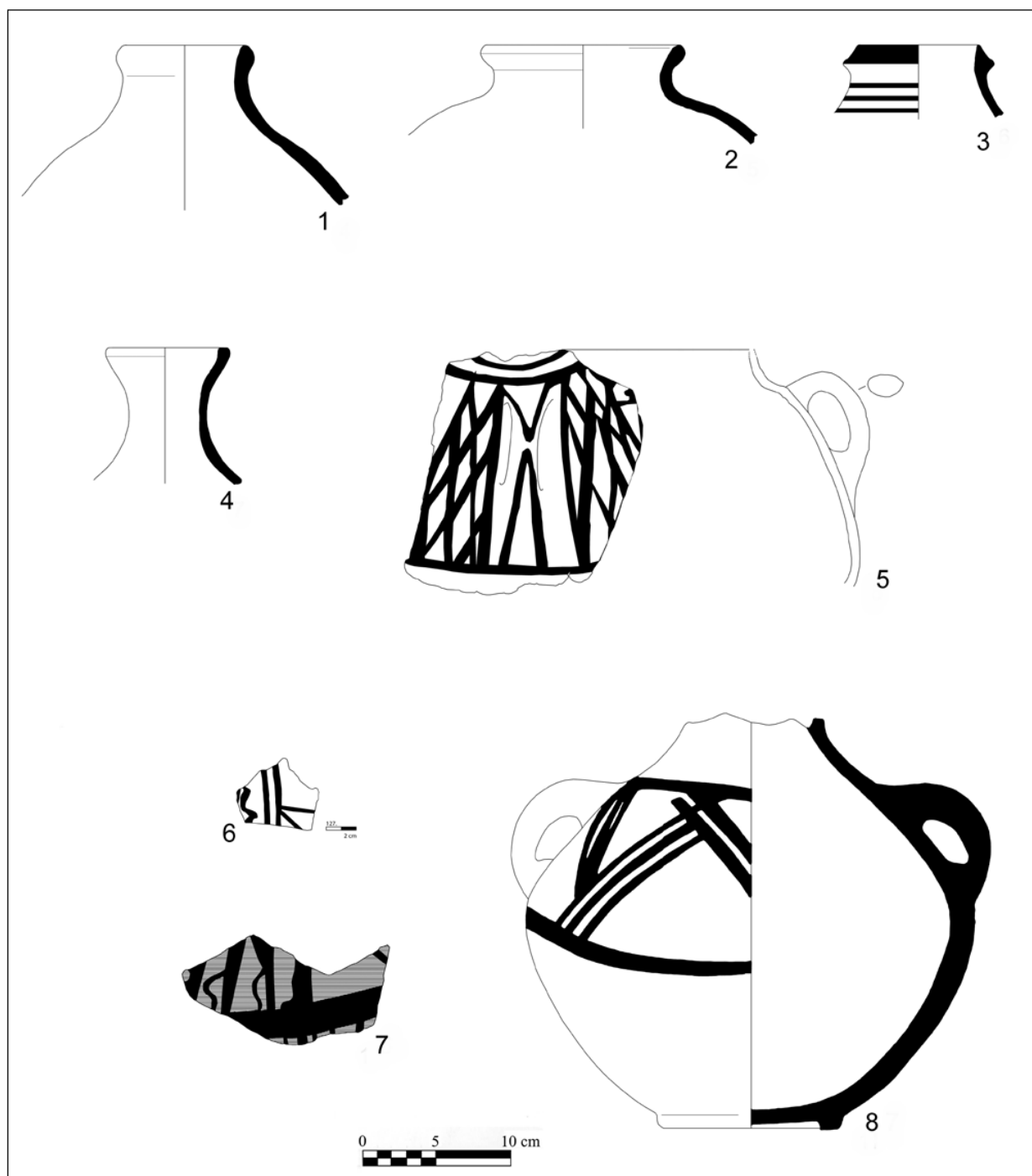
JJ5 (**Fig. 5: 4**) is a jar or jug with long neck and very simple rim. Most fragments were too small to determine the diameter of the mouth. Parallels for this type come from Dayr ‘Allā (jar types 2d and e, occurring in all Iron I phases, although more so in the later phases G-L - Franken 1969: 168).

Seven other jar/jug rim fragments (JJmisc) could not be assigned to one of the types above, among which a rim with trefoil mouth. The collection in Brussels also housed a complete jar met strainer spout (jar A). Some decorated sherds of jars and jugs were found as well, including an almost complete jar decorated with red paint (jar C) (**Figs. 5:8 and 13**) and a fragment of a red painted jug (**Fig. 5: 5**). In both cases the red paint was applied directly onto the unslipped and roughly finished surface of the vessel. Other decorated jug sherds included one body sherd with red paint in a different pattern on unslipped clay (**Fig. 5: 6**), one body sherd with red paint on a white slip (**Fig. 5: 7**) and the decorated JJ3 rim sherd described above (**Fig. 5: 3**).

Three painted sherds (from the same vessel) came from underneath the western fortress wall

9. Please note that the original rim was completely missing

and has been reconstructed.



5. Jars and jugs (1: JJ1, 2: JJ2, 3: JJ3, 4: JJ5, 5: fragment of decorated jug, red paint on unslipped surface, 6: fragment of body sherd, red paint on unslipped surface, 7: painted body sherd, red paint on white slip, 8: jar C, decorated with red paint on unslipped surface).

in 1980 (Homès-Fredericq 1997: 58) – see **Fig. 8**. The decoration of dark brown paint was applied on a white / light brown surface. The excavator dated these sherds to the Late Bronze Age and even compared them to Mycenaean wares

(Homès-Fredericq and Franken 1984: 152). However, an Iron I date is more likely, given parallels from Tall Dayr ‘Allā Iron Age phases A and B (Franken 1969: figs. 47:5, 51:62-64) and Hisbān Str. 20 (Ray 2001: Fig. 3.3:17-18).



6. Jar D, biconical jug, with reconstructed rim



7. Jar C.

The indication of the find spot of these sherds ('westelijke omwalling' = western wall) has suggested to some researchers that these sherds were found underneath the casemate wall and

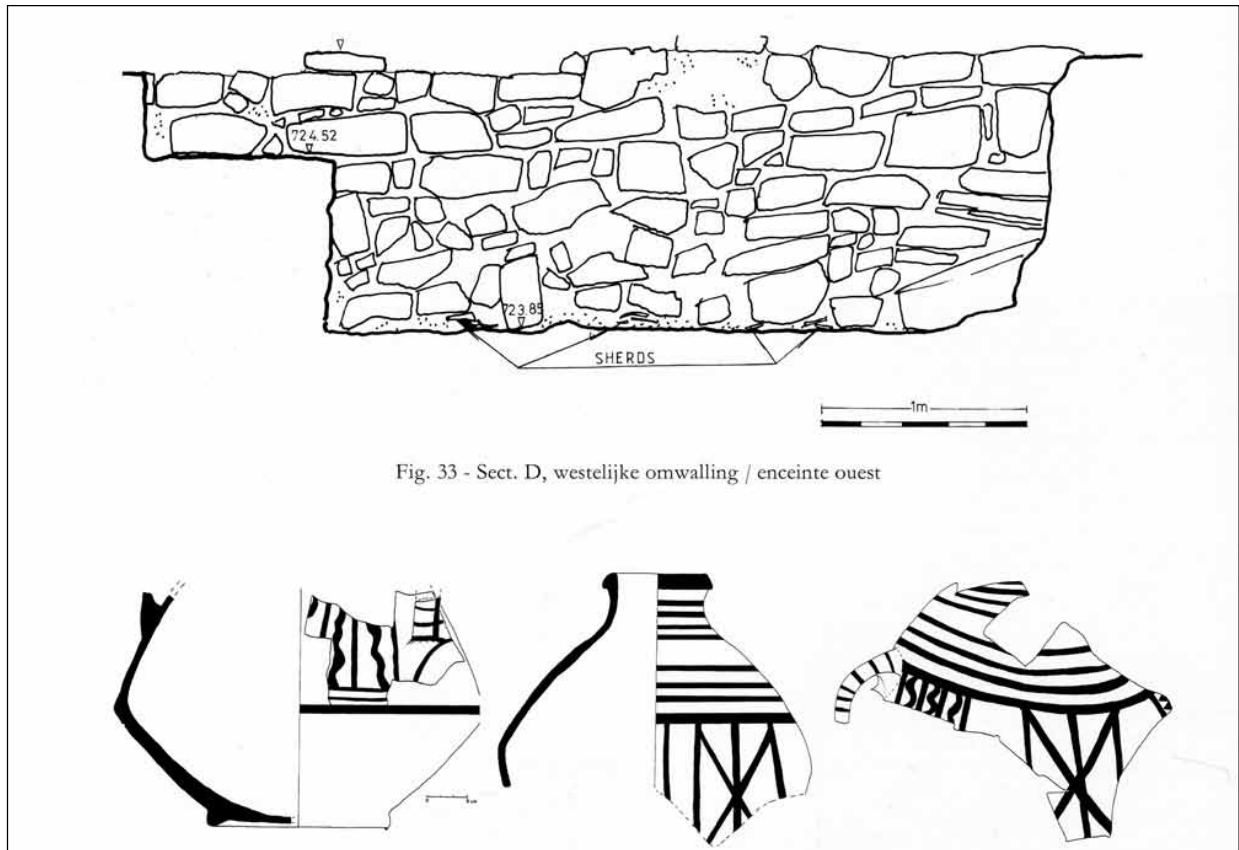
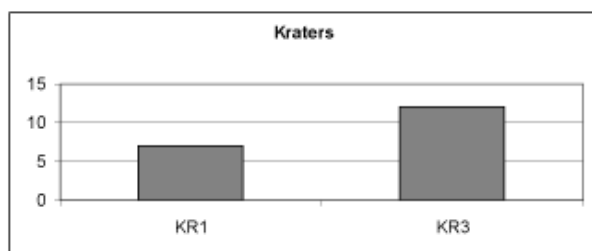


Fig. 33 - Sect. D, westelijke omwalling / enceinte ouest

8. The decorated jar and its findspot (courtesy Homès-Fredericq 1997: 58, fig 33).



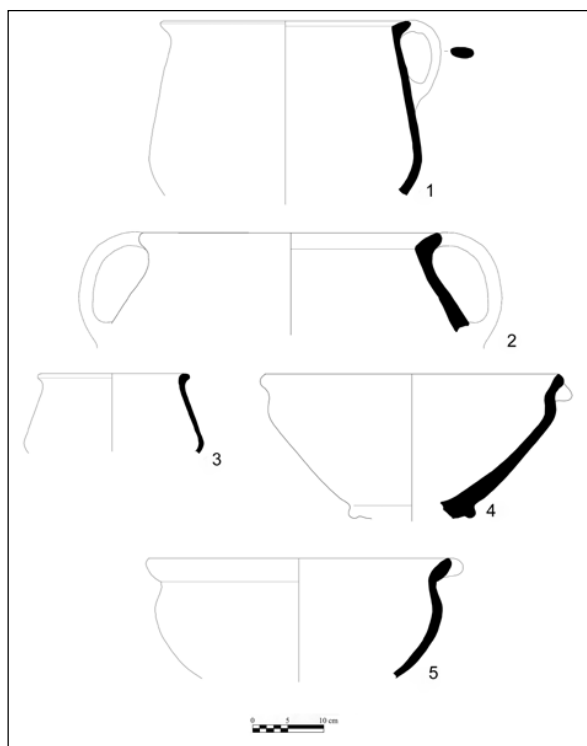
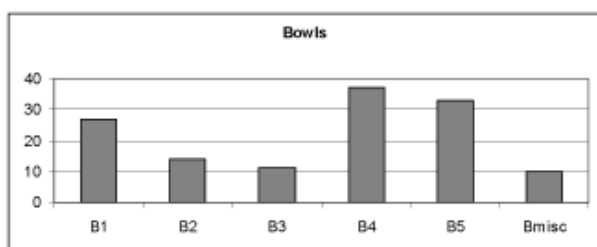
thus represent an earlier occupation phase. However, in 1980, when these sherds were found, the casemate wall had not yet been discovered; the sherds were retrieved from under the (later) fortress wall which was excavated in that year, and they thus belong to the Iron I village.

Nineteen rim fragments of kraters (thick-walled deep bowls with a mouth diameter over 35 cm) have been retrieved. The kraters were coil-made on a slow wheel. The three analyzed sherds (one of KR1 and two of KR3) were all made of fabric B; no other vessel types were made of this fabric in the Iron I period.

KR1 (**Fig. 9: 1-3**) is a biconical vessel with everted rim and large handles. One was white-slipped. The rim is mostly intentionally flattened. Five rims have a handle. Diameter of the mouth is 38-40 cm. Biconical shapes are a tradition of the Late Bronze Age. At Khirbat al-Mudayna al-‘Aliyā ‘biconical vessels are wholly absent’ (Routledge 2000: 43). From Dayr ‘Allā they are not reported from the Iron Age phases.

KR3 (**Fig. 9: 4-5**) is a large deep carinated vessel with everted folded rim and ledge handles. Diameter of the mouth is 41-43 cm. It is a very large, very roughly made vessel. Six fragments had one or two ledge handles attached to the rim. Ledge handles on Iron I deep bowls are also reported from Bālu‘ (Worschech 1990: 85) and Khirbat al-Mudayna al-‘Aliyā (Routledge 2000: 45). At Dayr ‘Allā they are only found on so-called ‘mensef’ bowls (large platters – see Franken 1969: 157-60).

Of all 201 Iron I rim sherds, 132 (or 65%) were of small and medium-sized bowls, all



9. Kraters (1-3: KR1, 4-5: KR3).

thrown of a rather fast wheel. The ten analyzed sherds were all made of fabric A.

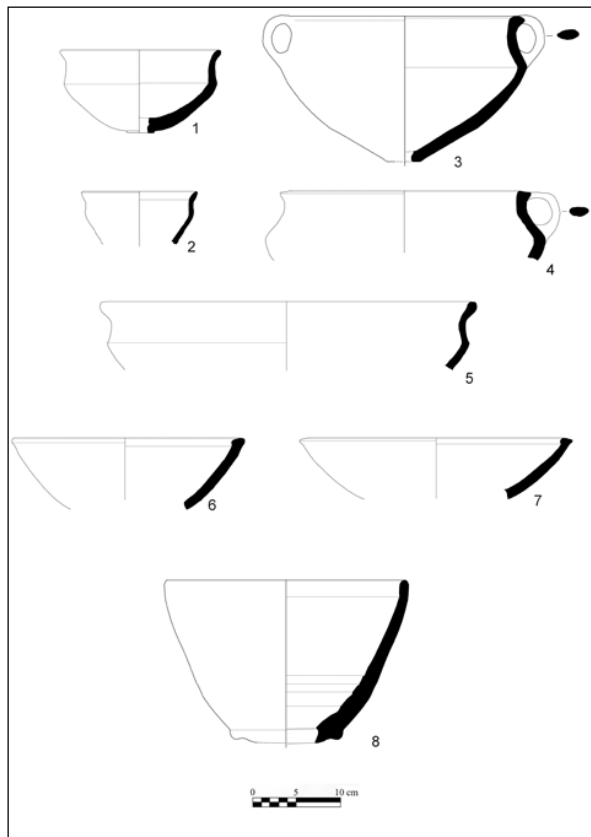
B1 (**Fig. 10: 1 and 3**) is a carinated bowl with simple rounded rim. No handles are present. One sherd has a flat base. Diameter of the mouth is *ca.* 20 cm.

B2 (**Fig. 10: 2 and 4**) is a carinated bowl with intentionally flattened rim and small round handles. One fragment has a flat base. Diameter of the mouth is *ca.* 21 cm.

B3 (**Fig. 10: 5**) is a carinated bowl with rounded rim and ledge handles set close to the rim. Diameter of the mouth is 31-42 cm.

B4 (**Fig. 10: 6-7**) is a rounded bowl with flattened inverted rim. One sherd has white slip outside. Diameter of the mouth is 24-32 cm. This type has parallels at Dayr ‘Allā Iron Age phase B - L (types 7, 10 and 11, Franken 1969: 187) and Hisbān Stratum 20 (Ray 2001: Fig. 3.3:2).

B5 (**Fig. 10: 8**) is a wide rounded or straight-sided bowl with rounded rim. One fragment has a decoration of vague red lines. Diameter of the mouth is 30 cm. This type of bowl may be related to the Manasse bowl found west of the Jordan. At Khirbat al-Mudayna al-‘Aliyā the most common pottery vessel was a rounded bowl with a simple or internally thickened rim



10. Small and medium bowls (1-2: B1, 3-4: B2, 5: B3, 6-7: B4, 8: B5).

(Routledge 2008: 157).

Most bowls are of the carinated variety (B1-3). Small carinated bowls (B1) have simple rounded rims and no handles. Larger carinated bowls have either a flattened rim and small round handles (B2) or a rounded rim and ledge handles (B3). Parallels for carinated bowls abound east and west of the river Jordan, but not many carinated bowls with ledge handles have been published so far. The pottery of WT-13 in Moab features several carinated bowls with ledge handles. So does Tall Mādabā: two carinated deep bowls from Field Phase 9 (Iron I-Iron IIA) had a very short carination and small ledge handles¹⁰. The Lāhūn sherds have higher carinations and the handles are more prominent, which could be an earlier trait. Routledge published a carinated bowl with a ledge handle from Khirbat al-Mudayna al-‘Aliyā (2000: fig. 5:6).

10. The pottery of WT-13 is currently under study by the author. It is dated to the Iron I or the beginning of Iron II period. Debra Foran and Stanley Klassen kindly

Several bowl rims excavated in the Iron I village did not fall into one of these types (Bmisc). Three sherds of a small straight-sided bowl were white-slipped and had a red band painted around the top of the rim. One bowl rim was not slipped but had a red band around the top of the rim as well.

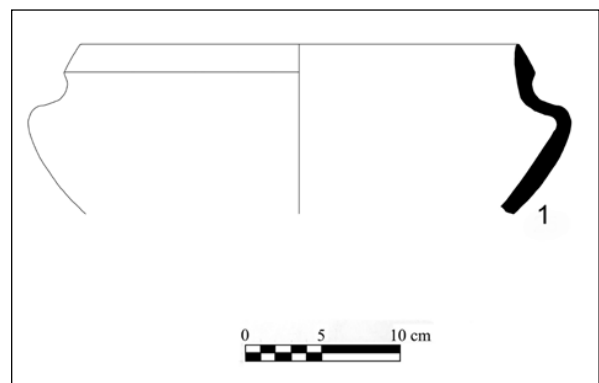
Cooking Pots

Only one type of cooking pot was found, CP1, a carinated cooking pot with elongated triangular rim (Fig. 11: 1). The stance is upright, not everted or inverted. The diameter of the mouth ranges from 28-33 cm. Six rim sherds were retrieved as well as one almost complete rim and one partly restored vessel. The pots were mould-made and thrown; the two sherds analyzed were made of a special fabric (C) containing dominant calcite grains.

This type of cooking pot conforms best to the Iron Age cooking pot type 1 at Dayr ‘Allā, where it is the dominant cooking pot in Iron Age phases A-E (Franken 1969: 120-121). At Khirbat al-Mudayna al-‘Aliyā this type has not been found.

Dating of the Pottery

Dating the Lāhūn repertoire is surrounded by difficulties. First of all the number of diagnostic sherds is very small and therefore cannot be subjected to statistical analysis; even an analysis of the absence or presence of certain types is not very reliable (but will be presented here anyway). The second obstacle is the paucity of



11. 1. Cooking pot.

showed me some of the unpublished pottery from Tall Mādabā.

well-dated material from other sites in the region. From only a few sites in Central Jordan the pottery has been published: Tall Dayr ‘Allā in the Jordan Valley, Tall al-‘Umayrī and Hisbān in the land of Ammon, Khirbat al-Mudayna al-‘Aliyā south of the Wādī al-Mūjib and several tombs at Ammān, Mādabā, Saḥāb, Mt. Nebo and Dhībān. As these tombs may have been in use for several centuries, they do not constitute a ‘closed context’ and the dating of their material is dependent on other well-dated contexts (which are scarce).

Several characteristics of the Lāhūn repertoire could be used for a general dating of the material. These are:

- The relatively large number of ledge handles (eleven rim sherds and two body sherds). Ledge handles are reported from Dayr ‘Allā Iron Age phases K and L, generally dated to the 11th century B.C., but these belong to ‘mensef’ bowls (large platters), not to deep bowls (Franken 1969: 157-60) and from Khirbat al-Mudayna al-‘Aliyā, dated by to the Iron IB, *ca.* 1050-950 B.C. (Routledge 2000: 43). At Bālū’ they are present but not dated (Worschech 1990). Mādabā tomb A, dated to the 12th century B.C., features several ledge handles (Hardin and Isserlin 1953). Smaller ledge handles on bowls are reported from Tall Mādabā and site WT-13, both provisionally dated to Iron I/IIA (see above). The parallels thus have dates ranging from the 12th century BC to the end of Iron Age I. The least one can say it that they point to a date securely in the Iron I period.
- The occurrence of carinated kraters and bowls (KR3, B1-3). Carinated bowls are known from the LBA and the Iron I period. They become progressively more s-shaped as the Iron I period continues. The Lāhūn bowls are more carinated than s-shaped and thus would fit early in the sequence.
- The presence of biconical vessels in the LBA tradition. Biconical shapes abound in the LBA and continue into the Iron Age. Seven rims fragments of biconical kraters (KR1) were found. These kraters are absent at Khirbat al-Mudayna al-‘Aliyā. Decorated jar C, the five JJ2 rim sherds and jar D were also biconical.
- The absolute dominance of cooking pot type 1 with triangular rim. All rim fragments and the

almost complete cooking pot are of this type. At Khirbat al-Mudayna al-Mu‘arraja and Khirbat al-Mudayna al-‘Aliyā, both dated by the excavator to the 11th-early 10th centuries B.C., cooking vessels consist mostly of the (later) ridged-rimmed cooking jugs (Routledge 2008). This would place the Lāhūn cooking pots earlier. At Dayr ‘Allā the parallel is the Iron Age cooking pot type 1, which is the dominant cooking pot in Iron Age phases A-E, dated to the 12th century B.C. (Franken 1969: 120-121).

- The only sporadic occurrence of white slip. Only seven sherds were white-slipped, among them three small straight-sided bowls with a simple rim and a red painted line on top of the rim, which may all belong to the same vessel. Red slip and burnishing are absent.
- The absence of vessels that are generally dated to 11th -10th centuries B.C. contexts in Central Transjordan (Dayr ‘Allā Iron Age Phases E-L, Khirbat al-Mudayna al-‘Aliyā), such as T-rimmed kraters, ‘mensef’ bowls and rim-ridged cooking jugs.

Given these characteristics the pottery repertoire as a whole can best be assigned to the beginning of the Iron I period, roughly the 12th century B.C., when Late Bronze Age traditions such as white slip, biconical shapes and sharply carinated bowls still occurred, and typically Iron Age characteristics such as ledge handles and cooking pots with triangular rim made their appearance. The best parallels come from Dayr ‘Allā Iron Age Phases A and B, Hisbān Stratum 20 and Mādabā Tomb A.

Some Conclusions

The pottery excavated in the Iron I village is a mixed collection and consists of some (restored) pots, large vessel fragments, smaller fragments and very small pieces. One should not assume, however, that all pottery in use during the occupation of the settlement has been retrieved. Most of the restorable pottery found inside the houses was very heavy: large kraters, jars and medium-sized bowls. It is worth noting that very few small finds were found in the village: some stone pounders, a bronze needle, a bronze arrowhead, a bronze dagger and a scarab seal dated to the end of the second millennium BC (see Swinnen 2009: 39 and note

12).¹¹ The presence of mostly very large vessels combined with the virtual absence of small finds seems to indicate that the inhabitants have left the settlement peacefully. They took most of their belongings with them and left behind only what was too heavy to carry: large and heavy vessels, together with heavy stone tools as grinders and pestles, and unmovable objects such as bread ovens and troughs. No traces were found of a sudden destruction by enemies or earthquakes. Some door openings were found to have been blocked with heavy stones; the inhabitants may have expected to come back one day.

The pottery shows that the Iron I inhabitants of Lāhūn retrieved their vessels from several workshops, all using different fabrics and techniques. The forms are comparable to those found at Dayr ‘Allā, Hisbān and ‘Umayrī in the Jordan Valley, Ammon and northern Moab, and the inhabitants of Lāhūn may have been in contact with those regions. Imported wares, however, were not found in the pottery repertoire.

It has repeatedly been pointed out that the layout of the settlement of Lāhūn is remarkably similar to the settlements of Khirbat al-Mudayna al-‘Aliyā, Khirbat al-Mudayna al-Mu‘arraja and Khirbat al-Mu‘amariyya, all situated south of the Wādī al-Mūjib. In his study of these Iron I communities in Central Jordan, Porter argues that the four villages near the Wādī al-Mūjib, among which Lāhūn, used the same resources to produce their pottery (2007, 2013). Note, however, that the other villages date to the 11th and the beginning of the 10th centuries (Routledge 2008). If Lāhūn was indeed occupied during (part of) the 12th century B.C., as I have concluded, there would be a considerable chronological gap between Lāhūn and the villages south of the Wādī al-Mūjib. Lāhūn would already have been deserted when the other villages were built.

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11. A fragment of a cosmetic palette (Homès-Fredericq 1995) and of a faience New Years bottle (Homès-Fredericq 1982) are to be dated to the Iron II period.

Seven spindle whorls made of pottery and stone were retrieved from the upper levels and also date to Iron II (Jeannette Boertien, personal communication).

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