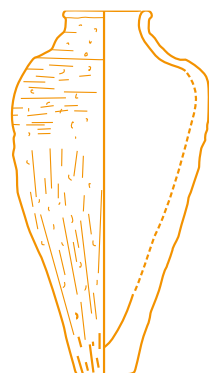


# Naqada III pottery in the Nile Delta: a view from Tell el-Murra, Tell Abu el-Halyat, Ezbet el-Tell/Kufur Nigm, Tell el-Akhdar, Tell Gezira el-Faras, and Minshat Radwan



**Abstract:** This article presents the results of a comparative analysis of the materials obtained during surveys conducted in 2008, 2010, and 2017 by the Polish archaeological expedition of the Jagiellonian University in Kraków, in the eastern part of the Nile Delta. The analyzed materials come from the sites of Tell el-Murra, Tell el-Akhdar, Tell Gezira el-Faras, Tell Abu el-Halyat, Minshat Radwan, and Ezbet el-Tell/Kufur Nigm. Comparisons were made, especially with the well-dated settlement pottery from Tell el-Farkha. The primary aim was to identify similarities between the data from Tell el-Farkha, considered one of the most important centers in the Nile Delta during the period of the formation of the Egyptian state, and data from the investigated sites located relatively close to Tell el-Farkha. The results of the research indicate a similar chronology across many sites in the northeastern part of the Nile Delta, located in close proximity to one another. These findings demonstrate that this area was more densely populated during the Naqada III period than previously thought and confirm its significant role in the beginnings of the Egyptian state.

**Keywords:** Egypt, Naqada III, Protodynastic, Early Dynastic, Nile Delta

**Mariusz A. Jucha**

Jagiellonian University in Kraków,  
Institute of Archaeology

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## INTRODUCTION

In recent years, our knowledge of the Nile Delta during the Predynastic and Early Dynastic periods has expanded significantly. Research conducted at several sites, especially at Tell el-Farkha since 1998 (Jucha 2005; Chłodnicki, Ciałowicz, and Mączyńska 2012; Dębowska-Ludwin 2023), has provided data that allow us to revise our previous views on the significance of settlements located in this region. Additional data on the early history of the Nile Delta were obtained during surveys conducted by the Polish Archaeological Expedition to the Northeastern Nile Delta in 2008, 2010, and 2017. The surveyed area was located in Ash-Sharqiyyah Governorate (Jucha 2009a), to the east of Tell el-Farkha and to the west of Tell el-Iswid. The primary goal was to locate sites from the period immediately preceding the establishment of the Egyptian state and from the stages immediately after its formation — Naqada III. During the survey, the following sites were visited: Tell el-Murra, Tell Abu el-Halyat, Ezbet el-Tell/Kufur Nigm, Tell el-Akhdar, Tell Gezira el-Faras, Minshat Radwan, Gezira Sangaha, Mantiqat el-Qala'a, and Kafr el-Hadidi. The material was primarily collected from the surface and, in some cases, from plundering pits

or from contemporary construction or drainage works carried out at an unspecified time before the expedition's arrival at the site. The collected ceramics include diagnostic fragments. In most cases, individual forms from each site are represented by single examples, which are documented in drawings. Diagnostic fragments of pottery vessels, with forms dated to the Naqada III period, were found at Tell el-Murra, Tell Abu el-Halyat, Ezbet el-Tell/Kufur Nigm, Tell el-Akhdar, Tell Gezira el-Faras, and probably also Minshat Radwan. The material base obtained during the survey allows for comparisons, especially with the well-dated settlement material from Tell el-Farkha (Jucha 2005). The aim is to highlight similarities with the pottery from that site [see below, *Tables 1, 2*], which is considered one of the most important centers in the Nile Delta during the formation of the Egyptian state. At the same time, these materials will supplement the data from later excavations at Tell el-Murra (Jucha et al. 2016; 2017; 2018; Bąk-Pryc et al. 2023), Kom el-Khilgan (Buchež and Midant-Reynes 2011; Midant-Reynes and Buchež 2021), and Tell el-Iswid (South) (Midant-Reynes and Buchež 2014; 2024).

## ARCHAEOLOGICAL SITES INCLUDED IN THE ANALYSIS

### TELL EL-MURRA

Tell el-Murra [*Figs 1, 2*] is located approximately one km south of the modern village of Abu Umran, about ten km east of Tell el-Farkha, and six km west of Tell el-Iswid. It was mentioned among

the sites visited by the Amsterdam University Survey Expedition to the Northeastern Nile Delta, during which pottery dated to the Old Kingdom was recorded (van den Brink 1987: 23, Table 2; 1988: 75, Fig. 7). Since 2008, it has been in-

vestigated by the Polish archaeological expedition. The site, with currently preserved dimensions of approximately 250 m × 150 m, is almost undisturbed (only fragments were leveled by agricultural activity) and still rises several meters (approximately 3–4 m) above the field level. Preliminary work during the survey seasons in 2008 and 2010 revealed pottery dated to Naqada III and Old Kingdom.

The initial reconnaissance of the site during the survey developed into regu-

lar excavations, which are ongoing. During subsequent fieldwork (2011–2018, 2022, 2024), the remains of a settlement were explored. This work also confirmed that the site had been inhabited since the Predynastic-Lower Egyptian Culture until the end of the Sixth Dynasty. Moreover, an Early Dynastic cemetery adjacent to the settlement was discovered (Jucha, Bąk-Pryc, and Małecka-Drozd 2015; Jucha et al. 2016; 2017; 2018; Jucha 2021b; Kazimierzczak 2021; Bąk-Pryc et al. 2023).

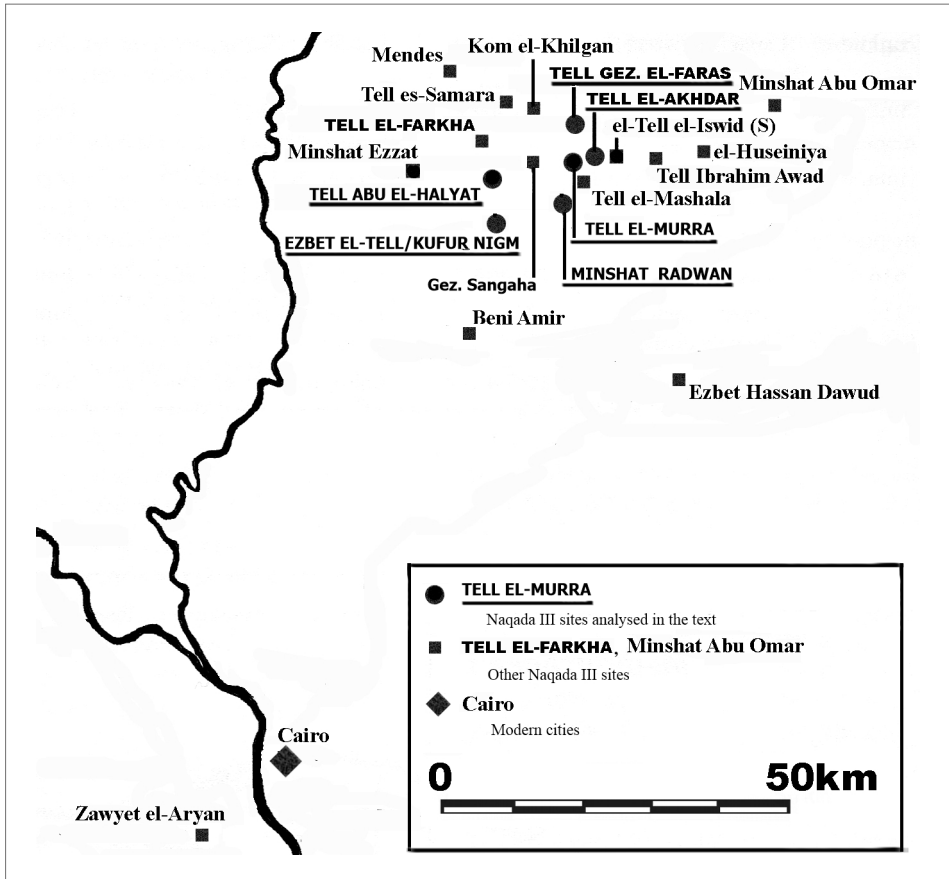


Fig. 1. Northeastern part of the Nile Delta with Naqada III sites analyzed in the text (Tell el-Murra Expedition Archive | digitizing M.A. Jucha)

**TELL ABU EL-HALYAT**

Tell Abu el-Halyat [Figs 1, 3] was investigated during the 2010 and 2017 survey seasons and remains an area of research interest for the expedition. It is situated approximately one km south of the modern town of Abu el-Shuqûq. The distances to other archaeological sites are, for example, approximately

10 km to Tell el-Murra located to the northeast, and about 6.5 km to Tell el-Farkha, situated to the north. The site is presently subdivided by cultivated fields into three main parts: the western mound (approximately 100 m × 150 m), the northern/central mound (50 m × 100 m), and the eastern mound (200 m × 100 m). The western mound is overbuilt by



Fig. 2. Tell el-Murra (Tell el-Murra Expedition Archive | photo M.A. Jucha)



Fig. 3. Tell Abu el-Halyat (Tell el-Murra Expedition Archive | photo M.A. Jucha)

a modern cemetery, while the northern/central and eastern mounds have been disturbed by agricultural activity. The northern/central mound consists of two small parts with vertically ditched sides, resulting from the expansion of fields that now separate them. Several robber trenches were noted at the eastern mound. The distance between the easternmost point of the eastern mound and the westernmost point of the western mound is approximately 420 m, while that between the northernmost point of the northern/central mound and the southernmost point of the eastern mound is approximately 300 m. During fieldwork at the site, pottery was collected mostly from the surfaces of the northern and eastern mounds and from a trench in the western part of the eastern mound. This material was dated to the Naqada III period; however, the

occurrence of several fragments that may belong to both earlier and later forms suggests that the Protodynastic and possibly Old Kingdom periods are also represented (Jucha 2011b; 2021a).

Given these results, Tell Abu el-Halyat is becoming one of the most important sites for the further development of our expedition's research. Continuing our work here remains a priority.

#### **EZBET EL-TELL/KUFUR NIGM**

The site of Ezbet el-Tell/Kufur Nigm [Figs 1, 4] was investigated by the Polish team during the 2017 survey season (Jucha 2021a). It is located in the northeastern part of the Nile Delta, directly southeast of the modern village of Ezbet el-Tell and approximately two km north/northeast of the villages of Khudarija and Kufur Nigm. The distances to nearby sites are approximately 13,5 km to Tell el-Murra situated to



Fig. 4. Ezbet el-Tell/Kufur Nigm (Tell el-Murra Expedition Archive | photo M.A. Jucha)

the northeast and 13 km to Tell el-Farkha located to the north. The site is currently divided by roads, modern fields, and irrigation trenches into two main parts: the northwestern mound (200 m × 100 m) and the southeastern mound (200 m × 150 m). The distance between the extreme northwestern point of the northwestern mound and the extreme southeastern point of the southeastern mound is approximately 400 m. Excavations were carried out there in 1961, 1962, and later in 1978 and 1979 by representatives of the Antiquities Organization. This research demonstrated the presence of an Old Kingdom settlement, possibly dating back to the Early Dynastic period. Furthermore, about 300 Early Dynastic graves were explored. Subsequent research was carried out in 1984, 1985, 1988, and 1990 by the University of Zagazig, during which additional 134 Early Dynastic graves were uncovered in

the northern part of the northern mound (Bakr 1988; 1994; 2003; Gander and Wenzel 2010; Wenzel and Bakr 2010). The primary goal of our survey at this site was to obtain information on the still older periods preceding the establishment of the Egyptian state (Predynastic and Protodynastic).

#### TELL EL-AKHDAR

Tell el-Akhdar [Figs 1, 5], with currently preserved dimensions of approximately 250 m × 200 m, was investigated by the Polish archaeological team during the 2008 and 2010 survey seasons. It is located about three km east of Tell el-Murra, roughly halfway between that site and Tell el-Iswid. The site was also mentioned among those visited by the Amsterdam University Survey Expedition, during which pottery dated to the Old Kingdom, as well as the First Intermediate Period and New Kingdom, was recorded



Fig. 5. Tell el-Akhdar (Tell el-Murra Expedition Archive | photo M.A. Jucha)

(van den Brink 1987: 24, Table 2; 1988: 72, Fig. 4). As with most of the sites visited by the Polish team (apart from Tell el-Murra), Tell el-Akhdar has been heavily disturbed by modern installations, including construction in the center of the tell, embankments built from material taken from the site, and paths. Surface material consists mostly of potsherds; however, a small fragment of a rectangular stone palette of Naqada III date with grooves along its edges was also found. In addition, during the 2010 season, dredging of a small water canal (just prior to our visit), situated on the edge of the cultivation and bordering the western part of the site, exposed subsurface layers and allowed the collection of pottery older than that previously discovered there. Most of the potsherds collected during the Polish surveys show affinities with forms known from other Early Dynastic

sites, while only a few can probably be linked to the Old Kingdom.

#### **TELL GEZIRA EL-FARAS**

Tell Gezira el-Faras [Figs 1, 6], located about six km north of Tell el-Murra and approximately ten km northeast of Tell el-Farkha, was investigated by the Polish archaeological team during the 2008 and 2010 survey seasons. It was also mentioned among the sites visited by the Amsterdam University Survey Expedition and an Italian survey, when pottery dated from the Old Kingdom onward was reported, including material from the Middle Kingdom, Second Intermediate Period, New Kingdom, and Roman times (van den Brink 1987: 24, Table 2; 1988: 75, Fig. 7; Chłodnicki, Fattovich, and Salvatori 1992). The site is now almost completely overbuilt by a modern village and cemetery, making it difficult to determine its origi-



Fig. 6. Tell Gezira el-Faras (Tell el-Murra Expedition Archive | photo M.A. Jucha)

nal dimensions based solely on surface finds. The modern cemetery occupies a hill measuring approximately 100 m × 100 m, the edge of which is sharply cut off on one side, indicating that the ancient settlement was undoubtedly larger. However, it is difficult to assess how far it originally extended within the area now covered by modern buildings. Only a few potsherds were collected, mostly from the outskirts of the tell. Among them are forms showing affinities with those from Naqada III.

#### **MINSHAT RADWAN**

Minshat Radwan [Figs 1, 7] was investigated by the Polish archaeological team during the 2010 survey season.

It is located approximately seven km south of Tell el-Murra and about 13 km southeast of Tell el-Farkha. Similar to Tell Gezira el-Faras, the site is also almost completely overbuilt by a modern village and cemetery. The modern cemetery occupies an area measuring approximately 200 m × 100 m. It is difficult to determine, however, whether the ancient settlement was located only in the area of the modern cemetery or whether it also extended into parts now occupied by modern houses. Only very few potsherds were found, mostly from the western outskirts of the tell. Some of these, however, appear to be linked with the Naqada III period.

## **POTTERY — COMPARATIVE ANALYSES OF DATA FROM SURVEYED SITES**

The material collected during the survey consists mainly of fragments of ceramic vessels, the most important among them

being diagnostic pieces (rims and bases). Their comparison with well-dated material from nearby Tell el-Farkha



Fig. 7. Minshat Radwan (Tell el-Murra Expedition Archive | photo M.A. Jucha)

provides the basis for determining the chronology of the collected assemblage and, consequently, the sites covered by the survey.

The ceramic assemblage includes, among others, fragments of different types of bread molds. These were made of coarse category Nile clay fabric, containing mostly medium to coarse straw, with medium to coarse sand grains also occurring as temper. Quite frequently, the entire inner surface was slightly smoothed, but in the case of the outer surface, only the upper part was smoothed while the lower part was rough and irregularly formed. The assemblage includes both

shallow and wide, as well as slightly deeper, bread molds. Most examples feature an angular transition dividing the body into two zones (Jacquet-Gordon 1981: Fig. 1:3–4), though several rim fragments may belong to forms without such a transition.

Among the forms, there are examples with a rounded rim top [Fig. 8:1–2, Table 1:1]. Similar bread molds occur in Phases 4 (Naqada IIIA1-B) and 5 (Naqada IIIB-C1), as well as the beginning of Phase 6 (First Dynasty) at Tell el-Farkha (Jucha 2005: 51–52, Pls 68, 69:1–4; 2011a: 959, Figs 1:24, 2:22; cf. Jacquet-Gordon 1981: Fig. 1.1).

Table 1. Occurrence of selected pottery forms at sites visited during the Polish archaeological survey and comparison with the assemblage from Tell el-Farkha (Naqada III – Phases 4–6; Old Kingdom – Phase 7)

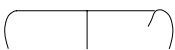
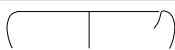
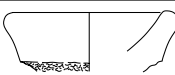

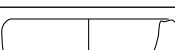
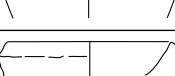



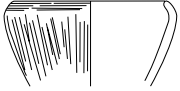

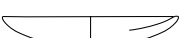
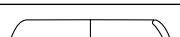
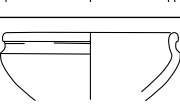
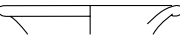


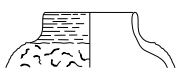
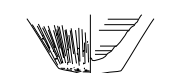
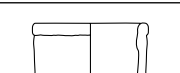
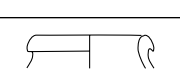
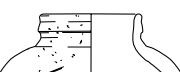
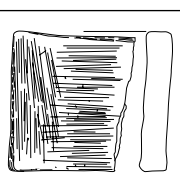
VESSEL FORM	Tell el-Murra	Tell Gezira el-Faras	Tell el-Akhdar	Tell Abu el-Halyat	Minshat Radwan	Ezbet el-Tell	Tell el-Farkha PHASES
1 							4, 5, 6
2 							6
3 							6
4 							5, 6, 7
5 							5, 6, 7
6 							6
7 							6, 7
8 							7
9 							4, 5, 6, 7

Table 1. Occurrence of selected pottery forms at sites visited during the Polish archaeological survey and comparison with the assemblage from Tell el-Farkha (Naqada III – Phases 4–6; Old Kingdom – Phase 7) (continued)

VESSEL FORM	Tell el-Murra	Tell Gezira el-Faras	Tell el-Akhdar	Tell Abu el-Halyat	Minshat Radwan	Ezbet el-Tell	Tell el-Farkha PHASES
10 							6
11 							6
12 							6, 7
13 							4, 5
14 							6
15 							6
16 							4, 5, 6
17 							4, 5
18 							6
19 							6
20 							4
21 							5, 6
22 							7
23 							6

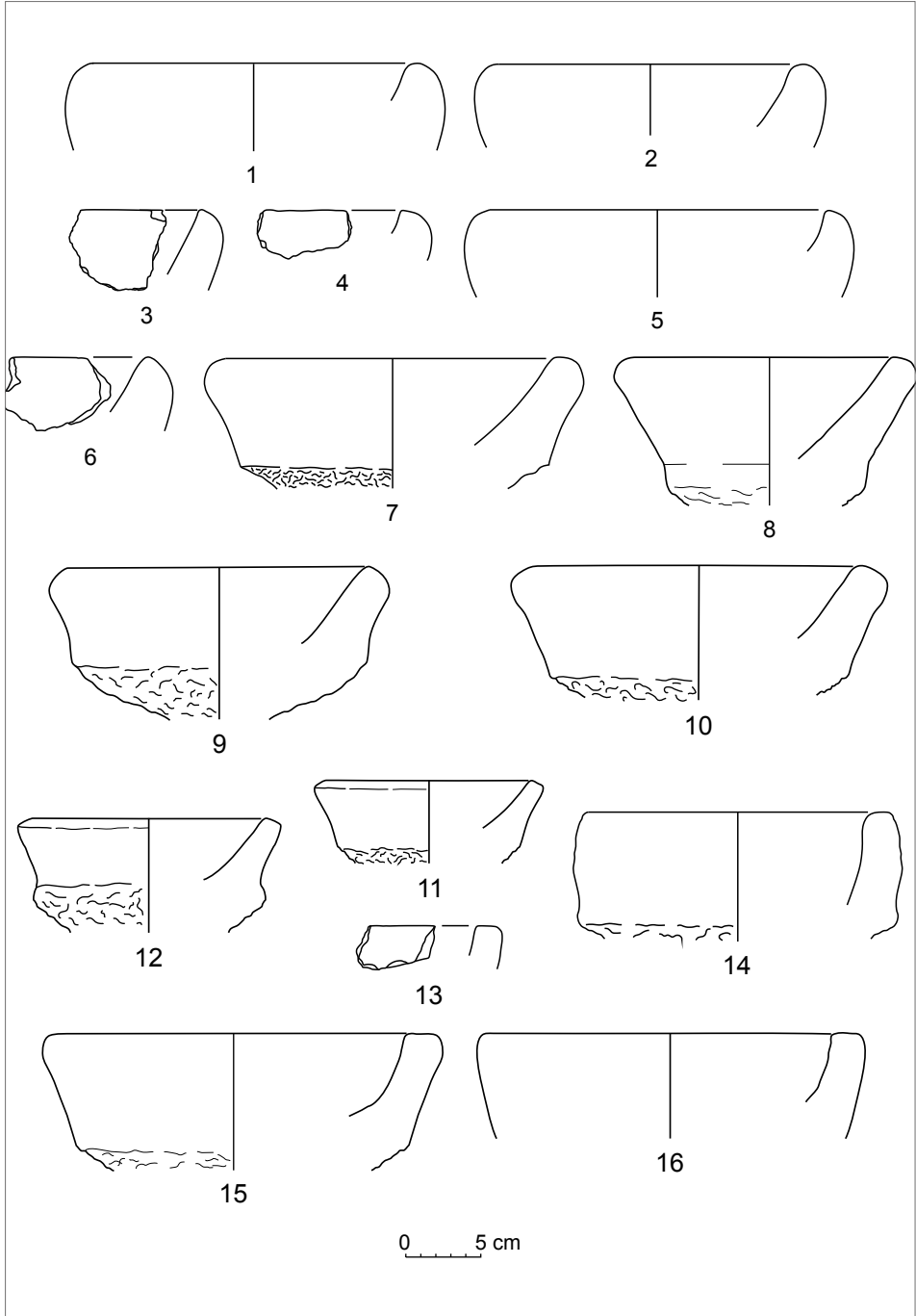


Fig. 8. Pottery from the northeastern Nile Delta sites visited during the Polish archaeological survey. Bread molds: 1, 3-5, 7, 13 - Tell el-Murra; 1, 3-5, 7, 13; 2, 6, 14 - Tell Gezira el-Faras; 8, 15 - Tell el-Akhdar; 9-12, 16 - Tell Abu el-Halyat (Tell el-Murra Expedition Archive)

Bread molds with a rounded and diagonal outer part of the rim [Fig. 8:3–6, Table 1:2] (Jucha 2011a: 960, 963, Figs 1:27, 2:24, 3:30), examples with a diagonal, slightly convex outer part of the rim and an angular transition between the inner wall and the rim edge [Fig. 8:7–9, Table 1:3] (Jucha 2011a: 963, Figs 2:25, 3:31), as well as forms with a flat and diagonal outer part of the rim [Fig. 8:10] (Köhler 1998: 27, Taf.

46:4; Jucha 2011a: 960, Figs 1:32, 2:28, 3:35) are present as well. The latter group also includes small bread molds [Fig. 8:11–12], very similar to those found at Tell el-Farkha, Phases 6 and 7, dated to the Early Dynastic period and the very beginning of the Old Kingdom [Table 2], respectively (Jucha 2011a: Figs 2:21, 3:28, 4:24). Other comparable forms are well known mainly from Tell el-Farkha Phase 6.

Table 2. Tell el-Farkha, Phases 3–7 (After Mączyńska, Chłodnicki, and Ciałowicz 2019: 118)

Tell el-Farkha	
Phases 3 – 7	Chronology
3	Naqada IID2/IIIA1 = c. 3450 – 3350 B.C.
4	Naqada IIIA1 – IIIB = c. 3350 – 3200 B.C.
5	Naqada IIIB – IIIC1 = c. 3200 – 3000 B.C.
6	Naqada IIIC2 – IIID = c. 3000 – 2700 B.C.
7	IIIrd/IVth Dynasty = c. 2700 – 2600 B.C.

Other examples include bread molds with a flattened [Fig. 8:13–16, Table 1:4] (Jucha 2005: Pls 69:5, 70:1–4; 2011a: Figs 1:28, 3:32) or slightly concave rim top [Fig. 9:1–2, Table 1:5] (Jucha 2005: Pls 70:5, 72:1–5; 2011a: Figs 1:29–30, 2:26, 3:33, 4:26). Both types are known mainly from Phases 5 and 6 at Tell el-Farkha, though they also occur in Phase 7 [see Tables 1, 2]. A relatively small number of the latter form was also confirmed during later excavations at Tell el-Murra in Early Dynastic layers (M. Kazimierczak, personal communication).

Bread molds with a diagonal and wavy formed external contour of the rim were also found [Fig. 9:3–8, Table 1:6]. These seem to be especially typical of the Early Dynastic period and occur in such dated contexts at Tell el-Farkha, Phase 6 (Jucha 2011a: 960, Figs 1:31, 1:33, 2:27, 2:29, 3:34–36, cf. Köhler 1998: 27, Taf. 44:2, 4, 5).

Forms with an angular transition dividing the body into two zones and a thickened internal part of the rim [Fig. 9:9–11, Table 1:7] are also present. These should be regarded as chronological markers, allowing the material to be assigned to a specific period. Such forms appear to be especially typical from the second half the First Dynasty until the beginning of the Old Kingdom. In such dated contexts, they occur at the neighboring site of Tell el-Farkha, where they were found in the later part of Phase 6 and Phase 7 (Raue in Kaiser et al. 1999: 174–175, Abb. 34:3; Jucha 2011a: 963, Figs 2:30, 3:37, 4:27).

Red-polished Meidum bowls, made of fine category Nile clay [Fig. 10:1–3, Table 1:8], similar to examples from Tell el-Farkha, Phase 7 (Jucha 2011a: 967–968, Fig. 4.9), were among the finds collected during the survey. These belong to the

earlier types of such bowls, dated mainly to the beginning of the Old Kingdom (Needler 1984: 219, Cat. No. 81; Köhler 1998: 24, Taf. 30:1, 3, 31:3–8; Köpp in Dreyer et al. 2003: Abb. 19:c; Kazimierczak 2014: 162; Fig. 1; Kazimierczak in Jucha et

al. 2016: 123, Fig. 45:14–16; Raue in Kaiser et al. 1999: Abb. 37:1, 38:1, 39:1), although the possibility of an earlier date —at the end of the Early Dynastic period— cannot be ruled out (Op de Beeck 2004: 270, Figs 3:16, 10, 22).

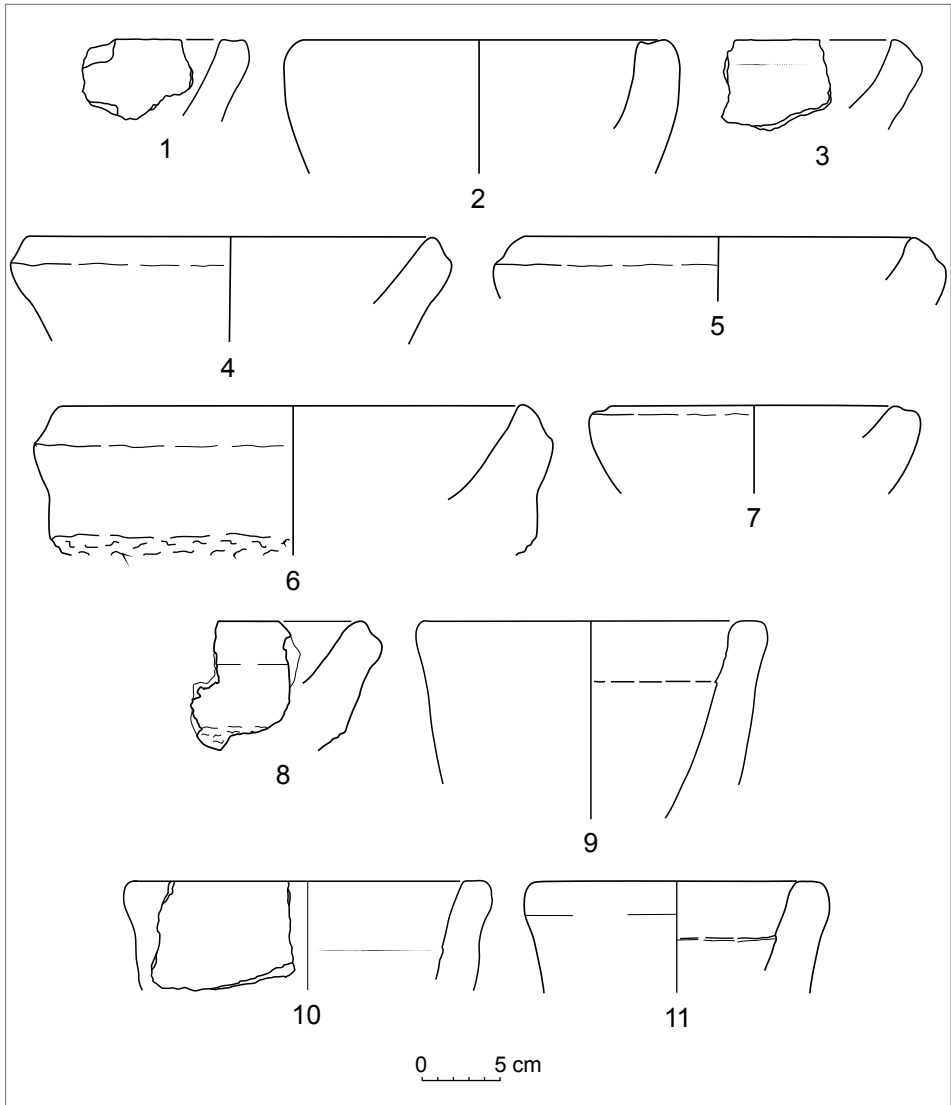


Fig. 9. Pottery from the northeastern Nile Delta sites visited during the Polish archaeological survey. Bread molds: 3, 9–10 – Tell el-Murra; 1 – Tell Gezira el-Faras; 2, 11 – Tell el-Akhdar; 4–7 – Tell Abu el-Halyat; 8 – Minshat Radwan (Tell el-Murra Expedition Archive)

The finds include also the red-polished bowls with convex sides and a simple rim [Fig. 10:4–11, Table 1:9]. These were made of fine category Nile clay fabric with fine sand inclusions, or of medium category Nile clay tempered with fine to medium sand and straw. Such bowls were attested at Tell el-Farkha in Phase 4, but became especially typical in Phase 5 (Protodynastic/beginning of the Early Dynastic period). They also occur in Phases 6 and 7 (Early Dynastic and the beginning of the Old Kingdom) (Jucha 2005: 49–50, Pls 60–61, 63:3–5, 64, 65:1–2; 2011a: Figs 1:15–17, 2:15–16, 3:22–23, 4:20).

Red-polished bowls of restricted form, with the upper part clearly bent inward [Fig. 10:12, Table 1:10], belong to a well-known Early Dynastic type attested in both graves and settlement layers at Tell el-Farkha — Phase 6 (Jucha 2011a: 961–967, Figs 2:15, 3:22).

Also present are red-polished bowls with an angular inner edge of the rim, made of medium category Nile clay tempered with fine to medium sand and straw [Fig. 10:13–14, Table 1:11]. Such bowls were found at Tell el-Farkha in settlement layers of Phase 6, dated to the end of the First Dynasty and the Second Dynasty. The form was also present among the Tell el-Farkha grave assemblages belonging to the group dated to this period (Naqada IIIC2/D) (Köhler 1998: 23, Taf. 28:9–16; Jucha 2011a: 964, Fig. 3:21).

Another form, with a slightly thickened internal lip-rim, was made of similar fabric, although with only smoothed surface [Fig. 10:15, Table 1:11]. It resembles examples known from Tell el-Farkha Phase 3, dated to the end of Naqada II/beginning of Naqada III, but also shows

affinities with later examples occurring among Early Dynastic assemblages at Tell el-Farkha — Phase 6, although these later examples belong to the red-polished ware (Jucha 2005: Pl. 66:3; 2011a: Fig. 3:20).

Flat plates [Table 1:12] are also present. They are made either of fine category Nile clay fabric tempered with fine sand and straw or of medium category Nile clay fabric tempered with fine to medium sand and straw. Among them are examples with red-coated and polished surfaces [Fig. 10:16] as well as plates with only a red-coated and polished interior, while the exterior surface is uncoated and smoothed [Fig. 10:17–21]. The latter seem to become especially typical from the second half of the First Dynasty (Jucha and Mączyńska 2011: 37, Table 2:30). At Tell el-Farkha, such plates occur both in the group of graves dated to the second half of the First Dynasty and the first half of the Second Dynasty, as well as in the settlement Phase 6 (Jucha 2011a: 963, Figs 2:17, 3:24). Plates of this type are also among the new forms that appear in graves of Group IV at Minshat Abu Omar, dated to a similar period (Kroeper 1988: 16, Fig. 177). Comparable examples are attested at the very beginning of the Old Kingdom, among others at Tell el-Farkha, Phase 7 (Jucha 2011a: Fig. 4:21). Examples made of similar fabrics as described above, with two grooves on the outer surface [Fig. 10:22], also occur among the mentioned flat plates. Other examples have both surfaces only more or less smoothed [Fig. 10:23–25]. These include, among others, forms with an angular transition between sides and base [Fig. 10:26–27]. Forms similar to the latter, though mostly with a red-coated

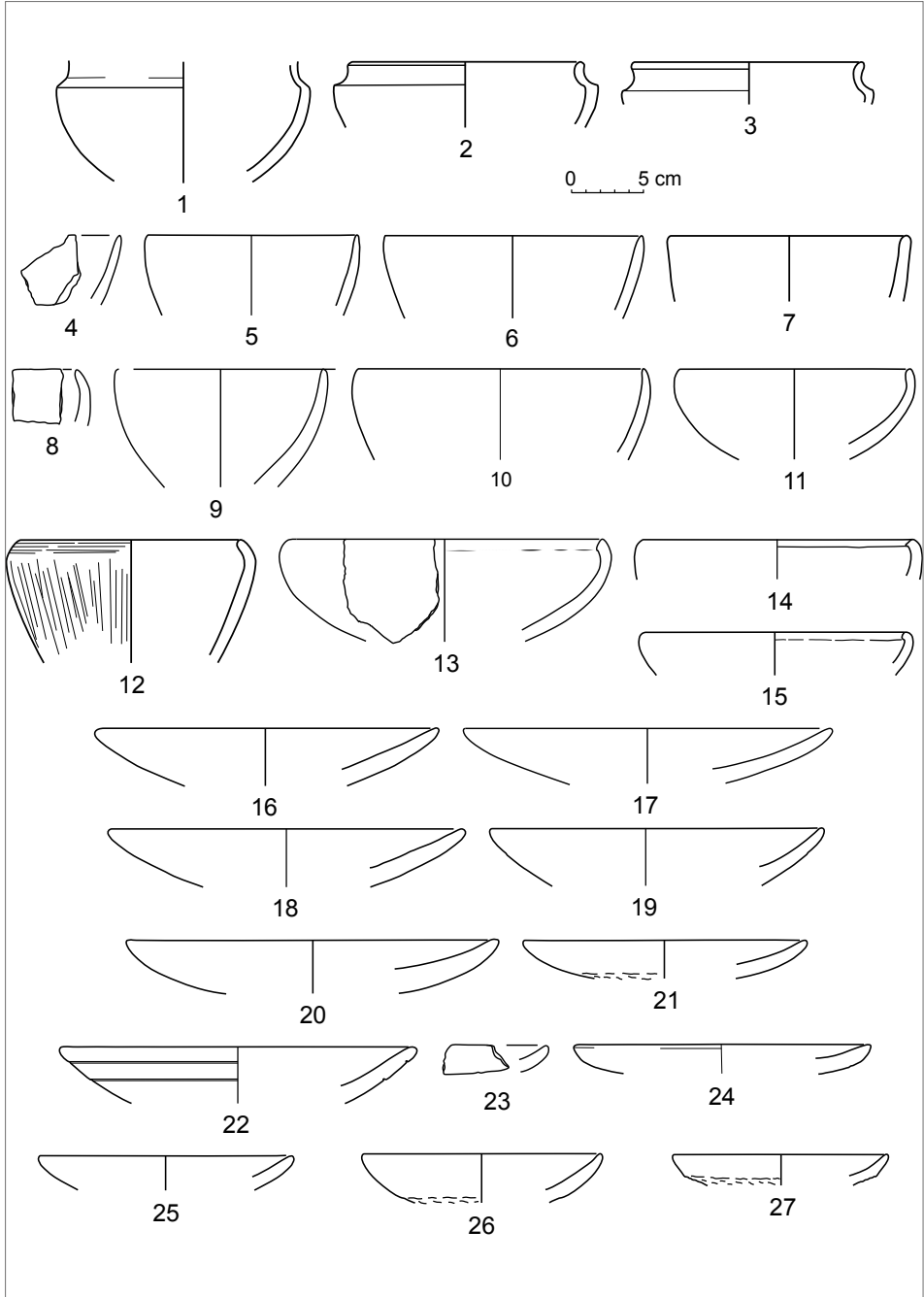


Fig. 10. Pottery from the northeastern Nile Delta sites visited during the Polish archaeological survey. Bowls and plates: 2-3, 8-9, 13, 17 - Tell el-Murra; 4, 23 - Tell Gezira el-Faras; 5, 10, 14, 18-19, 22, 24 - Tell el-Akhdar; 1, 6-7, 11-12, 15-16, 20-21, 25-27 - Tell Abu el-Halyat (Tell el-Murra Expedition Archive)

and polished interior and only a lightly smoothed exterior, were also found at Tell el-Farkha, where they occur from the end of the First Dynasty until the beginning of the Old Kingdom, Phases 6 to 7 (Jucha 2011a: 966, Figs 3:25, 4:22).

Other types comprise fragments of red-coated and polished hole-mouth bowls with a thickened external part of the rim [Fig. 11:1]. These were made of medium category Nile clay tempered with fine to medium sand and straw. It is quite possible that at least some of them belong to spouted bowls, which begin to appear in the Early Dynastic period. A fragment of such a spouted brewing vat with a lip-rim [Fig. 11:2] was also discovered. It was made of medium category Nile clay tempered with fine to medium sand and straw, and its surface was smoothed. Such vessels are associated with beer production and are not attested before Naqada IIID (Hendrickx et al. 2002: 292–293). Similar examples were also found at Tell el-Farkha, where they occur in the strata of Phases 6 and 7, dated to the end of the First Dynasty/Second Dynasty as well as the beginning of the Old Kingdom (Jucha 2011a: 966, Figs 3:13, 4:14).

The same fabric group also includes fragments of rough ware bowls with convex sides and a thickened external part of the rim [Fig. 11:3–4], as well as a fragment of a bowl with a lip-rim and a more or less smoothed surface [Fig. 11:5].

The assemblage further contains hole-mouth restricted vessels with a simple rim [Fig. 11:6, Table 1:13], showing affinities to forms well known from the Predynastic–Protodynastic settlement at Tell el-Farkha, Phases 4 and 5 (Jucha 2005: 46–47, Pls 40–42).

Among the finds was also a fragment of a bowl with a lip-rim and slightly narrowing area of a concave contour below the rim [Fig. 11:7, Table 1:14]. This bowl shows affinities to forms known from Tell el-Farkha Phase 6, where they occur especially in strata dated to the second half/end of the First Dynasty (Jucha 2011a: 961, Fig. 2:11). Examples from similarly dated contexts also come from later excavations at Tell el-Murra (M. Kazimierczak, personal communication).

Other forms include small bowls made of medium category Nile clay fabric tempered with fine to medium sand and straw, with more or less smoothed surfaces [Fig. 11:8–10]. These are also known from Early Dynastic–Old Kingdom Phases 6 and 7 at Tell el-Farkha (Jucha 2011a: Figs 2:18, 3:26, 4:23).

In addition, a fragment of a bowl with concave sides, a lip-rim, and a yellow-coated, smoothed outer surface was also found [Fig. 11:11, Table 1:15]. Similar examples are known from Tell el-Farkha Phase 6, where they occur in strata dated to the First Dynasty. However, at that site most have a red-coated, polished inner surface and only smoothed outer surface (Jucha 2011a: Figs 1:21, 2:19), while examples with yellow-coated surfaces are rare. Comparable fragments from Early Dynastic contexts were also found during later excavations at Tell el-Murra (M. Kazimierczak, personal communication).

A bowl with slightly convex sides and a thickened external part of the rim [Fig. 11:12], showing affinities with examples from Tell el-Farkha Phase 5 (Jucha 2005: Pl. 75:1), as well as a fragment of a bowl with a flat rim top and a thickened external part of the rim [Fig. 11:13], were also found.

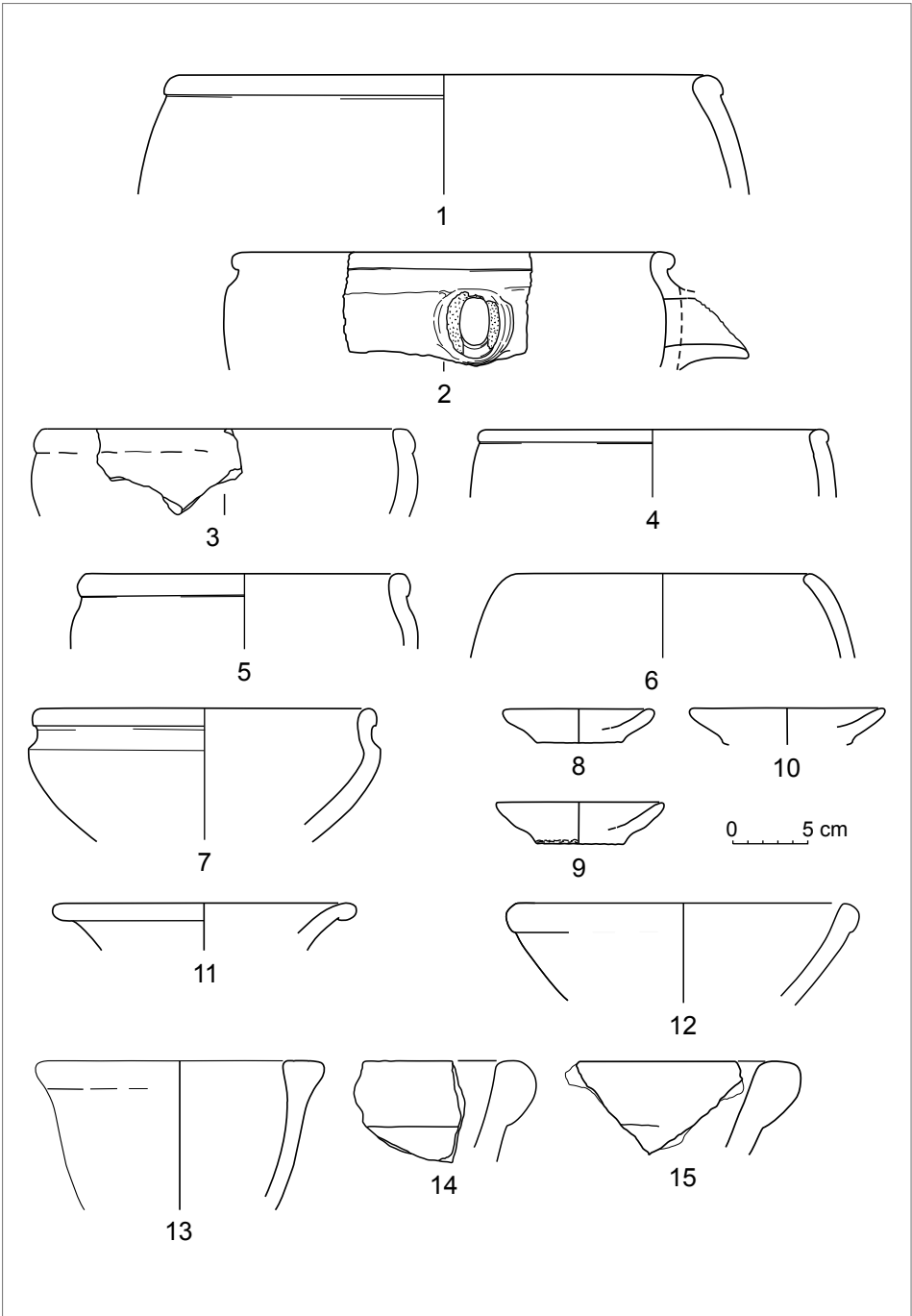


Fig. 11. Pottery from the northeastern Nile Delta sites visited during the Polish archaeological survey. Bowls and vats: 3 – Tell el-Murra; 12, 14 – Tell Gezira el-Faras; 1–2, 4–7 – Tell el-Akhdar; 8–11, 13 – Tell Abu el-Halyat; 15 – Minshat Radwan (Tell el-Murra Expedition Archive)

In addition to the above-described forms, fragments of vats with rounded lip-rims were also recovered [Fig. 11:14–15, Table 1:16]. Most of these are made of medium category Nile clay tempered with fine to medium sand and straw. Examples of vats from Tell el-Farkha are generally encountered in the strata of Phases 4 and 5 and also occur in Phase 6 (Jucha 2005: 52, Pl. 75; 2011a: 959, Figs 1:23, 2:20, 3:27). Comparable specimens were also found during later excavations at Tell el-Murra, in layers dated to the Early Dynastic period and the first half of the Old Kingdom (M. Kazimierczak, personal communication).

Another group of pottery comprises rough ware jars, made of medium category Nile clay tempered with fine to medium sand and straw.

Among them is a fragment of a high neck with slightly concave walls and a simple rim [see below, Fig. 13:1, Table 1:17], possibly belonging to a shouldered jar with a high neck, simple rim, and a flat, irregularly formed base. Such jars are known from the Protodynastic/Early Dynastic period. At Minshat Abu Omar, similar jars occur in graves of Group III (mostly Group 3b, Kroeper 1988: Fig. 99). At Tell el-Farkha, comparable fragments

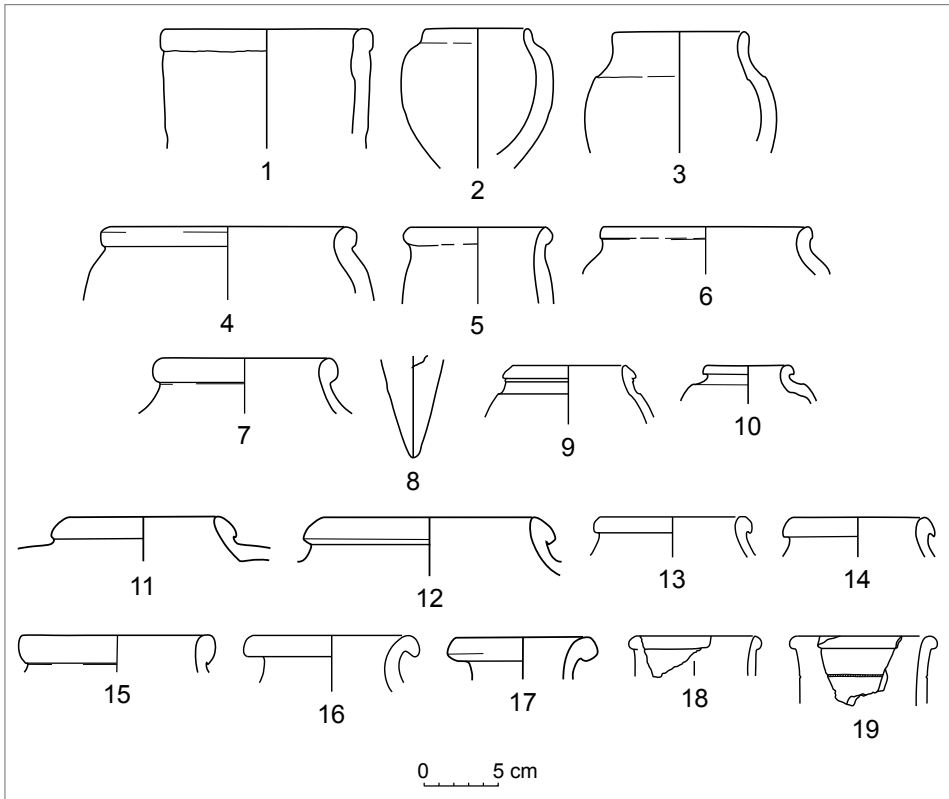


Fig. 12. Pottery from the northeastern Nile Delta sites visited during the Polish archaeological survey. Jars: 9, 13, 16, 18–19 – Tell el-Murra; 4–7, 15 – Tell el-Akhdar; 1–3, 8, 10, 14 – Tell Abu el-Halyat; 11–12, 17 – Ezbet el-Tell/Kufur Nigm (Tell el-Murra Expedition Archive)

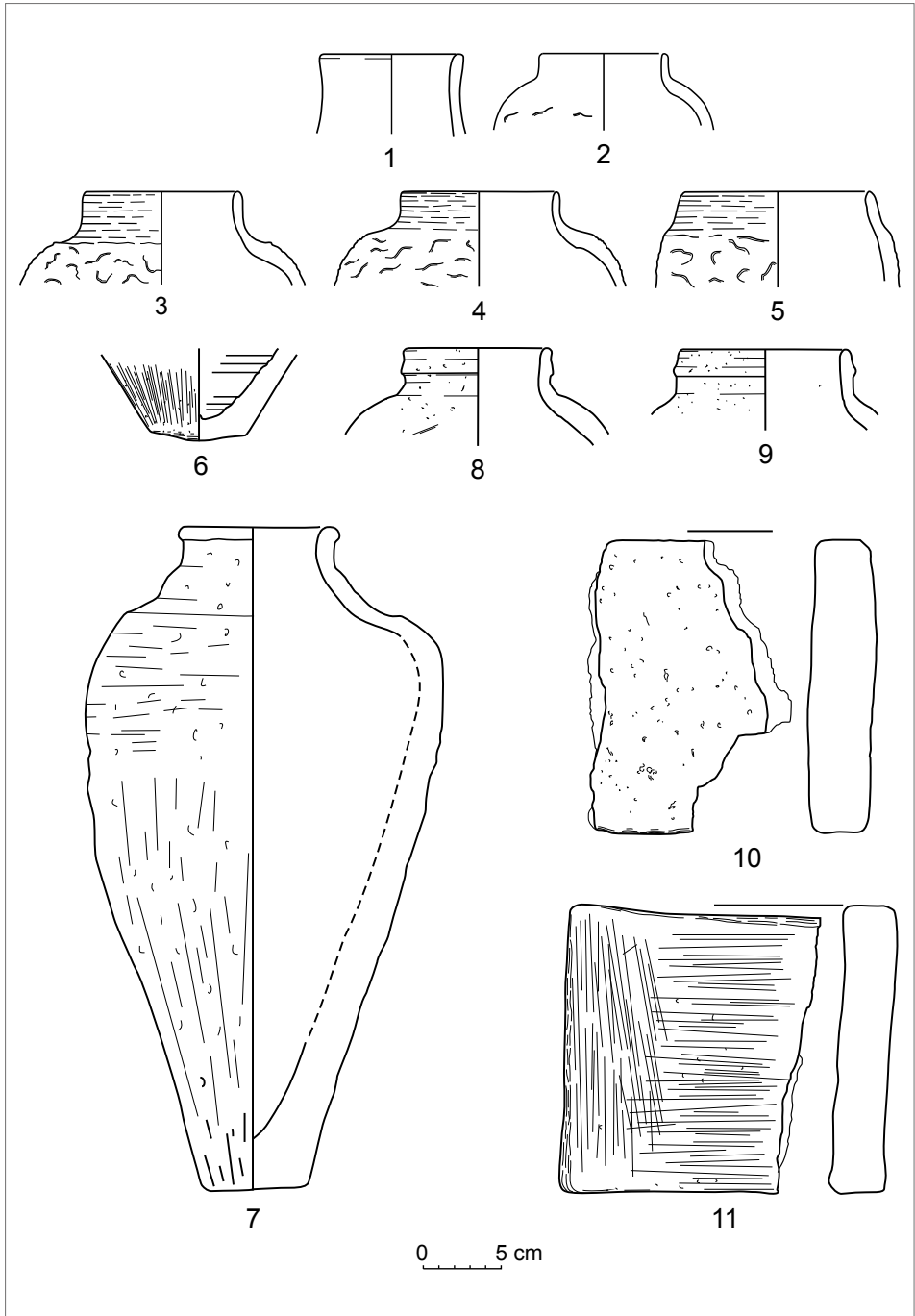


Fig. 13. Pottery from the northeastern Nile Delta sites visited during the Polish archaeological survey: 1 - Tell el-Akhdar; 2 - Tell Gezira el-Faras; 3-6, 8-9, 11 - Tell Abu el-Halyat; 10 - Ezbet el-Tell/Kufur Nigm; 7 - Tell el-Murra (Tell el-Murra Expedition Archive)

occur in Phases 4 and 5 (Jucha 2005: 45, Pl. 35:2–4) and in graves belonging to the group dated to Naqada IIIB. An example of such a vessel was also recently discovered—in the 2024 season—in a grave at Tell el-Murra, also dated to Naqada IIIB.

The assemblage also includes fragments of rough ware beer jars with simple rims. These were made of medium category Nile clay fabric tempered with fine to medium straw and fine to medium sand, with a small amount of coarser sand grains. The rim and neck were smoothed (turning marks are also visible), while the surface at the shoulders was irregular (formed wavy). Both broad-shouldered forms [see below, *Fig. 13:2–4, Table 1:18*] and examples with a narrower body [see below, *Fig. 13:5*] are attested. The former may derive from various types of beer jars with scraped, irregularly formed surfaces or only irregular surfaces. Fragments of flat bases with scraped surfaces were also found [see below, *Figs 13:6, Table 1:19*]. Such jars show affinities with examples from Tell el-Farkha (Jucha 2009b: *Fig. 1:2–3*) and Tell el-Murra [see below, *Fig. 13:7*] (Kazimierzak 2015; Jucha et al. 2016: *Fig. 41*), where they occur in graves dated to the second half of the First Dynasty and the first half of the Second Dynasty. Fragments are also found in the settlement strata at Tell el-Farkha, Phases 6 to 7, dated from the middle/second half of the First Dynasty to the very beginning of the Old Kingdom (Jucha 2011a: 961, *Figs 2:1, 3:1, 4:2*). This later chronology (Tell el-Farkha Phase 7) primarily concerns narrower forms with irregularly shaped surfaces [see below, *Fig. 13:5*]. Such narrow-bodied examples appear

to become typical from the end of the Early Dynastic–Naqada IIID period and continue into the beginning of the Old Kingdom (Köhler and Smythe 2004: 133, *Fig. 2, Type 4*; Raue in Kaiser et al. 1999: 181, *Abb. 37:7*). These have not yet been attested in Naqada IIIC<sub>2</sub>/IIID graves at Tell el-Farkha, but in the settlement at that site they seem to appear from the Second Dynasty onward (the very end of Phase 6).

Additionally, a fragment of a jar with a slightly thickened external part of the rim and almost straight sides was found [*Fig. 12:1, Table 1:20*]. It was made of medium category Nile clay tempered with fine to medium straw and sand, and its surface was only slightly smoothed. It may represent a fragment of a tall, tapering vessel with almost straight or slightly convex sides and a narrow, flattened, irregular base. Such jars are especially typical of Tell el-Farkha Phase 4, dated to the Protodynastic–Naqada IIIA<sub>1</sub>–IIIB period (Petrie 1921: Pl. XLV: L30, L31; Jucha 2005: 40–41, *Pls 11:4–5, 12–16, 17:1*).

Among the other forms made of similar fabric are jars with almost rounded bodies and simple rims [*Fig. 12:2–3*], different types of jars with lip-rims [*Fig. 12:4–7*], and jars with pointed bases [*Fig. 12:8*].

The ceramic assemblage also includes various types of fine-ware jars [*Fig. 12:9–19*]. These were made of fine category Nile clay fabric containing a small amount of sand. Their surfaces, very well smoothed, could be uncoated or yellow-coated. Among them, examples with concave necks and rims with angular lower edges [*Fig. 12:13–14, Table 1:21*] resemble forms found in Naqada III strata at Tell el-Farkha, Phases 5 and 6 (Jucha 2005: Pl.

29:5–8; 2011a: Fig. 2:3). Forms with concave necks and lip-rims [Fig. 12:16–17] are well attested in the Protodynastic (Phase 5) and early Early Dynastic (the beginning of Phase 6) contexts at Tell el-Farkha (Jucha 2005: 44, Pls 31–32:5–6; 2011a: Fig. 1:4).

Moreover, cylindrical jars without decoration [Fig. 12:18], characteristic of Tell el-Farkha graves dated to Naqada III C<sub>1</sub>, as well as examples with decoration beneath the rim [Fig. 12:19], typical mainly of Naqada III B graves at Tell el-Farkha, were also found.

Jars with an external contour of the rim formed wavy [Fig. 13:8–9, Table 1:22], similar to examples from Tell el-Farkha Phase 7, found mainly in contexts dated to the beginning of the Old Kingdom (Jucha 2011a: 967–970, Fig. 4:3), occurred only sporadically. This also applies to examples from later excavations at Tell el-Murra (M. Kazimierczak, personal communication).

The research also yielded certain finds that are enigmatic and unique within the archaeological material dating to the Early Dynastic period: rectangular

burnt clay tiles found at Tell Abu el-Halyat [Fig. 13:11, Table 1:23] (Jucha 2011a: 651–653, Figs 7–9). Comparative material is extremely rare, known only from three other sites: Ezbet el-Tell/Kufur Nigm (both earlier research: Bakr 2003: 33–34 and our survey in 2017 [Fig. 13:10]), Tell el-Farkha, and Tell el-Iswid. What is worth mentioning here is that all four sites with such finds are located within a relatively small area (only several to a dozen or so kilometers apart) and date to the same period. The above indicates that such burnt clay tiles were made and used only locally and for a short period of time. Even more striking is the fact that, despite their rarity, their find contexts differ (Jucha 2011a: Table 1). At Ezbet el-Tell/Kufur Nigm they were used in funerary architecture (Bakr 2003: 33–34), while at Tell el-Farkha and Tell el-Iswid they appeared in structures found within a settlement area (Chłodnicki et al. 2005: 63–64; Buchez 2014: 72). The context of the Tell Abu el-Halyat finds remains uncertain on the basis of currently available data, but should be clarified through our future research planned at this site.

## SUMMARY

The pottery material described above comprises forms that in most cases show affinities with vessels dated to the Protodynastic and Early Dynastic periods (Naqada III B–D). These similarities are particularly visible when compared with precisely dated assemblages from settlement Phases 5 and 6 and from Early Dynastic graves at Tell el-Farkha, as well as from the cemetery at Tell el-Murra.

Old Kingdom material occurs to a lesser extent, although its presence at several sites (Tell Abu el-Halyat, Tell el-Akhdar, and Tell Gezira el-Faras) indicates habitation there during this period as well, as confirmed, among others, by the ongoing excavations at Tell el-Murra.

The results of the research described here prove that the northeastern part of the Nile Delta was more densely populated during Naqada III than previously

assumed. Several sites where Old Kingdom material had been collected earlier have now yielded new data that allow us to date them at least from the Early Dynastic or in some cases even from the Predynastic period. This applies, for instance, to Tell el-Akhdar. Our investigation confirmed that the site already existed in Naqada III, although the material found there previously had been dated to later periods. Data obtained at Minshat Radwan—though limited to only a few potsherds—support earlier assumptions of Naqada III habitation at this site. The same applies to Tell Gezira el-Faras and Tell el-Murra, as shown by pottery of clearly earlier chronology. At Tell el-Murra, subsequent excavations revealed even older, Predynastic strata, and the material found there proved beyond doubt that the site had been inhabited since the Lower Egyptian culture. One of the most important achievements of our research is the identification of a new site dated to the period under consideration (Naqada III and the Old Kingdom): Tell Abu el-Halyat. The site has yielded material similar in character to that from other Naqada III sites in the region, both settlement and funerary in nature. This makes Tell Abu el-Halyat one of the key sites—together with Tell el-Murra—in our research plans for the coming excavation seasons.

The finds obtained during our survey, compared with the results of earlier excavations and surveys, also allowed us to suggest (Jucha 2016) that Naqada III settlements in the investigated area were located closer to one another than previously assumed. More recent work (Jucha 2009a; 2016) indicates a much shorter

distance—only 1 to 3 km—between some neighboring Naqada III sites, in contrast to the average distance of 6.5 km calculated for that period on the basis of earlier research (van den Brink 1993). It can therefore now be argued that a more clustered spatial distribution of settlements, with a hierarchical structure including satellite villages, had already developed during Naqada III. This contrasts with the earlier view, suggesting an egalitarian and linear pattern for this period. Consequently, our findings revise the traditional view of the Naqada III settlement pattern, showing that in this part of the Nile Delta it closely resembled the more clustered and hierarchical pattern previously thought to emerge only in the Old Kingdom (van den Brink 1993).

The results of the research presented above, which indicate a similar chronology for many sites located only short distances from each other, confirm the previously suggested important role of the northeastern part of the Nile Delta in the beginnings of the Egyptian state.

The work of several Jagiellonian University in Kraków expeditions, currently conducted at different sites in northern Egypt (Tell el-Murra, Tell el-Farkha, Tell Abu el-Halyat, sites investigated during the surveys described above, and since 2025 also at Wadi Tumilat), dating to the same period, opens new perspectives for comparative analyses. This new stage in the development of research is now possible thanks to direct access, by the same team of ceramologists, to ceramic material and its documentation at several contemporary sites both during fieldwork and directly after, at the stage of specialized analyses, and during subse-

quent processing. That enables advanced studies and insights into regional differentiation in the period of formation and early functioning of complex society, into the processes taking place at that time,

from a broader perspective — through comparisons between sites, even before data are formally published in separate reports and monographs devoted to individual sites.

#### Dr. Mariusz A. Jucha

<https://orcid.org/0000-0001-6878-5156>

Institute of Archaeology

Jagiellonian University in Kraków

[m.jucha@uj.edu.pl](mailto:m.jucha@uj.edu.pl)

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