CERAMICS FROM KOJ TEPA (SAMARKAND AREA-UZBEKISTAN) A Preliminary Study Report (2009-10)

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The Università degli Studi di Napoli "L'Orientale" (hereinafter UNO), and its archaeological team in Uzbekistan has elaborated and planned a study of the pottery fragments collected during the campaigns in 2008 and 2009¹ at Koj Tepa, and the survey effected in 2007 by the Università degli Studi di Bologna in the same area; the main aim of this article is to propose a preliminary ceramic typology² to support the dating of the trenches excavated³.

Notes on methodology

The study on the pottery was preliminarily conducted on the basis of two different approaches:

- 1) the archaeometrical, in order to first observe the mineralogical compositions of the body clay used in the production, which will be analyzed then by specialistic institutions (see p.4);
- 2) the typological, in order to propose a relative chronology of the artifacts.

The first approach consisted in selecting, by autoptic observation, pottery samples in order to identify specific peculiarities of the body clay for

² We would like to thank very much Dr. Bertille Lyonnet (CNRS, Paris), member of MAFOuz, Dr. Serena Massa (Università Cattolica di Milano) for their precious advices and help and Dr. Maria D'Angelo (UNO).

¹ For preliminary results of the two field work seasons see Genito, Gricina *et alii*, 2009, Genito, Gricina et *alii* 2010,

http://www.iuo.it/userfiles/workarea_231/file/Articoli/Genito,%20Gricina%20et%20alii,%20UZB%20122-141.pdf;

http://www.iuo.it/userfiles/workarea 231/Genito%286%29.pdf

³ This study is included in the frame of an agreement between the Institute of the Archaeology of the Academy of Sciences of Uzbekistan (hereinafter IAASU) and UNO, signed in 2008 and 2009.

defining differing fabrics. All the following distinctive features have been described by a macroscopic analysis as well:

- 1) the morphology and compactness of the fracture;
- 2) the color of the surface and of the fracture as well;
- 3) the shape, the greatness and the color of the inclusions;
- 4) the presence and the greatness of the hollows;
- 5) the presence or the absence of a slip and its color.

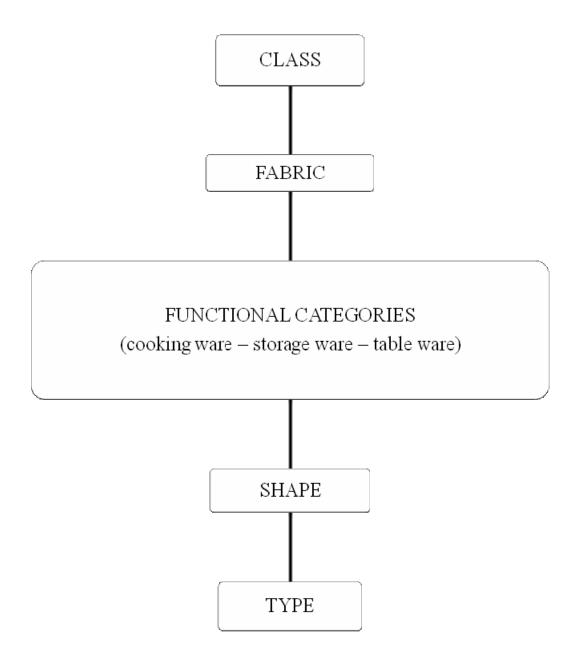
The colors were defined according to the "Munsell Soil Color Charts": where *hue* is referred to the position of the color on the spectrometer; *value* (dark to light) is defined on the basis of a scale from 0 (black) to 10 (white) and *chroma* is the level of saturation and pureness of color (0 to 10). The color in its entirety was expressed, thus, by a combination of *hue*, *value* and *chroma* (Orton, C., Tyers, P., Vince A., 1993, pp. 136-137).

At the end of the process, 19 fabrics, grouped within 13 families, were identified and a preliminary list of descriptions was set up and up-to date during the first months of 2011 on the basis of a more accurate observations by an optical microscope, using the attaching camera as well, which made possible to have new photos (1x) of the samples⁴. In realizing and proposing a typology, a more traditional approach was followed: first, classes of production were defined, as a significant group of the ware (in this case, common ware); then, on the basis of the previous macroscopic observations of the body clay, all the groups of fabrics were considered; and, inside the functional categories (cooking ware, storage ware, table ware), the shapes (e.g. jars, jugs, pots, dishes, etc.) and types (e.g. necked, un-necked, with handle, with everted rim, disc-shaped foot, etc.) were finally defined.

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⁴ The authors would like to thank very much Prof. V. Morra director of the Department and Dr. A. De Bonis of *Dipartimento di Mineralogia e Petrografia* of the Università degli Studi di Napoli "Federico II" for their kindness and help in letting us to make the necessary photos.

105



Pottery Study

The first step in the study has been the preliminary distinction of the potsherds collected during the previous seasons of work in 538 diagnostic, 2046 un-diagnostic and 150 significant⁵. fragments

Then, all the 2009 un-diagnostic fragments were distinguished in fabrics according to the SU provenances and all the information stored in a MS AccessTM database, with their horizontal and vertical provenance, quantity of potsherds, description and the photos of the best preserved decorations (Fig. 1) as well.

During this operation, it was also taken in consideration the possibility to select new samples of fabrics in order to regularly up to date the previous collection: the samples are up to now 65, of which 38 will be analyzed at the *Dipartimento di Mineralogia e Petrografia* of the Università degli Studi di Napoli, "Federico II".

The same method of selection of the fabrics and their insertion in a database was, then, applied to the diagnostic material (Fig. 2).

The inventoried materials of the 2008⁶ and 2009 campaigns were taken in the due consideration, in order to determine a preliminary typology also on the basis of the drawings made in 2009. At first, all the potsherds belonging to the same fabric were grouped, and then a further division for shape was made in order to have an idea of the most frequent, within each fabric. In addition, there have been taken more accurate photos.

On the basis of the direct observation and of the statistical analysis made possible in the database records, one can point out that not all the 19 fabrics are represented in the same quantity: the most frequent being fabrics nos 2, 4, 6, 6.1 and 7.2^7 (Figs. 3 - 5).

⁵ The diagnostic potsherds are those referring to a recognizable shape or functions (rims, bases, necks, handles etc.), to a definite decorative pattern and to a precise technical-productive aspect; the un-diagnostics, mostly walls, are the fragments not easily associable to a specific shape, function, decorative or technical aspects; the significant are the best preserved diagnostic materials (especially constituted by the whole profiles of vessels) constituting the single inventoried ceramic materials as well.

⁶ Of the 150 potsherds inventoried, there are 3 potsherds come from the trial-trench made at the site PDX 110 and 7 at the site PDX 93.

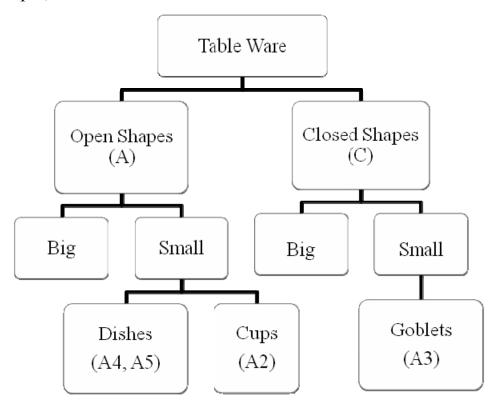
⁷ This aspect was normally observed in the diagnostic and the un-diagnostic potsherds as well.

Classification and typology

After the examination of each potsherd a further step was the inclusion of each shape into a functional category in order to link them to a recognizable shape: cooking ware (8 potsherds, 5%), storage ware (64 potsherds, 43 %) and table ware (66 potsherds, 44 %). The remaining 6% of the inventoried materials are represented by spindle-whorls (4), a knife blade (Genito, Gricina 2010, p. 124, fig. 43) and one fragmentary terracotta figurine (Fig. 6) (erroneously defined as stone figurine in Genito, Gricina 2010, p. 119).

In order to let scholars to more easily recognize the shapes, an abbreviation has been assigned to each of them. First of all, the open shapes (A) from the closed (C) have been distinguished; then a further division between the big and small dimensions followed (big are the shapes with \geq 40 cm diameter). Every shape is marked with an Arab progressive number.

For example, related to the Table Ware:



Afterwards, inside each shape, the types according to some specific feature were identified: the major distinctions are related to the rim (flat,

rounded, everted, etc.), to the walls (rounded, carinated, convexes, etc.), and to the bases (flat, disc shaped, with stem, etc.).

Shapes (All the drawings of the plates were realized by the software AutoCADTM and Adobe PhotoshopTM CS3, on the basis of the original pictures and drawings, PLATES I - XLIII)

Cooking Ware, closed shapes (8 potsherds) Small sizes (< 40 cm)

Un-necked (CP1-1) and necked (CP1-2) pots: diameter 20-28 cm, ovoid body with traces of fire. Even if there are no bases related to the potsherds, one may assume that the bases could be concave, may be, to make possible the cooking of the food. The rims of all the necked pots are everted, rounded and thickened. The subtype (CP1-2a) has the rim turned inward (Inv. 0007, 0008). All the shapes belong to fabric 2.

Storage Ware, closed shapes (51 potsherds) Small sizes (< 40 cm)

Small un-necked (C1-1) and necked (C1-2) jars (16 potsherds): diameter 25-40 cm mostly globular or ovoid body to store foods and probably liquids. The types have been distinguished on the bases of the features of the rim. The group C1-3 is characterized by a low neck (Inv. 0006, 0014, 0016, 0095, 0098, 0129) and one item (0046) presents a handled low neck. All items of this shape belong to the fabric 4, except the Inv. 0003 (fabric 1), Inv. 0016 (fabric 3), Inv. 0026 (fabric 7.1) and Inv. 0098 (fabric 4.4).

Jugs (C2-1) (7 potsherds): diameter 10-12 cm to store or serve liquids. There are not whole profiles and only the features of neck and rim have been considered in order to make a typology. All the fragments belong to the fabric 4, except Inv. 0093 (fabric 4.4).

Small un-necked (C4-1) and necked (C4-2) pots (6 potsherds): diameter 12-20 cm. One of the fragments has a good recognizable high neck (Inv. 0086); Inv. 0134 has a low neck; all the others are un-necked. Two fragments

belong to the fabric 4; the Inv. 0054 to the fabric 4.4, Inv. 0122 to the fabric 6 and Inv. 0125 to fabric 6.1.

Miniaturist pots (C4-4) (3 potsherds): diameter 8-10 cm. All the sherds belong to a fine and depurated fabric (6, 6.1).

Bases of small jars and pots (13 potsherds): diameter 4-20 cm. There are only three types: flat (CB1-1) (Inv. 0073, 0080, 0082, 0090, 0101, 0144, 0150); disc-shaped (CB1-2) (0072, 0074, 0076, 0079, 0083); slightly tripode (CB1-3) (0059).

Big sizes (≥ 40 cm)

Un-necked jars (C2-1) (6 potsherds): diameter \geq 40 cm. to store foods and liquids, probably for the transportation and commercial purpose. Most of them have a globular or ovoid body. As the small jars, the typology is based on the rims features. Just one, Inv. 0024 belongs to the fabric 7.1, the others to the fabric 4.

Un-necked (C5-1) and necked pots (C5-2) (16 potsherds): diameter 20-30 cm. Even if the diameters are not over 40 cm, it has been decided to distinguish this shape from that of smaller size. The un-necked pots are the majority; the ones with high neck are 3, as the ones with low neck (C5-3). Inv. 0015 belongs to the fabric 4.1, Inv. 0029 to the fabric 4.4 and Inv. 0116 to the fabric 6. All the others belong to the fabric 4.

Storage Ware, open shapes (6 potsherds) Small sizes (< 40 cm)

Hemispherical lids (AC1-1) (5 potsherds): diameter 10-16 cm. Probably this shape has been utilized to cover jars, pots or jugs. All of the items have a cylindrical handle on the top. Inv. 0050 and 0138 belong to fabric 4, Inv. 0018 to fabric 6.1, Inv. 0077, 0084 and 0099 to fabric 7.2.

Flat lids (AC1-2) (1 potsherd): diameter 25 cm the item (Inv. 0050) is of bigger dimension than the other lids, probably used to cover a big jar. It belongs to the fabric 4.

Table Ware, open shapes Small sizes (< 40 cm)

Goblets (14 potsherds): diameter 8-16 cm. The type A3-1 includes Inv. 0047, 0033, 0109 with convex walls; the A3-2 presents bell-shaped walls (Inv. 0021, 0023, 0033, 0038, 0121); the A3-3 includes the ones with rounded walls (Inv. 0019, 0035, 0036, 0039, 0085). All of the items have fine body clay and thin walls (fabrics 6 and 6.1). At the beginning these shapes were identified as cups, mostly because of the proportions between the rim and the base (1:1). After the comparison with the Afrasiāb materials, due to the aid and advices of Dr. Bertille Lyonnet, it has been possible to identify this shape as goblet.

Bases of goblets (12 potsherds): bases diameter 3-8 cm. Three are the types: stem with concave bottom (AB1-1) (Inv. 0017, 0048, 0103, 0107); stem with slightly concave button (AB1-2) (Inv. 0028, 0066, 0075, 0096, 0106, 0111); with flat base (AB1-3) (Inv. 0088, 0091). Three potsherds belong to a fine and depurated fabrics (mostly fabric 6 and 6.1).

Cups (11 potsherds): diameter 12-20 cm to prepare food and to serve it. There are two types: with carinated walls (A2-1) (Inv. 0027, 0049, 0063, 0078, 0089, 0104, 0126) and with rounded walls (A2-2) (Inv. 0042, 0112, 0120, 0136). As for the goblets, this shape belongs to a fine fabrics (6 and 7.2).

Basins (A1-1) (2 potsherds): diameter 26-30 cm. They have bigger dimension and thicker body than the cups. Generally the rims are flat. Both belong to the fabric 4.

Dishes (4 potsherds): diameter 15-26 cm. There are two different types: with everted rim (A4-1) (Inv. 0040, 0133) and with flattened rim (A4-2) (Inv. 0123, 0124). Only the potsherd Inv. 0040 does not belong to the fabric 4 but to the fabric 6.

Glazed dish (A5) (1 potsherd): diameter 30 cm. Rounded and everted rim, traces of turquoise glaze on the interior and exterior. Inv. 0041 (Fabric 4).

It's the only one potsherd of glazed pottery and certainly is datable later than all the others materials (from PDX 110).

Decorations

One of the most documented decoration on the fragments are the dark/brown or reddish painted splashes (Fig. 2) that cover the exterior surface (sometimes, the interior too), usually along the rims and reaching the upper part of the vase body.

It has been argued that, probably, this kind of decoration could be distinctive during the so-called "nomadic phase" (2nd -4th AD), as it seems possible the comparisons with the collected materials from Bactria (Lyonnet, 1996). Probably, at the beginning, the splashes covered only the rim, dripping down the shoulder of the vase, and it could be imaginable, that only during a second stage, the potter chooses the splashes as a decorative motifs. This kind of decoration appears on the storage jars (mostly fabric 4) both in the un-diagnostic and diagnostic materials.

Another decoration consists of incised lines: usually, the lines appear in group of three, horizontally disposed or wavy, especially along the central part of the vase body. Sometimes, the wavy lines are provided with rounded impressed patterns (Fig. 7) as well.

Only one piece is covered with a turquoise glaze: the dish (Inv. 0041, Fig. 8), dated to Islamic period (8th century onward), does not come from an excavation and it is a sporadic find coming from PDX 110 site.

Amongst the other aspects it has been taken in consideration also the surface treatment, even if it is not actually a decorative motif. The great part of goblets and cups are usually polished in brown or reddish, and sometimes present a slip (with brown-reddish color, too).

Comparisons

The comparative method utilized between materials coming from archaeological contexts, geographically far and contemporary, is useful for achieving a more complete picture on both the productions and the commercial and cultural interactions; some aspects about the ware production still exist that one could not ignore: they essentially depend on

the clay composition, on the potter's ability, on the kind of kilns and on the firing methods and temperature.

In the case of Koj Tepa, it has been possible to compare, from a morphological point of view, the inventoried ceramic materials with other coming from the archaeological investigations of MAFOuz⁸ in Sogdiana (mostly Afrasiāb) and some others published by DAFA⁹ (Aī Khanum) in Bactria (Lyonnet, 1997).

During the Hellenistic Period, the shape A3-1 (goblets with convexes walls, PL. XXXI) is attested in Bactria at Aī Khanum (Lyonnet, 1996, fig. 45) and at Dil'berjin (Kruglikova, 1974, fig. 12); in the Surkān Daryā area during the Graeco-Bactrian period at Dal'verzin Tepe (Pugačenkova and Rtveladze, 1978, fig. 100) and at Termēz (Pidaev, 1987, fig. 1); in the Zeravšān valley, that form is attested at Bukhara between the 2nd and the 3rd century AD (Muhamedžanov *et alii*, 1982, fig. 2), and at Afrasiāb between the 3rd and the 2th century BC (Khabanov, 1969, fig. 3, 9) and between the 7th century BC and the 1st century AD (Šiškina, 1975, fig. 2; 1974, fig. 5, 17, 20, 21, 27). This shape is considered of central-Asiatic origin and its diffusion continued, with some variations, also after the fall of the Graeco-Bactrian kingdom.

The shape C1-3 (low necked small jars, PL. IV, V, VI) is attested, during the Hellenistic Period, in Bactria at Aī Khanum (Lyonnet, 1997, fig. 40) and in the Zeravšān valley at Afrasiāb (Khabanov, 1969, fig. 3; 1973, fig. 14).

The shape A2-2 (cups with rounded walls, PL. XXIX, XXX) is attested at Aī Khanum (Lyonnet, 1997, fig. 44) and Dil'berjin (Kruglikova, 1986, fig. 25) in Bactria, during the same period; in the Zeravšān valley, is attested at Afrasiāb (Khabanov, 1969, fig. 13) between the the 3rd and the 1st century BC and between the 4th and the 2nd century AD (Šiškina, 1974, fig. 5).

⁸ Mission Archéologique Franco-Ouzbèke, today directed by Prof. Frantz Grenet (CNRS) e co-directed by Dr. Muhamadžon Isamiddinov (IAASU) since 1989. The French Archaeological Mission excavated the sites of Kok Tepe and Afrasiāb and the area of the so-called "Iron Gates" near Derbent, at about 250 km from Samarkand and 150 km from Termēz. About the history of MAFOuz activities see the References.

⁹ Since 1965, *Délégation Archéologique Française en Afghanistan*, directed by D. Schlumberger, at Aī Khanum.

Conclusions

On the basis of this preliminary proposed typology one can assume that the materials from Koj Tepa could be dated starting since the 2nd century BC. Almost all the jars (both small and big) and pots belong to a relatively late period, with a homogeneous and constant shape characterization during the times. Probably, the goblets could be dated from the 2nd century BC to the 2nd AD (Afrasiāb period II-III¹⁰).

Moreover, there are two fragments of small dishes (Inv. 0123 and 0124; Fig. 9) that could be of Hellenistic period, as three jars fragments (Inv. 0001, 0002, 0004): they comes from PDX 93 and are characterized by a globular body and flattened rims.

The cooking ware, because of its quantitative diffusion (256 potsherds) and features, could be chronologically distributed along a long period of time, which embraces the whole chronology of the site.

Afrasiāb I: late Achaemenian period; Afrasiāb IIA: from the Greek occupation until the Anthiocos 1st reign (second half of 3rd century BC); Afrasiāb IIB, after a hiatus of one century: second half of 2nd century BC (end of Eucratides reign); Afrasiāb III: between 1st century BC and 2nd AD (until the nomadic invasions).

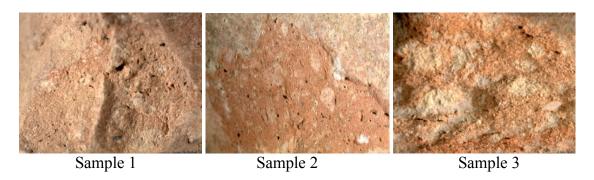
Table 1 - Shapes Summary

SHAPE	ТҮРЕ	SUB-TYPE	DRAWINGS PLATES
			(see Plates I-XLIII)
Small Jars C1	C1-1: un-necked		PLATE: I, II
	C1-2: necked		PLATE: III
	C1-3: low neck		PLATES: IV, V, VI
Jars C2	C2-1: un-necked		PLATES: VII, VIII
Jugs C3			PLATES: IX, X, XI
Small Pots C4	C4-1: un-necked		PLATE: XII
	C4-2: necked		PLATE: XIII
	C4-3: low neck		PLATE: XIII
	C4-4: miniature		PLATE: XIV
Pots C5	C5-1: un-necked		PLATES: XV, XVI
	C5-2: necked		PLATE: XVII
	C5-3: low neck		PLATE: XVIII
Lids AC1	AC1-1: hemispherical		PLATES: XLI, XLII
	AC1-2: flat		PLATE: XLIII
Bases CB1	CB1-1: flat		PLATES: XIX, XX
	CB1-2: disc-shaped		PLATES: XXI, XII
	CB1-3: tripod		PLATE: XXII
Cooking Pots CP1	CP1-1: un-necked	CP1-1a: inward rim	PLATES: XXIII, XXIV
-	CP1-2: necked		PLATE: XXV
Basin A1			PLATE: XXVI
Cups A2	A2-1:carinated walls		PLATES: XXVII, XXVIII
-	A2-2: rounded walls		PLATES: XXIX, XXX
Goblets A3	A3-1: convexes walls		PLATE: XXXI
	A3-2:bell-shaped walls		PLATES: XXXII, XXXIII
	A3-3: rounded walls		PLATE: XXXIV
	A3-4: convexes walls slightly rounded		PLATE: XXXV
Goblets Bases	AB1-1: concave base with stem		PLATE: XXXVIII
AB1	AB1-2: slightly concave base with stem		PLATES: XXXIX, XXXIX
	AB1-3: flat base		PLATE: XL
Dishes A4	A4-1: everted rim		PLATE: XXXVI
	A4-2: flattened rim		PLATE: XXXVII
			PLATE: XXXVII

List of Fabrics

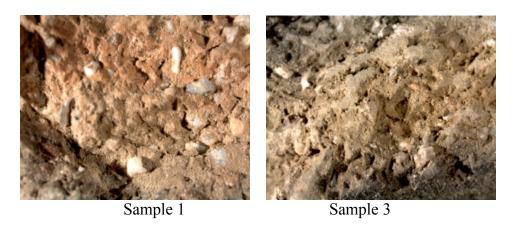
• FABRIC 1 (Sample 1: PDX 110; Sample 2: Koj Tepa North-East Section 2; Sample 3: Koj Tepa US 15 Trench 4; Sample 4: Koj Tepa T2 Section Material; Sample 5: Koj Tepa NE Section Ext. 2 US 29; Sample 6: Koj Tepa US 19 Trench 4).

Very hard body clay, quite regular and rough fracture (5YR 5/6). High frequency of opaque white small-size inclusions, very low frequency of middle size opaque white inclusions, middle density and middle size of grey inclusions. Middle and large size grey spots, medium frequency. Low frequency of small hollows. Generally covered by a white slip (7.5Y 8/2). This fabric usually occurs on large jars.



• FABRIC 2 (Sample 1: PDX 110; Sample 2: PDX 110; Sample 3: Koj Tepa US 26 Trench 2)

Compact body clay, irregular and rough fracture (inner color 5YR 5/6, external color 2.5Y 5/2). Very high frequency of middle size angular and rounded white opaque inclusions, low density of middle size white brilliant inclusions (mica), middle frequency of angular middle size grey inclusions, low density of middle size angular black inclusions. Medium frequency of very small and small hollows. The interior and exterior surfaces are covered by a thin polished slip (10YR 5/4). The fabric mostly occurs on cooking pots. They usually show traces of fire.



• FABRIC 3 (Sample 1: PDX 110; Sample 2: Koj Tepa US 8 Section 1 - Inv. 0016; Sample 3: Koj Tepa NE Ext. Section 2 US 29)

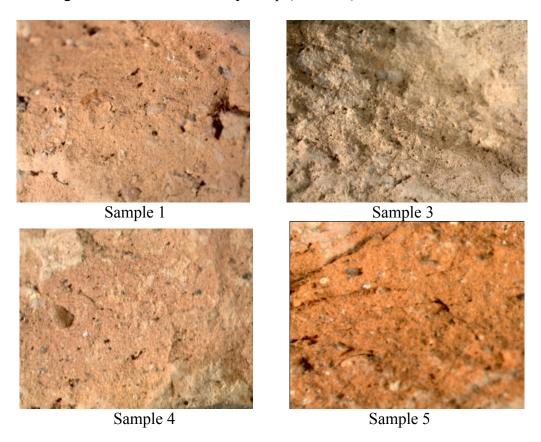
Compact body clay, regular fracture (5YR 6/8). Medium frequency of very small white brilliant inclusions (mica), low density of medium black size inclusions, medium density of very small white opaque inclusions. Medium frequency of very small and small hollows. Covered by a slip (5YR 6/6). The fabric usually occurs on close shapes, above all ovoid and globular big jars without neck or low necked.



Sample 1

• FABRIC 4 (Sample 1: PDX 110; Sample 2: PDX 93 - Inv. 0005; Sample 3: Koj Tepa US 19 Trench 4; Sample 4: Koj Tepa US 26 Trench 2; Sample 5: Koj Tepa US 21 Trench 1 Room 1; Sample 6: PDX 93).

Compact body clay, slightly rough fracture (7.5YR 6/6). Very low frequency of white brilliant (mica) and small grey inclusions, medium density of very small and small hollows. Low density of small or medium opaque white inclusions (it is possible to find bigger ones). This fabric mostly occurs on necked jars or jugs with large necks and vertical ribbon handles starting from the rim. Covered by a slip (2.5Y 7/2).



• FABRIC 4.1 (Sample 1 a-b: PDX 93; Sample 2: PDX 93).

Very compact body clay, irregular slightly rough and leafed fracture (10YR 5/2). Very low density of very small opaque white and black inclusions. Lack of hollows visible with eye. Covered by a slip (10R 4/4). The fabric probably occurs on big and medium size jars.



Sample 1b

• FABRIC 4.3 (Sample 1: Koj Tepa Section 2; Sample 2: PDX 93).

Very fine hard and compact body clay, regular fracture (10YR 5/10). Medium frequency of very small black spots. Low frequency of very small opaque white inclusions. Smoothed. Slip (5YR 5/8). This fabric occurs on very small and medium size fine jars.



Sample 1

• FABRIC 5 (Sample 1: PDX 110 Sample 2: Koj Tepa US 19 Trench 4; Sample 3: Koj Tepa US 19 Trench 4).

Hard compact body clay, irregular and quite rough fracture (7.5YR 5/8). Medium frequency of small brilliant white inclusions (mica), medium density of small opaque white inclusions and low density of big opaque white. Very small and small hollows (low frequency). Slip (10YR 5/10). Close shapes, few potsherds.







Sample 2

• FABRIC 6 (Sample 1: Koj Tepa Cleaning Section - Inv. 0017; Sample 2: Koj Tepa Section 2; Sample 3: PDX 110; Sample 4: Koj Tepa US 19 Trench 4; Sample 5: Koj Tepa US 19 Trench 4; Sample 6: Koj Tepa US 19 Trench 4).

Very fine compact and hard body clay, regular slightly angular fracture (5YR 5/6). Medium density of very small hollows. No inclusions visible at eye, except for few very small opaque white ones. Smoothed on the interior and exterior surfaces (7.5YR 4/8). Closed shapes (jars) and open (cups): in both cases small vases.



Sample 5



Sample 6

• FABRIC 6.1 (Sample 1: Koj Tepa Section 2 - Inv. 0018; Sample 2: PDX 110; Sample 3: PDX 110; Sample 4: Koj Tepa US 18 Trench 1; Sample 5: Koj Tepa US 18 Trench 1 Room 1; Sample 6: Koj Tepa US 18 Trench 1).

Fine compact, hard body clay, slightly dusty and quite angular fracture (7.5YR 5/8). Very small or small opaque white inclusions (high density). Some medium light grey spots. Low density of very small or small black inclusions. Medium frequency of very small and small hollows. Slip (7.5YR 6/8). Close shapes and open ones (cups): in both cases small vases.



• FABRIC 7 (Sample 1: PDX 92; Sample 2: Koj Tepa US 19 Trench 4).

Fine and hard compact body clay, regular and quite rough fracture (5Y 8/2). No inclusions visible at eye except for few small opaque white ones, low density of very small brilliant white inclusions. Low density of very small and small hollows. Slip (5Y 8/2). Close shapes (medium size jars), above all small jugs.



Sample 1

• FABRIC 7.1 (Sample 1: PDX 110; Sample 2: Koj Tepa Cleaning Section - Inv. 0026).

Fine, very compact and hard body clay, quite regular, slightly angular fracture (5YR 7/6). Low density of very small, small and medium opaque white inclusions. Medium density of very small, small and big horizontal hollows. Surface slip (5YR 7/6). Smoothed with a brown color. This fabric occurs on close shapes, some of them with a high foot and burnished.



Sample 1

• FABRIC 7.2 (Sample 1: Koj Tepa Cleaning Section - Inv. 0027; Sample 2: Koj Tepa Section 2; Sample 3: Koj Tepa Section 2).

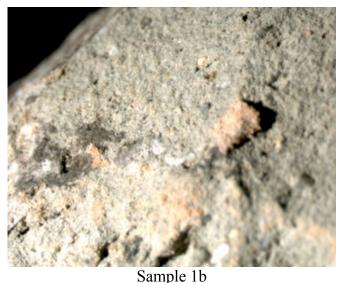
Very fine, compact and hard body clay, regular fracture (7.5YR 7/6). Low density of very small white and black inclusions, Low frequency of white brilliant inclusions. Medium density of very small and small hollows. Open shapes (cups) of small dimensions. Burnished on the exterior and on the interior.



Sample 3

FABRIC 8 (Sample 1 a-b: PDX 92).

Very hard and compact body clay, quite regular and slightly angular fracture (2.5Y 6/0). No inclusions visible at eye except for few very small opaque white ones. Low density of small and very small hollows. Polished. This fabric occurs on jars with disc-shaped base. Very few potsherds.



FABRIC 9 (Sample 1: PDX 92; Sample 2: Koj Tepa Cleaning Section).

Hard and compact body clay, quite regular, slightly angular fracture (10YR 5/6). Rare very small opaque white inclusions. Some small and medium reddish (also orange tending color) and light brown spots. Medium density of small white brilliant inclusions. Very small and small hollows, medium density. Closed shapes.



Sample 2

• FABRIC 10 (Sample 1: Koj Tepa US 7 Section 1; Sample 2: PDX 92; Sample 3: Koj Tepa US 6 Section 1 - Inv. 0042).

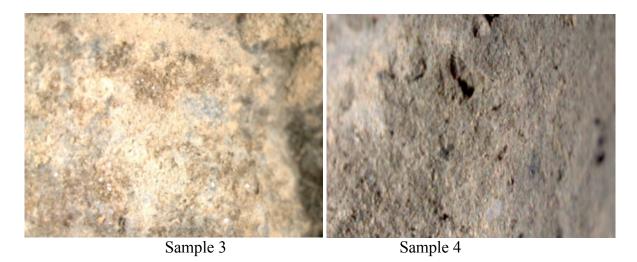
Hard and compact body clay, regular slightly angular fracture (5YR 6/4). No inclusions visible at eye. Low density of very small hollows. Polished and painted (interior and exterior surface). Close shapes, some of them with a high foot.



Sample 2

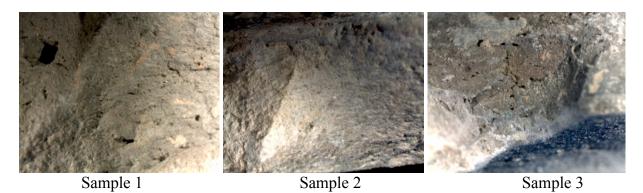
• FABRIC 11 (Sample 1: PDX 92; Sample 2: Koj Tepa US 1 Trench 1 missed; Sample 3: Koj Tepa US 3 Trench 1; Sample 4: Koj Tepa US 27 Trench 1).

Fine, hard and compact body clay (5Y 6/2). No inclusions visible at eye, except for very small white opaque inclusions (very low density). Medium density of very small and small hollows. Polished on the interior and exterior surfaces (5Y 5/2). Close shapes (jugs) but also open ones (cups), both of small size.



• FABRIC 11.1 (Sample 1: PDX92; Sample 2: PDX 92; Sample 3: Koj Tepa US 19 Trench 4; Sample 4: Koj Tepa US 19 Trench 4; Sample 5: Koj Tepa US 26 Trench 2).

Hard and compact body clay, quite regular and slightly leafed fracture (2.5Y 7/2). No inclusions visible at eye except for very small white opaque and very light brown inclusions (very low density). Low density of very small and medium hollows. Painted on the exterior surface (5Y 7/2). Close shapes (small jugs) but also open ones (small cups).



FABRIC 12 (Sample 1: PDX 92; Sample 2: PDX 93).

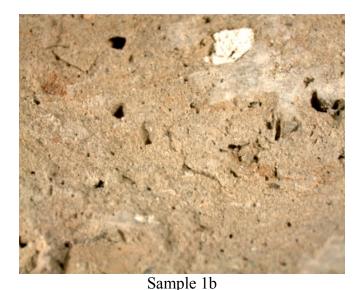
Very hard, compact body clay, irregular and very rough fracture (inner 5YR 5/12, exterior 5YR 4/6). Low density of small rounded opaque white inclusions, high frequency (above all in surface) of big angular opaque white inclusions, low density of medium angular black inclusions. Low density of small hollows, medium density of bigger ones. Usually the whole body clay looks burnt or over-fired. Big close shapes (only walls).



Sample 1

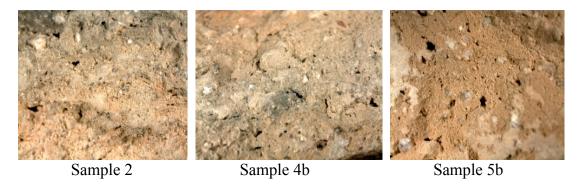
• FABRIC 13 (Sample 1 a-b: PDX 93).

Very hard, compact body clay, regular and rough fracture (10YR 6/6). Low density of small white brilliant inclusions. High frequency of very small, small and medium hollows, brown middle size spots. Slip (2.5Y 7/4). The fabric occurs on a big lid with flat base and quite convex surface and on a big lid.



• FABRIC 14 (Sample 1: Survey Koj Tepa - Tepe; Sample 2: PDX 110 Sporadic; Sample 3: PDX 110 Sporadic; Sample 4 a-b: Koj Tepa US 19 Trench 4; Sample 5 a-b: Koj Tepa US 19 Trench 4).

Very hard and compact body clay, nearly regular and rough fracture (inner color 2.5YR 5/2, exterior color 7.5YR 8/6 - 8/8). Low density of medium and big angular opaque white inclusions (coming to the surface) and of small and medium grey ones, high frequency of very small and small opaque white inclusions (coming to the surface, too) and medium density of brilliant white ones (mica). High density of very small and small hollows, low density of medium and bigger hollows. Surface color 7.5YR 8/8. Close shapes, above all big jars without neck.



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Fig. 1 - Brown and reddish splashes decorations, wall fragments of un-diagnostic pottery

UZB 2010 diagnostic				
Site:	Кој Тера			
Excavation Date:	05-07-08-11-12/07/09			
Trench:	1			
US:	6			
Material:	Pottery			
Fabric:	7.2			
Shape:	jar			
Quantity diagnostic:	1			
Description:	rim + neck			
Decoration:	traces of dark brown burnishing on both interior and exterior			
Dimensions:	diameter 8 cm			
Notes:	as Inv. 0102			

Fig. 2 - MS $Access^{TM}$ diagnostic materials registration card

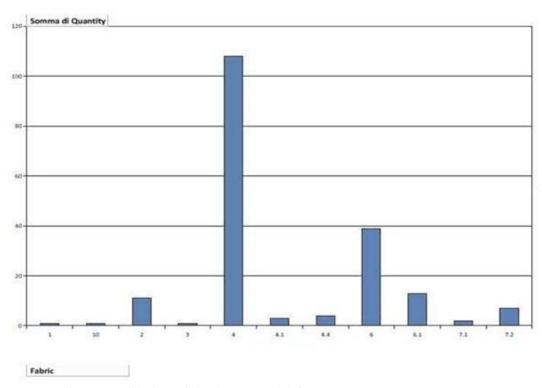


Fig. 3 - Most frequent fabrics of the inventoried fragments

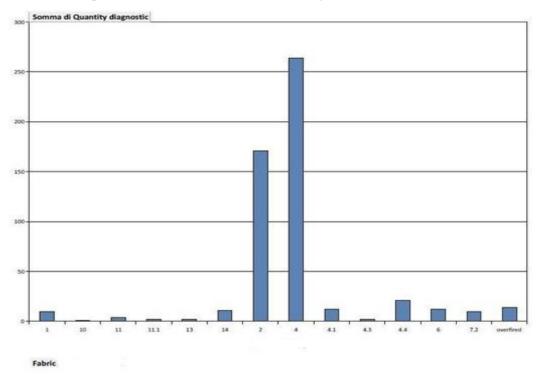


Fig. 4 - Most frequent fabrics of the diagnostic materials

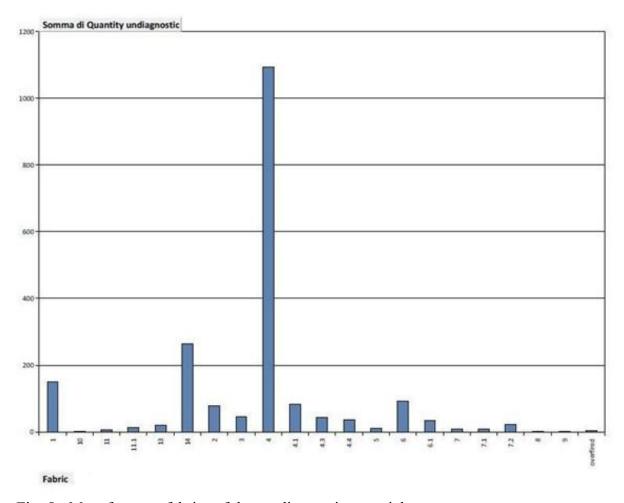


Fig. 5 - Most frequent fabrics of the un-diagnostic materials



Fig. 6 - Fragment of a terracotta figurine (Inv. 0044; Trench 1, Room I, SU 18)



Fig. 7 - Incised decoration with horizontal, wavy lines and rounded motives from undiagnostic materials

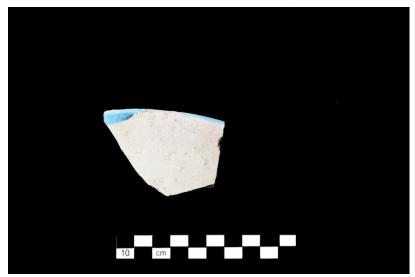


Fig. 8 - Inv. 0041: glazed dish from PDX 110 site

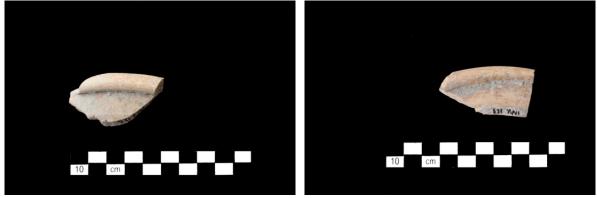
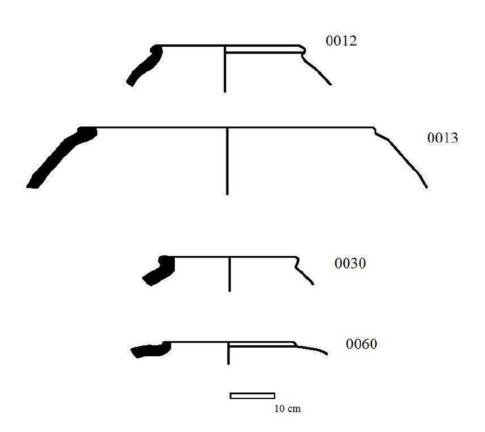


Fig. 9 - Inv. 0123, Inv. 0124: small dishes of Hellenistic period

PLATE I

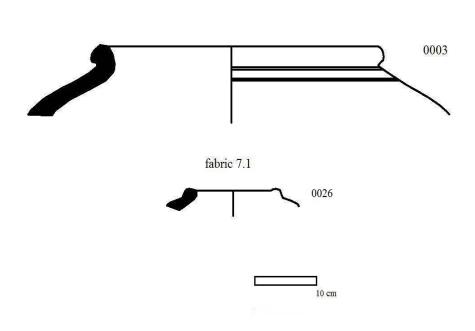




C1-1 un-necked jars, \emptyset < 40 cm (1:10)

PLATE II

fabric 1



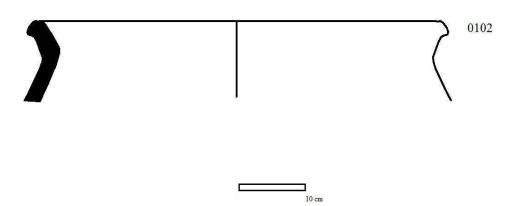
C1-1 un-necked jars, ω < 40 cm (1:10)

PLATE III





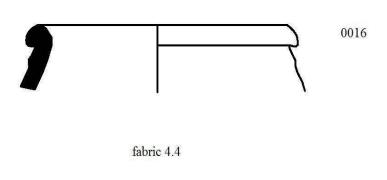




C1-2 un-necked jars, ϕ < 40 cm (1:10)

PLATE IV



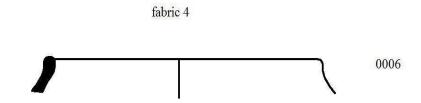


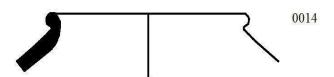


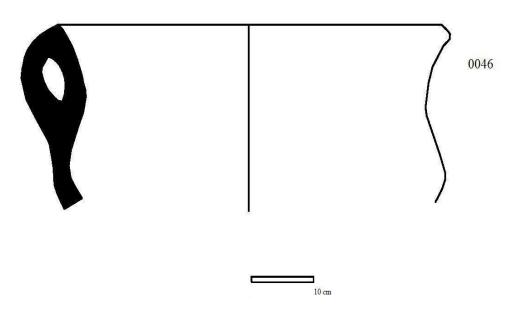


C1-3 low necked jars, ω < 40 cm (1:10)

PLATE V



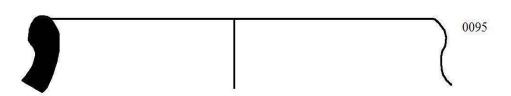


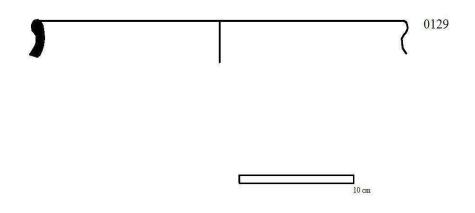


C1-3 low necked jars, ϕ < 40 cm (1:10)

PLATE VI

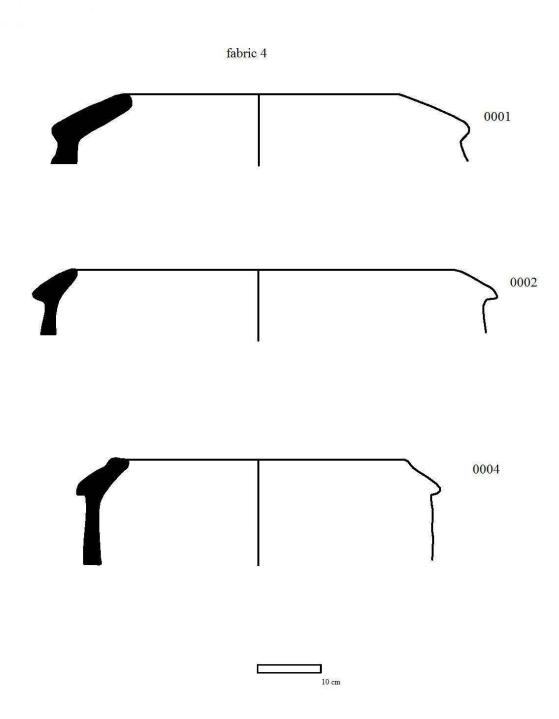
fabric 4





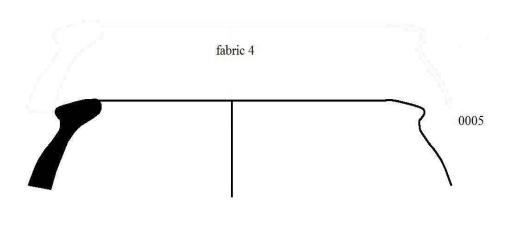
C1-3 low necked jars, ω < 40 cm (1:10)

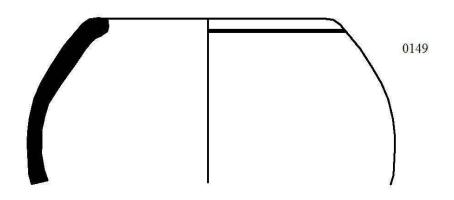
PLATE VII



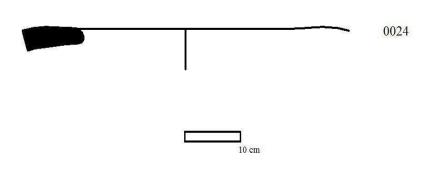
C2-1 un-necked jars, $\emptyset > 40$ cm (1:10)

PLATE VIII



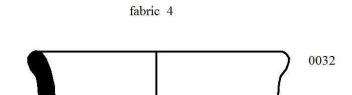


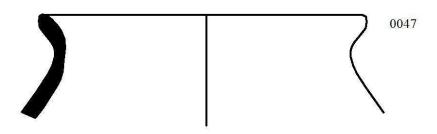
fabric 7.1

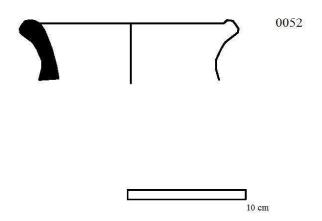


C2-1 un-necked jars, $\phi > 40$ cm (1:2)

PLATE IX



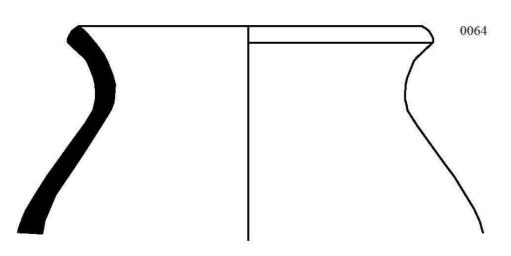


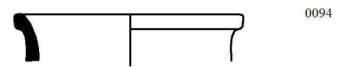


C3 jugs, ø 10-12 cm (1:2)

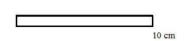
PLATE X







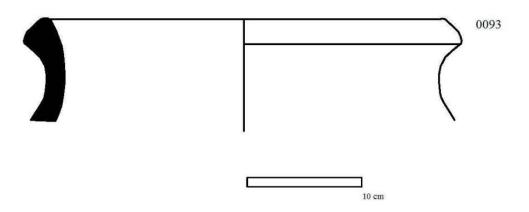




C3 jugs, ø 10-12 cm (1:2)

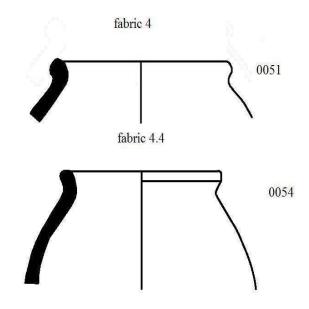
PLATE XI

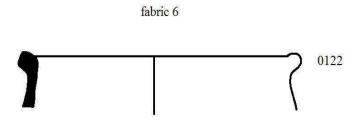
fabric 4.4

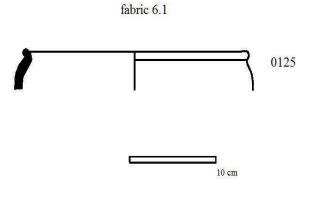


C3 jugs, ø 10-12 cm (1:2)

PLATE XII

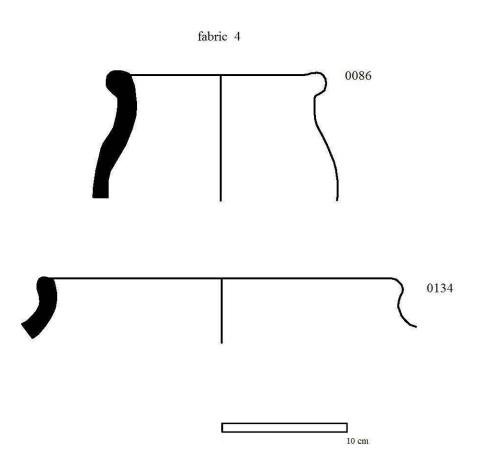






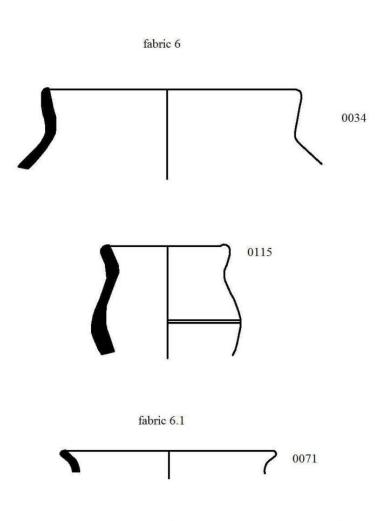
C4-1 un-necked pots, \emptyset < 40 cm (1:2)

PLATE XIII



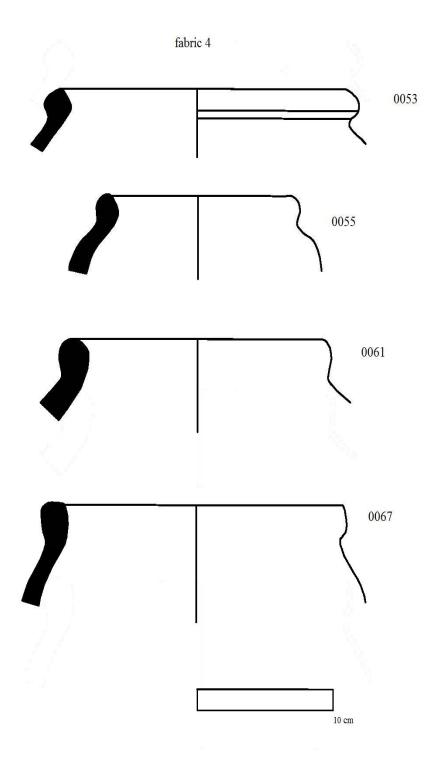
C4-2 un-necked pots, ω < 40 cm C4-3 low necked pots, ω < 40 cm (1:2)

PLATE XIV



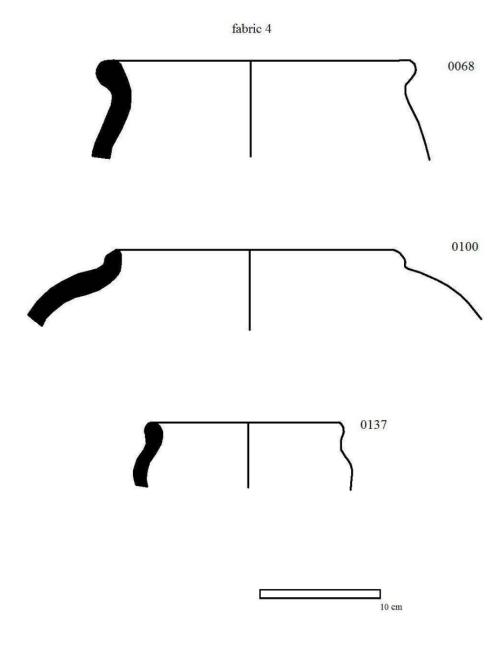
C4-4 miniature pots, ø 10 cm (1:2)

PLATE XV



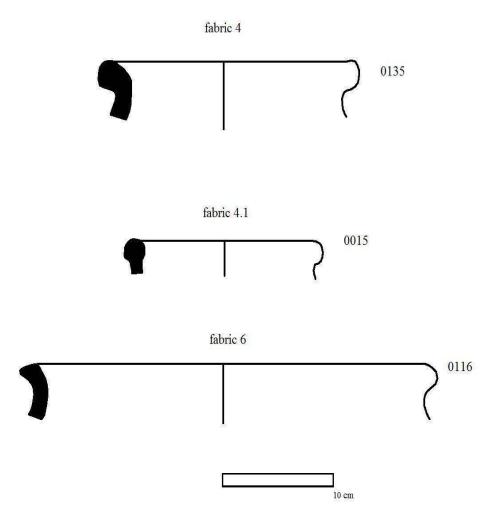
C5-1 un-necked pots, \emptyset 40 cm (1:2)

PLATE XVI



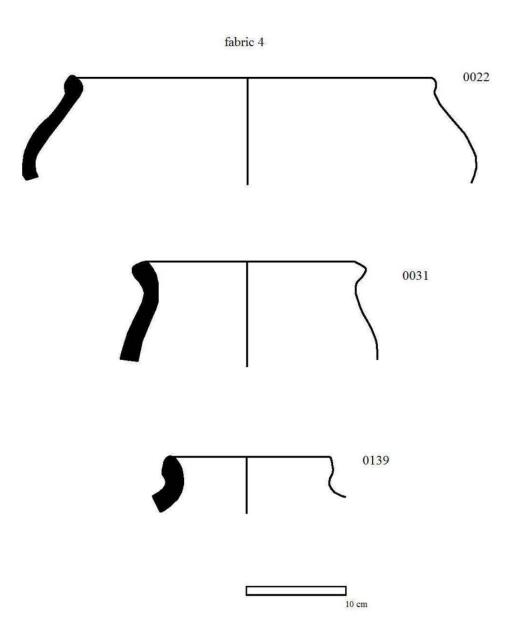
C5-1 un-necked pots, $\phi > 40$ cm (1:10)

PLATE XVII



C5-2 necked pots, ø > 40 cm (1:2)

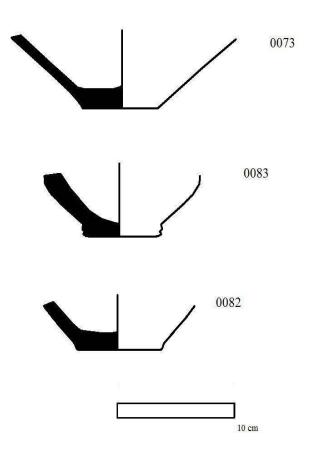
PLATE XVIII



C5-3 low necked pots, ø > 40 cm (1:2)

PLATE XIX

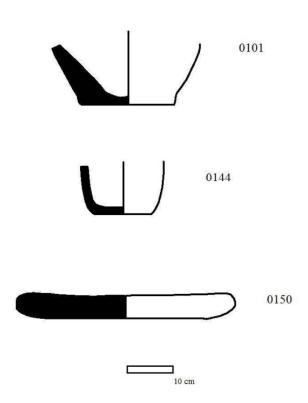
fabric 4



CB1-1 flat bases, \emptyset < 20 cm (1:2)

PLATE XX

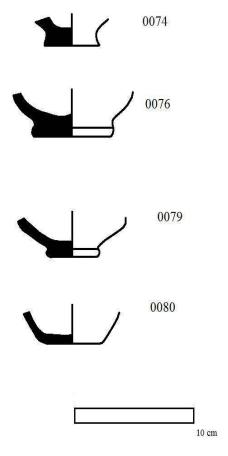
fabric 4



CB1-1 flat bases, ϕ < 20 cm (1:2)

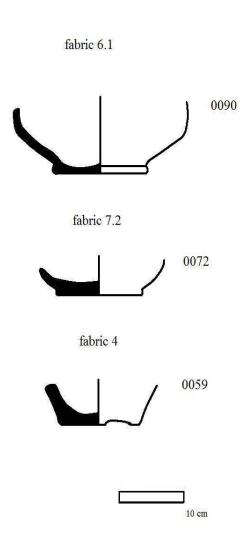
PLATE XXI

fabric 4



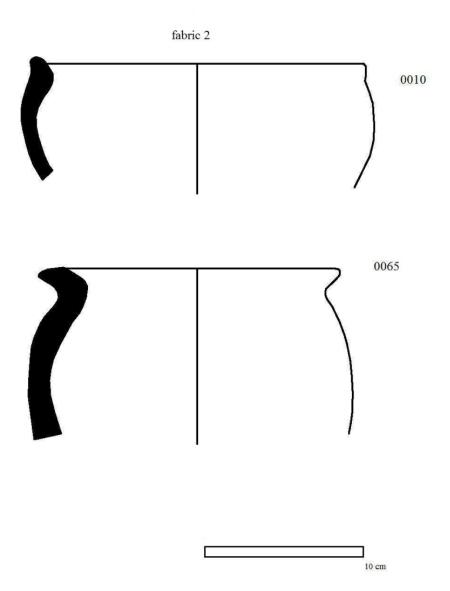
CB1-2 disc-shaped bases, ω < 10 cm (1:2)

PLATE XXII



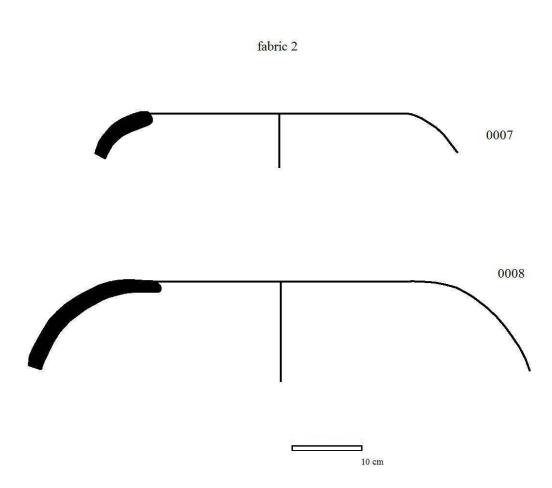
CB1-2 disc-shaped bases, ϕ < 10 cm CB1-3 tripode base, ϕ < 10 cm (1:2)

PLATE XXIII



CP1-1 un-necked cooking pots, $\omega < 40$ cm (1:2)

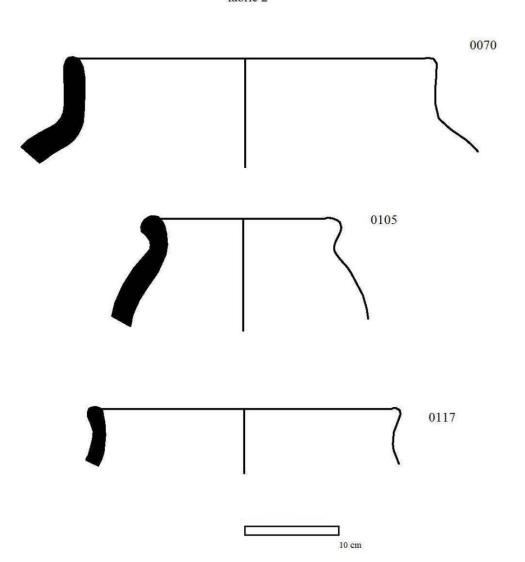
PLATE XXIV



CP1-1a un-necked cooking pots with inwarded rim, σ < 40 cm (1:2)

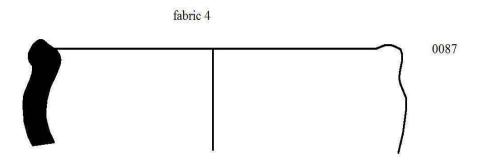
PLATE XXV

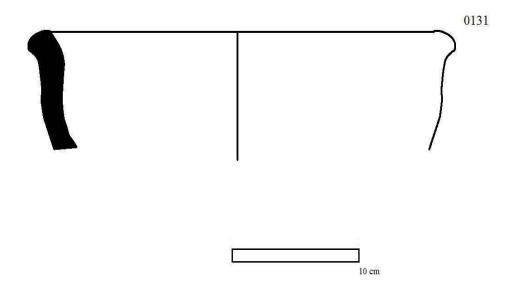
fabric 2



CP1-2 necked cooking pots, o < 40 cm (1:2)

PLATE XXVI

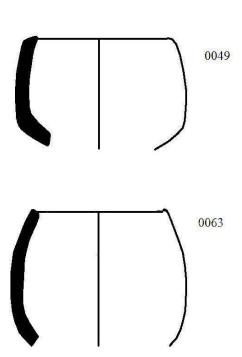


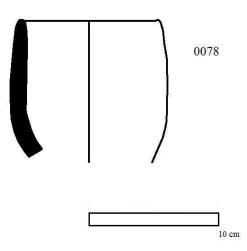


A1-1 basins, ø 26-30 cm (1:2)

PLATE XXVII

fabric 6.1





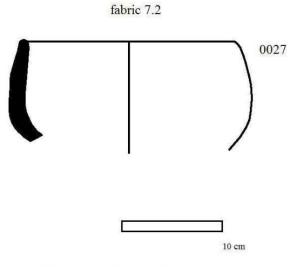
A2-1 carinated cups, ω < 20 cm (1:2)

PLATE XXVIII

fabric 6.1

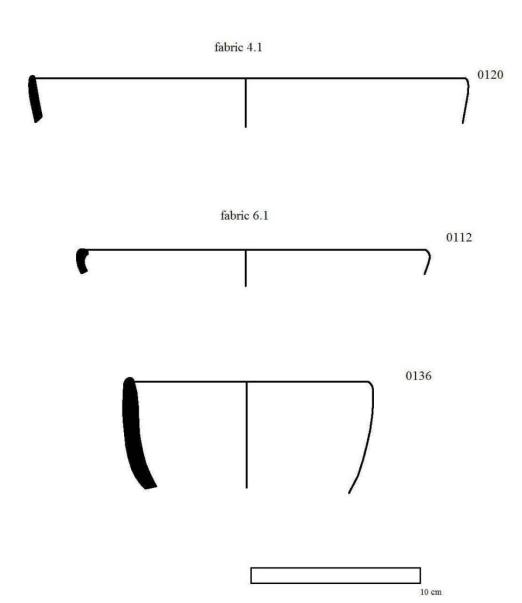
0089

0104



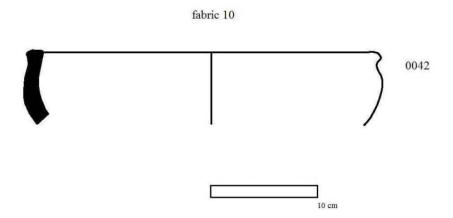
A2-1 carinated cups, ω < 20 cm (1:2)

PLATE XXIX



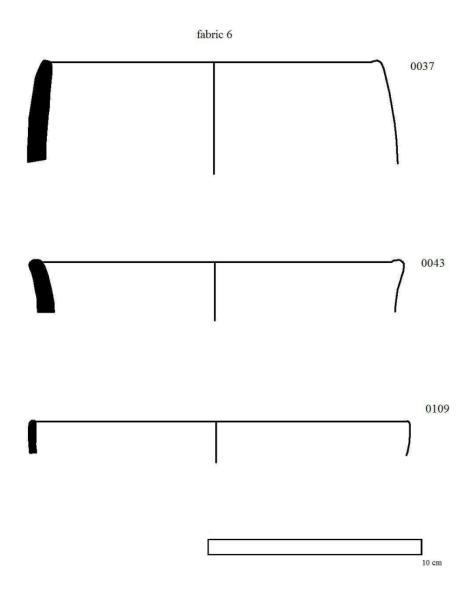
A2-2 rounded walls cups, o < 20 cm (1:2)

PLATE XXX



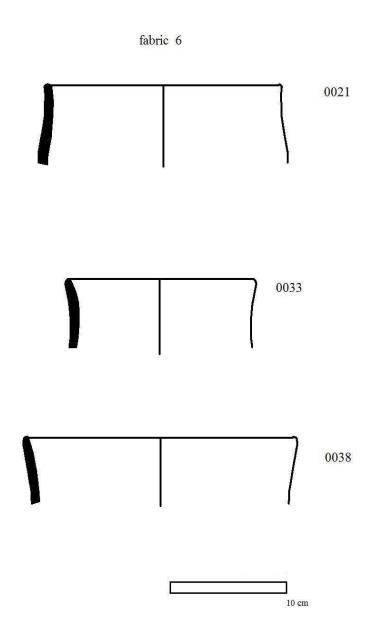
A2-2 rounded walls cups, o < 20 cm (1:2)

PLATE XXXI



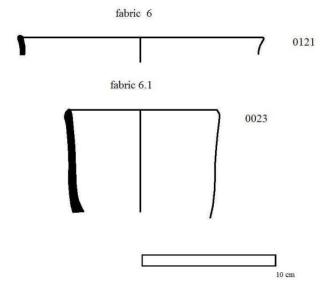
A3-1 gobelets with convexes walls, ø 12-20 cm (1:2)

PLATE XXXII



A3-2 gobelets with bell-shaped walls, ø 8-15 cm $\ensuremath{\mbox{(1:2)}}$

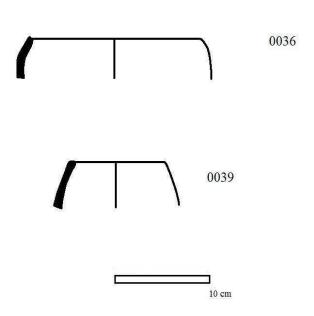
PLATE XXXIII



A3-2 gobelets with bell-shaped walls, ϕ 8-15 cm (1:2)

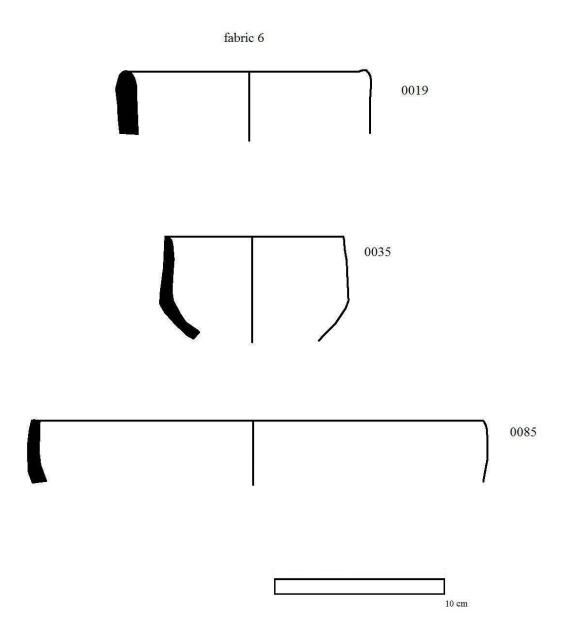
PLATE XXXIV





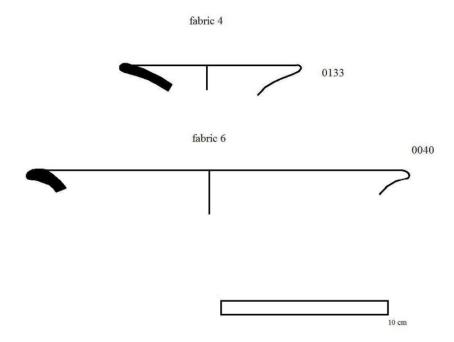
A3-3 rounded walls gobelets, ø 10-20 cm (1:2)

PLATE XXXV



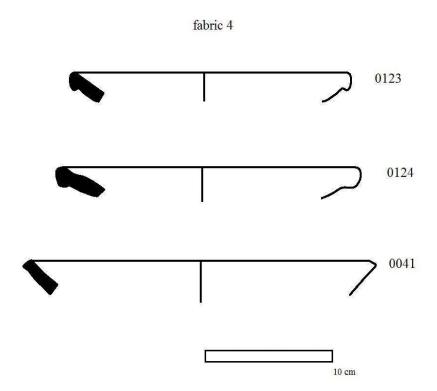
A3-4 gobelets with convexes walls, slightly rounded, ø 10-20 cm $\,$ (1:2)

PLATE XXXVI



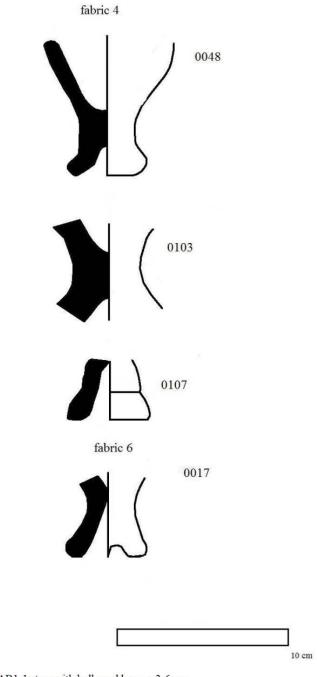
A4-1 everted rim dishes, ø 16-26 cm (1:2)

PLATE XXXVII



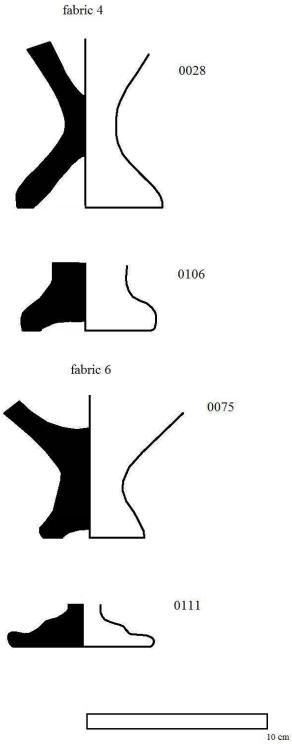
A4-2 flattened rim dishes, \emptyset 15-20 cm A5 glazed pottery dish, \emptyset 30 cm (1:2)

PLATE XXXVIII



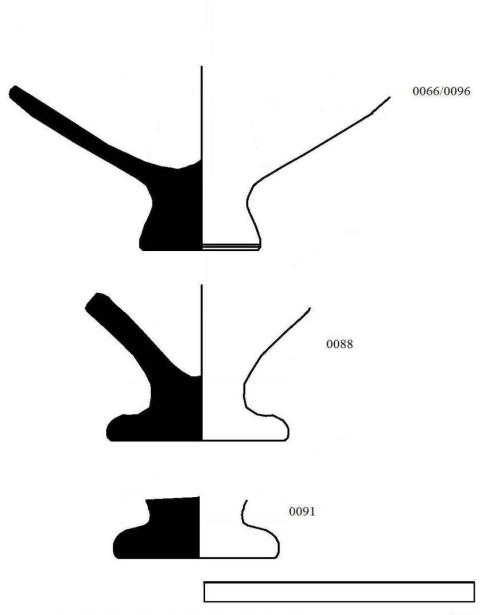
AB1-1 stem with hollowed base, ϕ 3-6 cm (1:2)

PLATE XXXIX



AB1-2 stem with slightly concave base, ø 4-8 cm $\,$ (1:2)

PLATE XL



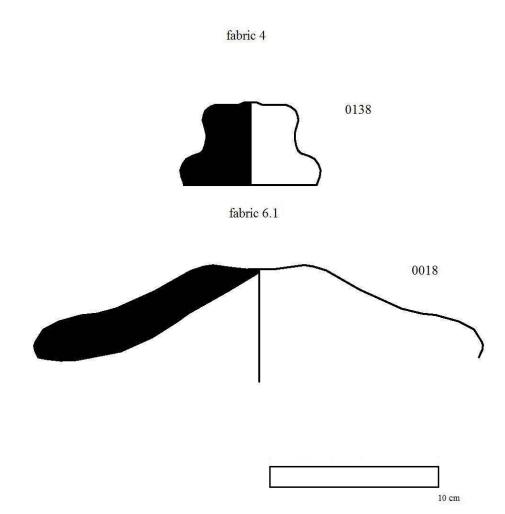
AB1-2 stem with slightly concave base, ø 6 cm

10 cm

AB1-3 flat bases, ø 6-8 cm

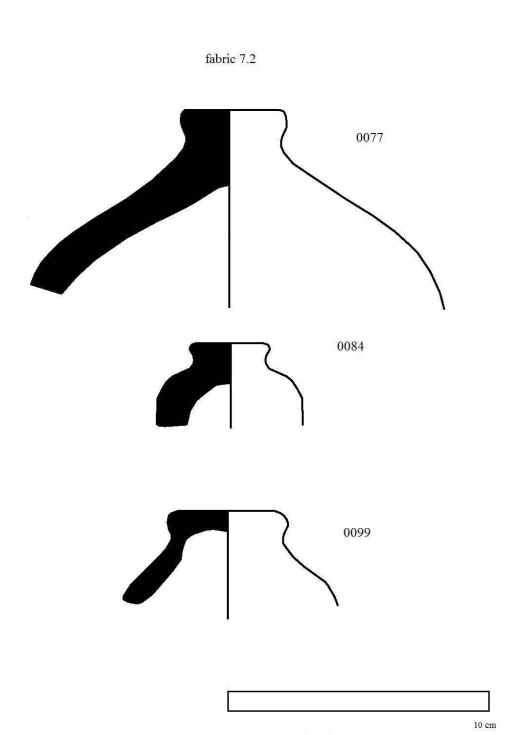
(1:1)

PLATE XLI



AC1-1 hemispherical lid with rounded handle, ø 15 cm (1:1)

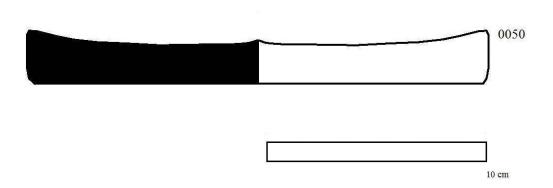
PLATE XLII



AC1-1 hemispherical lids with rounded handle, ø 15 cm $\,$ (1:1)

PLATE XLIII

fabric 4



AC1-2 flat lid, ø 25 cm (1:2)