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REMOVE THAT PYRAMID!

Studies on the Archaeology and History of Predynastic and Pharaonic Egypt in Honour of Stan Hendrickx

edited by

WOUTER CLAES, MARLEEN DE MEYER, MEREL EYCKERMAN and DIRK HUYGE^{\dagger}



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IX

HIGH AND LOW CUISINE IN LATE MIDDLE KINGDOM EGYPT: WHO IS THE COOK? AND WHO MADE THE COOKING POT?

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> This article is written with great pleasure to celebrate Stan Hendrickx, who is a most delightful colleague to work with and to learn from. As he does not mind to engage with a whiff of the 'spirit of contradiction', I hope this article finds his interest, although it is outside the chronological scope he especially likes to delve into.

This article discusses cooking pottery as expression of group identity in the Egyptian context in the late Middle Kingdom and the Second Intermediate Period. While evidence is not abundant in all regions and periods, the data available from Tell el-Dab'a, Memphis and more limited Elephantine are gathered to identify which cooking pots are used in the Delta and/or further south. Thus, five cooking pottery types are presented, three of which are influenced by Syro-Palestinian and two by Egyptian traditions. The restricted bowl with folded rim used as cooking pottery ('hole-mouth' vessels) derived from Egyptian tradition is overwhelmingly more frequent and longer in use than the others. This cooking pot type is the only one in the mixed/entangled pottery repertoire of the late Second Intermediate Period at Tell el-Dab'a. The article outlines the research history and quantity of these pottery types, discusses parallels in Syria-Palestine and Egypt, and traces possible precursors in both traditions. In Middle Bronze Age IIA Syria-Palestine no hole-mouth vessel shape was used for cooking, but rather a different type with upright or gutter rim. Thus, the entangled/mixed community at Tell el-Dab'a knew and used a small proportion of non-Egyptian cooking pots, but the majority belonged to the Egyptian tradition, demonstrating the material and/or relational entanglement at the site.

Introduction

Egyptian archaeology increasingly takes part in theoretical approaches derived from social anthropology, and in research into some areas of cultural behaviour as reflected in the archaeological record. Interest in the identities of individuals (e.g. Insoll 2007) and their material worlds, interconnections between Egyptians and neighbouring countries, as well as immigration of non-Egyptian people into Egypt as attested in Egyptian texts, opened the question how non-Egyptians might be identified in the archaeological record if the culture-historical

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paradigm and the one-to-one connection between certain objects and individual identity are abandoned (Jones 1997; Bader 2012; 2013a; 2017; Matić 2017). Beside language, funerary ritual and the modalities of exposure to cultural contacts, food-ways have been considered as a social behaviour which may provide indicators of a socially induced group identity and therefore represent a non-Egyptian group identity that can be recognised in the archaeological record (Smith 2003; Hubschmann 2010: 184–185).

Behaviour connected to food production, distribution, preparation and consumption are important socio-cultural areas in which group identity is forged and maintained (Villing & Spataro 2015). Following this approach, the use of material items connected to this essential behaviour is seen as a vital and selfchosen expression of belonging to a group. Beside sleep, food is the most important factor in keeping humans alive, and thus also the group (Goody 1982: 12–17, 37). Although ideally the entire context of food production, distribution, preparation and consumption needs considering to better understand group identity (Goody 1982: 40-48), only one aspect can be discussed here. While food preparation and eating are considered as very traditional 'ways of doing things'—a part of the human habitus, which influences social behaviour—they are also creative and therefore subject to change over time (Villing & Spataro 2015: 13). The cuisine and related items allow vital insights into the identity of people, who eat certain foods cooked in certain pots in a culturally prescribed way. One of the fixed opinions in this field is that women did the cooking in pre-modern societies (Goody 1982: 68, 100-101; Villing & Spataro 2015: 14-15),¹ necessarily with exceptions in expeditions and military campaigns in Egypt. The other preconceived notion surrounding the cooking pot discussion is that if non-local cooking pots are found in an archaeological context, there must be migrants involved as nobody would give up their way of eating (Smith 2003). Whilst this certainly is one possibility, a careful consideration of all factors constituting the larger context of food-ways is necessary to come to an informed conclusion.

The reason for going into greater detail with the existing cooking pot typology in the late Middle Kingdom (MK) and the Second Intermediate Period (SIP), is that the discussion about the contexts of these finds is frequently too brief and has never been considered with a view towards behaviour in contact situations between cultural traditions and how that might change opinions. The conceived presence of immigrants at Tell el-Dab'a in the northeastern Delta relies on the reported presence and rapid increase of Middle Bronze Age

¹ It is interesting to observe, however, more male involvement in industrial food production, as on a tomb owner's estate. In many tomb scenes men are depicted preparing the food. Thus, the opinion that only women prepare the food falls a bit short. More gender related research will clarify this point.

(MBA) pottery imports² and locally produced copies (Bietak 1991a: 38), among which are also cooking pots (Yasur-Landau 2010: 21–22). However, several types of cooking pots with various backgrounds were used at Tell el-Dab'a from the early MK onwards up to the early New Kingdom (NK), and research has shown that the appearance and development of these types has to be differentiated. Exceeding generalisation leads to a simplistic culture-historical 'pots = people' perspective, which misses the shades in between. Research on eating and cooking habits in MK Egypt is caught in the general lack of settlement excavations with cooking installations and thorough treatment of cooking vessels, as there are not even many depictions of cooking in funerary art in this period (see below).

Identification of cooking pots: Shape and use traces

First, criteria for the identification of cooking pots need to be established, and ensuing problems addressed (Sinopoli 1991: 14, 84; Bader 2013b: 4–13; Jauss 2018). Although certain vessel shapes work better than others (Sinopoli 1991: 14; Rzeuska 2013: 74), there is no immediate necessity for cooking pots to have a certain form. While it is admissible to term a vessel a cooking pot if a fair percentage of the specimens is burnt, others may have been used in an *ad hoc* manner with regard to typology or clay fabric (e.g. Nordström & Bourriau 1993: 179, fig. 22; Rzeuska 2013: 87–97). The usual fragmentary state of cooking pots derived from settlements, prevents intimate knowledge of form variations, the form of bases, or the presence of handles, as rims predominate.

Criteria

- Sooting, smoke-blackening or burning of a vessel when exposed to open fire serve as indicators; the position of these marks provides evidence on the cooking method (Rzeuska 2013: 83–84; Lis 2015: 106–108; Jauss 2018).³ *In situ* findings of pottery in a hearth are unfortunately rare.
- 2) The fabric needs to be resistant to thermal shock/stress and, thus, enable expanding and shrinking due to heat exposure. Required are porous fabrics (burnt out organic matter) or fabrics with irregularly-shaped temper, the

² A priori and beyond historical sources this represents only proof for commodity exchange between Syria-Palestine and the Egyptian Delta, and more precisely one side of such exchange.

³ Intensive conversation with Vera and Ludwig Albustin, potters working for many years in experimental archaeology (mostly European prehistory), clarified that repeated exposure to fire/ coals does not always result in sooted and smoke-blackened bases, but may lead to (re)oxidation of the black soot resulting in brownish crusts on the base and blackening further towards the top of the vessels. Personal communication January 2020.

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smaller the better (Bronitsky & Hamer 1986; Sinopoli 1991: 14–15). In the MK/SIP the cooking pottery was often made of a coarse Nile clay fabric with abundant rounded quartz inclusions—Nile E (Nordström & Bourriau 1993: 175, pl. III.d–h, fig. 9.b),⁴ but others are used as well (Bader 2009: 403, n. 1339; Kopetzky 2010: 146; Rzeuska 2013; Bourriau & Gallorini 2016).

3) Some shapes facilitate cooking: access to the content while it is cooking should be possible; the opening of the pot should not be too narrow so food can be put in and taken out; and it should not be too deep (Hally 1986: 278–281; Villing & Spataro 2015: 6). However, jars with quite narrow openings were evidently also used for cooking (Bader 2009: 396–399, types 98c, d, e, regularly smoke-blackened; Kopetzky 2010: 144; Schiestl & Seiler 2012: 742–747). Moreover, the shape needs to facilitate the even distribution of heat (Rzeuska 2013: 74).

The cooking pot types occurring at Tell el-Dab'a

Five different varieties of cooking pots have been identified at Tell el-Dab'a with differential life spans, developments, fabric variants, quantities and parallels from different geographic areas.

- 1. Handmade straight-walled vessels (Fig. 1a) occur from Phases H to F in decreasing quantity, with a few genuine imports (Aston 2002: fig. 11.1; 2004: vol. 2: 161–165), but the majority was locally produced. Overall they are very rare (Bader 2009: 410–411; 540–541; Kopetzky 2010: 213–214, 217, 249–252, tables 6, 11).Variants show a row of horizontal holes pinched through the walls or only half way, holes and ledges and rows of shallow finger imprints. For the detailed differentiation according to technical styles/*chaînes opératoires* in the eastern Delta, Wadi Tumilat and Syria-Palestine, see Klassen 2015: 12.
- 2. Upright rim cooking pots and gutter rim cooking pots (Fig. 1b and c) very occasionally occur as imports (Aston 2002: fig. 11.2–3) but were mostly locally produced (Bader 2009: 404, 409–410; Kopetzky 2010: 214–215). They predominantly exist in the early SIP (Phases F to E/3) with rare occurrences later. Overall, these types with a number of rim variants are rare among the settlement pottery and they were always fragmented (Aston 2004: vol. 1: 159–160; vol. 2: types 141–145a, b, 168–171, Bader 2009: 404–410).

⁴ Sinopoli mentions specifically that a high number of quartz inclusions are less than ideal for use in a cooking pot fabric, but see Bourriau *et al.* 2000: 124 who refer to successful trials with quartz in cooking vessels; see also Villing & Spataro 2015: 11.



Fig. 1. Cooking pots of the late Middle Kingdom/early Second Intermediate Period from Tell el-Dab'a. a) flat-based straight-walled cooking pot (drawn and inked by the author); b) upright

rim cooking pot, after Bader 2009: fig. 38; c) upright (gutter) rim cooking pot, after Bader 2009: fig. 66; d) burnished cooking bowl (with handles not preserved), after Bader 2009: fig. 226; e) cooking jar, after Bader 2009: fig. 229.

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- 3. Cooking pots with horizontal handles (Fig. 1d) were exclusively made of Nile E in Phases G/3–1, F and E/3, but are extremely rare (Aston 2004: vol. 1, 160; vol. 2, 172; Bader, in preparation; Kopetzky 2010: 214, table 24 in absence of rim fragments only handles were assigned to this type to mark their presence).
- 4. **Medium to large jars with profiled rim** (Fig. 1e), made of Nile E1 and E2, are often smoke-blackened or white slipped and sooted. They occur quite rarely, but are sufficiently preserved to the maximum diameter in the late MK and the early SIP, Phases G/4 to E/3 (Bader 2009: types 98 c and d, 396–399, n. 1321, 540) and may continue into the late SIP (Kopetzky 2010: 101, 141, 144, tables 9, 12).
- 5. Restricted bowls with outward folded lip ('hole-mouth pots')⁵ (Figs 2–5) are very often sooted or smoke-blackened, with various rim types. They occur at Tell el-Dab'a in all phases of the late MK and the SIP as the most frequent variety of cooking pot (Figs 2–5). Interestingly this type lives on into the early NK, although others start to replace it. Its further development goes beyond the scope of this paper (see e.g. Hein & Jánosi 2004: fig. 80c.41-44 for the form, see also Seiler 1999: 221-224; Budka 2016). Manufacturing technology, shape variants, surface treatment and fabric varieties will be covered below. There are four variants: a) a restricted bowl shape with a direct rim (Schiestl & Seiler 2012: 735); b) a restricted bowl shape without a shoulder, steeply sloping contour and a heavy folded lip with direct transition to the body; seemingly the bowl is quite deep (Figs 2b-g, 3b-f); c) a restricted bowl shape with a folded rim and a short distinct neck confined to Phases H, G/4 and G/3-1 (Figs 2a, 2f, 3a, 3g) and d) a restricted bowl shape with notable shoulder and the maximum diameter probably wider than the height of the vessel in the SIP (Fig. 5). The rim morphology is quite varied as well as wall thickness, volume and depth (Figs 2–5), in special cases the forming process of the rim can be seen in the vertical break (Fig. 11). Observation proved that the rim was folded outwards, but also a direct rim occurs onto which a separate coil of clay was set, and the lip on the interior and exterior was formed by means of probably wooden tools and turning on a turning device (Fig. 3d-e). In fragmentary state the most obvious distinction is whether the shoulder swings out (Fig. 5) or if the contour is quite straight and without notable shoulder (Figs 2–4). The wide variety of rim types suggests a multitude of workshop traditions or potters.

⁵ Certainly the use of this terminology for the restricted bowls led to the identification of this vessel type with the Syro-Palestinian pottery. In the following, Egyptian examples of this type are referred to as restricted bowls after Bourriau & Gallorini 2016.

Types 1 to 3 find parallels in Syria-Palestine,⁶ type 4 has at least one parallel at Lisht (Bader 2009: n. 1321), while type 5 overwhelmingly has parallels in Egypt and only fragmentary ones in Syria-Palestine, which were apparently not used for cooking ('hole-mouth krater'; see below). The fragmentary state of settlement pottery, cooking pots included, makes unequivocal identification certainly very difficult (Bader 2010: fig. 10). Thus, while a similar shape of rim fragments is a good start for identifying parallels, a suspected identification remains a hypothesis until a complete profile with sooting/burning is unearthed. This holds true specifically for shape parallels across fabric types. Nile E seems to be a common choice for cooking pot production in Egypt.

Chronological research history of cooking pots

While not much information on cooking pottery is available from other sites (for a summary, see Schiestl & Seiler 2012: 734–749), it is worth summarising the research history of cooking pots especially at Tell el-Dab'a, to highlight the development of the opinion that all cooking pot types found at that site mark the presence of non-Egyptian people there. New publications and, more importantly, quantifications help to clarify the intricacies of cooking pottery and provide context.

Apart from singular vessels of different shapes found at Lahun, which were smoke-blackened (Nordström & Bourriau 1993: fig. 22; Bader 2001: 72, cat. no. 81, UC18959), not much attention has been paid to cooking pottery of the MK as it was rarely identified as such by use traces in publications. During early research at Tell el-Dab'a, however, the presence of non-Egyptian cooking pots was emphasised. In 1991 the MK cooking pots were divided into 'handmade' and 'wheelmade' types without illustration for this period (Bietak 1991a: 31). The section on the late SIP Phase D/3 includes cooking pots with an illustration headed "MB II B, C type groups during the Hyksos period (Strata E/1-D/2, see Fig. 13)". This figure identifies cooking pots by shape (Bietak 1991a: figs 11.11 and 11.12, Nile E fabric) as MBA pottery, always with the addition that they were produced locally. Their description is as follows: "The Canaanite wheelmade cooking pot is still produced locally (Fabric I-e); little change can be observed from earlier strata" (Bietak 1991a: 44–45). Unfortunately, the illustrations are not mentioned there, resulting in misunderstandings because fig. 11 shows two different vessel types: a) the so-called 'hole-mouth' cooking pot with round and flat base (fig. 11.11, here Fig. 6a), and b) the upright rim

⁶ For space reasons parallels and references are not repeated here unless it is necessary for understanding, see cited bibliography to follow up details.

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cooking pot with flat(tened) base (fig. 11.12, here Fig. 6b).⁷ Most crucially, all parallels given only refer to upright rim cooking pots in Syria-Palestine, namely from Byblos (Fig. 7; Tufnell 1969: 26, fig. 7.58) and Aphek (Beck 1975: figs 2.11, 2.13, 4.20–21, 6.17; 1985: figs 2.11, 4.8, 5.10). Although restricted bowls were shown in fig. 11.11, they were not described in detail or compared to the Syro-Palestinian pottery corpus by means of parallels. Thus, Bietak did not explicitly state that restricted bowls with folded rims are derived from Syria-Palestine, but the inclusion in the figure implies this (see also Bietak 1996) and was perhaps intensified by the lack of illustration of MK cooking pots, which are basically the same.

In 1994, a smoke-blackened restricted bowl used as cooking pot of the later SIP was published, referring to unspecified MBA parallels in Syria-Palestine (MBA IIB) (Hein 1994: 161, cat. no 143). Manufacturing details are not provided but the vessel shows clear traces of being exposed to fire on one side of the exterior, thus proving that vessels of this type were indeed used for cooking.

The Syro-Palestinian imports of the MBA IIA at Tell el-Dab'a were summarised in 2002 by D. Aston, including imported cooking pots from contemporary Phases H, G/4 and G/3-1 (Aston 2002: 45-47, fig. 11). Importantly, the proportion of imported cooking pots compared to other imported pottery is extremely small.⁸ The imported types include the rare flat-based straight-walled cooking pots (Aston 2002: fig. 11.1, fabric I-e-3 with basaltic inclusions, cf. Pape 1991: 65-66), which was also produced locally in slightly higher numbers but still not frequently (Fig. 1a) (cf. Klassen 2015). The second cooking pot type exhibits an upright rim and horizontal grooving on the body with several rim variants (Aston 2002: fig. 11.2, cf. here Fig. 1b). The third type comprises the so-called gutter rim cooking pot characterised by its restricted shape and an upright rim with a marked internal groove (Aston 2002: fig. 11.3, cf. here Fig. 1c), and finally two rim fragments occur of imported 'kraters' of restricted form and with folded lip, both turned on a turning device (Aston 2002: fig. 11.4-5; Bader 2009: 489-490; Kopetzky 2010: 248 for Phase E/3 with parallels). This is the type that superficially resembles the restricted bowl with folded rim (see Figs 2-5 and 8). All fragments remained uncoated and smokeblackening or sooting was not mentioned. Aston states that hole-mouth cooking vessels are very common at Tell el-Dab'a during the MBA IIA, and are mainly made from local clays in contrast to the imported ones (only three undisputed imports, see Figs 8, 10e-f for examples). Aston favours an Egyptian origin of

 $^{^7}$ These three complete vessels seem to be reconstructions because they do not occur in Aston 2004, which includes most complete profiles found at the site in Phases H to D/2. Moreover, flat bases have not been attested so far at Tell el-Dab'a.

⁸ The absolute number of examples barely exceeds those six to seven published in Aston 2002; 2004; Bader 2009: 489–490; Kopetzky 2010.



Fig. 2. Restricted cooking bowls of the late Middle Kingdom from Tell el-Dab'a. a-c) after Bader 2009: fig. 48; d) after Bader 2009: fig. 232; e) after Bader 2009: fig. 113; f) after Bader 2009: fig. 38; g) after Bader 2009: fig. 32.



Fig. 3. Restricted cooking bowls without shoulder of the late Middle Kingdom from the settlement of Area A/II at Tell el-Dab'a (all drawn and inked by the author, except g) inked by Will Schenck).



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the restricted bowls because according to him the type would have had to enter the Egyptian repertoire very early since it already exists in large quantities from Phase H onwards (i.e. the late 12th Dynasty, see Fig. 13). Moreover, the frequency of this type in the Memphis-Fayum region is high despite a lack of other imported or Syro-Palestinian style pottery vessels there (Aston 2002: 46).

V. Müller presented one incomplete late SIP restricted bowl as made on the advanced wheel, with smoke-blackening on the exterior, and horizontal smoothing marks below the rim but vertical in the lower part of the vessel. The entry also mentions the possibility of mould making (Müller 2002: 284–285, fig. 8.6, reg.no. 3953A).

The Tell el-Dab'a pottery corpus includes a comprehensive description of cooking pottery occurring at the site as outlined before, but this time also with locally produced vessels. First to be mentioned is the handmade straight-walled variety with a range of decoration schemes such as added plastic ledges, finger imprints and holes under the rim (Aston 2004: vol. 1, 156–158). This is followed by various vessel types with upright rims with or without 'gutters' or deep grooves on the interior of the rim (Aston 2004: vol. 1, 159–160)⁹ and a rare type with horizontal handles and ledge handles, respectively (Aston 2004: vol. 1, 160–161). These vessels all have parallels in Syria-Palestine (Aston 2004: 156–161), but were made from the local Egyptian Nile E2 clay (Bietak 1991b: 326). Thirdly, there are the restricted bowls with folded rims with all then known parallels, which are not repeated here (Aston 2004: vol. 1, 81–82, 167–169). While the opinion on the origin remained unchanged, the four subtypes mentioned before were defined. They were all described as wheelmade on a turntable.

In the late SIP only the variety of restricted bowls with folded rim remains in use for cooking. The fabric used is still Nile E with some more organic temper (I–e–1), and some are white slipped on the exterior with even fewer showing a red slipped rim in addition. Parallels in the SIP cover only the Wadi Tumilat, North Sinai and northern Upper Egypt (Aston 2004: 144–245), as they were known then.

Thus, in the late SIP settlement in Area A/V (Hein & Jánosi 2004) the restricted bowls represent the only cooking pot type and it was assigned to the Egyptian pottery corpus. The publication remains undecided about its origin, because parallels were seen in both Syria-Palestine and Egypt (e.g. on the surface at Lahun). Moreover, similar shaped rim fragments in the Levant were not smoke-blackened. Restricted bowls showed a white or a red slip or remained uncoated. The fabric variants include Nile B2, E1 and E2. The manufacturing technology is not specified, or indicated in drawings (Kopetzky 2004: 246,

⁹ Note also a variety of singular examples connected to this type by similar shapes. They are far from unified in morphology.



Fig. 5. Restricted cooking bowls with shoulder of the early to late Second Intermediate Period at Tell el- Dab'a. a–b) after Bader 2009: fig. 16; c–d) after Bader 2009: fig. 64; e–f) after Bader 2009: fig. 57.

figs 175–176, 192, 195–196, 213–215). Only one drawing of such a cooking pot fragment shows signs of wheel-turning (on a turntable/turning device) and the outwards folded rim added in a separate stage (Hein & Jánosi 2004: 146 and fig. 105C.29).

I. Forstner-Müller followed the assessment of Aston 2002 that the development of restricted bowls happened independently in the Levant and Egypt (Forstner-Müller 2007: 89).¹⁰

V. Müller discusses the use of cooking pots in offering pits at Tell el-Dab'a. While no complete example was preserved, fragments continuously appear

¹⁰ A position now also held by Oren 2019: 264.

(Phase E/3 to the early NK). The predominant fabric is Nile E(2), with a few other fabrics occasionally occurring (Nile B2, C). They are rarely slipped either red or/and white. The restricted cooking bowl forms a standard part of offering pits connected with ritual meals, while the cooking pot with upright, everted rim (Müller 2008: 203, fig. 176) appears more rarely: 11 upright rim cooking pots occur in offering pits, compared to 75 restricted bowls. The prototypes for the latter, she sees in Syria-Palestine (Müller 2008: vol. 1, 204, fig. 176).¹¹

In the course of the comprehensive comparison between settlement pottery of Tell el-Dab'a and Kom Rabi'a in a random sampling procedure (Bader 2009: 64–74), which allows statistically valid quantitative inferences, the cooking pottery was also compared (Bader 2009: Nile B2/C1 type 36d 304-306, Nile E1/2 402-411, frequency distribution 540-541). Again a final decision was not taken whether restricted bowls originate either in Syria-Palestine or Egypt, but increasing parallels in Egypt and Nubia tipped the balance towards Egypt, as did their frequent occurrence at Kom Rabi'a while other MBA pottery types were extremely rare or did not occur at all (see also Mahmud et al. 2008: 203 for Heliopolis). Although the earlier phases at Kom Rabi'a only rarely yielded cooking pottery in the shape of restricted bowls, but not any other either, they became gradually more frequent in some of the sectors (Bader 2009: 579-601; Bourriau & Gallorini 2016: 122-123, table 20). Thus it is likely that the spatial distribution of this vessel type in the settlement at Kom Rabi'a varied depending on the function of the various areas. The manufacturing technology for these pots is either coiled and turned (on a turning device) with the rim added and folded at the last stage, or wheel-turned without the rim being recognisably added later.¹² The other types of cooking pottery (see types 1–3 above), which did not appear at Kom Rabi'a, comprised those with upright rim (Bader 2009: types 103e-f with rim variants, here Fig. 1b) and gutter rim (Bader 2009: type 103g, here Fig. 1c). Both occurred in small quantities only in certain phases. Flat-based straight-walled cooking pots (Bader 2009: type 105a) are extremely rare at Tell el-Dab'a and missing at Kom Rabi'a, especially compared to the overall assemblage. These three types have ample parallels in Syria-Palestine. However, the restricted bowl with folded rim cooking pot type occurs in all levels from the late MK to the end of the SIP and is more frequent, while the others were only found in Phases G/3-1, F and E/3 (the late MK and the early SIP) (Bader 2009: 305–306, 358–359, 403-411, 489-490).

¹¹ V. Müller no longer holds this opinion; personal communication in September 2018.

¹² At Memphis they are recorded as only wheel-turned. This identification is based on the preserved rim only, which was not substantial in most cases. Whether these vessels might have been coiled and turned in the lower, not preserved portions of the vessel body cannot be ascertained.

The quantitative study of fragmentary settlement pottery of the MK and the SIP at Tell el-Dab'a based on a purposive sample¹³ includes all the above cooking pot types made from Nile B2,¹⁴ E1 and E2, but only the restricted bowls with folded rims are of interest here. The technology changes from 'handmade' (i.e. coiling and turning, Fig. 10a, c-d) to entirely wheelmade. This development starts already in the early 13th Dynasty and continues until the very end of the SIP. To interpret this development as increasing industrialisation of cooking vessel production seems not supported by the percentages given (Kopetzky 2010: 146; tab. 4, 9), because both manufacturing technologies exist side by side in 1-digit percentages. Only in the last Phase (D/2) wheel-turning appears to become more frequent. The chronological development of the vessel shape is unfortunately based on very few vessels with complete profiles. The restricted bowls are part of the Egyptian assemblage and always much more frequent than the others. The Syro-Palestinian cooking pot types appear in the early SIP in very small quantities of around 1 % mostly, up to 3 or 4 % in exceptional contexts (Kopetzky 2010: 108-109, 141-142, 145-148, 213-217, 248–253 with parallels; tab. 6, 10, 23, 25).

Finally the assignation of round-based restricted bowls with folded rims to the 'Egyptian corpus' was spelled out *expressis verbis* (Bader 2012: 221–222; fig. 3; Bietak & Kopetzky 2012: 105–106, fig. 2; Schiestl & Seiler 2012: 734–741), but by then most research viewed this cooking pot type either as non-Egyptian or Delta specific at least.

Unfortunately the intricacies of these different cooking pot types and their quantities have largely been ignored especially when the presence of immigrants was discussed. These cooking pots were always taken to securely represent immigration from Syria-Palestine without putting the evidence in the larger context of the site, the parallels, its environment and the long time span involved (c. 150–200 years, cf. Fig. 13).

Cooking vessels in the late MK and SIP

In this section the cooking pot traditions of Syria–Palestine and Egypt, focussing on the period of the early Middle Bronze Age (MBA IIA) are highlighted, when it could be reasonably assumed that any transfer of knowledge would have taken place in the course of immigration as suggested by previous

¹³ The contexts were picked purposively without the aid of a statistical procedure only on the virtue of their size, which does now allow the correct calculation of statistical variables. The problematic nature of identification of small pottery fragments with complete types has been mentioned before (Aston 2016: n. 12).

¹⁴ As no complete example of a Nile B2 cooking pot with sooting has been discovered yet, the rims resembling Nile E hole-mouth pots might belong to another vessel type altogether, cf. Bader 2010: fig. 10.







Fig. 7. Upright rim cooking pot from Byblos, not to scale (after Tufnell 1969: fig. 7.58). research. It is not the aim here to repeat all parallels ever given to the type, rather type sites are mentioned as well as critical insights into the identification of cooking vessels, where such were made. The focus on dating at given sites often obscured the functional aspects of the pottery found.

Syria-Palestine

While there is some evidence for MBA IIA (contemporary to Phases H up to the transition to MBA IIB in Phase F, see Fig. 13) pottery of similar shape to rims of restricted bowls in Syria-Palestine,¹⁵ they were seemingly never sooted (e.g. Kochavi et al. 2000: 129, 175, 200) and also rarely if ever complete (e.g. Beck 1975: figs 4.18-19, 6.15-16; Kochavi & Yadin 2002: 202, figs 15.6–7, 9–11; for a list of parallels in Syria-Palestine, see Aston 2002: 46-47; Kopetzky 2010: 248). Already P.L.O. Guy in his work on Megiddo names the gutter rim type (Fig. 1c) as cooking bowls (Guy 1938: pl. 27.6, tomb 257) and O. Tufnell in 1969 speaks of the "standard shape for a cooking vessel" referring to an upright rim type of a pot at Byblos with a shouldered ovoid body shape and narrowing towards a rounded base (Tufnell 1969: 16 and fig. 7.58) (Fig. 7). The same was said by Ben-Dor earlier (Ben-Dor 1950: 32–33). Selected type sites highlight that other cooking pot types than holemouth kraters were the usual vessels for cooking in Syria-Palestine. Beck divided the MBA IIA cooking pots at Aphek in Stratum BV into two: "The first is handmade and straight walled, with a thumb indented applied plastic band below the rim. Above this is a row of perforations which in some vessels did not completely pierce the wall. (...) The second is wheel turned, with rounded body and internally accentuated rim, at times gutter like (...). Both types appear at Aphek from the earliest phases onward [MBA IIA], the wheelturned type being the most common." (Kochavi et al. 2000: 113, upright and gutter rims: figs 8.10.6-9; 8.11.3, 8.12.10-11, 8.13.1-2, 8.20.4, 10.1.20, 10.1.23, 10.10.20–21, 10.12.17, 10.13.18–19).¹⁶ Both types appear to be mostly uncoated and they are to be distinguished from 'hole-mouth pots' or 'kraters'¹⁷ with a folded rim/lip as they are called in the Syro-Palestinian pottery typologies (Ben-Dor 1950: 29-30, fig. 23).

The dearth of complete cooking pots in the MBA IIA section of Amiran's seminal book beside the straight-walled and upright/gutter rim variety, suggests

¹⁵ Insights into the *chaîne opératoire* can only be made superficially, as the description of the Syro-Palestinian pottery is mostly restricted to handmade or wheelmade.

¹⁶ Unfortunately no mention is made where and how many of these fragments were smokeblackened. The same description is repeated in other words on p. 176 of the same book.

¹⁷ In pottery descriptions of Levantine and Syro-Palestinian sites a distinction in vessel types is made, namely cooking pots and kraters with subtypes such as hole-mouth kraters. The only distinction seems to be the presence of sooting or smoke-blackening in cooking pots.

a lack of completely preserved cooking pots from settlement sites.¹⁸ The gutter rim fragment and handmade flat-based and straight-walled cooking pots indicate a different tradition of cooking pot use in Syria-Palestine in the MBA IIA (Amiran 1969: 100, pl. 30) than in the Egyptian Nile Delta. Only in the MBA IIB–C, which is considerably later than the late MK settlement of Phases H, G/4 and G/3–1, one complete parallel to the Egyptian restricted bowl cooking pot is shown and moreover marked to be "uncommon" (Amiran 1969: 102, pl. 30.7). This singular vessel is derived from stratum XII at Megiddo (tomb 3182).¹⁹ The fact that in MBA IIB–C such restricted bowls seem to be attested in Syria-Palestine (Kopetzky 2010: 248; Bonfil 2019: 84, pl. 1.3.15), possibly turns the direction of influence around. At this time the hole-mouth cooking pots in the Levant may have been copying Egyptian examples, but the record is still too patchy to be definitive.

Overall, research in Syria-Palestine, e.g. at Shechem (Cole 1984: 63–65, 67, fig. 18, pls 24.c-f, 25, 26.a-d), Yokne'am (Ben-Ami & Livneh 2005: figs IV.8.1–3, IV.8.4–13, IV.6.1–8) and Tell el-Hayyat (Falconer & Fall 2006: 44, and figs 4.4.i–j, 4.6.g–l ['hole-mouth kraters' with very intricate morphological details of the lips not found in Egypt and not smoke-blackened], flat-based cooking pots figs 4.2.k, 4.4.q, 4.7.a–l, 48, 49, 52–57, fig. 4.2.l–m) showed that the cooking vessel types as indicated by sooting marks in these places were not of hole-mouth shape with folded lip, but either flat-based and straight-walled or more restricted with upright or gutter rim (Bonfil 2019: 82–84; Ilan & Marcus 2019: 13–15). The same holds true for Ashkelon (Stager & Voss 2019b: 146–155). The 'hole-mouth kraters' or 'closed kraters' were suspected to be intended for serving food (Ben-Ami & Livneh 2005: 264; see also Stager & Voss 2019b: 139–145).

More recent excavations in the Levant have unearthed a few restricted bowls of presumed Egyptian derivation.²⁰ In Lebanon, at Fadous-Kfarabida, remarkably a single Egyptian Nile E2 cooking pot was found (Genz 2010–2011: fig. 14.2), while the usual local type is wheel-made, round-based with upright rim or, more rarely in this area, handmade straight-walled with a flat base (Genz 2010–2011: figs 8.1–4 [round-based], 8.5–7 [flat-based]). The same seems to hold true for Sidon (Kopetzky 2010–2011: fig. 3), although no mention is made of quantity, sooting or technology.

¹⁸ The situation did not substantially change fifty years later, cf. Ilan & Marcus 2019: 13–15, pl. 1.2.11–12.

¹⁹ This vessel is still shown in the chapter on MBA IIA cooking pottery, cf. Ilan & Marcus 2019: pl. 1.2.11.5.

 $^{^{20}\,}$ Although the fabric is macroscopically very similar to the Egyptian fabric Nile E, scientific analyses have so far not been published.



Fig. 8. Imported 'hole-mouth krater' 1967/60156 (drawn and inked by the author).

At Ashkelon some Egyptian 'flat-folded cooking pots'²¹ were found in Phases 11 and 10 (equals late SIP), namely very few real Egyptian imports, while others were locally produced.²² The overall number of Egyptian sherds over the five phases at Ashkelon is only 48, with five imported restricted bowls in Phase 11 and five in Phase 10. They accept this pottery type as Egyptian, but they do not state if these fragments showed sooting. The usual cooking pot at Ashkelon also belongs to the upright rim type (Stager & Voss 2011: 122 and pls 1.6–8, 2.6–7; 2019a: 238–241 and pls 6.1.6–8, 6.2.6–7). One small rim fragment was published from Haror (Oren 2019: 264, pl. 4.1.1.5).

One imported example of a 'hole-mouth krater' was found in the late MK settlement of Area A/II at Tell el-Dab'a (Aston 2002: 46, 74–75, fig. 4) (Figs 8, 10e–g). This rim fragment is wheel-turned, but it is too eroded to judge the primary manufacturing technology. Moreover, the lip is turned over and everted and is not stuck onto the outside of the vessel wall as the Egyptian restricted cooking bowls frequently show. The rim diameter is only 16 cm, which is in stark contrast to the average 20 to 35 cm rim diameter of the local Nile E2 restricted bowls with folded rims.

Egypt

In Egypt rim fragments of presumed cooking pots in the shape of restricted bowls are frequently of the same highly sand-tempered²³ Nile clay (E) fired to a red brown/dull brown, sometimes with sooting marks as at Tell el-Dab'a.²⁴ Whether similar rim fragments made of other Nile clay fabrics (B2, C) also belonged to cooking pots, cannot as yet be entirely ascertained, because so far only two complete 12th Dynasty examples made of Nile C with sooting marks from Tell el-Dab'a and Karnak are published (Aston 2004: 81, cat. no. 141)

²¹ Flat-folded is the term used for the rim shape by Stager &Voss 2011; 2019a-b.

 $^{^{\}rm 22}\,$ Unfortunately the frequency distribution does not state how many locally produced restricted bowls were found.

 $^{^{\}rm 23}$ Sand is here conceived as a size, not as mineral identification, which still needs to be undertaken.

²⁴ In the earlier publications, use marks such as massive sooting were not always mentioned.

+ register book; Millet 2007: pl. XX.8091.14).²⁵ Nevertheless they are mentioned below. While the Nile E restricted bowls were initially best known in northern Egypt especially in the late MK, as settlement research increases also our understanding of the spatial distribution of this pottery type improves. Although quantities from north to south seem to dwindle, this may perhaps also be due to the fact that full publication has not been achieved everywhere. The sites listed from north to south and concentrating on well described parallels, are: Wadi Tumilat (Redmount 1989: 820-832, fig. 138; Holladay 1997: pl. 7.6 wheelmade for cooking) in the later SIP, and the sites within (Holladay 1997: pls 7.11–12, 7.14–15); in North Sinai (Oren 1997: fig. 8.23.3 fabric not stated); the temple precinct at Heliopolis (Mahmud et al. 2008: 203-204, fig. 6b.1–2); Mersa Gawasis on the Red Sea coast (Wallace-Jones 2018: 19-20, 64, used for cooking, rare); Dahshur (Arnold 1982: complex 6, fig. 6.10, Nile C, (wheel) turned with red slip; complex 7,²⁶ fig. 10.6, Nile E, handmade rough surface); Lisht (Arnold et al. 1995: 20, fig. 4.18); Memphis (Bourriau & Gallorini 2016: Corpus 2, Nile B2 (= D4): fig. 25.25c4.5; Corpus 3, Nile B2 (= D4): figs 32.25b3.3 and 32.25c4.3, Nile C (= D3): fig. 36.16d1.1, Nile E (= D5): figs 38.51c3.3-4 and 38.51c3.6; Corpus 4, Nile B2 (= D4): fig. 46.25c4.5, Nile E (= D5): figs 50.51c3.4 and 50.51c3.7; Corpus 5, Nile B2 (= D4): figs 60.25b3.2–4, and 60.25c4.1–6, Nile E (= D5): figs 69.51b1.2, 69.51c3.2-9, 69.51d1.2 and 69.51d1.4; Corpus 6, Nile B2 (= D4): small size, figs 86.25b3.3 and 86.25b3.5, medium to large size, figs 86.25c4.1, 87.25c3.1, 87.25c4.2-3, 87.25c4.5-6, 87.25d3.1-3, and 87.25d3.5, Nile C (= D3): fig. 93.16d1.1-2, Nile E (= D5): figs 95.51c3.1-2, 95.51c3.5, 96.51c3.4, 96.51c3.6-7, 96.51c3.9 and 96.51d1.4; Corpus 7, Nile E (= D5): figs 111.51b1.1 and 111.51c3.4); Lahun (Bourriau & Quirke 1998: fig. 5.4, 71, who think Nile E is an import to Lahun; Gallorini 1998: 68-69, fig. 33.1–2: EA74592 [smoke-blackened] & UC 7649 [not smoke-blackened]);

²⁵ Fragments of this type might well belong to the vessel type of jar with high foot ('canopic' shape), Aston & Bader 2009: 31, figs 35–36.

²⁶ Because it seems that the original chronological assessment of the material from Complex 7 has frequently been misunderstood, I would like to offer an explanation for the dating of Arnold 1982: 40 "(...) in der Keramik (...) Beispiele der Töpferei der 13. Dynastie vorliegen, der 13. Dynastie mit Ausschluß ihres ersten Drittels." Earlier, Arnold had stated that the utmost border for Complex 7 was 1650 BC, the beginning of the Hyksos rule in northern Egypt. This would mean that she used a "short 13th Dynasty" for her estimate just like that used in the Delta. Because she divided the 13th Dynasty into three parts (Drittel), it is quite possible that she had Bietak's chronological chart in mind, where the 13th Dynasty equals Phases G/4, G/3–1, F and E/3. In that case, the period she was referring to meant the last part of G/3–1, F and E/3 as possible equivalent phases for Complex 7. My own work comparing settlement pottery of Kom Rabi'a with Tell el-Dab'a suggests that the slow development of the Kom Rabi'a settlement pottery had proceeded and that Complex 7 should not have been deposited much later than Level VII. This is especially visible in the Marl C corpus found at Kom Rabi'a, which seems currently unlikely as no available evidence supports it.

Qasr el-Sagha (Arnold & Arnold 1979: fig. 22.4; Śliwa 1987–1988: fig. 27.5–6); **Abydos** (Wegner 2007: 241, fig. 101.31a with sooted exteriors, Nile C and E; fig. 112.74–77, technology and quantity not mentioned); **Karnak North** (Jacquet-Gordon 1990: fig. 1.7, fabric not mentioned; 2012: 73 and fig. 34.f–h, k–l morphological parallels in fabrics Nile C, D and E, presence of sooting is not mentioned); **Edfu** (Ayers 2018: 71, fig. 6.f, handmade with white slip, Nile E); and **Aswan** (Forstner-Müller & Müller 2013: 102, 106, fig. 6.5, Nile E2, coiled and turned; Rzeuska 2013: fig. 6 for restricted cooking bowls in Nile E, but there are also other types and other fabrics such as Von Pilgrim 1996: fig. 159.k, p, s in Nile B2 of two different forms in *Bauschicht* 14–15, see below). Parallels of the restricted bowls are known in Nubia at Askut, where such pottery was made from a heavily quartz tempered Nile clay fabric, often burnt/smoke-stained (Smith 1995: figs 3.7.G and 3.8.H; Smith 2003: fig. 5.19).

Alternatives in the late MK and the SIP are Nubian cooking vessels, which cannot be discussed here due to space reasons, and a variety of other vessel types (Rzeuska 2013), but no other specific cooking vessel has been presented for Upper Egypt or other regions for this period (Schiestl & Seiler 2012: 743–749), although unspecified 'Upper Egyptian' cooking pots are mentioned but hitherto not shown or described (Seiler 1999: 221; Ayers 2018: 71).

Quantification of restricted bowls with folded rims

The fragmentary preservation of restricted bowls with folded lips creates problems in their identification as cooking pots made from Nile E and other fabrics



Fig. 9. Spouted bowl (Nile B2) from Elephantine used as a cooking pot (after von Pilgrim 1996: fig. 159.s).



Fig. 10. a) Interiors of Nile E2 cooking pots from Phase G/3–1;
b) section of K786/19397 Nile E2 cooking pot; c) interior of K1039/70016;
d) exterior of K1039/70016; e–g) imported hole-mouth krater K1967/60156 (all photos by the author).



Fig. 11. Vertical section of 1023/30816, Nile E2 (photo by the author).

(Nile B2 and C, rare complete profiles). This has an impact on the quantification, because not all rims are burnt or sooted, and even if they are, this may be derived from secondary use or post depositional processes. Although the assumption that all restricted rims with folded lips of Nile E2 belong to restricted bowls used as cooking vessels, touches the limits of quantitative pottery analysis, some such quantifications are detailed below, but the *caveat* has to be kept in mind.

Quantitative considerations in the settlement of the late MK in Area A/II

In the late MK settlement of Area A/II in Phases H to G/3–1, a considerable number of Nile E2 restricted bowl fragments were found. There was no complete example, but the percentage of smoke-blackening and sooting is at 65 % of all recorded restricted bowl rim fragments (using *estimated vessel equivalents* for quantification and summing them up, Orton *et al.* 1993: 171–173). Although the final quantification sorted into the three chronological phases has not been established, a lump number of all three phases together shows that of the entire random sample ~13 % is cooking pottery. Of all cooking pottery restricted bowls amount to c. 93 %, while flat-based straight-walled cooking

pottery constitutes c. 5–6 % and the other cooking pottery types only 1–2 % (Bader, in preparation).

Quantitative considerations concerning the late MK and SIP

The quantitative distribution of the rim fragments of presumed restricted cooking bowls with folded rims over Phases G/4 to D/2 achieved during earlier analyses of Tell el-Dab'a and Kom Rabi'a pottery, also yielded some results. Again the assumption was that all Nile E rim fragments belonged to cooking pots. Of the 119 randomly selected restricted bowl fragments at Tell el-Dab'a used for the comparison, 48 were smoke-blackened/sooted (using estimated vessel equivalents), which equals 45.6 % covering the period of the late MK and the SIP. Interestingly, in Kom Rabi'a only 26.7 % showed these signs of use (Bader 2009: n. 1339). This suggests either that at Kom Rabi'a other vessels were used for cooking as well, or other factors such as the fragmentary state of preservation, different discard patterns, or different subsistence patterns bear on this result. The development of the frequency distribution of restricted cooking bowls in two types at Tell el-Dab'a (Figs 2-5) is c. 10 % in the late MK decreasing to c. 3-4 % in the transition from the early to the late SIP (Phases E/3 and E/2), with another rise to about 9-11 % thereafter. All other cooking pot types are quite rare with percentages below 1 %. At Kom Rabi'a the division according to the levels yielded a lower percentage of c. 0.5 % per level for the shoulderless type (cf. Figs 2–4) and 1–5 % for the shouldered type (Bader 2009: 540-541). This amount is in congruence with the final publication of the Kom Rabi'a corpus, which further sub-divided the levels according to sectors (Bourriau & Gallorini 2016: 122-123, table 20).

Possible precursors in Syria-Palestine and Egypt

For Syria-Palestine some representative type sites were chosen to investigate whether possible precursors exist for the shape of restricted bowls with folded rims in Egypt (type 5, above). In Syria-Palestine large 'hole-mouth jars' with restricted rim, either direct or slightly thickened/trimmed lip, and a flat base were frequently found since the Early Bronze III–IV/Intermediate Bronze Age (e.g. Kochavi *et al.* 2000: figs 8.3.15–24 with red slip, 8.4.4–7, 8.4.17–23, 8.6.21–32) in morphological variants with various decorations (Amiran 1969: pl. 16.6, 78, fig. second row from top, 3rd and 2nd vessel from the right). None of these vessels seem to show any sooting. Nevertheless they were divided into storage and cooking jars, but based on their clay composition rather than on sooting marks (Kochavi *et al.* 2000: 107). The cooking pots used at Hazor in the Intermediate Bronze Age show a different design to hole-mouth jars and already then comprise gutter rims (Ben-Tor *et al.* 2017: 165–166, fig. 6.3).

From a morphological point of view the rims [only!] of 'deep hole-mouth kraters' look similar to the Egyptian variants of restricted bowls and they are quite common, but unfortunately neither the manufacturing technology (chaîne opératoire) nor use-specific traits are described (Ben-Tor et al. 2017: 164–166, fig. 6.2.3–7). At Tell Arga a vessel shape very reminiscent of globular cooking pots with upright rim is found in the Early Bronze Age IV, Phase P, which becomes elongated in the MBA Phase N (Thalmann 2006; vol. 1, 116, 128– 129, 145; vol. 2, pl. 53, 76–78.1–4, 93.5–6, 94.1–11), when some close parallels to Tell el-Dab'a's non-Egyptian cooking pots also appear (e.g. Thalmann 2006: pl. 94.11). The early ones were handmade. To summarise briefly, it seems that the 'hole-mouth jars' or 'kraters' known from the Early Bronze Age in Syria-Palestine may sometimes have a similar rim morphology, but the overall shape, where preserved, often differs: they have a more flaring shoulder than the earlier type of Egyptian restricted bowls with folded rims, the contour of which is without much of a shoulder. The pots actually used for cooking are already of an upright rim variety, where this can be stated with any certainty. However, the fragmentary state of cooking pottery makes hypotheses difficult.

Looking for possible precursors for type 5 in the Old Kingdom and First Intermediate Period pottery corpora in Egypt, some feasible shapes can already be found in the 4th Dynasty, although many have spouts and they were found in tomb contexts, which makes it unlikely that these were actually used for cooking (Reisner & Smith 1955: figs 68-72, 79, 117 bottom row; according to Wodzińska 2007: 301 [CD 22] they are beer/bread basins and not used for cooking). At Kom el-Hisn, a settlement of the Old and Middle Kingdoms, some rim shapes made from Nile B1, B2 and C were found, which could have been precursors of the restricted bowl form, such as type 5 (large basin), type 9 (restricted bowl), and also types 15–16 (restricted bowls).²⁷ They were all described as wheelmade, probably coiled and turned (Kroeper 2016: 265-267, figs 8.9–12, 8.14, 8.26–30). It seems that not even settlements yielded much pottery that was clearly used for cooking in the Old Kingdom, or at least the published pottery catalogues do not list any as such. Wodzińska's type CD 25 from the 4th Dynasty settlement at Giza is made of Nile B2 and handmade, and with its thickened lip is a reasonable precursor to the shape, although it is thought to have been used in beer production (Wodzińska 2007: 303-304, fig. 11.29). Interestingly some were white slipped, while others were found in a bakery context. Less similar in shape (rim fragment) but with 'burning marks' is CD 24, red slipped and well burnished, but no specific function is mentioned for this type (Wodzińska 2007: 303, fig. 11.28).

 $^{^{\}rm 27}\,$ A MK occupation at Kom el-Hisn has been suggested, which might support a MK date of these types.

B. BADER

Also at Giza large restricted vessels made from Nile E, variant B1, were retrieved from cemetery contexts. A parallel to the shape might be represented by rim fragments of type E2 spouted, flat-based basins (Hawass & Senussi 2008: 58–59, figs 57–64; 173, fig. I 65 Nile E, variant B2, red slipped, but also made of other fabrics; shapes not complete). The ceramic material at Saqqara, also a cemetery context, yielded some vats which were made from Nile E, coiled and turned, with traces of fire. Unfortunately, none of them were complete and their exact dating is not known. They were thought to belong to the 6th Dynasty (Rzeuska 2006: 324–325, Form 200; a similar shape was made from Nile B1: 320–323).

None of these vessel fragments form compelling evidence for precursors of the restricted bowl with folded rim, and even less for them being used for cooking, but at least there is a long tradition in the overall rim morphology relating to restricted bowls with folded lips. The evidence from tomb scenes connected with baking and cooking in the Old Kingdom shows that several types of pottery may have been used as cooking pots (Faltings 1998: 57–58, bowls with flat base and carinated rim; 202–203, various deep bowls with folded rim and spouts, some used for cooking; 248–250, bowls with carinated rims, some folded).

Already in the earliest phases of the early MK planned settlement at Tell el-Dab'a precursors occur. While the material culture does not show much influence from Syria-Palestine (Czerny 1999: 110-111, 204), only 3 % of cooking pottery was found. It was made of a highly sand-tempered fabric, seen as precursor for the later fabric used for cooking (Czerny 1999: 54–55).²⁸ This pottery falls into three classes by manufacturing technology: handmade, wheelturned and a mixed technology where the body was freely built by hand and the rim turned on a turning device. The body shape is deep and rounded and slightly restricted at the direct rim without a pronounced lip. No complete profile is preserved, but a rounded base is likely. All examples described in the publication were smoke-blackened (Czerny 1999: 173). Rare examples of more or less straight-sided cooking pot fragments from a non-Egyptian fabric were found (Czerny 1999: 109-111, 204, A1-A4), but they did not appear in the frequency distribution, thus they must have been extremely rare. These vessels differ from the flat-based, straight-walled cooking pottery (type 1, above) well known in Syria-Palestine in the MBA IIA and lack pre-firing holes or other decoration. However, the fabric is notably non-Egyptian and they were thought to be derived from contacts with nomadic people in the vicinity (Czerny 1999: pl. XXVII.A1-A2). Other restricted shapes were also found, but made from Nile B and C, which according to the description also sometimes showed

 $^{^{28}}$ 18 sherds belong to type Ng 97–100 (= 3 % of all sherds (sherd count)). The handmade pottery comprises types Nh1–10, 109 and 204.

smoke-blackening, perhaps from cooking (Czerny 1999: 84–85, 174, Ng 107, charts 275–276).²⁹ They resemble in some respects the restricted cooking bowls. The fact that cooking pottery is quite rare in the early planned settlement suggests either that the broken cooking pottery was dumped elsewhere and the excavation did not catch it, or that the need for cooking pottery was not great because the food was cooked (and eaten?) elsewhere. In the slightly later, planned settlement of Ezbet Rushdi, restricted bowls with heavy folded lip appear in strata equivalent to the earlier 12th Dynasty made from Nile E2, coiled and turned and with a white slip on the exterior (Czerny 2015: 345–346, fig. T102–T103), which attests to the early tradition of this type at the site before the interconnections with Syria-Palestine took off. One example of a restricted bowl with sooting marks was made from Nile C2 with a red discoloured slip (Czerny 2015: 293, fig. T48.41). A quantification was not undertaken, and thus frequencies of types cannot be discussed.

Interestingly, in Elephantine *Bauschicht* 14–15, during the transition of the 11th to the 12th Dynasty, a coiled and turned bowl with spout and folded lip made from Nile B2 with sooting marks was found (Von Pilgrim 1996: fig. 159.s, 358) (Fig. 9). This vessel might represent a connection from the OK spouted vessels with folded rim to the restricted cooking bowls of later date. Of similar shape but without the spout are depictions of cooking pots used for a lexicographical study of the word *psj* 'cooking' (Verhoeven 1984: 7–14, 85–109, 110–118, 130–131, 150–154). Of course, more well contexted cooking pottery is necessary to fill the gap between the pictorial and archaeological evidence.

Rare early MK tomb scenes show more or less open bowls of red/brown colour, in which joints of meat were cooked (e.g. Newberry 1893: pl. XII; Davies & Gardiner 1920: pl. VIII; Paice 1997: 13–15, fig. 19, the tomb of Antefoker). These vessels may well resemble some of those shown here. One particularly nice example (Fig. 12) of the late FIP/early MK found at Hera-kleopolis Magna shows a cooking scene in the lower register (Pérez Die 2009: 190–191). Two persons are depicted to the left and right of a cooking vessel on top of a cooking installation. The vessel is hemispherical with a visible lip (not restricted) and protruding from it are pieces of meat and fish. The person on the left holds a piece of meat or fish, while the other on the right tests with a stick whether the meat is cooked. The inscription on top of the scene reads "Look! It is cooking. Taking and roasting the meat" (Pérez Die 2009: 389). The vessel, the installation and the spaces between the pot and the installation are all coloured reddish brown without obvious fire or fire wood being visible, which may suggest that the cooking was done by means of heat derived from

²⁹ The publication does not state which sherds were smoke-blackened or how many.



Fig. 12. Cooking scene on a limestone block found in the necropolis of the late First Intermediate Period/early Middle Kingdom at Herakleopolis Magna, now Egyptian Museum in Cairo JE 91095
(with permission of M.C. Pérez Die, after Pérez Die 2009: 19; photo by Ahmed Amin). coals (another option is the use of hot stones directly in the pot)³⁰ rather than on an open fire. The installation, which Paice (1997: 15) calls a stove, has feet elevating it from the ground leaving some space below (also coloured reddish brown) and a hollow in the middle. Whether the installation should be imagined round with the walls drawn low on at least two or three sides (in the manner of three-legged stands (e.g. Aston & Aston 2010: pl. 42.364–365) but bigger and perhaps built from mud brick), or perhaps similar to the way of fire-dogs (e.g. Aston 1989), remains unclear from this evidence.³¹ Thus, 'ethnographic' evidence from tomb scenes in the MK/SIP is not frequent and does not allow many inferences about the type of pot used, the cooking process itself and the actual installation, namely the stove or hearth.

Conclusions

Currently it is not possible to write a comprehensive history of the use and development of cooking pots for most eras and regions in Egypt, because so little actual archaeological material with the necessary details is published. For the MK and SIP the evidence available at the moment highlights only some regions, namely the Delta, Kom Rabi'a, and Elephantine. It is hoped that other sites will soon follow suit.

So far there is no actual proof for the existence of restricted bowls with folded rims used as cooking pots made from the Egyptian fabrics Nile B or Nile C, because too few complete examples with sooting/burning marks are preserved.

Because the cooking pot debate has often been connected in a simplistic way to the (ethnic) identity of the people who used them, this relation needs to be discussed. The line of development of the restricted bowls with folded rims and the comparison with Syria-Palestine has shown that the cultural background of this pottery type is much more likely to be found in Egypt.³² The evidence from Syria-Palestine overwhelmingly attests to a different type of vessel used for cooking in that region. Moreover, the quantity of restricted bowls as cooking vessels in contrast to pottery showing non-Egyptian influence is so high, so that the culture-historical narrative of Syro-Palestinian immigrants bringing their cooking pottery with them in high percentages is not tenable in the current scholarly discourse. Of course, other vessel types used for cooking at Tell el-Dab'a show Syro-Palestinian influence, but they occur far less frequently. Thus, the presence of Syro-Palestinian traditional food cooked in these vessels

 $^{^{30}}$ There is currently no evidence of the use of this cooking technique in Egypt, cf. Thornton 2016 for the process.

³¹ For a discussion of the feasibility of various cooking methods, cooking installations and fuel use with references, see Aston 2019.

³² Oren 2019: 264 for an independent development in the Levant and Egypt.

can be assumed, at least initially. The inhabitants of Tell el-Dab'a do not seem to have chosen these types of cooking pots (types 1 to 3, see above) in the long run, as these cooking vessels disappear towards the end of the early SIP (after Phase E/3, see Fig. 13). This means that either the eating/cooking tradition for which this pottery was employed, died out, or was adjusted to the use of restricted cooking bowls, the only type in use during the late SIP. The position of the site of Tell el-Dab'a in a liminal zone between Egypt and Syria-Palestine seems to have led to a unique peculiarity of material culture utilising and mixing traits from each of these traditions, certainly used by creative people from these areas acting as agents. Thus, it was an environment in which the people making pottery were influenced by multiple traditions, which merged in various ways over time, without being able to assign these craftspeople to a specific cultural tradition.³³ The development of cooking pottery illustrates this nicely, as several cooking vessel types were in use for a period of time. For this reason, it seems wise not to equate the cultural background of the maker with the product, because it deprives the analyst of a wide range of interpretational possibilities.

The finds of Egyptian-style cooking pottery in places like Fadous-Kfarabida, Sidon and Ashkelon and Haror, seem to prove that cooking pots were traded/ exchanged (without necessarily transferring food traditions or being evidence for Egyptians living in these places), although their low numbers hardly warrant an interpretation as a high frequency exchange commodity. On the other hand, there may still be many fragments that remain unidentified and therefore unreported. As a hypothesis it could be assumed that the Egyptian-style cooking pots in Syria-Palestine influenced the local tradition of cooking vessels, as the complete example from Megiddo (MBA IIB–C) and variations of it (Bonfil 2019: pl. 1.3.15) might indicate. However, in order to prove such a proposition many more examples would be necessary.

With evidence for exportation of cooking pots to Syria-Palestine, the idea that Nile E restricted cooking bowls were also being traded down south has a certain justification, although it seems prudent to refrain from a final verdict until more settlements are excavated and published in full. For the south of Egypt there is still hardly any published evidence for cooking pottery that would have been used instead of the restricted cooking bowl with folded rim (apart from Nubian pottery). For this reason more research on cooking vessels has to be undertaken, until a final assessment can be reached.³⁴

³³ As the majority of the cooking pots derive from an Egyptian tradition, it would have to be assumed that they were made by Egyptians in the culture-historical way of thinking.

³⁴ A beginning has been made to conduct more research into the habit of cooking, cf. Budka 2016; Budka *et al.* 2019.

Previous short surveys of Egyptian cuisine, mainly based on NK tomb scenes, identified the presence of a 'high' and 'low' cuisine, the former largely defined by the presence of exotic foods from abroad, spices, and a number of cooking methods which differ from the food stuffs prepared and eaten by people of a lower social status (Goody 1982: 99–102; for food in general, see Darby *et al.* 1977). While it is not possible to specify the type of cuisine for the entire site of Tell el-Dab'a with its various contexts ranging from palaces,

Syro-Palestinian relative Chronology	Absolute Chronology	Egyptian relative Chronology Dynasties Memphis Delta	Tell el-Dab ^C a Phases
LBI	1500		
МВ II С	1530	AHMOSE	D / 1
	1560		D / 2
	1590	HYK-	D / 3
MB II B	1620	SOS	E / 1
			E/2
	 1680	XIV	E/3
MB II A-B	1710		F
	1740	XIII	G
	1770 _		G / 4
MB II A	1800	So A IV	И Н
	1830	A III	
?	1860	 	
	1890	XII SII 3	
	1920		M
MBT	1950	SI .	Ν
	1970	I AI	N / 2-3

adapted from Bietak 2001

Fig. 13. Simplified chronological chart of the relative and absolute chronology in Egypt and Syria-Palestine (after Bietak *et al.* 2001: fig. 2). temples, and elite housing to humble domestic housing through all phases, some more solid remarks can be made for the late MK settlement in Area A/II, given that all the data concerning this settlement were collected by the author.³⁵ The structure, average finds and absence of most high status items (Bader 2020; in preparation) suggest that the cuisine in the late MK settlement in Area A/II should rather be regarded as belonging to the low cuisine. The type of food that was eaten, can only be surmised from the archaeobotanical and faunal remains found at the site, and it is currently not possible to know how they were prepared.³⁶ Emmer wheat, wheat spelt and various clover species occur more frequently, with lesser amounts of mustard/runch, mallow, dock/sorrel, and date palms (Thanheiser 1987: 31-32, discussion 24-66). The faunal remains include cattle, sheep, goat, smaller quantities of pig, fish, birds, tortoises, river mussels and rare gazelle and rabbit (Boessneck & von den Driesch 1992: 68, table 2; 74, table 8; 134, table 80; 135, table 82). Some conjectures as to what was cooked in the restricted cooking bowls with folded rims can be gleaned from its slightly restricted shape. The rim diameters of this vessel type range from c. 15 cm (rare) to more than 40 cm in some cases. While the smallish vessels would not necessarily provide easy access, the larger ones do, which means that evaporation would be quite rapid. This facilitates to cook meals in need of thickening liquid and frequent stirring. It is also likely that most of the restricted bowls are about as deep as they are wide (although there are not many complete ones). Such a shape holds liquid longer and would be useful for food with high liquid content such as porridges, stews or broth (Villing & Spataro 2015: 6). Moreover, depictions in tomb scenes show meat/fish cuts sticking out of cooking pots (Fig. 12), so the pots could have served to boil meat and produce a broth. However, scientific analysis is needed to gain more insight and it is hoped that this will be possible in the future.

With this I wish Stan 'smakelijk eten!' and many happy returns.

³⁵ It would be an interesting project to compare archaeological remains of cuisine in the various context types.

³⁶ It was not possible to conduct analyses on the cooking pots as this settlement was excavated from the 1960s to the 1980s.

sherd no.	fabric	surface treatment	rim diam. ³⁷	pres. %	Phase	Manufacture	Fig.
33942/1061	I.e.3	Uncoated	40.0	0.12	G/3–1	Handmade	1.a
70800/2667	I.e.2	Uncoated	30.0	0.13	G/3-1-F	Turned	1.b
71738/4056	I.e.2	Uncoated	15.0	0.06	F	Turned	1.c
70040/1171	I.e.2	White slipped rim in/out burnished	32.0	0.07	G/3–1	Turned	1.d
70888/2817	I.e.2	White slip out/ rim in	11.0	0.18	G/3–1	Turned	1.e
3002/71098	I.e.2	White slip out	27.0	0.07	G/4	Coiled+turned; rim trimmed with tool	2.a
3002/71095	I.e.2	White slip out/ rim in	25.5	0.06	G/4	Coiled+turned	2.b
3002/71096	I.e.2	White slip out/ rim in	25.0	0.09	G/4	Coiled+turned	2.c
1039/70018	I.e.2	White slip out	25.0	0.06	G/4–1	Coiled+turned	2.d
4285/71940	I.e.2	White slip out/ rim in	25.0	0.13	G/4	Coiled+turned	2.e
2667/70841	I.e.2	White slip out	24.0	0.03	G/3-1(-F)	Coiled+turned	2.f
2497/70690	I.e.2	White slip out	24.0	0.10	(G/3–1)-F	Coiled+turned	2.g
551/13540	I.e.2	White slip out/ rim in	21.0	0.04	G/3-1	Coiled+turned	3.a
482/10844	I.e.2	White slip out/ rim in	26.0	0.09	G/3-1	Coiled+turned	3.b
551/13538	I.e.2	White slip out/ rim in	28.0	0.05	G/3-1	Coiled+turned; rim trimmed with tool	3.c
867/20784	I.e.2	White slip out/ rim in	24.0	0.08	G/3-1	Coiled+turned	3.d
1134/41794	I.e.2	White slip out/ rim in	28.0	0.05	G/1-F	Coiled+turned	3.e
614/16838	I.e.2	White slip out	29.0	0.12	G/3–1	Coiled+turned	3.f
842/19919	I.e.2	White slip out/ rim in	28.0?	0.09	G/3–1	Coiled+turned	3.g
2667/70847	I.e.2	Uncoated	33.0	0.06	G/3-1(-F)	Coiled+turned	4.a
2667/70837	I.e.2	Uncoated	38.0	0.06	G/3–1(-F)	Coiled+turned	4.b
4056/71730	I.e.2	White slip out	19.0	0.06	F	Coiled+turned	4.c

Table 1. Details of cooking pot vessel fragments shown in the article

³⁷ The diameter measured represents the actual aperture of the vessel fragment.

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4056/71724	I.e.2	Uncoated	15.0	0.33	F	Coiled+turned	4.d
4056/71741	I.e.2	White slip out	31.0	0.13	F	Coiled+turned	4.e
2399/70417	I.e.2	White slip out/ rim in	19.0	0.05	E/3	Coiled+turned	5.a
2399/70418	I.e.2	White slip out/ rim in	19.0	0.07	E/3	Coiled+turned	5.b
3702/71595	I.e.2	Uncoated	25.0	0.08	D/2	Turned	5.c
3702/71591	I.e.2	Uncoated	26.0?	0.06	D/2	Turned	5.d
3180/71238	I.e.1	Uncoated	21.0	0.13	D/2	Turned	5.e
3212/71287	I.e.2	White slip out/ rim in	27.0	0.13	D/2	Turned	5.f
1967/60156	IV	Uncoated	16.0	0.09	G/3–1	Turned rim, eroded	8

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Postscript

Zukerman (2014: 116–117) maintains that all restricted bowls were derived from the Syro-Palestinian tradition and assigns them to foreign influences. The reason for local production he sees in the higher costs of large scale import of cooking pots. However, he overlooks the change of assignation of rectricted bowls from the Syro-Palestinian to the Egyptian style pottery corpus i.a. due to the finds of early precursers at Ezbet Rushdi (cf. Bader 2012; Bietak & Kopetzky 2012; Schiestl & Seiler 2012; Czerny 2015) and the subtle differences described above. For this reason his general conclusions need to be revised. His interpretation of incised bread moulds will be discussed in another paper.

ZUKERMAN, A., 2014. Baking trays in the second millennium BCE Levant and Egypt: Form, function and cultural significance. *Syria* 91: 99–125.