



BRONZE AGE POTTERY FROM LOGARDAN

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The work carried out in the second season of excavations (2016) at Logardan has included a survey on the upper terrace of the tell and the beginning of two operations – Trench D and Trench E – at the top of the site and on the north-western side of the upper terrace respectively¹. The Bronze Age ceramic material from these operations² has been counted and recorded according to a “traditional” typology based on the morpho-stylistic analysis of the shards, which have been preliminary subdivided based on shape (open/closed forms) and their evolution through time based on the analysis of stratified assemblages from the site and their correlations with those from other sites in the region.

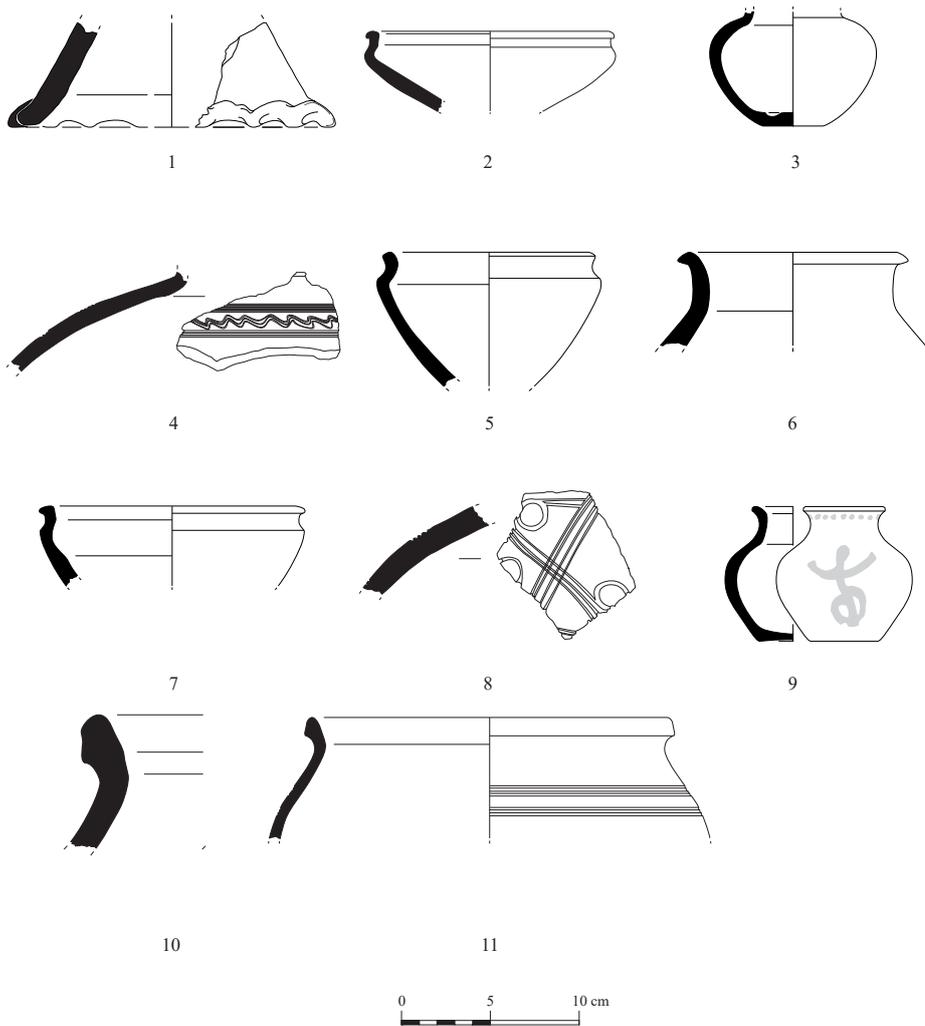
LOGARDAN TRENCH D CERAMIC MATERIAL

In Trench D, three Bronze Age levels, labeled 1-3 from top to bottom, the last of which is divided into three phases (a-c), all dating from the second part of third millennium BC, have been recognized. The pottery assemblage from the latest levels (1-2), represented by the construction, use and reconstruction of a ceramic workshop, is composed by few but important chronological indicators that point to a late 3rd millennium BC date. The carinated bowl with rounded, out-turned rim, a pointed carination just below the rim and a conical lower body (Fig. 1:1, LOG.D.223-1) is, for example, a chronological marker for this period, reaching his peak in the Third Dynasty of Ur period (hereafter Ur III)³. Earlier evidence of this pottery type, spreading across a very large area encompassing the Western Iran, through Southern and Central Mesopotamia and reaching as far as the Northern Levant⁴, date from the end of Akkadian period⁵. Its presence in these levels could represent the latest occupation of the area, at least on the base of the material collected so far. Another type of carinated-sided bowl, an example of which is shown in Fig. 2:7 (LOG.D.215-1)⁶, with out-turned or thickened rim flattened on top, high carination and hemispherical body, was also retrieved. This form, with several close variants recurring especially in the earlier level, is largely documented in the Tigridian region as well as in the Eastern Jezirah sites in the Akkadian and post-akkadian phases.

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1. For a description of the stratigraphy in the two trenches, see the contributions by J. S. Baldi, H. Naccaro and K. Rahoof and M. Sauvage, M. Zingarello and B. Salah, respectively for Trench D and Trench E.
 2. See M. Sauvage, M. Zingarello and B. Salah on Logardan Upper Terrace Survey, this volume, about the methodology applied on the survey's material.
 3. For the type's description and comparison see McMahon 2006: pl. 90; Schmidt 2014; Casadei 2016: 34-36.
 4. Schmidt 2014: 411 and fig. 1.
 5. Late Akkadian specimens, e. g., come from Level F of the Archaic Ishtar Temples at Assur (Beuger 2013: taf. 1:8), Level XI of the WF Sounding at Nippur (McMahon 2006: 80, type O-17) as well as from Tell Asmar (Delougaz 1952: pl. 150, B.151.210) in the Diyala, but also from Susa and some sites of Southern Mesopotamia.
 6. Among the others, close parallels for this kind of carinated bowl come from Tepe Gawra' Stratum VI (Speiser 1935: pl. LXVII:93), Area B's Levels 7-8 at Tell Yelkhi (Bergamini 2003-2004: pl. 4:26, 28) and Area KG's Level VIB at Nineveh (McMahon 1998: fig. 7:15-16, 18).



Fig. 1 - Selection of ceramic material from Levels 1-2, Trench D.



- 1 : LOG 16 D 228-12 2 : LOG 16 D 236-5 3 : LOG 16 D 239-1
- 4 : LOG 16 D 236-9 5 : LOG 16 D 228-1 6 : LOG 16 D 213-2
- 7 : LOG 16 D 215-1 8 : LOG 16 D 236-10 9 : LOG 16 D 243-1
- 10 : LOG 16 D 236-8 11 : LOG 16 D 236-7

Fig. 2 - Pottery from Levels 2 (nos. 6-7) and 3a (nos. 1-5, 8-11), Trench D.

Other types of open forms in the two upper levels of Trench D include small bowls with upright indented rim (Fig. 1:2, LOG.D.223-2), some small bowl fragments with a simple rim, flattened lip and straight, uneven wall and bowls with band, thickened or inturning plain rim, all typical of the Late Akkadian and Ur III periods.

The range of closed forms consists of small jars with plain or flattened rim on a flared, short neck, medium jars with triangular rim on medium-high neck (Fig. 2:6, LOG.D.213-2), wide-mouth bag-shaped jars with or without combed incisions on the shoulder (Fig. 1:3), attested in higher percentage in the earlier level. A thin-walled small version of this jar with a rounded, grooved inside rim on a very short neck was also retrieved. Levels 1-2 yielded also some examples of simple horizontal combed decoration and a combination of wavy and horizontal combed bands (Fig. 1:4). Furthermore, a very large triangular rim, probably belonging to a vat, testifies to the presence of large coarse vessels.

The earlier ceramic workshop area, represented by Level 3, saw the construction and use of several pottery kilns, built both on the inside and outside of Level 4 building, whose ruins were reused and partly adapted by means of the construction of a massive partition wall (Wall 637) and by other minor changes⁷. Sub-level 3a ceramic material did not differ significantly from that of the following Levels 1-2, but it shows types more common in Late Akkadian times. In fact, the amount of different types of carinated-sided bowls increases considerably, including both the typical “Ur III” carinated bowl (Fig. 3:2, LOG.D.245-1) now with a blunted, upright rim and a pointed carination⁸, found in the upper strata of Sub-level 3a, and other variants such as deep bowls with flaring rim and high carination (Fig. 2:5, LOG.D.228-1)⁹, shallow bowls with thickened rim in common (Fig. 3:1, LOG.D.249-3) as well as in fine ware (Figs. 2:2, 3:4 LOG.D.236-5)¹⁰, and large bowls with thickened flaring rim, a rounded, emphasised carination and convex walls (Fig. 3:3, LOG.D.252-1).

Closed shaped are mainly represented by wide-mouthed bag-shaped vessels, small to medium in size (Fig. 4:2, LOG.D.251-1), and by a variety of medium and large-sized storage jars with rounded, rolled or thickened out-turned rims on medium-high neck or neckless (Fig. 4:3, LOG.D.247-3). Both these types are very often characterized by a decoration consisting of groups of band-combed lines on the shoulder (Fig. 2:11, LOG.D.236-7), that seem to appear more frequently in the Akkadian and earlier periods¹¹, or by horizontal and wavy lines made with a multiple-pointed comb (Fig. 2:4, LOG.D.236-9). Body shards with notched

7. For a detailed description of architecture see J. S. Baldi, H. Naccaro and K. Rahoof, this volume.

8. A very close comparison can be found at Nineveh, in “band rim bowls” of the Area KG’s Level VIB, dating to the Late Akkadian/Ur III period (McMahon 1998: fig. 7:26-28).

9. The best parallels for this type of carinated bowl come from Level G of Archaic Ishtar Temples at Assur (Beuger 2013: taf. 5: 8), Tepe Gawra’ Stratum VI (Speiser 1935: pl. LXVII:92), Tell Brak’s Phase N (Oates 2001: figs. 418:604, 606, 431:933), and can all be dated to the Akkadian and post-Akkadian phases.

10. Different kinds of shallow bowls with thickened rim, considered as typical Akkadian shapes, are attested in the Tigridian region, the Eastern Jezirah and at the sites of the Upper Khabur. See, for example: Tell Brak, Phase N (actually post-Akkadian, Oates 2001: fig. 418:600-601, 608); Tell Fisna, Level Va (although of a slightly earlier date, i.e. Early Dynastic IIIb/Akkadian period) (Numoto 1988: figs. 22:144, 23:168); Tell Jessary, Area D’s Level 2 (Numoto 1990: fig. 8:129-132); Tepe Gawra’ Stratum VI (Speiser 1935: pl. LXVII:89-90); Nineveh, Area KG’s Levels VII-VI (McMahon 1998: figs. 5:10-13, 7:15, 17, 20-21); Assur, Archaic Ishtar Temples’ Level G (Beuger 2013: taf. 4:2).

11. Oates 2001: 165.



Fig. 3 - Carinated bowls from Sub-level 3a, Trench D.



Fig. 4 - Selection of closed shape vessels from Sub-level 3a, Trench D.

horizontal applied rope(s) (Fig. 4:4) are also common in this and in the earlier sub-levels as well as decorations with applied snakes.

An everted ledge rim on corrugated neck (Fig. 4:1, LOG.D.244-4) belongs to a very well-known kind of small to medium-sized jar, occurring in the Euphrates Banded Ware, that generally represents a hallmark of phases Early Middle Euphrates 3 and 4 in the whole Middle Euphrates Valley.¹²

Moreover, Sub-level 3a yielded a substantial amount of out-turned thickened with a quite pronounced depression on both the inside and outside rim surface or band rims grooved or channelled on the upper part, very likely aimed at holding a lid. This kind of jar seems to be common in Late Akkadian/Ur III contexts, e.g. in Level VI of the Area KG at Nineveh.¹³ Some of the multiple-grooved thickened rims on medium-to-large wide-mouthed jars without neck,¹⁴ of which one at least shows a decoration of five wavy-combed lines, date to the same period, or slightly later.

Three fragments of “pie-crust” pot stands (Fig. 2:1, LOG.D.228-12), characterised by an undulating, finger-impressed lower edge and generally considered typical of the Late Bronze Age, may date from the Late Akkadian/Ur III period as revealed by their presence in the stratigraphic sequence of Area KG at Nineveh since Level VIA or in Levels G, F and E of the Ishtar Temple at Assur.¹⁵

In Sub-level 3a one of the rare fragments of spout, probably belonging to a jar was recovered.¹⁶

One of the most interesting pots from this phase is a miniature jar with a tapered off, flaring rim on short neck, globular body and flat base, showing a black painted decoration – now discoloured in blue – of a stylised human figure with open arms and a line of painted dots just below the rim (Figs. 2:9, 5, LOG.D.243-1). If the latter seem to be more characteristic, for example, of the “shoulder-vases” decoration coming from the Ishtar Temple’s Levels G and F at Assur¹⁷ – dating from the end of Early Dynastic to the Late Akkadian periods –, the human representation is quite identical to that one painted in dark brown on the wall of a likely wide-mouth jar from Tepe Gawra’ Stratum VII¹⁸. A small, but not miniature jar from a grave at Tell

12. Sconzo 2015: 123, type 62. Cf. also Porter 1995: figs. 15-16. An EME 3 date for this Sub-level seems excessively early when compared with the overall ceramic assemblage of Level 3, better fitting to the end of EME 4. See also the radiocarbon dates obtained for this level (Appendix B, this volume). It should be noted that some specimens of Euphrates Banded Ware jars were found also in Southern Mesopotamia, i.e. at Nippur (McMahon 2006: pl. 101:4-7), Abu Salabikh (Moon 1987: 76, no. 363) and Fara (Martin 1988: 182-183, no. 85) in Early Dynastic III contexts.

13. Cf. McMahon 1998: fig. 9:7, 10, 12, 15.

14. See, for comparison, Beuger 2013: taf. 43:5, 44:3 belonging to Level G and Level F(2) of the Archaic Ishtar Temples at Assur, respectively.

15. See the considerations expressed by McMahon 1998: 19, note 44.

16. In Central and Southern Mesopotamia as well as in the Diyala, spouted jars are typical of Early Dynastic III period, becoming rare and disappearing completely at the end of Akkadian period, when a wide-mouth teapots appear.

17. A comb-stroked surface together with simple painted dots are frequent, for example, in the so-called “shoulder vases” (Beuger 2008: 355, fig. 7).

18. Speiser 1935: pl. LXXVI:9.



Fig. 5 - Painted human figure with open arms on a miniature jar (D.243-1).



Fig. 6 - Selection of open and closed shape vessels from Sub-levels 3b-c, Trench D.

Mozan¹⁹, dating from EJ 5 (ca. 2100-2000 BC), shares with our miniature version both the morphological aspect and part of dots decoration, painted with bitumen.²⁰

The following Sub-levels 3b-c yielded typical shapes occurring in Akkadian time or dating back to the end of Early Dynastic IIIb and to the beginning of the Akkadian period. The frequency of slightly carinated bowls with inside and outside thickened rim decreases compared to phase 3a, whereas shallow carinated bowls with beaded or tapered off, slightly flaring rim (Fig. 6:2) made of fine ware, whose comparisons come mostly from Akkadian contexts²¹, increase in percentage. Typical Akkadian pottery types seem to be the small cups or cylindrical beakers with beaded or slightly thickened and everted or folded outside rims with a convex or flat base (Fig. 6:1, 6:4, in the middle and at the bottom left). One of them (Fig. 6:3, LOG.D.262-8), with thickened flaring rim, walls incurving in the upper part and carination on the lower part of the body, has a band-combed decoration with five comb-incised lines at mid-body. Such cups/beakers, typical of phases b-c in Level 3, were collected from layers in Room 673 ("green" nos. 262 and 279), from the filling of kilns 664 and 665, but also from the filling of kiln 640, which belongs to Level 3a. Like other vessel types discussed above, these cups find the most consistent parallels in similar vessels from levels VII-VI in Area KG at Nineveh²², from levels G-F of Ishtar Temple at Assur²³, and, above all, from the levels dating from the end of the Early Dynastic III/Akkadian period at sites in the Eski-Mosul region²⁴.

Close-shaped vessels are represented by a large variety of vessel shapes: small- and medium-sized, wide-mouthed jars, with thickened rims with a groove on the inside or on the top to hold a lid, or medium-sized neckless jars, with bevelled rim, decorated with deep incised patterns, including a wide array of wavy lines and chevron design²⁵. Like for Level 3a, also in this phase wide-mouth bag-shaped vessels are largely attested, along with medium-to-large sized storage jars with thickened out-turned rims and a deep groove inside or on the top of the rim on medium-high neck or double-ridged rim jars without neck. Other closed forms include a triple-ridged rim jar without neck and comb-decorated shoulder (Fig. 7:2, LOG.D.262-14) and a jar with a plain, flaring rim and a slight depression inside with a pottery mark, consisting of three vertical parallel lines, incised at the neck base (Fig. 7:1, LOG.D.269-4).

19. This small-medium size jar, labelled JZ005_I001 according to the ARCANÉ database's entry code, comes from Grave A10a2 in Area A at Tell Mozan. Cf. Rova 2011: pl. 23:3, type 122.

20. According to E. Rova (2011: 79, type 122), bitumen decoration is typical of the late 3rd and early 2nd millennium Mesopotamian pottery, although at Tell Taya (Reade 1968: 251, pl. LXXXIV:13; 1982: pl. 5) and Tell Brak (Oates 2001: 165-166) appears already in the Akkadian (Level VIII) and Late Akkadian phases respectively. In the Jezirah region, this kind of decoration seems to be particularly common in Early Jezirah 5 phase (c. 2100-2000 BC) (Rova 2011: 79).

21. Besides the specimens from Area KG's Level VII at Nineveh (McMahon 1998: fig. 5: 9-10, 13), the best parallels could be found in Ishtar Temple's level G at Assur (Beuger 2013: taf. 2:13) and at sites in the Middle Tigris Valley such as Tell Fisna (Numoto 1988: fig. 21:136-137).

22. McMahon 2008: fig. 7:1-7.

23. Beuger 2008: 356, fig. 6.

24. See Levels Vb-a at Tell Fisna (Numoto 1988: fig. 21:125-132, 22:150-155) and Tell Jigan (Fuji 1987: fig. 6:68-69). This vessel type is attested also at sites in the Upper Khabur and the Eastern Jezirah, for which see Orsi 2011: tavv. 59:10-12 (Tell Leilan), 66:20-22 (Tell Hamoukar), 74:531 (Tell Rimah).

25. See Tell Brak, Oates 2001: fig. 403:294-295.



Fig. 7 - Selection of jar rims from Sub-levels 3b-c, Trench D.



Fig. 8 - Incised and applied decoration on a large vessel' shoulder.

Large vessels are attested both in some fragments of rounded and thickened rim with a slight groove in the lower part of the rim, often showing comb-incised decoration in a sharply angled zigzag band made with a six-pronged tool (Fig. 7:3, LOG.D.262-25)²⁶, and in a large fragment decorated with a pattern of crossed parallel lines and impressed dots with a small notched ridge and an applied crawling snake (Fig. 8:1, LOG.D.262-11)²⁷. The latter could probably belong to a deep basin or large-sized jar, which characterise the final phases of the Early Dynastic period up to the Ur III period in a broad area encompassing the Upper Khabur, Eastern Jezirah, and the Tigridian region.²⁸ The discovery of an undecorated “fruit stand” base (Fig. 8:2, LOG.D.262-12+241-1) is noteworthy, as such vessel shape is typical of the Early Dynastic period in Southern and Central Mesopotamia, but rarely found in the northern area.

In sum, the ceramic assemblage from the Bronze Age levels excavated in Trench D at Logardan thus far seemingly argues in favour of a strong continuity of pottery production at this site, as already pointed out for other sites.²⁹ The pottery from Logardan finds the most consistent parallels in the Akkadian and post-Akkadian phases of the Tigridian Region, particularly in Levels VII-VI in Area KG at Nineveh and levels G-F of the Archaic Ishtar Temples and the corresponding levels in Trench 7 at Assur. Although, as already pointed out elsewhere,³⁰ it should be taken into account that the materials from Nineveh span a rather long chronological range and, therefore, cannot be used for a refinement of ceramic chronology, it is nonetheless typical of the terminal phase of the 3rd millennium BC.

Logardan, located in the easternmost sector of the Tigridian region according to the regional borders assessed by the ARCANE Project, is seemingly fully included within the ceramic tradition of this area. However, it is possible to identify connections with the neighbouring areas, such as the Hamrin and the Upper Diyala, as well as the Khabur Valley, such as the parallels visible in the pottery repertoire of the Akkadian and post-Akkadian phases at Tell Brak. Differently, parallels with Southern Mesopotamia are limited but important.

LOGARDAN TRENCH E CERAMIC MATERIAL

Differently from the pottery from Trench D that was rather homogeneous both from the topsoil and the uppermost three layers, pottery from Trench E appeared mixed, although the reasons of such situations have to be investigated yet. Reliable diagnostic shards are limited in number in each of the five levels identified. Along with materials dating from the fourth millennium BC, two main phases can be singled out with a certain degree of confidence based on pottery. The later phase dates from the Late Bronze Age, characterised by the presence of large wide-mouthed storage jars, square-sectioned rim with horizontal ribs at the neck base and on the shoulder and above all of storage jars with a distinct inwardly bevelled rim

26. According to J. Oates (2001: 165), groups of horizontal combed bands appear more frequently in the Akkadian and earlier periods in contrast with the more regular, wavy combing typical of the post-Akkadian levels.

27. Cf. the complex pattern no. IV of the decoration typology elaborated by Sconzo, Bianchi (2014: fig. 2: IV, pl. 6:1-3).

28. See e.g. Tell Brak (Oates 2001: fig. 407:359-361) and Assur (Beuger 2013: taf. 11-18).

29. See the remarks in Orsi 2011: 206.

30. McMahon 1998; Orsi 2011: 193.

or incurved ledge rim. The earlier phase dates from terminal third millennium BC and it is recognisable from a few vessel types comparable to those retrieved from Trench D – such as a limited variety of carinated bowls with out-turned or thickened rim flattened on top, high carination and hemispherical body or wide-mouthed bag-shaped jars with a comb-incised decoration. A small carinated bowl with a high vertical grooved rim (Fig. 9), corresponding to Type 116 of the typology elaborated by P. Sconzo³¹ for the Middle Euphrates region within the ARCANE project, is among the most widespread shapes of the Middle Euphrates and it



Fig. 9 - Carinated bowls with upturned, grooved rim from Trench E.

is mainly attested in Period EME 5.³² This band-grooved rim, attested in the Upper Khabur at Tell Mozan and at Tell Barri³³, but also in Southern Mesopotamia as a characteristic shape of the Ur III period³⁴, was found in at least three out of five levels identified in Trench E³⁵.

Medium- and large-sized vessels found in one of the rooms (Locus 2020) of the building uncovered in 2016 and already identified by means of a geomagnetic survey carried out in the previous year³⁶, have not been restored and analysed so far. Some of these vessels, among which a complete jar and another one almost completely restorable, feature a particular decoration seldom attested thus far. The first jar (Fig. 10, LOG.E.1068-1, Jar 2033) – which still has a lump of clay attached just below the rim aimed at sealing the vessel's content – features an applied notched crescent-shaped rope, along with a ceramic raised circle, quite symmetrically placed on the shoulder. A similar decoration has been retrieved on jar rim shards from Tell Fisna's Level Va, in the Eski-Mosul region³⁷, and from Tepe Gawra' Stratum VI³⁸, dating

31. Sconzo 2015: 132-133, pl. 22:4-6.

32. According to radiocarbon dates, phase EME 5 lasted little bit more than one century, from 2196-2076 BC) (see Finkbeiner *et al.* 2015: 436).

33. Orsi 2011: tavv. 146:28 (Phase 4, Tell Mozan), 181:273 (Phase P, Tell Barri).

34. McMahon 2006: 82, Type O-22, pl. 94 with relevant bibliography.

35. These are "green numbers" 1055 (Level I or II), 1049 (Level IV), 1088 (Level V), 1089 and 1093 (Level V, Locus 2020).

36. Darras – Benech 2016: 22.

37. Numoto 1988, fig. 24: 206-207.

38. Speiser 1935: pl. LXXVI:5.



Fig. 10 - Jar 2033 (LOG.E.1068-1), with the details of decoration, from Trench E.

from the Early Dynastic IIIb/Akkadian period and the Akkadian period respectively. The second jar (Fig. 11, LOG.E.1076-1, Jar 2032) shows a deeply and spaced notched rope applied on shoulder with the edges facing downwards, representing most likely a snake. A third, large jar (LOG.E.1103-1, Jar 2037) shows the same pattern of decoration, but doubled and divi-



Fig. 11 - Jar 2032 (LOG.E.1076-1) from Trench E.

ded by a continuous applied notched rope. This kind of applied ridges seems comparable to that from Early Dynastic levels at Tell Sabra³⁹, in the Hamrin. These three jars seem to be particularly similar from both a morphological and a technological points of view, but further analysis is needed to refine their chronology and deeply investigate technological aspects.

Finally, as for the terminal phase of the third millennium BC, the differences observable between the vessel types attested in Trench D and Trench E may be connected with the different functions of the two areas (a pottery workshop in Trench D, and a building with storerooms in Trench E), but only further investigations during the next seasons of excavations at Logardan will allow us to clarify these aspects.

39. Tunca 1987: pls. 96:4 (Early Dynastic I), 98:3 (Early Dynastic I?).