

The pots and potters of Assyria : technology and organization of production, ceramics sequence and vessel function at Late Bronze Age Tell Sabi Abyad, Syria

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APPENDIX B Shape Typology

This Appendix lists the Late Bronze Age shape classification used in the field for the ceramics of Tell Sabi Abyad²²⁹. See Chapter II for an explanation of classification procedures. Initial classification in the field has been extended in this Appendix with information about apparent size groups and manufacturing technology.

CV = Coefficient of Variation. This is a measure of variation around the mean of a group. CV is calculated as (standard deviation : mean diameter) x 100. The lower the value of CV, the closer the values in the group are to the mean.

1 – BOWLS

Bowls are defined as vessels with an unrestricted shape with flaring walls and/or a rim diameter > vessel height.

1.1 Bowls with a carinated wall.

1.1.1 Bowls with a slightly concave wall, a slight carination just below the rim, and a simple rounded or slightly thickened rim. These are the typical Middle Assyrian carinated bowls or *"Knickwandschale"*, although they also appear in Mitanni and Late Assyrian contexts. Fig. IV.1.a-i, fig. IV.12 – IV.16.a-n, fig. IV.36 – IV.43.a-k, fig. IV.99 – IV.100.a-m, fig. IV.114.a-u.

Based on an analysis of the measurements, three size groups are distinguished (figs. B.1 and B.2):

111a: rim diameter < 115 mm, mean rim diameter = 91 mm (CV = 10.9%).

111b: rim diameter \geq 115 mm and < 175 mm, mean rim diameter = 143 mm (CV = 11.0%).

111c: rim diameter \geq 175 mm, mean rim diameter = 216 mm (CV = 12.4%).

These bowls are most probably all thrown from the cone (technology group A).

1.1.2 Bowls with a slightly concave wall, a more pronounced carination just below the rim, and a simple rounded rim that is strongly bent over outwards. Fig. IV.16.o-q, fig. IV.43.l-q, fig. IV.100.n-u, fig. IV.114.v-aa.

Based on an analysis of the measurements, two size groups are distinguished (fig. B.3): 112a: rim diameter < 170 mm, mean rim diameter = 137 mm (CV = 10.6%). 112b: rim diameter ≥ 170 mm, mean rim diameter = 206 mm (CV = 11.6%).

Types 111b and 112a may be variants of the same vessel group, as may be the case with 111c and 112b. These bowls are most probably all thrown from the cone (technology group A).

1.1.3 Bowls with a straight or slightly concave wall, a carination low in the wall while the wall above the carination is straight, and a simple rounded rim. Fig. IV.1.j-l, fig. IV.17.a-j, fig. IV.43.r-t, IV.44, IV.45.a-q, fig. IV.100.v-ad, fig. IV.114.ab-ag, IV.115.a-d.

Mean rim diameter = 253 mm, no size groups are discernible. These bowls are most probably all thrown from one lump of clay (technology group B), although smaller specimens may have been thrown from the cone.

²²⁹ This typology lists only those types that are discussed in this thesis. Type numbers that are missing from this list were either attributed to diagnostics from levels 2, 1 or mixed contexts, or have been assigned to diagnostics by others during fieldwork and are not discussed in this thesis.

1.1.4 Bowls with a carinated wall that is convex below the carination. Fig. IV.17.k, fig. IV.46.a-b.

There are only a few examples of this rim type. The shape was not investigated for the technology used.

1.1.6 Deep bowls with carinated, slightly convex walls. The vessel wall is rather thick. The rim is thickened on both the in and outside. Fig. IV.46.c. Only one example of this rim type. The shape was not investigated for the technology used.

1.1.7 Deep bowls with a carinated wall. Above the carination the wall is bent inwards. The rim is folded over and has a square section. Fig. IV.1.m-n. Only two examples of this rim type. The shape was not investigated for the technology used.

1.1.8 Carinated bowl with a rather thick wall, rounded carination and a rounded rim. Fig. IV.17.l-n.

Only a few examples of this rim type. The shape was not investigated for the technology used.

1.1.9 Carinated bowl, the wall part above the carination is vertical. Fig. IV.45.r, fig. IV.115.e. Only a few examples of this rim type. The shape was not investigated for the technology used.

1.2 Bowls with a convex wall

1.2.1 Bowls with a convex wall, and an outward-bent, bevelled "beak"-rim or pinched rim. Fig. IV.1.o, fig. IV.46.d-m, fig. IV.101.a.

The analysis of the measurements of this shape shows an uneven distribution without clear size groups (fig. B.5). There are several peaks in rim diameters, at 230, 300 and 360 mm. No size groups are distinguished for the moment.

These bowls are most probably thrown from one lump of clay (technology group B), although smaller specimens may have been thrown from the cone (A).

1.2.2 Bowls with a convex wall and a simple rounded rim. Fig. IV.2, fig. IV.18.a-b, fig. IV.47.a-p, fig. IV.101.b-e.

Based on an analysis of the measurements, four size groups can be distinguished (fig. B.6): 122a: rim diameter < 110 mm, mean rim diameter = 88 mm (CV = 8.5%). 122b: rim diameter \ge 110 mm and < 155 mm, mean rim diameter = 130 mm (CV = 7.3%). 122c: rim diameter \ge 155 mm and < 275 mm, mean rim diameter = 209 mm (CV = 14.3%). 122d: rim diameter \ge 275 mm, mean rim diameter = 307 mm (CV = 11.6%).

The smaller bowls are most probably all thrown from the cone (technology group A). The largest bowls (122d) are most probably thrown from one lump of clay (technology group B).

1.2.3 Bowls with a convex wall and a slightly bevelled, slightly thickened rim. Fig. IV.3.a-l, fig. IV.18.c, fig. IV.47.q-y, IV.48.a-e, fig. IV.101.f-j, fig. IV.115.f.

Based on an analysis of the measurements of this shape, no size groups could be discerned (fig. B.7).

Mean rim diameter = 269 mm (between 140 and 420 mm), CV = 21.4%.

These bowls are most probably thrown from one lump of clay (technology group B), although smaller bowls may have been thrown from the cone (A).

1.2.4 Bowls with a convex and very thin, rather straight wall and a simple rounded rim. Sometimes the wall has a slight S-profile. Fig. IV.48.f-i. Only a few examples were found of this rim type. The shape was not investigated for the technology used.

1.2.5 Bowls with a convex or almost straight wall, and a bevelled rim that is square in section. Fig. IV.3.m-v, fig. IV.18.d, fig. IV.48.j-m, fig. IV.101.k.

The analysis of the measurements of this shape shows an uneven distribution without clear size groups (fig. B.8). There are three peaks in rim diameters, at 190, 250 and 290 mm. No size groups are distinguished for the moment. Mean rim diameter = 247 mm (between 160 and 380 mm), CV = 23.2%.

These bowls are most probably thrown from one lump of clay (technology group B), although smaller specimens may have been thrown from the cone (A).

1.2.7 Bowls with a convex wall and an outward-bent, simple rim. The wall shows an S-profile. Fig. IV.48.n-r.

Only few examples of this rim type. The shape was not investigated for the technology used.

1.2.8 Bowls with a convex, thin and inward-bent wall, and a simple rounded rim. Fig. IV.101.1.

Only six examples of this rim type. The shape was not investigated for the technology used.

1.2.9 Bowls with a convex or almost straight wall and a bevelled rim. The wall is thinner just below the rim, giving the rim section a "mushroom" shape. Fig. IV.4.a, fig. IV.101.m. Only three examples of this rim type. The shape was not investigated for the technology used.

1.2.10 Bowls with a convex wall and a folded rim. The top of the rim is sloping inwards, and the rim section has an angular shape. Fig. IV.4.b, fig. IV.48.s. Only four examples of this rim type. The shape was not investigated for the technology used.

1.2.11 Bowls with a convex wall with an S-profile. The rim is bent outwards and square in section, while the top of the rim is sloping inwards. Fig. IV.18.e.

Only one example of this rim type. The shape was not investigated for the technology used.

1.2.13 Bowls with a convex wall. The rim is strongly bent outwards and square in section. Fig. IV.4.c.

Only one example of this rim type. The shape was not investigated for the technology used.

1.2.14 Bowls with a convex wall. The rim is thickened on the outside and rounded, bulging in shape. Fig. IV.4.d.

1.2.15 Bowls with a convex wall. The rim is slightly incurved, sloping outwards and triangular in section. Fig. IV.48.t-w, fig. IV.115.g.

1.2.17 Bowls with a convex wall. The upper part of the wall is straight and vertical like a short neck, and the rim is simple and rounded or pointed. Fig. IV.18.f-g.

1.3 Bowls with a straight wall

1.3.1 Bowls with a straight wall and a bevelled rim, slightly thickened on the outside. Fig. IV.18.h-m, IV.19, fig. IV.49-50, fig. IV.101.n-w, IV.102.a-e, fig. IV.115.h-n.

Mean rim diameter = 302 mm, but variation in rim diameters is large (between 140 and 440 mm), CV = 19.0%. No size groups were discernable (cf. figs. B.9 and B10).

These bowls are most probably thrown from one lump of clay (technology group B), although smaller specimens may have been thrown from the cone (A).

1.3.2 Bowls with a straight wall and a bevelled rim, thickened on the inside. Fig. IV.4.e-f, fig. IV.20.a-l, fig. IV.51, fig. IV.102.f-k.

Based on an analysis of the measurements of this shape, two size groups are distinguished (fig. B.11):

132a: rim diameter < 260 mm, mean rim diameter is 206 mm. 132b: rim diameter \ge 260 mm, mean rim diameter is 307 mm.

The smaller bowls are most probably all thrown from the cone (technology group A). The largest bowls (132b) are most probably thrown from one lump of clay (technology group B).

1.3.3 Bowls with a straight wall. The rim is thickened on the inside and the top of the rim is horizontal and flat. Fig. IV.115.o-p.

Only two examples of this rim type. The shape was not investigated for the technology used.

1.3.4 Bowls with a straight wall and a bevelled rim that is square in section. Fig. IV.20.m-p, fig. IV.52.a-e, fig. IV.102.n-o.

Mean rim diameter is 248 mm (between 180 and 370mm, CV is 22.7%), no size groups are discernible.

These bowls are most probably thrown from one lump of clay (technology group B)

1.3.5 Bowls with a straight wall and a rim that is horizontal and flat on the top, sometimes a little thickened on the outside. Fig. IV.20.q, fig. IV.52.g-l, fig. IV.102.l-m. Several examples of this rim type. The shape was not investigated for the technology used.

1.3.6 Bowls with a straight wall and a slightly thickened rim, with a groove in the top of the rim. Fig. IV.52.f, fig. IV.115.q-s.

1.4 Deep bowls (without carination)

Deep bowls do not exactly fit the description of bowls because the vessel height often exceeds the rim diameter. Nevertheless, the shapes are unrestricted and thus do not fit the category of pots either.

1.4.1 Deep bowls with a horizontally flattened, "hammer"-shaped rim. Fig. IV.21, fig. IV.52.n-p, IV.53.a-e, fig. IV.103.a-b, fig. IV.116.a.

Mean rim diameter is 273 mm (between 90 and 440 mm, CV is 24.3%), no size groups are discernible for the moment although several peaks are present in the histogram (fig. B.12).

These bowls were thrown from one lump of clay (technology group B). These bowls are similar in shape and size to the pots with rim type 221 (fig. B.13). **1.4.2** Deep bowls with a "hammer"-shaped rim sloping inwards. Fig. IV.22.a-c, fig. IV.53.f-o, IV.54.a-e, fig. IV.103.c-e, fig. IV.116.b.

Mean rim diameter is 281 mm (between 145 and 410 mm, CV is 21.9%), no size groups are discernible for the moment although peaks are visible in the histogram of rim diameters (fig. B.14).

These bowls were thrown from one lump of clay (technology group B).

N.B. Bowls 141 and 142 are very similar, only the direction of the rim is different. Compare these shapes also with the smaller pots of rim types 221 and 222.

1.4.3 Deep bowls with a bevelled rim that is thickened on the in and/or outside and sometimes pinched. This shape includes several minor rim variations. Fig. IV.4.g-h, fig. IV.22.d-e, fig. IV.54.f-j, IV.55.a-j, fig. IV.103.f-j, fig. IV.116.c.

Mean rim diameter is 327 mm (between 150 and 450 mm, CV is 20.4%), no size groups are discernible for the moment (fig. B.15).

These bowls are most probably thrown from one lump of clay (technology group B), although smaller specimens may have been thrown from the cone (A).

N.B.: These bowls are comparable to shapes 131 and 132, but generally deeper (steeper walls, vessel height generally > 100 mm). Classification in type 131/132 or 143 bowls was difficult for small rim fragments.

1.4.4 Deep bowls with straight or slightly concave and rather thin walls, and a simple rounded rim. Fig. IV.4.i, fig. IV.22.f-i, fig. IV.55.j-n.

Mean rim diameter is 227 mm (between 120 and 360 mm, CV is 30.6%), no size groups are discernible for the moment. The shape was not investigated for the technology used.

1.4.5 Very deep bowls. Up to about 5 cm below the rim the wall is thickened. Fig. IV.4.j-k, fig. IV.23, fig. IV.55.f-i, IV.56, IV.57, fig. IV.104.a-c, fig. IV.116.d.

Mean rim diameter is 405 mm (between 260 and 740 mm, CV is 23.8%), no size groups are discernible for the moment. The shape was not investigated for the technology used, but very large examples were most probably made by hand (technology group E).

When very large (rim diameter > ca. 410 mm), this shape and rim shape is comparable to the larger type 221 pots.

1.4.6 Deep bowls with slightly convex wall. The rim is bent outwards, and has a groove on top.

Only two examples of this rim type. The shape was not investigated for the technology used.

1.4.8 Deep bowls with convex wall. The rim is horizontal and flat on the top and thickened on the outside. The thickened part of the rim is bevelled. Fig. IV.24.a-b, fig. IV.58.a-c, fig. IV.103.k.

Only six examples of this rim type. The shape was not investigated for the technology used.

1.4.9 Deep bowls with a straight wall. The rim is sloping inwards, and sometimes a little

thickened on the inside. Fig. IV.58.d, fig. IV.103.l. Only five examples of this rim type. The shape was not investigated for the technology used.

1.4.10 Deep bowls with simple, bevelled rim that is thickened on the outside. Fig. IV.24.c-d, fig. IV.58.g.

Mean rim diameter is 290 mm (between 230 and 430 mm, CV is 24.2%), no size groups are discernible for the moment. The shape was not investigated for the technology used.

1.4.11 Deep, very large bowls with a thick wall. The rim is bevelled and sometimes a little ribbed. Fig. IV.24.e-f, fig. IV.58.f, h-i, fig. IV.104.d.

Only a few examples of this rim type. Very large rim diameter, around 700 mm. This shape was built in coils or slabs by hand (technology group E).

1.4.12 Deep bowls with simple rounded rims. Fig. IV.24.g, fig. IV.103.n. Only four examples of this rim type. The shape was not investigated for the technology used.

1.4.13 Deep bowls with a rim thickened on the outside. Fig. IV.24.h. Only six examples of this rim type. The shape was not investigated for the technology used.

1.4.14 Deep bowls with a rounded, oval-shaped rim thickened on the outside. Often the upper part of the wall is decorated with wavy incised lines. Fig. IV.25.a-c, fig. IV.59.a-d, fig. IV.103.o.

1.4.15 Deep bowls with a thick square rim sloping outwards. Fig. IV.25.d, fig. IV.59.e-g.

1.4.16 Deep bowls with a strongly outward-bent rim. Fig. IV.25.e.

1.4.17 Deep bowls with a slightly thickened rim. Fig. IV.59.h-j, fig. IV.103.m.

1.5 Convex bowls with a spout and handle

1.5.1 Convex bowls with a spout and one or two handles. Fig. IV.60, IV.61.a-c. Mean rim diameter 345 mm (between 300 and 385 mm, CV is 9.4%). One size group. The shape was not investigated for the technology used.

2 – POTS

Pots are defined as vessels with a restricted shape or with vertical walls, while the rim diameter \leq vessel height.

2.1 Pots with a convex wall (restricted shape)

2.1.1 Pots with a convex wall and outward-bent, but inward-bevelled rim. Fig. IV.5.a, fig. IV.25.f-i, fig. IV.61.d-k, IV.62.a-b, IV.63.a, fig. IV.104.e-f, fig. IV.116.e-f.

The analysis of the measurements of this shape shows an uneven distribution. There are peaks at 220, 240, 260 and 340 mm, but no clear size groups appear (fig. B.16). For the moment the shape has been divided into two groups:

211a: rim diameter < 290 mm. Mean rim diameter = 213 mm (CV = 16.8%).

211b: rim diameter \geq 290 mm. Mean rim diameter = 340 mm (CV = 10.2%).

Although this shape group was not investigated in detail for shaping technology, the smaller

shapes were probably thrown from one lump of clay (technology group B) while cooking pots and the larger pots were probably built by hand (technology group E).

2.1.2 Pots with a convex wall and a rolled or bevelled rim, thickened on the outside. Fig. IV.5.b-n, IV.6.a-b, fig. IV.26.a-c, fig. IV.62.c-m, IV.63.b-j, IV.64, IV.65, IV.66.a-d, fig. IV.105, fig. IV.116.g-i.

The analysis of the measurements of this shape shows an uneven distribution without clear size groups (fig. B.17). For the moment, the shape has been divided into two groups: 212a: rim diameter < 290 mm. Mean rim diameter = 216 mm (CV = 19.1%). 212b: rim diameter \ge 290 mm. Mean rim diameter = 357 mm (CV = 12.1%).

Although this shape group was not investigated in detail for shaping technology, the smaller shapes were probably thrown from one lump of clay (technology group B) while the cooking pots and the larger pots were probably built by hand (technology group E).

2.1.3 Large pots with a convex wall and a heavy, outward-bent rim that is bevelled on the inside. The rim is thickened on the in and outside. Fig. IV.6.c-d, fig. IV.26.e, fig. IV.66.e-h, IV.67.

Mean rim diameter = 347 mm (between 250 and 440 mm, one outlier at 750 mm, CV = 18.6%). No size groups.

These large pots were most probably made by hand, built in slabs or coils (technology group E).

2.1.4 Small pots with a convex wall that is strongly bent inwards, and a simple rounded rim. Fig. IV.105.h.

Only a few examples of this rim type. The shape was not investigated for the technology used.

2.1.5 Large pots with a convex wall and a heavy rim that is thickened on the in and outside. The rim is horizontally flattened or slightly ribbed on the top. Fig. IV.68.a-c, fig. IV.106.h. Only a few examples. Mean rim diameter = 340 mm (between 270 and 390 mm).

These large pots were most probably made by hand, built in slabs or coils (technology group E).

2.1.9 Pots with a convex wall and thickened or rolled rims with ridges on the outside. Fig. IV.68.d-e.

2.1.10 Pots with a convex wall and a very low pointed rim that is bent upwards. Fig. IV.26.d, fig. IV.68.f.

2.2 Pots with a straight or slightly convex wall

2.2.1 Pots with a straight or slightly convex wall and a horizontally flattened, "hammer"-shaped rim or a rim that is thickened on the outside. Fig. IV.6.e, fig. IV.26.f-i, IV.27.a, fig. IV.69, fig. IV.106.a-g, fig. IV.117.a-d.

The analysis of the measurements of this shape shows a rather even distribution without clear size groups (fig. B.18). There are several peaks in the distribution. The very large pots seem to form a separate group, also when comparing rim diameter and vessel height (fig. B.19). For the moment the shape has been divided into two groups:

221a: rim diameter \leq 450 mm. Mean rim diameter = 288 mm (CV = 24.4%). 221b: rim diameter > 450 mm. Mean rim diameter = 741 mm (CV = 15.3%).

The smaller pots were thrown from one lump of clay (technology group B), although in shape group 221a there may be some larger pots built by hand (technology group E). The large pots 221b were built by hand (technology group E).

2.2.2 Pots with a straight or slightly convex wall and an inward-bevelled, "hammer"-shaped rim. Fig. IV.6.f-h, fig. IV.27.b-e, IV.28.a-d, fig. IV.70, IV.71, fig. IV.107.a-c, e-g.

The analysis of the measurements of this shape shows a rather even distribution without clear size groups. There are several peaks in the distribution. When comparing rim diameter and vessel height, two groups appear (fig. B.20). For the moment the shape has been divided into two groups:

222a: rim diameter < 280 mm. Mean rim diameter = 228 mm (CV = 13.6%). 222b: rim diameter > 280 mm. Mean rim diameter = 331 mm (CV = 12.9%).

The smaller pots were thrown from one lump of clay (technology group B), although in shape group 222a there may be some larger pots built by hand (technology group E). The large pots 222b were built by hand (technology group E).

N.B. Also compare these shapes with bowls type 141 and 142.

2.2.4 Pots with a straight or slightly convex wall and a slightly inward-bevelled rim with a groove in the top. Fig. IV.71.i.

Only a few examples of this rim type. The shape was not investigated for the technology used.

2.2.5 Tall pots with a straight, thin wall and a rim that is slightly thickened on the outside, also called "*grain measure*". Fig. IV.7.a-e, fig. IV.27.f, fig. IV.72.a-q, fig. IV.107.d.

The analysis of the measurements of this shape shows a rather even distribution without clear size groups. A small group of larger pots with rim diameters ≥ 250 mm can be discerned (fig. B.21). There is no obvious relation between rim diameter and vessel height, something that would be expected in case a set volume was aimed for. For a discussion whether these pots have been used as measuring vessels, see Chapter VI.

225a: rim diameter < 250 mm, mean rim diameter = 140 mm, CV = 25.2%225b: rim diameter > 250 mm, mean rim diameter = 287 mm, CV = 11.5%

These pots are thrown from one lump of clay (technology group B).

2.2.6 Pots with a thick straight wall and a heavy rim that is thickened on the in and outside. Fig. IV.72.w, fig. IV.107.h-j, fig. IV.117.e. Mean rim diameter = 381 mm (between 210 and 450 mm, CV = 15.6%). No size groups.

These large pots were most probably made by hand, built in slabs or coils (technology group E).

2.2.7 Pots with a straight wall and a bevelled, overhanging "beak"-rim. Fig. IV.27.g. Only a few examples of this rim type. The shape was not investigated for the technology used.

2.2.8 Pots with a straight vessel wall, and a square, outward-bent, bevelled rim. Fig. IV.72.r. Only a few examples of this rim type. The shape was not investigated for the technology used.

2.2.9 Pots with a straight wall and a bevelled, pinched rim thickened on the in and outside. Fig. IV.107.k.

Only a few examples of this rim type. The shape was not investigated for the technology used.

2.2.10 Pots with a straight wall and a rim that is slightly thickened on the inside and bevelled inwards. Fig. IV.107.1.

Only a few examples of this rim type. The shape was not investigated for the technology used.

2.2.11 Pots with a slightly convex wall and a thickened rim, which is oval in section. Fig. IV.7.f-h.

Only a few examples of this rim type. The shape was not investigated for the technology used.

2.2.14 Pots with a straight wall and an outward-bevelled rim with ridges. Fig. IV.72.s-t.

2.3 Pots with S-shaped wall profile

2.3.1 Pots with an S-shaped wall profile and an inward-bevelled, "mushroom"-shaped rim. Fig. IV.117.f.

Mean rim diameter 329 mm (between 230 and 430 mm, CV = 18.01%). No size groups.

The shape was not investigated for the technology used.

2.3.2 Pots with an S-shaped wall profile and an inward-bevelled, simple rounded rim. Fig. IV.107.m.

Only a few examples of this rim type. The shape was not investigated for the technology used.

2.3.3 Pots with an S-shaped wall profile, the rim is strongly rolled inwards. Fig. IV.72.u.

2.3.4 Pots with an S-shaped wall profile, the rim is mushroom-shaped and bent outwards. Fig. IV.72.v.

3 – JARS

Jars are defined as restricted shapes with a small rim diameter or narrow neck. When comparing rim diameters and total vessel height, three groups appear (fig. B.22):

small jars (vessel height < 250 mm) middle jars (vessel height ≥ 250 but <500 mm) large jars (vessel height ≥ 500 mm)

The group of large jars contains mainly 3.2 jars without a neck, the group of small jars contains mainly 311 jars with a neck. The middle group contains a variety of rim types.

3.1 Jars with a neck

3.1.1 Jars with a neck and a simple rounded rim. Fig. IV.28.e-j, fig. IV.73, IV.74, IV.75.a-c, fig. IV.108.a-h, fig. IV.117.g, i.

Based on the comparison of rim diameters and vessel height, type 311 jars could be classified into three groups (fig. B.23): very small (311x), small (311a) (both belonging to the general group of "small jars") and large (311b, belonging to the general group of "middle sized jars"). Vessel height and maximum vessel diameter are the best indicators for size, while the rim diameters overlap between groups.

- 311x: very small, rim diameter < 70 mm, or rim diameter \ge 70 mm but vessel height < 160 mm, maximum vessel diameter < 120 mm. Mean rim diameter = 59 mm, CV = 20%.
- 311a: small, rim diameter < 100 mm, or rim diameter \ge 100 mm but vessel height < 250 mm, maximum vessel diameter < 180 mm. Mean rim diameter = 87 mm, CV = 8.6%.
- 311b: large, rim diameter \geq 115 mm, or rim diameter < 115 mm but vessel height \geq 250 mm, maximum vessel diameter > 180 mm. Mean rim diameter = 127 mm , CV = 9.7%.
- 311?: rim diameter \geq 100 but < 115 mm while the vessel height has not been preserved.

Mean rim diameter of all type 311 jars = 106 mm (between 48 and 190 mm), CV = 19.7%.

These jars are thrown from one lump of clay (technology group B), although the very small jars also could have been thrown from the cone (technology group A).

3.1.2 Jars with a neck and a simple rounded rim that is slightly thickened on the outside. Fig. IV.8.a, fig. IV.29.a-b, fig. IV.75.h-l, IV.76.a-b, fig. IV.108.i, fig. IV.117.h, j.

The majority of 312 jars belongs to the group of "middle-sized" jars, with vessel heights between 250 and 500 mm. One is classified as a small jar (vessel height = 215 mm), and one is a large jar (vessel height = 550 mm). However, no differences are discernible in the rim diameters (fig. B.24), and these two exceptions are rather close to the core group of middle-sized jars. Size groups have not been made.

Mean rim diameter = 113 mm (between 60 and 150 mm), CV = 14.1%.

These jars are thrown from one lump of clay (technology group B).

3.1.3 Jars with a neck and a bevelled rim that is slightly thickened on the outside. Fig. IV.29.c-d, fig. IV.76.c-j, fig. IV.108.j-k, fig. IV.118.a-d.

No size groups are apparent (fig. B.25). Two completely preserved vessels fall into the "small" jars group; for the rest of the cases no vessel height was preserved. Mean rim diameter = 105 mm (between 80 and 140 mm), CV = 13.7%.

The shape was not investigated for the technology used.

3.1.4 Jars with a neck and a rim that is thickened on the outside and flattened vertically on the outside. Fig. IV.8.b-c, fig. IV.29.e, fig. IV.75.m, fig. IV.108.l, fig. IV.118.e-f.

No size groups are apparent. One completely preserved vessel falls into the "small" jars group, for the rest of the cases no vessel height was preserved. Mean rim diameter = 107 mm (between 70 and 150 mm), CV = 22.3%.

The shape was not investigated for the technology used.

3.1.5 Jars with a neck and an outward-bent rim that is horizontally flattened on the top. Fig. IV.8.d-i, fig. IV.29.f-h, fig. IV.76.k, IV.77, fig. IV.108.m-n, fig. IV.118.g-h.

No size groups are apparent. One completely preserved vessel falls into the "small" jars group (vessel height 160 mm, rim diameter = 95 mm), while four belong in the "medium" jars group (vessel height \geq 430 mm, rim diameters \geq 120 mm); for the rest of the cases no vessel height was preserved, but most probably they are "medium" jars. These are too few data to base a

size grouping on, while the rim diameters alone do not show any grouping either (fig. B.26).

Mean rim diameter = 107 mm (between 70 and 150 mm), CV = 22.3%.

These jars are most probably thrown from one lump of clay (technology group B).

3.1.8 Jars with a neck and an outward-bent rim that is bevelled on the inside. Fig. IV.8.j, fig. IV.29.i-k, fig. IV.78, fig. IV.108.o-s.

Mean rim diameter = 119 mm (between 80 and 150, not counting one outlier of 230 mm), CV = 13.6%. Apart from one larger vessel, no size groups are apparent (fig. B.27).

The shape was not investigated for the technology used.

3.1.9 Jars with a neck and a rim that is strongly bent outwards and thickened on the outside. Fig. IV.8.k-m.

Only a few examples of this rim type. The shape was not investigated for the technology used.

3.2 Jars without a neck

The majority of these jars is classified as "large jars". No internal size groups were found within this category. Mean rim diameter of all type 32 jars = 155 (between 85 and 220 mm), CV = 14.9%

3.2.1 Jars without a neck and a thickened, "ribbon"-rim that is grooved on the outside. Fig. IV.29.1-p, fig. IV.79, IV.80.a-k, fig. IV.108.t-y, IV.109.a-j, fig. IV.118.i-v.

Six jars in this group were classified as "medium" jars (vessel height between 288 and 474 mm, rim diameters < 140 mm), and four were "large" jars (vessel height > 600 mm, rim diameter ≥ 150 mm). However, this distinction was not visible in the distribution of rim diameters and size groups could not be made for the rest of the cases (fig. B.28). Mean rim diameter = 138 mm (between 90 and 220 mm), CV = 15.8%.

These jars have been thrown in two parts (technology group C).

3.2.2 Jars without a neck and a thickened rim that is oval or slightly square in section. Fig. IV.9.a-b, fig. IV.30, IV.31.a-d, fig. IV.80.l-m, IV.81-85, fig. IV.109.k-n, fig. IV.118.w-z.

Apart from one vessel that is classified as a "medium" jar, most vessels of this rim type are "large" jars. The rim diameters and height show no further size groups (fig. B.29). Mean rim diameter = 146 mm (between 70 and 230 mm), CV = 12.3%.

These jars have been thrown in two parts (technology group C).

3.2.3 Jars without a neck and a thickened rim that is bevelled on the outside. Fig. IV.32.b-e, fig. IV.86-87, IV.88.a-e, IV.89.a-b, fig. IV.109.o-s, fig. IV.118.aa, ac.

All completely preserved jars in this group are "large" jars. Size groups cannot be made according to rim diameter (fig. B.30). Mean rim diameter = 148 mm (between 90 and 320 mm), CV = 16.6%.

These jars have been thrown in two parts (technology group C).

3.2.4 Jars without a neck and a convex rim that is slightly curved inwards. Fig. IV.88.f, fig. IV.109.t.

Only a few examples of this rim type. The shape was not investigated for the technology used.

3.2.6 Jar without a neck, with a pointed rim strongly sloping inwards. Fig. IV.9.c-d, fig. IV.88.g.

3.3 Jars with a spout and handles

3.3.1 Small jars, with a spout attached to the body, and a handle. Fig. IV.109.u. Only a few examples of this rim type. The shape was not investigated for the technology used.

3.3.2 Jars with a spout made from the rim and a handle attached to the rim. Fig. IV.109.w. Only a few examples of this rim type. The shape was not investigated for the technology used.

3.3.3 Jars with a simple rounded rim and one or two handles attached to the rim or the neck, no spout. Fig. IV.89.c-h, fig. IV.109.v, fig. IV.119.a-d. Only a few examples of this rim type. The shape was not investigated for the technology used.

4 – GOBLETS

Goblets are defined as cups with a thin wall and a rim diameter around 10 cm. Size groups are not present within the goblets category (figs. B.31 and B.32).

4.1 Goblets with a V-shaped wall profile

4.1.1 Goblets with a V-shaped wall profile and a simple rounded rim. Fig. IV.33.a-e, fig. IV.90, fig. IV.110.a-h, fig. IV.119.e. Mean rim diameter = 89 mm (between 60 and 160 mm), CV = 15.6%.

The goblets were thrown from the cone (technology group A).

4.3.1 Goblets with a closed V-shaped wall profile. Fig. IV.119.h-i.

4.2 Goblets with an S-shaped wall profile

4.2.1 Goblets with an S-shaped wall profile and a simple rounded rim. Fig. IV.33.q-t, y, fig. IV.91.a-ae, fig. IV.110.i-t, fig. IV.119.f-g. Mean rim diameter = 78 mm (between 45 and 130 mm), CV = 14.7%.

The goblets were thrown from the cone (technology group A).

5 - STRAINERS

5.1.1 A convex bowl with holes through the whole surface of the wall. Fig. IV.33.z-aa, fig. IV.91.ah-ak, fig. IV.110.u-v.

No apparent size groups are visible in the histogram (fig. B.33). However, possibly two size groups can be discerned in analogy with the bowls (which are made in the same technology): 511a: rim diameter < 175 mm, mean rim diameter = 136 mm, CV = 12.9% 511b: rim diameter > 175 mm, mean rim diameter = 190 mm, CV = 4.3%

The sieves were thrown from the cone (technology group A) and then pierced by hand.

6 – POT STANDS

6.1.1 Pot stands with a straight or slightly concave wall, and generally with an upper rim diameter that is smaller than the lower rim diameter. Both rims are bevelled and rounded or pinched. Fig. IV.34.a-l, fig. IV.92-93, fig. IV.110.w-y, IV.111, fig. IV.119.j-m.

No size groups are apparent. Mean rim diameter = 199 mm (between 90 and 400 mm), CV = 15.5%

7 – BASES

Bases are defined as the lowermost part of the vessel. Bases are mostly illustrated with complete vessels in figs. IV.1-120, or separately in the figures listed below.

7.1.1 Nipple base. Fig. IV.33, fig. IV.90, fig. IV.110, fig. IV.120. Mean diameter = 9 mm (between 3 and 18 mm), CV = 24.3%

7.1.2 Knob base. Fig. IV.10.a-d, fig. IV.33, fig. IV.91, fig. IV.110, fig. IV.120. Mean diameter = 14 mm (between 6 and 26 mm), CV = 22.8%

7.2.1 Pedestal base. Fig. IV.10.e-f, fig. IV.34.m-q, fig. IV.113, fig. IV.120. Mean diameter = 40 mm (between 10 and 100 mm), CV = 31.0%

7.3.1 Flat base. Fig. IV.10.g-m, fig. IV.35.a-c, fig. IV.96.a, fig. IV.113, fig. IV.120. Mean diameter = 53 mm (between 4 and 330 mm), CV = 41.8%

7.4.1 Ring base. Fig. IV.11, fig. IV.35.d-l, fig. IV.96.b-d, fig. IV.113, fig. IV.120. Mean diameter = 84 mm (between 6 and 230 mm), CV = 19.8%

7.5.1 Round base. Fig. IV.33.w, x, fig. IV.96.e-h, fig. IV.113, fig. IV.120. No diameter.

9 – BOTTLES / FLASKS

9.1.1 Globular jar with a very narrow neck and a handle. Simple rounded rim. This shape is also called "*pilgrim flask*". Fig. IV.33.ab, fig. IV.94.

No size groups. Mean rim diameter = 50 mm (between 26 and 80 mm, including some very small bottles), CV = 31.3%.

10 – MINIATURES

A group of very small vessels, some thrown from the cone and some made by hand. Fig. IV.7.i-j, fig. IV.31.e, fig. IV.95.a-c, fig. IV.112.b.

11 – TRAYS

Low handmade trays and platters, some with sharp stones on the inside surface. Fig. IV.7.k, fig. IV.31.h, fig. IV.95.l-m, fig. IV.112.a, f, fig. IV.119.n.

12 – MISCELLANEOUS

Various shapes. Fig. IV.31.f, g, fig. IV.95.d-k, IV.96.i, fig. IV.112.c, d, fig. IV.119.p.

Appendix B: Shape Typology