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CHAPTER 2

Regional Differences in Pottery Repertoires: Two Case Studies of Early and Late Middle Kingdom Ceramic Assemblages

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Abstract

Regional differences in pottery production occur in terms of raw materials used, manufacturing technologies employed, and the range of vessel shapes created. The shapes were not only determined by the intended use contexts—for example in a settlement/funerary/cultic activity/industrial location— but also depend on the chronological period in which the vessels were made. It is, however, often difficult to date material culture precisely within dynasties unless an undisturbed context can be connected with a well dated monument. A separate analysis is required for each case study in order to find explanatory models for the observed differences. In Egypt, except during the Middle Kingdom, differences in pottery repertoires over time have often been explained by the strengthening or weakening of the central administration, which is thought to have governed pottery production to a significant extent. This holds true for some of the material recovered, but an inadequate number of pottery workshops have been found to clearly support the hypothesis. Pictorial evidence and three-dimensional models of vessels, workers, and industrial buildings indicate that larger estates may also have included pottery workshops. This paper argues that estate production may explain some of the differences seen in the material assemblages. Two case studies are used to illustrate this, as well as the challenges and questions that arise when studying regional variations in pottery production. The first focuses on the early Middle Kingdom period at the sites of Ihnasya el-Madina/Herakleopolis Magna and Dayr al-Barsha, and the second focuses on the late Middle Kingdom at the sites of Tell el-Dab'a/Avaris and Kom Rabia/Memphis.

1 Introduction

During post-excavation work on several projects in Egypt, the author has noticed a number of differences in contemporary ceramic vessel corpora between

sites, including in the raw materials used to make vessels. Pottery finds from different periods exhibit these variations, notably those from the late Old Kingdom through the early New Kingdom, and at a variety of sites from the Delta south to Thebes. Importantly, the sites covered include cemeteries with a variety of tomb types, as well as settlements.

The purpose of the current paper is to highlight some of the differences in the pottery repertoires by way of two case studies. The first concentrates on material from the sites of Ihnasya al-Madina/Herakleopolis Magna and Dayr al-Barsha, dating to the early Middle Kingdom, while the second looks at selected pottery types and their morphological differences from the sites of Tell el-Dab'a/Avaris and Kom Rabia/Memphis, during the late Middle Kingdom.

The fact that regional differences existed in pottery production during the First Intermediate Period to the early Middle Kingdom and then in the late Middle Kingdom to the Second Intermediate Period has been known for some time thanks to the work of Arnold,¹ Seidlmayer² and Bourriau.³ This variation has very much complicated efforts to synchronise sites from these periods and has called into question the usual procedure used to date the ceramic corpora of sites-by comparison with external parallels or with other object classes. This situation can often mean that local relative sequences of pottery types built up from the available material cannot be securely tied to the sequence of pharaohs or even dynasties without the help of external material. The dangers of creating circular arguments arising from implementing the procedure described in these situations needs to be emphasized.

The current case studies were chosen for two reasons. First, because they represent different forms of variation: a) a comprehensive difference in the shape repertoire of pottery types, and b) the same types but showing distinct morphological developments. In addition, various explanatory models can be proposed for each site depending on the type of site studied and the type of information available.

The usual explanation given for differences of pottery corpora in various regions is that it is a symptom of a weakened central administration⁴. The central authority did not manage to sufficiently control a unified production as it did during times of strong central administration-e.g. in the twelfth dynasty from the recently founded residence at Lisht.⁵

1 Arnold, "Pottery", 143-146.

2 Seidlmayer, *Gräberfelder aus dem Übergang vom Alten zum Mittleren Reich*.

3 Bourriau, "Relative Chronology", 11- 37.

4 Franke, "Erste und Zweite Zwischenzeit-Ein Vergleich", 124.

5 Arnold, "Pottery", 146; Bourriau, "Patterns of Change in Burial Customs", 7, 10-11.

This concept probably developed as a result of a conviction that royal authority had a monopoly over all areas of craft production and that it was, therefore, able to strictly regulate production of items and to control access to these items of craft production.⁶ This view was most likely based on early observations of craft production scenes in the tombs of members of the royal elite in the early Old Kingdom. This hypothesis was widely accepted, although there is evidence of private and royal commissions being made.⁷ These tomb scenes show various kinds of 'estates' involved in many areas of production, from making foodstuffs to textiles, and sometimes pottery, for the benefit and endowment of the respective tomb owners and the needs of their household.⁸ It may suffice in this paper to mention one example for each major period: the tomb of Ti,⁹ the tomb of Djehutihotep,¹⁰ and the tomb of Rekh-mi-Re.¹¹

While these scenes (and Middle Kingdom tomb models fulfilling the same function) were taken to truly reflect the procedures of craft production,¹² it remains unclear how far these idealised depictions can be thought of as reflections of craft production *organisation*. It may be reasonable to suggest that access to certain high status and luxury products such as jewellery and high-quality furniture was restricted, but it seems less practicable that objects in daily use throughout the country could have been controlled in this way, such as chipped stone tools and pottery. Interestingly, for the production of chipped stone tools two distinct modes of supply and production existed during the Middle Kingdom for the same site: ready-made tools were imported as well as raw materials that were made into tools at the site.¹³ This might provide evidence against the notion that everybody lived in strictly controlled settlements that were endowed with all the articles needed for daily life—all obtained from specific and sizeable craft production centres. It may be more

6 Assmann, "Zum Konzept der Fremdheit im Alten Ägypten", 90; Assmann, *Das kulturelle Gedächtnis*, 170.

7 Drenkhahn, *Handwerker*, 134-135.

8 Drenkhahn, *Handwerker*, 2-3.

9 Steindorff, *Das Grab des Ti*.

10 Newberry, *EL-Bersheh I. The Tomb of Tehuti-Hetep*.

11 Davies, *The Tomb of Rekh-mi-re' at Thebes*.

12 For pottery see Holthoer, *New Kingdom Pharaonic Sites*, 5-37; Nicholson, and Doherty, "Arts and Crafts: Artistic Representations as Ethno-Archaeology", 435-450.

13 The presence of flakes is thought to indicate a production site for chipped stone tools. Such tools were finished at Tell el-Dab'a in the orthogonal settlement of the early twelfth dynasty, cf. Czerny, *Tell el-Dab'a IX*, 113-114; locally manufactured during the later twelfth dynasty cf. Czerny, *Tell el-Dab'a XXII*, 401-402 and Tillmann, "Zur wirtschaftlichen Bedeutung von Silexartefakten im Alten Ägypten: Eine Provokation"; 384, 386.

likely that a combination of different supply systems also satisfied the demand for pottery production (e.g. of marl clays¹⁴). The extant archaeological record does not readily support the notion of large workshops supplying large areas with all materials because none have been found so far, whilst this argument (ex silentio) does not prove such workshops did not exist. Smaller pottery work shops may also be difficult to recognise,¹⁵ particularly if the turning device has been dismantled or removed.

Perhaps due to the relatively late development of archaeological interest in pottery production in Egyptology, which was initiated and conditioned by Petrie's typological approach to object groups in general, study and observation of variety in contemporary pottery corpora has been somewhat neglected. This lack of knowledge is in part due to the incomplete state of archaeological research on settlements in ancient Egypt. The best known settlement type in the Middle Kingdom is the orthogonal town at Kahun,¹⁶ but it is likely that many other settlements existed along the Nile that are now deeply buried by sediment and overbuilt by modern settlements.¹⁷ Unlike at Kahun, these may likely have been self-organised and irregular in layout like the late Middle Kingdom settlement at Tell el-Dab'a. While Tell el-Dab'a in the late Middle Kingdom was quite sizable, it remains virtually unknown in the archaeological record how a typical village was organised in terms of street plan, architecture, and material culture including pottery.

Because Middle Kingdom pottery has not been published in sufficient detail throughout Egypt, doubt remains about the proposition of total uniformity.¹⁸ Before this proposed uniformity can be evaluated, many more comparative and detailed studies are required-of raw materials, manufacturing technologies, the *chaîne opératoire*,¹⁹ and morphological details. The effort must start with detailed recording and publication of these parameters.

14 Arnold, "Ägyptische Mergeltone (»Wüstentone«) und die Herkunft einer Mergeltonware des Mittleren Reiches aus der Gegend von Memphis", 161-191.

15 Verner, *Abusir III. The Pyramid Complex of Khentkaus*, 25-27.

16 Petrie, *Kahun, Gurob and Hawara*; Petrie, *Illahun, Kahun and Gurob*, 1889-90.

17 Coring in the village of modern Lisht demonstrated that the ancient settlement was located many metres below the sediments. <;f. Bader, unpublished.

18 See Schiestl and Seiler, *The Handbook of Pottery*, published in Vienna in 2012 for a good start.

19 Gosselain, "Materializing Identities: An African Perspective".

2 Case Study 1: Ihnasya al-Madina/Herakleopolis Magna vs. Dayr al-Barsha

2.1 *The Necropolis of Ihnasya al-Madina/Herakleopolis Magna*

First Intermediate Period through early Middle Kingdom material was excavated in the necropolis of Herakleopolis Magna from 2000 to 2013, by Carmen Pérez Díe.²⁰ The necropolis is situated close to the entrance of the Fayum just a few kilometres south of Sedment,²¹ which has a more modest cemetery of roughly the same period but with a different architectural and topographical lay-out. A few rock-cut tombs and numerous shaft tombs of variable depth (between 0.76 m and 4.57m²²) were built there.

The necropolis of Herakleopolis is laid out in parallel 'streets' running east- west with the burial chambers built above ground from stone and/or mud brick. The tombs are orientated north-south with the entrance in the north. There are no shafts, presumably because the ground was too waterlogged to allow excavation to a reasonable depth. Although there are more than 27 names and titles preserved on the false door stelae, no king's name or titulary appears on them.²³ The titles of the deceased await final publication. Offering tables and the false door stelae were placed outside the burial chambers, seemingly in the open. The pottery found was deposited around or close to those stelae, but rarely in situ in the tombs because they had been robbed and partly burnt.²⁴ In one area (C15) a vertical sequence of strata was excavated and contained mostly ceramic material from the Old Kingdom to the early Middle Kingdom. This material provides a sequence of overlying tombs.²⁵ Nevertheless, this sequence of material culture from the site remains firmly relative as it cannot be associated with particular pharaohs, reigns, or dynasties.

20 For an overview and more references see Perez Die, "Ehnasya el Medina (Herakleopolis Magna). Excavations 2004- 2007 at the Necropolis of the First Intermediate Period/Early Middle Kingdom", 393- 409.

21 Petrie and Brunton, *Sedment I*; Seidlmayer, *Gräberfelder*, 247- 341; Bader, "Sedment", 209- 235, figs. 1, 4; Grajetzki, *Sedment*.

22 Petrie and Brunton, *Sedment I*, pls. 36- 39.

23 Perez Die, "The False Door at Herakleopolis Magna (1). Typology and Iconography", 357- 393.

24 Perez Die, "La necropole de la Premiere Periode Intermediaire-debut du Moyen Empire a Heracleopolis Magna-nouvelles decouvertes et resultats recents (campagne 2001)", 239-254; Bader, "The Late Old Kingdom in Herakleopolis Magna?", 13-41; Bader, "Preliminary Observations".

25 The final report for this area is being prepared for publication by B. Bader, A. Gomez Laguna, and M.C. Perez Die.

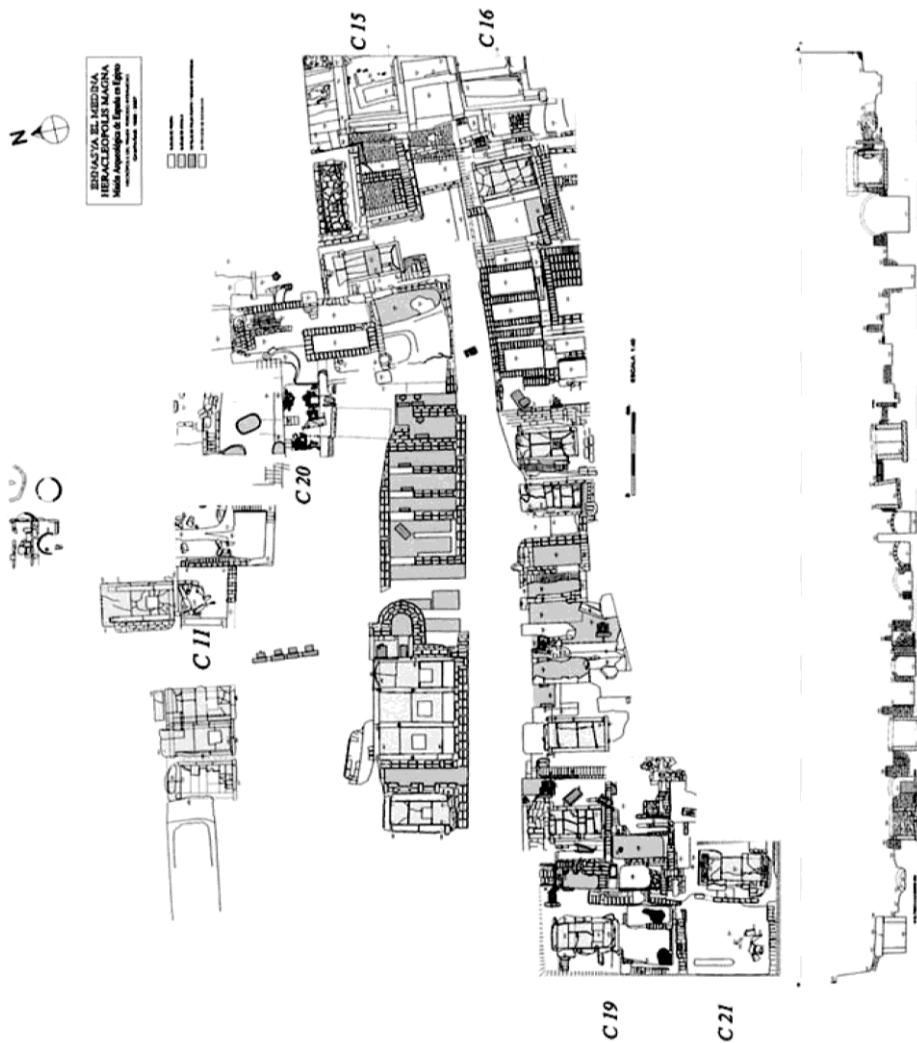


FIGURE 2.1 Plan of the necropolis at Herakleopolis Magna
After C. Perez Die 2015, Pl. 2

2.1.1 The Pottery Corpus of the Main Archaeological Phase (Late FIP/Early MK) (Fig. 2.1)

The scope of this paper only allows a cursory overview of the pottery types from Herakleopolis but does not provide space for a site specific discussion. Most open vessel shapes are covered with a dark red slip and are medium to large size bowls with direct rims of moderate wall thickness. Their rim diameters are between 18.0 and 22.0 cm but can sometimes be up to 30.0 cm. The manufacturing technology used to make them is revealed by traces of the edges of coils and a typical, almost pattern-like, trimming of the exterior of the bases with some (wooden?) tool (Fig. 2.2a). This pattern was not removed at the time of manufacture. Most of the material was made from Nile B2 or a slightly rougher Nile B2/C1 clay. Thick-walled large dishes with decorative rope impressions are

made from Nile C2 clay (Fig. 2.2b). Dishes or bowls with more complicated contours and carinations, which are derived from Old Kingdom 'Meidum bowls', also occur. This, what the author calls 'Meidum style' is characterized by a much softer fabric (not as highly fired), simpler carinations, an overall lack of high quality, and an almost metal-like polished finish (Fig. 2.2c). A variety of miniature vessels were also found, notably model jars, dishes, and squat bowls. It is important to note that most of the model dishes are flat-based (cut with a string or wire) and that the base diameter is considerably smaller than the rim diameter (Fig. 2.2d-e).

The most commonly found type of jar, or rather bottle, has slender narrow body shapes with more-or-less pointed bases (Fig. 2.2g).²⁶ Due to the manufacturing process used to make them-a hand-built base with coiling, subsequent addition of the upper part made in the same way, and then turning to finish on a turning device, these bottles look quite irregular in shape. Their rim diameters are usually between 3.0 and 5.0 cm and they have cylindrical and rather narrow and short necks. Sometimes they become narrower towards the orifice plane. The rims vary from direct to a flattened rim or have a more bulbous lip. Several examples show a lack of precision during manufacture as the folded lip does not go all the way around the rim. Most of the bottles were slightly smoothed by hand (vertically, or irregularly from below the shoulder downwards) and are red-slipped on the exterior. They are distinctly different from a rarer type of jar that has a funnel neck and that was made and finished much more carefully- although the manufacturing principles used are the same as those described above (Fig. 2.2f).²⁷ The shape of the body can vary from ovoid to shouldered. The bodies may also vary in proportion (Fig. 2.3a). Very typical for the site corpus from this cemetery at Herakleopolis are medium to large beakers in two variants: entirely handmade with vertical striations (Fig. 2.3b) and a handmade base with coiled top that was then turned on a turn table or another turning device (Fig. 2.3d). Bread trays and tubular bread moulds of greater width than those typical for the Middle Kingdom also occur.²⁸ Rarer vessel types included hes-vases, which occur quite frequently in Sedment, and basins with a spout²⁹ (which do not). Finally, the usual marl clay vessel of this period is a pointed narrow jar with a funnel-shaped, flaring neck (Fig. 2.3c). It occurs in several variants of Marl C and other marl clay fabrics. Only one extremely rare Nile clay fabric vessel type may find parallels at Dayr al-Barsha (Fig. 2.4), which is rather tall

26 Bader, "Preliminary Observations"; figs. 2.22, 23.36, 24.54, 24.56, 24.59, 25.62, and 25.66-69.

27 Bader, "The Late Old Kingdom in Herakleopolis Magna?", fig. 6; Bader, "Preliminary Observations," figs. 2.18-19.

28 Bader, "The Late Old Kingdom in Herakleopolis Magna?", figs. 8.a-d.

29 Bader, "The Late Old Kingdom in Herakleopolis Magna?", figs. 3.j and 4.a.

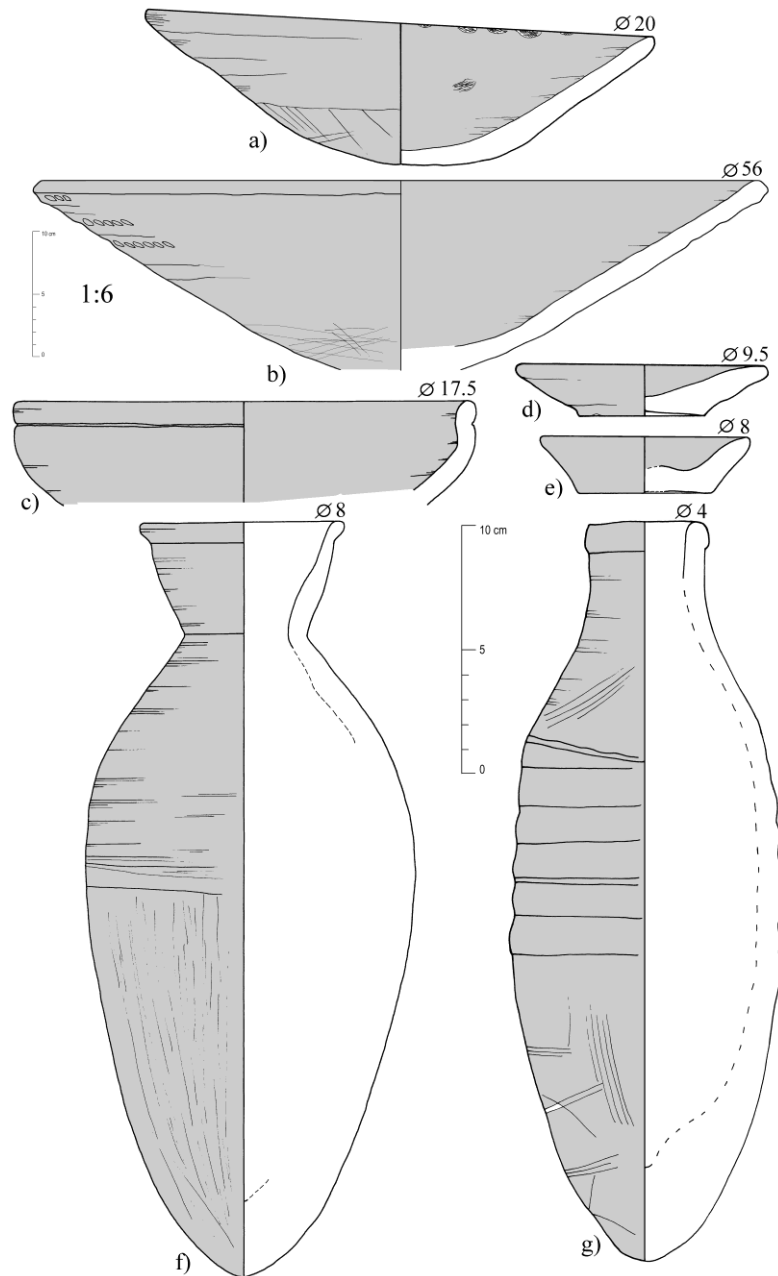


FIGURE 2.2 Pottery from Herakleopolis Magna: a) HM06-C20-U266-b103
 b) HM08-C15-UE242-b46 c) HM02-C4-un3-niv4-cap2
 d) HM08- C15-UE242-b153 e) HM02-C14-niv3-cap4-
 bn f) HM02-C14-un5-b60 g) HM09-C17-un9-b12

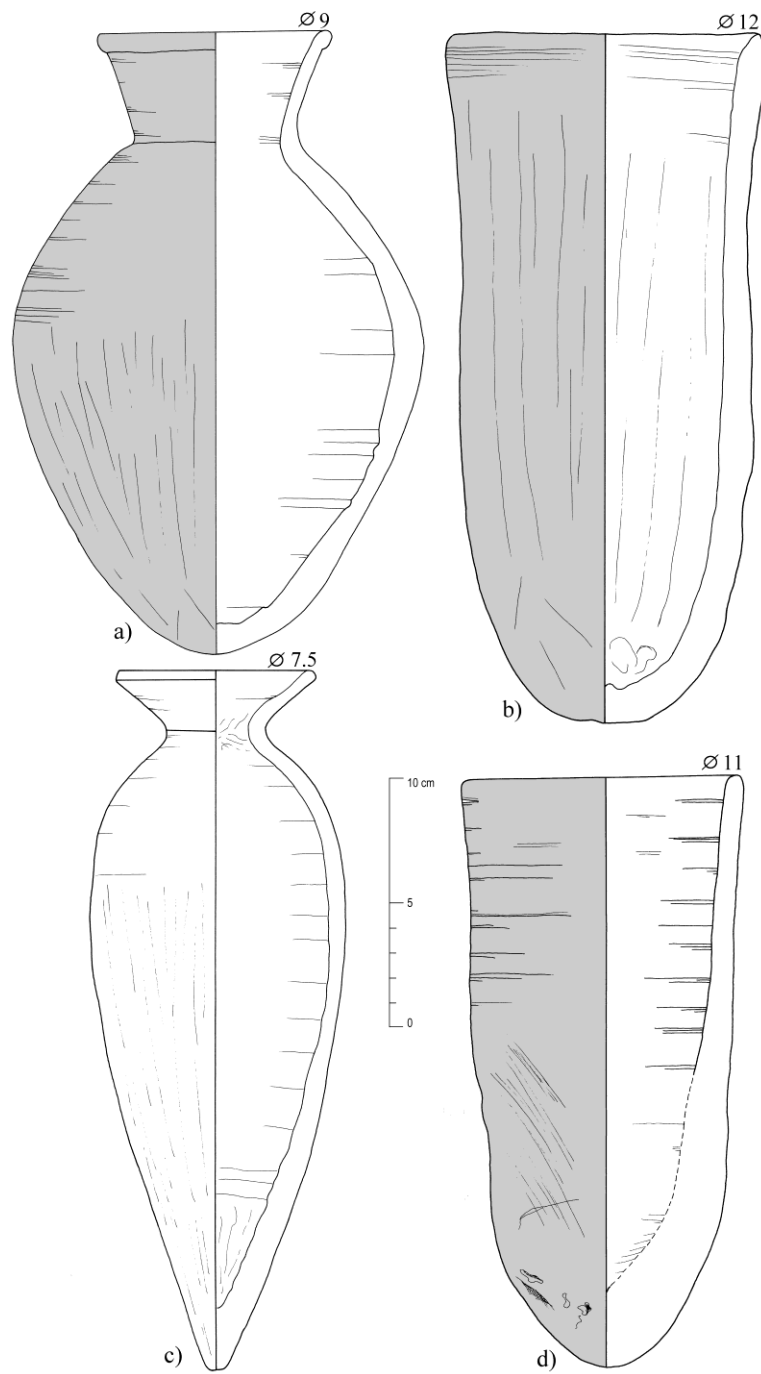


FIGURE 2.3 Pottery from Herakleopolis Magna: a) HM06-C20-Un262-b42 b) HM06-C20-un262-b90 c) HM01-C11-capa9-un5 d) HM02- C14-un5-b56

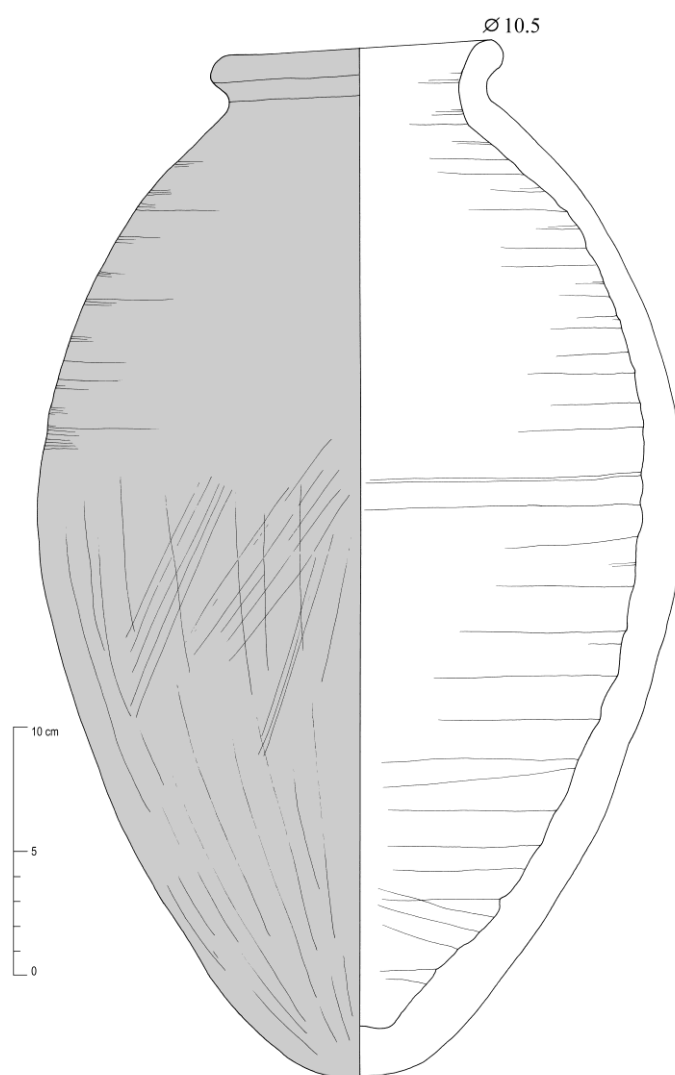


FIGURE 2.4 Pottery from Herakleopolis Magna: HM06-C20-un262-b91

(41.5 cm) and ovoid.³⁰ The majority of the vessels recovered have close parallels at Sedment³¹ and can therefore be roughly associated with the chronological sequence developed for that site by Seidlmayer.³²

2.2 *The Necropolis of Dayr al-Barsha*

The topographical situation of the necropolis of Dayr al-Barsha in Middle Egypt is entirely different due to its close proximity to the mountains on the east side of the river Nile. Rock-cut shafts and chamber tombs built for the elite dominate the cliffs, while other roughly contemporary shaft tombs were found on the desert-edge plain. They bear little resemblance to those already studied at Ihnasya al-Madina. A fundamental difference in the geographical setting exists between the two cemeteries and this resulted in different architectural solutions to satisfy ritual requirements for the burial. The pottery and other finds from Dayr al-Barsha were mostly obtained from shaft fills, which were to a greater or lesser degree relocated. A number of the tombs can be attributed to known individuals and reigns of particular kings so it is possible to associate the material culture more precisely with the chronological sequence,³³ although there is no vertical stratigraphy that could tie the material assemblages together as at Herakleopolis.

2.2.1 The Pottery Corpus from the Tomb of Ahanakht I (Late FIP/Early MK)

A significant amount of post-excavation analysis of the pottery from across the site (Fig. 2.5) has been carried out,³⁴ but this paper focuses on pottery retrieved

30 Petrie and Brunton, *Sedment I*, pl. 31, type 51c shows the same general shape and technology but is only half the size.

31 The parallels at Sedment are as follows, in typological order as mentioned: 16e-k; 7d and p with rims; 9k; large dishes Fig. 2.b do not have parallels at Sedment; 86d, n, q-u and 89b, d-k, n-w; 62c, f, j and 63k, m, s and 64b-u; 35f, m, p and 36b-o; bread trays do not occur at Sedment; 33r and 34; 83h and all variants of type 84; 9of-w. For the typology see Petrie and Brunton, *Sedment I*, pls. 34-35; for newer drawings of some of these types see Bader, "Sedment" and Op De Beeck and Vereecken, "Pottery from Sidmant and Haraga", 731-750; all early Sedment pottery in British museums has been drawn and recorded by B. Bader in the course of a Fellowship at the British Academy and is being prepared for publication.

32 Seidlmayer, *Gräberfelder*, 395, fig. 168; Bader, "Sedment", 229-234.

33 For an overview of work at the site with bibliography see Willems et al., "Report of the 2004-2005 Campaigns of the Belgian Mission to Deir al-Barsha"; and Willems, *Dayr al-Barsha I*.

34 Op De Beeck, Peeters and Willems, "Pottery from Deir el-Bersha", 237-260; Stefanie Ver-

from the shafts in the tomb of Ahanakht 1.³⁵ He was an overseer of priests, nomarch, and vizier active during the late eleventh dynasty (reign of Mentuhotep 11), after the re-unification of Egypt.³⁶ Two of the shafts with side chambers carry the numbers 17K85/1B and 17K85/1D and were recently re-excavated. The archaeological material in 17K85/1B was still uncontaminated in the lowest part of the tomb chamber,³⁷ although most of the pottery was broken and had been moved. The assemblage lends itself to a comparative study with Ihnasya as the pottery corpora are roughly contemporary³⁸ and the social circumstances of the tomb owners, in the upper echelons of society, are at least similar if not exactly the same.

The open vessel shapes identified are slightly more thickly-walled and shallower than those found at Herakleopolis. While they were mostly left *without* the application of a dark red slip, the fabric and manufacturing technology used to make them was largely the same: coiling and then turning on a turning device with a trimmed base (almost in a pattern). This was typical for that period (Fig. 2.6a) and for the early Middle Kingdom in general. The hemispherical cups recovered provide evidence that this vessel type evolved in southern Egypt, because the type was entirely lacking at Herakleopolis. Although only cup fragments were found in the shafts, there was no indication of cups belonging to the later Middle Kingdom there (Fig. 2.6d-g). The same holds true for the small hand-modelled conical cups³⁹ (Fig. 2.6h) that appear in Dayr al-Barsha⁴⁰

eecken currently analyses large quantities of material from the Old Kingdom and the First Intermediate Period.

35 Some of the material in the M FA Boston has already been published cf. Op De Beeck et al., "Pottery from Deir el-Bersha".

36 Willems, *Chests of Life*, 71; Willems, *Dayr al-Barsha I*, 84-88.

37 Willems, "Die Grabkammer des Djehuti akht (r.?) in Dayr al-Barsha"; 14 - 158.

38 Ihnasya can be tied to Seidlmayer's Sedment analysis but there are differences.

39 It remains unclear if these very small vessels should be considered as models because no normal sized examples were found for comparison. Seidlmayer's chronological result for Dendera is based on the amalgamation of many different morphological groups and he dates them from the eleventh dynasty and later: Seidlmayer, *Gräberfelder*, 118-123. This coincidental occurrence at both Dayr al-Barsha and Dendera is noteworthy because these sites are far apart, but it may be too early to use the re-unification as a *terminus post quem* for its occurrence (see Willems, *Dayr al-Barsha I*, 87). Another point is the relative isolation of the small conical beaker type at Dayr al-Barsha. A very wide range of shapes and sizes exists at Dendera, but later work in the settlement at the site did not reveal equivalent material, suggesting it belongs to the tomb repertoire above all, cf. Marchand, "Fouilles recentes dans la zone urbaine de Dendara".

40 Willems, *Dayr al-Barsha I*, 26 and 87, nos. 1106/1125/1014, pl. 57, from the tomb of Djehuti-nakht K1117Kt174/1101; Op De Beeck et al., "Pottery from Deir el-Bersha", 253, fig. 223 from the tomb of Ahanakht I excavated by Reisner.

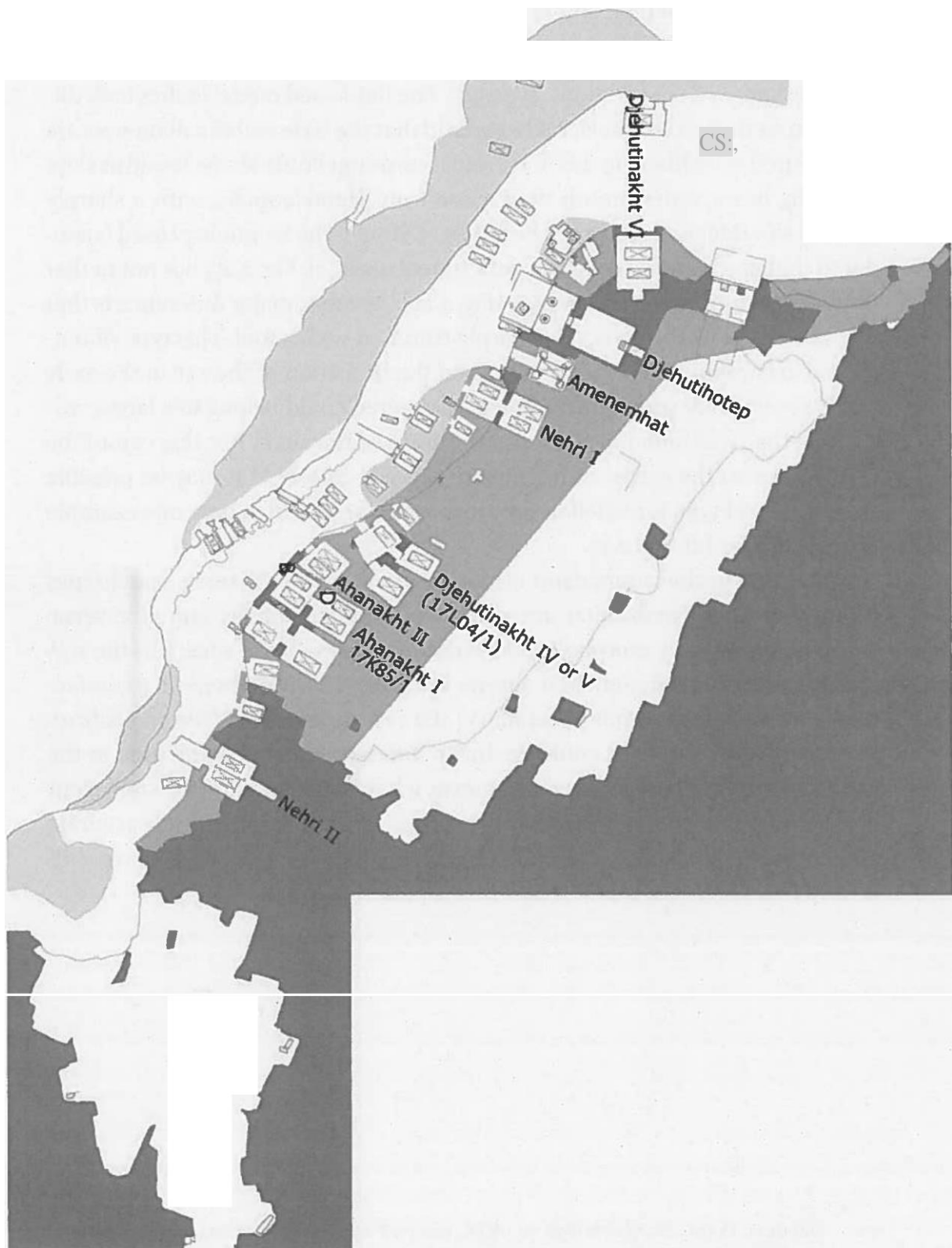


FIGURE 2.5 Plan of Zone 2 at Dayr al-Barsha
After De Meyer and Dils 2012, Fig. 1

but are missing at Herakleopolis. They seem to represent another southern tradition of pottery manufacture.⁴¹ As for model dishes, they occur with round bases (Fig. 2.6b) and this is a type not previously observed at Herakleopolis but which is known from Sedment (type 9d). The flat-based model dishes look different from those found at Herakleopolis in that the base and rim diameters are of very similar widths (Fig. 2.6c). The most common bottle shape found at Dayr al-Barsha has a wider mouth than those from Herakleopolis, with a sharply defined shoulder and elongated body (Fig. 2.6l-m). The technology used is similar to that used for the ovoid jars with funnel neck (cf. Fig. 2.2f) but not to that used for the more common bottles (Fig. 2.2g). Another major difference is that the lower edge of the lip is very sharply trimmed with a tool. This type of bottle is also common in Zone g dating from the transition of the FIP to the early M K.⁴² Several very small rim fragments recovered could belong to a larger vessel type that was found in the tomb chamber of the shaft, but this cannot be verified due to the extent of fragmentation (Fig. 2.6i-k).⁴³ It may be possible that the vessel type is related to the large ovoid jar, of which only one example is known so far (cf. Fig. 2.4).

Summing up the comparison of the pottery corpora: (i) some vessel types occur at Dayr al-Barsha that are unknown at Herakleopolis and vice versa;

(ii) some types show morphological variations between the sites; (iii) the surface treatment is different (red slip/no red slip); (iv) the observed manufacturing technology is similar overall; (v) the raw materials of Nile clay fabrics are slightly different. This could be due to different 'recipes' being used in the workshops or different geological contexts, while marl clay fabrics do not occur at all at Dayr al-Barsha. Even if the chronological match is not entirely accurate and it cannot be synchronized with reigns, the pottery repertoires seem to differ and this difference seems to last over a period of time.

41 Dendera: Petrie, *Dendereh* 1898, pi. 18.86, the pottery type is not discussed; only dated roughly to the period between Old and Middle Kingdoms; Seidlmayer, *Gräberfelder*, 120, fig. 145, group K left.

42 Op De Beeck et al., "Pottery from Deir el-Bersha", 246-247 and fig. 213.

43 Op De Beeck et al., "Pottery from Deir el-Bersha", 254-255, figs. 225, 227.

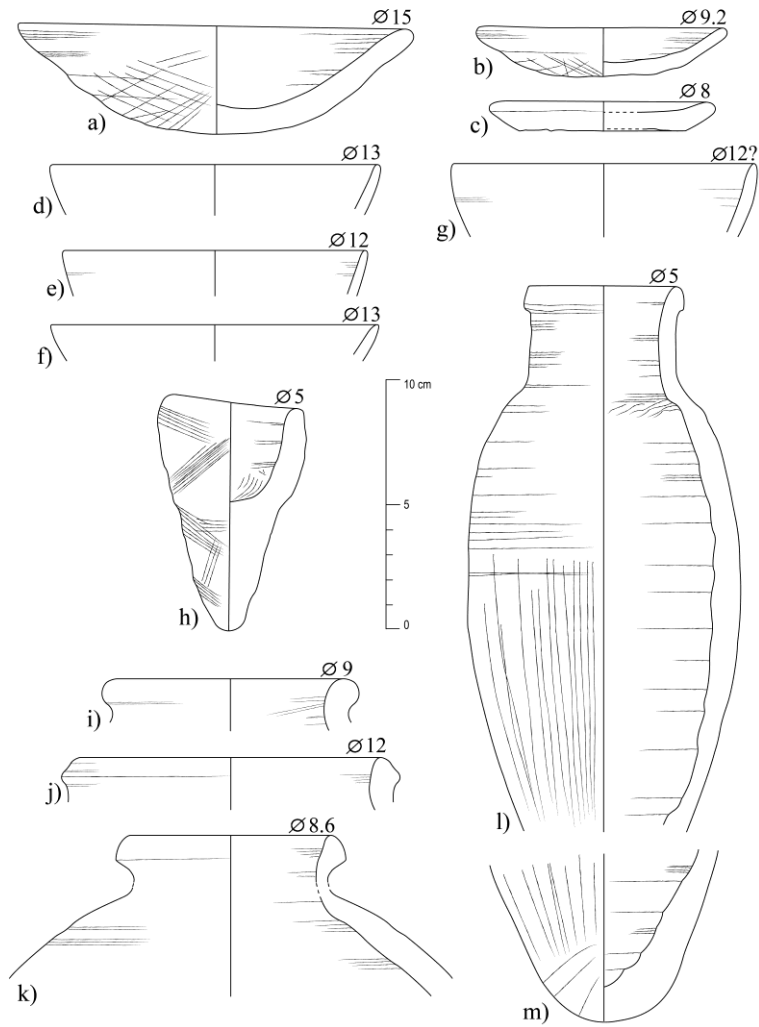


FIGURE 2.6 Pottery from Dayr al-Barsha: a) 1412/115-1 b) 1412/99-1 c) 1411/67-13 d) 1400/32-3 e) 1403/1-1 f) 1405/205-1 g) 1400/32-4 h) 1403/13-1 i) 1411/67-12 j) 1403/13-7 k) 1405/205-248 l) 1405/205-3 m) 1405/205-243

3 Case Study 2: Tell el-Dab'a/Avaris and Kom Rabia/Memphis

The second case studied concerns the late Middle Kingdom and the beginning of the Second Intermediate Period in the north eastern delta and Memphite region. Previous work suggests that regionalization of material culture occurred again in the late Middle Kingdom. This is especially visible in the pottery repertoires from various sites excavated.⁴⁴

Some difficulties are encountered when undertaking a comparative study of material culture such as that based on pottery repertoires from the settlements of Kom Rabia and Tell el-Dab'a. One of the main problems in synchronising the sequences is that conventional *historical points* in time such as the beginning of the Second Intermediate Period or the beginning of the eighteenth dynasty are not clearly reflected in the material culture⁴⁵ because the changes/development taking place were most likely gradual *processes* rather than radical breaks.⁴⁶ Further, these historical points are retrospect as is the division in dynasties and kingdoms. In addition, instances where ceramic material was found undisturbed in-situ together with structures datable to particular reigns are very rare.⁴⁷

Three different settlement areas dating from the late Middle Kingdom to the end of the Second Intermediate Period were used to construct the sequence for Tell el-Dab'a.⁴⁸ No single area was entirely made up of settlement layers, but each included different context types such as temples, palaces, and cemeteries. As the archaeological remains in Kom Rabia were clearly from a settlement context, the comparative material selected from Tell el-Dab'a had to reflect that type of assemblage. In turn, the archaeological exposure at Kom Rabia in

44 Cf. Bourriau, "Relative Chronology"; Bader, *Tell el-Dab'a XIX*; Bader, "A Tale of Two Cities: First Results of a Comparison between Avaris and Memphis"; 249-268; Bader, "Avaris and Memphis in the Second Intermediate Period in Egypt (ca. 1770-1550/40 Bc)", 207-224; Ayers, "Settlement Pottery from the early Second Intermediate Period at Tell Edfu"; 27-45; Seiler, "The Second Intermediate Period in Thebes: Regionalism in Pottery Development and its Cultural Implications", 39-53.

45 Aston, "New Kingdom Pottery Phases as Revealed by well-dated Tomb Contexts", 142, 145; Hein, "Untersuchungen und vorläufige Bilanz zur Keramik aus cEzbet Helmi, speziell Areal H/V", 138-140; Bourriau, "Beyond Avaris: New Historical and Archaeological Perspectives", 159-182. The same holds true for the classic Middle Kingdom cf. Seidlmayer, *Gräberfelder*, 439; Arnold, "Pottery", 146.

46 But breaks have been observed e.g. at Tell el-Dab'a at the transition from Phase E/3 to E/2 - 1, cf. Bietak, Forstner Müller and Mlinar. "The Beginning of the Hyksos Period at Tell el-Dab'a: A subtle Change in Material Culture", 171-181.

47 So far the only well dated find relevant here is at the Pyramid of Amenemhat III, cf. Arnold, "Keramikbearbeitung in Dahschur 1976- 1981".

48 Bader, *Tell el-Dab'a XIX*, 43-50 with an extensive bibliography for the site.

the lowest levels consisted of a trench of approximately 5.0 m by 25.0 m, and thus the exact nature and layout of the settlement structures being excavated remained quite unclear.⁴⁹ Nevertheless, a very large quantity of ceramic material and other objects were recovered from this trench.⁵⁰

The paradigm that similar material dates to similar periods, even if no other independent dating criteria (relative or absolute) are present, was applied in order to synchronize the beginning of the late Middle Kingdom sequences (Fig. 2.7). The sites are in close spatial proximity and the material could also to be compared to assemblages from the nearby pyramid complex of Amenemhat III at Dahshur.⁵¹ These circumstances favour the use of this paradigm to synchronise the beginning of the late Middle Kingdom sequences.

The comparison between the ceramic sequences of Tell el-Dab'a and Kom Rabia had to be made by typology rather than by context due to the nature of the data set. The most frequently found pottery types including hemispherical cups, so-called 'beer' jars, and Marl C pottery were first analysed in order to match-up the morphological development of their sequences over time.⁵² The result of this approach was that level VIII of Kom Rabia and Phase G/4-3 of Tell el-Dab'a could be paralleled with Complexes 3, 4 and 6 at Dahshur due to the similarities between the pottery assemblages. As well as the hemispherical cups, the rough Nile C 'beer' jars helped equating the beginning of the sequences, although ceramics from the very beginning of the sequence were not well represented at Kom Rabia.⁵³ It should be mentioned, however, that the 'levels' or 'phases' for the sites remain abstract, because it was not possible to estimate absolute durations of use or to judge whether they lasted for similar lengths of time.⁵⁴

After this phase discussed above, in Phase G/3-1 at Tell el-Dab'a that is equated with Level VII in Kom Rabia in the current study, subtle differences in some vessel types began to show. These differences consist of quite small features in morphology and technology, e.g. a very long, folded lip in kettle 'beer' jar rims (Fig. 2.8)⁵⁵ that has not been paralleled at other sites so far.

49 Bader, *Tell el-Dab'a XIX*, 50-57; Giddy, *Kom Rabi'a: The Late Middle Kingdom Settlement*.

50 Bourriau and Gallorini. *Survey of Memphis VIII*; L. Giddy is currently preparing the volume on the objects from this excavation.

51 Arnold, "Dahschur"; Arnold, "Pottery Use and Disposal in a "Priest's House" at Dahshur", 161-183.

52 Bader, *Tell el-Dab'a XIX*, 149-186, 199-243, 680-707.

53 Bader, *Tell el-Dab'a XIX*, 187-199; Bourriau et al., *Kom Rabia VIII*, 39.

54 In this respect, the chart in fig. 2.7 is idealised.

55 Bader, *Tell el-Dab'a XIX*, 176, fig. 189.

Syria-Palestine	B.C.	EGYPT RELATIVE CHRONOLOGY		TELL EL - DAB ^{CA}	KOM RABI ^{CA}	DASHUR
		Memphis	Delta	PHASES	LEVELS	COMPLEXES
	1410					
LB I	1440		All	C / 2		
	1470	XVIII	H TIII	C / 3		
	1500		TII TI	D / 1		
	1530		AI			
MB II C (MB III)	1560	AHMOSE		D / 2	V ? VIa VIb	
	1590		XV HYK-SOS	D / 3		
MB II B (MB II)	1620	XIII		E / 1	VIc	
	1650			E / 2	VId	
	1680		King dom of AVARIS	E / 3		
MB II A-B (MB I-II)	1710		NEHESI	F	VIe	
MB II A (MB I)	1740	XIII		G	VII Ost + West	7
	1770			G / 4	VIII ?	Hiatus?
	1800		So A IV	H		3, 4, 6
	1830		A III	I		
?	1860		S III	K		
	1890	XII	S II A II	L		
	1920			M		
	1950		S I A I	N		
	1980			N / 2-3		
	2000	XI				
MB I (EB IV)	2050	X				

adapted from BIETAK (2011)

adapted from **BIETAK** (2011)

FIGURE 2.7 Comparative stratigraphy of Tell el-Dab'a, Kom Rabia and Dahshur based on Bietak 2011

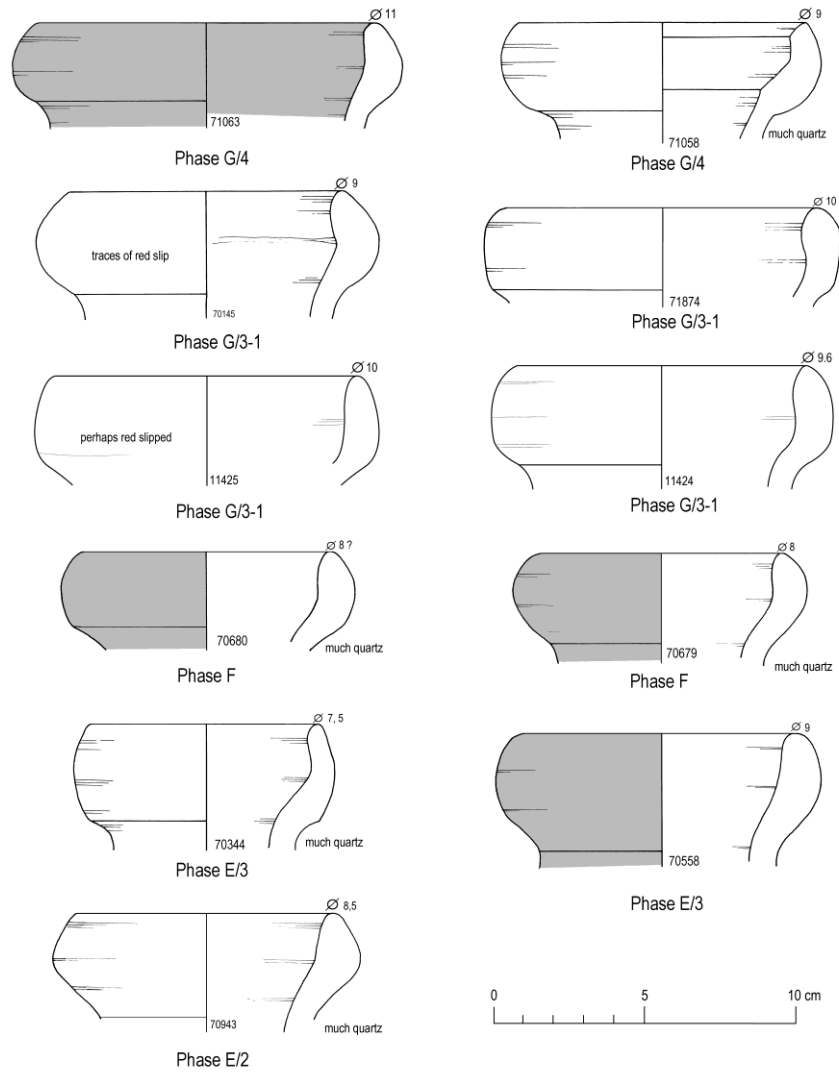


FIGURE 2.8 'Beer' jar rims from Tell el-Dab'a with wide folded kettle rim

A much higher proportion of quartz particles was also found in the Nile C fabric than was the case at Kom Rabia.⁵⁶ This characteristic may have been caused by the local geology and the proximity of the *gezirahs* at the bottom of the settlement in the Delta, but because not all Nile clay fabrics show this same degree of sandiness, even at Tell el-Dab'a, it was very likely added during the production process.

A striking difference was the presence of many different pottery types in low percentages at Kom Rabia, as opposed to a more restricted type repertoire in higher percentages at Tell el-Dab'a.⁵⁷ The almost total absence of bread moulds and so-called meat containers at Tell el-Dab'a, which appear at Kom Rabia in quite high percentages, proved to be another difference.⁵⁸ This may reflect a functional or organisational difference between the settlements. Unfortunately, little is currently known about settlement function or variations in functions for the general period studied.

During the very ill-defined transition from the late Middle Kingdom to the early Second Intermediate Period, the pottery repertoires at Kom Rabia and Tell el-Dab'a drifted apart even more as morphological variety developed. The 'type fossils' present no exception to this rule. The development of the shapes of hemispherical cups took different directions (Fig. 2.9) and the bases were trimmed in different ways. A jar rim type belonging to the 'beer jar' typology⁵⁹ (Fig. 2.10, right bottom) based on fabric, firing technology, surface treatment, and also quantity is only known to have existed at Kom Rabia to date. The fact that it appears quite early in the Memphite sequence, namely in Level VII,⁶⁰ and apparently neither at Dahshur nor at Tell el-Dab'a or further south, seems to demonstrate that development in the Delta diverged from elsewhere. As for Dahshur, the data suggests that the sequence came to an end there before the type was in use, or that despite the short distance, another line of development has to be assumed. Currently, there is no evidence to support the latter proposition. Another type of 'beer' jar neck/rim is known to have developed, although

56 Bader, *Tell el-Dab'a XIX*, 622-628.

57 Best depicted in Bader, *Tell el-Dab'a XIX*, 559- 601.

58 Bader, *Tell el-Dab'a XIX*, 367- 369, 374-377 type 375; Bourriau et al., *Kom Rabia VIII*, 3-4, type 506.

59 Bourriau et al., *Kom Rabia VIII*, e.g. fig. 94.19.95.95-19.95.12, photo on pl. 92.g; Bader, "Tale of Two Cities "; Bader, *Tell el-Dab'a xix*, 160-183, 364.366, fig. 214.167e.

60 According to the sector division of the final publication these rims start to appear in Level VII and infrequently in sectors NE, NC3 and NC2. In sector NW they only appear in level VIe and VIId but are most frequent there.

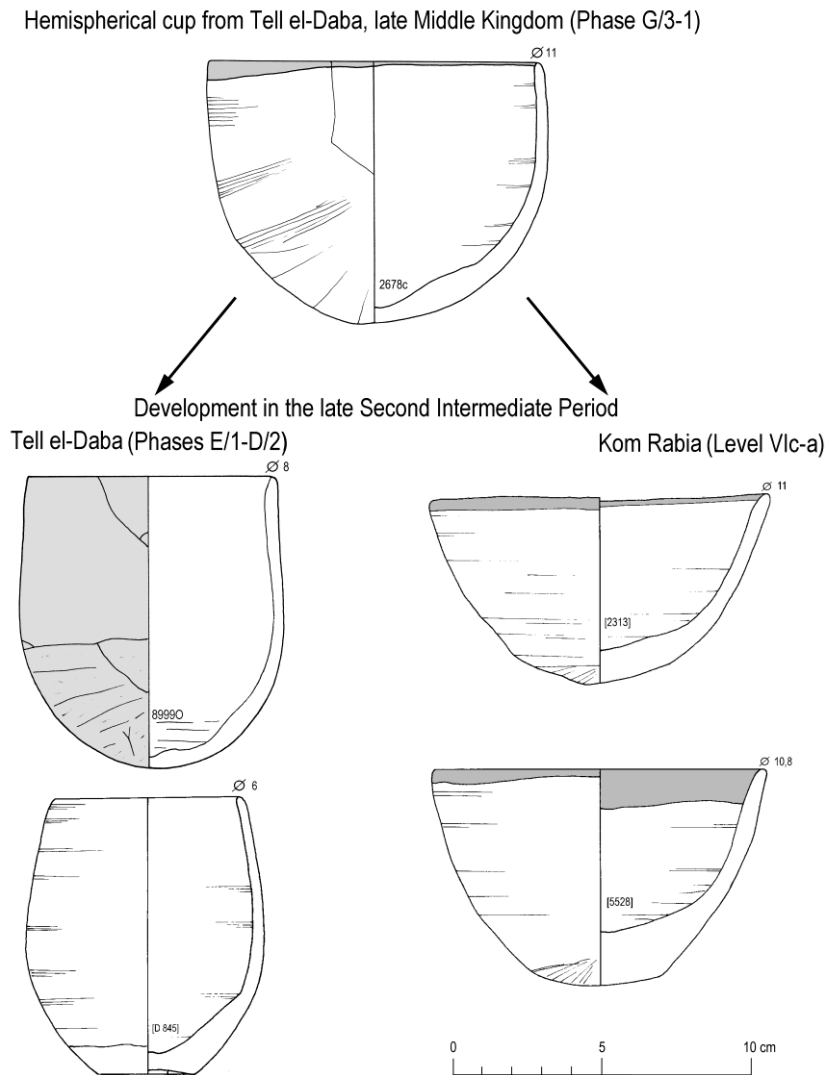


FIGURE 2.9 Development of hemispherical cups in Tell el-Dab'a and Kom Rabia

so far it has only been found in tombs in Thebes.⁶¹ This detail helps to build up a better picture of the regional variety of this very widespread pottery type.

The ceramic repertoires of Tell el-Dab'a and Kom Rabia developed in quite independent ways after the late Middle Kingdom which made it increasingly

61 Seiler, "Regionalism"; fig. 4.1-2; Bader and Seco Alvarez, "Results of Five Years", fig. 18.f-g.

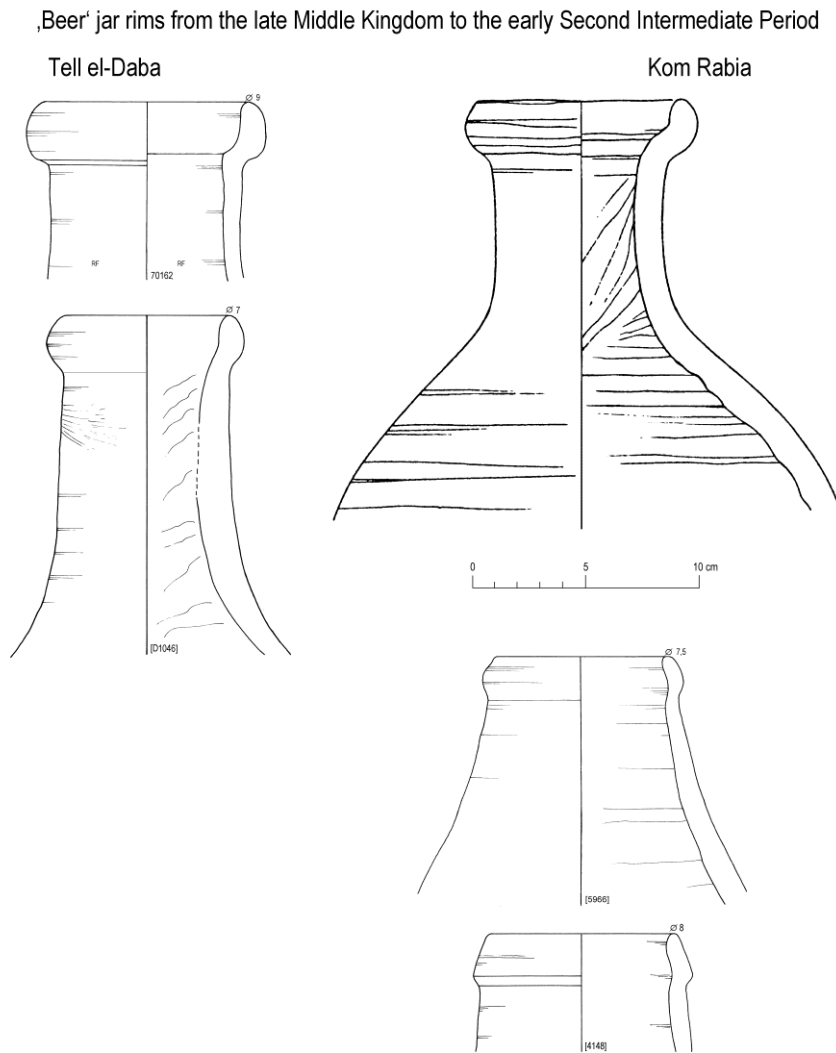


FIGURE 2.10 'Beer' jar rims from Tell el-Dab'a and Kom Rabia

difficult to compare the data sets. The challenges include:⁶² far fewer Syro-Palestinian imports at Kom Rabia, including amphorae, burnished juglets, and Tell el-Jahudiya ware. There is also no Middle Bronze Age cooking pottery, and except for a few dipper juglets and other juglets no local copies or imitations⁶³ of the Middle Bronze Age corpus were present. At Tell el-Dab'a, the typical beer jars were replaced by other closed Nile B2 vessel forms by the later Second

⁶² Bader, *Tell el-Dab'a XIX*, for the details of these types.

⁶³ For the definition of these see Bader, "The Imitation Game", in press.

Intermediate Period Phases E/1-D/3, whereas they continued in use into the New Kingdom at Kom Rabia.⁶⁴ These issues severely complicate the synchronisation of the contexts/sequences from different regions. The problem is exacerbated by the high degree of fragmentation of pottery in settlements, leading to problems in identification of types present and in deciding from which point onwards a type is residual.⁶⁵

The tentative correlation between the relative levels at Tell el-Dab'a, Kom Rabia, and Dahshur is shown in Fig. 2.7. Future work will be able to refine and expand this relative chronological scheme and to this end the author initiated the comparative project *Beyond Politics: Material culture in the Second Intermediate Period, Egypt and Nubia*.⁶⁶ This project will analyse the material culture of the SIP in their contexts at a number of sites all over Egypt and Nubia in order to gain better insight into local developments and create local relative chronologies based on all types of material culture occurring in context. This analysis will initially treat the material culture independently from any dynastic system, where this cannot be narrowed down with certainty. Dynastic assignments seem to be counterproductive, especially during the course of the later SIP out-side the centres of Thebes and Avaris. The work will also show whether regional differences can be identified in other object classes.

4 Discussion

In considering *why* these pottery repertoires might differ from each other, it must be said beforehand that there is no comprehensive answer covering both case studies. The first step in the analysis is a survey of what is currently known about the organisation of pottery production in Egypt. Scenes of pottery-making occur in some tombs from the Old Kingdom and this continued through the Middle Kingdom, when wooden models also appeared. The last known scene is from the tomb of Qenamun (eighteenth dynasty-Amenhotep II).⁶⁷ A survey of scenes and models was compiled from all the available sources.⁶⁸

64 Bourriau, *Kom Rabia: The New Kingdom Pottery*, level v and IV, fig. 6: bottles; fig. 17: bottles, residual.

65 Cf. Bader, "Processing and Analysis of Ceramic Finds at the Egyptian Site of Tell el-Dab'a/Avaris ("eves" and other strange animals)", 209-233.

66 Project no Y754-G19; www.oea.oeaw.ac.at/forschung/material-culture-in-egypt-nubia/

67 After this time, the pottery-making scenes show mainly Khnum, who fashions mankind in the widest sense.

68 Holthoer, *Pottery*, 5-37; For some different interpretations see Bourriau, Nicholson and Rose, "Pottery", 135-136.

From this corpus of evidence it seems that the workshops were usually shown in an assembly line lay-out, although it is unclear whether the sequence shown is temporal or spatial. The number of people involved in the fabrication process therefore remains unclear. While some of the tomb scenes show up to 17 people (e.g. Beni Hasan),⁶⁹ pottery workshop models only show two or three.⁷⁰ The 17 might all have worked at the same time or the scenes may represent the same two or three people shown working on several different tasks. This makes interpretation of the scale of production difficult.⁷¹ In some pottery workshop models the potters sit outside the workshop building, while workers are engaged in other trades inside.⁷² It is, therefore, possible that pottery making did not always or usually take place within a formal pottery workshop, which has immediate implications for the visibility of pottery workshops in the archaeological record.

Previous scholarship has questioned how much information on the economic circumstances, organisation, or industrial scale of production can really be gleaned from these scenes, because their purpose was to serve the deceased tomb owner in the netherworld.⁷³ On the other hand, it seems reasonable to assume that these scenes are modelled on situations seen in the real world. If this line of thought is followed, it may be reasonable to say that the scenes reflect the mode of pottery production considered 'normal' during the Old and Middle Kingdoms, when the tomb owner's estate or the royal estate for which the tomb owner was working included pottery workshops. If this is valid, then there must have been quite a large number of such workshops altogether, and they would not necessarily all have produced exactly the same vessels in terms of shape, raw material, manufacturing technology, and morphological details. Thus, differences would not be the result of centralised or pre-planned political control (at the residence) but be due to decisions taken on a more practical and administrative level and on smaller scale, even if the existence of some larger and perhaps specialised (e.g. using marl clay) (manu)-factories cannot be ruled out. For the purposes of the argument presented here, the existence of additional workshops of whatever size or specialisation do not pose a problem. Pottery vessels may even have been made in the 'back yard' if particular vessels were needed quickly or if there were other households eager to use these

69 Holthoer, *Pottery*, figs. 14-15.

70 Holthoer, *Pottery*, 10-11.

71 Drenkhahn, *Handwerker*, 156-159 thinks there are many workers who practiced with a division of labour.

72 Bourriau et al., "Pottery", 136.

73 Bourriau et al., "Pottery", 135-136.

products. Unfortunately, contemporary variation in pottery corpora from single sites is not well studied.

The last known pottery workshop scene in a tomb context was in the tomb of Qenamun, so it is possible that during the eighteenth dynasty the organisation of production had become a larger scale enterprise that operated in a different mode. This would fit the fact that differences are less obvious in the New Kingdom pottery corpus than they were before.⁷⁴ It is also possible, however, that the disappearance of pottery workshop scenes was related to a change in tomb decoration programmes.⁷⁵ It is known that no more daily life scenes occurred during the nineteenth dynasty due to differences in the underlying belief system. The current author considers the hypothesis of a change in production mode to be entirely speculative, although the ceramic material in the mortuary temple of Thutmose III shows some indications of industrial manufacturing mode.⁷⁶

The lack of archaeological evidence for pottery workshops, especially from before the New Kingdom, is a severe set-back for the study of the subject area, but it seems to be connected to the low archaeological profile of such installations, especially if they were small. The presence of kilns/firing installations and turning devices would have been necessary, but there is a lack of excavated settlements in general.

The textual sources from the Middle Kingdom are neither very clear nor plentiful. One compounding issue is that *qd* means either 'builder of walls' or 'potter' and only the addition of *nds* clearly identifies a potter. This assignation is typically missing on stelae. The preserved texts are either literary in nature (satire of trades⁷⁷) or are from the planned settlement of Kahun⁷⁸ where more strictly organised procedures may be expected. But this evidence does not provide information on the organisation of pottery production in other types of settlements and in other parts of Egypt

74 Especially from Phase 2A (Hatshepsut/Thutmose III) onwards. Cf. Aston, "New Kingdom Pottery Phases", 145.

75 Cf. Manniche, "The So-called Scenes of Daily Life", 42-45.

76 Bader et al., "Results of Five Years".

77 Holthoer, *Pottery*, 17-18.

78 Stefanovic, "A Note on the Middle Kingdom Potters".

5 Conclusions

Obvious differences between the choices of pottery types in the first case study suggest that they are the result of either an underlying functional/ritual or organisational difference, particularly in the provision of pottery for the mortuary cult. It is, however, more difficult to interpret the more numerous and subtle differences observed in the second case study.

Vessel shape repertoires differ between settlements and tombs,⁷⁹ so it is important to compare like with like. It would, however, be desirable to have settlements and tomb repertoires at the same location in hand in order to confirm if this is a general rule at every site.

The differences observed between pottery repertoires in the first study are emphasized in part because of the sites' proximity to the 'Upper and Lower Egyptian divide'.⁸⁰ If such a difference is interpreted from a political view point it would result in the suggestion that uniformity in paraphernalia for the mortuary cult ended after the late Old Kingdom due to political fragmentation of the country. During the First Intermediate Period, independent regions then developed their own versions of cult vessels for the mortuary cult, and the variation probably included architectural features and the general lay-out of tombs. The development of tomb architecture is quite different in various places and the reasoning needs also include local topography and social circumstances and variation should not be ascribed solely to political developments.⁸¹ It may be possible then that pottery manufacture developed variety due to local social factors more than political ones. Social factors would include the way knowledge like craft working traditions was transferred between generations or moved between regions. The extent to which pottery production was initiated and governed by a local 'potentate' across an area congruent with a 'region' remains questionable.⁸² In conclusion, it seems unlikely that local pottery production would correspond to a political sphere of influence, because socio-economic and other structural considerations also need to be taken into account.

79 Bourriau, "Cemetery and Settlement Pottery of the Second Intermediate Period to Early New Kingdom".

80 Seidlmayer, *Gräberfelder*, 394 - 397, 438-439.

81 See Seidlmayer, *Gräberfelder*, 398-412, esp. 400, and 431- 442.

82 Seidlmayer, *Gräberfelder*, 438 "Der Formwandel in den Dorftöpfereien Oberägyptens hat mit dem Wachstum der politischen Ambitionen der oberägyptischen Gaufürsten nichts zu tun".

Turning to the second case study, the differences observed were quite different in nature. In addition to different vessel types being present at both sites, similar pottery types of presumably similar use differed in several respects. Morphological details, raw materials, and manufacturing details all showed variation. Contrary to the author's previous interpretation⁸³ of the causal factors behind change, it now seems that a mainly political hypothesis for the changes in pottery manufacture and use observed between different regions is too simple and monocausal an explanation. It seems more likely that the tendency to use materials and objects in a certain way-as seen in adjustments of objects by use traces- is rarely based on a single incentive. Many different influences play a role in the production of pottery and in its use and as long as there is so little known about possible types of settlements (planned for certain tasks versus self-organised ones) and their contents and organisation, it is difficult to provide clear arguments as to why such differences exist.

The degree of uniformity in (residential?) pottery production in periods of political stability has to be tested in detail and depth before any solely political explanation can be proposed. The evidence from tomb depictions suggests more local variation than hitherto acknowledged. To date, there are too few securely dated twelfth dynasty pottery assemblages published in sufficient detail to consider all the factors outlined above.

The widely differing features of local pottery productions during the (First and) Second Intermediate Period are evident and recently became more widely known, mainly because the variety creates considerable difficulties when synchronising local sequences of sites. If there is already a certain degree of variation visible in pottery repertoires during politically stable periods, there is additional reason to seek a much wider range of interpretation for less stable periods.

It seems doubtful that pottery production was a domain managed by the Middle Kingdom palace culture, but more evidence needs to be uncovered in order to develop a clearer picture of the organisation and distribution of the ubiquitous products of this craft. Variation may have developed due to a higher number of workshops in private estates, in royal estates, in -planned settlements, as well as in self-organized ones. Household production may also have played a larger role than is currently acknowledged. Even if only some of these factors are valid, they create a situation with much more variation than has hitherto been acknowledged.

83 Bader, *Tell el-Dab'a XIX*, 680; Bader, "Avaris and Memphis".

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