

Alma Mater Studiorum – Università di Bologna

DOTTORATO DI RICERCA IN  
Studi sul Patrimonio Culturale

Ciclo XXX

**Settore Concorsuale:** 10/N3 – CULTURE DELL'ASIA CENTRALE E ORIENTALE

**Settore Scientifico Disciplinare:** L-OR/16 – ARCHEOLOGIA E STORIA DELL'ARTE DELL'INDIA  
E DELL'ASIA CENTRALE

THE GANDHARAN REGION (NW PAKISTAN) FROM THE LATE IRON AGE TO  
THE HELLENISTIC PERIOD:

A STUDY IN THE RISE OF A COMPLEX CULTURE ACROSS LOCAL  
TRADITIONS, IRANISM AND HELLENISM BASED ON CERAMICS

**Presentata da:** Elisa Iori

**Coordinatore Dottorato**

Prof. Salvatore Cosentino

**Supervisore**

Prof. Pierfrancesco Callieri

**Co-Supervisori**

Dr. Luca M. Olivieri

Dr. Cameron A. Petrie

**Esame finale anno 2018**

## CONTENTS

INTRODUCTION	i
Brief introduction to the history of Gandhara: definition of Early Historic Period	i
Scope and limits of the research	xviii
CHAPTER 1: ARCHAEOLOGY OF GANDHARA: SETTLEMENTS WITH EVIDENCE FOR THE EARLY HISTORIC PERIOD	1
1.1 Early research and methodologies	1
1.1.1 Reassessment of the sequence of Ghalegai	2
1.2 Gandharan northern valleys: Swat and Panjkora Valleys	12
1.2.1 Aligrama	12
1.2.2 Kalako-derai	16
1.2.3 Butkara I (IA) and Barama I	17
1.2.4 Gogdara III	24
1.2.5 Udegram	26
1.2.6 Barikot	29
1.2.7 Balambat	38
1.3 Gandharan southern plains: Peshawar and Taxila Valleys	41
1.3.1 Charsadda (Bala Hisar, Shaikhan Dheri)	41
1.3.2 Peshawar sites : Gor-khuttree	47
1.3.3 Taxila (Hathial Mound, Bhir Mound, Sirkap)	49
CHAPTER 2: CERAMICS FROM GANDHARA: POTTERY FROM THE EARLY HISTORIC SETTLEMENTS	55
2.1 Gandharan northern valleys: Swat and Panjkora Valleys	55
2.1.1 Aligrama	56
2.1.2 Kalako-derai	62
2.1.3 Butkara I (IA) and Barama I	64
2.1.4 Gogdara III and Udegram	74

2.1.5 Barikot	76
2.1.6 Balambat	78
2.2 Gandharan southern plains: Peshawar and Taxila Valleys	82
2.2.1 Charsadda (Bala Hisar, Shaikhan Dheri)	82
2.2.2 Taxila: Bhir Mound	122
CHAPTER 3: THE KEY EARLY HISTORIC SITE OF BARIKOT DURING THE 5TH - 1ST CENTURIES BCE	185
3.1 The Archaeological Context of the Research: BKG L, BKG 7, BKG 8, BKG 9, BKG K-105, BKG 12E	185
3.1.1 Trench BKG 12E	187
3.1.2 Trench BKG L	189
3.1.3 Trenches BKG 7-8-9	192
3.1.4 Trench BKG K-105	196
CHAPTER 4: CERAMIC EVIDENCE FROM BARIKOT DURING THE 5TH - 1ST CENTURIES BCE	207
4.1 Corpus of the Ceramic Material and limits of the research	207
4.2 Methodology	207
4.2.1 Data acquisition	208
4.2.2 Data processing	210
4.3 Physical and Technological Features	211
4.3.1 Fabric	211
4.3.2 Manufacturing Techniques and Reuses	215
4.3.3 Surface Treatments and Decoration	217
4.4 Taxonomy	227
4.4.1 Unrestricted Forms (O)	252
4.4.2 Restricted Forms (C)	281
4.4.3 Varia (V)	290
4.4.4 Miniature Vessel (MV)	293

4.4.5 Potsherds (individual fragments)	294
CHAPTER 5: A COMPREHENSIVE OVERVIEW OF GANDHARAN CERAMICS	305
5.1 Ceramics Evidence from Barikot. A New Perspective	305
5.2 Notes on the other Early Historic sites of the Swat Valley	313
5.3 Revising the picture of the Gandharan Ceramics	315
5.3.1 Bala Hisar (Charsadda)	315
5.3.2 Shaikhan Dheri (Charsadda)	320
5.3.3 Bhir Mound (Taxila)	321
CHAPTER 6: CONCLUDING REMARKS. PICTURING GANDHARAN CULTURAL IDENTITY IN THE EARLY HISTORIC PERIOD	327
6.1 ‘Trans-Indus’ and ‘Cis-Indus’ Gandhara in the second quarter of the 1 <sup>st</sup> millennium BCE	327
6.2 The Achaemenid satrapy of <i>Gandāra</i> : the birth of the in-between context	332
6.3 The archaeological invisibility of the Mauryan domination	336
6.4 Beyond Alexander. The first direct transmission of Hellenistic elements in Gandhara	338
APPENDIX	345
LISTS OF ILLUSTRATIONS	521
REFERENCES	527

## INTRODUCTION

### **Brief introduction to the history of Gandhara: definition of Early Historic Period**

The Gandhara region, placed between the extreme north-west of the Indian subcontinent, the extreme eastern offshoots of the Iranian Plateau and to the south of the vast Centro-Asiatic area, seems to well materialize the conceptual idea of a space of constant dialogue, negotiation, translation and remaking of cultural and political identities. The interactions between locals and people who politically dominated the Gandhara region during the 1<sup>st</sup> millennium BCE, triggered multiple and overlapping processes of cultural osmosis in which each actor, locals and foreigners, played an active role.

Conventionally, the toponym Gandhara refers to an area within the present Khyber Pukhtunkhwa Province of Pakistan which consists of the modern districts of Peshawar, Charsadda and Swabi including the famous ancient cities of Takṣaśilā (Taxila) and Puṣkalāvātī (Charsadda). However in a broader, cultural, sense, the term can also include the Buner, Dir and Swat Valleys, in the mountain areas to the north of the plain, and part of eastern Afghanistan. This conventional definition of Gandhara is based on the detailed descriptions given by the Chinese pilgrims who crossed the regions of the north-west of the Indian subcontinent during the 5<sup>th</sup> and 7<sup>th</sup> centuries CE. Indeed, the first mentions of the term Gandhara are much more ancient. However, the location of the Gandhara region given by ancient sources does not seem to be canonized, rather, the boundaries of this region varied throughout history (see below).

The name Gandhara, likely of Sanskrit origin<sup>1</sup>, appears in the form of *Gandhāra* or *Gandhārī* in ancient Indian texts in reference to the name of people living at the extreme north-west of the Indian subcontinent. The name *Gandhārī* (Monier-Williams 1899: 346) first occurs in the *R̥gveda* (“*Gandhārīnām avikā*”, RV I, 126, 7) and later in the *Atharvaveda* (AV V, 22, 14).

The grammarian Pāṇini (c. 5<sup>th</sup> or 4<sup>th</sup> century BCE)<sup>2</sup> mentioned *Gandhārī* (Pāṇ. IV, I, 169) as the ruling people of the region which includes both Takṣaśilā and Puṣkalāvātī (Monier-Williams 1899: 346, 353). *Gandhārī*, also called *Gandhāras* or *Gāndhāras*, are

---

<sup>1</sup> The etymology of the term “Gandhāra” is uncertain (see Ali and Naeem Qazi 2008: 1 and (Rehman 2009: 144).

<sup>2</sup> Pāṇini lived himself in Gandhara. He is called Śālātūrīya “man from Śālātura” (modern Lāhur) in an inscription of Śīlāditya VII of Valabhī (Fleet, Corpus Inscr. Ind. III: 175). The date of Pāṇini is controversial. Witzel (2011: 493, f. n.20) and Cardona (1976: 260-268) estimate it to c. 350 BCE whereas Scharfe (2009: 28) suggests a date not later than 500 BC on the basis of the vicinity of Pāṇini’s language to Vedic.

mentioned as participants in *Mahabharata* war (MBh II f., V, VII, 3457; VIII, 2135). According to the *Rāmāyaṇa*, Takṣasīlā and Puṣkalāvati, the principal cities of the region, were named after Takṣa and Puṣkara, the two son of Bhārata (Raychaudhuri 1953: 146-147; Witzel 1980; Dittmann 1984: 185).

The earliest reference to Gandhara (OPers. *Gandāra*) in Iranian sources occurs in the Old Persian version of the Bisotun inscription (520 BCE - 518 BCE) of the Achaemenid king Darius I (Schmitt 2013). In this text the land *Gandāra* is listed as one of the easternmost subject nations (*dahyāva*) of the Persian Empire (DB 1.16), whereas in the Akkadian and Elamite versions of the same text, the name of the Paropamisadae (Akk.: *pa-ar-ú-pa-ra-e-sa-an-na*; Elam.: [*par-ru-ba-ra-e*]-*sa-na*) seems to replace that of *Gandāra* (Briant 2002: 756; Vogelsang 1992: 101).

It has been highlighted that the term Paropamisadae, used in classical sources to indicate the foothills south of the Hindu Kush watershed, near ancient Kāpiśi and the modern city of Kabul can be given an Iranian etymology, “(the land) beyond (the land) above the eagle/falcon,” and would thus indicate an appellation given to the country by the Iranian people living to the north of the Hindu Kush, namely in or near ancient Bactria (Vogelsang 1986: 137; Witzel 1980: 117, fn. 104). According to P. Briant (2002: 756) Paropamisadae, hence OPers. *Gandāra*, included the entire Kabul Valley as far as the Cophen River.

The toponym was also well-known in Classical sources. The name Gandhara is in fact mentioned by Herodotus (c. 5<sup>th</sup> century BCE) as one of the Achaemenid satrapies (Γανδάριοι, Herodotus III, 91) and by the geographer Hecataeus of Miletus in his *Periegesis* (Κασπάπυρος πόλις Γανδαρικῆ, fragm.178), written between the 506 and the 501 BCE. The term was instead unknown to Alexander’s historians, while Strabo placed the Γανδάριτις along the Kabul Valley between the Kunar and Indus Rivers (Strabo XV 2, 9, 26, 30).

*Gandhāras* are also mentioned in Ashoka’s rock-edict V, J among the *āparānta*, that are, the people living at the western borders of the Mauryan Empire along with *Yōṇas* and *Kambōjas* (Hultzsch 1925: 56).

The name of Gandhara was still used in the 11<sup>th</sup> century CE by Abū Rayḥān Bīrūnī (Sachau 1910: I, 206) who referred to Wayhend (probably Hund near Attock) as the capital of Kandhāra. During the Moghul period, at the time of Akbar (1542-1605), Gandhara region, as reported by his vizier Abdel’ Fāzl in “A ‘in-I Akbarī”, seems to be placed between Kashmir and Attock.

Below is a very brief overview on the historical and cultural developments of the Gandhara region during the 1<sup>st</sup> millennium BCE: the second half of this millennium represents the time span which we proposed to define as ‘Early Historic Period’, while the first half of the same millennium, the Early Iron Age, represents the period which preceded it and in which we have to look for the cultural roots of the area. The study of this age has been mainly hindered by the dearth of literary and documentary sources and of the archaeological evidence which are treated in detail in the following chapters.

### Early Iron Age

The first half of the 1<sup>st</sup> millennium BCE, that is the Early Iron Age, represents one of the least known archaeological horizons in the north-west of the Indian subcontinent and no epigraphic or iconographic sources are available for this period. The main feature of the archaeological picture of the north-west of the Indian subcontinent during the Early Iron Age is the regionalization of the archaeological evidence, mainly suggested by scholars on the basis of the presence of distinctive ceramic assemblages (Petrie and Magee 2012: 2). Indeed, the mid-2<sup>nd</sup> millennium BCE saw the progressive decline of the urban centers of the Indus Civilization situated on the alluvial plains of Sindh and Punjab (Petrie 2013), and, at the same time, the gradual development of new settlements in the borderland areas associated to regionally distinct assemblages of cultural material. It is the case of the Bannu basin (Khan et al. 2000, Magee et al. 2005), of the Kacchi plain in Baluchistan (Jarrige and Santoni 1979) and of the Gandhara region (Dani 1967, Stacul 1969).

In fact, the early 1<sup>st</sup> millennium BCE in Gandhara witnessed the rise of several inhabited settlements which gradually during the course of the period were transformed in urban centers: Aligrama and Bīr-koṭ-ghwaṇḍai (Barikot) in the Swat Valley and Balambat in Panjkora Valley appear to have been important centres of northern areas, whilst the Bala Hisar at Charsadda and the Hathial and Bhir Mound at Taxila, represented the main sites of the southern plains.

Archaeological investigations carried out, since the mid-20<sup>th</sup> century, by the IsMEO-IsIAO-ISMEO Italian Archaeological Mission in Pakistan (hereafter: IAM) provided evidence for a distinctive cultural horizon from the early 3<sup>rd</sup> millennium BCE to the late 1<sup>st</sup> millennium BCE, in a range of settlements (Aligrama, Bīr-koṭ-ghwaṇḍai, Loebanr III and Kalako-derai) and graveyards widespread in the Swat Valley, Buner and Chitral<sup>3</sup>. In

---

<sup>3</sup> More recent surveys conducted in the Karakar, Kandak, Kotah and Najigram Valleys have revealed further evidence dated to the Early Iron Age, Olivieri and Vidale 2006. For a complete bibliography see Olivieri 2006.

particular, the excavation at the rock shelter of Ghaligai (Stacul 1969) led to reconstruct a long chronological sequence which was labeled as ‘Ghalegai sequence’ or ‘Swat sequence’ (Periods I-VII).

Materials comparable to those discovered by the Italian team in Swat, were recorded in the nearby Panjkora Valley (Timargarha and Balambat) by Pakistani archaeologists who indicated the cultural horizon corresponding to the Swat periods V-VI (early 2<sup>nd</sup> millennium BCE – first quarter of the 1<sup>st</sup> millennium BCE) as “Gandharan Grave Culture” (Dani 1967: 22-40).

As regards the southern plains, in the vicinity of the modern town of Charsadda is the archaeological site of Bala Hisar (Wheeler 1962) the foundation of which has been recently dated back to the mid-late 2<sup>nd</sup> millennium BCE (Coningham et al. 2007: 93-98), confirming the hypothesis previously put forward by various scholars on the basis of the relations between the ceramics from earlier layers of Bala Hisar and Swat period V assemblages (Stacul and Tusa 1977: 177; Stacul 1979: 342-343; Tusa 1979: 691; Dittmann 1984: pl. 5; Vogelsang 1988: 106). The Bala Hisar appears to be the only settlement dated to the Early Iron Age in the Peshawar Valley. Indeed, surveys conducted in the Charsadda district (Ali 1994) and in the Peshawar Valley (Ali 2003) have surprisingly revealed the absence of late-protohistoric and Early Historic settlements. However, the use of Wheeler’s ceramic sequence as a reference during these surveys, must have contributed to create a misleading picture of the archaeological situation.

In the Taxila Valley, to the east of the Indus River, the upper deposits on the west Mound at the Hathial Mound (Allchin 1982: Fig.3; Khan 1983; Dani 1986) and the lower deposits at the Bhir Mound (Bahadur Khan et al. 2002: 29-31, 74-75) have revealed the presence of ceramic forms analogous to those recovered from the earliest occupation at the Bala Hisar and from levels of the highland’s sites dated to the Period IV and Period V of the Swat sequence.

The geographical limits of this cultural horizon of the Early Iron Age defined as “Gandharan Grave Culture” are: Chitral to the extreme north-west, the Swat and Dir Valleys to the north, and the southern fringe of the Peshawar Valley to the south, with Charsadda at the middle, the graveyard of Zarif Karuna to the west and Taxila to the east. Although the apparently sharp regionalization of the Early Iron Age material culture in Gandhara is a matter of fact, the archaeological evidence so far collected unable us to have an insight into the economic, political and social organization of the societies involved in this Early Iron Age regional development.

## Early Historic Period

### Achaemenid Period

Even though the history of ancient Gandhara can be considered to start with its incorporation in the Achaemenid Empire - which would also mark the beginning of what we have defined the Early Historic Period - duration, nature and impact of the Achaemenid authority are still difficult to determine.

One of the main problems is the identification of the satrapy of *Gandāra* mentioned in the Achaemenid inscriptions, which according to P. Briant would be the entire Kabul Valley as far as the Cophen River (Briant 2002: 756). It seems that there would have been a shift eastwards of the toponym, because in later sources, as in *Rāmāyaṇa* but also in Pāṇini, Puṣkalāvātī (Charsadda) and Takṣaśilā/Taxila, not far east of the place where the Kabul River joins the Indus, are mentioned as capitals of Gandhara. Moreover, Arrian (V.4.3) and Strabo (XV.1.10) pointed out that the Indus River was the boundary between the Achaemenid Empire and India in Alexander's time (Brunt 2000: 546; Petrie and Magee 2007, Magee and Petrie 2010). In particular, Strabo giving a list of peoples from north to south and west of Indus mentions the Paropamisadae, the Arachosians and the Gedrosians, and he adds: "the Indus lies, latitudinally, alongside all these places; and of these places, in part, some that lie along the Indus are held by Indians, although they formally belonged to the Persians" (Strabo XV 2, 9) (see Briant 2002: 756). This would imply that Indus was the eastern boundary of *Paropamisadae/Gandāra* and, curiously, that Taxila was outside this satrapy.

Talking of political geography, Henkelman (2017: 214-215) cautiously suggests to identify in Kakawišša/Kapišiya mentioned in the Persepolis Fortification texts the Achaemenid administrative centre, or the satrapal seat, of the *Paropamisadae* subdivision of *Gandāra*, probably to identify with Kāpiši/Bagrām, about 80 Km north of Kabul (Foucher 1939: 437-439).

Taken together, these series of sources suggest that the Achaemenid satrapy of *Gandāra* may have represented something different from what we are used to indicate with this term. In fact, the Achaemenid *Paropamisadae/Gandāra* seems to extend on both sides of the Hindu Kush with a main core located in the northern part, whereas later on the term will be mainly used to indicate an area to the south of the Hindu Kush centered in the Peshawar and Taxila Valleys<sup>4</sup>.

---

<sup>4</sup> The latter is the definition employed in this research.

The date of the initial annexation of *Gandāra* is not certain. The available sources, mainly Herodotus (I, 153, 177-200, 206-207) but also Ctesias (summarized by Photius), do not allow us to reconstruct in detail Cyrus' expedition and its chronology in Central Asia<sup>5</sup>. In particular, Herodotus (I, 153) reports that after the capture of Sardis, Cyrus had to face some dangers (Babylon, the Saka, the Bactrians and Egypt) among which are not *Gandhāras*. Only late sources (*Naturalis Historia* 6, 92; *Anabasis* 6.24.3; *Indica* 1.1-3) seem to indicate that Cyrus also crossed the region of the Kabul River, namely *Gandāra*<sup>6</sup>. According to Vogelsang the relation between Bactria and *Gandāra* (Vogelsang 1990: 99-100), as well as that between Arachosia and Thatagush/Sattagydia (Vogelsang 1990: 100; 1985: 79-80), in the list of the provinces in Darius' royal inscriptions might indicate that *Gandāra* and Thatagush were annexed when Cyrus conquered Bactria and Arachosia. P. Briant (2002: 40) says that "it is tempting to suppose that Cyrus had subdued (or crossed) the Iranian countries that Darius, at the beginning of his reign, portrays as already conquered: Parthia, Drangiana, Aria, Chorasmia, Bactria, Sogdiana, Gandhara, Scythia, Sattagydia, Arachosia and Makran. On the other hand, it is certain that he never penetrated the Indus Valley". What we certainly know is that in 522 BCE Darius considered *Gandāra* part of his empire.

Besides the royal inscription of Bisotun Iranian sources on the eastern satrapy of *Gandāra* come from the Darius's "Foundation Charter" of the Apadāna of Susa (DSf 34-35, 44) which informs us that the *yakā* wood used in construction of the palace came from *Gandāra* (Briant 2002: 172) and from the Persepolis Fortification Text corpus. Whereas there is no mention to *Gandāra* in both the Darius statue from Susa and the so-called Canal Stelae from Egypt (Magee et al. 2005: 712-713; Roaf 1974). Dignitaries from *Gandāra* have also been identified among the delegations depicted bringing gifts to the Achaemenid king on the *Apādana* staircases at Persepolis and also as 'throne-bearers' on the Tripylon and Hall of One Hundred Columns (Roaf 1974: 84-92; Schmidt 1953: 82-90, 116-120; Vogelsang 1992: 147-151) and on the tomb façades of the Achaemenid kings at Naqsh-e Rostam and Persepolis (e.g. Schmidt 1970: 77-118)<sup>7</sup>. The throne-bearers

---

<sup>5</sup> P. Briant (2002: 38-39) placed Cyrus' campaign to Central Asia before (but after 546 BCE) and after the conquest of Babylon in 539 BCE, whereas Vogelsang (1992: 187-189) agreed with Francfort (1988: 170) and Bivar (1988: 198-199) in placing the conquest of Central Asia after the capture of Babylon between 539 and 530 BCE.

<sup>6</sup> Plinius (*Naturalis Historia* 6, 92) reported that Cyrus destroyed Capisa, in northern Afghanistan, apparently located north of present-day Kabul (Bivar 1969:20), while Arrian (*Anabasis* 6.24.3) mentioned his attack "on the land of the Indians" (apparently Gandhara) where the Persians lost a large part of their forces. Arrian elsewhere (*Indica* I, 1-3) says that the Indians between the Cophen River (Kabul) and Indus River, Astaceni and Assaceni, paid tribute to Cyrus.

<sup>7</sup> For a recent overview on the Iranian sources on the easternmost satrapies of the Achaemenid Empire (Gandhara, Thatagush and Hinduš) see Petrie and Magee 2007: 4-8.

depicted on the Darius I tomb (I) at Naqsh-e Rostam and on Artaxerxes II tomb at Persepolis (V) were identified by trilingual legends (Schmidt 1970: 110, tab. III). Here Gandharans, identified by the Old Persian inscription as the throne bearer n. 12. (*ibid.*: fig. 45; pl. 25, 67), are depicted as wearing a short skirt and sandals with bare torso and sword to left as well as the other members of the Indian group (V), namely Sattagydiens (n. 11), Indians (n. 13) and Macians (n. 29). On the other hand, in the tribute procession of the *Apadanā* the delegates supposedly from *Gandāra* (*ibid.*: pl. 103 F, delegation n. 14), contrasts in dress and weapon with the throne-bearers depicted in the tombs (Schmidt 1970: 151-152). In fact, here the members of delegation have a filleted head, short tunic with long mantle and sandals. The tribute, in addition to a zebu<sup>8</sup>, consists of five spears and a shield<sup>9</sup> (Schmidts 1953: pl. 40).

There have been relatively few attempts to clarify the position of the satrapy of *Gandāra* within the Achaemenid political and administrative system. The absence of references, both in royal inscriptions and in the Alexander histories, to Achaemenid officials based in *Gandāra* together with the lack of archaeological evidence for the identification of an Achaemenid administrative center in *Gandāra* have raised several debates on the nature of the Achaemenid control in the eastern satrapies (see Callieri 2004).

On the basis of textual evidence it has been suggested that the satrapies of Arachosia and Bactria could have extended their administrative authority on the neighbouring satrapies of *Gandāra* and Thatagush (Vogelsang 1990: 99-100; 1992: 221-223). However, as highlighted by Henkelman (2017: 210), the arguments traditionally used to propose a subordination of *Gandāra* to the authority of the satrap of Bactria cannot be considered unequivocal<sup>10</sup>. The evidence used to corroborate this suggestion, in fact, are mostly limited to two classical sources: Herodotus (VII, 66), who reported that Gandharans in the army of Xerxes were equipped like the Bactrians, and Arrian (III, 8, 3) who claimed that at Gaugamela the Indians who bordered on the Bactrians, generally identified with the Indians of *Gandāra*, were led by the satrap of Bactria Bessos. The Bactro-centric outlook on the Indian lands according to Vogelsang (1990: 99) is furthermore suggested by the meaning of the name Paropamisadae itself and by the correlation between *Gandāra-Saka* as ‘unit beyond Bactria’ in the lists of the *dahyāva*.

---

<sup>8</sup> An identical zebu is shown in the Babilonian delegation (Schmidt 1953: n. 122)

<sup>9</sup> The martial tribute of the Gandharan delegation (n. 14) of the *Apadanā* is on both staircase identical with the weapons offered by delegation no. 21 on the northern staircase (Schmidt 1970: 158).

<sup>10</sup> On the relation between the satrap of Arachosia and the satrapy of Thatagush see Jacobs 1994, Fleming 1982, Vogelsang 1985: 77-82, Briant 2002: 754-757.

On the other hand, the Persepolis Fortification Texts never show a clear connection between *Gandāra* and Bactria. Instead, as recently stressed by Henkelman (2017: 208-217), officials who give authorisations for travels from *Gandāra* are Bakabaduš, Irdu(k)bama and Irdatakma<sup>11</sup>. The first is probably the chief administrator or satrap in Arachosia who apparently occasionally renewed the authorisations for travellers coming from further east, a practice which is not without parallels (Henkelman 2017: 155-156; Bivar 1988: 205). Irdu(k)bama, can confidently be identified as the satrap of Hinduš (Henkelman 2017: 155). The third official, Irdatakma, may be tentatively identified as the satrap or highest administrator of *Gandāra* (Giovinazzo 1994; Henkelman 2017: 208). If so, Irdatakma would represent the only surviving name of an Achaemenid officer in *Gandāra*<sup>12</sup>. Moreover, the possibility of the existence of an Achaemenid administrative center in *Gandāra* seems to be suggested by texts PF 1358-1359 which refer to tribute payments coming from *Kandara* (= *Gandāra*), thus suggesting the existence of a central treasury in the satrapy of *Gandāra* (Henkelman 2017: 212).

One of the possibilities that seems to emerge from the recent re-examination of the Persepolis Fortification Texts is that *Gandāra*, in administrative terms, could be subordinated or strongly connected to the satrap of Hinduš rather than that of Bactria (Henkelman 2017: 210)<sup>13</sup>, in turn perhaps under the overarching authority of the Arachosian satrap which according to Classical sources had overarching authority over other eastern satrapies (Jacobs 1994, Vogelsang 1985: 87-91, 1990: 99-100).

How long the Achaemenids ruled over this area is another unclear point. The representation of dignitaries from *Gandāra* (along with those from Thatagush and Hinduš) on royal reliefs until the reign of Artaxerxes III suggests that the region was still part of the empire at least until the 338 BCE. However the disagreement of inscriptions and reliefs in listing the subjected nations suggests the unreliability of these royal sources which cannot be used as administrative texts due to their propagandistic character (Briant 1996: 205). The Arrian's description of the army of Darius III at Gaugamela in 331 BCE,

---

<sup>11</sup> According to Bernard, Bivar and more recently by Henkelman (2017) Elamite references to *Kandara*(š) probably refer to *Gandhāra*, rather than *Qandahār* in Arachosia. In fact, they “pointed out the absence of pre-Islamic attestation of the name of *Qandahār* and to the fact that, in the royal inscriptions, Elamite invariably parallels Old Persian *Gandāra* and Akkadian *Gandari*” (Henkelman 2017: 154). On the basis of this interpretation, in the fortification texts the term *Gandhāra* is mentioned nine times: three times as place of origin of travelers (Fort. 1721-101: 7ʹf; PF 1358; NN 0431), six times as destination (PF 1550; PF 1440; NN 0534:16, NN 0534: 17-18; NN 1573; NN 2383), once in reference to the traveler (PF 1139) (Henkelman 2017: 210-2121)..

<sup>12</sup> It is worth mentioning at this regards that Pāṇini, who must have been a Persian subject (Scharfe 1977: 88-89) refers to *Parśu* and *Pārsava* in V.3.117 (see Agrawala 1953: 445, 466-468; Henkelman 2017: 175).

<sup>13</sup> The absence of references to Thatagush from the Persepolis Fortification Texts and the existence of cases in which Hinduš and *Kandara*(š)/*Gandhāra* are terms used as destination of the same traveller are arguments used to suggest that Hinduš was initially used as a general term (Henkelman 2017: 209).

however, seems to indicate that the fealty of these provinces to the Achaemenid king was maintained, as there were ‘Indian’ units in Darius’ army (*Anabasis*, III, 8, 3; Vogelsang 1992: 221-223; Briant 1996: 776-778).

The fact that Alexander’s biographers make no mention whatsoever of any relation between the local kingdom/chiefdom they encountered in this lands and the Achaemenid Empire, has been used as evidence to infer that Achaemenids had lost control of the easternmost territories (Brunt 1976: 544-547). However, P. Briant has remarked that the action of the Taxila chief Omphis, who brought gifts to the western frontiers of his dominion upon Alexander's arrival is fully coherent with the behaviour of a local authority or satrap within the Achaemenid Empire (Briant 2002: 756)<sup>14</sup>.

In terms of archaeological evidence, a glimpse of the Achaemenid presence in the Gandhara region has been identified in elements directly associated with the political power (Callieri 2004: 12): the spread of the Aramaic language at Taxila, Kandahar and Hadda and the birth of the Kharosthi script, a syllabic writing system directly derived from Aramaic (Greenfield 1985: 705); the diffusion at Taxila of silver bent-bar punch-marked coinage similar to that of the Bactrian area (Allchin 1995: 131); the presence in north-west India of some local ‘Graeco-Persian’ seals (Callieri 1996). However, apart from these clear evidences directly linked to the political power and the upper classes, the Achaemenid horizon in the north-west Pakistan is not nearly defined and there is no consensus about which archaeological levels should be ascribed to the Achaemenid Age. The terms of this debate, discussed in details (and site by site) in Chapter 1.2-1.3, are briefly introduced below.

The two key-sites of Gandhara, namely Taxila and Charsadda, did not reveal any structural remains related to the Achaemenid period.

At Taxila, the excavations at Bhir Mound have not produced reliable evidence of an Achaemenid presence so far (Marshall 1951; Sharif 1969; Bahadar Khan et al. 2002).

As far as material culture concerns, the only elements with a possible Achaemenid inspiration seem to be some stamp seals and necklace beads (Marshall 1951: 103, 674-5) and a hoard containing Achaemenid-type ear-rings recovered in Bhir Mound stratum III, generally considered post-Achaemenid (Fabrègues 2006). Although Marshall dated the occupation phases on the Bhir Mound between the 6<sup>th</sup>-5<sup>th</sup> and the 2<sup>nd</sup> century BCE,

---

<sup>14</sup> On the gift of elephants from Indians to the Achaemenid kings see Briant 1997.

reanalysis of ceramic material and new limited surveys, suggest a pre-Achaemenid foundation (Bahadar Khan et al. 2002: 31).

Also, the foundation of Bala Hisar at Charsadda, which Wheeler arbitrarily dated to the Achaemenids (Wheeler 1962: 33-4), has been definitely pushed back to the mid-last quarter of the 2<sup>nd</sup> millennium BCE by recent radiocarbon analysis (Coningham et al. 2007: 97).

At Balambat, in the Dir Valley, the ‘Achaemenid feature’ of the *pyraea* found in Period IV rooms (Dani 1967: 244-5) was confuted by Tucci (1977: 12) and the related ‘Achaemenid’ ceramic assemblage (Dani 1967: 264, figs. 57-60) considered unreliable. The proto-historic settlements of the Swat valley, in particular Bīr-koṭ-ghwaṇḍai and Aligrama, appear to live the Achaemenid occupation without any change (Olivieri 1996: 66).

In general, the identification of the Achaemenid archaeological horizon at the Indo-Iranian borderlands, suffers the dearth of comparative Achaemenid evidence from the easternmost regions of the Iranian Plateau. In Arachosia the only sites with evidence for an Achaemenid occupation, which have actually been excavated, are Mundigak and Old Kandahar. At Kandahar the main building dated to the Achaemenid period has been only partially investigated (McNicoll and Ball 1996), and the easternmost site of the Iranian Plateau that reveals a clear evidence of Achaemenid architecture is the settlement of Dahane-ye Gholaman, in Sistan (Scerrato 1966; Genito 1986, 2010).

Yet the only artefacts circulating in the Gandharan region, which are usually considered of Achaemenid derivation, are the so-called ‘Tulip bowls’, round-bottomed carinated cups with a shallow body and high everted rim rising from the carination primarily used as wine drinking vessel and the ‘carinated bowls’, shallow bowls with carinated sides and S-shaped rim. In particular the Tulip bowls, which are diffused on the Iranian Plateau during the Achaemenid domination, are known from both the core of the empire and Achaemenid contexts in sites outside Fars (see bibliography in Petrie et al. 2008: 5). However, the specimens of Tulip bowls documented at Bala Hisar and Bhir Mound come from layers which are generally considered post-Achaemenid in date (see Chapters 2.2 and 5.3).

## Alexander in Gandhara

Alexander's passage in Gandhara (327-326 BCE) is documented by a series of Classical accounts (see Petrie and Magee 2007) which inform us on the political geography of the area in the late-Achaemenid period, mentioning cities, people and kings encountered by Macedonians during their march towards the Indus. As said above, no mention of Achaemenid officials is made for these territories.

The first contact between Alexander and the ruling people of the region within or near the Achaemenid Gandhara took place before the Macedonians crossed the Khyber Pass with the presentation of gifts to Alexander from the ruler of Taxila and the other *hyparchs* (e.g. Astis, ruler of Peucelaōtis/Charsadda) west of the Indus (Arr. IV.22.6)<sup>15</sup>.

After this meeting, the invasion of Gandhara followed two different routes. In fact, Alexander entrusted to Hephestion and Perdikkas the command of the army directed towards the Indus through the 'Grand Route ancienne' (Foucher 1942: 41-43), which follows the course of the Kabul river passing by Peukelaotis, modern Charsadda (Arr. IV 22.7), while he assumed command of a small group of men and took a northern route with the aim of subduing the hill people of the Hindu Kush and Kohistan in order to guarantee a safe occupation of the southern plains (Olivieri 1996: 72).

Without going into detail, from the accounts of Alexander's historians it appears clear that at the time of Alexander the Gandhara region was populated by several local political entities governed by independent rulers often in rivalry (see Petrie and Magee 2007: 8-13). However, apart from Astis' revolt (Arr. IV.22.7-8), the Macedonian advance across the southern Gandharan plains was not as harsh as the situation encountered by Alexander in the northern Gandharan Valleys of Bajaur, Chitral and Swat, where he fought against the local independent kingdoms of Aspasiens, Guraeans and Assaceniens (Arr. IV.22.1ff; Curtius Rufus VIII.10; see Bosworth 1995: 158ff), who were visibly not interested in offering their gifts and submission to the king. In contrast, all along Alexander's march across the southern plains the presentation of gifts, a possible reflection of the Achaemenid ceremony, was often repeated (not without sudden about-turns) by several rulers.

After having captured the stronghold of Aornos (= Mt Ilam, see Tucci 1977: 52-55) Alexander travelled down the Indus via Buner, then joining Hephestion and Perdikkas near the Indus (Olivieri 1996: 72). Here Alexander was enthusiastically received by the

---

<sup>15</sup> Brunt (2000: IV.22, n.7) and Bosworth (1995: 146, 1996: 155) have noted that Taxiles had been encouraged by his son Omphis to send envoys to submit to Alexander while the new king was in Sogdiana.

ruler of Taxila, Omphis, who offered submission to the new king (Arr. V.3.5-6; see Bosworth 1995: 220-221). The subsequent campaigns and meetings of Alexander took place in proper Indian territory as far as the Arabic Sea, outside the proper Achaemenid Empire, according to the Classical sources. Macedonian satraps were nominated for the areas to the west (Nicanor) and to the east of Indus (Philip) and for the area of Patala, in lower Sindh (Peithon), while the independent kings Porus and Abisares, defeated by Alexander, were nominated satraps of their own territories (Bosworth 1995: 357-358).

In the aftermath of the Macedonian conquest, the political history of Gandhara is only vaguely defined. According to Berve's (1937) and Bosworth's (1983) reconstruction, based on Photius/Arrian, the continue insurgencies against the Macedonian satraps at the eastern border of the empire forced Alexander, at the end of his life, to reorganize and contract his Indian territory.

After the summer of 327 the area between the Indus River and the border of the Paropamisadae was placed under the authority of the Macedonian satrap Nicanor (Arr. IV.28.6) who was assassinated by Assacenic rebels late in 326 BCE<sup>16</sup>. After a punitive campaign, Philip son of Machatas, the satrap of the area between the Indus and the Hydaspes River as far south as the confluence with Acesines (Arr. V 8.3; 6.15.2), placed the area under his control, thus extending his satrapy up to the Paropamisadae. However, at the end of 325 also the satrap Philip was assassinated. In addition, at Patala in lower Indus Valley, where the Macedonian fleet was stationed, the situation must have been so turbulent that as soon as Alexander was departed the locals forced Nearchus to take the sea prematurely (Strabo 15.2.5 (721) = FGrH 133 F 1a).

Owing to these series of dramatic events by 324 Alexander must have decided to reorganize the eastern satrapies, leaving most of the Indian territories to the two local princes he had previously submitted, Porus and Omphis. The Macedonian satrap Peithon, originally in charge of the area of Patala from Acesines as far as the Arabic Sea (Arr. VI, 15, 4), now entrusted to Porus, was transferred to the north-western satrapy between Indus and Paropamisadae. According to this reconstruction (Bosworth 1983: 45) appears clear that already before Alexander's death the Macedonian control of the north-west of the Indian subcontinent was set back to the west of Indus and reduced to a well garrisoned area between the Indus and central Hindu Kush. We have records of Peithon and its mercenary army being in the Kabul Valley until the 321 BCE (Bosworth 1983: 38-39;

---

<sup>16</sup> Sisicottus (Sandracottus), Commander of the Aornos (Mt. Ilam) stronghold, informed Alexander that the satrap Nicanor had been assassinated by Assacenic rebels (Arr. V. 20.7; Eggermont 1975: 185-187; Bosworth 1983: 38).

1988: 239), but the silence of sources, as argued by Callieri (1993:134), does not necessarily imply his dismissal or death. The possible socio-cultural implications of a possible stable presence of Macedonians and Hellenistic culture in Gandhara at least for some decades has already been stressed (Callieri 1993: 135).

### Mauryas and Indo-Greeks

At the end of the 4<sup>th</sup> century BCE the region joined the Indian political entity of Mauryas. Gandhara was in fact one of that territorial concessions that Seleucus I Nicator (between 306-303 BCE) agreed to Chandragupta Maurya in exchange for 500 elephants (Strabo XV, 2, 9 = XV, 724). In Ashoka's rock-edict V, J *Gandhāras* are mentioned among the people leaving at the western borders of the empire along with Yōṇas and Kambōjas (Hultzsch 1925). Even though the Maurya domination, especially during king Ashoka, is known having encouraged the diffusion of Buddhism in Gandhara - where this doctrine will find a particular fertile socio-economic ground - only few archeological evidence are related to this period. The Ashoka rock edicts at Mansehra, in Khyber Pakhtunkhwa province, are one of those. However, in general, apart from the diffusion of Maurya coins and of particular terracotta figurines ('Baroque lady') in sites as Taxila and Charsadda, the invisibility of the Maurya archaeological horizon in Gandhara, mainly west of Taxila, is a puzzling issue.

Indeed, the foundation of *Dharmarājika* stūpas at Taxila and Butkara (GSt.1, Faccenna 1980-81) in Mauryan times does not seem to reflect a simple missionary action in this territory. Instead, a royal religious foundation - in the case of Butkara even within an urban context - is an evidence of acculturation *per se*, supported by a political intent. Unfortunately no material culture and ceramic material associated to the earliest phases of the *Dharmarājika* have been published. And the cultural implications of the Maurya presence in Gandhara are not so obvious.

During the 2<sup>nd</sup> century BCE a new political and cultural orientation was introduced by the Indo-Greeks. After the death of Ashoka (ca. 233/232 BCE), in fact, the solidity of Mauryan Empire saw a gradual decline and the empire was split in two parts with Gandhara governed by a descendant of Ashoka, Vīrasena, (Thapar 1997: 196). In particular, Mauryan authority on the western part of the empire was jeopardized by the independence of some regions and cities (like Taxila) and by the expansionistic ambitions of the Graeco-Bactrian kings.

It was Demetrius I, son of king Euthydemus, who, taking advantage of the crisis lived by the western Mauryan reign, first launched the Graeco-Bactrian expansion to India. Around the end of the first decade of the 2<sup>nd</sup> century BCE Demetrius I, perhaps during the last years of Euthydemus' reign, subjugated Paropamisadae and Arachosia and possibly also part of Indian territories (Bernard 2004: 273-276).

During the reign of his young son Euthydemus II (ca. 180 BCE) the Graeco-Bactrian territories seems to go through a partition. Indeed, around 186/185 BCE the area of the Indus Valley as far as Taxila in Gandhara, appears to be placed under the control of two brothers, Pantaleon and Agathocles (Tarn 1951: 156-160; Narain 1957: 58-59; Bopearachchi 1991: 58), whose territories were probably extended also on part of eastern Bactria during or immediately after Euthydemus II. Pantaleon, whose reign lasted no more than two years (Bopearachchi 1991) and then Agathocles were the real authors of the Greek conquest of Gandhara and Indus Valley<sup>17</sup>. Their victorious invasion of the Indian territories is marked by the emission of bilingual Indo-Greek coins (in Greek and Brāhmī or Kharoshthi) which start to incorporate deities and symbols of the Indian culture.

The chronological sequence revealed by numismatic evidence shows as successors of Agathocles in the Indian territories Apollodotus I, mentioned by Pompeius Trogus' *Philippic Histories* (Prologues XLI), Antimachus II Nicephorus and Menander I.

Around 171 BCE Eucratides I, who uprooted the Euthydemid dynasty, was able to impose himself as the only sovereign of Bactria<sup>18</sup> and to re-conquest all the territories became independent. Justin (XLI, 6, 3) reports a list of military campaigns carried out by Eucratides against Sogdians, Arachosians, Drangians, Arii and Indians.

In particular, his rival in Indian territories was Menander I (ca. 165-130 BCE), who, during the western conflicts of Eucratides, began a second wave of conquests towards east (ca. 155-150 BCE) as far as the hearth of the Sunga reign, Patna (Pataliputra)<sup>19</sup>.

The military reaction of Eucratides against Menander I was probably successful<sup>20</sup>, however after his murder (Justin XLI, 6, 5), his successors were not able to maintain the control of the territories to the south of the Hindu Kush due to the nomad pressing danger on the northern frontier. Therefore, soon after Eucratides' death Menander re-conquered

---

<sup>17</sup> The general overview on history of Indo-Greeks presented below is mainly based on the recent work of Omar Coloru 2009.

<sup>18</sup> Antimachus (ca. 176-171 BCE) and then Demetrius II (ca. 173-171 BCE) ruled on some territories of western Bactria.

<sup>19</sup> The other obstacle faced by Eucratides during his Indian campaign is represented by Demetrius II indicated as "king of the Indians" (Justin XLI, 6, 4).

<sup>20</sup> Eucratides' re-conquest of the Indian territories must have included Taxila, given the numerous Indian objects found in the Ai Khanoum treasury (Rapin 1992: 98-101, 105-106, 185-229, 237-240).

all his original territories, placing under his authority the Paropamisadae, Arachosia, Gandhara, Punjab and further east until the city of Sagala (modern Sialkot)<sup>21</sup>. According to Apollodorus of Artemita, quoted by Strabo, the Indo-Greek territory for a while included the Indian coastal regions, as the reign of Saraostos and Sigerdis (Strabo XI, 11, 1). The reign of Menander must have been steady and tolerant to the extent that the Indian literature depicted him as a convert to Buddhism in the *Milindapañha*<sup>22</sup>. In general the Indo-Greeks, clearly a ruling minority, were particularly open and tolerant towards local traditions.

The nomad occupation of Bactrian territories marked the partial interruption of communication between the Greek communities to the south of Hindu Kush and the west and the Classical sources on the Greeks of Bactria and India, in fact, end with Eucratides and Menander.

However, from numismatic evidence we know that later on the Indo-Greek kingdom set by Menander appears to be divided in two main units governed by dynasties in contrast with each others and often threatened by usurpers. The western part seems to include Paropamisadae, Arachosia and western Gandhara, while the eastern unit covers an area which goes from eastern Gandhara to the region of Sagala at the western border of the Shunga kingdom. According to the traditional reconstruction, after Zoilos and Diomedes (ca. 130-120 BCE), Paropamisadae and Arachosia pass under the authority of Lysias (ca. 120-110 BCE) and then Antialcidas (ca. 115-95 BCE) (Bopearachchi 1991).

To the 14<sup>th</sup> year of reign of the latter is dated the famous inscription on pillar of Heliodorus at the ancient Viḍiśa, today Besnagar. The pillar of Heliodorus, Greek ambassador from Taxila of the Indo-Greek king Antialcidas to the court of the Shunga king Bhagabadra (Rapson 1922: 558), besides being the first inscription related to Vaishnavism in India, documents the diplomatic relation woven by Antialcidas with the Shunga dynasty, at the eastern border of the area dominated by his rival Strato I.

King Philoxenus (ca. 100-95 BCE) possibly reunified the eastern and western units of the kingdom, although a series of sovereigns appear to mint coins for short periods between 100-90 BCE: Polyxenus, Epander, Demeter III, Theophilus, Thraso and Nicias (Bopearachchi 1991: 99, 103-108).

The end of the Indo-Greek domination was however near. Hermaeus (ca. 90-70 BCE) was the last Indo-Greek king in Paropamisadae and Arachosia, before the nomad invasion

---

<sup>21</sup> Monograms related to mints to the south of Hinukush are completely absent from coins of Eucratides' successors (Heliocles I, Eucratides II and Plato).

<sup>22</sup> As regards discussions about a real conversion of Menander to Buddhism see Fussman 1993b: 61-137.

(Bopearachchi 1991: 113-125; Senior 1999). At the same time in Gandhara and Panjab Archebius (ca. 90-80) fell under the control of the Indo-Scythian king Maues (ca. 80-70 BCE) who made Taxila his capital.

The last chapter of the Indo-Greek history was marked by Apollodotus II (ca. 80-65 BCE) who included in his reign the last Indo-Greek territories: Gandhara and western Punjab. After his death the kingdom will go further division with Hyppostratus between Charsada and Taxila, and Dionysus in eastern Punjab (ca. 65-50 BCE). Then, the territories held by Hyppostratus will be conquered by the Indo-Scythian king Azes I. Dionysus and his successors (Zoilus II, Apollophanes, Strato II) from this point onwards will live in complete isolation.

Strato II (ca. 25 BCE-10 CE), who reigned also in coregency with his son Strato III, is the last Indo-Greek king of India defeated around 10 CE by the Indo-Scythian satrap Rajuvula.

The most substantial archaeological evidence of the Indo-Greek presence in Gandhara is represented by the massive fortification wall of Barikot considered an important document of eastern Hellenistic military architecture (Callieri 1993b: 343). Moreover the recovery of some fragmentary Greek inscriptions on sherds at Barikot and Udegram attests the use of the Greek language in the Swat Valley during this period. Apart from that, however, the archaeological evidence dated to this period is in general quite limited. The structural remains of the Indo-Greek occupation of Shaikhan Dheri at Charsadda (Dani 1965-6) are qualitatively and quantitatively poor. However, as stressed by Callieri (1995: 305), this is the only settlement in which the gridiron plan is associated with an Indo-Greek occupation.

At Taxila the Indo-Greek city has not been certainly located yet and the presence of the earliest Indo-Greek phases has been suggested on the Hathial mound (Allchin 1982: 13). The dating of the site of Sirkap, once considered an Indo-Greek foundation (Marshall 1951), has been lowered of one century through following excavations (Ghosh 1948) and studies (Erdsosy 1990).

Apart from these sites, there are a several evidence of the material culture which suggest the presence of Greek or Hellenized craftsmen during the Indo-Greek period in Gandhara (Callieri 1995: 305). Besides the numerous Indo-Greek coins<sup>23</sup>, we mainly refer to the so-called 'toilet trays' (Callieri 1993b: 344, fig. 1) in Hellenistic style (Francfort 1979: 83

---

<sup>23</sup> An Indo-Greek mint was present at Taxila (see Bopearachchi 1991: 122, 127-28).

ff., Lo Muzio 2002) and to some stone seals (Callieri 1997, Fussman 1972: 24-27). Moreover, from Taxila (Bhir Mound and Sirkap) come a series of precious objects and instrument, mainly in bronze and agate, analogous to objects from Ai Khanoum (Rapin 1992), the end of which is confidently dated to ca. 145 BCE<sup>24</sup>. If considered as a whole, the introduction in Indo-Greek period of precious objects, coins and seals in pure Hellenistic style suggests the presence of coin/gem engravers and craftsmen trained in the Hellenistic tradition, if not Greek immigrants-refugees from Bactria (Callieri 1995: 306). In addition to these luxury objects, it is the ceramic material associated to the earliest periods of Barikot fortification (Callieri 1990, 1993b) which is comparable to the pottery assemblages of Graeco-Bactrian sites. Finally, from Shaikhan Dheri come two terracotta figurines in classical style (Dani 1965-66: 57, pls. XXIII, XXXIII, 2), whilst from the nearby Bala Hisar is a terracotta head, identified as Alexander, applied to the base of the handle of a jug (Wheeler 1962: 115, pl. XXXVII) and a headless alabaster statuette of Heracles (Wheeler 1962: 123, pl. XLI) from mixed contexts.

The ruling Greek minority, although open and conform to the Indian tradition - the coinage and terracotta production are emblematic in this sense - were the promoter of the direct transmission of Hellenistic elements into the Gandhara tradition, which however became more visible only after the end of their political domination (Callieri 1995: 306; 2002: 55).

---

<sup>24</sup> For a general overview on the objects from Taxila with parallels with Ai Khanoum see Callieri 1995: 298-299.

## **Scope and limits of the research**

This research aims to reconstruct and reframe within an historical context the socio-cultural and economic dynamics which interplayed within the Gandhara region during the Early Historic Period (5<sup>th</sup>-1<sup>st</sup> centuries BCE), seeking to understand if and how the Gandharan cultural identity and its material culture were shaped by the historical events and political entities which took place over this period.

Since the paucity of diagnostic elements relative to the Achaemenid, Maurya and Indo-Greek periods and the apparent archaeological invisibility of some of them in Gandhara, the diachronic and multiscalar approach was considered the most valuable one. Therefore, we selected a wider chronological frame covering almost the whole 1<sup>st</sup> millennium BCE in order to detect changes, variations and persistences within the material culture, firstly, focusing on the local interactions between different Gandharan areas, then, analyzing them within the context of overarching processes.

Our approach has been primarily archaeological and our main source of knowledge the ceramic sequences.

Once set the general problematic issues related to the Early Historic Period in Gandhara, next step was to reduce the scale of the investigation taking the Middle Swat Valley as a case study. Thanks to the kind permission of IAM in fact I had the possibility to: a) directly examine the late protohistoric ceramic assemblages from previous excavations at Aligrama and Barikot and b) archaeologically questioned the initial assumption on the cultural dynamics implicated with Early Historic Period based on the review of previous scholars' works.

Our case study for the latter purpose was represented by the site of Barikot where IAM in 2015 was carrying out excavations focused on the beginnings and abandonment of the urban site.

In September 2015 within the framework of IAM and ACT-Project<sup>25</sup> implemented by the Directorate of Archaeology and Museums (DoAM, Khyber Pakhtunkhwa), we conducted a question-oriented research with the aims at confirming or invalidating the initial thesis: the protohistoric tradition of the Swat Valley lasts until the 3<sup>rd</sup> century BCE without showing any acculturation phenomena ascribable to the Achaemenid or Maurya domination, at least as far as ceramic was concerned.

---

<sup>25</sup> Archaeology, Community, Tourism-Field School Project (ACT), was financed by the Pakistani-Italian Debt Swap Agreement, a program sponsored by the Italian Development Cooperation body, under the supervision of the Economic Affairs Division, Government of Pakistan.

In particular, the main goal was to ascertain the extent to which the protohistoric settlement antecedent the construction of the Indo-Greek defensive wall was a living settlement at the time of the demolition of the latter.

Using dialectical terms, this was one of the rare case in which the antithesis completely overturns the initial thesis.

Unexpectedly, excavations revealed that what was thought to be the settlement immediately antecedent, if not coeval, to the construction of the Indo-Greek defensive wall was instead at least five centuries earlier. This called the absolute chronology of the Swat protohistoric sequence, and as a consequence of the Gandharan sites connected to that, into question revealing a chronological gap of about six centuries in the Swat sequence (Stacul 1969).

The following two excavation seasons (April-June 2016 and August-October 2016) were thus devoted to fill the chronological gap revealed outside the urban defensive wall. Inside the urban area we had the chance of excavating an area over a depth of more than 6 m from the surface, which for the first time in the Gandhara region has revealed an uninterrupted stratigraphic sequence, anchored to a substantial set of <sup>14</sup>C dates, spanning from the late Protohistory to the Kushan time.

Obviously the new evidence brought me to reset the priorities of the research, since Barikot from a simple case-study has become the key site for the knowledge of the Early Historic Period. Thanks to the financial support of the Marco Polo scholarship by the Dipartimento di Beni Culturali of the University of Bologna and the crucial logistic support of IAM, a three months' research season (March-May 2017) was organized at the IAM headquarter in Saidu Sharif (Swat, Pakistan) in order to properly document the ceramic materials uncovered during the last two excavation seasons and stored at the IAM storehouse.

Subsequently, the Barikot ceramic sequence and its distinctive pottery markers were used as practical tools for attempting a reassessment of the other Gandharan ceramic sequences.

The limits of this research can be grouped in two main categories. The first variable which affected this study is something which is out of my control, Time. The archaeological evidence brought to light during the second year of this PhD program have in fact entailed a drastic change in target of the study material. The latter was detected only through the carrying out of two excavation seasons in 2016 during which the same standard of documentation was obviously extended to all types of materials recovered in each

structural period exposed during the digging. The analysis of the Early Historic ceramic assemblage from Barikot was then completed only in June 2017. The time left was devoted to the elaboration of data and comparisons. We try to expose and organize the amount of information collected in the most intelligible, although not exhaustive, way.

The lack of time and financial supports are the reasons behind the absence in this study of petrographic and mineralogical analysis of the ceramics, the examination of which is here limited to macroscopic observations. This will certainly represent the future direction of this work.

The second main limit of this research is due to the dearth of comparative, and mainly comparable in terms of stratigraphic reliability, ceramic material from Early Historic sites both in Gandhara and in north Indian sites. The extensive excavations at the two key-sites of Charsadda and Taxila go back to the half of the previous century and the most recent investigations at Bhir Mound have been somewhat disappointing. In India unfortunately the study of the Early Historic sites nowadays is not considered a priority by the Indian academy, which has mainly focused its interest on protohistoric period. The dearth of comparative materials surely represents a weak point for any research attempting to have an insight into the picture of the regional Gandhara tradition during the Early Historic Period. Some fresh archaeological investigations according to the modern stratigraphic standard and with the support of basic scientific methods, as radiocarbon datings, are therefore needed both in Gandhara and in northern India. The same considerations, although to a limited range, can be extended to the easternmost areas of the Iranian Plateau, mostly as far as the Achaemenid period is concerned.

At the present stage, the latest excavations at Barikot are finally offering the opportunity to fill the gap of the Early Historic period in the Gandhara region. Barikot, investigated according to updated scientific methodology and featuring a chronological *continuum* of occupation since at least the mid-1<sup>st</sup> millennium BCE, definitely represents the key site for the understanding of the economic and socio-cultural picture of the Early Historic period. The results obtained through the study of the Early Historic ceramic material from Barikot have a domino effect on a series of assumptions related to the material culture and the history of the ancient Gandhara region.

# CENTRAL ASIA

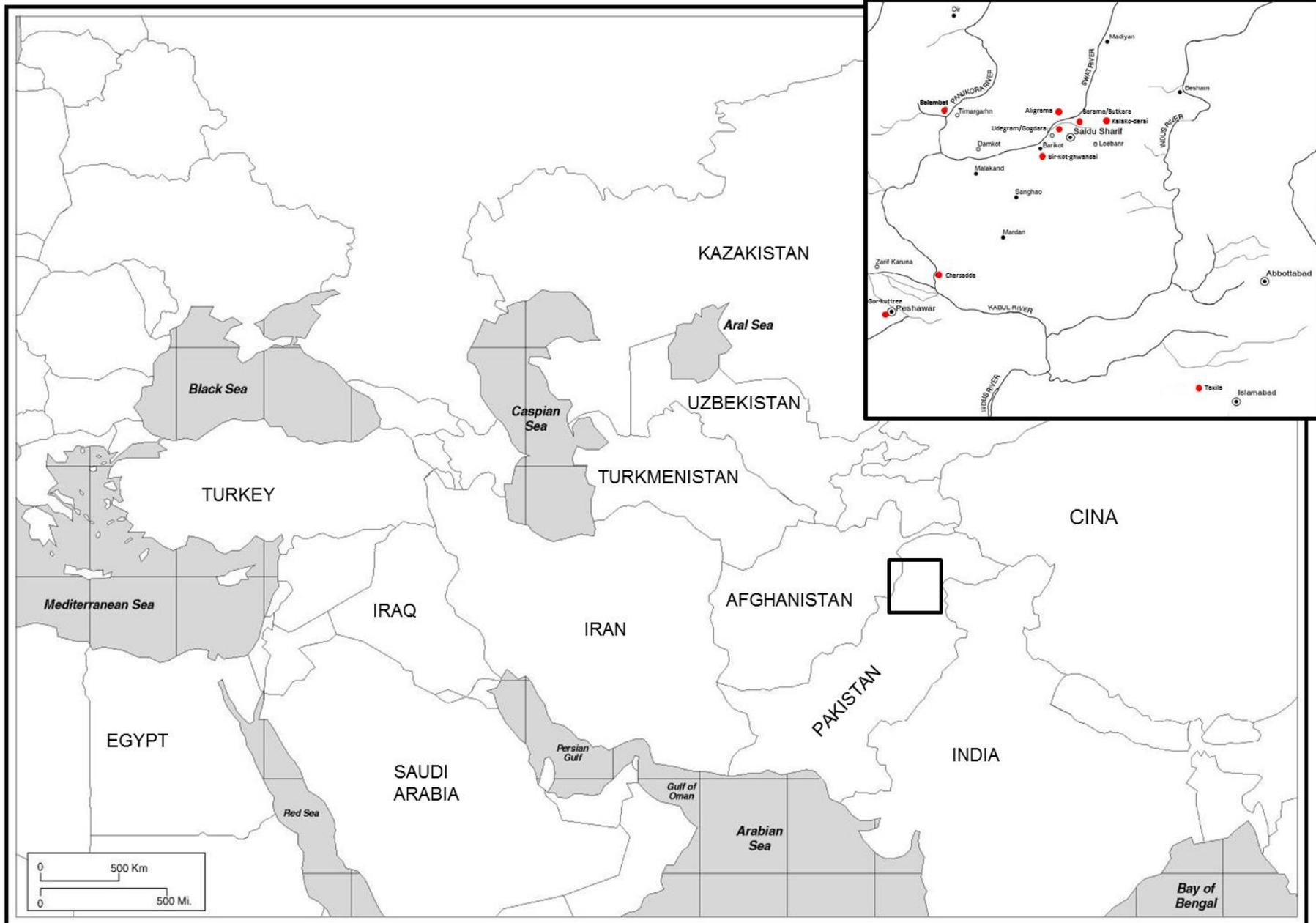


Plate I – General map of Central Asia with indication of the area focus of this research. In red the archaeological sites treated in this research.

# CHAPTER 1

## ARCHAEOLOGY OF GANDHARA: SETTLEMENTS WITH EVIDENCE FOR THE EARLY HISTORIC PERIOD

### 1.1 Early research and methodologies

The first archaeological investigations in the Gandharan region before and after the Second World War, featured three main actors: the British archaeologists, who worked in Charsadda and Taxila Valleys; the Italian Archaeological Mission (hereafter: IAM) which was mostly based in Swat although several surveys and investigations were carried out also in Buner, Chitral and Indus Kohistan; and Pakistani archaeologists whose fieldworks cover a wider area, from Dir to Taxila Valleys. Although these pioneering archaeological excavations already included stratigraphic concepts, the introduction of new technologies, excavation techniques, recording methods in the last decade of the 20<sup>th</sup> century caused an obvious methodological shift. The bias introduced by earlier find selection practices, means that what is shown in publications is not a real reflection of the find spectrum at the sites, an aspect that is not unusual for excavations of the earlier 20<sup>th</sup> century elsewhere. However, here the impact of the selection is complicated by the fact that some underlying conceptual frameworks made the selections within the same site not homogeneous, thus further affecting the interpretation of archaeological data.

Indeed, it cannot be denied that the British colonialism indirectly induced British scholars to find through the archaeological data a tangible historic precedent to the western colonialism of their time, trying to find a tangible evidence of Alexander's (and his indirect successors) passage. Thus, Sir J. Marshall, the excavator of Taxila, dated, against any archaeological evidence, the foundation of Sirkap to the Indo-Greeks while Sir M. Wheeler, the excavator of Charsadda, believed that the urbanism and iron technology could not be local, and linked the foundation of Charsadda to the Achaemenids (Wheeler 1962: 33-34; Coningham et al. 2007: 97; Petrie 2013a). Moreover, Wheeler did not publish those iron objects that, in his view, would have proved the Achaemenid foundation of the site (Vogelsang 1988: 106). Notwithstanding the weak evidence, he connected a ditch found at the foot of the trench Charsadda I (Bala Hisar) to the historical event of the siege of Pushkalavati lead by Alexander's general Hephestion in 327 BCE (Wheeler 1962: 34; Coningham et al. 2007: 48).

On the other hand, the Italian teams, the research of which was mainly focused on Buddhist culture, untangled the complexity of Gandharan identity in a dichotomy between pre-Buddhist and Buddhist culture, which art, and mainly its more familiar and attractive (for archaeologists of Classical education) Hellenistic and Roman matrix, seemed to represent the most gentle aspect of an almost unknown culture and a sort of cultural turning point for this region<sup>1</sup>. A side effect of this pre-constructed intellectual models was the inappropriate stretching of the protohistoric tradition from the 3rd millennium BCE till the arrival of the Indo-Greeks. Instead, the real chronological span of the protohistory of Swat was far less extended as the recent excavations at Udegram (Vidale et al. 2016) and Barikot (Olivieri and Iori, forth.) have proved and the Early Historic Period began about three centuries before. To a certain extent, the ‘limit’ of the Italian archaeologists, apart from the lack of available information, consisted in the trend of a polarization between protohistoric pre-Buddhist/Buddhist culture’s identities and material cultures.

Besides the obvious effects on the historical interpretations shaped by the social-cultural contexts of the earlier researches, what needed to be stressed is that scholars’ expectations, whatever their roots, might also have influenced the parameters of selecting archaeological data with a consequent misrepresentation of both relative frequency and presence/absence data of ceramic types. This represents another difficulty in obtaining any coherent picture of the Gandhara cultural sequence.

Within the framework of modern archaeological approach a series of reviews of earlier works have been drawn up by scholars during the years. This was possible only through new fieldwork activities.

### 1.1.1 Reassessment of the sequence of Ghalegai

The excavations carried out at the rock-shelter of Ghalegai in 1967-1968 marked a significant turning point in the researches of the IAM. Initially focused on the major sacred Buddhist complexes of Swat (e.g. Butkara I, Panr I, Saidu Sharif I), after 1966 the IAM extended its interest to the prehistory and protohistory of Swat, the study of which was entrusted to G. Stacul. Since then excavations were carried out at the protohistoric

---

<sup>1</sup> However, the contributions of the Italian archaeologists to Gandharan Art since the beginnings, went far beyond the unidirectional cultural convergence implied in the acculturation theories in vogue at that time.

graveyards of Katelai, Loebanr I and Butkara II in Swat as well as in Chitral, Buner and Indus Kohistan revealing a common ‘pre-Buddhist’ culture<sup>2</sup>.

The Swat sequence (or sequence of Ghalegai) was essentially established by Stacul on the reconstruction of the cultural phases of his excavations at the rock-shelter of Ghalegai (Swat periods I, II, III, IV), as well on his chronology of the Final Bronze-Middle/Late Iron age graveyards (Swat periods V, VI, VII; Stacul 1969, 1987). Thereafter, the cultural phases revealed at the protohistoric settlements excavated in the following years (i.e. Aligrama, Loebanr III, Kalako-derai, Barikot) have been constantly referred to this mother-sequence, without any substantial reassessment apart from the addition of Swat period VIII (c. 300 BCE), a cultural phase apparently reached at the site of Kalako-derai, Aligrama and Barikot (see Tab. 1.1).

The chronology of the Swat sequence was mainly based on the typological analysis of the ceramic assemblages and only partially on radiocarbon datings (Vidale et al. 2016: tab. 4). In particular, the Iron Age phases (= Swat periods VI, VII) were placed between c. 1100 to 500/400 BCE essentially on the basis of a stylistical development of the ceramic material. The few reliable radiocarbon datings related to Swat periods VI and VII as stressed by Vidale “reveals a mismatch between the absolute chronology and the material culture defined according to the relative chronology” (Vidale et al. 2016: 193). As for Swat period VIII (c. 300 BCE) no radiocarbon dates are available. Moreover, all the radiocarbon datings for the Iron Age phases come from the graveyards (Loebanr I and Katelai) whilst no radiocarbon analysis were carried out, for these later phases, at the settlements (Tab. 1.1).

	Per. I c. 3000- 2700 BCE	Per. II c. 2300-2000 BCE	Per. III c. 2000-1800 BCE	Per. IV c. 1800- 1500/1400 BCE	Per. V 1500/ 1400-1100 BCE	Per. VI c. 1100-700 BCE	Per. VII c. 700-400 BCE	Per. VIII c. 300 BCE
<b>Ghalegai</b>	X*	X*	X*	X	X			
<b>Loebanr III</b>				X*				
<b>Kalako-derai</b>				X			X	X
<b>Aligrama</b>				X*	X*	X		X
<b>Barikot</b>				X	X	X	X	X

Table 1.1 – Occurrence of Swat periods in the occupation sequences of the Swat settlements. \*radiocarbon dates available (Stacul 1987: 167).

<sup>2</sup> Also known as ‘Gandharan Grave Culture’ (Dani 1967: 3-11; 24-31) is now more correctly defined as ‘Swat Protohistoric Graves’ (Reich et al. 2009). A distinctive regional cultural horizon, running from the first half of the 3<sup>rd</sup> millennium BCE to the first half of the 1<sup>st</sup> millennium BCE, has been identified in settlement and graveyards distributed throughout the Gandhara region. For a full bibliography see Ghani-ur-Rahman and Olivieri 2011: 321-327.

The protohistoric chronological sequence proposed by Stacul covers a wide chronological span, from the second half of the 3<sup>rd</sup> millennium till the 3<sup>rd</sup> century BCE. Therefore, the protohistoric tradition attested in settlements (Loebanr III, Kalako-derai, Aligrama and Barikot) or shelter (Ghalegai) and graveyards (Butkara II, Katelai I, Loebanr I) in the Swat Valley seemed to persist, according to Stacul, at least until the 4<sup>th</sup> century BCE, that is the end of the Swat period VII (c. 6<sup>th</sup> – 4<sup>th</sup> centuries BCE; Stacul 1990: 609), without showing any acculturation phenomena ascribable to the Early Historic Period's happenings such as the Achaemenid domination (Olivieri 1996: 66).

Interestingly, if until Swat period V the material culture of the Swat settlements well tallies with the assemblages revealed in the other Gandharan sites<sup>3</sup>, sharing a regional distinctive ceramic assemblages, starting from Swat period VI it has been noticed a divergence of the Swat sequence from the Gandharan regional assemblages.

During the 1980's some scholars had highlighted a gap in the sequence of Ghalegai (Tab. 1.2). R. Dittmann, who favoured Dani's absolute dates for Ghalegai period VI/VII (= Gandhara-Grave Culture III, Dani 1967) argued that there was a gap covering Charsadda IIA/IIB-IID both in Aligrama and Barikot (Dittmann 1984: 172-4), in other words the period between the early Achaemenids and the Indo-Greeks according to his own chronology. This assumption was mainly based on the absence of Tulip bowls and carinated bowls and the pre-Mauryan date of Aligrama VI. In particular, regarding Aligrama he confirmed the analogies proposed by Stacul and Tusa between Aligrama VI (= Stacul and Tusa's Mauryan phase or Ghalegai period VIII) and Ch. I l. 38-28 (Dittmann IB-IIB; Stacul and Tusa 1977: 162). However, the absence at Aligrama VI of Tulip bowls (Ch. I, 1.28-22 = IIB-IIC/D) and 'eastern triangle ware' (from Ch. I, 1.32 = IIA, Early Achaemenid) would suggest, for Aligrama VI a date at the beginning of IIA, so definitively a pre-Mauryan phase. On the basis of the relations between Aligrama VI = Ch. IIA and Aligrama K upper layers = Ch. III, according to Dittmann, it is possible to notice a gap covering at least Ch. IIB-IID. A similar gap was found at Barikot where the stratigraphy of Ghalegai period VII seemed to immediately precede the Indo-Greek foundation of the defensive wall, revealing a gap covering Ch. IIA-IIC, meaning from the early Achaemenid period till the Mauryan period<sup>4</sup>.

---

<sup>3</sup> Swat Period V is considered contemporary with the archaic phase of the protohistoric graves of Swat, the graves of Timargarha in Dir and pottery from the deepest level at Charsadda (Dittmann 1984, Vogelsang 1988).

<sup>4</sup> In 1984 Dittmann referred to 1982 excavation season (Stacul 1982) when the Indo-Greek layers were not come to light yet. For this reason he originally proposed a chronological gap covering also the Indo-Greek period, from Ch. IIA-IID (Dittmann 1984: 174).

In his 1988 work W. Vogelsang affirmed the difficulty in correlating Ghalegai period VI-VII with Charsadda, suggesting a different development between northern valleys and Charsadda and Taxila after Ghalegai period V (Vogelsang 1988: 110). Vogelsang claimed that the spread of Indic material around second quarter of the 1st millennium BCE at Charsadda and Taxila probably took place at the time of Ghalegai period VI-VII (Vogelsang 1988: 111-2)<sup>5</sup>. This Indic corpus identified in open bowls/dishes, open carinated bowls<sup>6</sup> and beehive spindle-whorls in the northern area seems to be limited to the larger settlements (Aligrama, Ghalegai, Barikot, Kalako-derai) whilst the protohistoric graveyards retained their local ceramic material.

He also argued that the “so-called ‘Mauryan’ levels of Aligrama (Aligrama VI), where Indic pottery was found, are much older and should be dated [...] to the Achaemenid period or slightly older”. The same conclusion can be also reached for the chronology proposed for the coeval levels at Barikot excavated before the 2016 excavation campaign (Stacul 1978, 1980, 1982, 1985, 1987). Hence, “Ghalegai Periods V to VII seem to cover a time span which reached from the second half of the second millennium B.C. to the mid-first millennium B.C.” (Vogelsang 1988: 110). Similar conclusions were drawn up by H. Müller-Karpe who argued that the homogeneous horizon of Ghalegai period V-VII should be dated between 11th and 8th centuries BCE (Müller-Karpe 1983: 76). This was actually the case (see below).

The Ghalegai period VII was traditionally dated by the Italian team to the second half of the 1st millennium BCE (c. 700-400 BCE, see above). In 1979 S. Tusa suggested that ‘Period VII of Ghalegai, although indicated as being partly contemporary with the Mauryan period, must be considered as the expression of a typological complex designed for particular activities (in this case burial) rather than as later phase of the ‘grave culture’” (Tusa 1979: 689). However, as stressed by Vogelsang, he “remains convinced of an immediate pre-Alexandrian date of Aligrama Period V, which he equates with the later phases of Swat period VI and beginning of Swat VII” (Vogelsang 1988: 110).

The possibility that there was a gap in the Swat Valley since the first-mid 1st millennium BCE was refuted by Stacul (1986) and, even without any new archaeological evidence,

---

<sup>5</sup> With regards to the relationship with Gangetic plains see also Allchin 1989: 7, and Coningham *et al.* 2007: 262, 264. The latter suggested that the early appearance of Indic corpus dates slightly earlier than the 1<sup>st</sup> millennium BCE.

<sup>6</sup> The Indic origin of this vessel shape was firstly suggested by Wheeler 1962: 40.

he remarked that it was by no means feasible to revise the chronology of the protohistoric sequence of Ghalegai.

Hence, the idea of a long protohistoric tradition in Swat was fixed and the diverging sequence from other Gandharan sites, mainly Charsadda, during the Early Historic Period was explained as a tendency to a cultural isolation with the gradual shrinking of contacts with the areas outside the valley during the mid-1st millennium BCE (Tusa 1979: 691-3). In fact, the real chronological span of the protohistory of Swat was far less extended as the recent excavations at Udegram and Gogdara (Vidale et al. 2016) and then Barikot (Olivieri and Iori forth.) have proved.

At first the opportunity of identifying a cultural change already during the mid-1st millennium BCE was suggested by the recent backdating of the Early Historic graveyard of Saidu Sharif to the 5<sup>th</sup> century BCE (Olivieri 2016), the ritual features of which, indeed, differ from those of the local protohistoric graveyards ('Gandharan Grave Culture') showing instead affinities with the Sarai Khola graves in Taxila valley (Callieri 1993a: 134; Halim 1970-71) which radiocarbon dating placed in the 3<sup>rd</sup> century BCE (Bernhardt 1981: 183).

A crucial indicator, was then provided by the <sup>14</sup>C analyses carried out on samples from the Udegram and Gogdara IV graves excavated in 2011-2012 by IAM. The result of c. 1400-800 BCE for those graves, featuring ceramic material characteristic of Ghalegai period VII, called the absolute chronology of the Swat protohistoric sequence into question (Vidale et al. 2016: 193-201; Vidale and Micheli 2017; Fig. 1.1).

Comparable <sup>14</sup>C results have been obtained in the 2016 excavation at BKG 12W, outside the SW stretch of the defensive wall, where a portion of the protohistoric settlement was uncovered. Here the <sup>14</sup>C dates obtained for the latest phases of the protohistoric settlement (1b), the ceramic assemblage of which can be easily related to that of Swat period VII and to materials from the second and third phases of the Udegram graveyard, ranges within 1196-1033 cal BCE (2 $\sigma$ ) (Fig. 1.2), a chronology which is perfectly in line with the dates obtained from the Udegram and Gogdara graveyards.

Moreover, the stratigraphic sequence has revealed that the physical overlap between the Indo-Greek fortification (second half of the 2<sup>nd</sup> century BCE) and the latest protohistoric structures was only apparent and the physical sequence cannot be interpreted in terms of cultural event, as confirmed by the radiocarbon dates. In fact, the collapse of the latest protohistoric buildings was sealed by thick deposits extending all over the area testifying

that this portion of the late protohistoric settlement had already been abandoned when the Indo-Greek defensive wall was constructed (Olivieri and Iori, *forth.*). Finally, through a careful consideration of negative interfaces on the stratigraphy, it has been possible to understand that the physical overlap of Indo-Greek and Swat period VII layers was due to the huge levelling work involved in the construction of the Indo-Greek defensive wall (Fig. 1.14). This caused the almost total obliteration of the post-Iron Age stratigraphy all along the Defensive Wall sectors, partially exposing the much earlier protohistoric structures eventually used as retaining walls (Olivieri and Iori, *forth.*). Hence, the physical overlap of Indo-Greek and Swat period VII contexts was simply due to a human intervention and it does not reflect any chronological continuity.

In short, the chronological gap in the Swat sequence suggested by some scholars on the basis of a comparative stylistic analysis (Dittman 1984, Vogelsang 1988, Müller-Karpe 1983)<sup>7</sup> is now confirmed by a substantial set of data.

---

<sup>7</sup> See also Dani 1967: 48; 1992: 397, Allchin and Allchin 1982: 314 and Zahir 2012: 87-88.

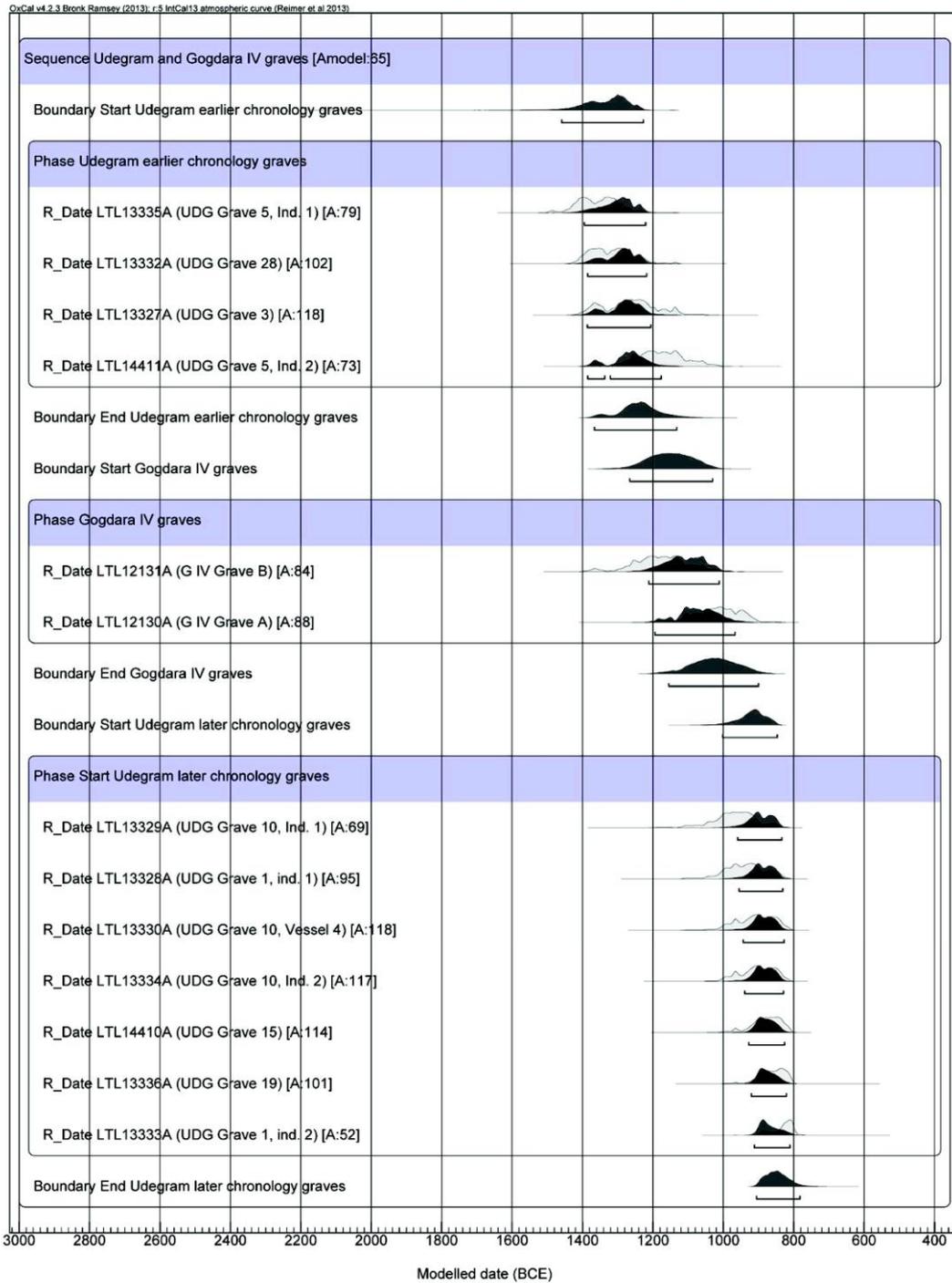


Figure 1.1 – Modelled calibration distribution at 95,4% confidence level of  $^{14}\text{C}$  datings of Gogdara IV and Udegram graves (from Vidale et al. 2016: fig. 232).

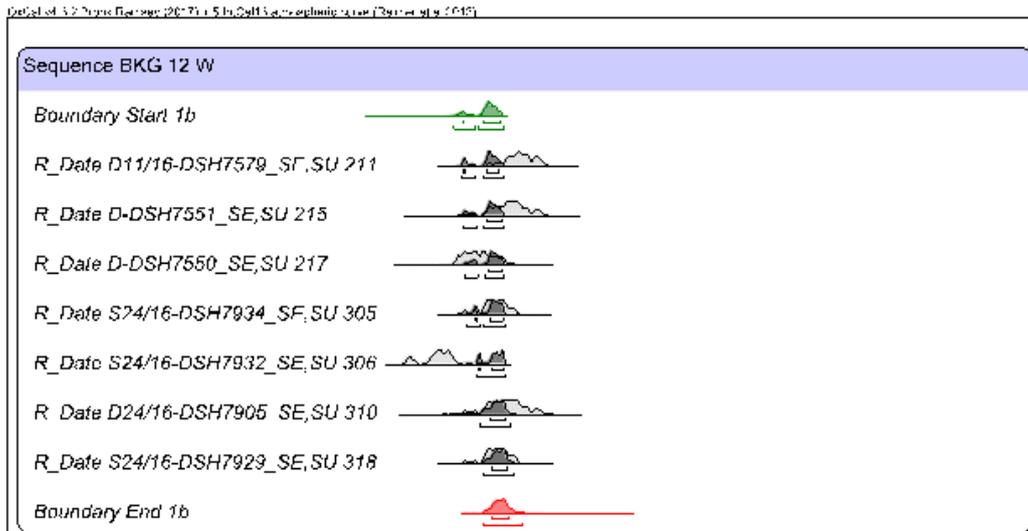


Figure 1.2 – Bayesian Sequence related to the BKG 12 W Trench by OXCAL 4.3 (<https://c14.arch.ox.ac.uk/oxcal.html>, Bronk Ramsey C. 2013). In green and red the Boundary Start and Boundary End of phase 1b. In black the radiocarbon ages (elaborated by CIRCE/IAM).

A chance of filling the gap related to the Early Historic Period has been provided, again, by Barikot. We refer to the latest data obtained by the 2016 excavation seasons carried out inside the built-up area of Barikot in sector K-105. Here, below the Indo-Greek layers the 6<sup>th</sup>-3<sup>rd</sup> century BCE's deposits have revealed ceramic assemblages alien to the late protohistoric tradition, instead yielding strong connections both with the Ganges Plains and the Iranian Plateau. In the light of these evidence, which are treated in detail in Chapter 3, it is clear that the marginality of the Swat area during the mid-1st millennium BCE (Tusa 1979) was only presumed. The contraction of the chronological span of the Swat protohistoric sequence proved by the new radiocarbon analyses at Gogdara, Udegram and Barikot, along with the new evidence related to the pre-Indo-Greek/not protohistoric occupations at Barikot (see Tab. 1.2) have a domino effect on a series of assumptions related to the material culture and the history of the ancient Gandhara region (Ch. 5).

Years	STACUL 1969	MÜLLER-KARPE 1983	DITTMAN 1984	VOGELSANG 1988	BKG
100 CE			Aligrama historic phases		Macrophase 4 Early Kushan
100 BCE	Historic phases	Historic phases	BKG historic phases	Historic phases	Macrophase 3b Saka-Parthian
200 BCE					Macrophases 3a2-4 Indo-Greek
300 BCE	<i>Ghalegai VIII</i>				Macrophase 3a1 Graeco-Bactrian
400 BCE					Macrophase 2b Maurya/Assakenoi
500 BCE					Macrophase 2a2 Achaemenid
600 BCE	Ghalegai VII				Macrophase 2a1 pre-Achaemenid
700 BCE					Macrophase 1c = <i>Ghalegai VIII</i>
800 BCE	Ghalegai VI				Macrophase 1b = Ghalegai VII
900 BCE					
1000 BCE					
1100 BCE	Ghalegai V				Macrophase 1a = Ghalegai VI-V
1200 BCE					
1400 BCE					

Table 1.2 - Correspondence chart showing Ghalegai Late Bronze-Early Iron age periods according to Stacul (1969), Dittmann (1984), Vogelsang (1988), Müller-Karpe (1983) and recent reassessment (Olivieri and Iori, forth.).

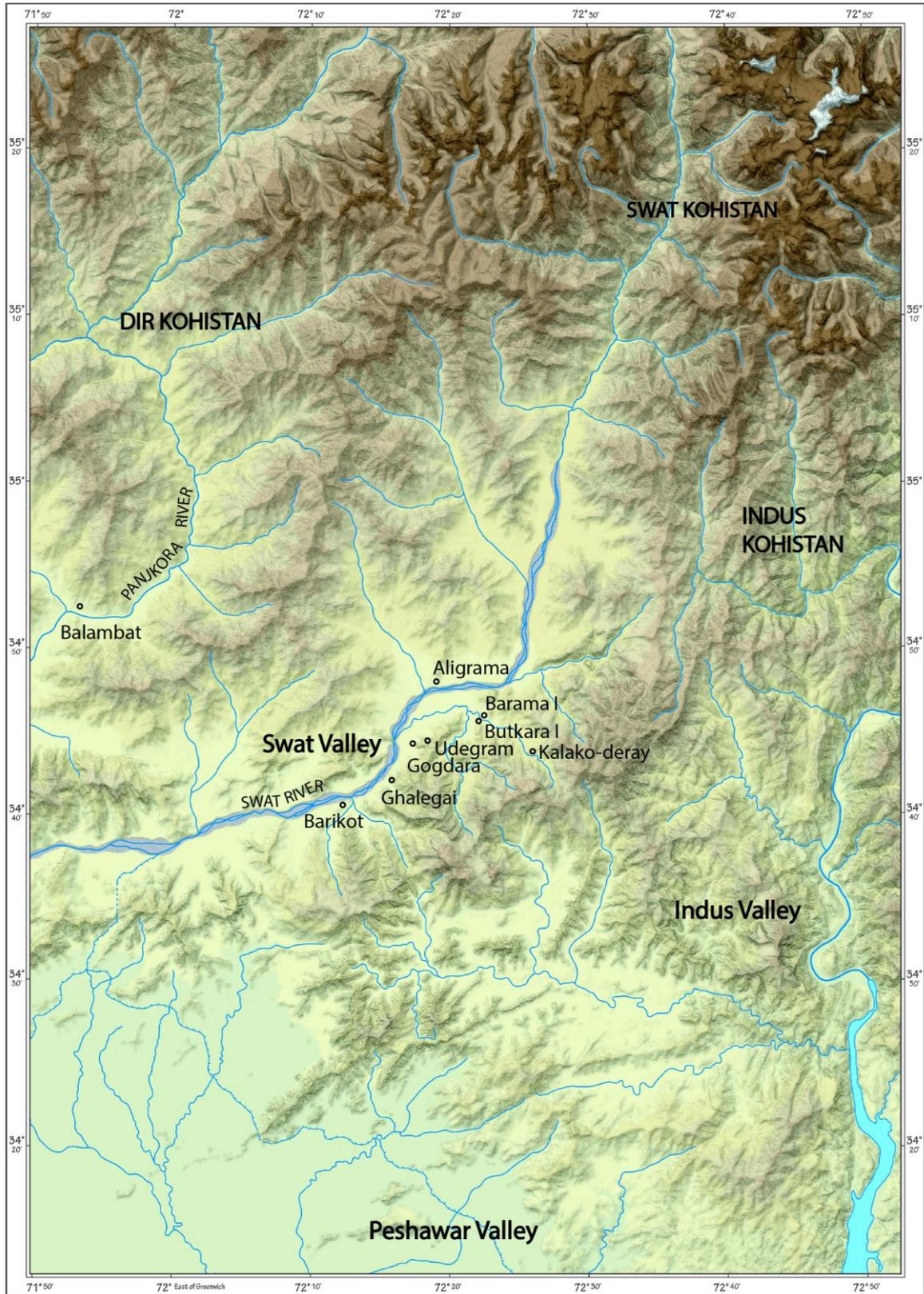


Figure 1.3 –Map showing the main archaeological sites of the Swat and Panjkora Valleys discussed below (elaborated from map by Karel Kriz and Daniel Nell, University of Vienna, Department of Geography and Regional Research).

## 1.2 Gandharan northern valleys: Swat and Panjkora Valleys

This paragraph discusses the sites of the northern valleys, namely Swat and Panjkora Valleys, for which evidence related to the Early Historic Period has been documented. A brief description of the whole chronological sequences is provided with a main focus on phases which are the interest of this research. The location of the sites presented below is shown in Fig. 1.3.

### 1.2.1 Aligrama

The site of Aligrama is located on the right bank of the Swat Valley, near the junction of the Shahderi with the Swat River. The excavations at the site were carried out, between the 1960s and the 1970s (Stacul and Tusa 1975, 1977), both on the lower slopes of the hillside (Areas A, B, C, D, E, F, G) and on the hill-top (Area K)<sup>8</sup> revealing the largest protohistoric settlement in the Swat Valley (Fig. 1.4). This covered a surface of about 10 ha in the flat area and probably extended also on the hill area, as suggested by the presence of protohistoric potsherds in the earliest ceramic assemblage recovered here (Tusa 1979: 677). The strategic importance of the site together with the availability of a wide fertile alluvial plain made Aligrama a prosperous settlement the chronology of which, according to the excavators, spans from the 2<sup>nd</sup> millennium BCE till the end of the 4<sup>th</sup> century CE (Tusa 1979: 677). The possible identification of the site with the ancient *Massaga*, the capital of the Assakenoi conquered by Alexander (Tucci 1977: 42)<sup>9</sup> led the excavators to recognize in the violent event which caused the destruction of part of the settlement at the end of Aligrama Period V, traces of Alexander the Great's siege (Tusa 1979: 688). However, the partial reassessment of the chronology of the Swat sequence based on recent data brings to review this historical interpretation since this violent event must have occurred some centuries earlier than the passage of Macedonians (see above).

---

<sup>8</sup> In the 1980s several other trenches, never adequately published, were excavated (IsMEO Activities 1981: 176).

<sup>9</sup> For a different location see Stein 1921: 4, Caroe 1958: 51-53. See also Olivieri 1996: 61-64.

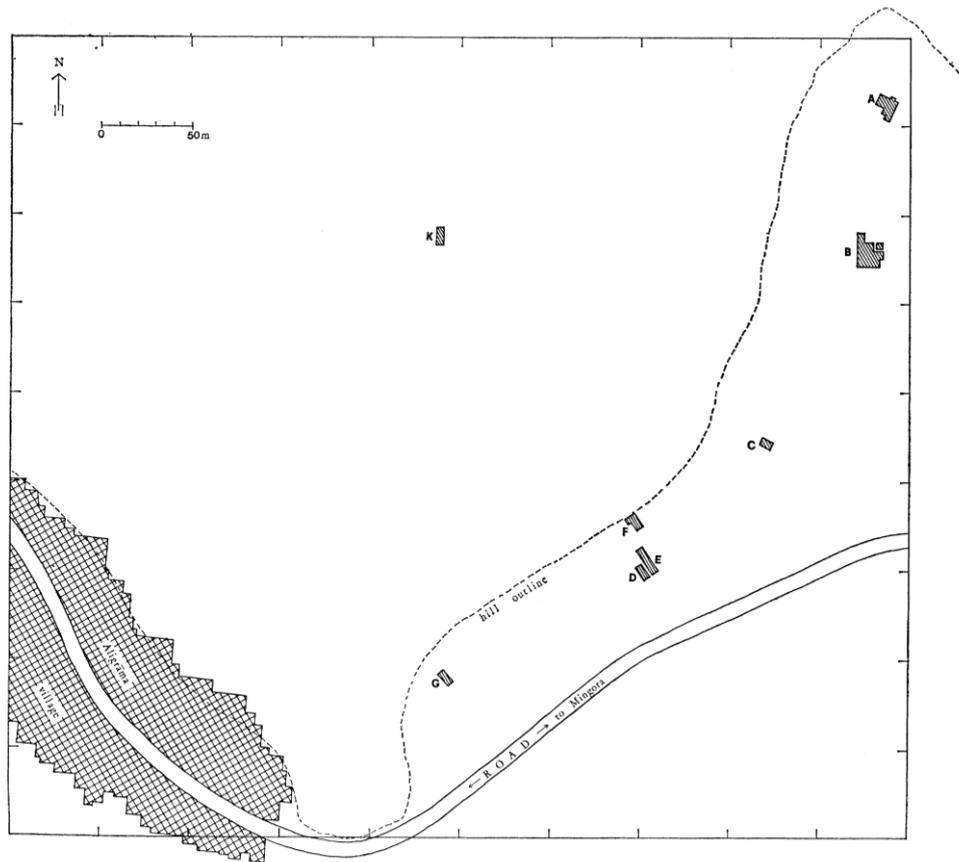


Figure 1.4 – Aligrama. Sketch map of the archaeological site (Stacul and Tusa 1977: fig. 1).

### *Chronological sequence*

The earliest occupation at the site, Aligrama Period I, is attested in Swat period IV whose evidence were recovered in the deepest levels of Areas E<sup>10</sup>. The 9 m overlying stratigraphy prevented from gaining a clear picture of the settlement in this period. Indeed it was possible to expose only the stretch of a wall built with irregularly shaped large block of stones and river pebbles and a related clay floor were exposed.

The subsequent cultural phase, Aligrama Period II, known only from short stretches of walls, has been related to a transition phase between Swat period IV and V on the basis of comparable ceramic material.

Aligrama Periods III and IV, considered contemporary with Swat period V, were reached in Areas A, E and F. However, the best attested cultural phase is the following Aligrama Period V, corresponding to Swat period VI, which marks a remarkable increase in the settlement life. It is in this Period that the extension of the settlement has been estimated to 10 hectares. Evidence related to this Period mainly comes from the north (Areas A and

<sup>10</sup> The excavators also mentioned finds related to Swat Period IV from trenches C and D which reports were never published (Stacul and Tusa 1975: 310; see also Stacul and Tusa 1977: 151, 125, 161).

B) and the south-west (Area F) sectors of the settlement. The structures consist in foundations which are mainly built with small stones carefully arranged, whilst unbacked clay structures, in the form of both mudbricks (10 x 15 x 30 cm) and *pisé*, were mainly used in the construction of internal dividing walls and in the walls elevations. Rooms, mainly adjacent rectangular rooms sometimes connected with an external open area, were usually furnished with benches (c. 40 cm high) made of slabs and clay, and with fire-places<sup>11</sup>. In at least one case is attested a veranda-type structure. In Area F, interestingly, stone-wall structures merge with the rock surface of the hill which was specifically levelled in order to obtain a small artificial shelter with a horizontal surface<sup>12</sup>.

Evidence of a violent destruction by fire was suggested in Area B by the presence of: a) large quantity of ash and charcoal all over the floor, b) large fragments of accidentally fired clay (probably part of the superstructure), c) the presence of the hurried burial, by inhumation, of four bodies immediately after the abandonment of the settlement (Stacul and Tusa 1975: 307). After the abandonment, the area was covered by alluvial deposits which in some areas completely washed away the structures. Today, at the light of the partial reassessment of the Swat sequence (see above) the destruction of the site cannot be related to the Macedonians: instead, Aligrama Period V must be related to the second half of the 2<sup>nd</sup> millennium BCE.

The Aligrama Period VI, dated between the 4<sup>th</sup> and 3<sup>rd</sup> centuries BCE<sup>13</sup> and related by the excavators to the Mauryan period (Swat period VIII), is considered to mark the end of the occupation of the lower area, so that the structures related to this period are immediately below the present ground level. Evidence of this phase was exposed in Area E, in the plain, and in Area K on the hilltop.

In Area E an almost sterile soil sharply separated the phases related to Swat period V from the two upper phases (ph. 7-8) related to Swat period VIII. Here a series of rooms with a different orientation (SW-NE and not E-W like in the previous periods) associated to superimposed beaten earth floors and a pit were exposed (Fig. 1.5).

---

<sup>11</sup> In area B different type of fire-places are attested: they can be made of half large jar fixed horizontally into the ground, of schist slabs inserted in the beaten floor, or it can be set on supports of unfired clay (Stacul and Tusa 1975: 303-304).

<sup>12</sup> The earliest evidence of artificial cutting of the rock surface for dwelling purposes dates back to Aligrama Period I (Tusa 1979: 682).

<sup>13</sup> To be noted is that no material typical of Swat period VII were found at Aligrama.

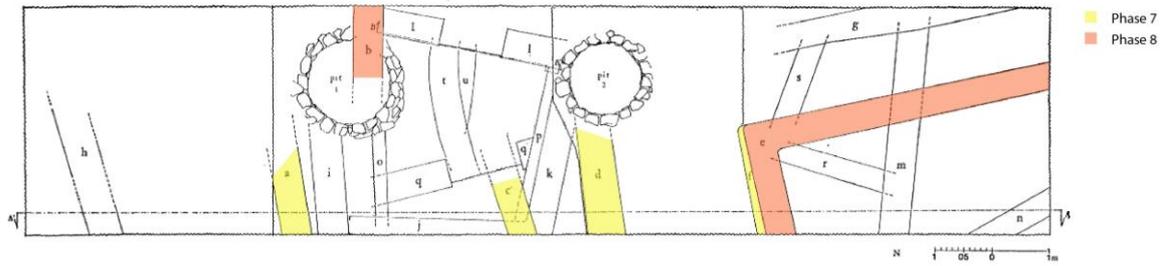


Figure 1.5 – Aligrama, trench E: plan (after Stacul and Tusa 1977: fig. 2).

In area K (layers 4-5a) below a thick accumulation layer which sharply separates it from the upper structural period dated to Kushan times, the stretch of a wall [c], directly built onto the bedrock, and two stone-lined pits have been uncovered (Fig. 1.6). An ellipsoidal jar embedded in the earthed floor and sealed with a stone lid was also found.



Figure 1.6 – Aligrama, trench K: plan (after Stacul and Tusa 1977: fig. 9).

### 1.2.2 Kalako-derai

The site of Kalako-derai is located on the top of a flat hill (1130 m a.s.l.) with step sides overlooking the Narkat Tange, tributary of the Jambil River, about 10 km to the east of Mingora. In 1989 on the northern slope of the hill a natural channel (Area AA) was excavated for a length of 31 m, up to its confluence in the Narkat Tange showing an homogeneous assemblage (pottery, lithic artefacts, terracotta figurines, a terracotta seal, copper objects, etc.) ascribed to Swat period IV. Following that, between the 1989 and 1998 several trenches were dug on the flat top of the Kalako-derai hill, revealing occupation layers dated to Swat periods III<sup>14</sup>, IV, VII, VIII and to the historic times (Fig. 1.7).

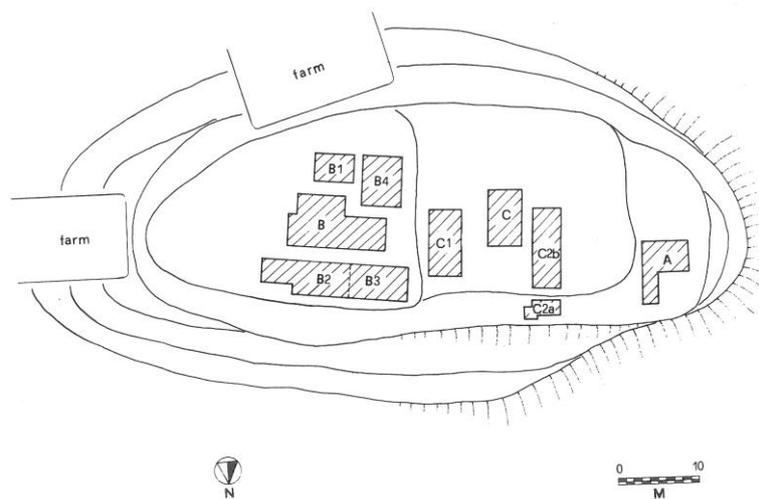


Figure 1.7 – Kalako-derai. Sketch map of the excavated areas on the top of the hill (Stacul 1997: fig. 1)

#### *Chronological sequence*

The earliest evidence at Kalako-derai are ascribed to Swat period III, represented only by some hand-made vessels found on a floor level covering the natural soil, to the west of the hill-top (Area A, Stacul 1993a: 72). The subsequent occupation phase, dated to Swat period IV, is featured by circular/oval and square cavities of various size (the largest is more than 4.50 m wide and 3.50 m deep) cut into the natural soil, rich of pottery, stone artefacts and other finds. Although small or shallow pits are spread all over the area, the main concentration was located in the middle of the hilltop or close to the northern edge,

<sup>14</sup> In the following reports, Stacul will never mention the recovery of a Swat Period III occupation at Kalako-derai, and the earliest occupation of the site will be ascribed to Swat Period IV.

in areas B, B2 and B (Stacul 1997: 374). The use of a wooden roofing for these pits, according to Stacul, might be suggested by the presence in some of the cavities of several fragments of daub with wattle impression on one side, although post-holes were not documented (Stacul 1995: 124).

The following occupation phases is related to Swat period VII and Swat period VIII, both marked by several small/medium pits (Stacul 1993: 91; 1997: 375) and stretches of stone-walled structures. The cavities, probably used as storage, were dug into the natural soil by so cutting, and partially removing, the previous occupation layers (Stacul 1993: 73-74, 76-77; 1995: 112-115, 119-123; 1997: 365-368).

The gap of almost one thousand years between the occupation of Swat period IV and VII, mentioned by Stacul (1993: 91), needed to be reconsidered at the light of the new set of data which place the cultural horizon of Swat period VII between 1400-800 BCE. Significant here is the physical overlap between Swat period VII and Swat period VIII. Both must be considered much earlier than previously thought.

The late occupation of the area is represented by stone-walled structures made from schist slabs. They are rectangular rooms with paved floor-levels only vaguely related to 'early historic times' (Stacul 1995: 115) and 'from pre-Kushan to Kushan times' (Stacul 1997: 369). The upper layers were greatly disturbed by recent works performed by local farmers (Stacul 1993a: 75, 77-78; Stacul 1995: 114; Stacul 1997: 368-369).

### 1.2.3 Butkara I (IA) and Barama I<sup>15</sup>

The archaeological site of Butkara I lies on the left bank of the Jambhil River, close to the nowadays Mingora city area. The site, investigated by D. Faccenna between 1956 and 1962 (Faccenna 1980-81), revealed a large urban Buddhist sanctuary founded in Maurya time, whose chronological sequence runs from the 3<sup>rd</sup> century BCE to the 10<sup>th</sup> century CE (*ibid.*, I: 167-174). The sacred complex was encompassed by an irregularly rectangular precinct (SP=Sacred Precinct) provided, in mature Kushan time, with a main gate on the south (*ibid.*: 144-148, figs. 48, 50), while earlier accesses were probably located on the western side (*ibid.*: 144). The SP was an urban sanctuary and since its foundation it was surrounded by residential structures, only partially exposed, belonging to an urban area whereof Butkara I represented a sector of its north-eastern periphery (Fig. 1.8) (Iori 2016).

---

<sup>15</sup> The inhabited area of Butkara I and Barama I are here presented together since they are considered being part of the same settlement (see the note by L.M. Olivieri in Iori 2016).

Evidence of the built-up area (IA=Inhabited Area) have come to light at the north and south side of the SP investigated through trial trenches.

Main evidence comes from the north sector (Fig. 9), where the Buddhist sanctuary was originally separated from the residential units through an area free of structures (FA=Free Area) the extension of which changed over the course of time. The structural sequence is characterized by five superimposed building periods which, according to Faccenna, are in a direct stratigraphical relation with the periodization of SP since the earliest phase (F5=Per. 1; Tab. 1.3). Numismatic evidence confirmed the relative chronology (*ibid.*, IV: 741).

At the earliest stage (Per. 1) the IA, which is known only from short stretches of a group of contiguous rooms (*ibid.*: pl. XIX), communicated with the SP through a passage between walls A1 and A2 (north side of SP) which was subsequently closed (*ibid.*, I: 140). The masonry work is accurate and compact. Mainly tiny and rather flat pebbles along with numerous small chip are used. In the successive period (Per. 2), the structures of which are little known, the general pattern revealed slight variations in orientation and building techniques (*ibid.*, IV: pl. XX). The urban layout starts to be more complex and better preserved in Per. 3 (*ibid.*: pl. XXI). The orientation is largely maintained and part of the earlier walls were reused and restored. The masonry technique is now featured by well-arranged courses of large pebbles, chips and thin slabs. A room closed on three sides (no.1) is separated by a narrow passage-way from a rectangular elongated room (no. 5'-17) adjacent to other connected rooms (nos. 16, 6, 8) with beaten earth floors. In particular the presence in no. 6-8 of stone circles of different diameter, one provided with a floor of schist slabs, suggested for this room a non-residential function. Wall A2, was not longer the border between IA and FA and the latter were crossed E-W by a long drain coming from no.16. The peak of exploitation of the area was reached in the mature Kushan period (F2= Per. 4) (*ibid.*: 734, pl. XXII) when the urban pattern is complete and the layout is mostly distinct from that of earliest periods, although the masonry technique records a decrease in workmanship accuracy.

The final period (Per. 5= F1) occurred after some violent event which caused the sudden end of Period 4<sup>16</sup>. In this stage the building works were limited to small-scale renovations and restorations and the general layout was not altered.

---

<sup>16</sup> It is worth mentioning that the collapse of the Kushan political power marks also the end of the urban site of Barikot (Olivieri et al. 2014:141-142).

To the south of the SP a large unoccupied area, like that recorded on the north side (FA), was found. Beyond this, at about hundred meters to the south of the SP a network of walls around a civil building, of which several phases were distinguished, was partially exposed during the 1959 campaign (*ibid.*: 747-750).

Phases earlier than the establishment of the Buddhist sanctuary (which is dated to the 3rd century BCE), were documented both outside (IA N: *ibid.*: pl. XXXI) and inside the SP (close to the Great Stupa=GSt: *ibid.*: 757-765; pl. XXX, XXXI, pl. XXXIIa, b; see also pl. XVI). The occupation level, directly resting on a fluvial layer (see also *ibid.*: 758), was sealed by a stratum of clay and sand due to violent flooding which caused the end of this cultural horizon. Interestingly, the archaeological evidences from the SP were correlated by Faccenna with those revealed by the dig he had carried out at Barama I, only few hundreds meters north of IA, separated from Butkara I by the course of the Jambil River.

The site of Barama I is located in the outskirts of Mingora, on the right bank of the Jambil River, right opposite the archaeological area of Butkara I (Fig. 1.8). The site, today partially covered by modern houses, was investigated by Faccenna in 1963 (Faccenna 1964-1965). It featured a flat mound overlooking the river composed by two terraces (labeled as “platforms” in Faccenna 1964-65) separated by an artificial depression.

The two trenches, Trench I and Trench II, dug in the W platform (Fig. 1.10) revealed above the protohistoric phase (Period 6) reached on the platform, at its edge and at its base (*ibid.*: 20-21), a portion of a historic settlement whose preliminary chronology suggested a sequence spanning from the 3<sup>rd</sup> century BCE to the 7<sup>th</sup>-8<sup>th</sup> centuries CE (*ibid.*: 23).

Trench I (c. 20 x 10 m), in the NE side of the platform, uncovered a portion of an inhabited area with five superimposed structural periods characterized by distinct masonry techniques (*ibid.*: fig. 11).

The earliest period, Period 6 (*ibid.*: 16-17, fig.10), is mainly represented by circular pits cut into the virgin soil, sealed, after their filling, by floors (*ibid.*: figs 23-24). The first historical period, Period 5 (*ibid.*: 15-16, fig. 9), is featured by only few short stretches of walls, made of pebbles and chips irregularly arranged, the original plan of which cannot be reconstructed as it was heavily damaged. Period 4 (*ibid.*: 13-15, fig. 8) displays a new building technique consisting of slabs and chips thickly interspersed. The structures of this period underwent several modifications. The main feature of the two groups of

structures revealed in this period is room no. 6A (*ibid.*: fig. 22), a large structure with a different orientation respect to the surrounding structures, interpreted by Faccenna as a possible public building (*ibid.*: 15). A different orientation of the rooms and a masonry technique of long slabs and chips regularly arranged characterized the structures of Period 3 (*ibid.*: 12-13, figs 7, 19). Period 2 (*ibid.*: 10-12, fig. 6) featured, besides a group of rooms to the west, two partly adjoining rooms (nos 6, 7) furnished of pit-wells enclosing an open space to the east (no. 8).

The latest period, Period 1 (*ibid.*: 9-10, fig. 5), is characterized by the re-use of previous structures and a less accurate building technique. It featured a large quadrangular room, no. 4, flanked to the west and to the south by smaller rooms. Room no. 4, open to the south throughout a door, displayed a long narrow bench with a nearby niche, a quadrangular bench in the north-west corner, a well and a drain (*ibid.*: figs 14-15). At the south-west corner of the first floor, in beaten earth, is a quadrangular structure made by large schist slabs bordered by of pebbles.

Trenches II (c. 10 x 27 m, *ibid.*: fig. 26-27), dug into the eastern slope of the depression, revealed that the W platform was equipped, in Period 3rd or Period 4th, with an imposing fortified wall built with stones, slabs and pebbles arranged in approximately regular courses (*ibid.*: 18, 21, fig. 30). Subsequently a series of rooms were built outside and below this, while the rooms on the perimeter wall at the edge of the platform appeared only in Period 2nd (*ibid.*: 21).

Excavation data from Butkara I and Barama I and surface archaeological evidence along with structural remains exposed during construction works and aerial photographs<sup>17</sup> indicate that a large ancient settlement, or urban area, must have centered approximately on the flat alluvial terrains at the junction of the Jambil and Saidu Rivers, stretching southward between the foothills and the right bank of the Saidu River (*ibid.*: 751-756; Fig. 1.8).

The inhabited areas of Butkara I represents only part of the E sectors of a far larger urban center, which importance is emphasized by the belt of Buddhist sanctuaries (e.g. Butkara III, Saidu Sharif I, Katelai II) located on the surrounding hills, and by the foundation

---

<sup>17</sup> Structural remains were documented along the left bank of the Jambil river up to the confluence with the Saidu River, and along the right bank of the latter, as far as the so-called "Grassy Ground" or "playing ground area" (or "playing ground area"). There, aerial photographs have revealed at least three superimposed phases of the urban layout with its street network (Faccenna 1980-81, 4: pl. XXVIII). Other remains of structures were exposed during the work for the construction of roads and buildings along the Mingora-Saidu Sharif road up to the area of the Central Hospital, revealing that the settlement must have stretched southward between the foothills and the right bank of the Saidu River. (*ibid.*:753-4).

within the urban area (although in a peripheral position,) of the major Buddhist sanctuary of Butkara I. Instead, Barama I, with its isolated natural terraces dominating the ancient city area, and its massive fortification wall and imposing structures, could be identified as part of the fortified sector or “upper-town” of the urban area which spreads out on the other side of the river (Iori 2016).

This ancient urban area, approximately coinciding with the nowadays Mingora city area, was identified by Tucci as the ancient capital city mentioned in the late ancient Chinese travel-logs as Mengjieli (Tucci 1958: 285; Faccenna 1980-81: 756, fn. 1)<sup>18</sup>.

On the basis of the association between the five periods of Barama I and the five Periods of IA-FA/five floors of SP suggested by Faccenna (1980-81: 751, 765; Tab. 1.3), the earliest historic phases of Barama I, as Butkara (IA), are likely to be a tangible trace of the Mauryan acculturation phase in Swat<sup>19</sup>. Two <sup>14</sup>C dates seems to partially confirm this: a charcoal samples from Barama Period 4<sup>th</sup> gave a date of c. 370 BCE (Alessio et al. 1966: 409, sample R-195) corresponding to Barikot Macrophase 2b (Achaemenian acculturation phase); while another from Barama Period 6<sup>th</sup> gave a result of 635 BCE (Alessio et al. 1966: 409, sample R-196), corresponding to Barikot Macrophase 2a or Interphase 1c/2a.

---

<sup>18</sup> Tucci also identified the Buddhist sanctuary Butkara I with the sanctuary called T'olo, on the basis of a re-examination of the Chinese sources (*ibid.*: 280, 288).

<sup>19</sup> Butkara I was a royal religious foundation or Dharmarājika-stūpa as suggested by two inscriptions (Faccenna 1980-81: 167; Petech 1966).

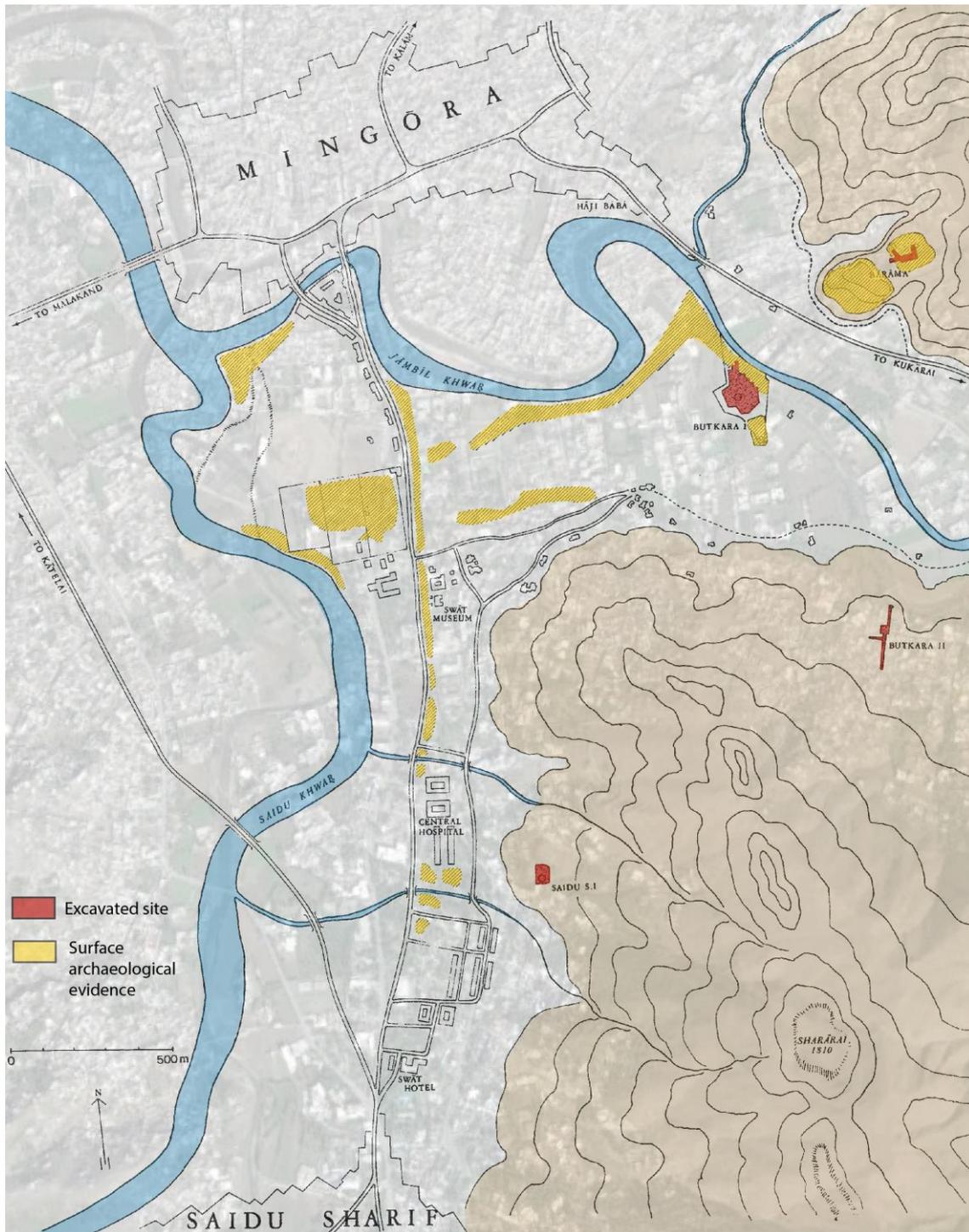


Figure 1.8 - Sketch map of the area between the Jambli and Saidu Valleys, graphic transposition from an aerial photograph. In red the archaeological site of Butkara I and Barama I, in yellow the archaeological surface evidence. In the background the current urban layout, from a Google Earth image (Iori 2016: fig. 7).



Figure 1.9 – General plan of the IA north of the SP (Faccenna 1981, 4: pl. XXIV).

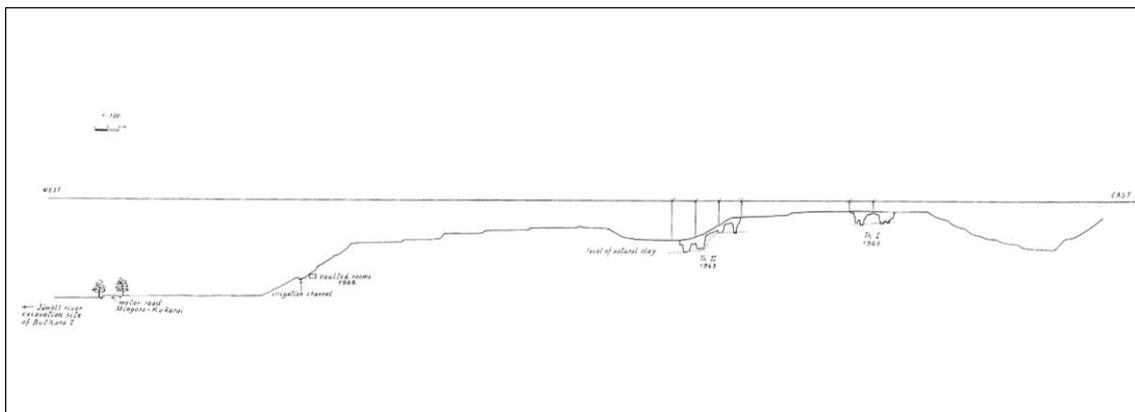


Figure 1.10 - West-east Section of the two platforms in the terrace of the excavation at Barama, showing the two trial trenches (Faccenna 1964-65: fig. 3).

S P				F A		IA	B A I					
P e r i o d		G St.	Pr.	S P		F A		IA	Period	B A I		Period
certain	uncertain or probable			floors	walls	floors	layers	floors		layers	floors	
		5	GSt.5	F1	H		①	①				
		4	GSt.4	F3-F2			②					
		4/7	GSt.4/7	on F2			③					
		4/6	GSt.4/6	F2, F2a			④					
		4/5	GSt.4/5	F2	G		⑤					
		4/4	GSt.4/4	F2a	F		⑥a					
		4/3	GSt.4/3	F2a-F2b								
		4/2	GSt.4/2	F2b	E							
		4/1	GSt.4/1	on F3R, F3R,	E							
		3-4/1	GSt.3- GSt.4/1	on F3	D		④					
		3	GSt.3	F3	D							
		3	GSt.3	F4	C		⑥					
		2	GSt.2	F5 R								
		2	GSt.2	F5	B							
		1	GSt.1	F6	A							

Table 1.3 - Stratigraphical and temporal correlation between the GSt., Pr., SP and FA, IA and their hypothetical correlation with BA I. The proto-historic periods are not showed in the table (Iori 2016: tab. 1).

### 1.2.4 Gogdara III

The inhabited area of Gogdara III, very close to Udegram, spread at the foot of the northern slopes of Mt Sakhi-sar, on the left bank of the Swat River and at the back of the carved cliff of Gogdara I (Fig. 11). The site takes its name from the nearby village of Gogdara, as well as the other three archaeological sites of Gogdara I, Gogdara II and Gogdara IV. Gogdara I is a unique rock-art monument featuring more than 100 carvings realized between Late Bronze Age<sup>20</sup> and the Iron Age (Olivieri 1998, 2005); Gogdara II, situated on the crest above the cliff, is a Buddhist sacred area associated to two post-Gandharan rock reliefs and an ancient quarry area (Filigenzi 2015; Di Florio et al. 1993); Gogdara IV is a protohistoric graveyard at the eastern periphery of the modern village of Gogdara (Vidale et al. 2016).

Almost nothing is known about the settlement of Gogdara III and its sequence. After a fruitless campaign at the foot of Gogdara I cliff in 1958 (Faccenna and Gullini 1962), the excavation were resumed between 1957-1958 at the back of the carved cliff revealing a portion of an inhabited settlement showing evidence of several superimposed occupation levels with signs of destruction and subsequent rebuilding. The upper levels show a layout

<sup>20</sup> At least since the 16<sup>th</sup> century BCE (Ghani-ur-Rahman and Olivieri 2011:61).

which recalls the town plan of the so-called 'Bazar' at Udegram (Faccenna 1964: 17). Trial trenches excavated in 1963 have revealed earlier levels and structures apparently belonging to a small Iron Age settlement, below which two graves were exposed. Sadly, the results of the excavation have not been adequately published (Tucci 1963: 156 ff.; Stacul 1973: 245, fn. 2; IsMEO Activities 1966: 385).

On the basis of a very preliminary analysis of the finds the lifespan of the site was estimated between the 12<sup>th</sup>-11<sup>th</sup> century BCE and the 1<sup>st</sup> century CE (Faccenna 1964: 17).

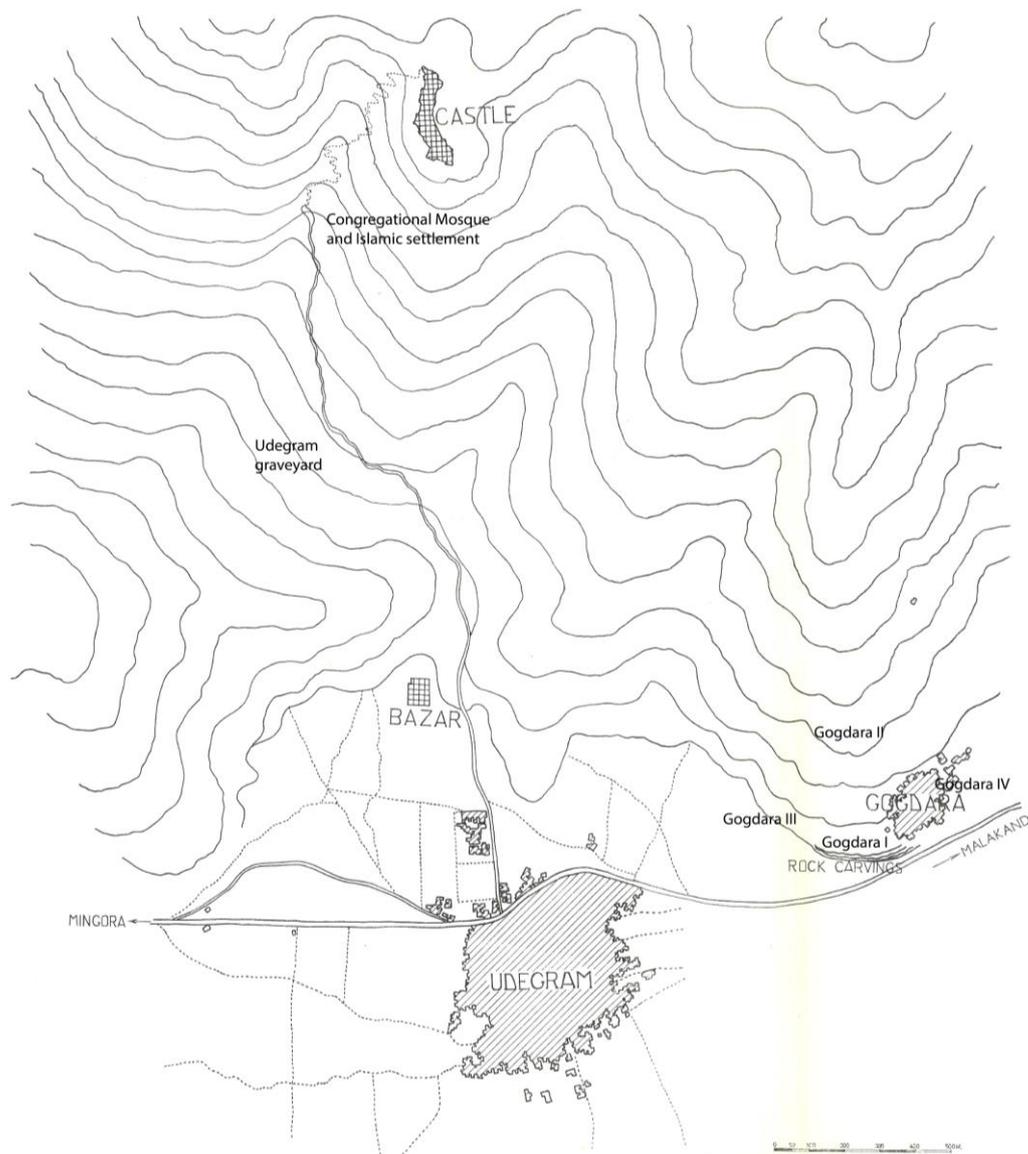


Figure 1.11 - General plan of the sites of Udegram and Gogdara (after Faccenna and Gullini 1962: pl. XVIII).

### 1.2.5 Udegram

The archaeological site of Udegram, located less than 1 km NE of Gogdara and about 10 km upstream from Barikot, extended at the back of the Udegram village, on the foot and on the slope of Raja Gira mount. Both Stein (1930: 40) and Tucci (1958: fn. 8) identified the site with the ancient city of Ora/Nora, conquered by Macedonians along with the nearby Bazira, mentioned by Arrian (*Anabasi*, IV.27.6) and Curtius Rufus (*Historiae Alexandri* VIII.11.1).

The site was occupied since the 5<sup>th</sup>-6<sup>th</sup> century BCE up to the 13<sup>th</sup> century with evidence of a protohistoric occupation.

Unfortunately the historic urban center of Udegram is known only through a preliminary report of the excavation (Faccenna and Gullini 1962) and a comprehensive view of extremely abundant information on the material culture is still not available. However, from archaeological evidence and written sources it is clear that Udegram was a prosperous town already in the Early Historic time.

Investigations at the archaeological site of Udegram, apart from the protohistoric graveyard recently excavated (Vidale et al. 2016), were carried out in 1956-1960 by IAM in two different areas (Faccenna and Gullini 1962): the lower town called 'Bazar', and the upper town called the 'castle'. The 'castle' is a fortified complex accessible from a monumental staircase situated on the rocky spur of the Raja Gira hill-top provided with massive revetment wall and semicircular towers (*ibid.*: 208-233, 271-319). Its strategic location made possible the long occupation of the area, which was probably inhabited from the end of the 5<sup>th</sup> century until the 13<sup>th</sup> century, with a main building activity between the 7<sup>th</sup> and the 10<sup>th</sup> centuries. According to the local tradition (see Scerrato 1985: 442) it was destroyed in the 11<sup>th</sup> century by Mahmud of Ghazni. In the Ghaznavid period is dated the construction, just below the ruined castle, of the congregational mosque and the Islamic settlement (Bagnera 2015).

Evidence related to the Early Historic Period appeared in the lower area called 'Bazar' where nine strata were related to a prosperous urban center occupied between the 4<sup>th</sup> century BCE and the 5<sup>th</sup> century. The 'Bazar' area was probably abandoned due to natural events and defensive reason which led the inhabitant to move towards the hill-top.

### *Chronological sequence*

Evidence of the most ancient occupations of the area have been reached only in a small portion of the excavated area and those are mainly represented by beaten floor-levels and potsherds (strata VIII, VII; Faccenna and Gullini 1962: 236-237).

To stratum VI belong a wall running N-S and a floor in beaten earth into which several food-storage pits were dug (*ibid.*: 175, 237-238). The material associated to this level is represented almost exclusively by potsherds described as “ware with rather thick walls and a distinctive, polished red slip” (*ibid.*: 238).

Structures related to stratum V were uncovered in the E sector of the excavated area. Here, lined on the W by an ancient street, two adjacent dwelling units separated by a wall [7] running NNE-SSW, were uncovered (Fig. 1.12). The latter will continue to mark the division between the dwellings even in the following phases.

The eastern unit is known only by two rooms, whilst the area lying uphill was severely damaged by natural events. The largest room (c. 10 m in length) featured two rows of two pillars, of which only the foundation and the schist base of the wooden pillars are preserved. In the middle, a stone-lined pit-well<sup>21</sup>. The other unit, better preserved, is composed of four rectangular rooms, the easternmost one featuring two pillars. On the other side of the street two long walls [49], [54] meet at right angle.

The structures were constructed with fairly irregular schist fragments arranged in not parallel rows in the lower part, while the upper part was probably in clay.

As regards numismatic evidence, from a floor-level of stratum V, during the 1960 excavation season a hoard of 23 punch-marked coins was found inside a small pottery jug (*ibid.*: 325, n. 43). Gullini, on the basis of the whole numismatic sequence presumed to date strata VI and V to the Indo-Greek period. The recovery in stratum V of a Greek inscription on pottery (Rougemont 2012: 87 = *IK* 297) bearing the inscription NOY<sup>22</sup>, together with some distinctive ceramic forms with parallel at Indo-Greek levels of Barikot seems to confirm that (Callieri and Olivieri, *forth.*).

---

<sup>21</sup> Gullini hypothesized that it was a courtyard provided by a veranda all around and open at the center where the well, used as cistern, could gather the rain water as a sort of *compluvium/impluvium* system (*ibid.*: 177).

<sup>22</sup> The inscription is sometimes interpreted as genitive of the name Νοῦς *Editio princeps* in Pugliese Carratelli 1966: 35-36, fig. 11.

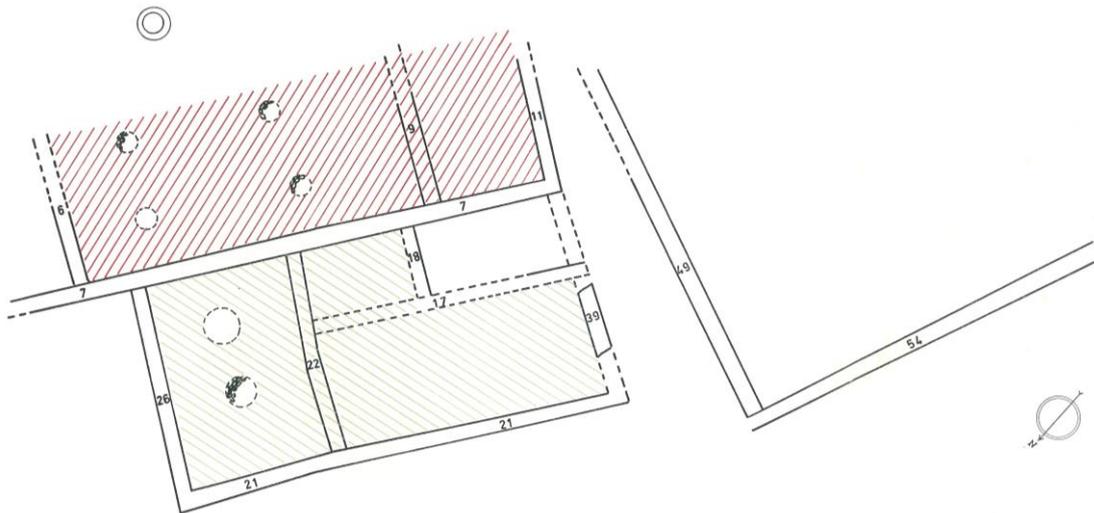


Figure 1.12 – Udegram ‘Bazar’: plan stratum V (*ibid.*: pl. XIX).

In the following strata (strata IV, III, II)<sup>23</sup> the two dwelling units identified in stratum V maintain the same perimeter although the internal layout underwent a series of modifications, with the creation of several small rooms mostly used as storage. Moreover, from stratum IV, along both sides of the street started to appear a series of independent rooms accessible from the street with small deposit at the back. Those have been interpreted as shops (*ibid.*: 180). On the basis of numismatic evidence (*ibid.*: 335) and structural continuity with the precedent period, stratum IV can tentatively be assigned to the Saka-Parthian period. From stratum III, rich in Kushan coins (*ibid.*: 334-335), the knowledge of the urban layout is enriched. The excavated area, about 1.100 sqm, revealed complex living quarters with orthogonal streets, passageways, drainage system, shops and public open courtyards.

<sup>23</sup> Strata I and zero are poorly preserved since immediately below the modern ground level.

### 1.2.6 Barikot

The site of Barikot (Bīr-koṭ in Pashtu) is located on the left bank of the Middle Swat Valley, west of the modern village of Barikot, and is marked by a steep hill overlooking the Swat River flowing to the north. Its strategic and trading importance along with the vicinity to the fertile side valleys of Kandak and Karakar, made Barikot a prosperous settlement area since the Bronze Age. Following the activities of G. Stacul on its protohistoric phases, the activity of the IAM at the historic settlement of Barikot, began in 1984 under the direction of P. Callieri and despite some interruptions due to the international situation, the excavation have continued up to the present day, under the direction of L.M. Olivieri.

Both A. Stein (1930) and G. Tucci (1958) identified Barikot with the ancient city of Bazira (Arrian, *Anabasis*, IV.27) or Beira (Q. Curtius Rufus, *Historiae Alexandri*, VIII.10.22) conquered and fortified as Macedonian garrison by Alexander the Great in 327 BCE, as mentioned in classical sources<sup>24</sup>. A much later source, that is a Brāhmī-Śāradā inscription of the time of King Jayapāladeva (10<sup>th</sup> century CE) found on the hill-top at Barikot, report ‘Vajirasthāna’ (vajira(sthā)ne), as a place name<sup>25</sup>. Already in 1958 Tucci had convincingly associated the toponym ‘Vajirasthāna’ with Bazira/Beira (Tucci 1958: 296, 327, fn. 28). The toponym can be interpreted as ‘the strong place’ or better as ‘the sthāna ([fortified] place) of Vajra/Vajira’, on which, by analogy, Bir-kot, ‘the koṭ (castle) of Bīr’, might have been modelled by later Pashto-speakers (post-sixteenth century). If Vajra was really the original name of the site (‘Strong’), the diglossia ‘Bazira’/‘Beira’ might echo two distinct linguistic traditions: one, Bazira-vajra, Sanskritic and preserved until medieval times; the second, Beira-va(y)ira, vernacular and local. S. Baums provided the key to contextualise the latter form, as the form *vayira* is positively attested in Gāndhārī<sup>26</sup>. Since in Gāndhārī neutral vowels before [j] (using IPA notation) are usually palatalized, the pronunciation of Gandhari va(y)ira- was probably close to [ve(j)irə], which makes Curtius’ information (and sources) on the local name of the city (‘Beira incolae vocant’, VIII, 34) very precise indeed (Olivieri and Iori, forth.).

---

<sup>24</sup> See also Olivieri 1996.

<sup>25</sup> The inscription has been recently re-studied by O. von Hinüber.

<sup>26</sup> For example in line 5d of the inscription of Senavarma, c. first century CE.



Figure 1.13 – General Plan of the archaeological area of Barikot with indication of the excavated trenches (after Olivieri 2003: 29, elaborated by E. Iori).

During more than 30 years of research 19 trenches, plus several soundings, were dug in several sectors of the city, both in the lower plain (Pashto, *mianā*) and in the hill-top (Pashto, *ghwandai*), in order to understand extension and complexity of the urban layout (Fig. 1.13). The major excavated sector of the city (about 1 ha), corresponding to the south-western quarters of the ancient city, is formed by three adjoining trenches BKG 4-5 (Callieri et al. 1992), BKG 11 (Olivieri et al. 2014), and BKG 12 (Olivieri 2015; Iori et al. 2015; Olivieri and Iori, *forth.*) which have revealed an occupation sequence running from the second quarter of the 2<sup>nd</sup> millennium BCE to the very beginning of the 4<sup>th</sup> century CE, when the coincidence between the political upheaval represented by the collapse of the Kushana empire and two successive destructive earthquakes have eventually led the population to the abandonment of the town (Olivieri 2013, 2014: 141).

The most striking archaeological remain at Barikot is represented by the imposing defensive wall that encompassed the town defining an area of about 12 ha including the acropolis. This is dated from numismatic evidence and radiocarbon data to the second

half of the 2<sup>nd</sup> century BCE, a chronological bracket associated to a mature Indo-Greek historical phase (MacDowall and Callieri 2004).

The defensive wall, which so far represents the only excavated Indo-Greek urban defensive work, is a massive construction (c. 2.9 m thick, i.e. 10 Attic feet) built of pebbles, slabs and clay mortar, featured by rectangular bastions, except for the pentagonal one in the SW corner, placed at regular intervals of about 29 m, i.e. c. 100 Attic feet or 1 *plethron* (Olivieri 2003: 24). Close to the wall is a moat provided with a steep slope c. 5-6 m deep which runs parallel to the defensive wall at a distance of 5-8 m from it.

The Hellenistic origin of the fortified town, at first based on historical considerations and topographic, planimetric and construction features (Callieri 1993: 343), has been subsequently confirmed by numismatic evidence and radiocarbon data (MacDowall and Callieri 2004; Callieri 2007). The layout of the urban circuit is known in all its sides. Excavations revealed portions of the longer S side, the SW corner, and the W side. The latter adjoins a rocky spur completing the natural defence offered by the acropolis (Olivieri 2003). To the E, the wall perimeter, today partially incorporated into the modern village, can be intermittently followed down to the SE corner bastion. Along its S side it has been hypothesized both the location of a postern (Iori et al. 2015: 80-81) as well as the main gateway (Olivieri 2003: 36), in both cases after the documentation of remarkable depressions along the defensive circuit.

The archaeological deposit over the entire site features seven superimposing structural macro-phases built up across nine centuries (Tab. 1.4). The continuity of occupation and the consequent huge stratigraphy of the site were the reason why for years was not possible to reach the earliest levels of the historic settlement, reached only in 2016.

Cultural phase	Lower Town						Macro-events	Acropolis			Macro-events	Relative Chronology Absolute Chronology <u>Coin assemblage</u>	
	BKG 4-5	BKG 11	BKG 4-5 outside the urban Wall BKG 12	BKG 1	BKG 3 outside the urban Wall	BKG 3		BKG 7	BKG 9	BKG 8 outside the Wall			
9					Per. VII	Ph. 5				Per. VII	Abandonment. Sporadic human presence.	15th-19th CE	
										Per. VI	Earthquake. Destruction of the temple. Construction of a fortified outpost	11th-13th CE <u>Ghaznavid</u>	
								Per. VII	Per. VIII	Per. VI			
8										Per. VII	Per. V	Re-occupation of the terraces for the building of a Brahmanic temple (BKG 6)	7th-9th CE <u>Shahi</u>
									Per. V			Abandonment phase.	5th-7th CE
7					Per. X		Up-hill fortified settlement (unexcavated)					Construction of a turreted Sacred Building (BKG 2)	
					Per. IX								
6	Per. X					Per. V	Temporary non-urban re-occupation					Fortified dwellings	4th CE <u>Kushano-Sasanian</u> ; <u>sub-Kushan</u>
		Per. IX											
5	Per. IX	Per. VIIIb				Per. IVB	Earthquake. Abandonment of the drainage system.	Per. IV	Per. VI	Per. IV	Abandonment phase. Sporadic human presence.	3rd CE (second half) <u>Kushano-Sasanian</u> <u>sub-Kushan</u>	
	Per. VIII	Per. VIIIa	Ph. 8		Per. VII								
	Per. VII	Per. VII	Ph. 7		Per. IVB	Ph. 2b	Earthquake. Reconstruction	Per. III	Per. V		Demolition of the Defensive Wall and construction of	3rd CE (first half) <u>Late Kushan</u>	

Cultural phase	Lower Town						Macro-events	Acropolis			Macro-events	Relative Chronology Absolute Chronology Coin assemblage
	BKG 4-5	BKG 11	BKG 4-5 outside the urban Wall BKG 12	BKG 1	BKG 3 outside the urban Wall	BKG 3		BKG 7	BKG 9	BKG 8 outside the Wall		
4	Per. VI	Per. VI	Ph. 6	Per. VI	Per. IVA	Ph. 2a	Intense building activity	Per. IV			a substructured terrace. Buddhist sacred area	2nd CE <u>Kushan</u>
	Per. V	Per. V	Ph. 5				Per. V				Per. IVA	Ph. 1b
3	Per. IV	Per. IV	Ph. 4	Per. IV	Per. III	Ph. 1a	Earthquake. Retrofitting of the Defensive Wall	Per. II	Per. III	Per. III	Acropolis Defensive Wall.	1st BCE-1st CE <u>Saka/Parthian</u>
	Per. III	Per. IIIB	Ph. 3b	Per. III			Per. IIB					Fortified urban phase. Demolition of the previous structures and stratigraphy for the construction of the urban Defensive Wall
		Per. IIIA		Per. I	Per. IIA							
2		Per. IIB	Ph. 3a (only in BKG 12)				Urban occupation phase. Probably fortified				No evidence	mid-3rd BCE <u>Mauryan</u>
		Per. IIA	Ph. 2 (only in BKG 12)				Urban occupation phases				No evidence	6th - mid-4th BCE
1	Per. II (?)	Per. IC	Ph. 1c (?) (only in BKG 12)		Per. I		Settlement/Graveyard	Per. IB	Per. II	Per. II	Settlement	Iron Age = period VIII <u>Ghalegai sequence</u>

Cultural phase	Lower Town						Macro-events	Acropolis			Macro-events	Relative Chronology
	BKG 4-5	BKG 11	BKG 4-5 outside the urban Wall BKG 12	BKG 1	BKG 3 outside the urban Wall	BKG 3		BKG 7	BKG 9	BKG 8 outside the Wall		Absolute Chronology <u>Coin assemblage</u>
			Ph. 1b (only in BKG 12)									Iron Age = period VII Ghalegai sequence (1000-700 BCE)
			Ph. 1a (only in BKG 12)				Settlement/ Graveyard				Settlement	Late Bronze- Iron Age = periods V -VI Ghalegai sequence (end-2nd /Beginning-1st Millennia BCE)
0	Per. I (?)		Ph. 0 (only in BKG 12)		Per. 0		Settlement	Per. IA	Per. I	Per. I	Settlement	Chalcolithic = period IV Ghalegai sequence (1700-1400 BCE)

Table 1.4 – Chronology correspondence chart amongst the BKG trenches (Olivieri and Callieri, forth.).

The Early Historic sequence outside the urban defenses<sup>27</sup>

The archaeological deposit of the *extra muros* area is strongly related to the construction and the role of the Indo-Greek defensive wall. As already stressed above (see Ch. 1.1.1), the construction of the fortification wall involved a huge levelling work at the edge of the ancient mound aimed at both making space for the defensive wall and regularizing the ground level. That results in the almost total removal of the Iron Age and post-Iron Age stratigraphy all along the defensive wall, very often exposing the more ancient structures related to the proto-historic settlement (BKG Macro-phases 1; Fig. 14). The physical overlap of the Indo-Greek wall and structures related to the cultural horizon of Swat period VII, although recurrent, does not correspond to a chronological sequentiality. Indeed, as confirmed by <sup>14</sup>C dates, a gap of more than six centuries separates the two cultural events (Olivieri and Iori, forth.). In the area of trench BKG12W (ibid.) the works of levelling were particularly imposing probably for the presence of a steep slope or for the construction of the massive pentagonal bastion. However the impact of this works was not so dramatic anywhere along the defensive circuit.

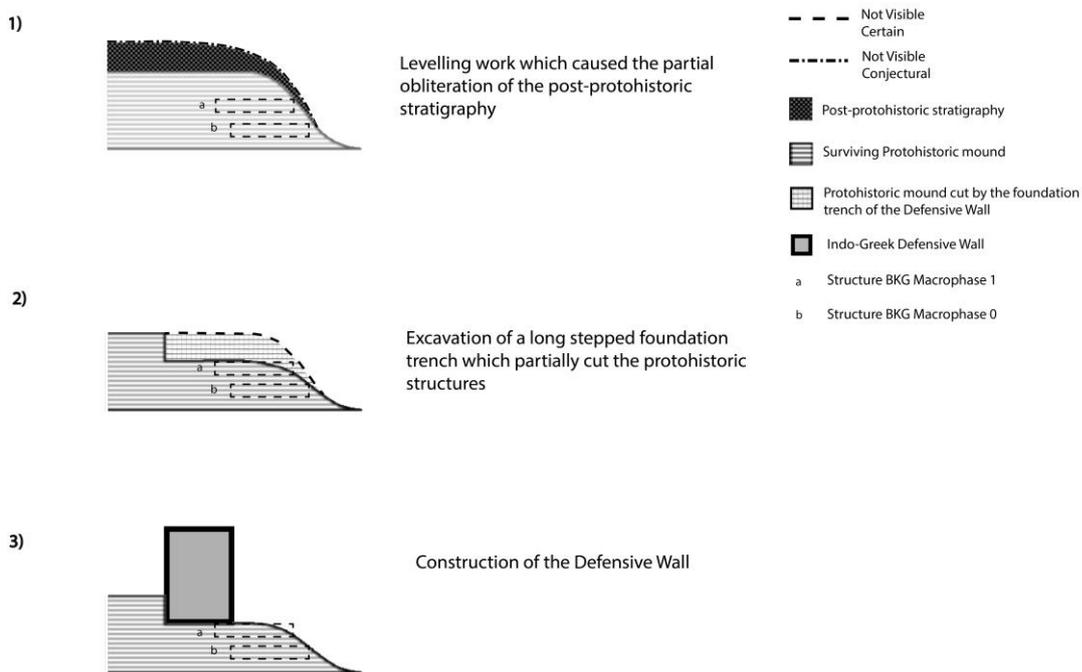


Figure 1.14 – Sketch of the hypothetical sequence of the construction phases of the defensive wall. Drawing by E. Iori (Olivieri and Iori, forth.).

<sup>27</sup> The archaeological sequence of trenches BKG 12E and BKG L will be treated in detail in Chapter 3.1.

Along the south stretch of the wall, indeed, trench BKG L has partially preserved layers antecedent to the defensive wall which ceramic material suggests to interpret as an Achaemenid acculturation phase (BKG Macro-phases 2A). That tallies with the archaeological sequence revealed inside the build-up area in trench BKG K-105.

If the dearth of evidence for BKG Macro-phases 2 along the defensive wall is due to a human intervention, the paucity of evidence related to the Indo-Greek period (BKG Macro-phases 3A) is instead related to the role of the center of Barikot, which at that time must have been a stronghold. In addition, the following structural interventions to the defensive wall and the construction of extramural structures in Saka-Parthian and Kushan times were responsible for damaging the already few Indo-Greek deposits outside the defensive perimeter.

The Early Historic sequence in the built-up area<sup>28</sup>:

Most of the data about the Early Historic Period comes from the *intra muros* area.

The 2016 excavation campaigns, in sector K-105, have proved the existence since at least the 5<sup>th</sup> century BCE of a rich city preceding the Hellenistic acculturation phase clearly documented in Macro-phase 3. Indeed, the chronometric data define three phases of occupation within Macro-phase 2 which ceramic assemblage clearly diverges from the local protohistoric tradition. The establishment of the urban site (Macro-phase 2a.1 = c. 6<sup>th</sup> – beginnings 5<sup>th</sup> century BCE) precedes the Achaemenid acculturation phase (Macro-phase 2a.2) which seems to start around the 450 BCE. In the following Macro-phase 2b, characterized by the reuse of the structure of the previous phase, the ceramic material is scanty, however the presence of a Maurya coin well tallies the <sup>14</sup>C date which points to the late 4<sup>th</sup>- beginning 3<sup>rd</sup> century BCE and with the absence of forms distinctive of Macro-phase 2a.2.

The Macedonian siege at Barikot (autumn 327 BCE) most likely occurred during the archaeological Macro-phase 2b of the site (Olivieri et al. 2017).

Better preserved are the evidence related to Macro-phase 3a dated between the beginning of the 3<sup>rd</sup> and the mid-1<sup>st</sup> century BCE (MacDowall and Callieri 2004; Olivieri and Iori, forth.) featured by the direct Hellenistic acculturation phase. It is within this chronological window that the construction of the Indo-Greek defensive wall is placed (c. 150 BCE).

---

<sup>28</sup> The archaeological sequence of trench BKG K-105 and BKG 7-8-9 will be treated in detail in Chapter 3.1.

However, 2016 excavation has suggested that the Hellenistic acculturation phase should have started before the reinforcement of the urban circuit by the Indo-Greeks, being linked to the Graeco-Bactrian influence.

To the Indo-Greek phases (3a.3-4) are associated nine inscriptions on potsherds, which have been all published (Callieri and Olivieri, forth.): three are in Greek (Tribulato and Olivieri, forth.), three in Brāhmī, two in Kharoshti (Baums in Callieri and Olivieri, forth.) and one in Aramaic (Rohrer-Zeller and Olivieri, forth.). The multilingualism well matches the complexity of the material culture. The evidence of material culture, particularly abundant (pottery, terracotta figurines, “Baroque ladies”, coins, metal objects, ornaments in vitreous paste etc.), points to a rich and prosperous society during this period.

The clearest picture of the Indo-Greek Bazira is offered by trench BKG 4-5, about 2000 sqm, opened within (and immediately outside) the SW corner of the city (Callieri et al. 1992). There, excavations revealed the presence of a large unbuilt *intra muros* area from c. 3 m up to c. 5 m wide. Parallel to the west side of the fortification there is a long wall aligned with the defensive wall. A 2-room building with stone foundations and mud-brick superstructures aligned N-S marks (BKG 419) the south side of the area while, in the north sector a large building, consisting of a central room with a pillar on a cylindrical stone foundation (BKG 453-454) and two contiguous rooms (BKG 441, N, BKG 443, S) on one side was documented (ibid.: 14-15, fig.2). In trench BKG K-105, at the west sector of the town, the Indo-Greek period is documented by three structural phases of a portion of a living quarter, so proving the substantiality of the Indo-Greek occupation at Barikot. Stretch of walls related to Macrophase 3a were uncovered also in other sectors of the plain: BKG 1 (Callieri et al. 1984: 484-493), BKG 3 (Callieri et al. 1990: 163-183), BKG M (Filigenzi 1985).

The Indo-Greek occupation included also the hill-top of Barikot where evidence belonging to Macrophase 3a were identified on the western terrace in trenches BKG 7-8-9. In particular, a defensive/retaining wall (BKG 7-9) and a substruction wall (BKG 8) were uncovered (Callieri et al. 2000).

### 1.2.7 Balambat

The archaeological site of Balambat is located to the west of Panjkora River right opposite the site of Timargarha, in the modern Lower Dir District. The site investigated by Dani's team in 1966 in three different sectors, revealed the portion of a two-phases settlement set on ancient graves. The first three structural periods, according to the excavators, cover the chronological framework of the last quarter of the 1<sup>st</sup> millennium BCE - 4<sup>th</sup> century BCE, while the fourth, only partially exposed, points to occupation phases spanning from the Kushan to Hindu Shahi times (Dani 1967: 235-288).

#### *Chronological sequence*

Period I of BBT, associated to the Period II of the 'Gandhara Grave Culture' (12<sup>th</sup> – 10<sup>th</sup> century BCE), revealed only few graves with cremated bones heavily disturbed by later structures (*ibid.*: 240-241).

Dwelling units composed of spacious adjacent rooms, NW-SE oriented, circular or rectangular storage rooms and refused pits characterized Period II of BBT (*ibid.*: 242-243). This earliest settlement was correlated, on the basis of pottery and terracotta figurines, to Period III of Gandhara Grave Culture (9<sup>th</sup> – mid-6<sup>th</sup> century BCE).

Period III of BBT (called Period IV with reference to his periodization) is the best documented (Fig. 1.15). The settlement, bearing a single phase of occupation since suddenly abandoned after a violent event, is marked by a change in orientation and building technique. Square and rectangular adjacent rooms made of a crude diaper masonry, of small/medium dimension, are now oriented N-S or E-W and opened to the south on larger rooms ('hall' in Dani 1967: 244). The most interesting aspect of the Period III settlement is the presence in several rooms (nos 2, 3, 4, 6, 7, 8, 11) of what has been interpreted as 'fire-altar' (*ibid.*: 41, pl. XLIIIa). This is a solid square 'altar' set on high platform or bench with traces of burnings always associated with dump pit full of ash, charcoal and potsherds. While Dani compared the structure with the 'altar-ovens' or *pyreia* at Dahane-ye Gholaman in Sistan (Scerrato 1966), instead, they differ typologically from the latter (Tucci 1977: 12). Whether those had a practical function or were receptacle for another kind of domestic cult involving fire in both cases their relation with an Achaemenid cult is far less than weak.

Apart from this aspect, the Achaemenid characterization of these structures was also based on the presence of 'typical Achaemenid pottery' so considered on the basis of the analogies with the earliest level of Charsadda dated by Wheeler to the Achaemenid period

(Dani 1967: figs. 57-60) and now considered at least six centuries earlier. Furthermore the presence of material with parallel with Charsadda III suggest for BBT IV a mixed assemblage (Dittmann 1984: 177, fig.7).

In short we can say that excluding these two pieces of evidence (*pyreia* and ‘typical Achaemenid pottery’) and in absence of any <sup>14</sup>C dating, the Achaemenid date of this Period cannot be supported.

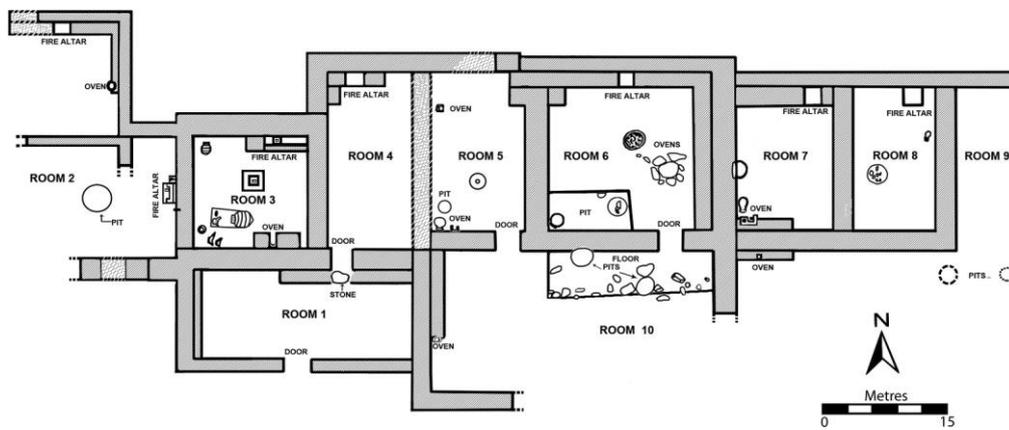


Figure 1.15 – Balambat, Period III. Plan of the Achaemenid building (Coningham and Young 2015: fig. 10.14).



Figure 1.16 – General plan of Pakistan with indication of the main Early Historic sites in Peshawar and Taxila Valleys.

### **1.3 Gandharan southern plains: Peshawar and Taxila Valleys**

This paragraph discusses the sites of the southern plains (Fig. 1.16), namely Peshawar and Taxila Valleys, for which evidence related to the Early Historic Period have been documented. This is the place where the two key-site of Gandhara, Charsadda and Taxila, are located. Although their crucial importance, and the extensive investigations so far undertaken, the chronological sequences of these sites still represent an unsolved conundrum.

#### **1.3.1 Charsadda (Bala Hisar, Shaikhan Dheri)**

The site of Charsadda lies within the flat alluvial plain of the Peshawar Valley, not far from the junction of Kabul and Swat Rivers. Even if rich in archaeological sites (Ali 1994) only two of these has been excavated in this area: Bala Hisar and the nearby Shaikhan Dheri.

##### **Bala Hisar**

The archaeological site of Bala Hisar of Charsadda, identified with the city of Pushkalavati/Peukelaotis (Cunningham 1864: 89; Marshall 1904: 176), the ancient capital of Gandhara, was investigated through intermittent excavations in 1882 (Garrick 1882), 1903 (Marshall 1904), 1958 (Wheeler 1962), and 1993-2000 (Coningham et al. 2007).

The first surveys and excavations at the site were carried out on the summit of the mound of Bala Hisar, some 20 m high and covering an area of 25 hectares, where late medieval and modern structures (Garrick 1882) and pre-Kushan layers (Marshall 1904) were exposed.

However the site became a key-site for the archaeology of Gandhara only after the seven-week season carried out in 1958 by Wheeler (1962) during which five areas were investigated: trenches Ch. I, Ch. II, Ch. III, Ch. IV, Ch. V (Fig. 1.17). In absence of radiocarbon dates and numismatic evidence, the chronology of the entire site of Bala Hisar was based on the presence or absence of eight ceramic key-types (Wheeler 1962: 37-46).

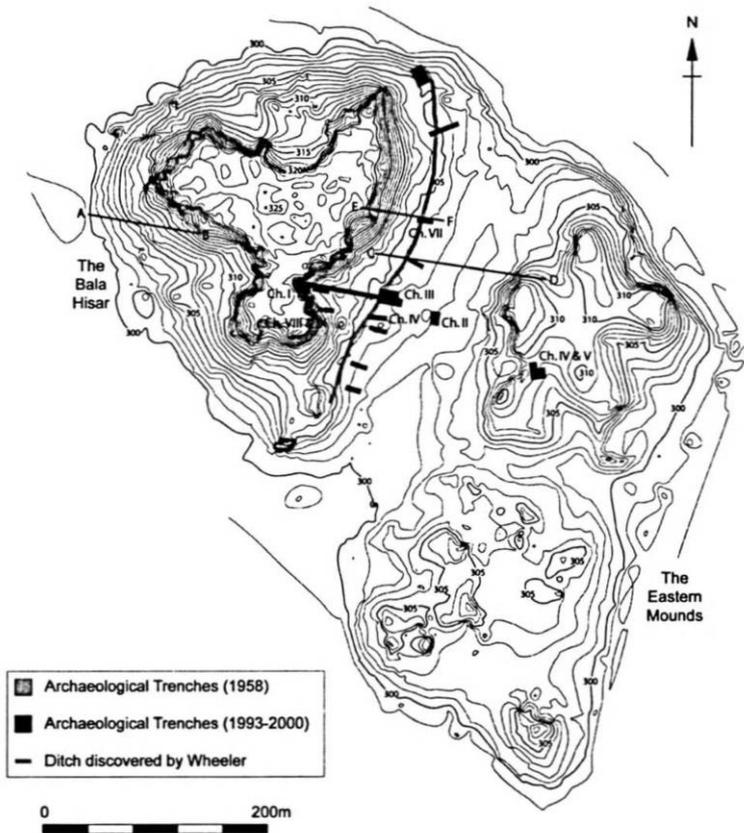


Figure 1.17 – Plan of the location of trenches Ch. I-V (Wheeler 1962) and Ch. III, Ch. VI, Ch. VII, Ch. VIII/IX (Coningham et al. 2007: fig. 1.1).

Ch. I and Ch. IIIA together constitute a deep step trench down the present eastern face of the

Bala Hisar mound (Ch. I), with an eastern extension at the base (Ch. IIIA). Wheeler interpreted the sequence exposed in Ch. I-Ch. IIIA as an uninterrupted sequence from the Achaemenid foundation up to the Islamic period (Wheeler 1962: 14).

Ch. II was located half way between the Bala Hisar and the lower mound to its east, in order to investigate the relationship between the two mounds. The excavation revealed below 15 layers free of structure a gray alluvial sandy layer interpreted as the original bed of the Sambor River. He argued that the original town, on its eastern side, did not extend beyond the river bed (Wheeler 1962: 23-25).

Ch. III was a sequence of eleven consecutive trenches (A to K) extending from the foot of Ch. I towards the valley. Trenches Ch. IIIJ and Ch. IIIK exposed what Wheeler identified as a defensive ditch (4.5 m wide and 2.7 m deep). Wheeler reported the presence of a rampart, and some post holes which would have indicated a former timber-lined postern and bridge. He dated the ditch to the Alexander's siege (Wheeler 1962: 25). The fact that the lower fills consisted of a thin layer of grey alluvial sand covered with a thick

deposit of clay, devoid of pottery, led Wheeler to hypothesize that the ditch had been deliberately filled with its rampart almost immediately after its construction. Seven trial trenches were excavated along the eastern edge of the mound confirming the course of the ditch (Wheeler 1962: 25-28).

Ch. IV and Ch. V were dug at the eastern mound, beyond the original river bed. Ch. V revealed five structural phases of a dwelling unit, only partially excavated, while the external area, Ch. IV, revealed the presence of two wells. Regarding the phases of the house in Ch. V, Wheeler presumed a date between 300-150 BCE for the phases II-V, with phase I only slightly earlier.

On the basis of the evidence coming from these excavation, without the support of radiocarbon datings and using only a representative selection of pottery (Wheeler 1962: 37), Wheeler set four postulates:

Postulate I: The presence of iron artefacts in the earliest level of Bala Hisar points to an Achaemenid foundation of the site (Wheeler 1962: 33-34).

Postulate II: The ditch discovered in Ch. III and exposed in seven sounding along the eastern side of the mound, was used by Wheeler as proof of the siege of Charsadda by Alexander's troops in 327 BCE (Wheeler 1962: 34).

Postulate III: The presence of the so-called 'North Black Polished Ware' in Ch. I (layers 20-21) and elsewhere, led Wheeler to link these layers to 'the spread of Mauryan control' from the Ganges to the Hindu Kush in and after 305 BC' (Wheeler 1962: 35).

Postulate IV: Layer 14 of the Bala Hisar displayed 'four pieces of schist carving of the so-called 'Gandhara School' which Wheeler dated broadly between the 2<sup>nd</sup> and 4<sup>th</sup> centuries CE. Before this period the town had been moved from Bala Hisar to Shaikhan Dheri.

On the basis of these four main postulates Wheeler formulated 'subsidiary postulates' (Wheeler 1962: 35). In particular Wheeler used the date of 'NBPW' to date other ceramic types: such as lotus bowl and the so-called 'baroque lady' (see Ch.2).

An opportunity to directly re-evaluate the Wheeler's interpretation was offered by the Bradford-Peshawar excavations (Ch. III, Ch. VI, Ch. VII and Ch. VIII/IX), carried out with the specific aim to study the 'nature of the origins and development of the early sequence of the site' (Coningham et al. 2007: 2) and in particular to re-analyze the first two Wheeler's postulates, namely, the foundation of Bala Hisar in the Achaemenid period and the Alexandrian date for the ditch uncovered in Ch. III.

Years by years, new excavation in NW Pakistan and reviews of the Bala Hisar sequence provided pieces of a mosaic, not yet complete, which weakened the solidity of Wheeler's sequence. At the present stage the four postulates by Wheeler can be reviewed as follow. Postulate I: The invalidity of Postulate I has been definitively demonstrated by the Bradford-Peshawar excavation at Ch. VIII/IX. Indeed, the radiocarbon dates pushed the earliest dates for the Bala Hisar back to *c.* 1400-1200 BCE (Coningham et al. 2007: 97) by so confirming the chronological misgiving first recognized by Stacul and Tusa on the basis of affinities between the ceramic material of Wheeler's earliest levels and those of Swat period V (Stacul and Tusa 1977: 177; Stacul 1979: 342-343; Tusa 1979: 691; see also Dittmann 1984: Table 5).

Wheeler Postulate I was based on the assumption that the diffusion of iron in the region were not indigenous but the result of an Achaemenid import (Wheeler 1962: 18-23). This assumption fails at the light of recent excavation at Bala Hisar. Today the earliest iron artefacts and slugs at Bala Hisar are dated to 1200-900 BCE (Coningham et al. 2007: 155). This is not an isolated case in Gandhara. At Udegram three iron pins were found in grave 19 dated to 928-802 BCE Vidale and Micheli 2017: 402), and an iron blade of dagger was found at Barikot in a layer 14C dated to *c.* 1200-1000 BCE<sup>29</sup>.

Postulate II was based on the idea that the presence of a ditch 'deliberately filled' was proof that the city was besieged by Alexander's troop. The Bradford-Peshawar project has demonstrated, through the re-excavation of trench Ch. III, as the fills of 'Wheeler ditch' has not been the result of a 'single filling activity' after the Hephestion siege in 327 BCE, but it instead represented a gradual filling by domestic rubbish probably to be dated to the middle of the 1<sup>st</sup> millennium BCE (Coningham et al. 2007: 48). As for the postholes complex identified by Wheeler as the palisade and bridge of a postern gate, the new postholes individuated by the Bradford-Peshawar team indicate a different orientation and they appear to cross the ditch. Unfortunately there are no obvious stratigraphic relationship between the postholes and the ditch, and the presence of postholes in the ditch fill suggest that the posthole structure was a later feature.

Furthermore, trench Ch. VI revealed that the Wheeler's ditch 'curves significantly to the west', displaying a different alignment from the one indicated by Wheeler. This different

---

<sup>29</sup> Doubts about a late dating of iron in South Asia have been put forward by various scholars: N.R. Banerjee (1965), Chakrabarti (1976, 1994), Sahi (1979), Agrawal et al. (1985, 2003), Possehl and Gullapalli (1999), Tewari (2003) and Singh (2008).

alignment led the excavators to presume that the trial-trenches opened by Wheeler revealed 'sections of earlier ditch-like features than the same ditch identified in Ch. III' (Coningham et al. 2007: 48).

Postulate III: Wheeler recognized in the presence of few sherds of local variant of 'North Black Polished Ware' a link with 'the spread of Mauryan control' in the Hindu Kush after 305 BCE. He adopted the same dating for Lotus bowls, Tulip Bowls and 'baroque ladies' which were associated with NBPW in some layers. However, since Tulip bowls also appear before Lotus bowls and baroque ladies in the stratigraphic sequence, it is probable that the latter, for which a mid-late Achaemenid date is more likely, have a later date.

Postulate IV: Wheeler stated that before Ch.I layer 14, where he recorded 'four pieces of schist carving of the so-called Gandhara School', the town had been moved from Bala Hisar to Shaikhan Dheri. With such shift Wheeler justified the presence of 'only 5 ft. mound (layers 20-14) between the 2nd century BC and the 2nd century AD' (Wheeler 1962: 35). As highlighted by Petrie, the absence of distinctive Indo-Greek vessel forms instead present in Ch. IV Well E (Wheeler 1962: 46-48) and in the earliest levels at Shaikhan Dheri (Periods VI-V; Dani 1965-66: 136ff) suggests a gap in the occupation sequence of the main Bala Hisar mound after Ch. I layer 20 (Petrie 2013a: 518).

As regards the small finds it is worth mentioning a terracotta moulded head applied to the base of the handle of a jug representing Alexander or Heracles (cfr. Marshall 1951: 433, no.226, pl.130f) from a disturbed layer of Ch. III (115, pl. XXXVIb). All the other finds in Hellenistic style come from Ch. IV well E and Ch. V, on the other side of the Sambor River. In particular, an alabaster headless statuette of Heracles not in Hellenistic style (Wheeler 1962: 123, pl. XLI), a tetradrachm of Menander (Wheeler 1962: 125) and pyramidal weights<sup>30</sup>.

Although the chronological sequence set up by Wheeler more than 50 years can be criticized in many ways, the Bala Hisar sequence, as it was revealed in Ch. I, remains the wider cultural sequence exposed in Peshawar Valley and it continues to be considered a reference ceramic sequence for every work concerning the area.

---

<sup>30</sup> Although pyramidal weights were found in layers (22)-(24), in Ch. IV and Ch. V phases II-V, the examples illustrated are all from mixed layer in Ch. III. (Wheeler 1962: 114-115); cf. pyramidal weights at Barikot from Macrophase 3b.

## Shaikhan Dheri

The site of Shaikhan Dheri, less than 1 km north-east of Bala Hisar, was located in 1958 by an aerial photography took by the Pakistani Air Force (Wheeler 1962: pl. XV). The chief importance of the site at first suggested by Wheeler (1962) was then confirmed by the investigations carried out by Dani and Allchin in 1963 and in 1964 by Dani (1965-66). The site has revealed a regular urban layout with chessboard streets, which occupation runs from the Indo-Greek to the Kushan Period (Dani 1965-66; Fig. 1.18).

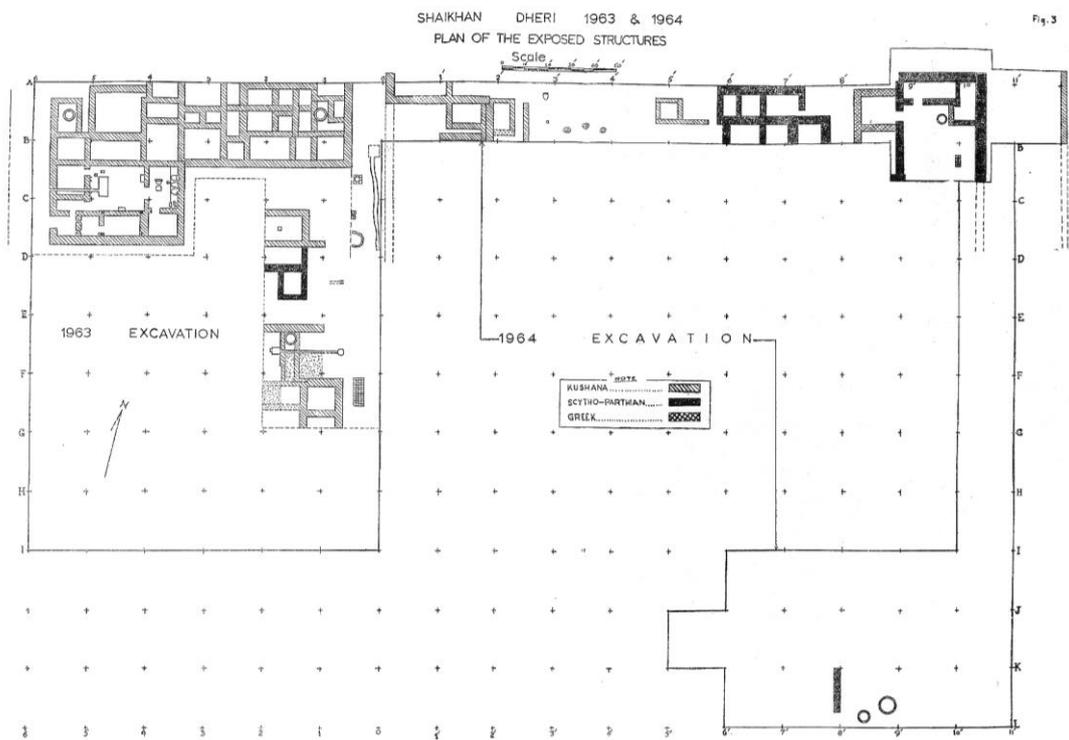


Figure 1.18 –Plan of the excavated trenches at Shaikhan Dheri (Dani 1965-66: fig. 3)

The city, built on a virgin soil, was an Indo-Greek foundation probably provided with a fortification wall which was unfortunately not excavated<sup>31</sup>. Three phases of occupation have been documented: Phase C= Greek (Indo-Greek), Phase B= Saka-Parthian, Phase A= Kushan<sup>32</sup>. The chronology, mainly based on numismatic evidence and some <sup>14</sup>C dates (*ibid.*: 24-26, 35-38), points to a mature Indo-Greek foundation (mid-2<sup>nd</sup> century BCE) of the city, the abandonment of which can be dated to the end of Kushan empire.

During these three structural phases (Indo-Greek, Saka-Parthian, Kushan) the urban layout seems to keep unchanged: the two main streets remained undisturbed and all the

<sup>31</sup> However Dani reported that the east sector of the fortification was easily detectable on surface (Dani 1965-66: 22).

<sup>32</sup> Each phase has been subdivided in periods on the basis of numismatic evidence (Dani 1965-66: 25).

structures are superimposed to each other maintaining the same orientation. This, along with ancient robbery of building materials, was the reason why the Indo-Greek evidence are poor in terms of quantity and quality.

The Indo-Greek structural evidence, mainly exposed in 1964 excavation season, are scanty. Stretches of walls in diaper masonry technique resting on mud-brick foundations were found in areas D1, A1 and A9'. In area D1 one room is related to the last structural period (VB) while of the earliest periods (VI, VA) only two superimposed floor levels are preserved. In area A9' the Indo-Greek walls were related to three floor levels on one of which two storage-jars were found *in situ*. In area A0-A1 only a pebble floor with a copper coin of Antialkidas was uncovered. In areas A10' and K9' two wells, one made by pottery rings and the other made of bricks, were excavated (*ibid.*: 26-35).

The numismatic sequence seems to be particularly coherent: coins associated to the earliest period (Phase C - Period VI) are some Indo-Greek coins of kings of the mid-2<sup>nd</sup> century BCE (Agathocles, Apollodotus and Menander) and two silver punch-marked coins while to the following period (Phase C - Period V) belong coins of kings generally associated to the end of 2<sup>nd</sup>-early 1<sup>st</sup> century BCE. Significant is also the presence in Phase C - Period V of a couple of distinctive Hellenistic terracotta figurines (*ibid.*: 57, pls xxiii, xxxiii.2).

### 1.3.2 Peshawar sites: Gor-khuttree

The site of Gor-khuttree, is a Moghul caravanserai of nearly 3 ha. located in the old city of Peshawar. The large open area enclosed within its walls was selected in the early 1990's for a large scale deep excavation (Fig. 1.19). The first excavations carried out by the University of Peshawar under the direction of F.A. Durrani, 1992-3 and 1995-6, were followed by numerous excavation seasons by DOAM. Results of which are almost unknown. Despite this, the stratigraphy of the site is told to run from the Achaemenid until the British Period.

The only mention to Indo-Greek, Maurya and Achaemenid layers appears in the report on the 1992-1993 excavation by Durrani (1997). The trench, opened in proximity of the mosque, revealed indeed a stratigraphy running from the late-Achaemenid to the British times. In particular, layers (14)-(18) related to Saka-Parthian and Indo-Greek period featured Baroque lady terracotta figurine (Durrani 1997: 209, pl.3) and Hellenistic embossed red ware with floral motifs; layers (18)-(20), exposed only in a limited area,

are told to “yield artefacts and ceramic tradition known from Mauryan and the last phase of the Achaemenid period” (Durrani 1997: 192). In 1995-1996 excavation was moved to the north-eastern portion of the courtyard with a large trench (30 x 30 m), further enlarges in the following seasons. Also this area is generally told to bear traces, in the earliest layers, of Indo-Greek material. Indeed, no report mentioned it.

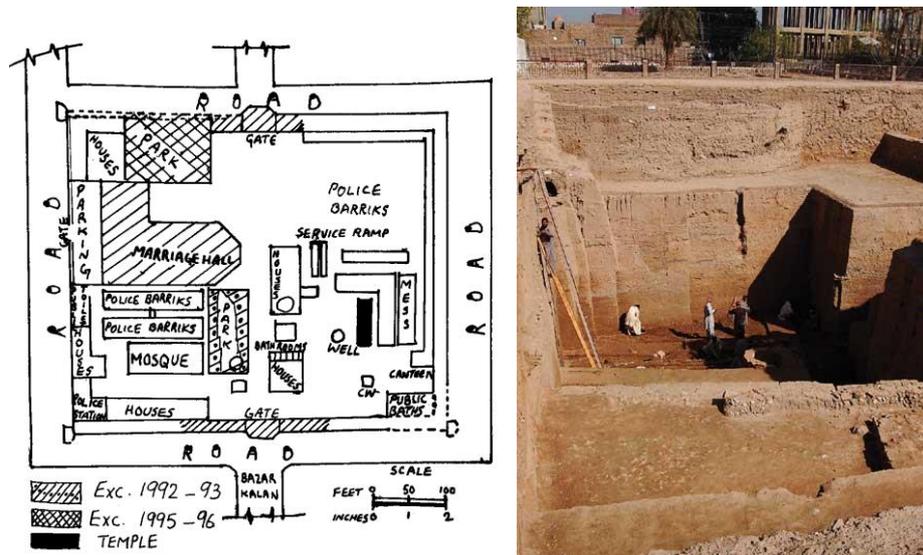


Figure 1.19 – At left: sketch of Gor kuttree site with indication of the excavated trenches (Durrani 1997: 203). At right: photo of the second deep trench.

Unfortunately the archaeological sequence of Gor-khuttree is only vaguely known and the ceramic material has never been studied. The ceramics are today split between the Peshawar University, where materials from 1992-1993 trench is stored, and the DOAM storehouse at Gor-khuttree where all the rest is preserved<sup>33</sup>. We hope that in future some scholars will get interest in that.

<sup>33</sup> In May 2016, thanks to the kind permission of DOAM, I visited the Gor khuttree storehouse. During that very preliminary survey of the ceramic material it was by no means possible to identify any Indo-Greek ceramic assemblage.

### 1.3.3 Taxila (Hathial Mound, Bhir Mound, Sirkap)

The site of Taxila (c. 130 km to the east of Charsadda), or *Takṣaśilā*<sup>34</sup>, is generally considered one of the capitals of the Indo-Greeks (Fussman 1993a) with a local mint. The site has been extensively excavated since the 19<sup>th</sup> century. Besides numerous religious complexes excavated by Cunningham (1871: 120-138; 1872: 111-135; 1875: 66-75) and Marshall (1951) the Taxila Valley, occupied during the Mesolithic or earlier (Dani 1986), revealed five main settlement areas: Sarai Khola (Halim 1970), Hathial Mound (Allchin 1982), Bhir Mound (Marshall 1951; Sharif 1969; Bahadar Khan et al. 2002), Sirkap (Marshall 1951; Ghosh 1948) and Sirsukh (Marshall 1951)<sup>35</sup>. At first Marshall spoke about three successive cities: the Bhir Mound, established around the 5<sup>th</sup> century BCE, Sirkap founded by the Indo-Greeks in the 2<sup>nd</sup> century BCE and Sirsukh, a Kushan city of unknown longevity. Besides being more dynamic than he thought, the birth and distribution of the Early Historic cities of Bhir Mound and Sirkap have been re-evaluated by several scholars in the following years. Moreover the longevity of the site of Taxila has been pushed back by the identification at the Hathial Mound, midway between the Bhir Mound and Sirkap, of three periods of occupation (Allchin 1982): one contemporary with the second phase of the settlement at Sarai Khola (Kot Dijian style), another coeval to the last phase of the Gandhara Grave Culture (Swat period VI) and the latest dated to the 2<sup>nd</sup> – 3<sup>rd</sup> century BCE.

The Early Historic sites of Hathial Mound, Bhir Mound and Sirkap will be here briefly considered as a whole (Fig. 1.20).

In absence of any radiocarbon dates from the excavations so far undertaken, the relative correlation of the phases set up by the three excavators of the Bhir Mound, Marshall, Sharif and Bahadur Khan, as well as their own absolute chronology, does not find any unanimous agreement among scholars. The main comprehensive attempts to unravel the question are provided by Dittman (1984), Vogelsang (1988) and Erdosy (1990)<sup>36</sup>. The first two reconstructions and cross dating are based on typological analysis of ceramics, whilst Erdosy constructed his revised chronological scheme of Taxila on a statistical evaluation of coin distribution in the structural periods identified by Marshall<sup>37</sup> (Tab. 1.5).

---

<sup>34</sup> Taxila is the Greek transcription of the sanscrit *Takṣaśilā* (pāli *Takhaśilā*), already recorded in early literature (as *Rāmāyana* and *Mahābhārata*).

<sup>35</sup> For a history of exploration and excavation see Dani 1986, Dar 1998 and Petrie 2013b.

<sup>36</sup> A comparative history of excavation integrated with the most recent discoveries is provided by Petrie 2013b.

<sup>37</sup> His conclusion mainly agreed with Allchin proposals (1982).

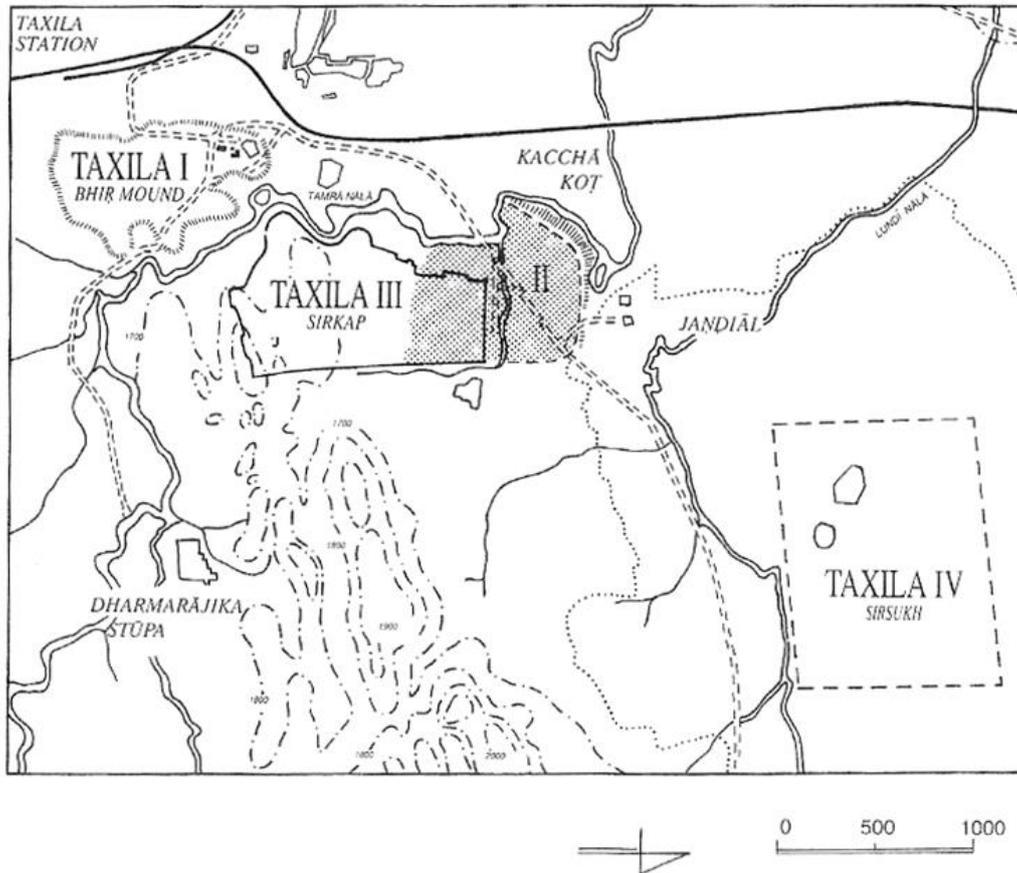


Figure 1.20 – The cities of Taxila (Wheeler 1950: fig. 7)

Marshall's excavations, mainly focused at the center of the mound, revealed the irregular plan of an urban center with four phases of occupation dated between the end of the 6<sup>th</sup> century BCE and the 2<sup>nd</sup> century BCE, the general layout of which is broadly preserved over the time.

The Achaemenid foundation of the Bhir Mound, suggested by Marshall, does not find any correspondence in the archaeological remains. Indeed, no kind of structures recalling Achaemenid features were brought to light in any of the excavation and the only hint of a possible Achaemenid taste is represented by some stamp seals and 'scaraboid beads' in stratum IV and followings (Marshall 1951: 103, 674-75; Callieri 2004). In general, it has been noted that the material culture from all the phases of Bhir Mound is strongly Gangetic (Callieri 1995: 294).

Marshall (1951)	Erdosy (1990)	Sharif (1969)	Bahadar Khan et al. (2002)	Dittmann (1984)	Vogelsang (1988)
Stratum I, 2nd century BCE Autonomous	Late/post-Mauryan period	Period IV, 2 <sup>nd</sup> -1 <sup>st</sup> century BCE	Period V, 2 <sup>nd</sup> -1 <sup>st</sup> century BCE	2 <sup>nd</sup> -1 <sup>st</sup> century BCE	2 <sup>nd</sup> -1 <sup>st</sup> century BCE
Stratum II, 3rd century BCE, Mauryan Period	Mauryan period	Period III, 3 <sup>rd</sup> – 2 <sup>nd</sup> century BCE	Period IV, 3 <sup>rd</sup> – 2 <sup>nd</sup> century BCE	Indo-Greek period (=Ch. IID)	3 <sup>rd</sup> – 2 <sup>nd</sup> century BCE
Stratum III, 4th century BCE, visited by Alexander	Achaemenid/early Mauryan period	Period II, 3 <sup>rd</sup> century BCE	Period III, 4 <sup>th</sup> -3 <sup>rd</sup> century BCE	3 <sup>rd</sup> century BCE (= Ch. IIC/IID)	4 <sup>th</sup> century (= Ch. IIA)
Stratum IV, 6th-5th century BCE, Achaemenid	Achaemenid period (at least 4 <sup>th</sup> century BCE)	Period I, 4 <sup>th</sup> -3 <sup>rd</sup> century BCE	Period II, from late 6 <sup>th</sup> century, early Achaemenid	Mauryan Period (= Ch. IIC)	4 <sup>th</sup> century BCE or earlier (= c. Ch. IB)
			Period I, up to c. 525 BCE		

Table 1.5 - Correspondence table showing the chronological correlations of the Bhir Mound periods.

Also Sharif identified four phases, however, he argued against the Achaemenid date of Marshall stratum IV and his Period I, mostly relying on the presence of NBP ware, the introduction of which in the north-west, according to his opinion, cannot antedate the 4<sup>th</sup> century BCE (Sharif 1969: 13, 16-17; see also Vogelsang 1988: 108).

The backdating of the occupation of the Bhir Mound to 1200-700 BCE was instead suggested by the most recent excavations. Indeed, Bahadur Khan Period I yielded nine sherds in burnished red ware which were related to material from Hathial Period II and Charsadda IA (Bahadar Khan et al. 2002: 29). For none of the fragments it was possible to reconstruct the profile. However, the presence of “deep grooves” on the surface of some of these potsherd suggests a comparison with burnished red ware from Ch. IB and a date between 800 and 525 BCE (Petrie 2013b).

Structural remains belonging to stratum IV/Sharif Period I and stratum III/Sharif Period II are particularly scanty as well as the associated finds. Sharif stressed a change in the material culture from Period II to Period III, the latter featuring also the passage from the limestone to sandstone (*kanjur*) in building technique, as noted by Bahadur Khan in his Period IV (Bahadar Khan et al. 2002: 34) and in Marshall stratum III (Marshall 1951: 88). Although the Hellenistic style of some finds from the upper layers suggests a frequentation, even if short or scarce, in the aftermath of Alexander passage (Marshall 1951: 433, 434), the Bhir Mound was most likely abandoned by the mid-2<sup>nd</sup> century BCE

(Erdosy 1990: 665). Since the foundation of Sirkap, has been pushed forward to the Saka-Parthian period (Ghosh 1948), the Indo-Greek city at Taxila is still missing. Several the proposals suggested by the scholars for its location.

Wheeler, who agreed with Marshall in dating the first structural periods of Sirkap to the Indo-Greeks, suggested that the Indo-Greek town occupied only the norther part of Sirkap extending as far as the Kacchā Kot (Ghosh 1948: 42, 44, fig. 1; Wheeler 1950: 41), which was already indicated by Marshall as an earlier fortification of the city (Marshall 1951: 116). The Hathial Mound instead was incorporated in the second city of Taxila only around the 50 BCE.

However, Erdosy through a statistical exam of coins distribution, revealed that out of the three earliest strata of Sirkap dated by Marshall to Indo-Greeks (strata VII, VI, V), only the earliest stratum, VII, with structures which cannot be associated to an extensive occupation, are properly Indo-Greek.

Fussman, on the basis of the presence at the northern foot of Kacchā Kot of fortification structures with mud rampart (Marshall 1951: 116; Ghosh 1948: 42, fn.4) recalling those of Graeco-Bactrian cities (Fussman 1993: 91), hypothesized that Sirkap I, the Indo Greek city, extended from Kacchā Kot to Hathial, as originally suggested by Marshall (1951: 116). While, Allchin considered Kacchā Kot much later (Allchin 1993: 75).

Finally, Erdosy argued that the “area bounded by the Hathial ridge and the southern wall of Sirkap on the north and the Tamra nala on the west and south could prove to be the most profitable place to look” (Erdosy 1990: 671). Indeed, he agreed with Allchin in identifying in the eastern Hathial Mound, where an artificial platform dated to the 3<sup>rd</sup>-2<sup>nd</sup> century BCE on the basis of surface finds was noted (Allchin 1982: 13, 1993: 77), the acropolis of the Indo-Greeks<sup>38</sup>. As for the living town Erdosy proposed a less radical eastward shift in the location of the Bhir Mound (Erdosy 1990: 671-672).

---

<sup>38</sup> Also Cunningham, Marshall and Wheeler at first indicated the flat-topped hill of eastern Hathial Mound as a citadel (Allchin 1982).





## CHAPTER 2

### CERAMICS FROM GANDHARA: POTTERY FROM THE EARLY HISTORIC SETTLEMENTS

#### 2.1 Gandharan northern valleys: Swat and Panjkora Valleys

This chapter contains a compendium of the Early Historic ceramic assemblages from the sites discussed in Chapter 1.2.

Methods of selection and presentation of the ceramic material is almost homogeneous for the sites of Swat since they were excavated by the same IAM team. However, the ceramic sequence of Butkara (IA), Barama I, Gogdara III and Udegram have never come to fruition, while the site of Barikot, the ceramic material of which was presented only in a very preliminary form by Callieri (1990, 2000), is going to be published very soon with reference to the trenches excavated between 1984 and 1992 (Callieri and Olivieri, *forth.*). Given this, the ceramic assemblages herein illustrated will concern the sites of Aligrama, Kalako-derai, Barikot and Balambat (Stacul and Tusa 1977, Stacul 1993, 1995, 1997, Dani 1967), graphically presented as in the original reports, and the unpublished graphic documentation of Barama, Gogdara III and Udegram preserved at the IAM archive.

As regards Aligrama, the ceramic materials from trenches E and K previously published by Stacul and Tusa (1975, 1977) are here implemented by few vessels from a survey collection and from the unpublished trench U' (layer 4), the material of which are stored at the IAM headquarter in Saidu Sharif. The latter were graphically documented by myself during 2017 research season, since their analogies with materials from Bala Hisar and from Early Historic Barikot.

As regards Barikot, only the materials published in Callieri 1990, 2000 are presented, whereas references to the forthcoming work will be drawn when necessary in the following chapters. Illustrations are accompanied by concise descriptions of the materials.

### 2.1.1 Aligrama

The ceramic assemblage here reported is that related to Aligrama Period VI (=Swat period VIII) uncovered in trench E (phases 7-8) and in trench K (so-called Maurya horizon). Stacul and Tusa correlated the assemblage of Aligrama Period VI to Bala Hisar Ch. I (38)-(28)/(37)-(21) (Stacul and Tusa 1977: 160-162, 204), although the best parallel is with Ch. I layers (38)-(28)/(24). Relying on Wheeler's chronology, which well matched their own chronology of the Swat sequence, Stacul and Tusa considered Swat period VIII Mauryan in date. Although this material cannot be related to the Mauryan period, as originally suggested by the excavators (see Ch. 1), the stratigraphic continuity of Swat period VII-VIII layers at Kalako-derai along with the complete absence of forms and features characteristic of BKG Macrophase 2a.2 (=Achaemenid age), suggests to broadly place the Aligrama Period VI = Swat period VIII assemblage around the second quarter-mid of the 1<sup>st</sup> millennium BC.

The most characteristic ceramic forms of Swat period VIII at Aligrama are the following: carinated bowl or dish with vertical or almost vertical sides in red and gray ware (Stacul and Tusa 1977: figs 14.a-c, e; 19.c-d, f-g [Figs 2.1, 3]) and carinated bowl with incurved sides (*ibid.*: figs 14 d; 19 e [Figs 2.1, 3]) recalling the 'dish with incurved sides' of Bala Hisar (e.g. Wheeler 1962: nos 50, 58, 59) also present at Bhir Mound; carinated bowl with everted rim (Stacul and Tusa 1977: fig. 14 j, k), with close similarity to the 'carinated bowl' from Bala Hisar (e.g. Wheeler 1962: no. 82) appearing from Ch. I layer (32), represents a new and very distinctive feature of this period along with vessels with inverted sides and upright rim (Stacul and Tusa 1977: fig. 14 m) which recalls specimens from Charsadda (e.g. Wheeler 1962: nos. 63 layer (35), 165 layer (24)). Simple bowl with convex sides and sagger base (Stacul and Tusa 1977: fig. 14.f) are also present (Wheeler 1962: no. 87, layer (31)).

Characteristic of this period are also an almost hemispherical bowl (Stacul and Tusa 1977: fig. 14.i), analogous to no. 67 from Ch. I layer (34) and a rounded bowl with flat everted rim (*ibid.*: fig. 14.n), which finds comparison in Ch. I layers (28)-(27) (Wheeler 1962: nos. 93, 130-131). Three types of jar, all having parallels with Charsadda layer (35)-(28), are also present: jar with sharply everted rim and vertical lip (Stacul and Tusa 1977: figs 14.g, h; 18.c [Fig. 2.2]; 19.e) (*ibid.*: no. 78); ovoidal/subglobular jar with short everted rim (figs 14.o, p; 18.d) (*ibid.*: nos 51, 68, 69) and jar with narrow neck and almost vertical rim (figs 14.1; 18.a) (*ibid.*: nos 89, 102). At Aligrama, the only specimen of Tulip bowl belongs to a 2<sup>nd</sup> – 4<sup>th</sup> century CE context (Stacul and Tusa 1977: 187-188, fig. 21.l).

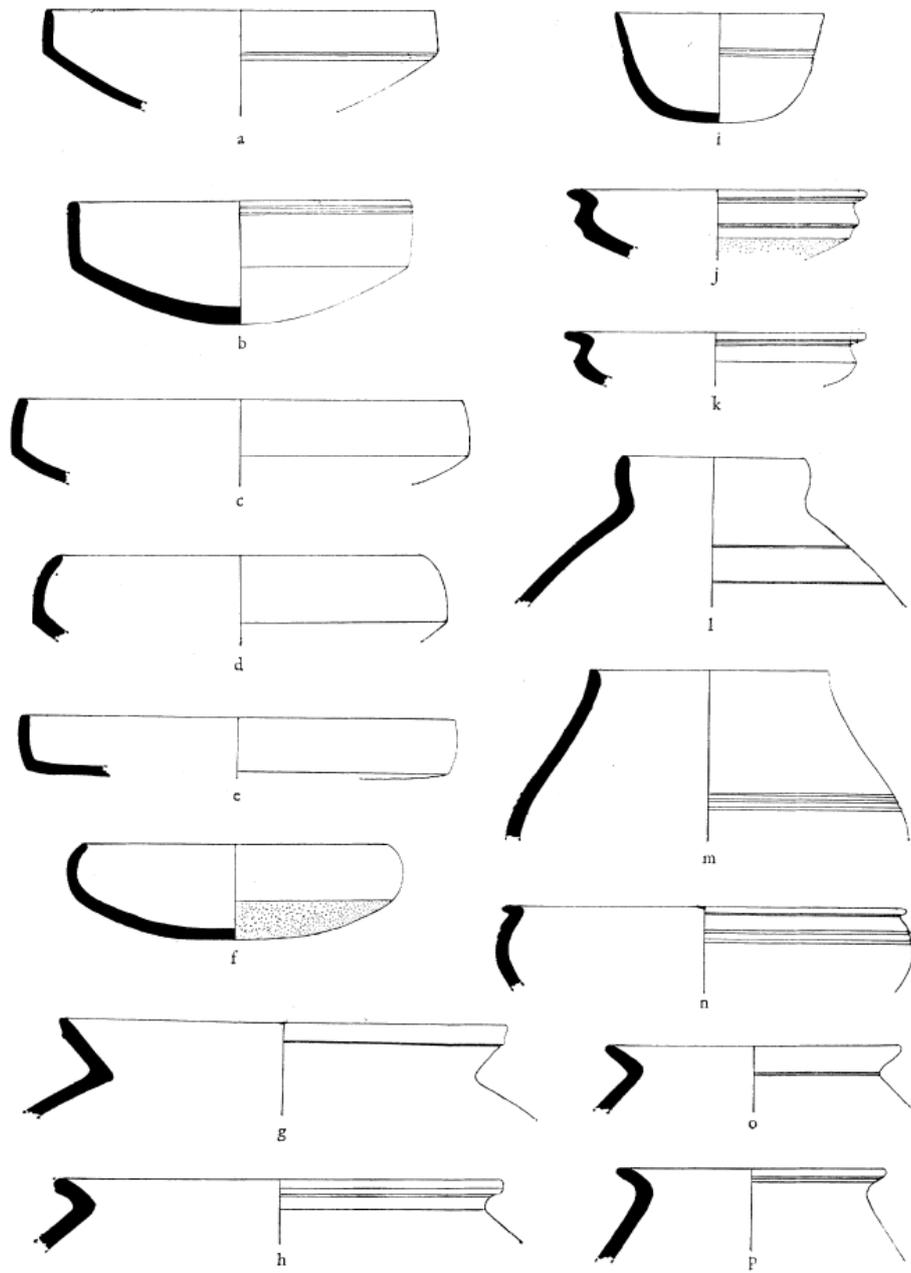


Figure 2.1 – Swat period VIII assemblage from Aligrama, trench E (Stacul and Tusa 1977: fig. 14). Scale 1:4.

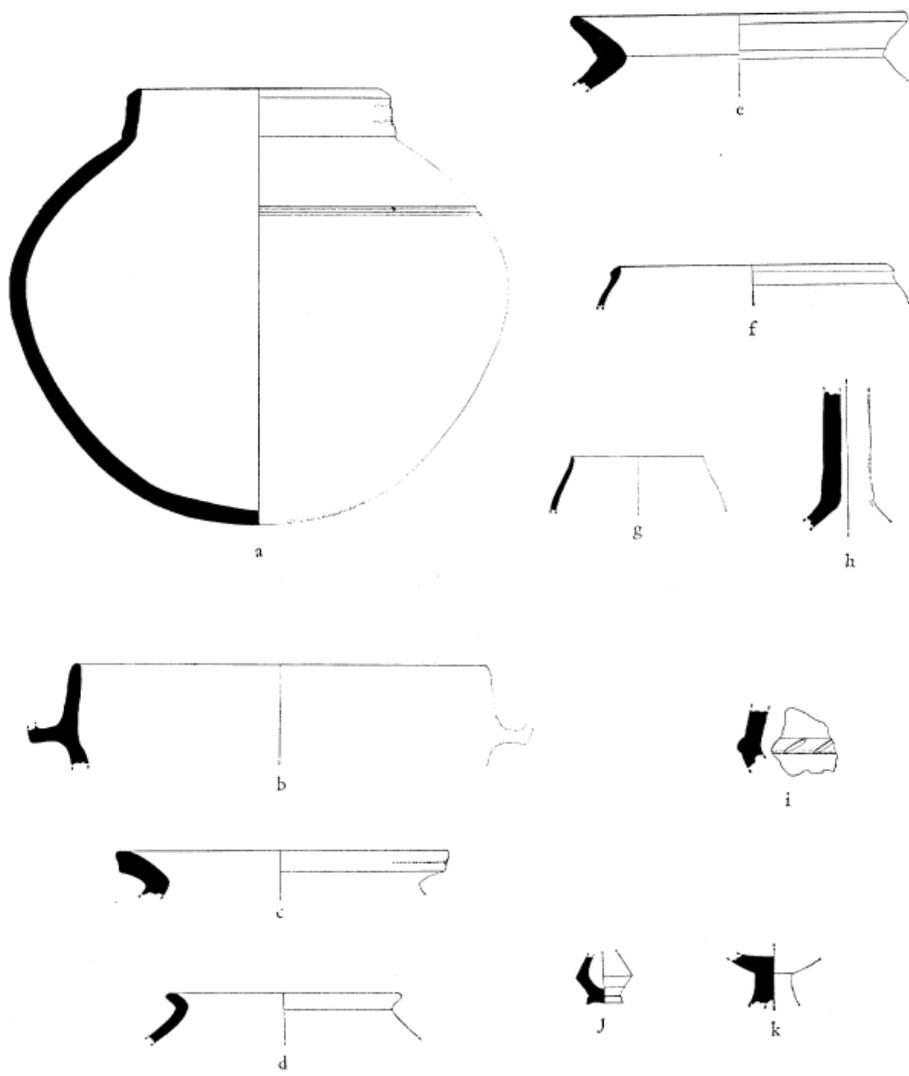


Figure 2.2 – Swat period VIII assemblage from Aligrama, trench K (Stacul and Tusa 1977: fig. 18). Scale 1:4.

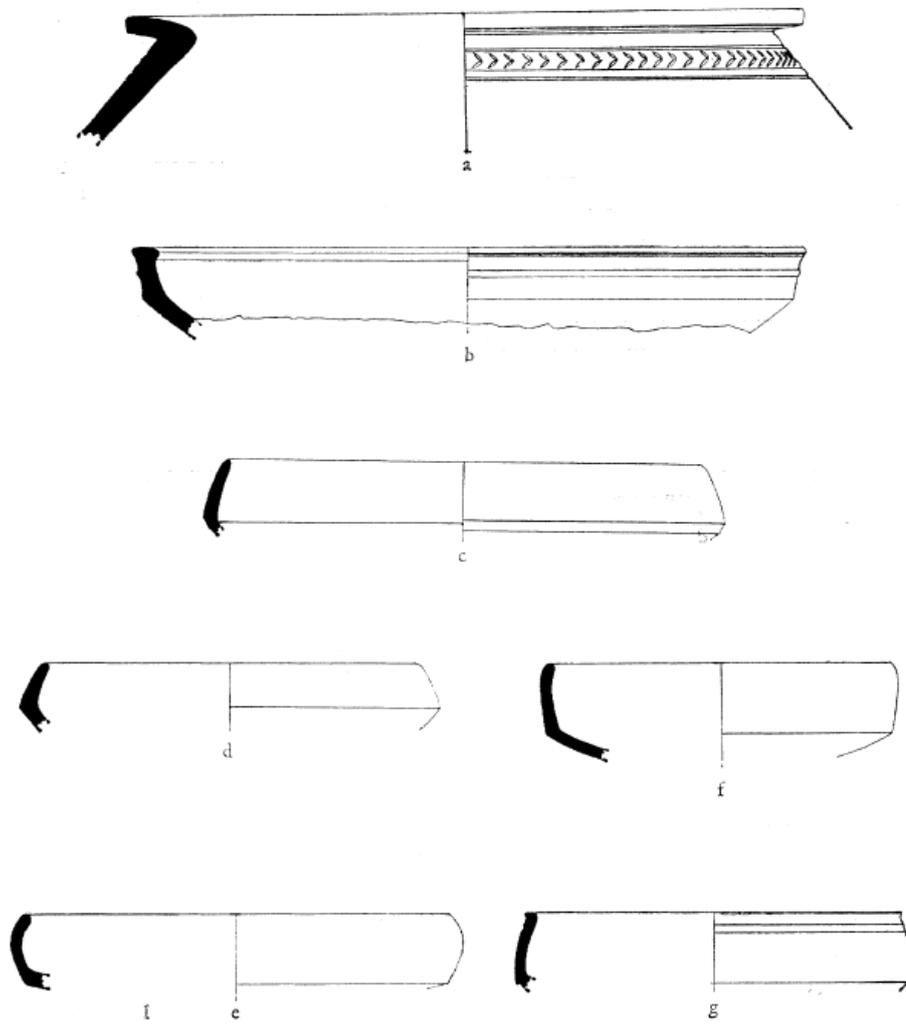


Figure 2.3 – Swat period VIII assemblage from Aligrama, trench K (Stacul and Tusa 1977: fig.19). Scale 1:4.

During the 2017 research season at Saidu Sharif I had the opportunity to document some of the ceramic material coming from the trial trenches excavated by IAM in the 1980's in different sectors of the archaeological site of Aligrama (see IsMEO Activities 1980: 203, 1981: 176). Unfortunately the reports of these fieldworks are still unpublished. Most of the ceramic assemblages belongs to the earlier Periods of Aligrama.

Below are reported few selected potsherds recovered during a survey collection carried out in the 1980's (Fig. 2.4), which suggest an Early Historic occupation/frequentation of Aligrama, and ceramics from the last structural period of room 4-trench U' (Fig. 2.5) here considered as additional comparative material related to Swat period VIII.

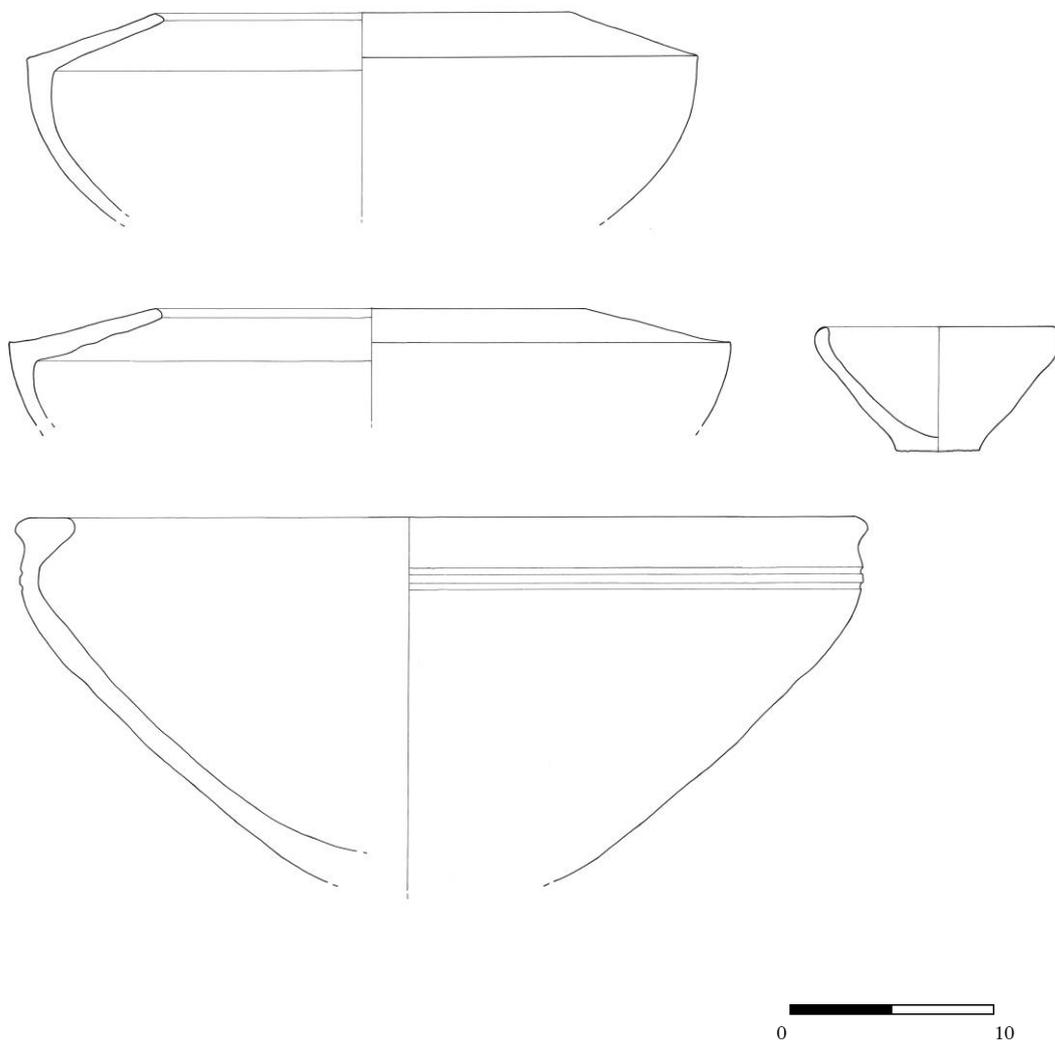


Figure 2.4 – Sporadic vessels from Aligrama. Drawings by E. Iori (unpublished, materials stored at the IAM headquarter, Saidu Sharif, Swat).

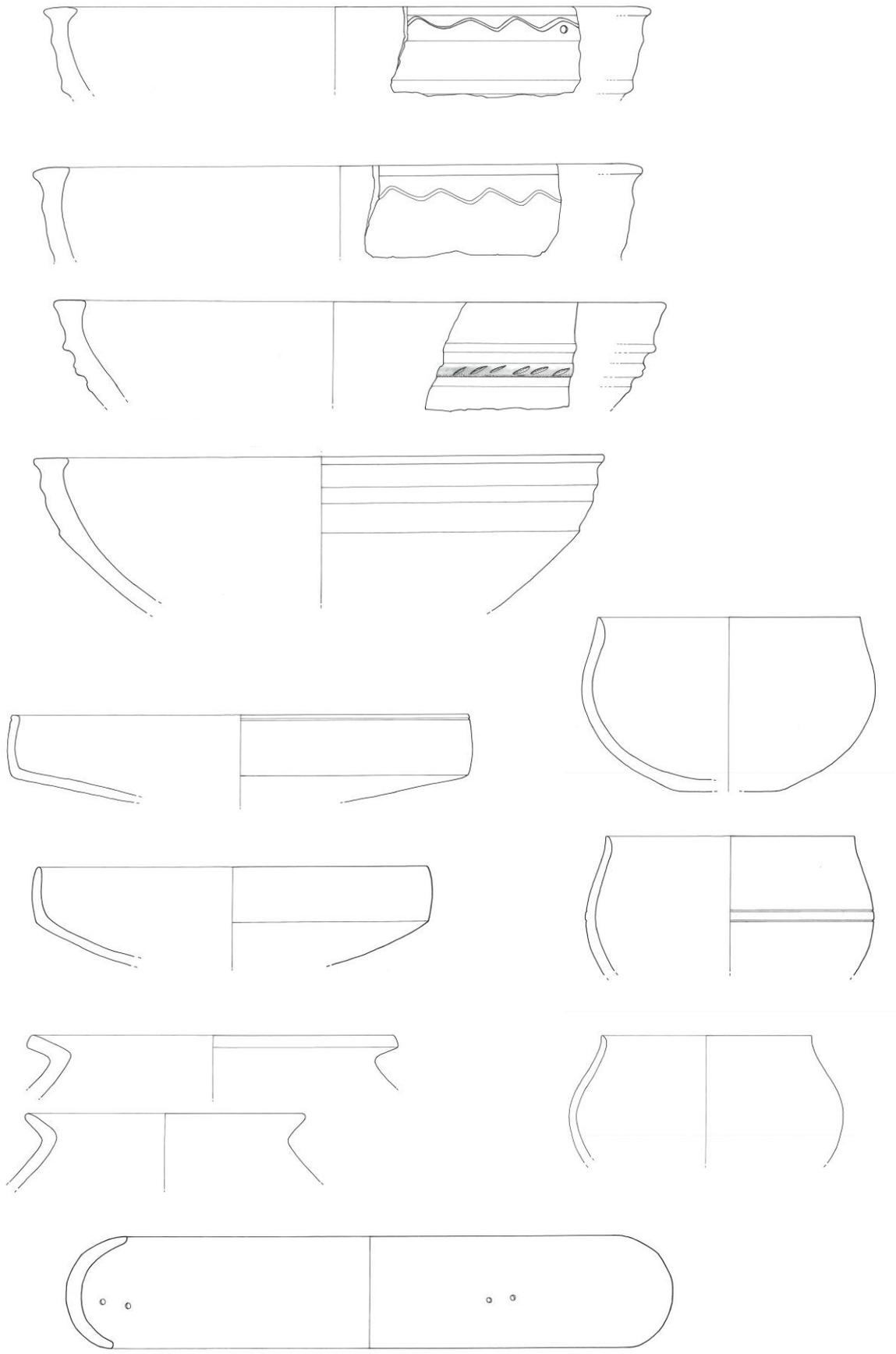


Figure 2.5 –Aligrama. Trench U', layer (4), room 4. Swat Period VIII. Drawings by E. Iori  
(unpublished, materials stored at the IAM headquarter, Saidu Sharif, Swat).

### 2.1.2 Kalako-derai

Swat period VIII assemblage at Kalako-derai well tallies with the assemblage from Aligrama Period VI.

Carinated bowls/dishes with everted rim (Stacul 1993: fig. 17.o [Fig. 2.6]; 1995: fig. 24.g [Fig. 2.7]; 1997: fig. 23.d [Fig. 2.8]) and carinated bowls/dishes with almost vertical (Stacul 1995: fig. 24.c-e) or incurving sides (Stacul 1997: fig. 23.f) both with polished surface, are the most characteristic shapes along with vessel with inverted sides and upright rim (Stacul 1993: fig. 17.m, 1997: fig. 23.c). Sub-globular jar with short everted rim (Stacul 1997: fig. 23.a) and vertical rim (*ibid.*: fig. 23 b) is also present.

In addition to the Aligrama Period VI corpus new forms are represented by a handled jar with high narrow neck with grooves (Stacul 1995: fig. 24 h), a bowl with slight carination, bi-everted rim inclined outside (Stacul 1995: fig. 24 j) and a large bowl with clubbed rim decorated with incised wavy line and a cordon (Stacul 1995: fig.24k). Pottery is all in red ware.

At Kalako-derai, Tulip bowls are attested in contexts only vaguely defined as ‘late/upper’ layers (Stacul 1993: 92; Stacul 1997: 368, 372, fig. 27.c).

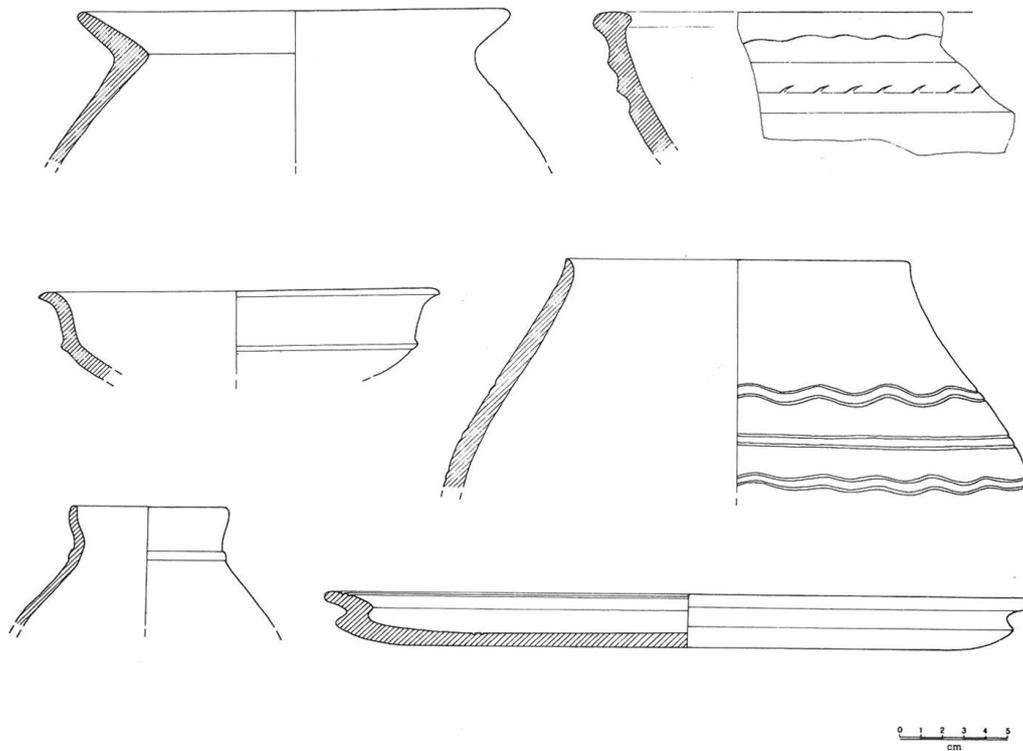


Figure 2.6 – Swat period VIII assemblage from Kalako-derai (Stacul and Tusa 1993: fig.17.j-o).

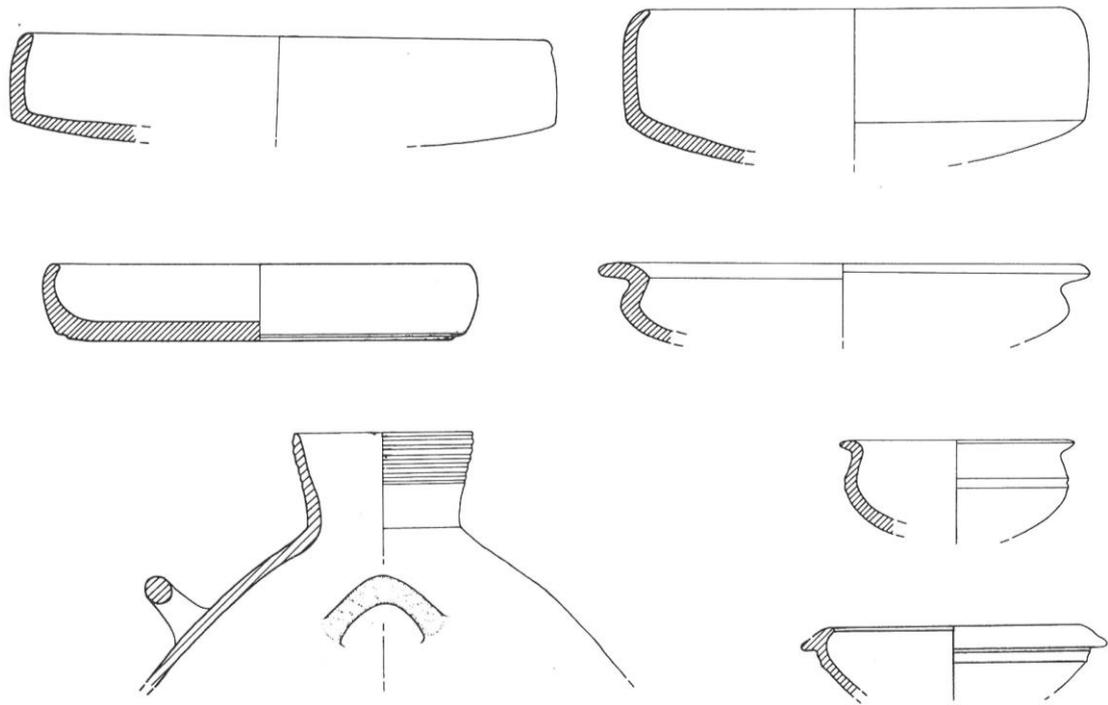


Figure 2.7 – Swat period VIII assemblage from Kalako-derai (Stacul and Tusa 1995: fig. 24 c-j). Scale 1:4.

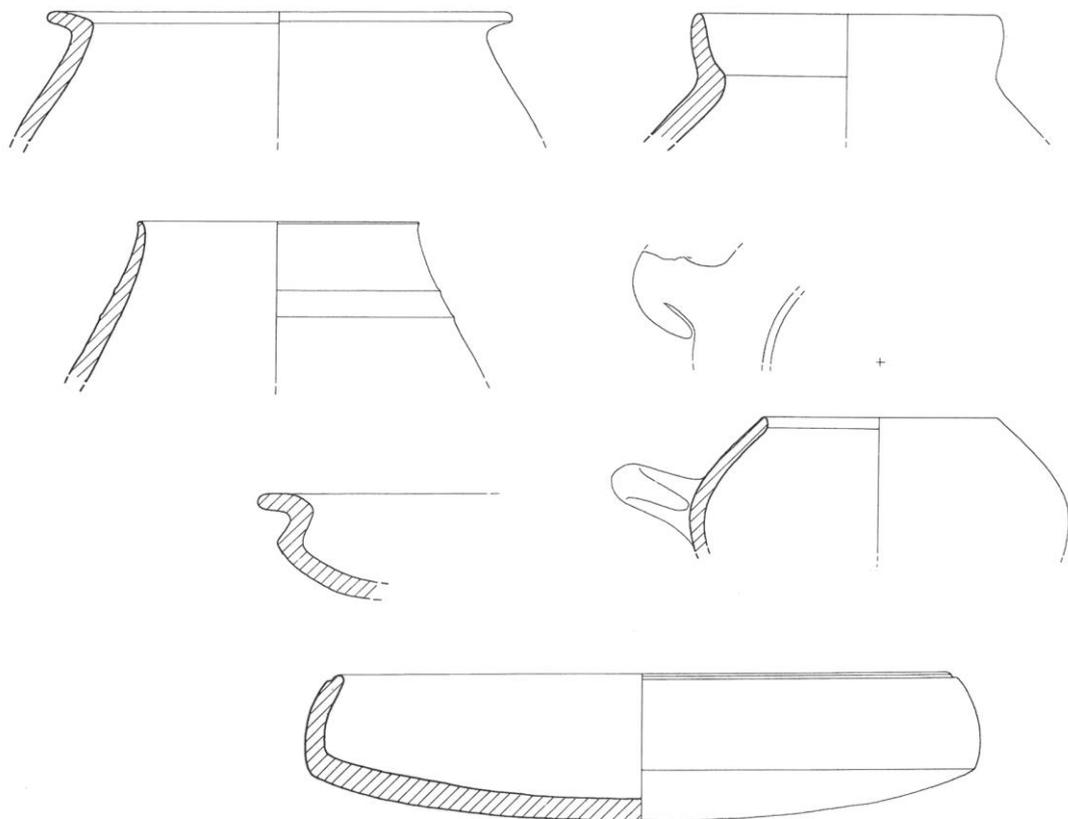


Figure 2.8 – Swat period VIII assemblage from Kalako-derai (Stacul and Tusa 1997: fig. 23 a-f). Scale is not indicated in the original report.



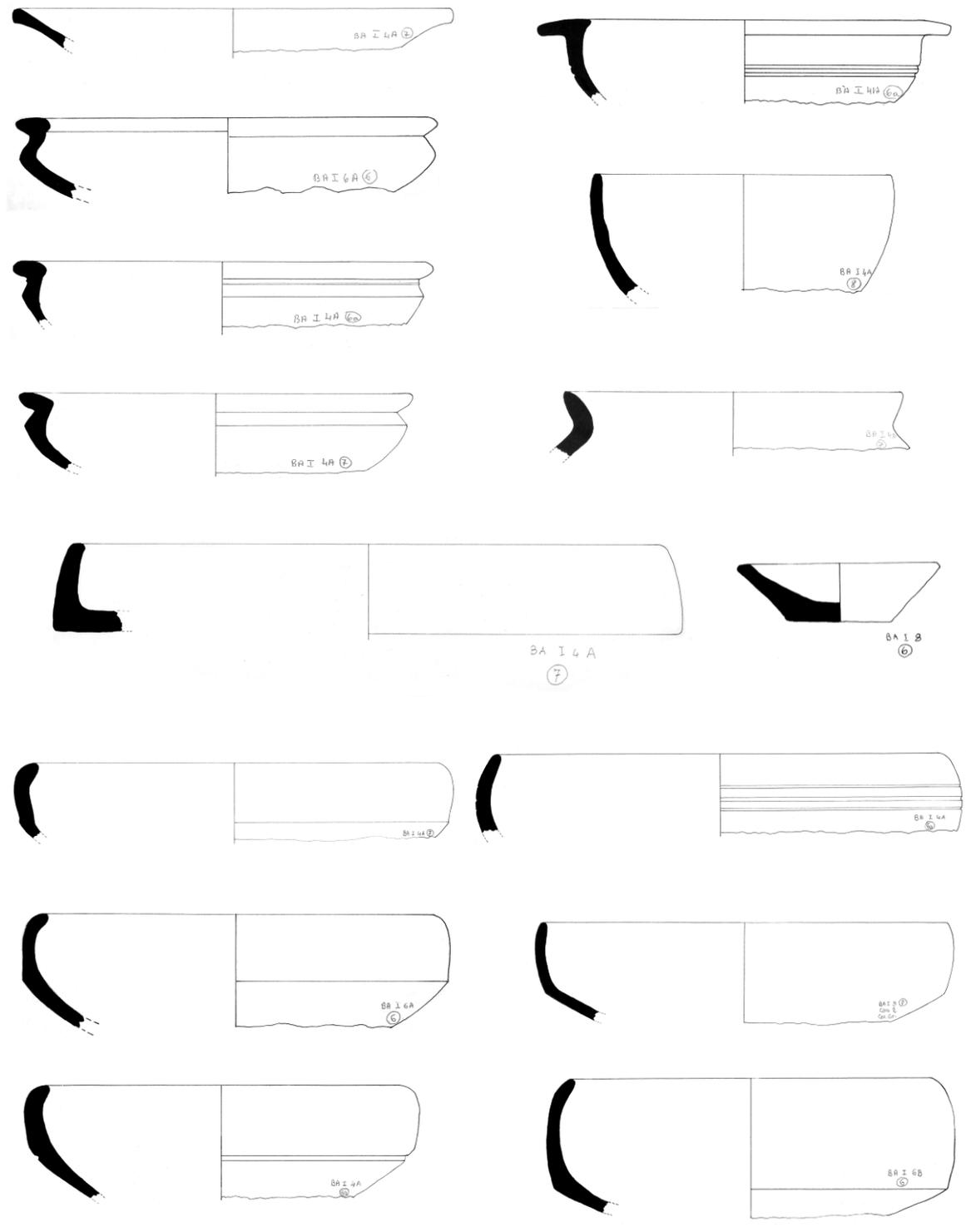


Figure 2.10 – Barama, Period 5. Original drawings by P. Callieri (unpublished).

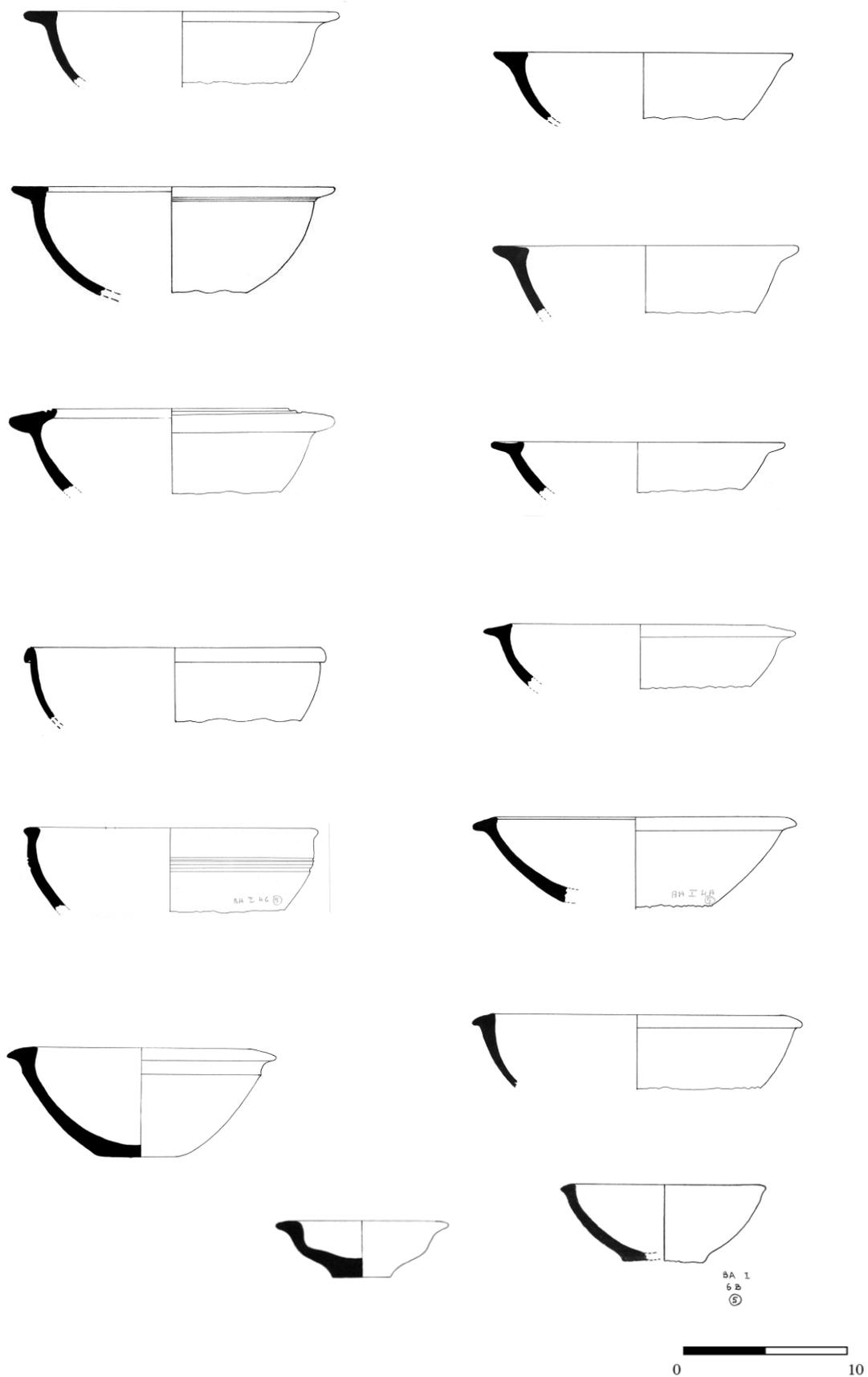


Figure 2.11 - Barama, Period 4. Original drawings by P. Callieri (unpublished).

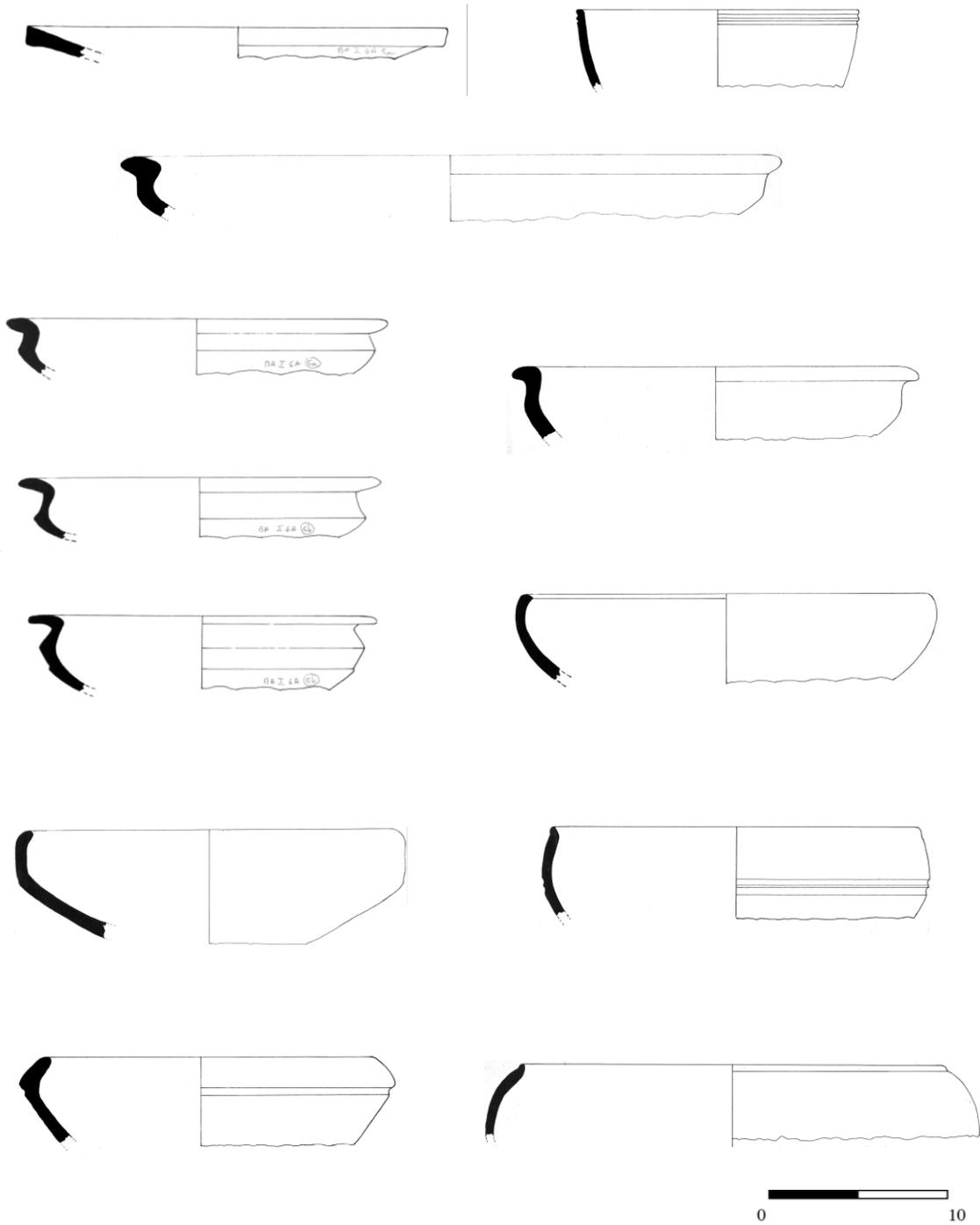


Figure 2.12 - Barama, Period 4. Original drawings by P. Callieri (unpublished).

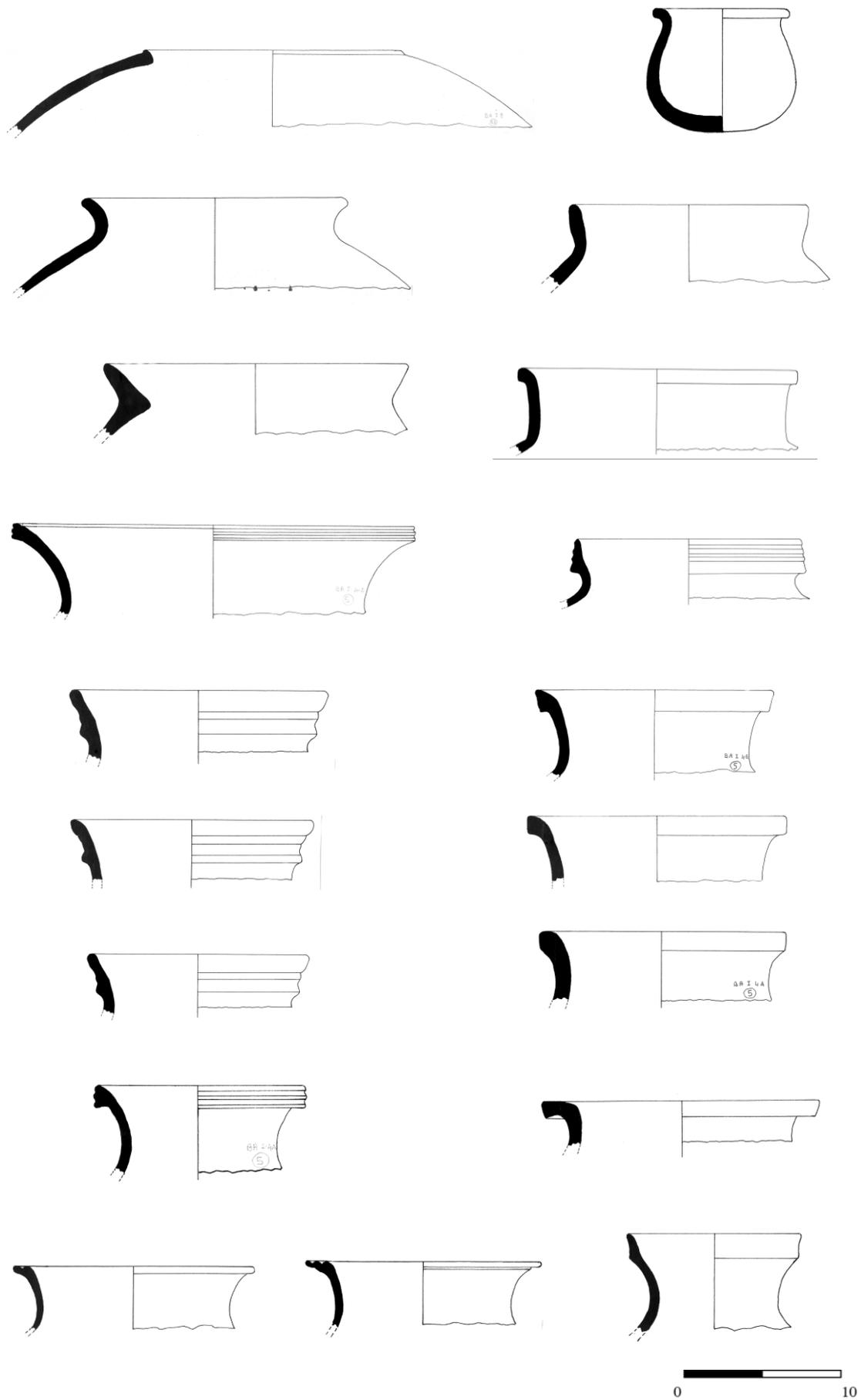


Figure 2.13 – Barama, Period 4. Original drawings by P. Callieri (unpublished).

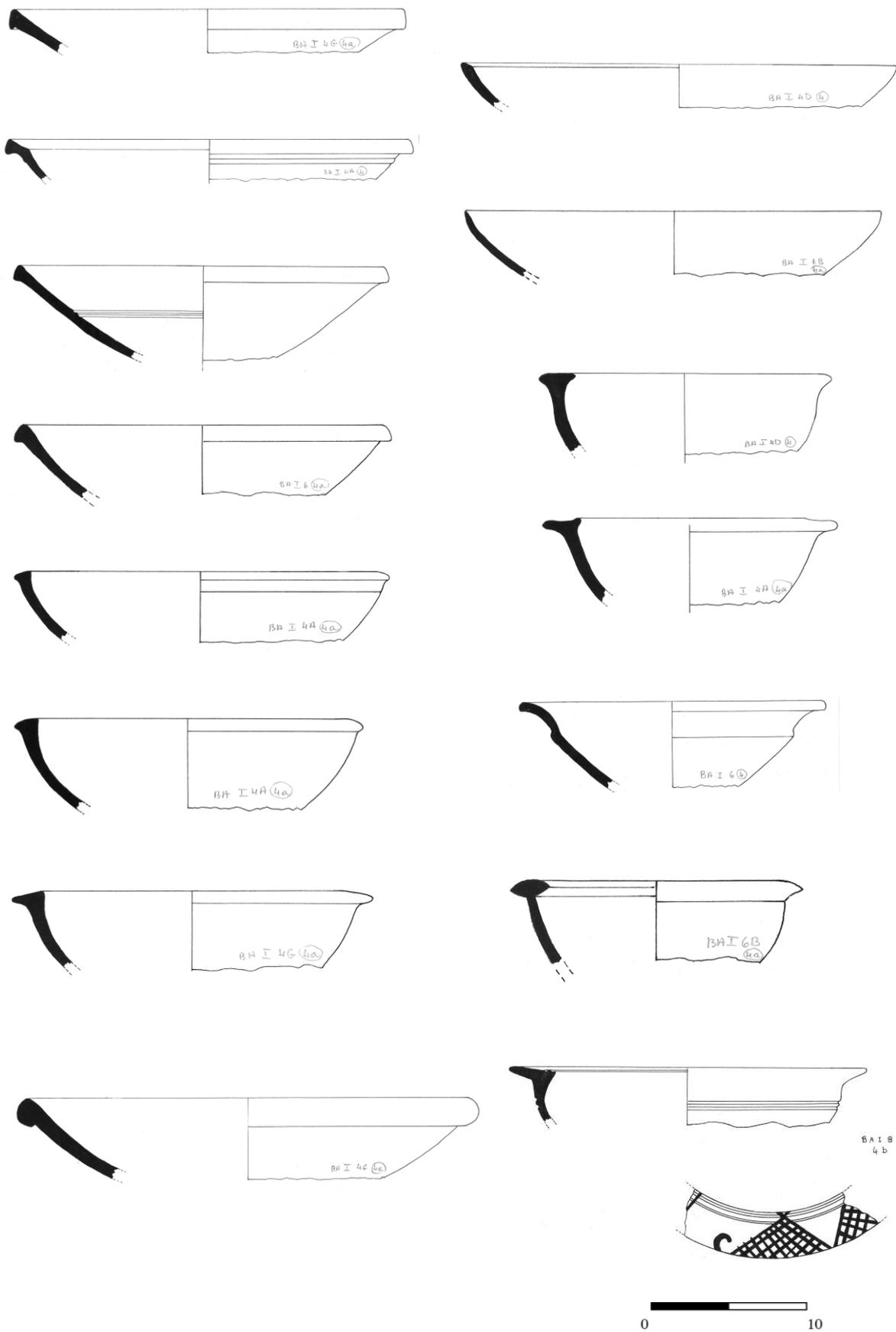


Figure 2.14 – Barama, Period 3. Original drawings by P. Callieri (unpublished).



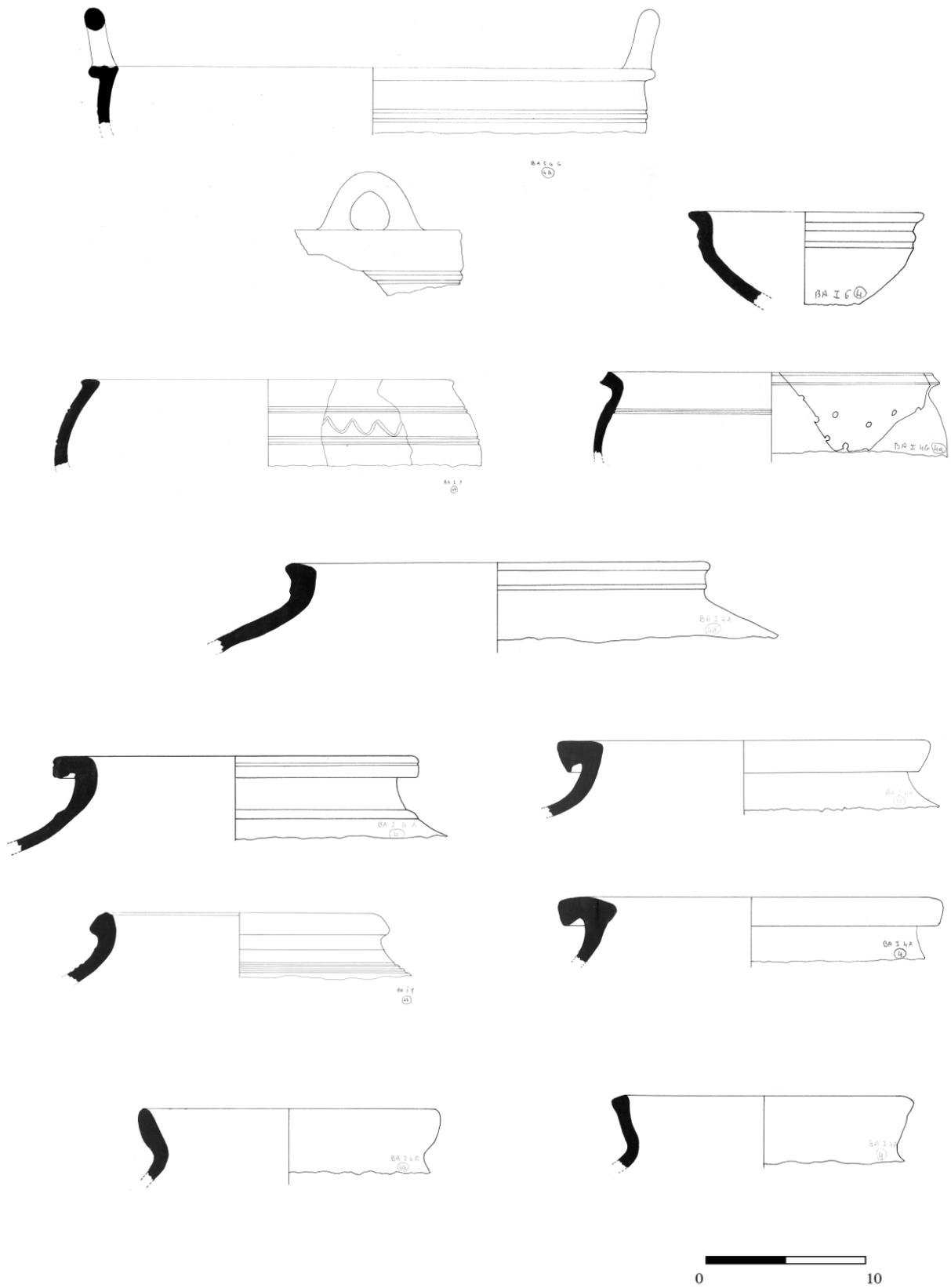


Figure 2.16 - Barama, Period 3. Original drawings by P. Callieri (unpublished).

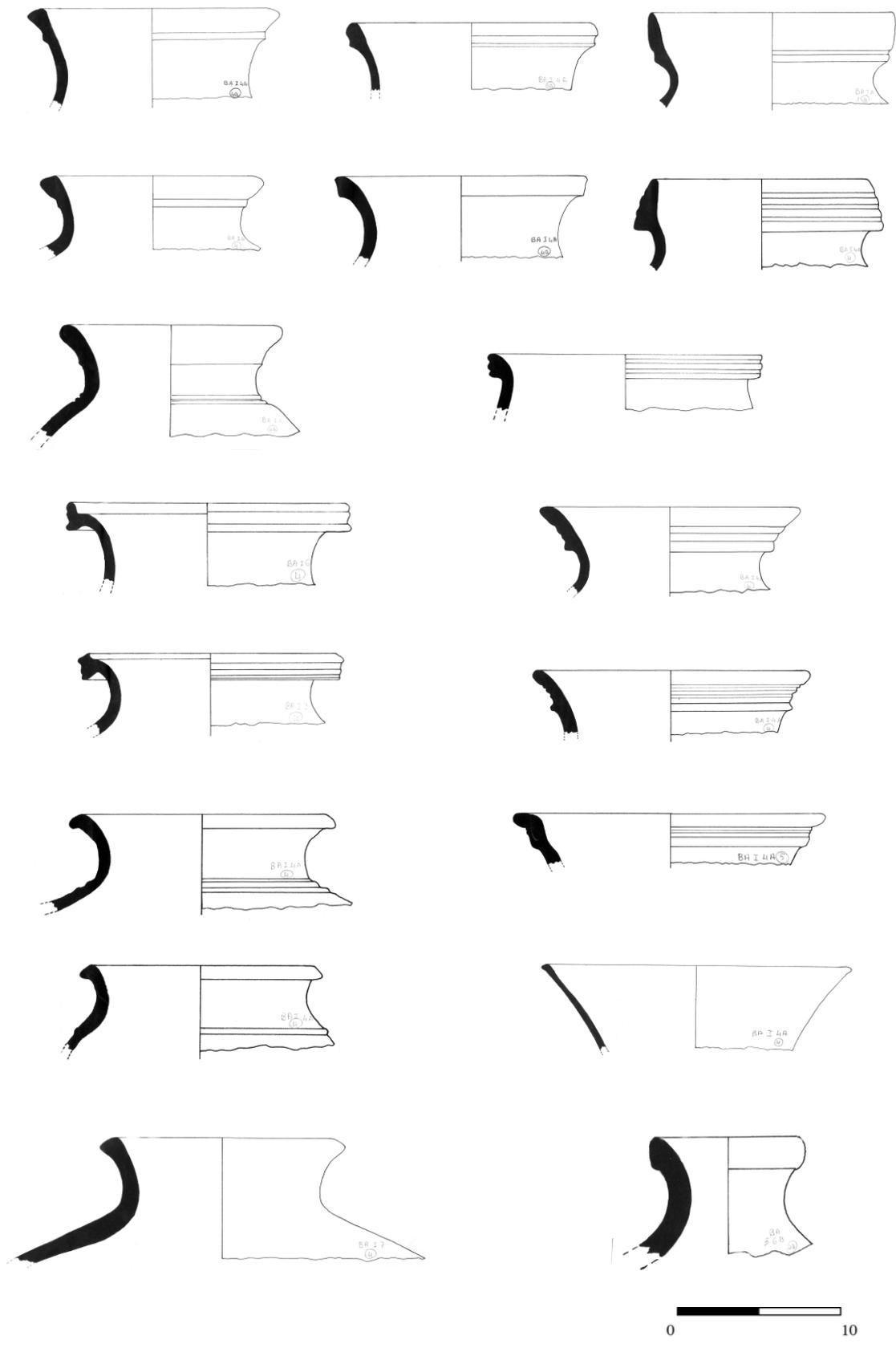


Figure 2.17 - Barama, Period 3. Original drawings by P. Callieri (unpublished).

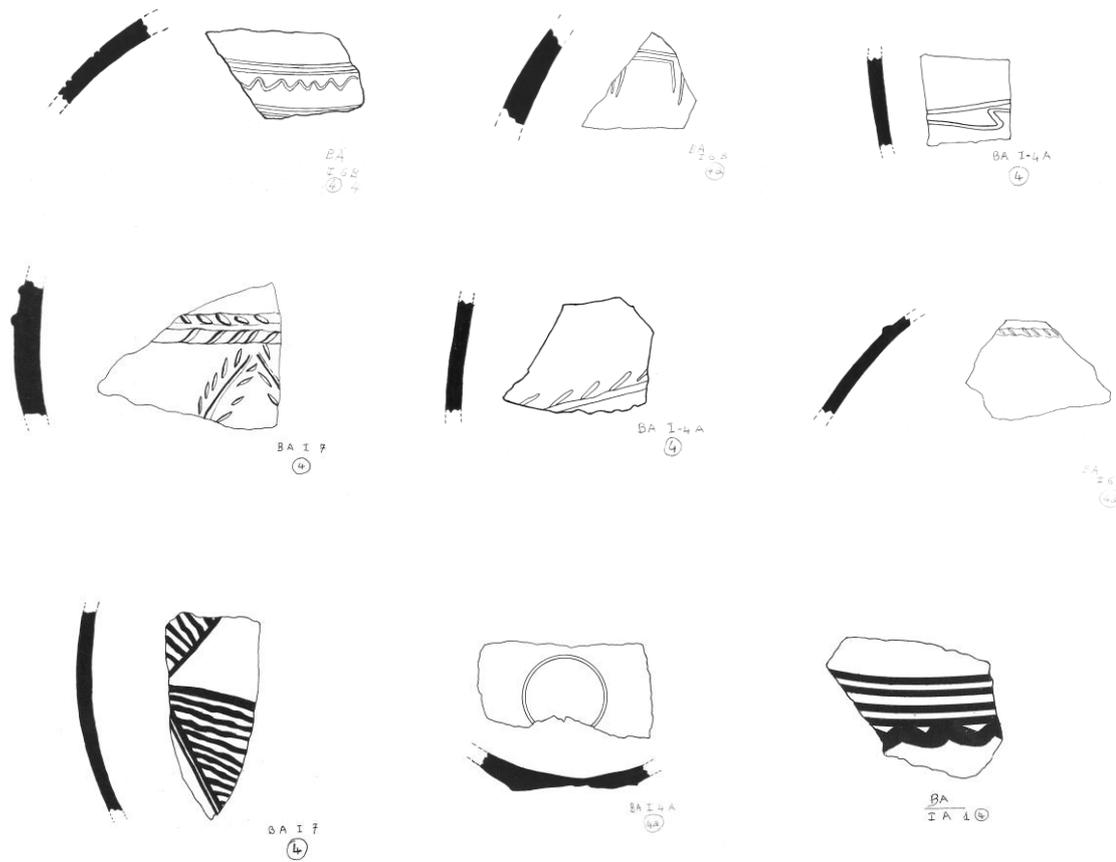


Figure 2.18 – Barama, Period 3. Decorated sherds. Original drawings by P. Callieri (unpublished). Not to scale.

### 2.1.4 Gogdara III and Udegram

Despite the remarkable importance of the sites, ceramics from Gogdara and Udegram have never been published. Below few examples from Udegram stratum V and sporadic potsherds from both sites are reported. Illustrations presented below are faithful copies of the documentation sheets preserved at the IAM archive. The scale is not indicated in the original documents.

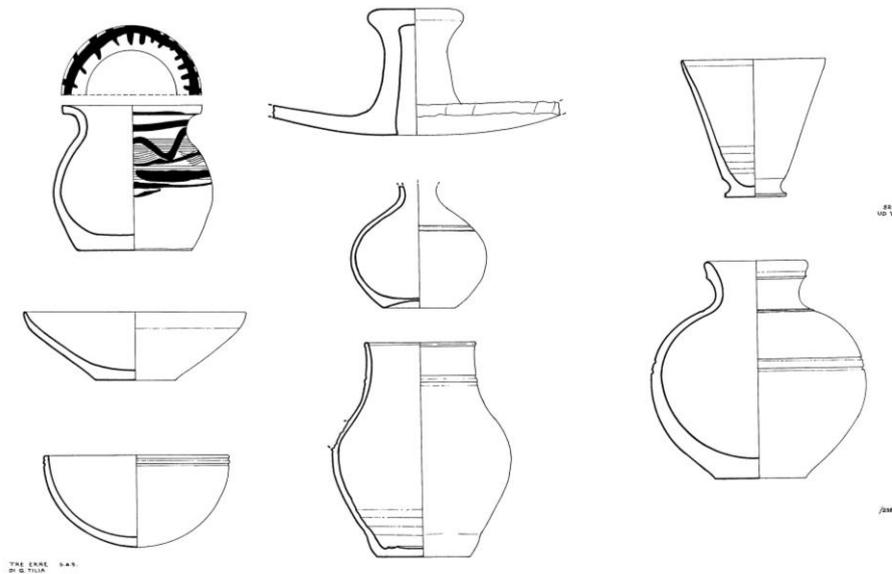


Figure 2.19 – Udegram ‘bazar’ stratum V (IAM archive).

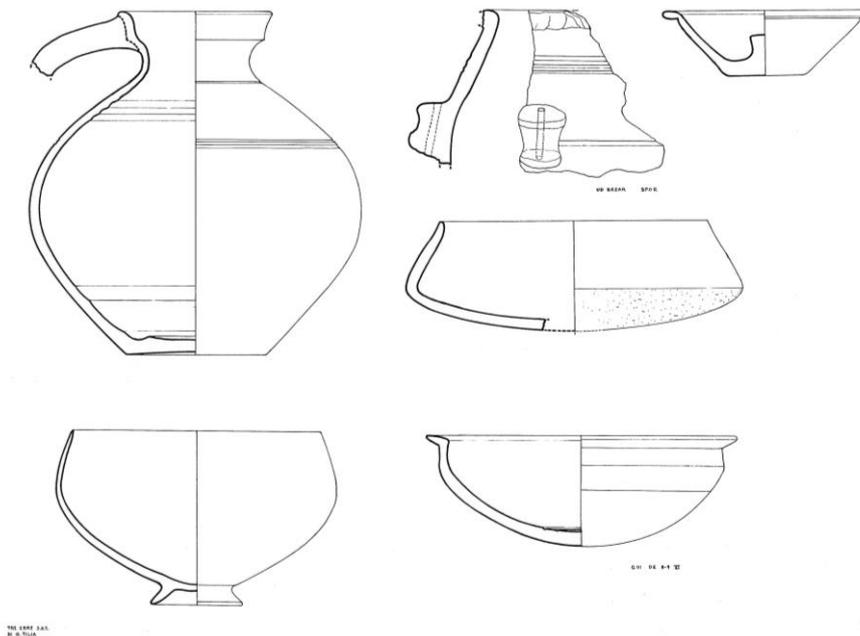


Figure 2.20 – Udegram ‘bazar’ sporadic (IAM archive).

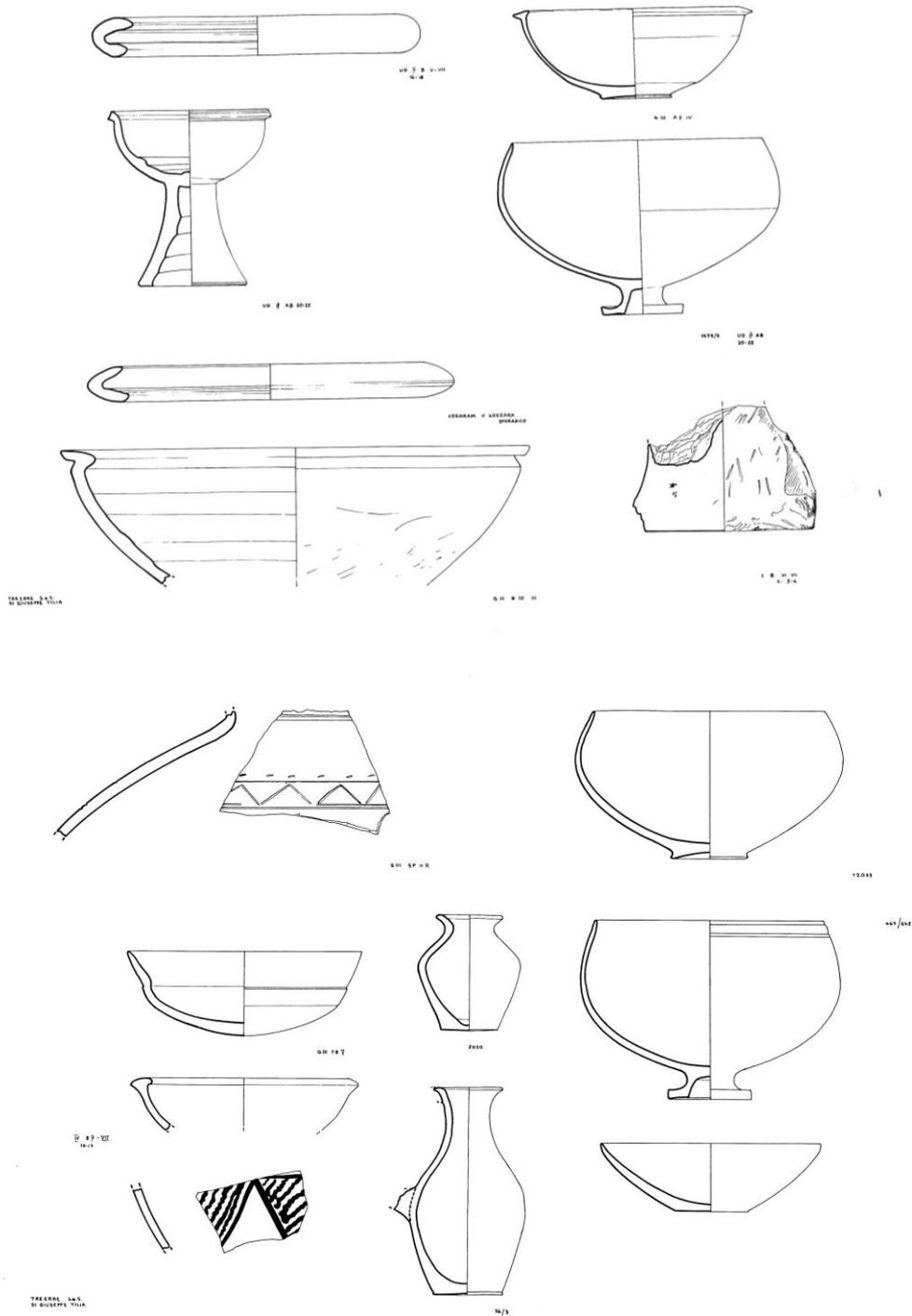


Figure 2.21 – Gogdara III and Udegram ‘bazar’ (IAM archive).

### 2.1.5 Barikot

Data about the Indo-Greek ceramic assemblage of Barikot are known from two preliminary works by Callieri, one related to trench BKG 1 (Callieri 1994) and the other reporting on the decorated pottery from several trenches (Callieri 2000)<sup>40</sup>.

The most characteristic forms of the first three period of trench BKG 1, correlated to the Indo-Greek domination, includes:

large jar with short everted rim in coarse red ware (Callieri 1994: fig. 1.1), hole-mouthed jar with thickened rim in red ware and medium fabric (*ibid.*: fig. 1.2), a pear-shaped jar in pale red or buff ware with externally thickened rim devoid of slip (*ibid.*: fig. 1.3), a large open bowl of the *thālī* type with incurving or carinated sides in red or gray/black ware (*ibid.*: fig. 1.4) and vessel (possibly high cup) with incurving sides and pointed upright rim with two parallel grooves below it. Significant is a sherd, part of a small cup, with a Greek letter (*ibid.*: fig. 1.7).

In addition to the geometrical incised motifs (*ibid.*: fig. 1.6) well represented in the Indo-Greek period is the black-on-red ware. The specimens so far published include: two sherds with painted triangles (cross-hatched or filled with oblique wavy lines) on the outer surface (Callieri 2000: fig.1.a-b) and hemispherical bowls with flat everted rim painted with triangles, hatched or cross-hatched, and flowers or rosettes between them (*ibid.*: fig. 1.c-d) (cf. Wheeler 1962: nos 206-207).

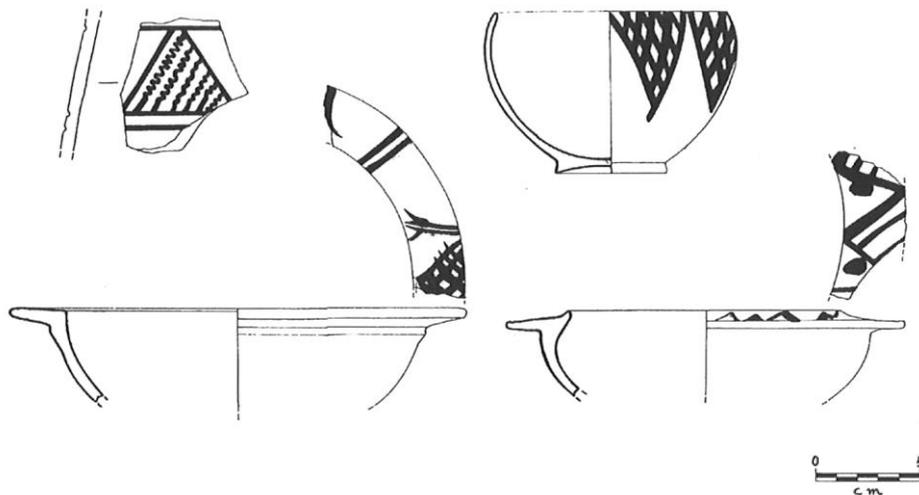


Figure 2.22 - Black-on Red ware from Indo-Greek period (Callieri 2000: fig.1. a-d).

<sup>40</sup> A comprehensive study of the ceramics from trenches excavated between 1984 and 1992 is currently in press (Callieri and Olivieri, *forth.*).

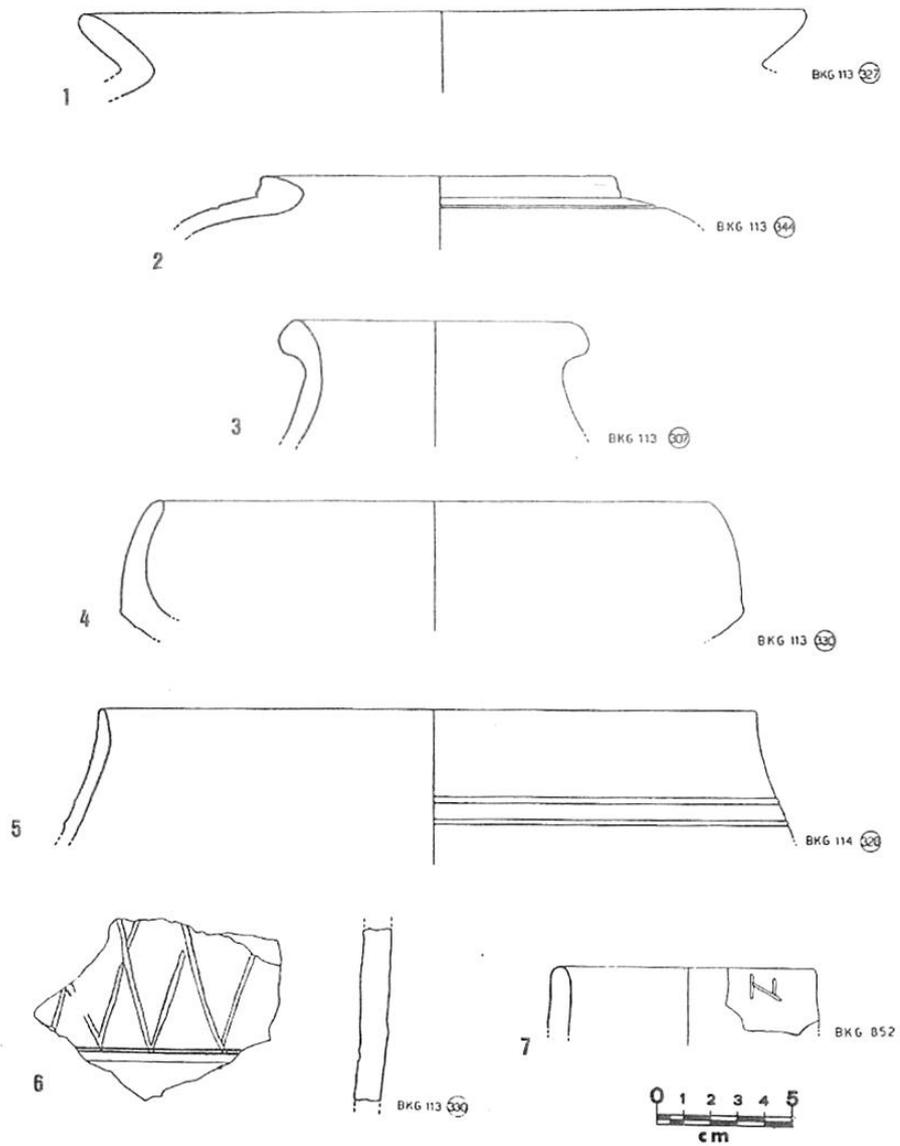


Figure 2.23 – Trench BKG 1 (Callieri 1994: fig. 1).

### 2.1.6 Balambat

The 'Achaemenid' ceramic assemblage from BBT IV is generally considered by scholars mixed material (Dittmann 1984: 177, figs 6-7). The co-presence in the same layers of shapes considered characteristic of Swat period V/earliest layers of Charsadda, (i.e. rippled rim jars, fig. 57 1-4) and Swat period V-VI (i.e. elongated biconical vessels, fig. 57.13) along with materials found in Ch. I layers (19)-(14) (Dittmann IIA-III B) does point to an incoherent and not-homogeneous assemblage.

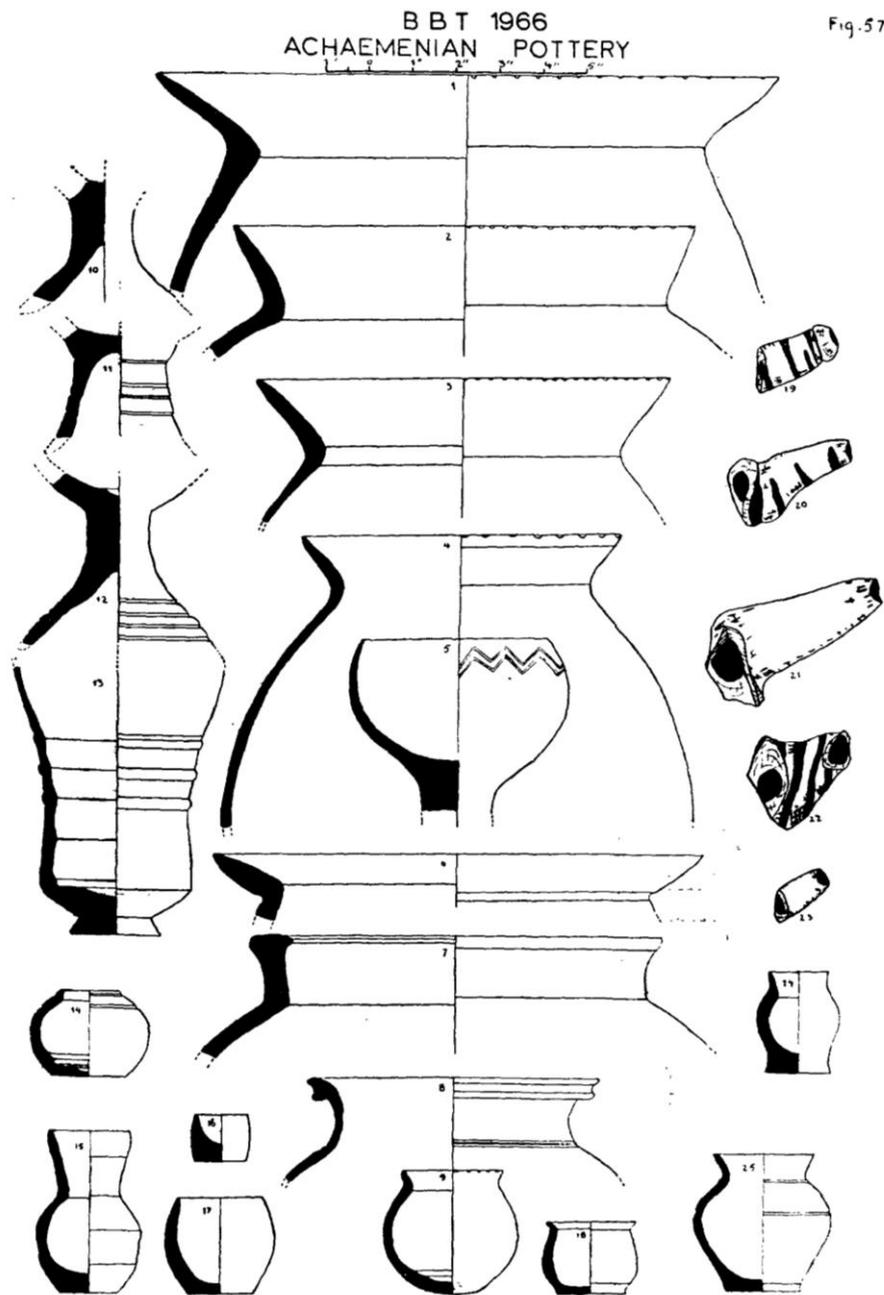


Figure 2.24 – Balambat (Dani 1967: 255, fig. 57).

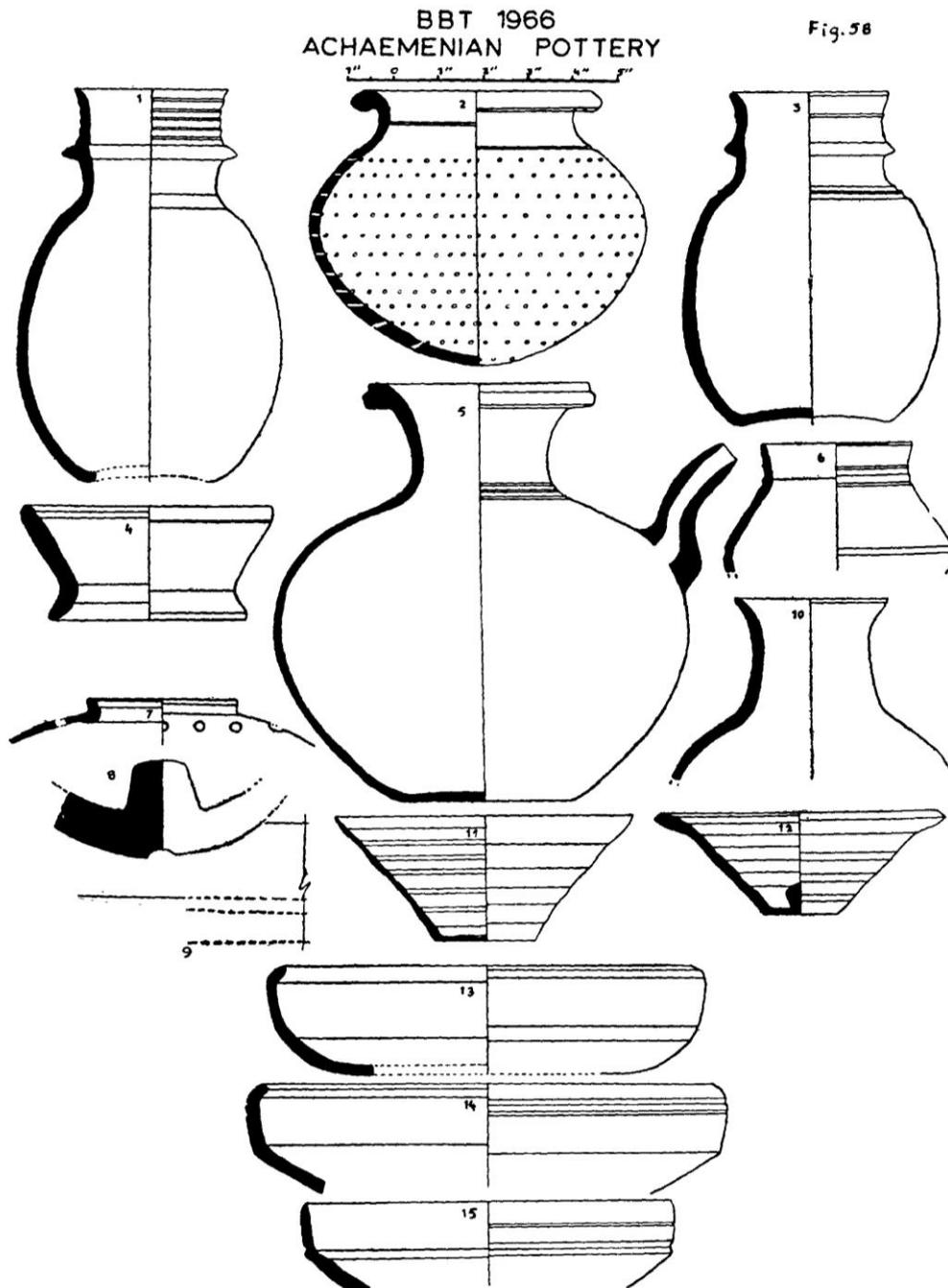


Figure 2.25 – Balambat (Dani 1967: 256, fig. 58).

B B T 1966  
ACHAEMENIAN POTTERY

Fig.59

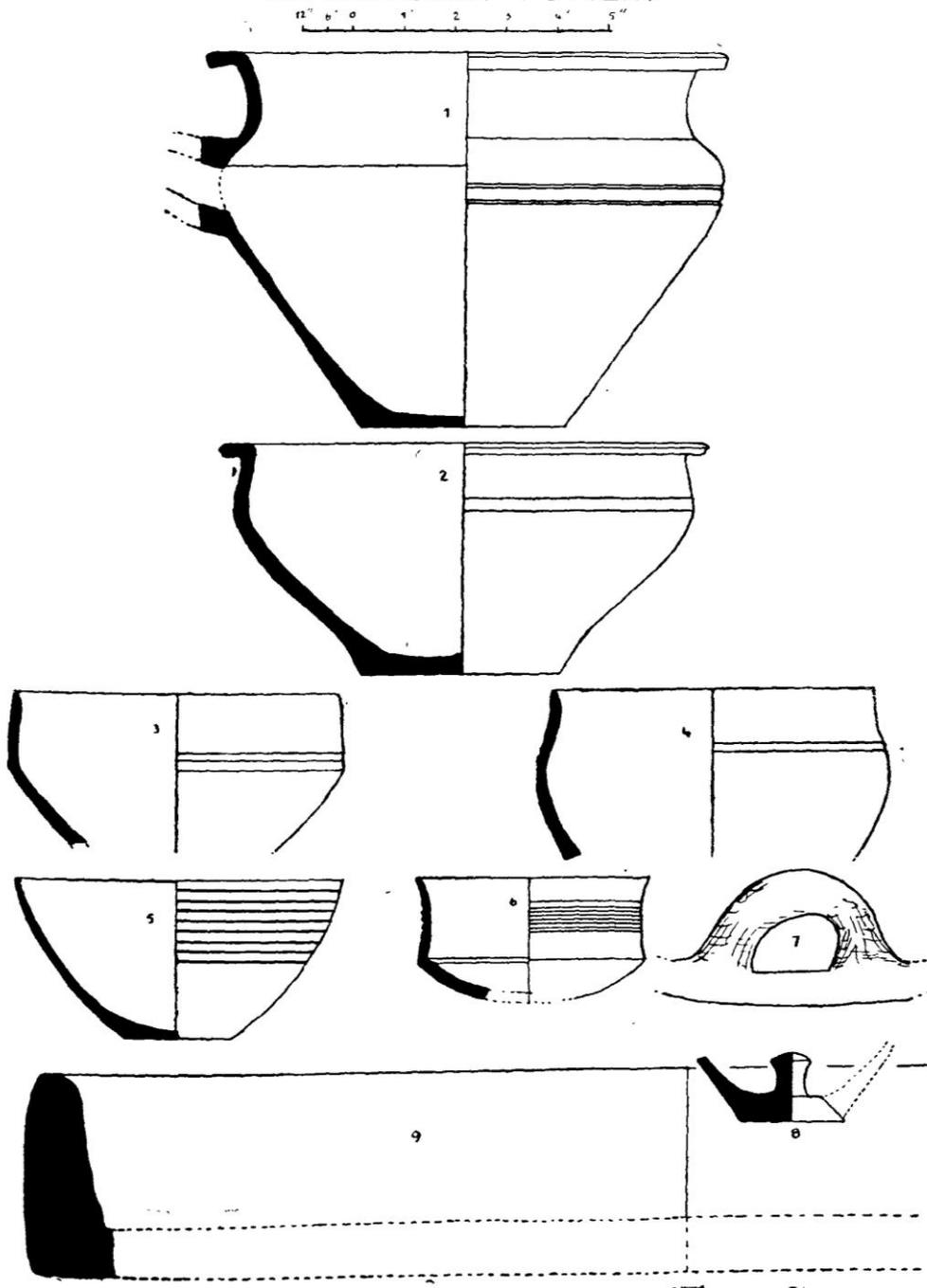


Figure 2.26 – Balambat (Dani 1967: 257, fig. 59).

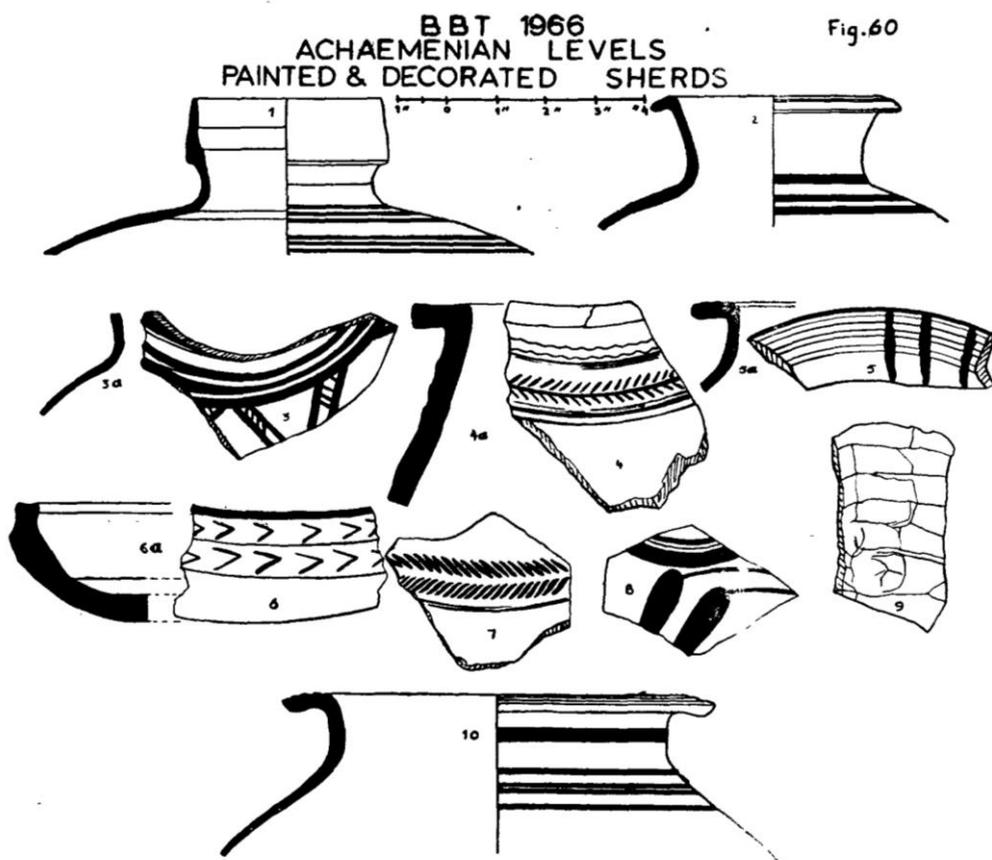


Figure 2.27 – Balambat (Dani 1967: 258, fig. 60).

## 2.2 Gandharan southern plains: Peshawar and Taxila Valleys

Although the sites of the southern plains, mainly Charsadda and Taxila, are generally figured as the key-sites of Gandhara region, data from the excavations so far carried out, still leave a set of questions unanswered. Indeed, the difficulty to identify cultural horizons is complicated by the absence of numismatic evidence and radiocarbon dates. Moreover, as is the case of Gor-kuttree, the excavation of some archaeological sites were never followed by a proper study and the related ceramic material is still unknown. This is the reason why it was not possible to include pottery from Gor kuttree in this compendium.

As regards Charsadda, the material reported below does not include, if not in the form of reference, the Peshawar-Bradford work at Bala Hisar because of obvious chronological reasons. As regards Taxila, only the ceramic material from the Bhir Mound is here reported. Indeed, the Hathial Mound has not been excavated yet and no examples from stratum VII of Sirkap, the only one surely dated to the Indo-Greek period (Ersdosy 1990), are reported by Marshall (1951).

### 2.2.1 Charsadda (Bala Hisar, Shaikhhan Dheri)

#### Bala Hisar

In absence of radiocarbon dating and numismatic evidence, Wheeler based the chronology of the entire site of Bala Hisar on the presence or absence of ‘eight recurrent key-types chosen on the basis of form or fabric as especially distinctive in kind or range’ (Wheeler 1962: 37-46). The dating of these ceramic key-types has represented a thorny problem, difficult to unravel without the use of radiocarbon analysis. Indeed, the recent Peshawar-Bradford excavations, primarily focused on the early phases of the site, did not provide further information about the Historic phases of Bala Hisar. Therefore, the two main attempts to re-evaluates the ceramic key-types related to Bala Hisar upper layers are still represented by Dittman’s (1984) and Vogelsang’s (1988) works (Tab. 2.1).

The discussion here is devoted to the layers, hence to the ceramic key-forms, which are generally dated to the 1<sup>st</sup> millennium BCE (Ch. I (38) – (20)): dishes with incurved sides, carinated bowls, Tulip bowls, lotus bowls, NBP ware<sup>41</sup>.

---

<sup>41</sup> Sometimes by discussing Wheeler sequence, scholars gave new name to the specific key-types identified by Wheeler. Here I used Wheeler’s labels. Different definition will be eventually indicated when present.

### *Dishes with incurved sides*<sup>42</sup>

Defined as “shallow flat-bottomed or sagger dishes with roughly vertical but convex sides” by Wheeler (1962: 40), dishes with incurved sides are told to be present at Bala Hisar since the earliest layers. However Vogelsang highlighted that this type is illustrated for the first time only from Ch. I layer (38). The gray version of this type, in Ch. layers (38), (37), (34), was used by Vogelsang as hint of a horizon of ‘Indic’ influence in the second quarter of the 1<sup>st</sup> millennium BC at Charsadda, since the analogies with the earliest occupation of Bhir Mound at Taxila (Vogelsang 1988: 107) and with the Painted Gray ware tradition in the Ganges plains (*ibid.*: 108). This form is generally considered part of an ‘Indic’ tradition which penetrate the NW in the second quarter-mid 1<sup>st</sup> millennium BCE (Vogelsang 1992: 246). During the latest excavation at Bala Hisar ten examples of this form (L10) were found, mostly in layers dated to the first quarter of the 1<sup>st</sup> millennium BCE (late Period II), by so confirming the ancient origin of this form. In the northern valley this ceramic type firstly appeared in Swat period VIII.

However dishes with incurved sides represent a long-lasting class which during the centuries underwent to a series of formal change, in terms of both rim and carination, which must be taken into consideration when formal comparison are attempted.

### *Carinated bowls*<sup>43</sup>

Carinated bowl is described by Wheeler as “fairly shallow bowl of reddish ware with an everted rim and a sharp, distinctive carination below it. Groups of three or four irregular lines are often painted across the upper surface of the rim in black or brown paint” (Wheeler 1962: 40). In Ch. I this type is ‘found as late as layer 18, but the more sharply carination form occurs in layer 23 and is abundant from layer 27 to the bottom of the cutting soil’ (*ibid.*: 40). A date between 550-200 BCE was proposed by Wheeler on account of its similarities with forms at Hastinapura, Period II (Lal 1954-55: fig. 9.51). In Ch. IV carinated bowl appears in the latest layer cut through by Well E, but it is absent from the filling of the latter.

Carinated bowls seem to mark the Ch. I layers (32)-(18)<sup>44</sup>, thus appearing exactly from the layer where the Soapy Red ware disappears in Ch. I. This sharp change led Dittmann

---

<sup>42</sup> Also labelled as: carinated bowl in red/reddish ware (Type 9, Dittman 1984); open bowl of ‘fairly rough brown fabric’ (Vogelsang 1988).

<sup>43</sup> Also labelled as: carinated dish (Type 10, Dittmann 1984); carinated bowl of a reddish ware (Vogelsang 1988); S-carinated rim bowl (Magee et al. 2005).

<sup>44</sup> Clear examples of this form were illustrated only from Ch.I layer (32) (Vogelsang 1988: 106).

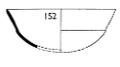
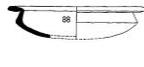
CHARSADDA SEQUENCE*									
Layers	Wheeler (1962)	Tulip bowl 300-100 BC 	Carinated bowl 550-200 BC 	Dish with incurved sides 550-100 BC 	Lotus bowl 	NBP W	Dittmann (1984)	Vogelsang (1988)	
14	2 <sup>nd</sup> -4 <sup>th</sup>						IIB		
15	AD						Kushan		
16	1 <sup>st</sup> cent.						IIIA		
17	BC – 2 <sup>nd</sup>						Late Indo-Greek/ Saka-Parthian		
18	cent.								
19	AD								
20							IID		
21	2 <sup>nd</sup> cent.						Indo-Greek		
22	BC						IIC		
23							Alexander – Mauryan		
24									
25									
26							IIB		Post-Achaemenid
27							Late-Achaemenid		
28	3 <sup>rd</sup>								
29	cent. BC								
30							IIA	Achaemenid or earlier	
31							Early-Achaemenid		
32									
33									
34	4 <sup>th</sup> cent.						IB	Mid 1 <sup>st</sup> mill	
35	BC						Pre-Achaemenid		
36									
37									
38									
39-51	6 <sup>th</sup> -5 <sup>th</sup> cent. BC						IA	First half 1 <sup>st</sup> millennium BC	

Table 2.1 – Distribution of the most recurrent vessel types during the Early Historic Period at Bala Hisar.

\*In yellow the layers for which the presence of the key-types is not attested by illustrations in Wheeler 1962.

to indicate layer (32) as the beginning of a new phase of his own periodization of Bala Hisar: Phase IIA. Vogelsang (1992: 246) agreed with Wheeler (1962: 40), and thus do Coningham et al. (2007: 262), by recognizing in the carinated bowls an 'Indic' tradition which penetrated the NW areas of the subcontinent in the middle of the 1<sup>st</sup> millennium BCE. However, as stressed by Petrie (2013a: 516), the only parallel cited for these presumed 'Indic' flavour is 'a single example from an unstratified Period II deposit at Hastinapura'.

Indeed, some scholars have pointed out that carinated bowls are instead widespread in the mid-1<sup>st</sup> millennium BCE (from the 6<sup>th</sup> to the 4<sup>th</sup> century BCE) in the Indo-Iranian region, (Magee 2004: 65-7; Khan et al. 2000; Magee et al. 2005: 724-725; Magee and Petrie 2010). The presence, alongside Tulip bowls, of a slightly similar type at Akra (assemblage 1), in the Bannu region, could point to a diffusion from the west (Magee and Petrie 2010; Petrie et al. 2008). However, the presence of this form at Aligrama and Kalako-derai in Swat period VIII contexts, seems to pre-date an Iranian diffusion.

Painted version of carinated bowls (Dittmann type 12) appear only from layer (28), the same where Tulip bowl makes its first appearance. The decoration is mainly represented by bundles of stripes and triangles on rim, the same applied on bowls of different shape in Indo-Greek period at Barikot (see Chapter

2.1.5). Dittmann correlates this decorations, starting with Ch- IIA, as a variant of the Eastern-Triangle-Ware, which roots are in the Iranian (Western-) Triangle ware (Dittmann 1984: 189, fig. 10).

### *Tulip bowls*

Wheeler defined the Tulip bowl as "little round-bottomed vessels of buff or brownish ware, wheel turned, with a 'kick' or slight carination half-way down the side" (Wheeler 1962: 40). This type occurred in Ch. I from layer (28) up to layer (22), in all the five phases of the house in Ch. V and in the disturbed levels of Ch. IV. It is instead absent in Ch. II and Ch. III. According to Wheeler Tulip bowls should be dated to the 3<sup>rd</sup> and 2<sup>nd</sup> centuries BCE.

Dittmann indicated as phase IIB the layers with Tulip bowls which he considered 'Late Achaemenid' (mid-4<sup>th</sup> century BCE) in date, as some similarities with vessels from late and post-Achaemenid levels at Pasargadae (Dittmann 1984: 189).

As the Tulip bowls were found together with lotus bowls and 'Baroque ladies' at the Bala Hisar, and lotus bowls and 'Baroque ladies' are both present in Indo-Greek levels at

Shaikhan Dheri, Vogelsang argued that Tulip bowl form in South Asia should be dated to the post-Achaemenid period, as originally suggested by Wheeler (Vogelsang 1988: 104).

However, Tulip bowls occur at Ch. I prior to the appearance of lotus bowls and ‘Baroque ladies’, both appearing only from layer (22). Hence, the former must be earlier than the latter.

Coningham et al. have considered the Tulip bowl as part of a western or ‘Aegeic’ corpus (Coningham et al. 2007: 262), instead, more correctly, Magee et al. (2005; Petrie and Magee 2007; Petrie et al. 2008; Magee and Petrie 2010) have recognized the Tulip bowl as a distinctive Iranian form, known from Achaemenid levels at several sites in Fars (e.g. Pasargadae, Persepolis, Tal-i Ghazir, Qaleh Kali, Tol-e Spid and Tol-e Nurabad), at the Iranian Plateau (e.g. Tepe Yahya in Kerman and Dahan-e Golaman in Sistan) and at the border of the Iranian region (e.g. Sardis in Anatolia and Kandahar in Afghanistan). Given that, the suggestion of a mid-late Achaemenid date, 400-325 BC, for the diffusion of Tulip bowl in South Asia seems appropriate (Petrie 2013a: 516-517).

Up to now, in NW Pakistan, this form was also documented at Lohra Mound at Akra, in the Bannu region in a context very likely Achaemenid; at the Bhir Mound, in Marshall Stratum II, Sharif Period III (and Bahadar Khan Period IV) which according to Erdosy (1990) should be dated to the Achaemenid-early Mauryan period<sup>45</sup>.

### *Lotus bowls*

Wheeler described the lotus bowls as “Bowls of very fine buff or reddish buff ware. The section is often an exact semicircle [...] A well-formed lotus is impressed on the centre of the interior. Fine grooves mark the rim externally. A very distinctive type, but of fairly limited duration” (Wheeler 1962: 40-41). Wheeler considered the presence of these lotus stamps a clear reference to the ancient name Pushkalavati ‘Lotus city’ (Wheeler 1962: 35). The lotus bowls occur in Ch. I layers (24)-(20), associated in layers (20)-(21) with potsherds of NBP ware; in Ch. II the type was found in layer (9); in Ch. IV several bowls and sherds occur in the filling of well D and E (with a silver tetradrachm of Menander,

---

<sup>45</sup> Up to 2016 excavation seasons at Barikot, no clear information about Tulip bowl were available for the Swat Valley. At Aligrama a version of Tulip bowl was found in Area K in early Kushan layer (Stacul and Tusa 1977:187-188, fig.21, l); at Kalako-derai Tulip bowls comes from the levels which follow Swat period VIII pits in areas A, B, and C2 (Stacul 1997: 368, 372, fig.27 c; see also Stacul 1993a: 92). As for Barikot recovery of Tulip bowls is mentioned in relation to the earliest floor-level connected with the fortification wall (Stacul 1989: 322; 1985), but no drawings have been shown. Moreover a specimen of Tulip bowl comes from a mixed context at Damkot; and another is unpublished from Udegram (Stacul and Tusa 1977: 188, n. 106).

c. 155-150 BCE); in Ch. V the type occurred, along with fragments of NBP ware, phase IV. The life span of this form, according to Wheeler, runs from the end of 3<sup>rd</sup> to the 2<sup>nd</sup> century BCE. This assumption was based on the presence of lotus bowls in Ch. IV Well E together with a coin of Menander and their correlation with NBP ware in Ch. I (21)-(20) and Ch. V, phase IV.

Dittmann suggested that his Phase IIC, marked by the earliest appearance of the lotus bowl and “Baroque lady”, should be dated around the time of Alexander up to the beginnings of Mauryan domination, roughly the late 4<sup>th</sup> and early 3<sup>rd</sup> centuries BCE.

At the nearby site of Shaikhan Dheri fragments considered part of lotus bowl were found mainly in Indo-Greek context, although in the Scytho-Parthian period rough imitations of this form are found and the stamped lotus on the bottom of vessels continued to appear occasionally even in early Kushan levels.

At Barikot, fragments of vessels (mainly bowls) with the impression of a lotus, or better an open flower, at the centre of the bottom were found during a far wide chronological range: Saka-Parthian, Kushan and late-Kushan Periods (Callieri 2000: 867-869). The specimens from Shaikhan Dheri, as those from Barikot, show that the stamped lotus, or open flower, at the bottom of vessel was used for a long period and the image of these open flower probably has nothing to do with the name of Pushkhalavati, as lotus or open flower stamps were found also at the bottom of vessels, locally produced, at Barikot.

Not mentioned among the key-types, but very distinctive are two forms almost absent in Ch. I, but very abundant in the filling of Well E in Ch. IV excavated on the other side of the ancient river bed which, according to Wheeler should have marked the limit of the earlier settlement: the so-called *plat-a-poisson* (e.g. Wheeler 1962: nos 475-476, 500) and a deep goblet with high carination. These are two Hellenistic forms with very close examples from Ai Khanoum (Lyonnet 2013: figs 101-105, 120), also present, with some variants, at the nearby Shaikhan Dheri. Significant is also the presence of a polished black amphora (Wheeler 1962: no. 496). *Plats-a-poisson* are completely absent in Ch. I while fragments of deep goblets can be recognized in layers (21)-(20) (Wheeler 1962: nos 214, 228) where also three bowls with flat everted and painted rim (*ibid.*: nos 206-207, 237), characteristic of the Indo-Greek phase at Shaikhan Dheri (Dani 1965-66: fig. 21) and Barikot (Callieri 2000: 859, fig. 1.c-d), are present. The scarce representation of clear Hellenistic forms in Ch. I, as suggested by Petrie (2013a: 518), may implicate a gap in the chronological sequence of Bala Hisar, possibly due to a partial shift of the settlement during the Indo-Greek domination.

Finally it is worth mentioning an example of Early Historic embossed ware from Ch. V pit 9-10 (phase II, c. 300 BCE).

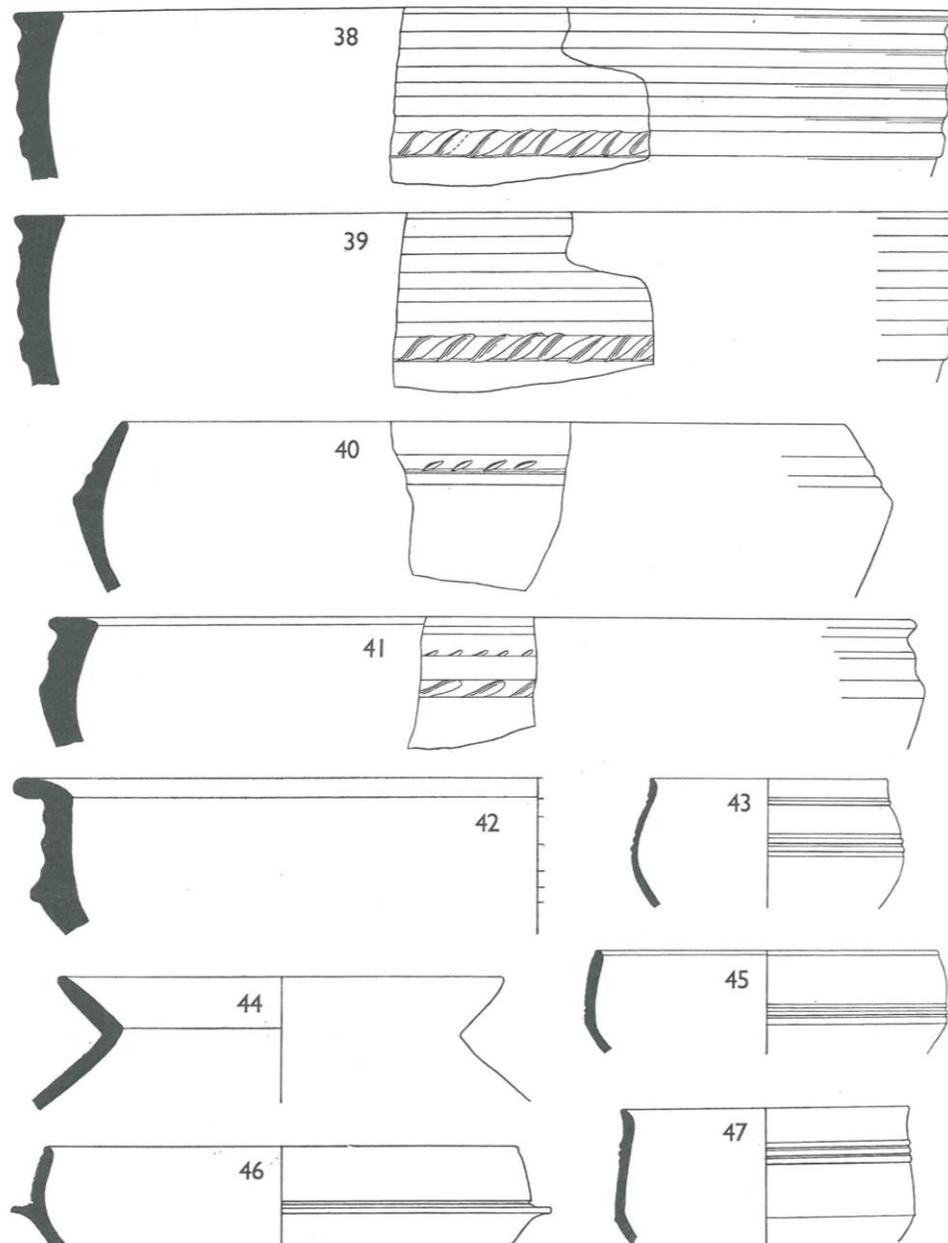


FIG. 15. Pottery from Ch. I: 38-40 from layer 39; 41-47 from layer 38.  $\frac{1}{2}$ .

Figure 2.28 – Bala Hisar (Wheeler 1962: fig. 15).

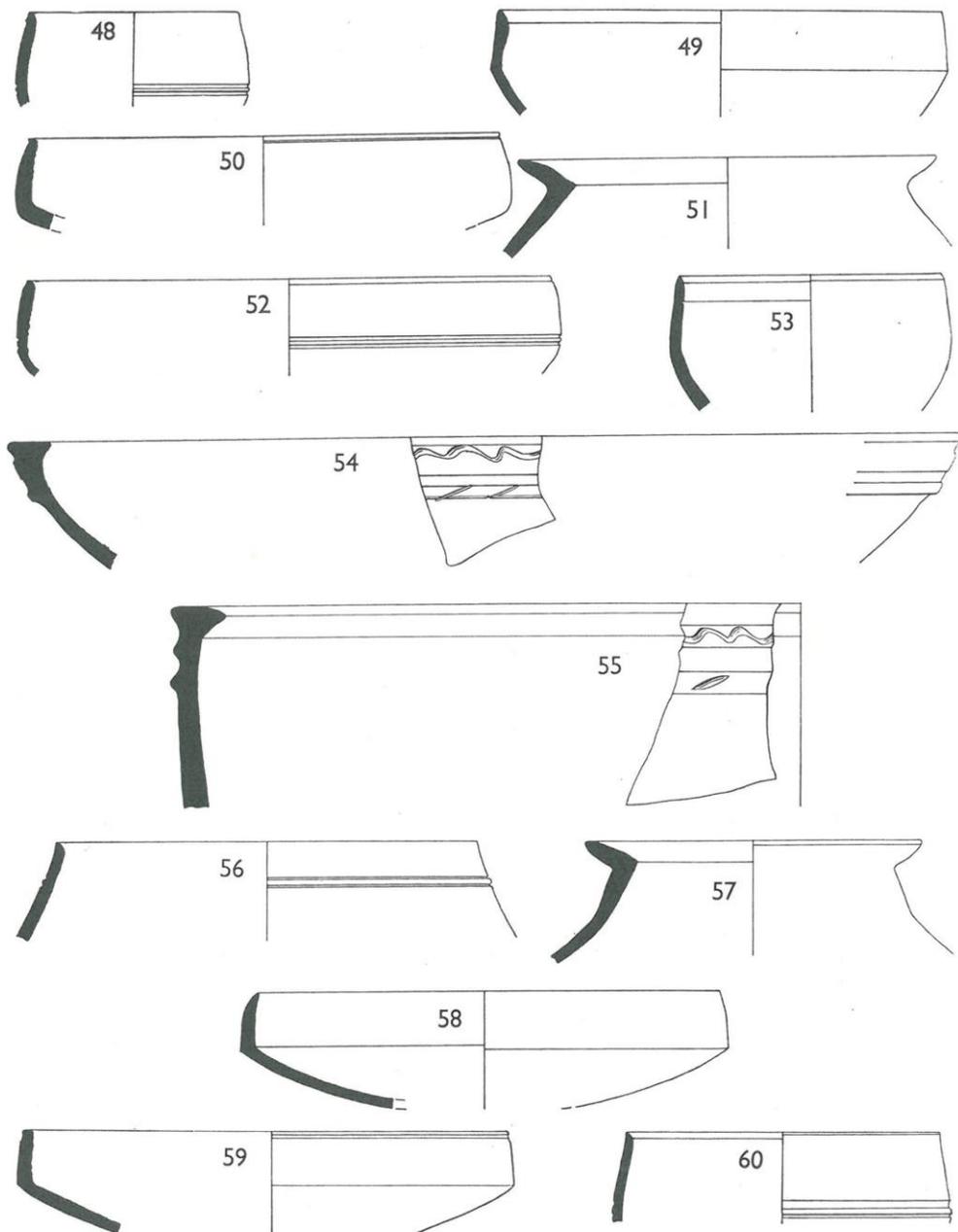


FIG. 16. Pottery from Ch. I: 48-49 from layer 38; 50-56 from layer 37; 57-60 from layer 36b.  $\frac{1}{2}$ .

Figure 2.29 - Bala Hisar (*ibid.*: fig. 16).

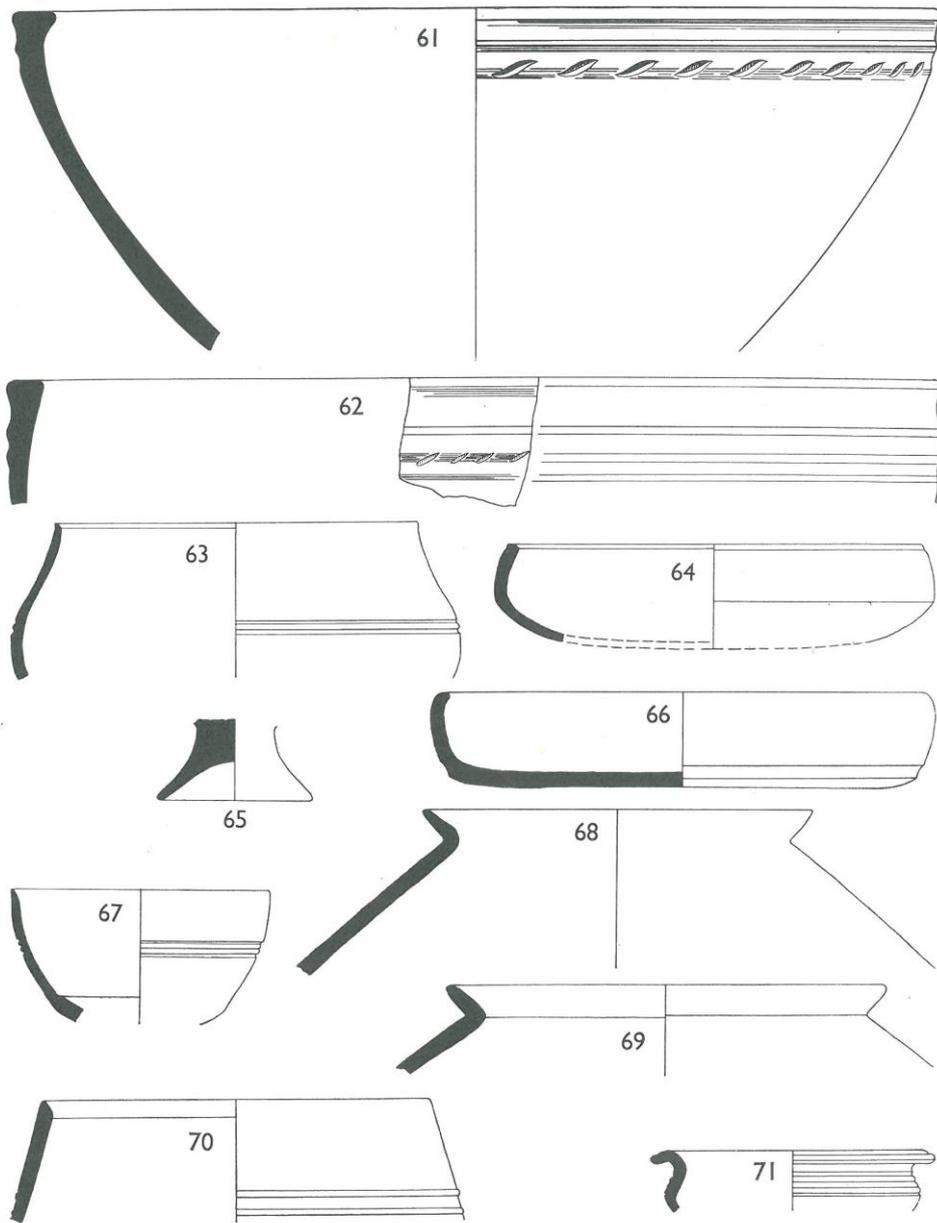


FIG. 17. Pottery from Ch. I: 61-62 from layer 36b; 63-65 from layer 35; 66-71 from layer 34.  $\frac{1}{2}$ .

Figure 2.30 - Bala Hisar (*ibid.*: fig. 17).

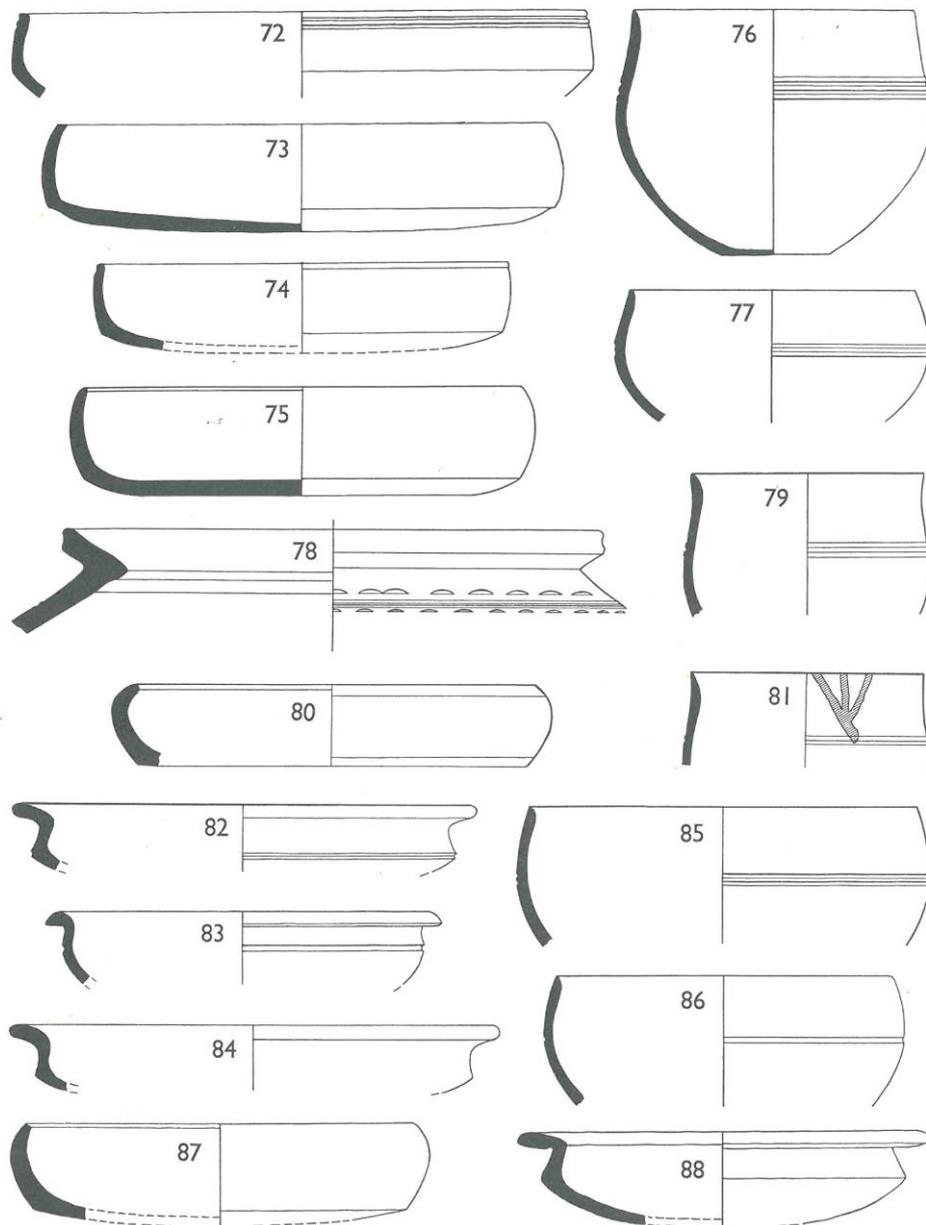


FIG. 18. Pottery from Ch. I: 72-74 from layer 34; 75-78 from layer 33; 79-86 from layer 32; 87-88 from layer 31.  $\frac{1}{3}$ .

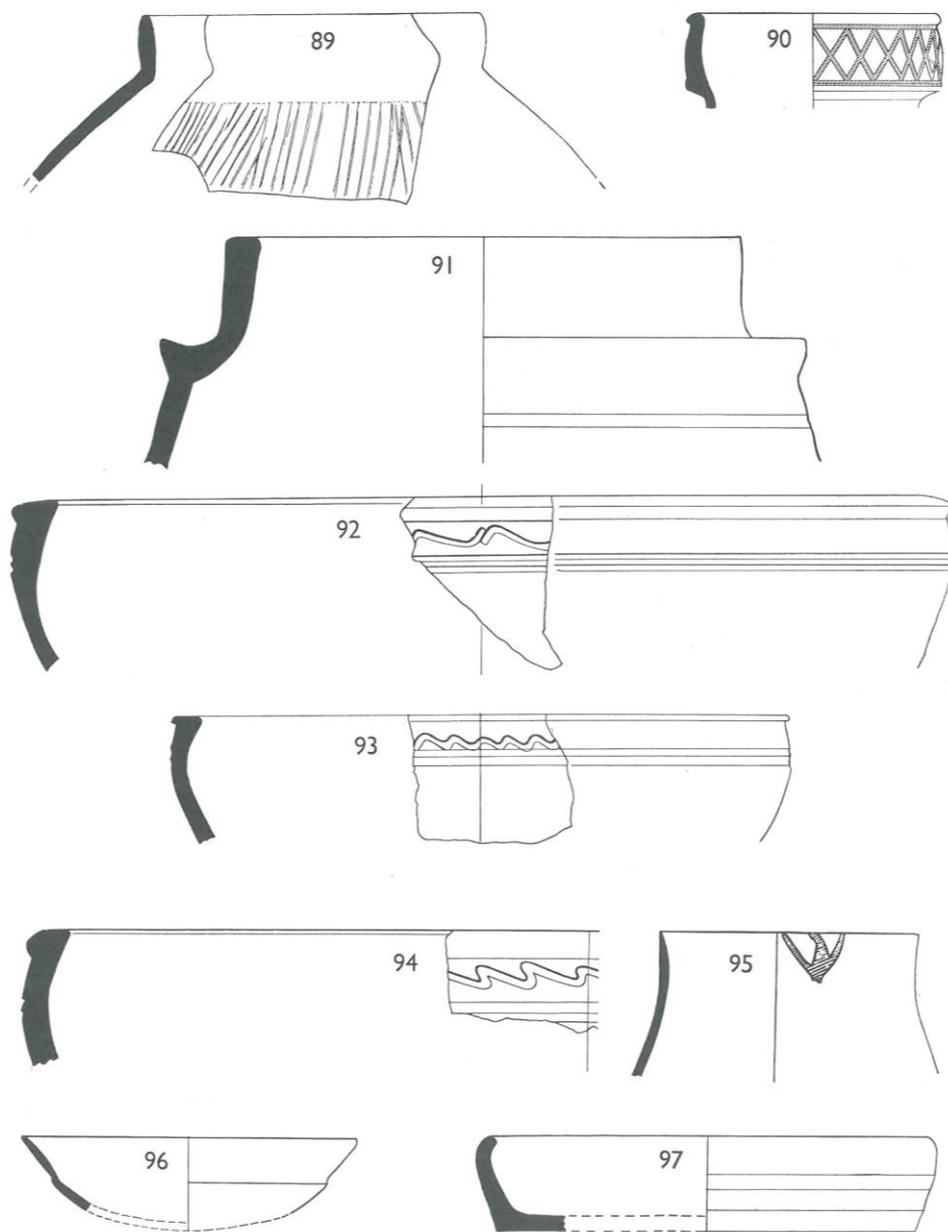


FIG. 19. Pottery from Ch. 1: 89 from layer 31; 90-91 from layer 30; 92 from layer 29; 93-97 from layer 28.  $\frac{1}{3}$ .

C 6

I

Figure 2.32 - Bala Hisar (*ibid.*: fig. 19)

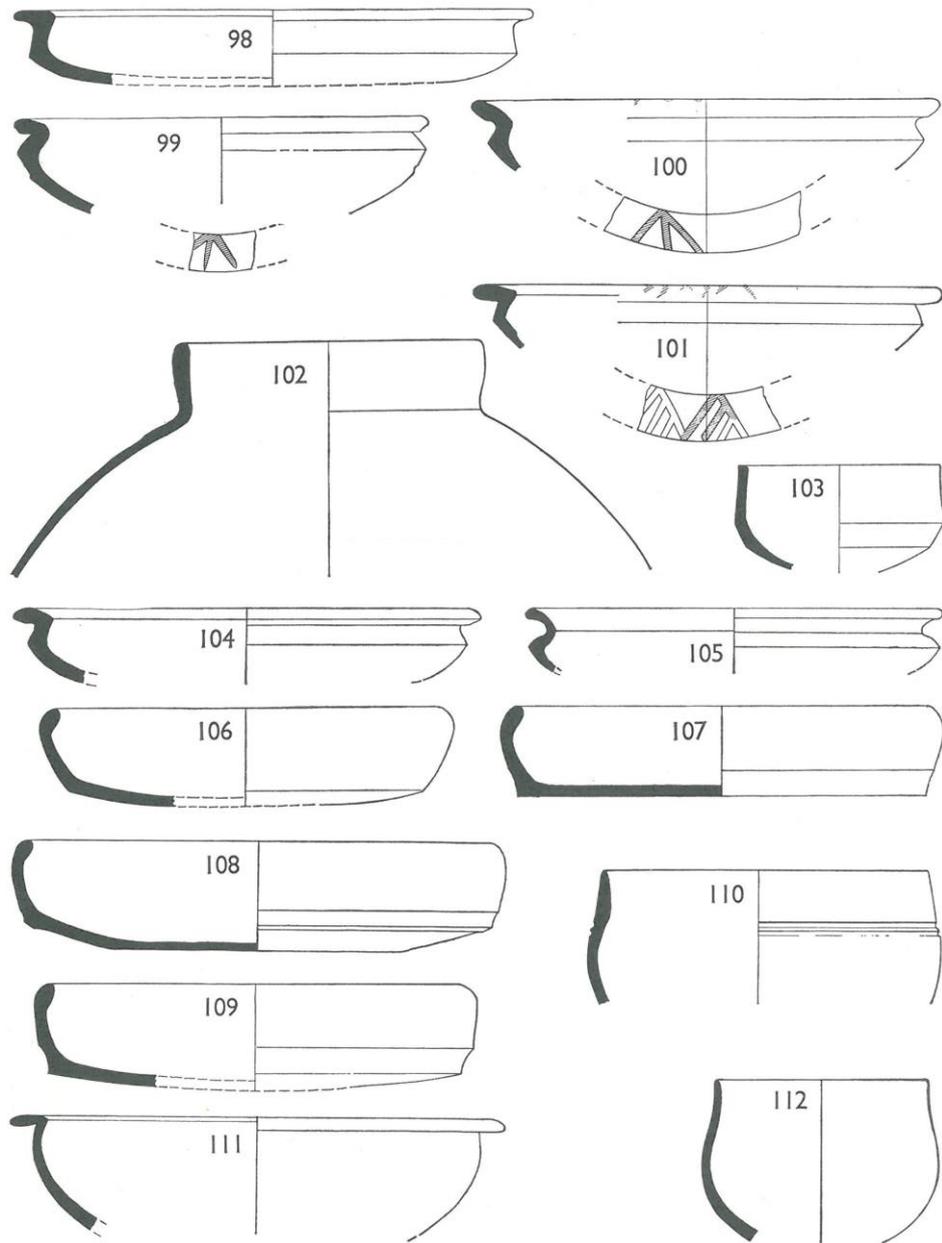


FIG. 20. Pottery from Ch. I: 98-102 from layer 28; 103-112 from layer 27.  $\frac{1}{3}$ .

Figure 2.33 - Bala Hisar (*ibid.*: fig. 20)

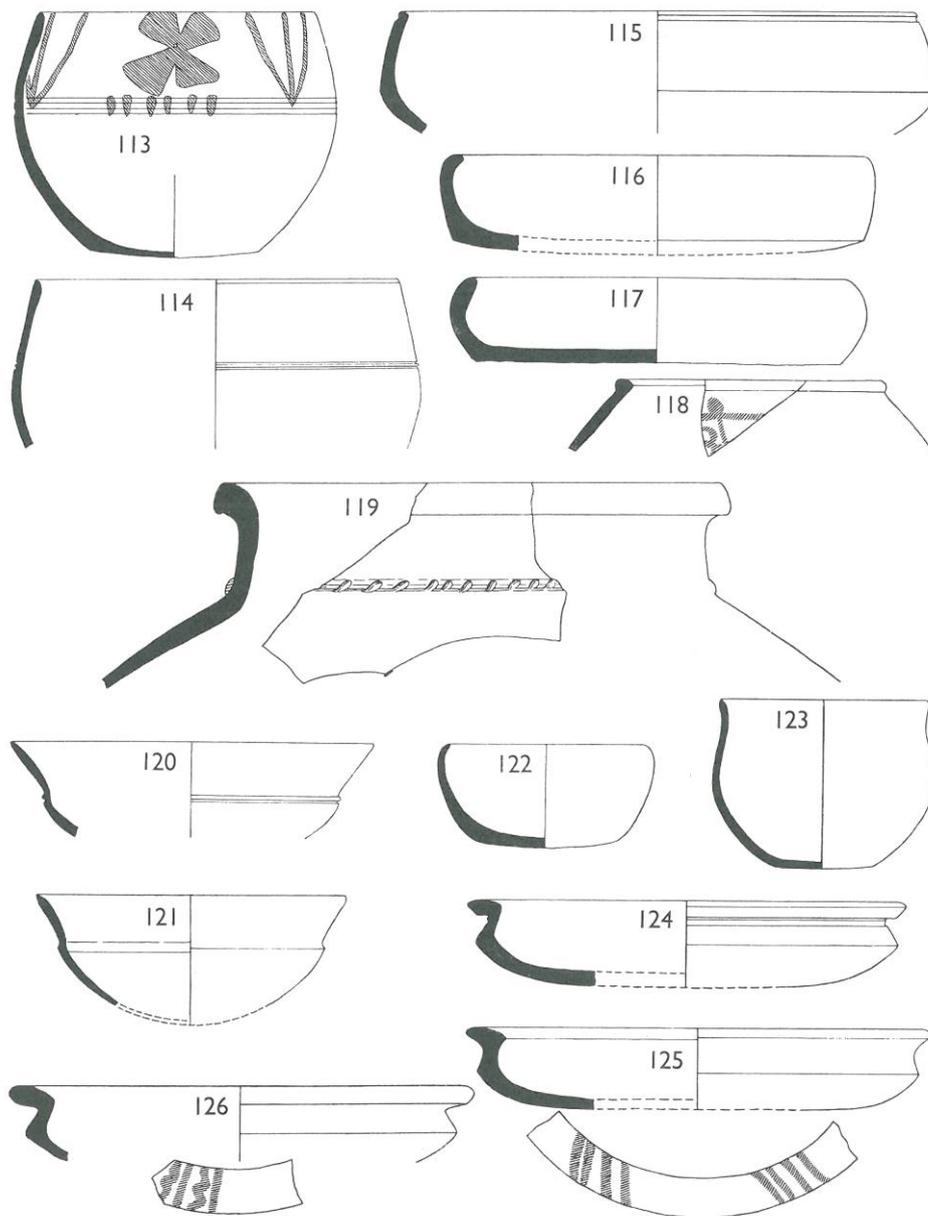


FIG. 21. Pottery from Ch. I, layer 27. ¼.

Figure 2.34 - Bala Hisar (*ibid.*: fig. 21)

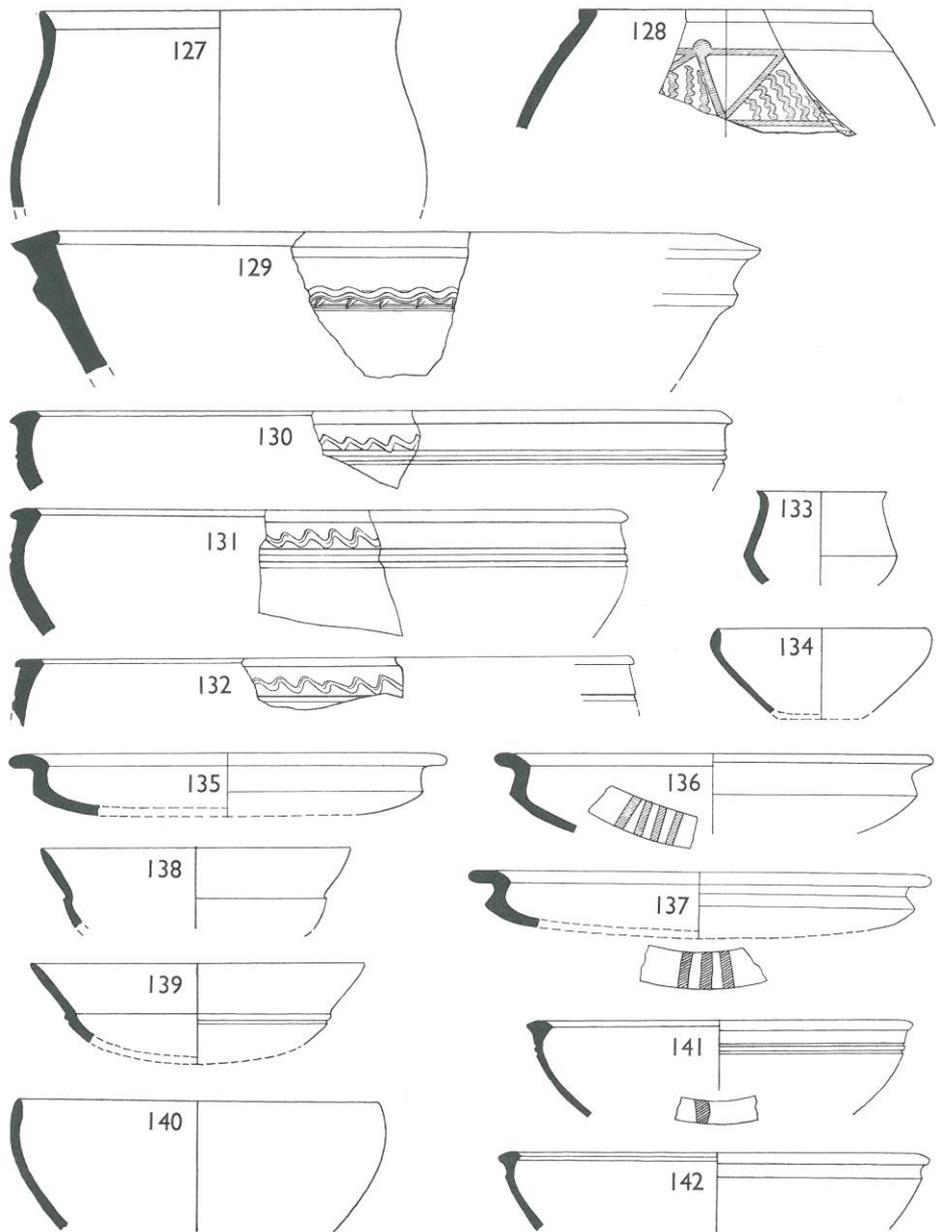


FIG. 22. Pottery from Ch. I: 127-32 from layer 27; 133-42 from layer 26.  $\frac{1}{2}$ .

Figure 2.35 - Bala Hisar (*ibid.*: fig. 22)

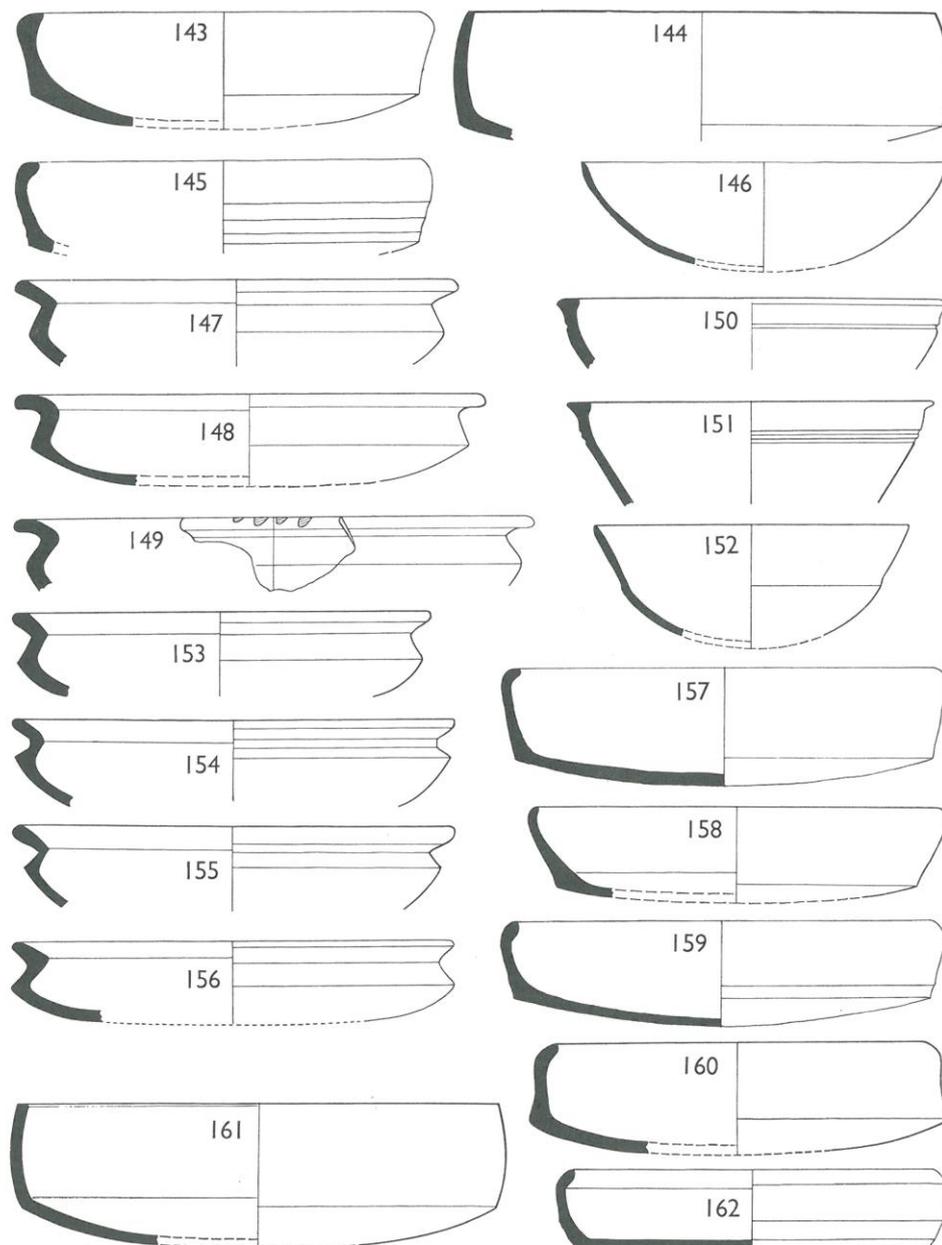


FIG. 23. Pottery from Ch. I: 143 from layer 26; 144-50 from layer 25; 151-62 from layer 24.  $\frac{1}{2}$ .

Figure 2.36 - Bala Hisar (*ibid.*: fig. 23)

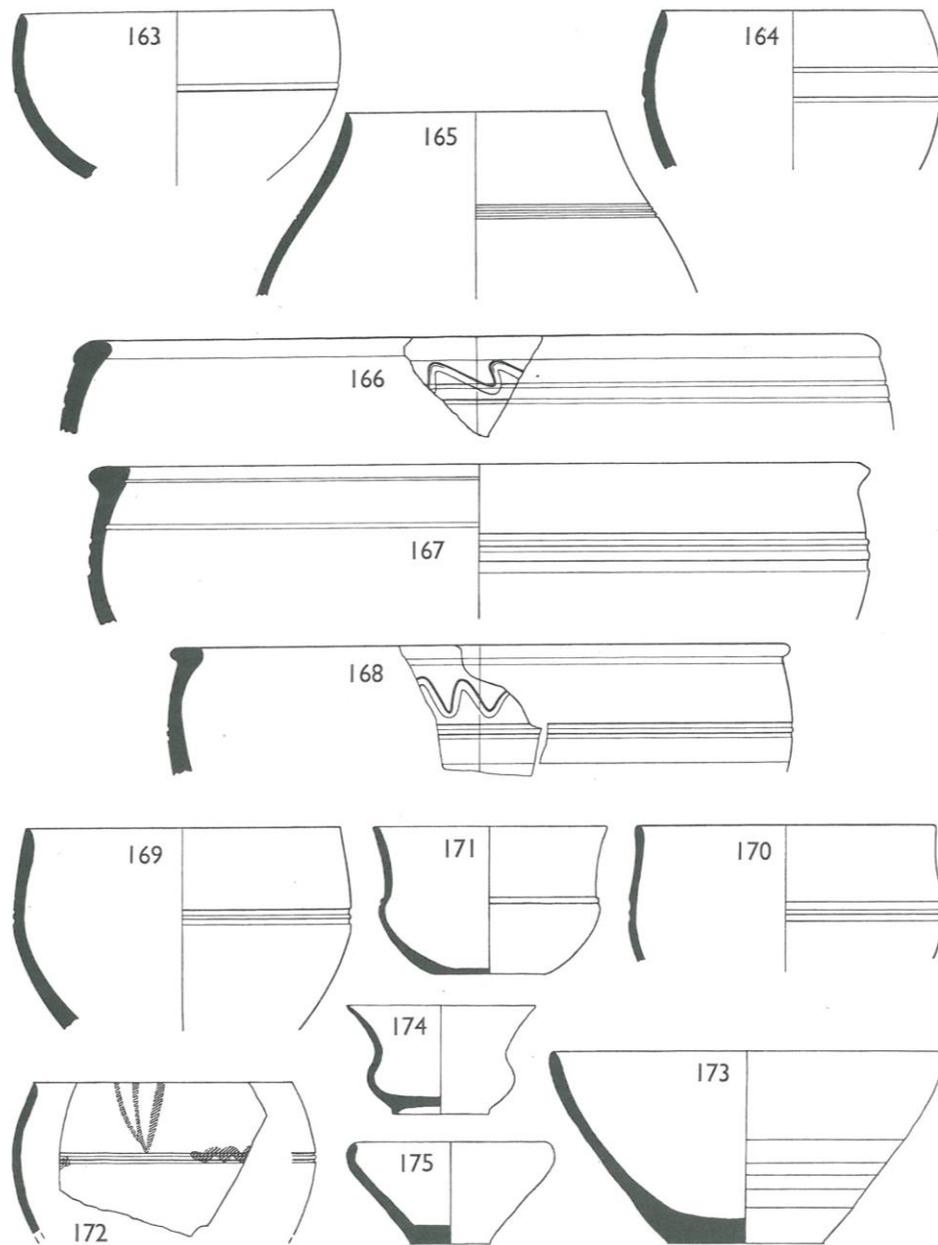


FIG. 24. Pottery from Ch. I: 163-73 from layer 24; 174-5 from layer 23.  $\frac{1}{8}$ .

Figure 2.37 - Bala Hisar (*ibid.*: fig. 24)

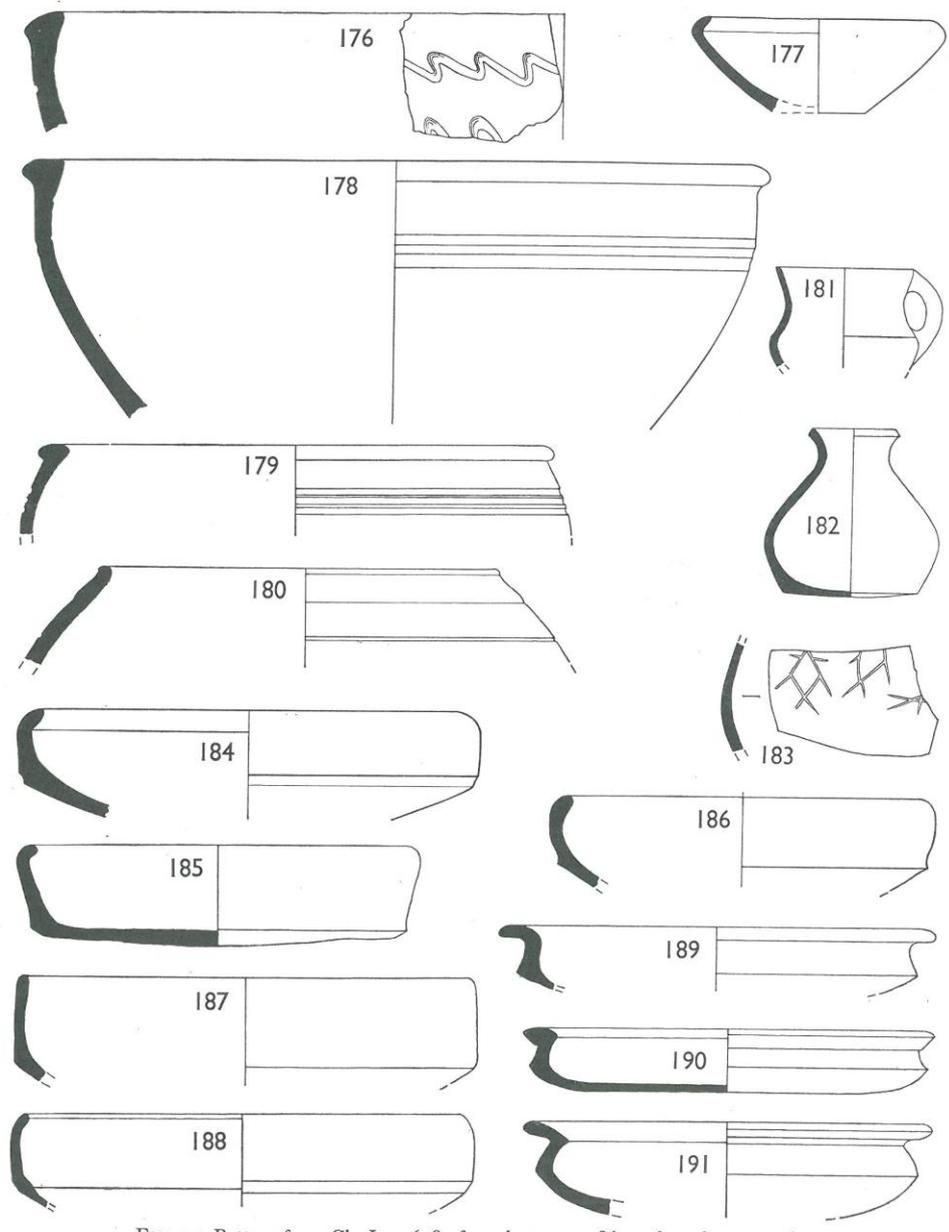


FIG. 25. Pottery from Ch. I: 176-85 from layer 23; 186-91 from layer 22.  $\frac{1}{4}$ .

Figure 2.38 - Bala Hisar (*ibid.*: fig. 25)

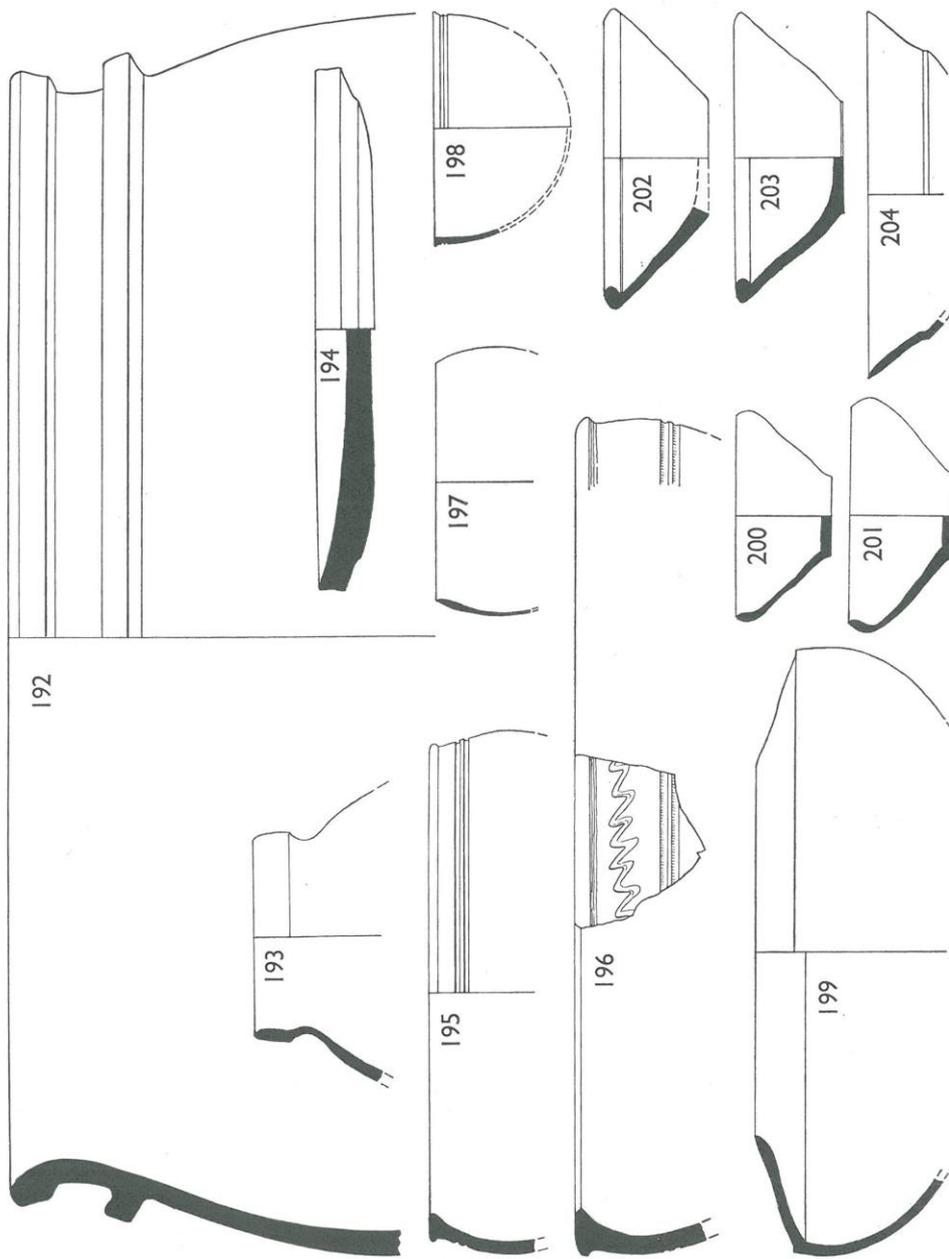


FIG. 26. Pottery from Ch. I, layer 22. 1.

Figure 2.39 - Bala Hisar (*ibid.*: fig. 26)

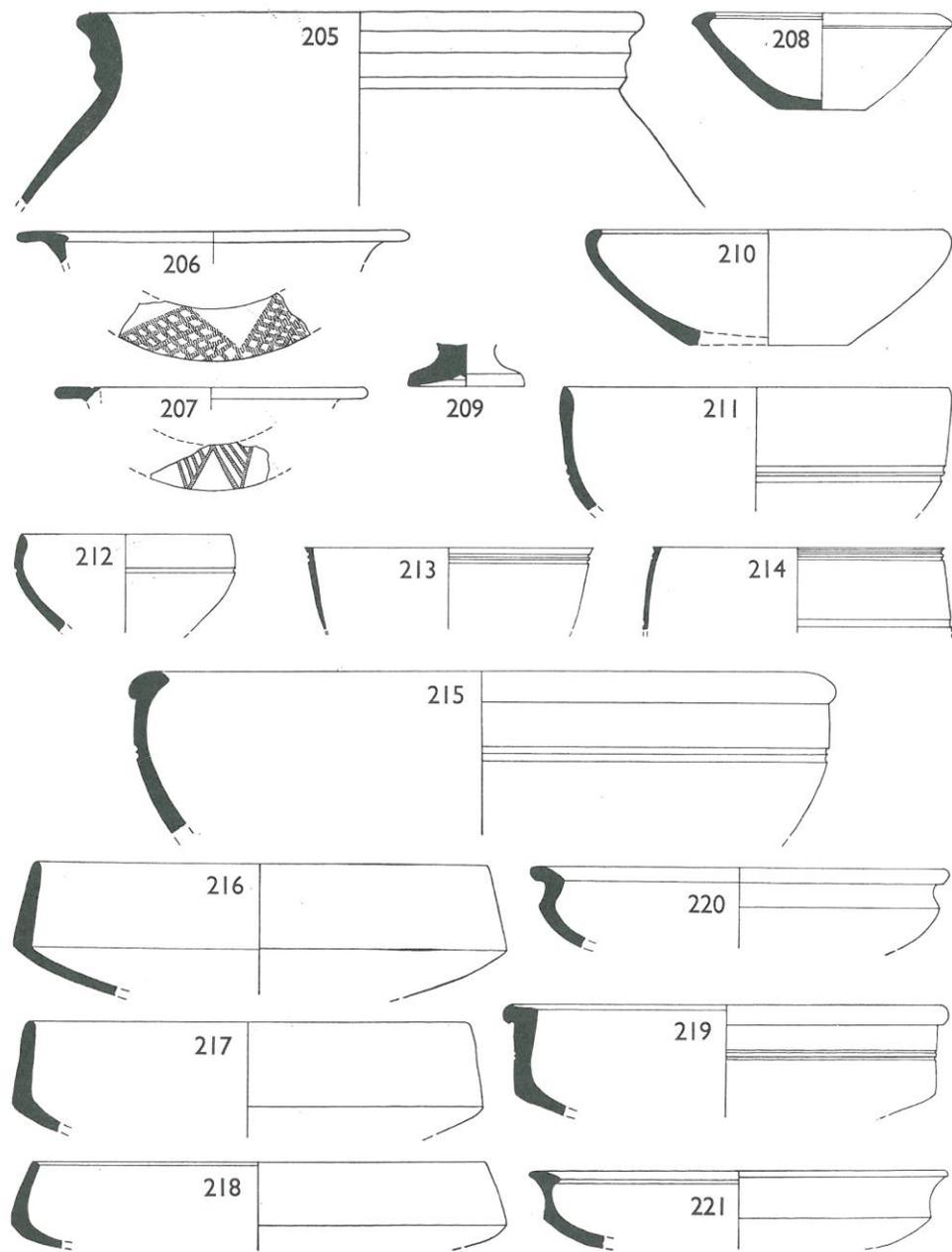


FIG. 27. Pottery from Ch. I: 205-6 from layer 22; 207-21 from layer 21.  $\frac{1}{4}$ .

Figure 2.40 - Bala Hisar (*ibid.*: fig. 27)

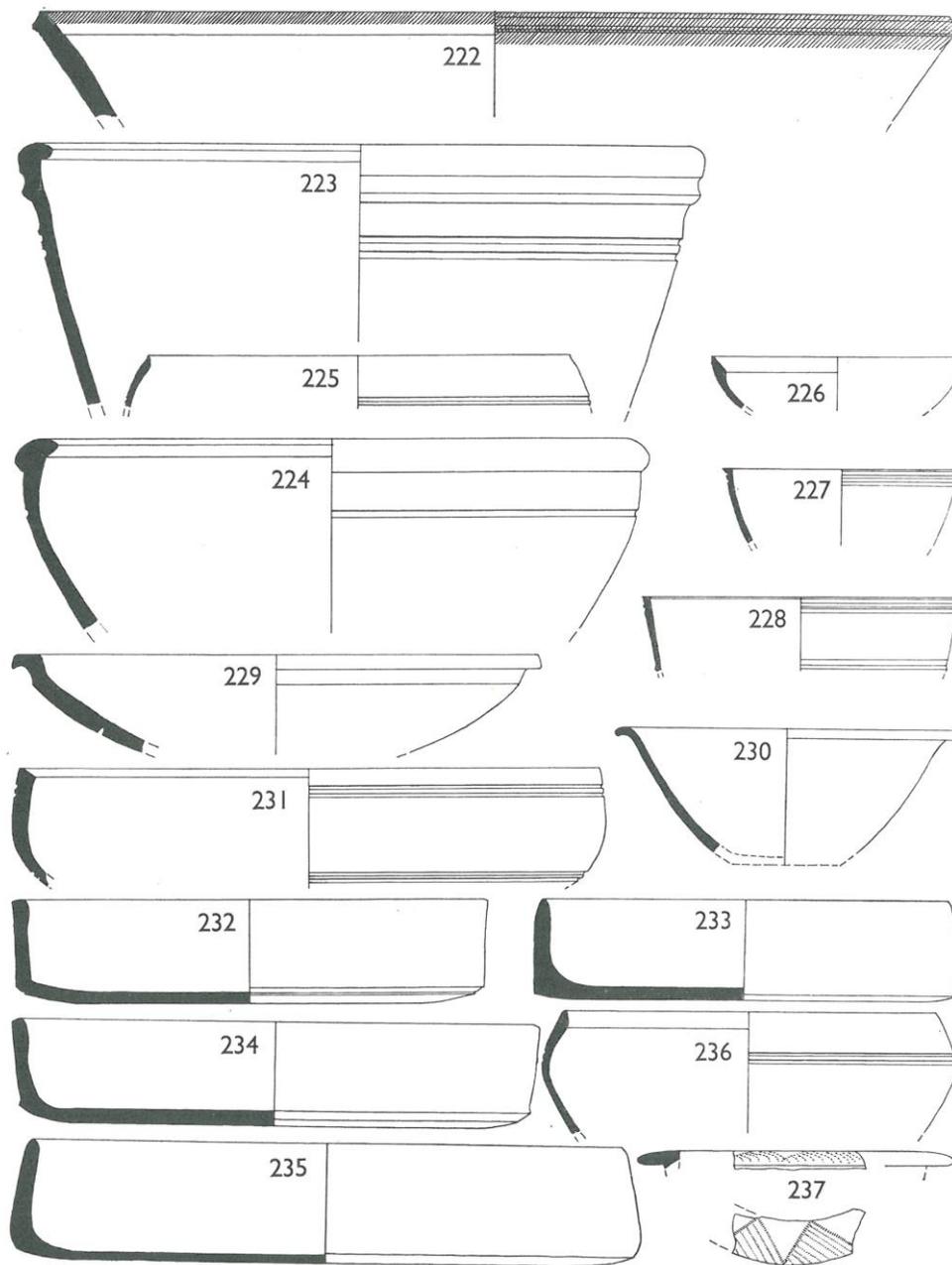


FIG. 28. Pottery from Ch. I, layer 20.  $\frac{1}{2}$ .

Figure 2.41 - Bala Hisar (*ibid.*: fig. 28)

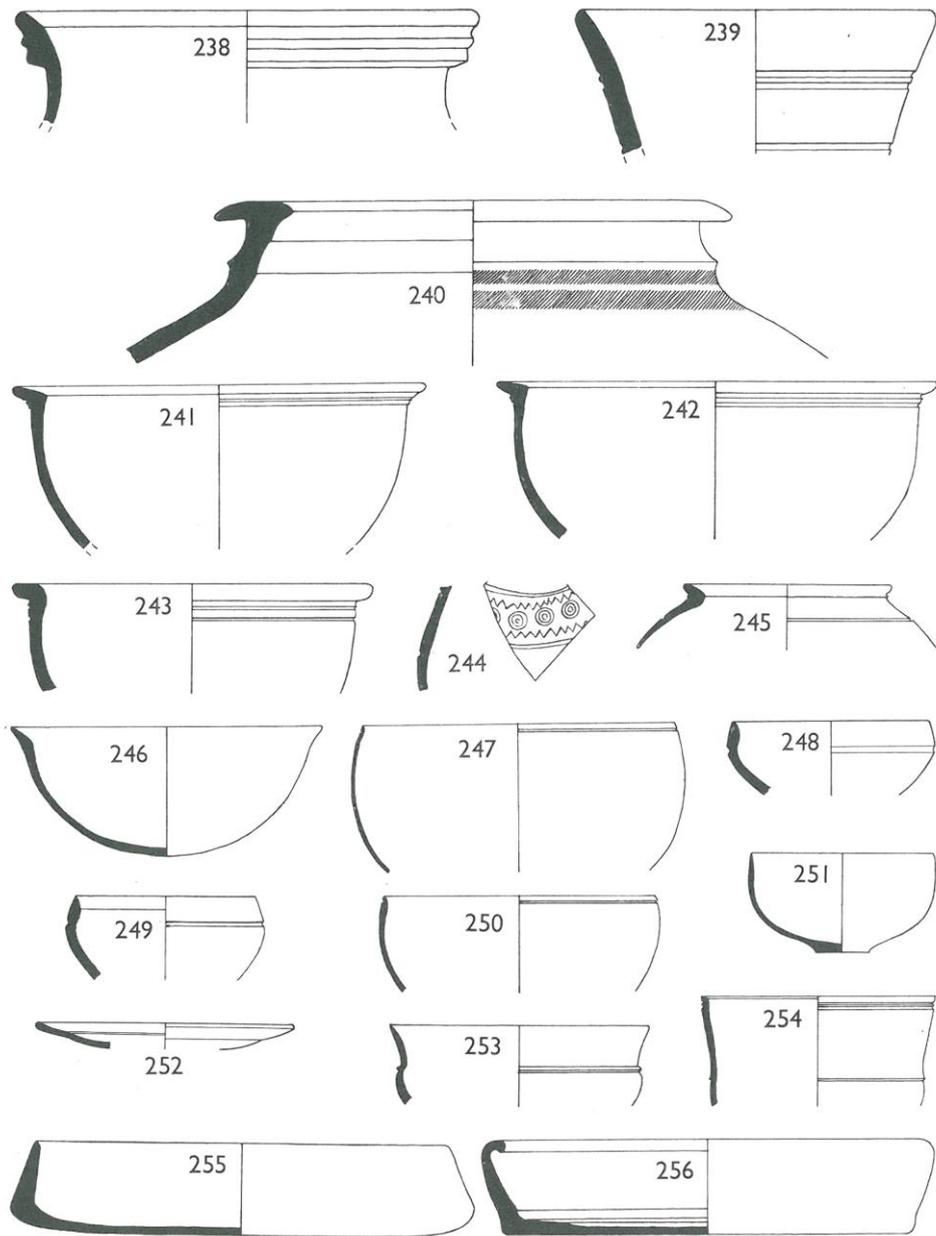


FIG. 29. Pottery from Ch. I: 238-9 from layer 20; 240-56 from layer 19.  $\frac{1}{4}$ .

Figure 2.42 - Bala Hisar (*ibid.*: fig. 29)

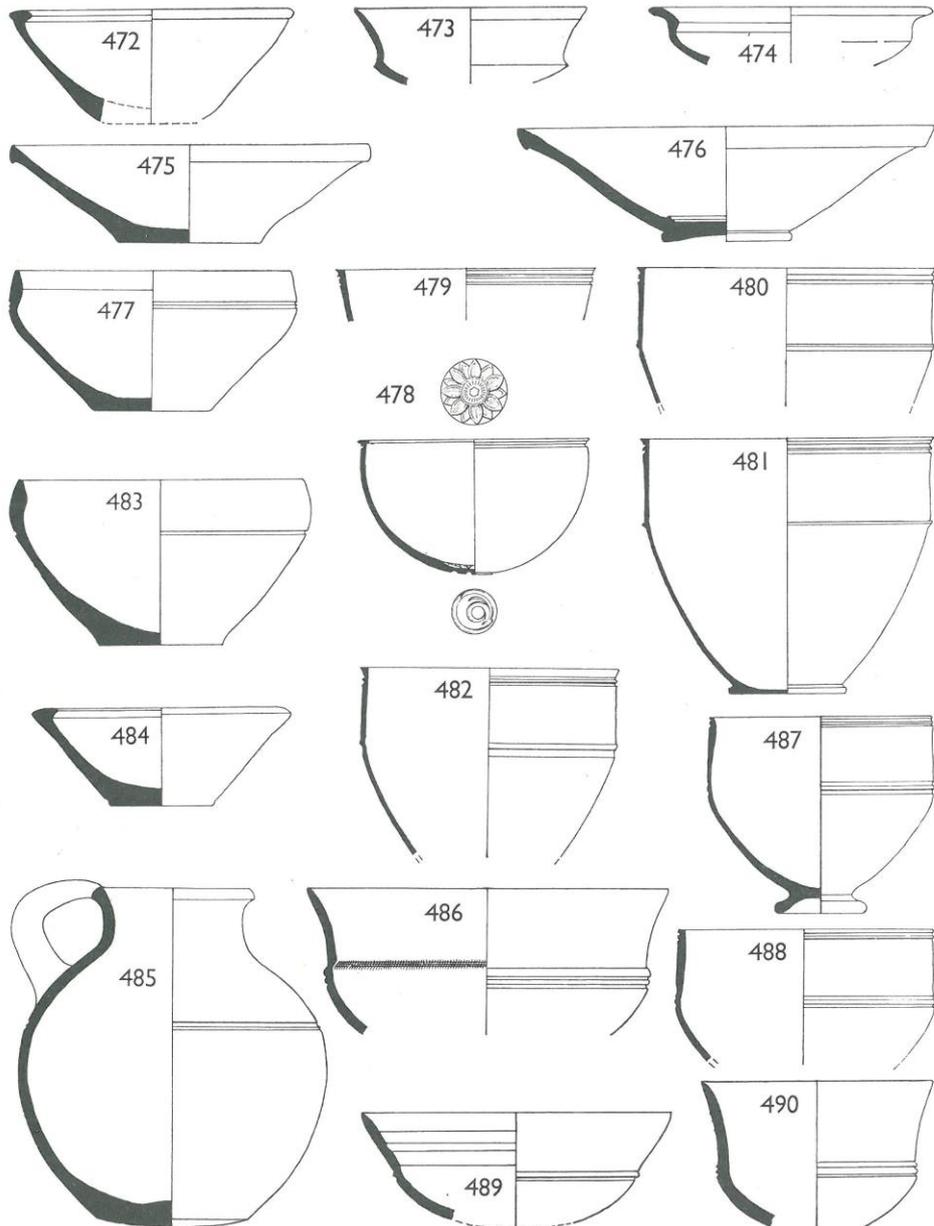


FIG. 46. Pottery from Ch. IV, Well E: 472-3 from a depth of 18 ft.; 474-9 from a depth of 12 ft.; 480-5 from a depth of 9 ft.; 486-90 from a depth of 4-6 ft.  $\frac{1}{2}$ .

Figure 2.43 - Bala Hisar (*ibid.*: fig. 46).

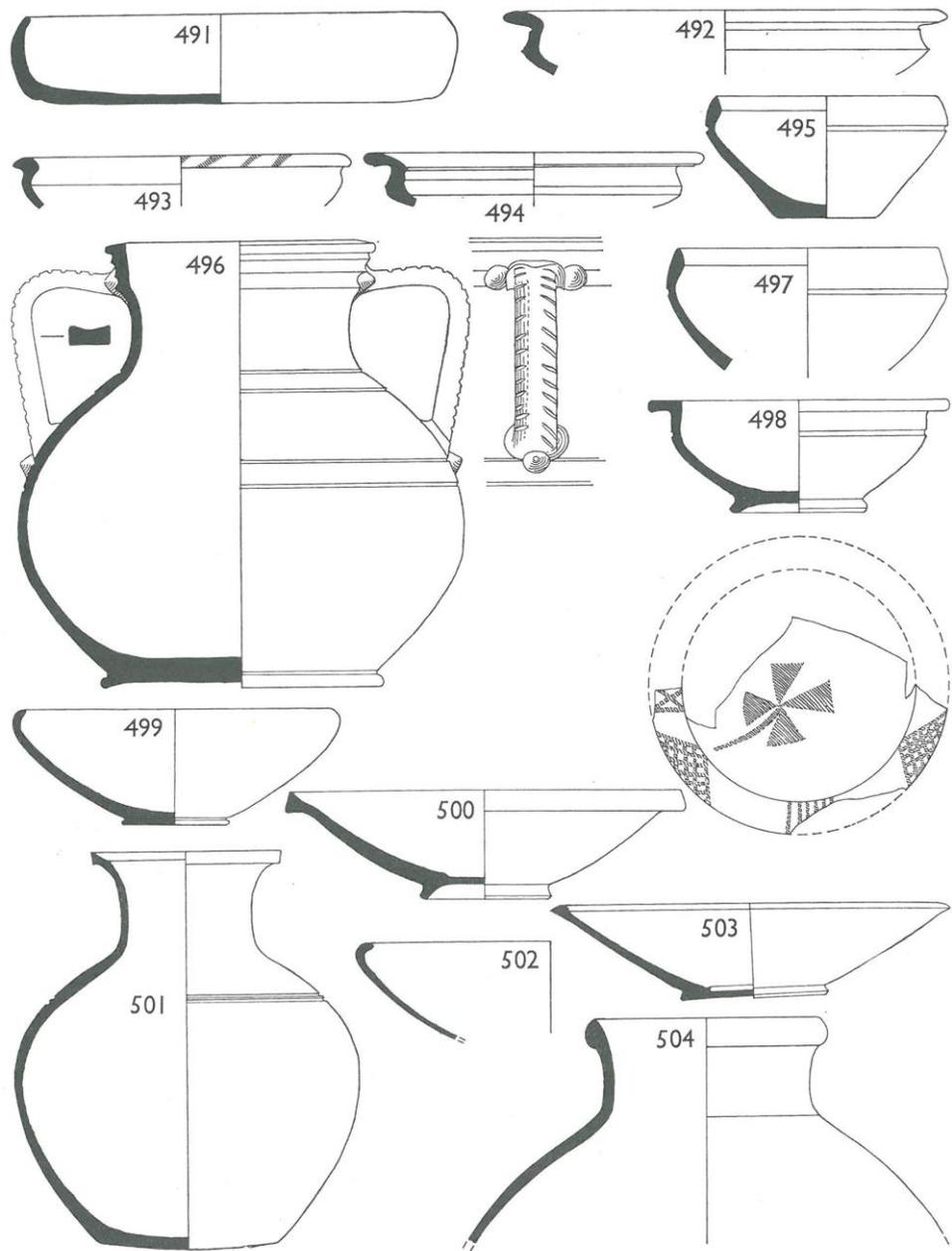


FIG. 47. Pottery from Ch. IV: 491-4 from layer 3; 495-504 from Well E at a depth of 2-4 ft.  $\frac{1}{3}$ .

Figure 2.44 - Bala Hisar (*ibid.*: fig. 47).

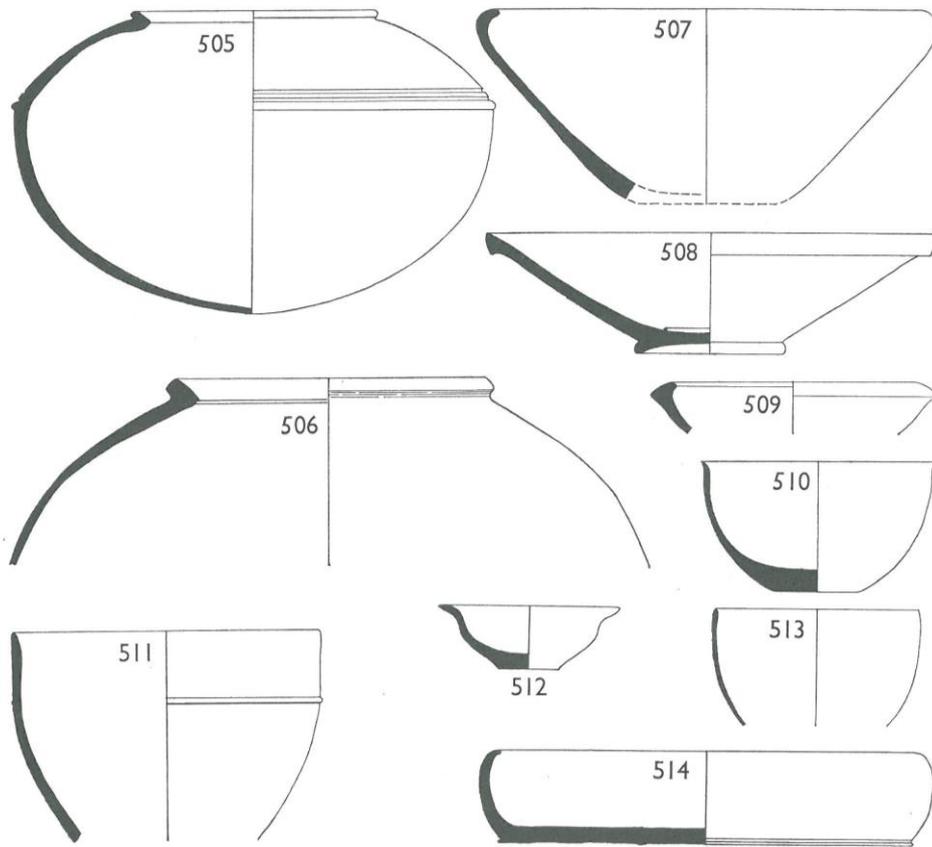


FIG. 48. Pottery from Ch. IV, Well E, from the top 2 ft. of the filling.  $\frac{1}{3}$ .

Figure 2.45 - Bala Hisar (*ibid.*: fig. 48).

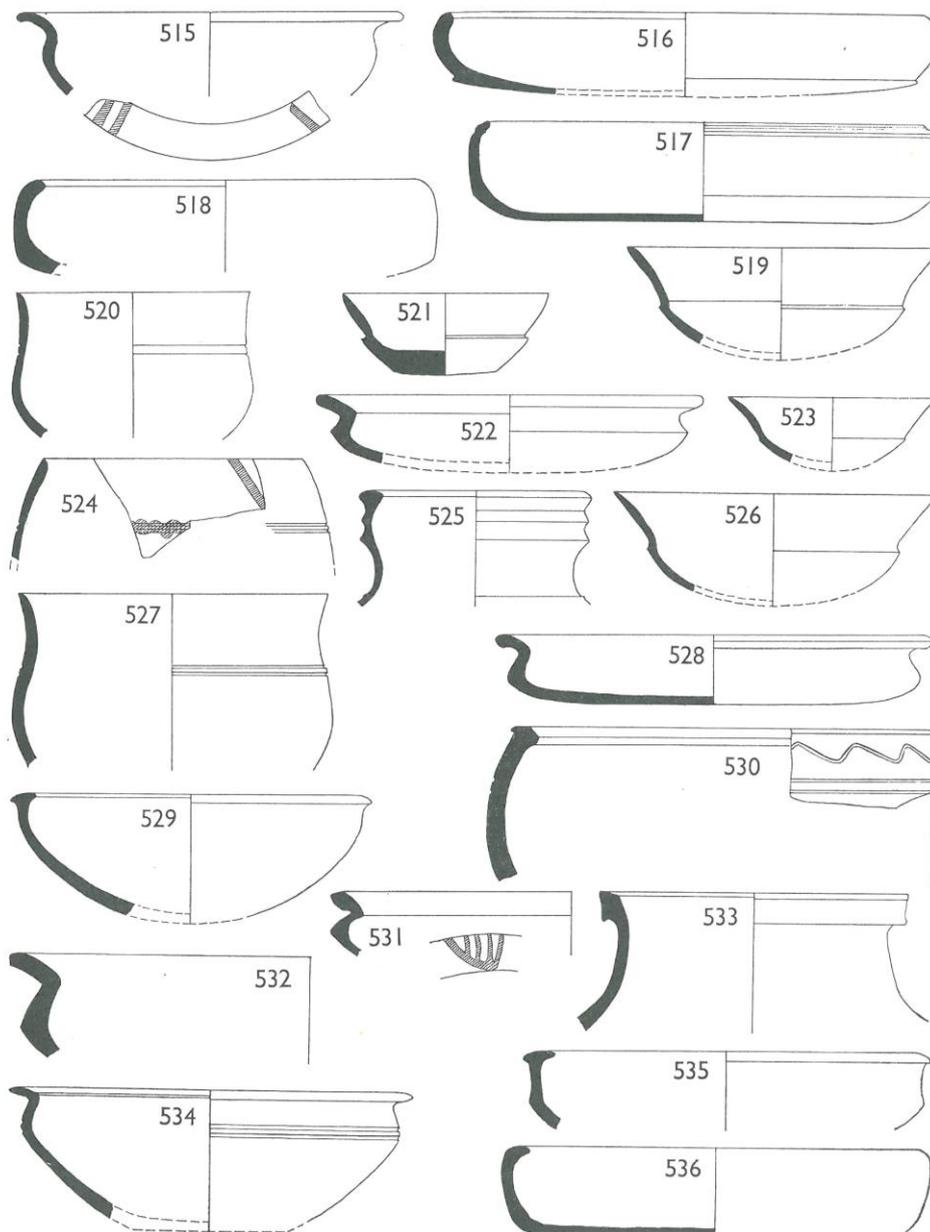


FIG. 49. Pottery from Ch. V: 515-16 from layer 14; 517 from layer 12; 518-19 from layer 11; 520 from layer 10; 521-36 from layer 9.

Figure 2.46 - Bala Hisar (*ibid.*: fig. 49).

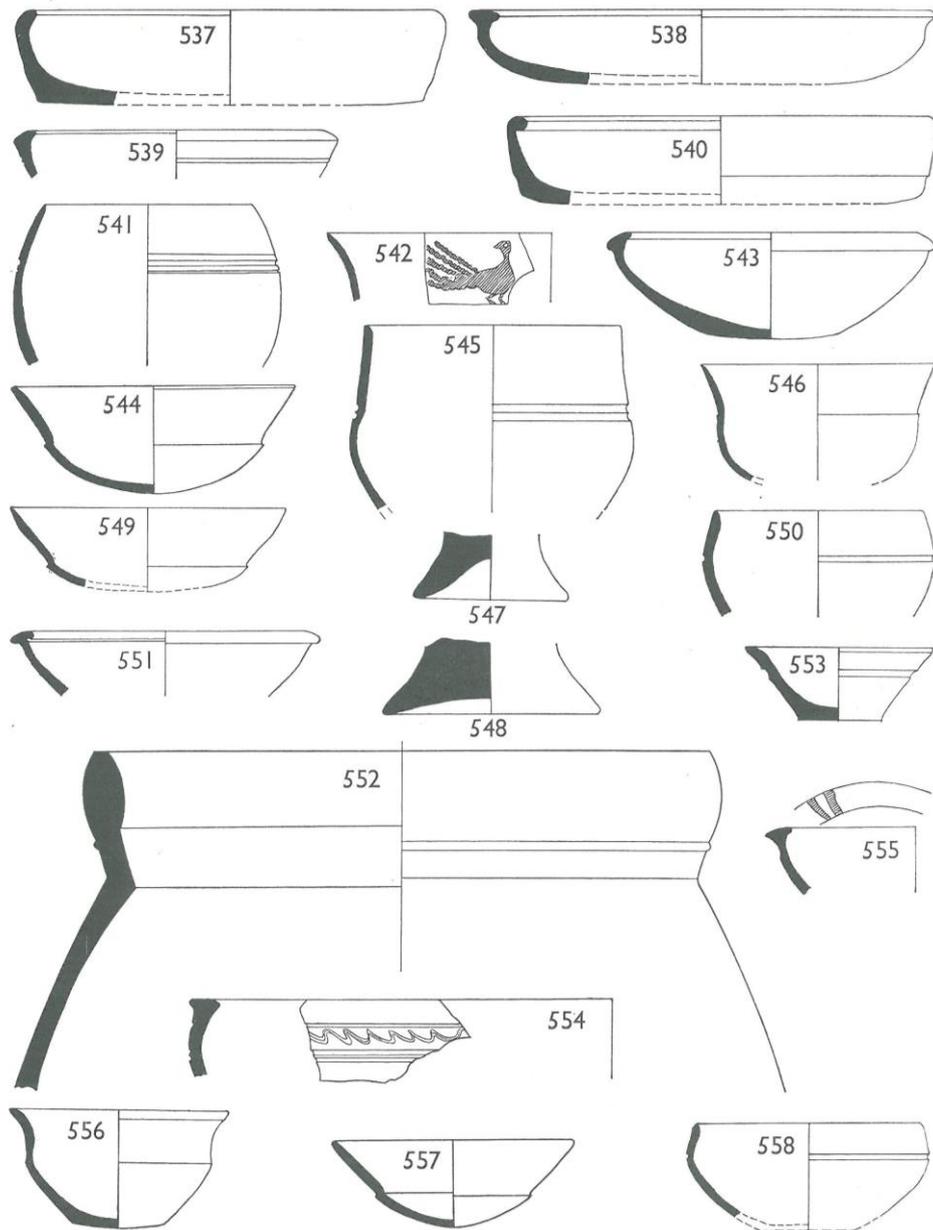
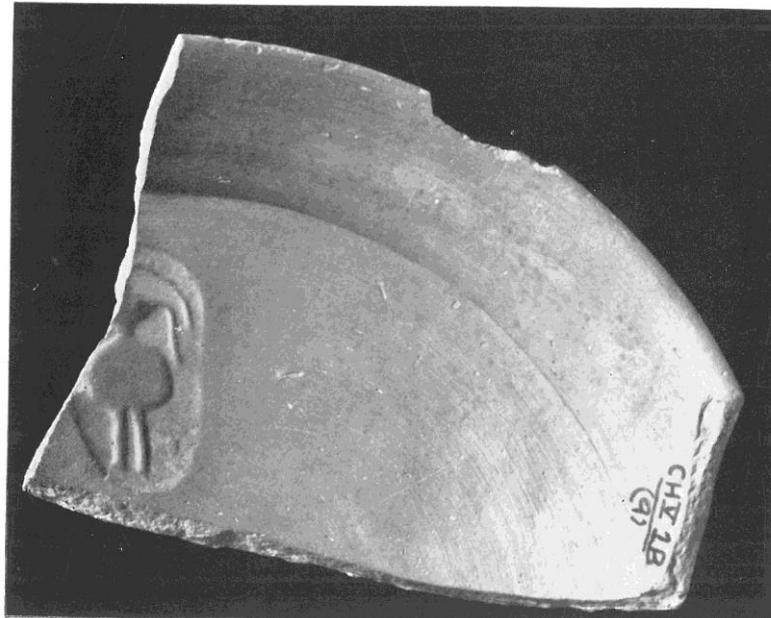


FIG. 50. Pottery from Ch. V: 537-9 from layer 8; 540-3 from layer 7; 544-7 from layer 6; 548-9 from layer 5; 550-2 from layer 4; 553-4 from layer 3; 555-8 from layer 2.  $\frac{1}{2}$ .

Figure 2.47 - Bala Hisar (*ibid.*: fig. 50).



Bowl showing ritual dance, from Ch. V. 18. See p. 102

Figure 2.48 – Bala Hisar (*ibid.*: pl.XIX).

## Shaikhan Dheri

The distinctive ceramics types of the so-called 'Greek Period' of Shaikhan Dheri include truncate-conical or rounded bowl/dish, on ring or flat base, resembling the Hellenistic *plat-a-poisson* (Dani 1965-66: fig. 12.1,5; fig. 15.8-9) also present at Ch. IV, although slightly different. Characteristic of this period is a deep goblet with almost ovoid shape and upright sides (*ibid.*: figs 11.3, 15.2) recalling the deep goblets with a slight high carination from the well E and scarcely represented in Ch. I layers (21)-(20). Both the forms appear in gray and red ware.

In red ware are a series of shallow bowls/dishes which recall the broad class of 'dishes with incurving side' at Bala Hisar. The illustrated examples have incurving or slightly inflected side like those appearing in Ch. I layer (21), instead, no bowls with vertical side and inflected rim, like those from Ch. I layers (27)-(24), are documented.

Bowls with rounded or almost hemispherical body and flat everted rim mostly painted with bundles of stripes and cross-hatched triangles (fig. 21), sometimes with a painted rosette on the bottom, find analogies with Ch. I layers (20)-(22) and with the Indo-Greek phase of Barikot (Callieri 2000: fig. 1.c-d).

Simple deep rounded bowls with upright rim and grooves on the upper body and flat base (Dani 1965-66: figs 14.1, 3-5, 12), akin to those from well E and Ch. I at Charsadda, are here represented. Present in well E (Wheeler 1962: no. 486), as well as at Sirkap (type 14a), is a bell-shaped bowl with slightly flared rim (Dani 1965-66: fig. 15.1).

Truncate-conical bowls with inflected rim represented in Ch. I layer (22) are here illustrated in fig. 16.7-8.

As regards decoration, apart from stamped lotus on the inner bottom of different types of bowl (see Dani 1965-66: 213, fig.58), embossed *emblema* on the bottom of bowls bearing female images in Hellenistic 'taste' were recovered at Shaikhan Dheri (Dani 1965-6: pl. XXXI) in disturbed context.

BLACK POLISHED WARE

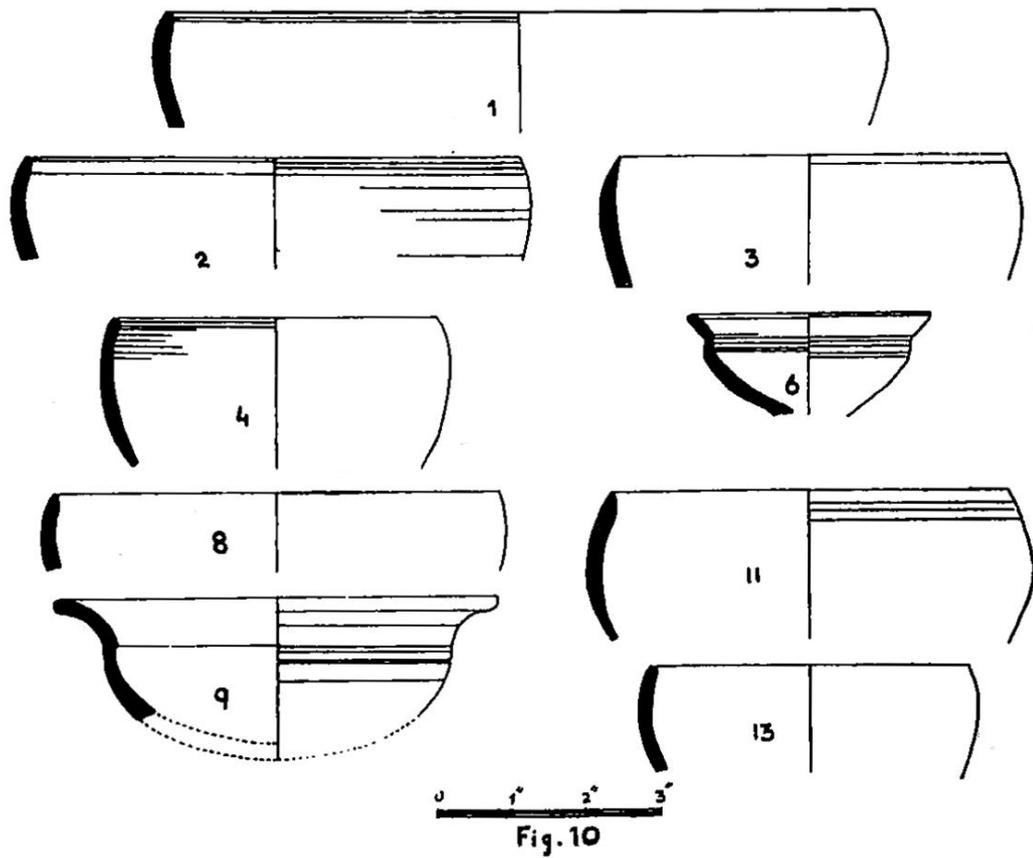


Figure 2.49 – Shaikhan Dheri (Dani 1965-66: fig. 10).

GREEK PERIOD : GREY WARE

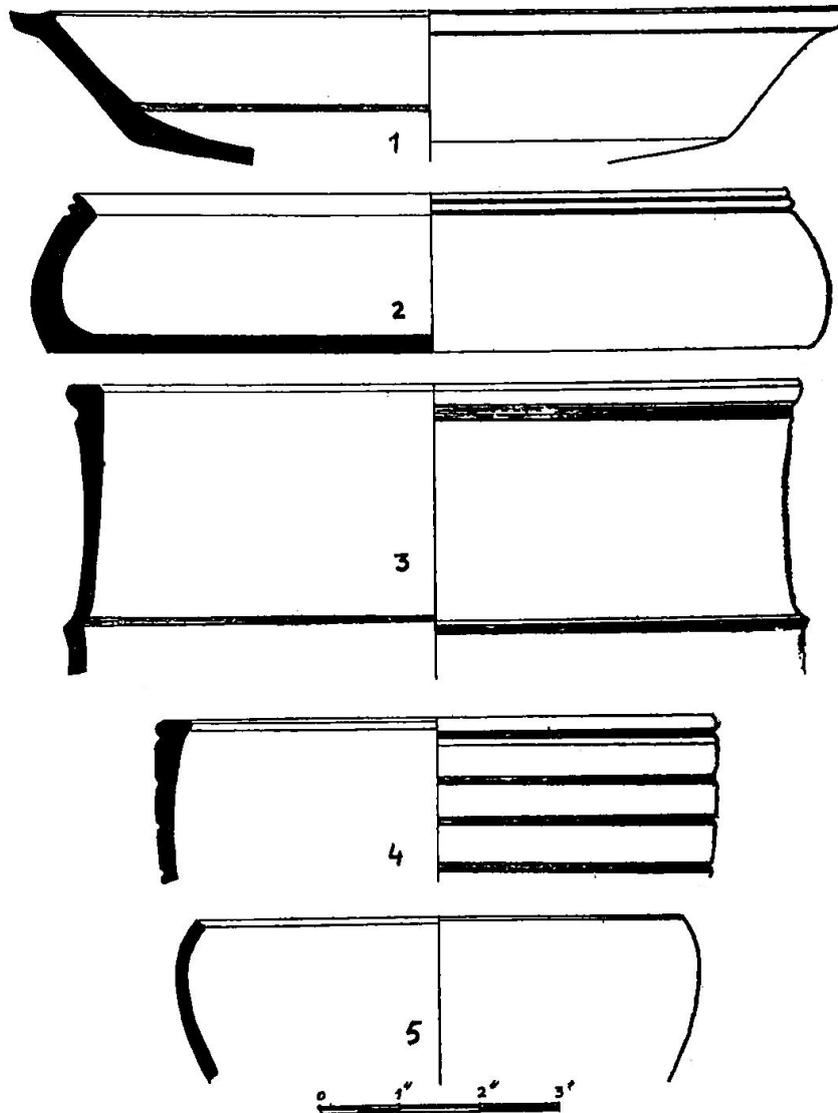


Figure 2.50 – Shaikhhan Dheri (*ibid.*: fig. 11).

GREEK PERIOD GREY WARE

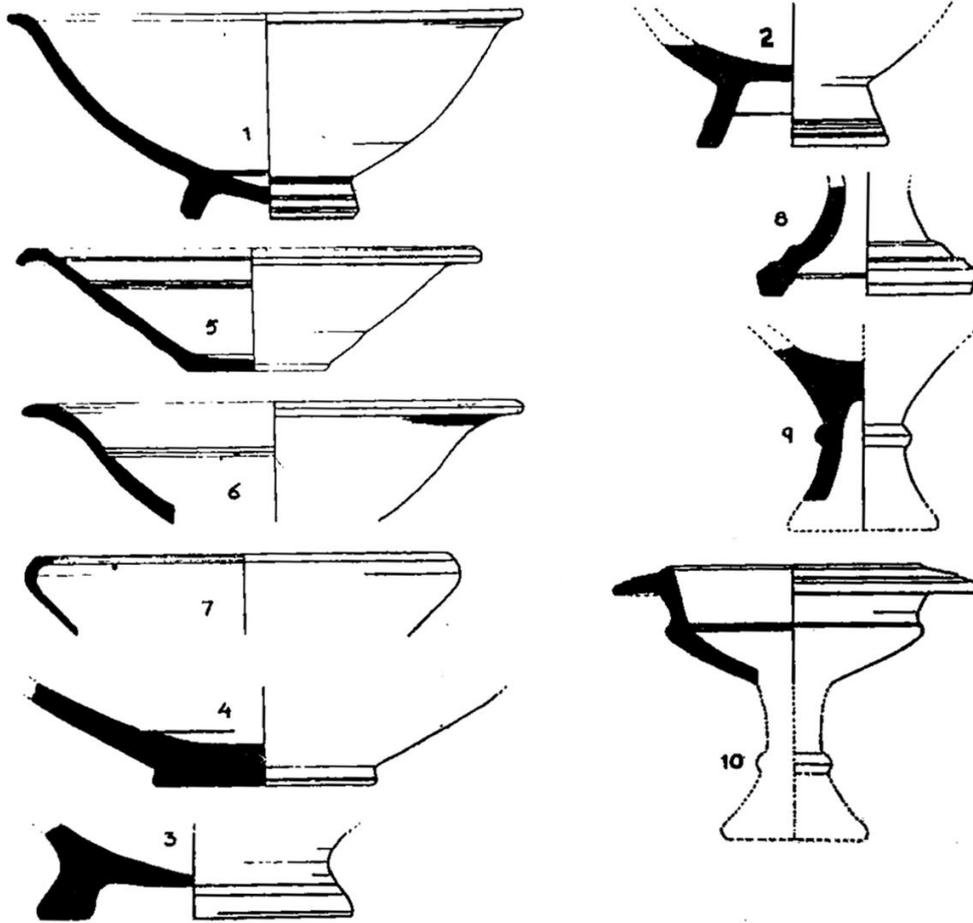


Fig. 12

Figure 2.51 – Shaikhhan Dheri (*ibid.*: fig. 12).

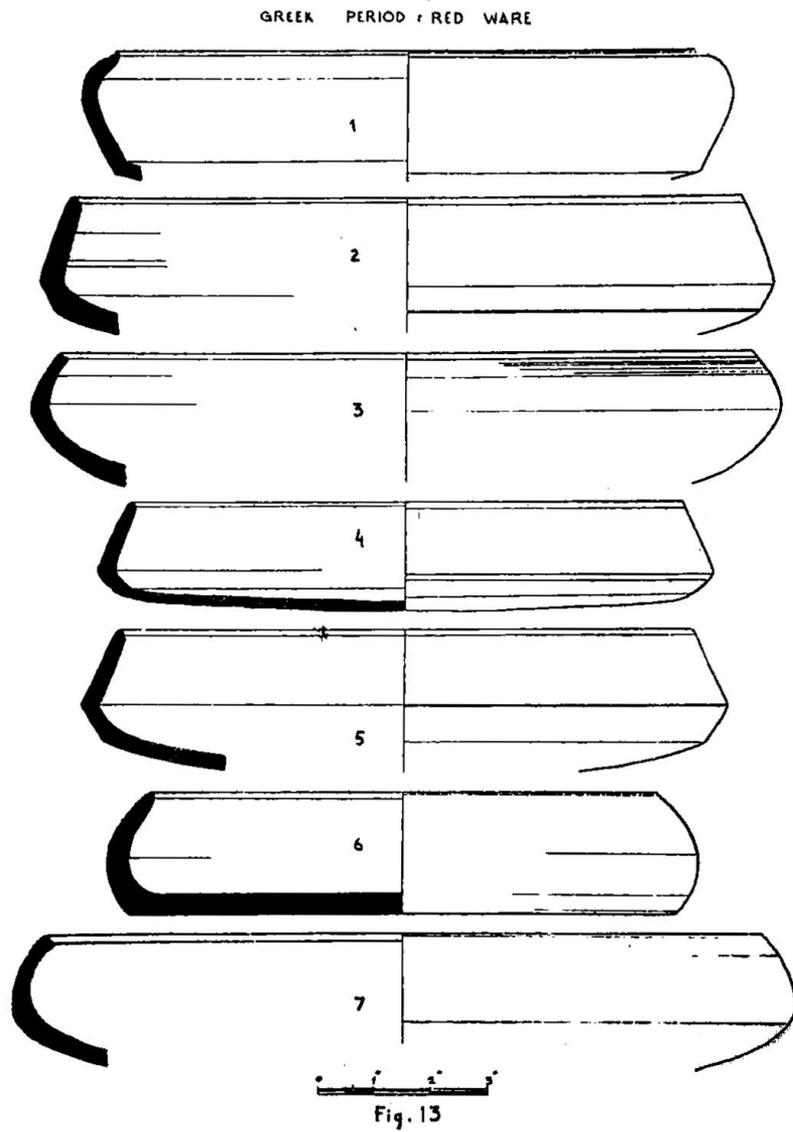


Figure 2.52 – Shaikhan Dheri (*ibid.*: fig. 13).

GREEK PERIOD : RED WARE

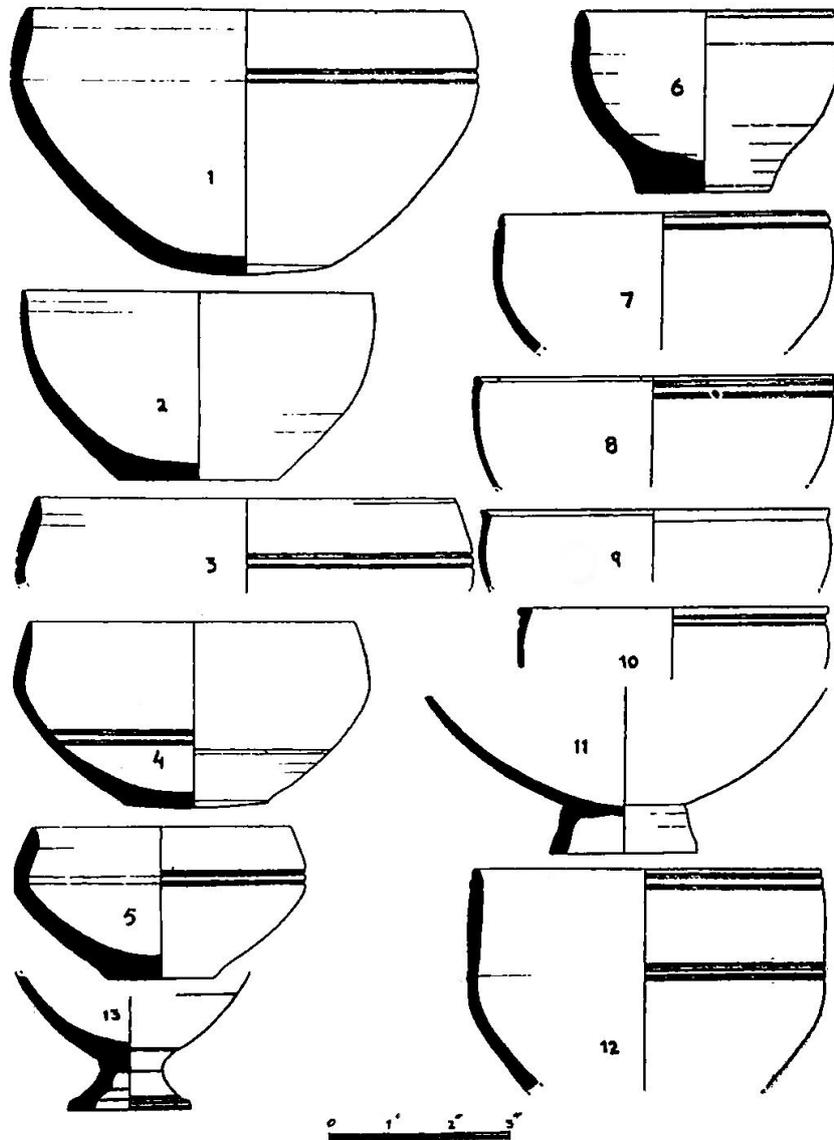


Fig. 14

Figure 2.53 – Shaikhan Dheri (*ibid.*: fig. 14).

GREEK PERIOD RED WARE

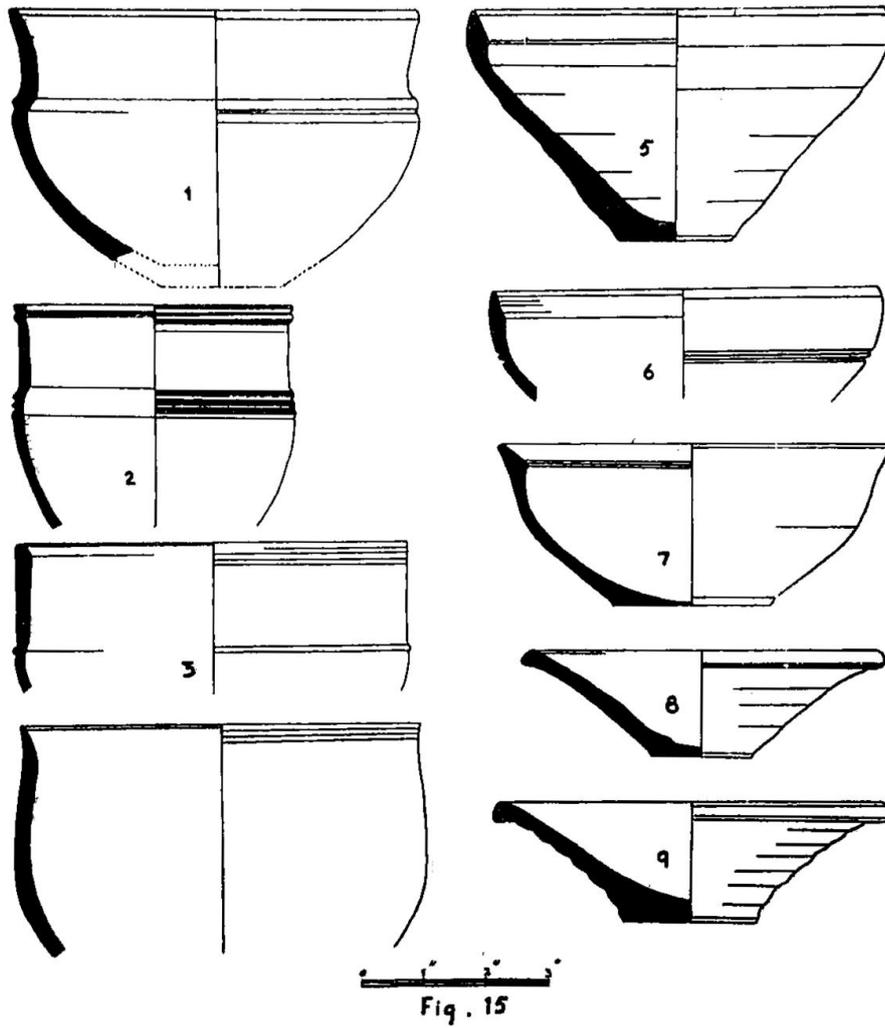


Figure 2.54 – Shaikhhan Dheri (*ibid.*: fig. 15).

GREEK PERIOD : RED WARE

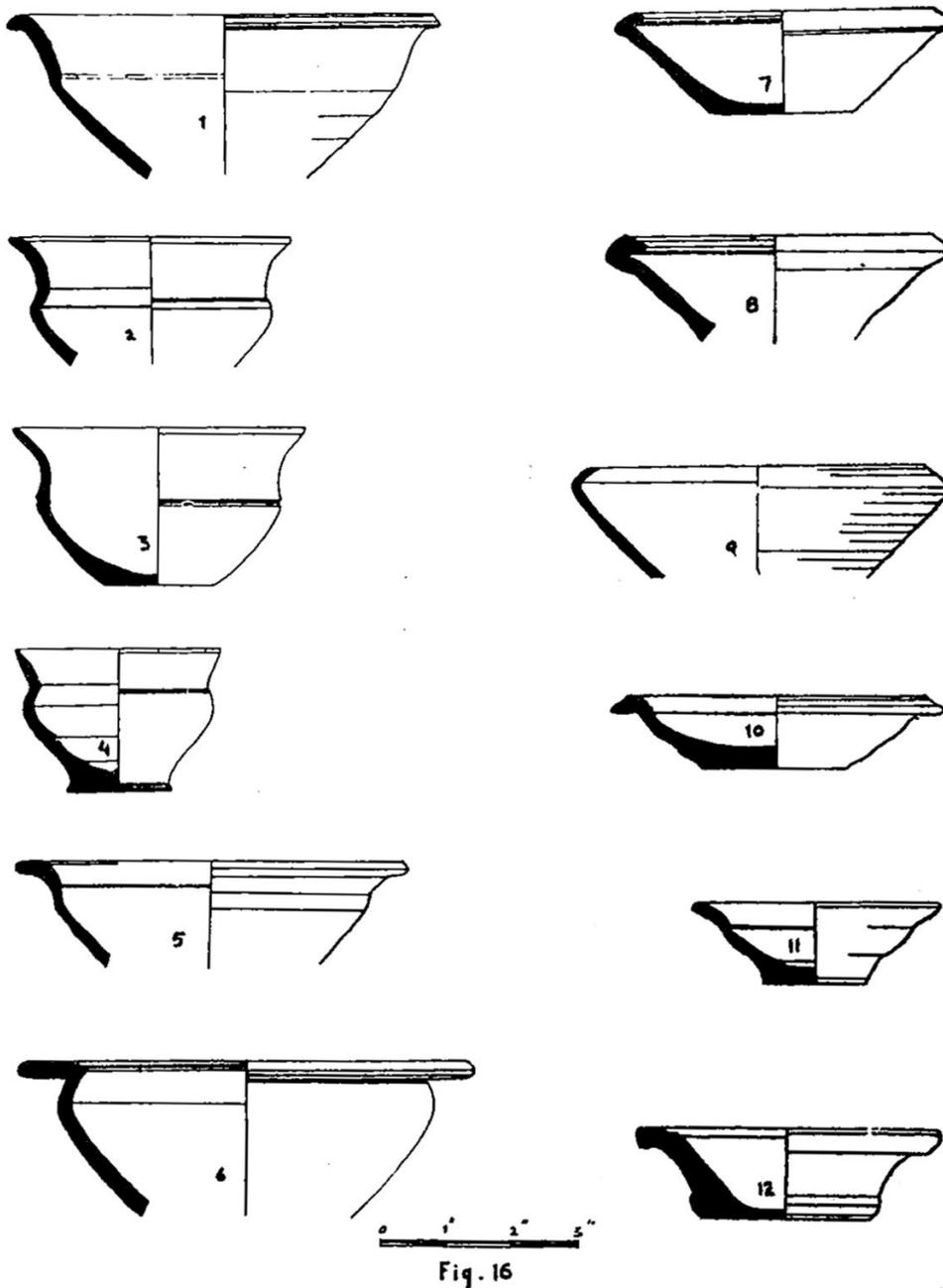


Figure 2.55 – Shaikhan Dheri (*ibid.*: fig. 16).

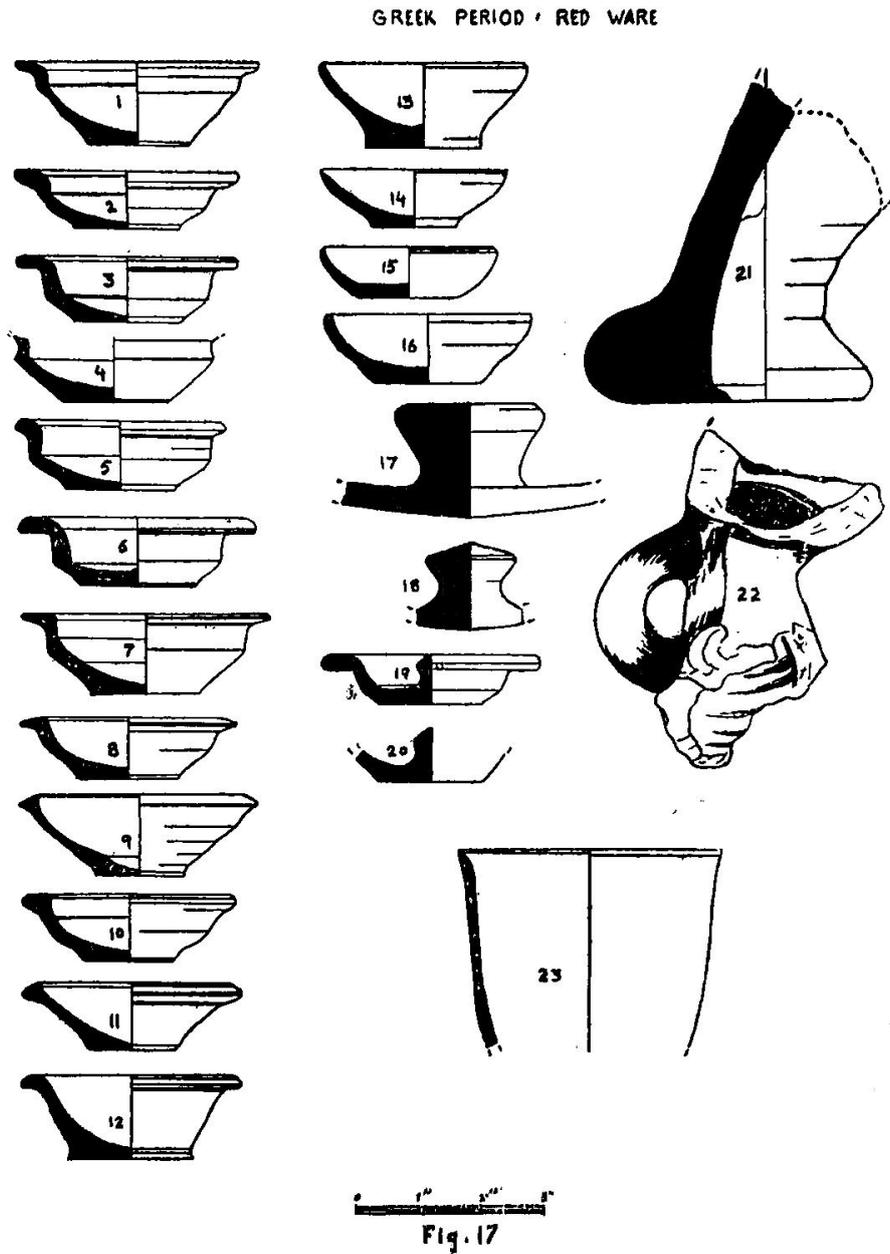


Figure 2.56 -- Shaikhan Dheri (ibid.: fig. 17).

GREEK PERIOD RED WARE

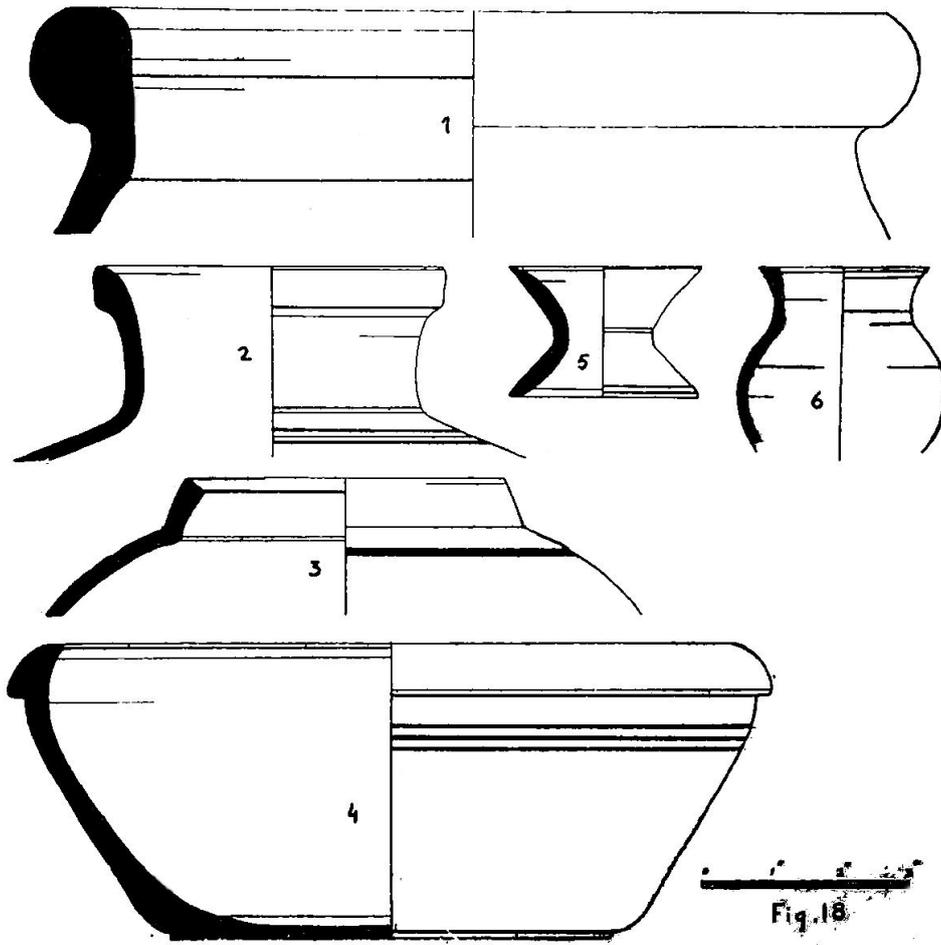


Figure 2.57 – Shaikhhan Dheri (*ibid.*: fig. 18).

GREEK PERIOD: RED WARE

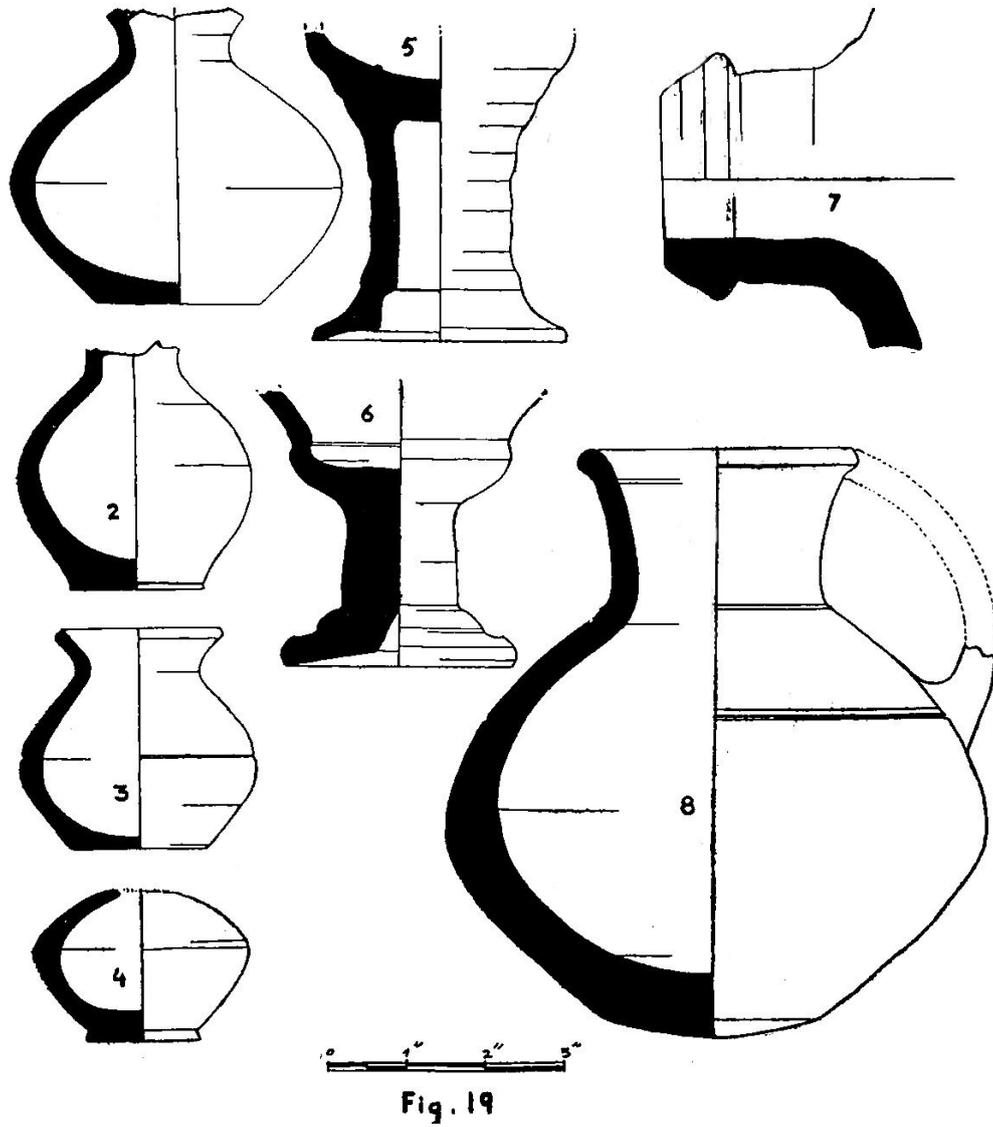


Figure 2.58 – Shaikhhan Dheri (*ibid.*: fig. 19).

DANI

(ANCIENT PAKISTAN)

GREEK PERIOD RED WARE

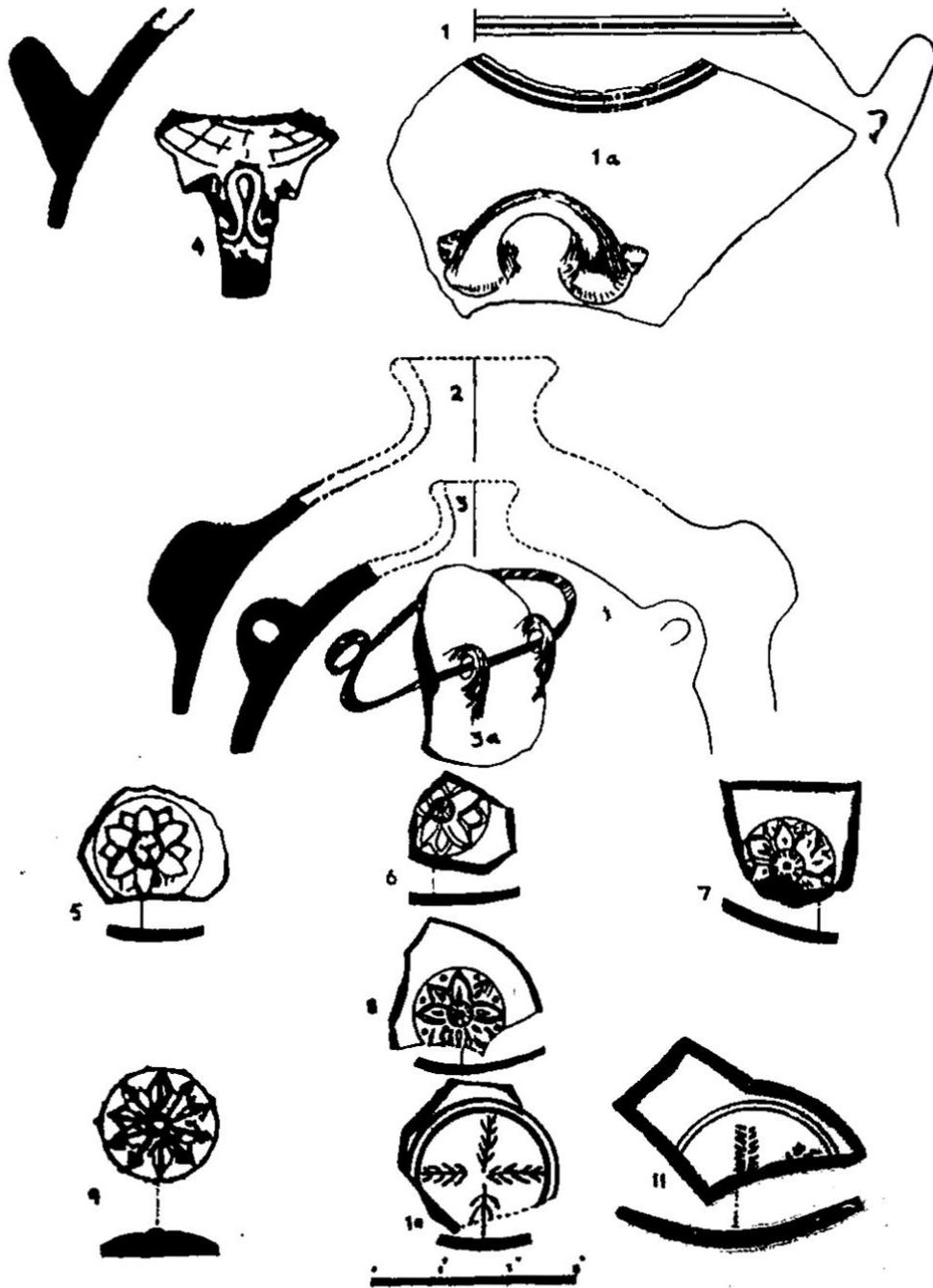


Fig. 20

Figure 2.59 – Shaikhan Dheri (*ibid.*: fig. 20).

GREEK PERIOD PAINTED SHERDS



Figure 2.60 – Shaikhhan Dheri (*ibid.*: fig. 21).

### 2.2.2 Taxila: Bhir Mound

As might be expected with three separate excavations, the published corpus of ceramic material from Bhir Mound at Taxila lack of a unanimously accepted relative correlation besides a homogeneity in term of both selection and presentation to the public. For these reasons the materials are here shown separated by years of excavation.

Marshall (1951) (Figs 2.61-65)

Stratum IV (Marshall 1951: 101-102). Among the most representative forms of stratum IV assemblage Marshall reports: a narrow necked jar with elongated body (*ibid.*: no. 10), a hole-mouthed cooking pot with lugs curved downwards (*ibid.*: no. 48), a flat bottomed jar with ovoid body (*ibid.*: no. 54) and a spouted jug with bull-head handle and gadrooned neck (*ibid.*: no. 75). Most of the assemblage is in red ware and made on wheel. Gray ware vessels with simple incised decoration are represented by a squat flask with convex base decorated with chevron and crossed pattern (*ibid.*: no. 229) and a narrow necked flask with spiral pattern around neck. A flat-based jar with geometrical black painting on the shoulder (*ibid.*: no. 217) and a fragment of bowl with flared rim decorated with lotus pattern in “Greek black ware” (no. 228) are considered stray from the later strata.

Stratum III (*ibid.*: 104). In this stratum the Hellenistic black and embossed ware make their appearance. It is worth mentioning a ‘pilgrim flask’ with buff slip and darkish red painting decorated on both side with a molded vine scroll design surrounding a central medallion (*ibid.*: no. 234), a potsherd with darkish red slip decorated with roulette bordering running spirals and floral scroll (*ibid.*: no. 235) and a fragment of the shoulder of a vase decorated with a series of almond-shaped bosses in three or four rows (*ibid.*: no. 236).

Local gray ware is instead documented by bowls and cooking pots both with carinated sides. Fragments in local red ware include: a small pot with rounded bottom (*ibid.*: no. 30), cooking pot with carinated shoulder (*ibid.*: no. 49), drinking cup (*ibid.*: no. 84), bowls (*ibid.*: nos 92, 96, 97), basin (*ibid.*: no. 114), flesh-rubber (*ibid.*: no. 166), miniature jar (*ibid.*: no. 176), an anthropoid vase (no. 184), stoppers surmounted by animals (*ibid.*: nos 200, 201), ring stand (*ibid.*: no. 202), fragmentary sprinkler with four spouts (*ibid.*: no. 71) and a mould of a nine-petalled flower for embossing on clay.

Stratum II (*ibid.*: 107-108). Marshall, who labelled this stratum as Mauryan, stressed the Indo-Gangetic tradition of the minor arts and crafts culture of this period and the decrease

of ceramic material with Hellenistic 'taste'. The latter include: few specimens of Greek black ware, one fragment with stamped rosette in relief probably from the neck of krater no. 226 (*ibid.*: no. 227), a small embossed and stamped jar (*ibid.*: no. 238), two pilgrim flasks (*ibid.*: nos. 43, 46), some handled jugs (*ibid.*: nos. 76, 79), a baking-pan with two handles (*ibid.*: no. 112) and covers with loop-handles inside (*ibid.*: no. 192).

All the rest of the pottery is considered representative of the Indo-Gangetic tradition: storage-jars (*ibid.*: nos 1, 2, 6), oil and wine jars (*ibid.*: nos 8, 9, 11, 12), narrow necked flasks (*ibid.*: no. 16), open mouthed spouts (*ibid.*: nos 26, 27, 31, 32), flat bottomed pots and jars (*ibid.*: nos 35, 40, 52, 53, 55), spouted pots (*ibid.*: nos 66, 70, 71), drinking cups (*ibid.*: no. 85), bowls with rounded and flat bases (*ibid.*: nos. 94, 103) and lamps (*ibid.*: no. 135). Worth of mention are also: a small crucible (*ibid.*: no. 165), flesh-rubber with incised cross-lines on both sides (*ibid.*: no. 167), two-handled pounder (*ibid.*: no. 170), one of which is inscribed (nos 173, 174), miniature vessels (*ibid.*: nos 175, 178, 180), covers (*ibid.*: nos 186, 188), lids (*ibid.*: no. 194), stoppers (nos 198, 199), ring-stand (*ibid.*: no. 205), drain-pipes and gutters (*ibid.*: nos 209, 214), handled pot of red and black ware (*ibid.*: no. 216).

Stratum I (*ibid.*: 110). In the upper stratum some vessels of Hellenistic tradition were documented. In particular: a krater decorated with a fluted leaf design around the body bordered by bead-and-reel motif provided with an handle decorated by the head of Heracles or Alexander (*ibid.*: no. 226) and a shallow bowl in embossed ware with an ivy scroll enclosing a medallion on the bottom (*ibid.*: no. 237). A double pot of the *kernos* type (*ibid.*: no. 151), a finial (*ibid.*: no. 172), some miniature vessels (*ibid.*: nos 177, 179), and a stamp with the figures of a spearman and horse in a circle of pendant drops (*ibid.*: no. 259) are also documented.

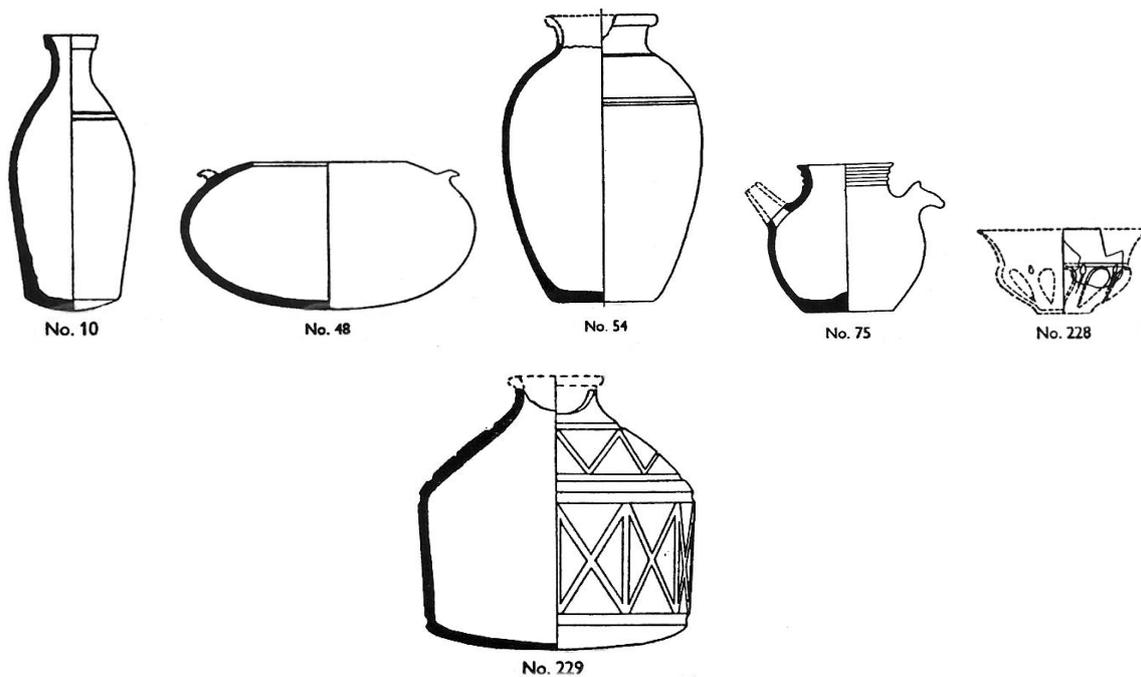


Figure 2.61 – Bhir Mound stratum IV (Marshall 1951: pls 121-123, 128). Not to scale.

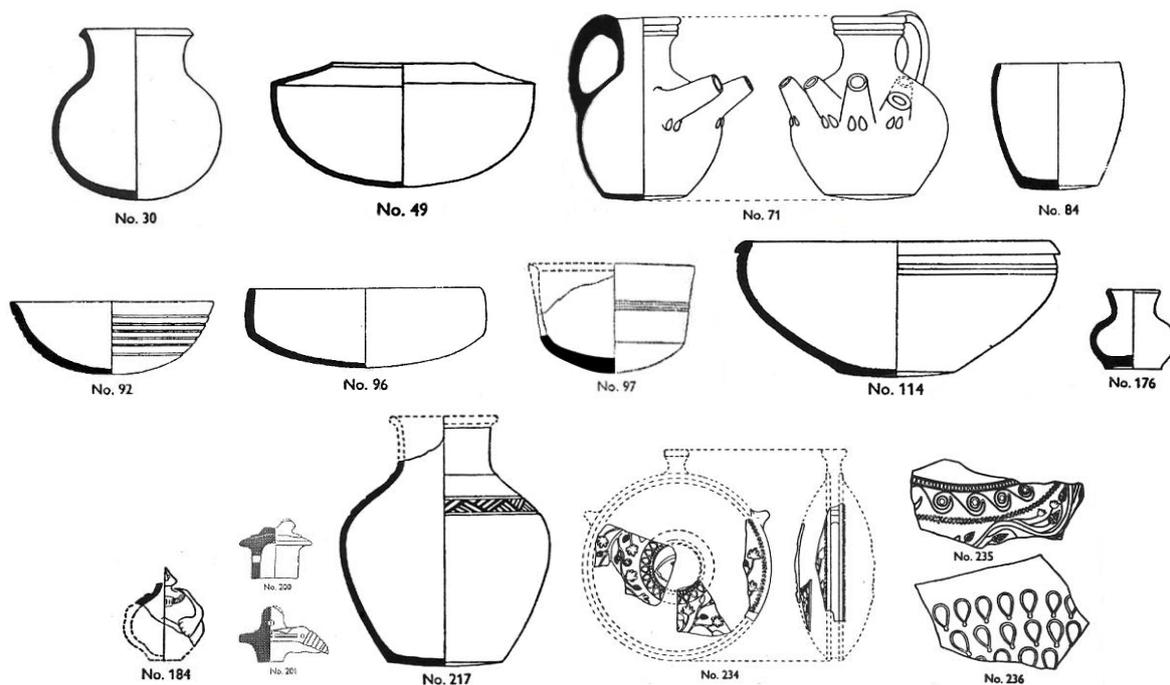


Figure 2.62 – Bhir Mound, stratum III (Marshall 1951: pls 122-124, 126-128). Not to scale.

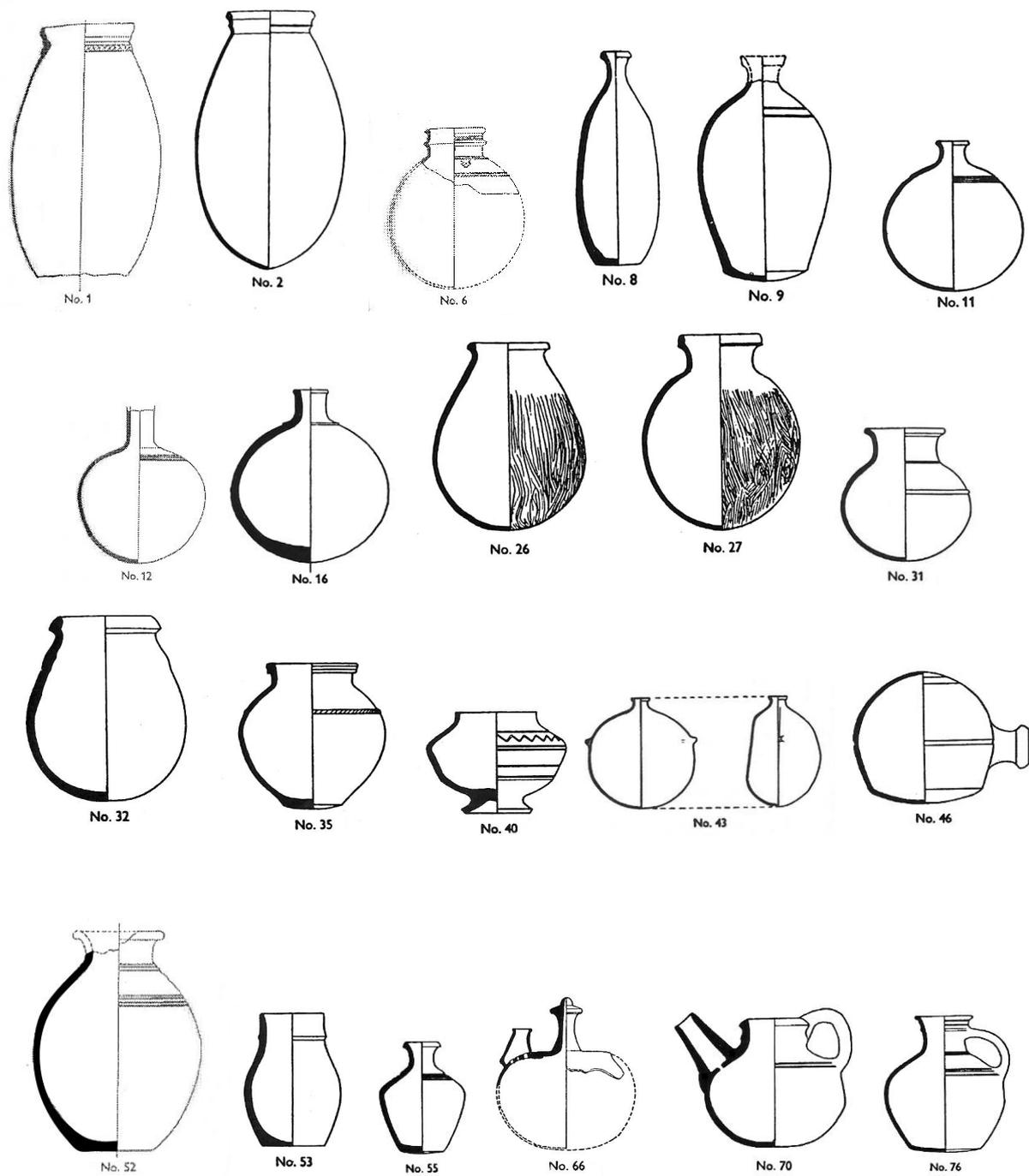


Figure 2.63 - Bhir Mound Stratum II (Marshall 1951: pls 121-123). Not to scale.

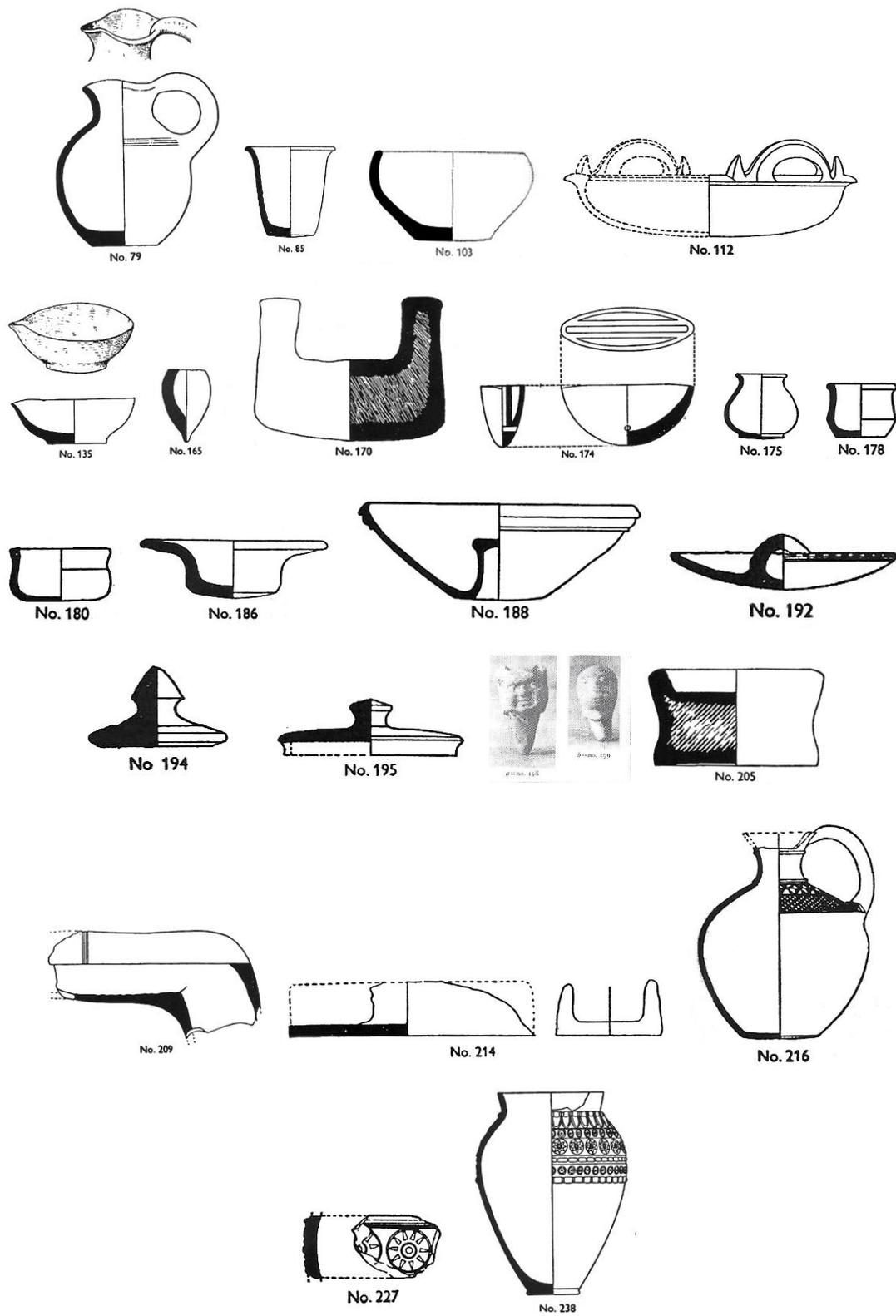


Figure 2.64 - Bhir Mound Stratum II (Marshall 1951: pls 123-128, 130). Not to scale.

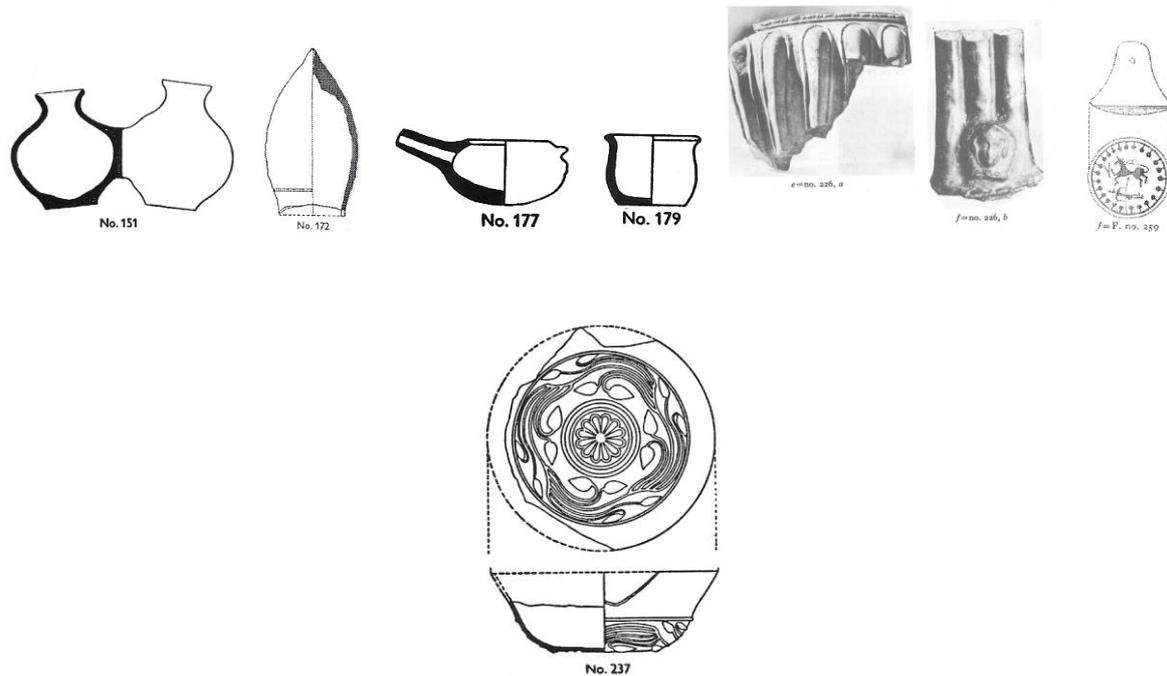


Figure 2.65 - Bhair Mound, stratum I (Marshall 951: pls 126, 128, 130, 204). Not to scale.

#### Sharif (1969) (Figs 2.66-2.80)

Period I. The key ware of Sharif Period I is the NBP ware by which he attributed this earliest Period to the 4<sup>th</sup>-3<sup>rd</sup> century BC (Sharif 1969: 13, 17). Gray ware is mainly represented by simple rounded bowl and large shallow bowl of the thali type with a smooth carination.

Vogelsang broadly correlated this Period with Dittman Ch. IB (Vogelsang 1988: 107) since the correlation of the latter with the open bowl in gray ware at Charsadda, appearing only from Ch. layer (38). Instead, Dittmann correlated this phase with the beginning of Maurya age in his periodization, namely Phase IIC, layers (24)-(22) (Dittmann 1984: 172).

Period II. Sharif Period II is marked by an increase in gray ware and the introduction of: 'bowl-cum-lid' (Sharif 1969: fig. 12.5), necked jar with externally thickened rim, basin and carinated bowl with everted rim (*ibid.*: fig. 13.3-3a). Vogelsang, since the carinated bowl with everted rim appeared for the first time at Charsadda from layer (32), correlated this period with Dittmann IIA.

Period III. The ceramic assemblage of Sharif Period III is marked by a sharp decrease of NBP ware and gray ware, which is said to become coarser. Most of the pottery is in red

ware and the most diffused types are: bowls with incurved rim; water vessels with a thick flanged rim; hole-mouthed cooking pot with sharply carinated shoulders in gray and red ware (*ibid.*: figs 15.9, 19.5-5a); Tulip bowl (*ibid.*: fig. 19.1) and small truncate-conical cup with upright or incurving rim in dull red ware (*ibid.*: fig. 19.7-7a). Thalis with sharp carination continue to appear in gray and red ware. Among the restricted vessel course pear shaped jar in light or dull red ware devoid of slip (*ibid.*: fig. 18.1) makes its first appearance alongside spouted vessel (*ibid.*: figs 15.21; 18.14), narrow necked jar with elongated body for liquid storage (*ibid.*: fig. 16.4), pinched mouth jug (*ibid.*: fig. 19.4) and jar with high neck and grooved (*ibid.*: fig. 18.8) or split rim (*ibid.*: fig. 18.9-10)<sup>46</sup>. This is the layer where Baroque lady terracotta figurine appeared for the first time.

In Period IV pear shaped jar (*ibid.*: fig. 22.7) and small cup with upright or incurving rim (*ibid.*: figs. 21.4-5; 22.5) are still well represented alongside narrow necked jar for liquid storage. Among jar it is worth mentioning a flanged jar decorated with a row of punched triangles (*ibid.*: fig. 23.8) and the upper part of a globular jar with a molded decoration below neck (*ibid.*: pl. XV.a.7). This later phase is also marked by the appearance of votive or ritual tanks.

---

<sup>46</sup> An earlier examples of jar with thickened multi-split rim is shown in Period II fig. 13.5.

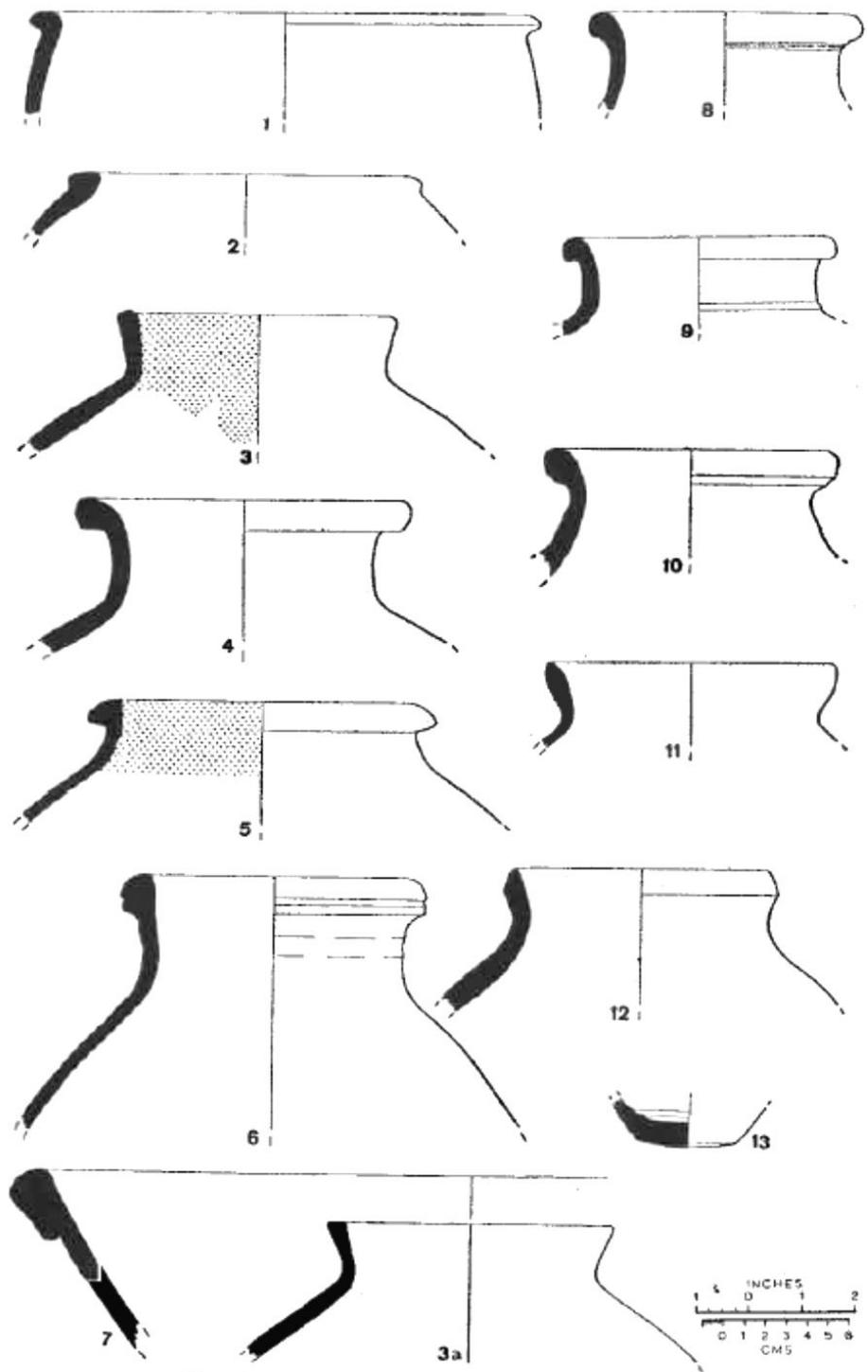


Fig. 10. Bhir Mound. Red ware of Period I

Figure 2.66 – Bhir Mound, Period I (Sharif 1969: fig. 10).

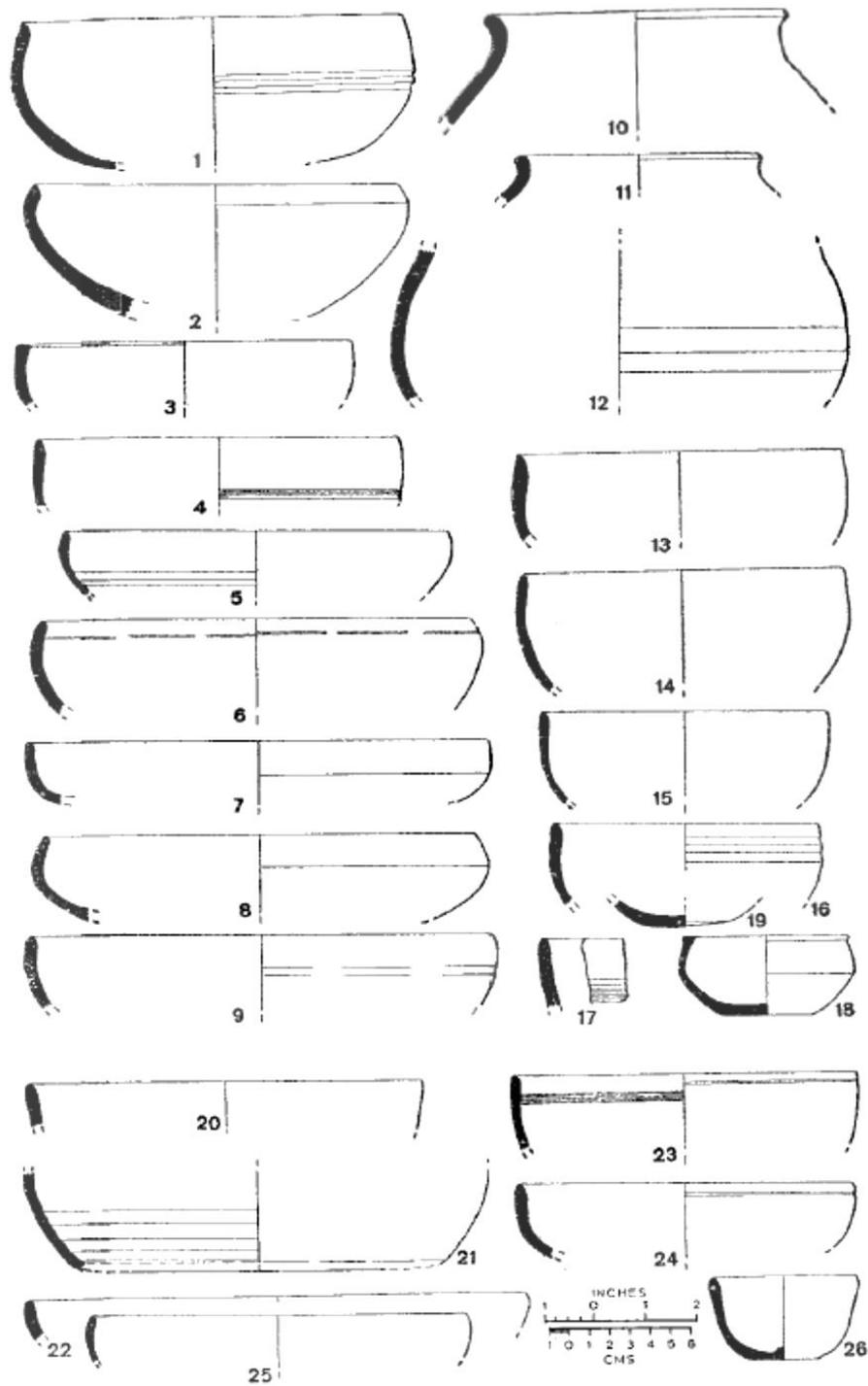


Fig. 11. Bhir Mound. Grey, black and northern black polished ware

Figure 2.67 – Bhir Mound, Period I (Sharif 1969: fig. 11).

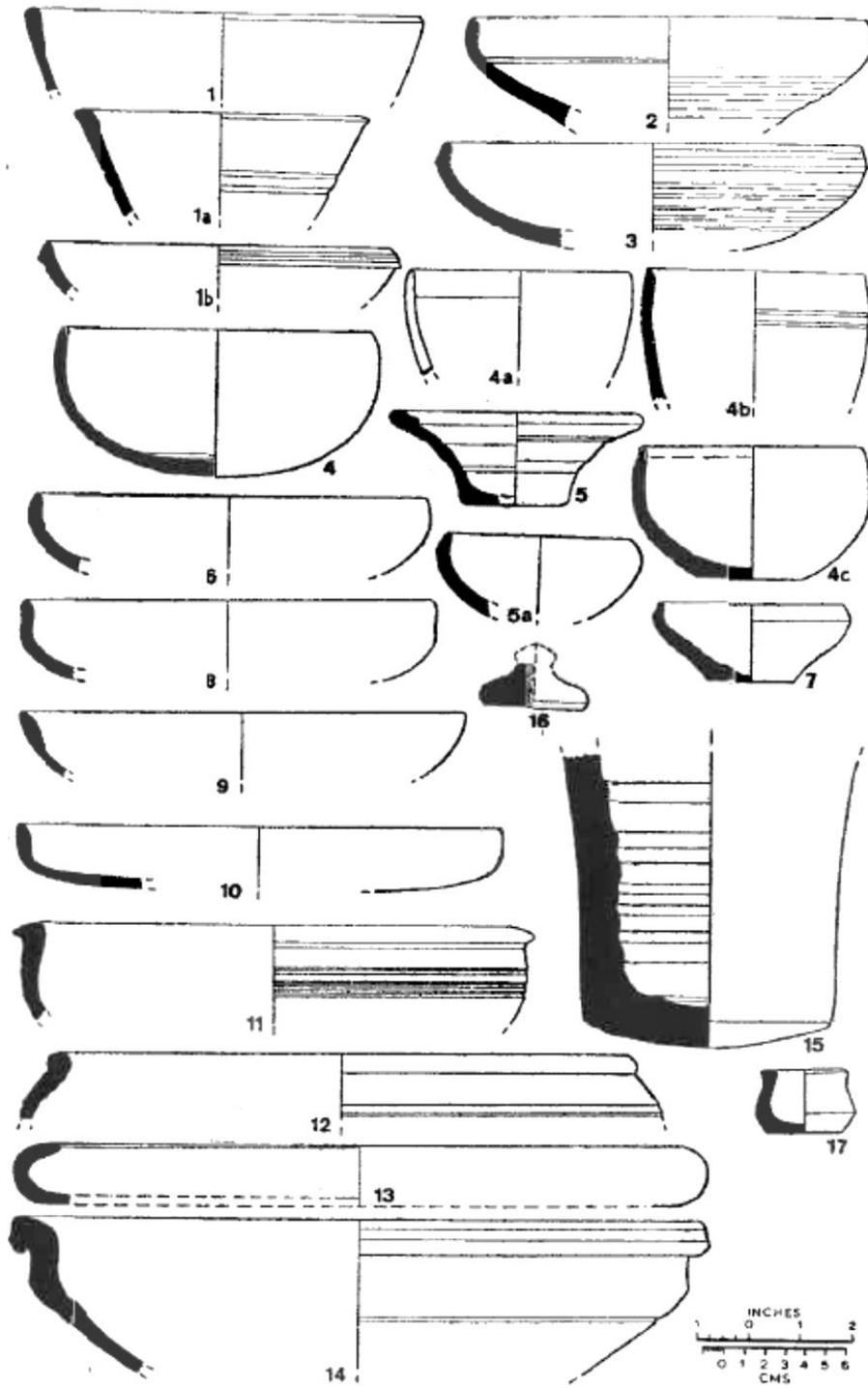


Fig 12. Bhir Mound. Red ware of Period II

Figure 2.68 – Bhir Mound, Period II (Sharif 1969: fig. 12).

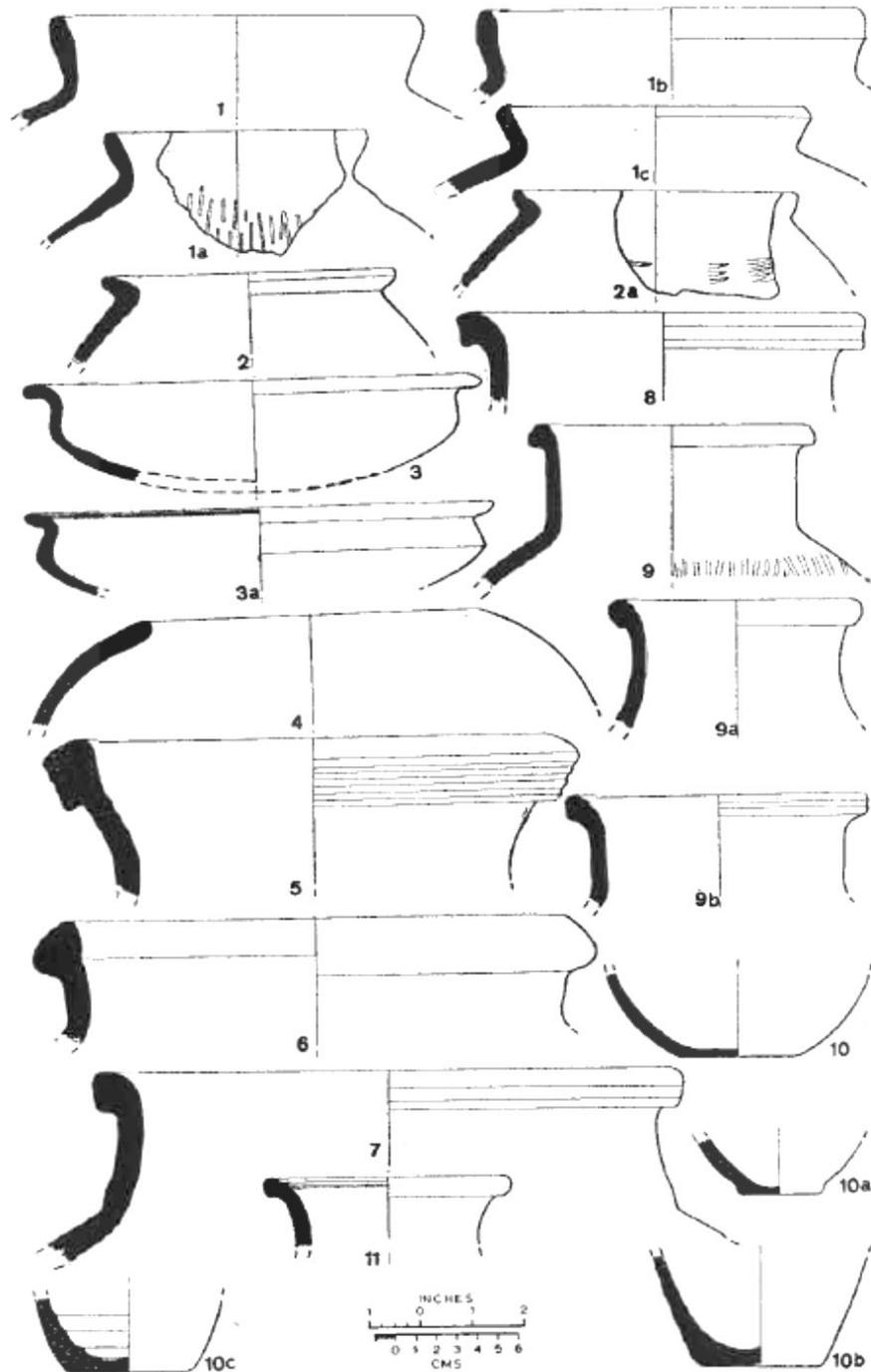


Fig. 13. Bhir Mound. Red ware of Period II

Figure 2.69 – Bhir Mound, Period II (Sharif 1969: fig. 13).

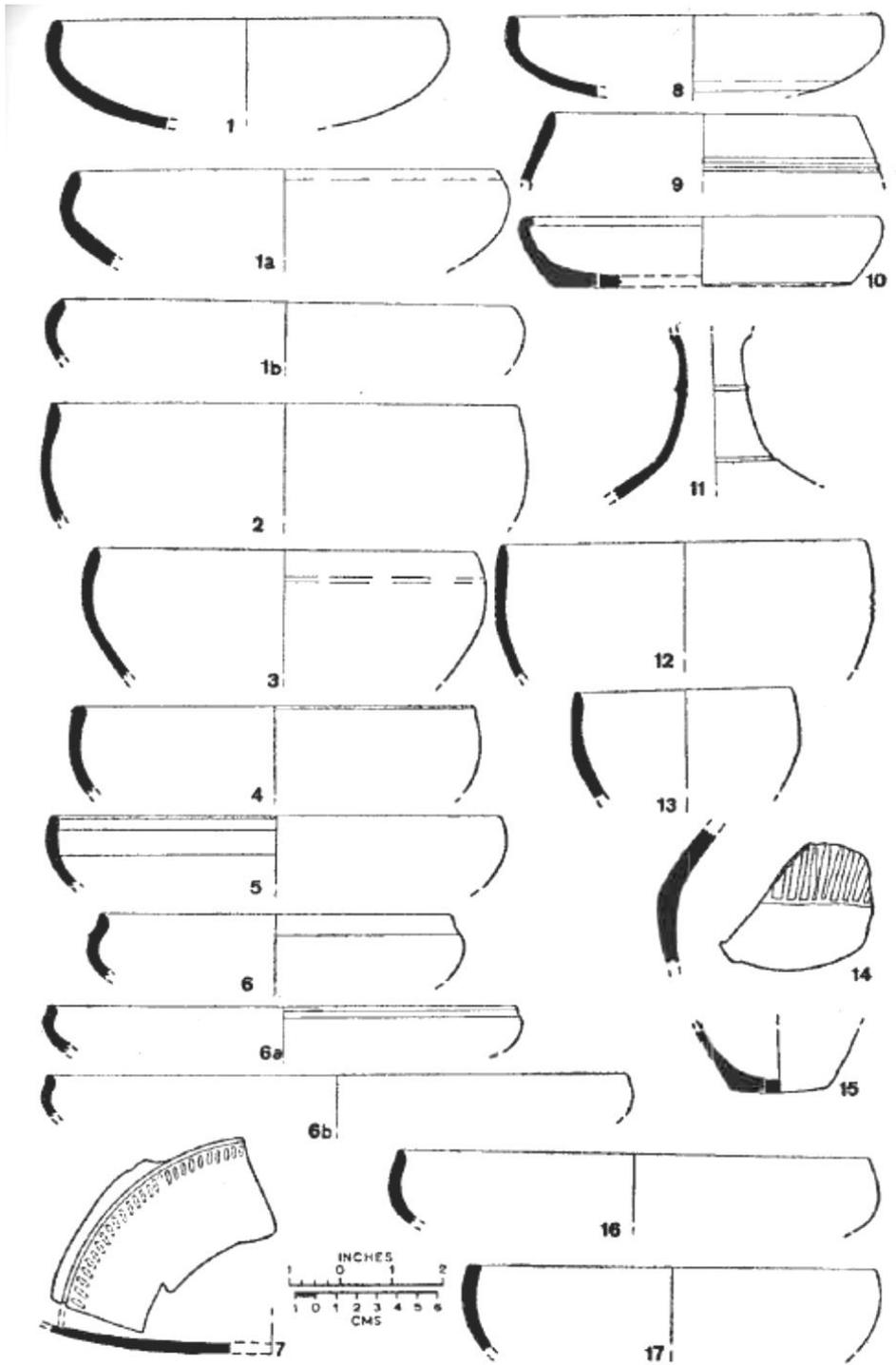


Fig. 14. Bhir Mound. Grey and black ware of Period II

Figure 2.70 – Bhir Mound, Period II (Sharif 1969: fig. 14).

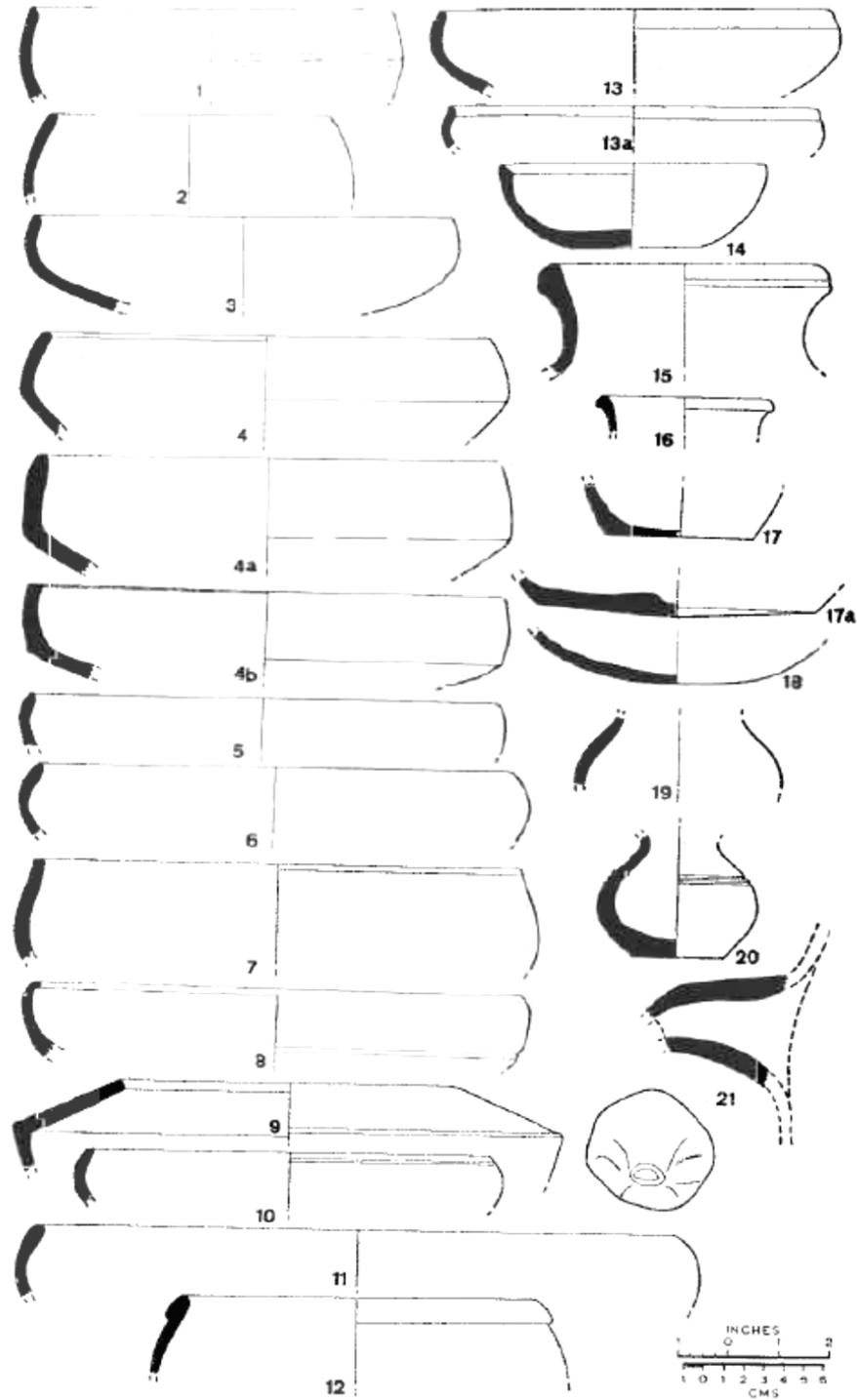


Fig. 15. Bhir Mound. Grey and black ware of Period III

Figure 2.71 – Bhir Mound, Period III (Sharif 1969: fig. 15).

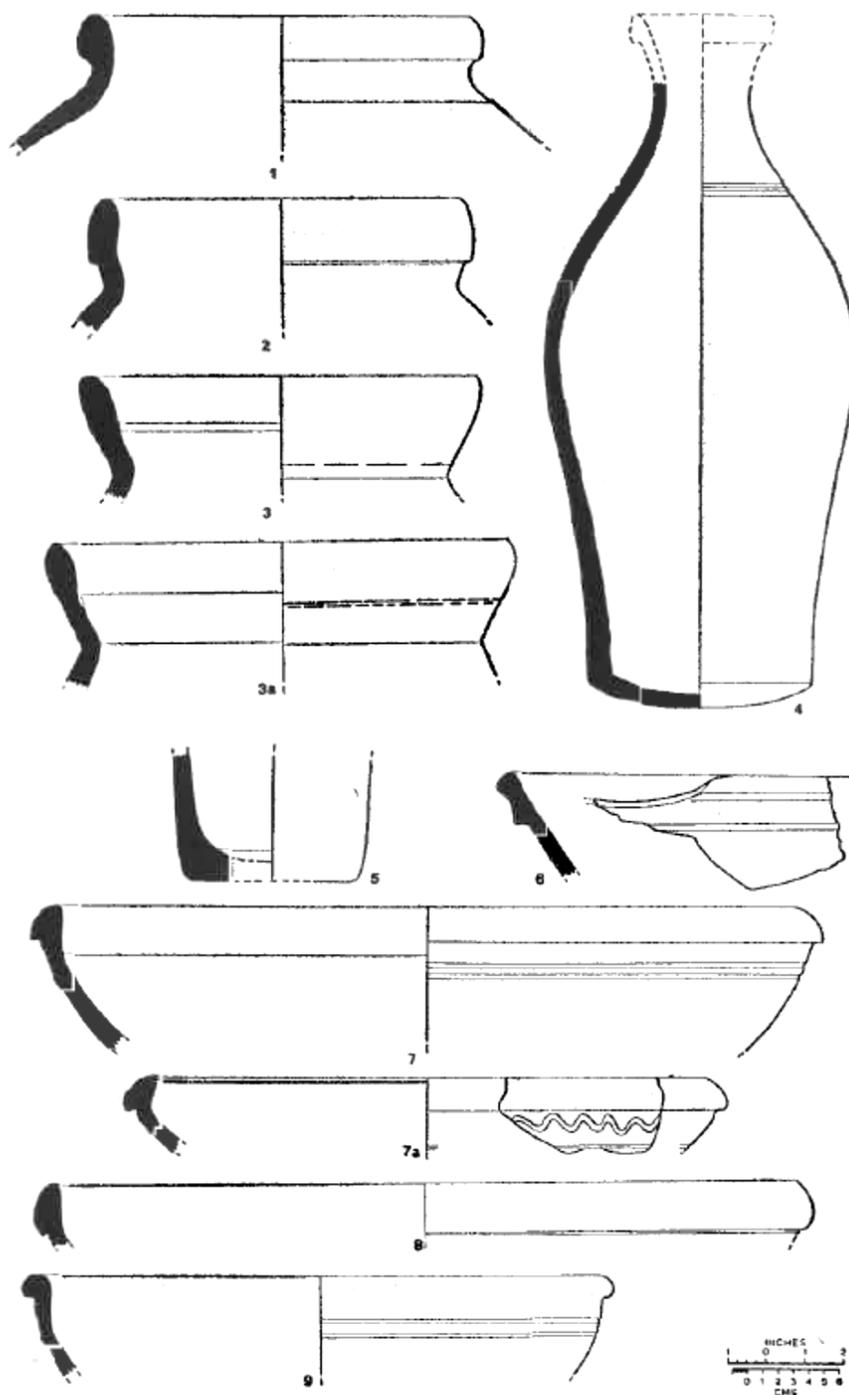


Fig. 16. Bhir Mound. Red ware of Period III

Figure 2.72 – Bhir Mound, Period III (Sharif 1969: fig. 16).

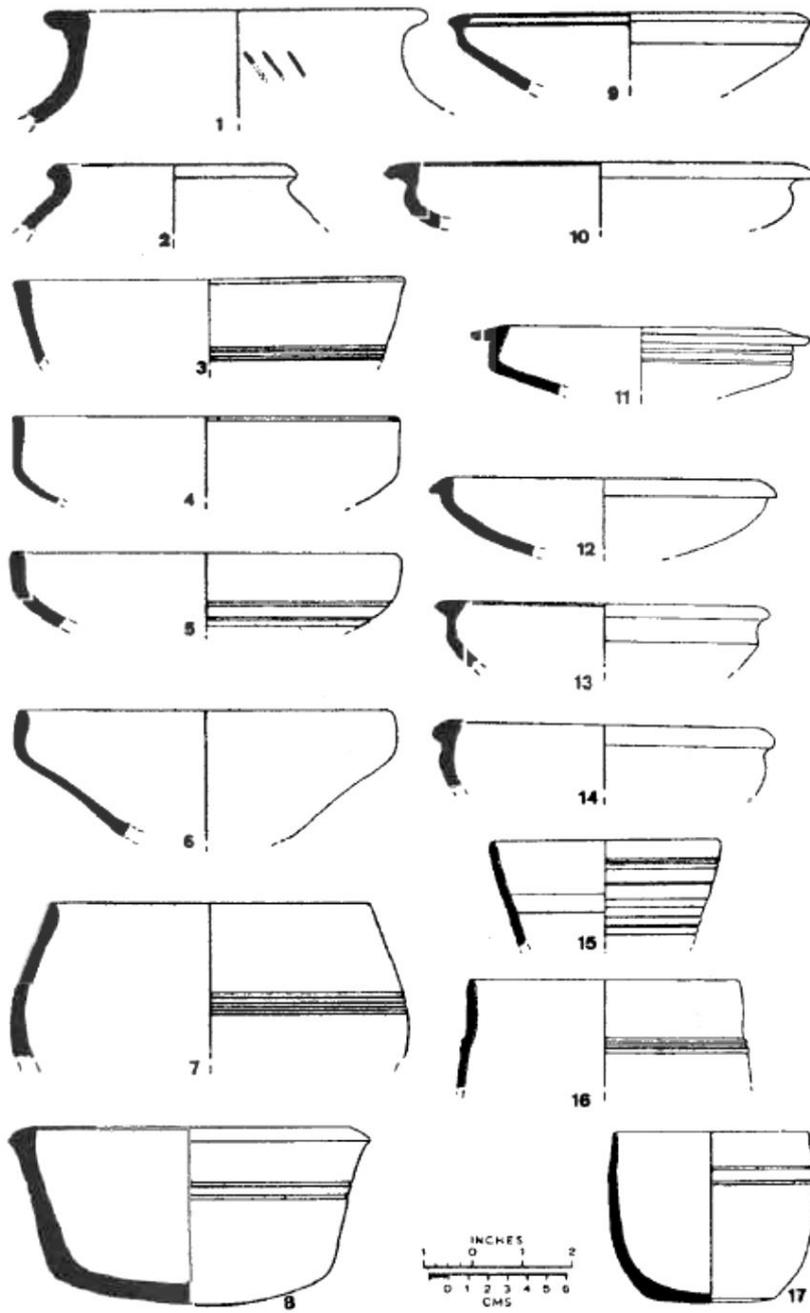


Fig. 17. Bhir Mound. Red ware of Period III

Figure 2.73 – Bhir Mound, Period III (Sharif 1969: fig. 17).

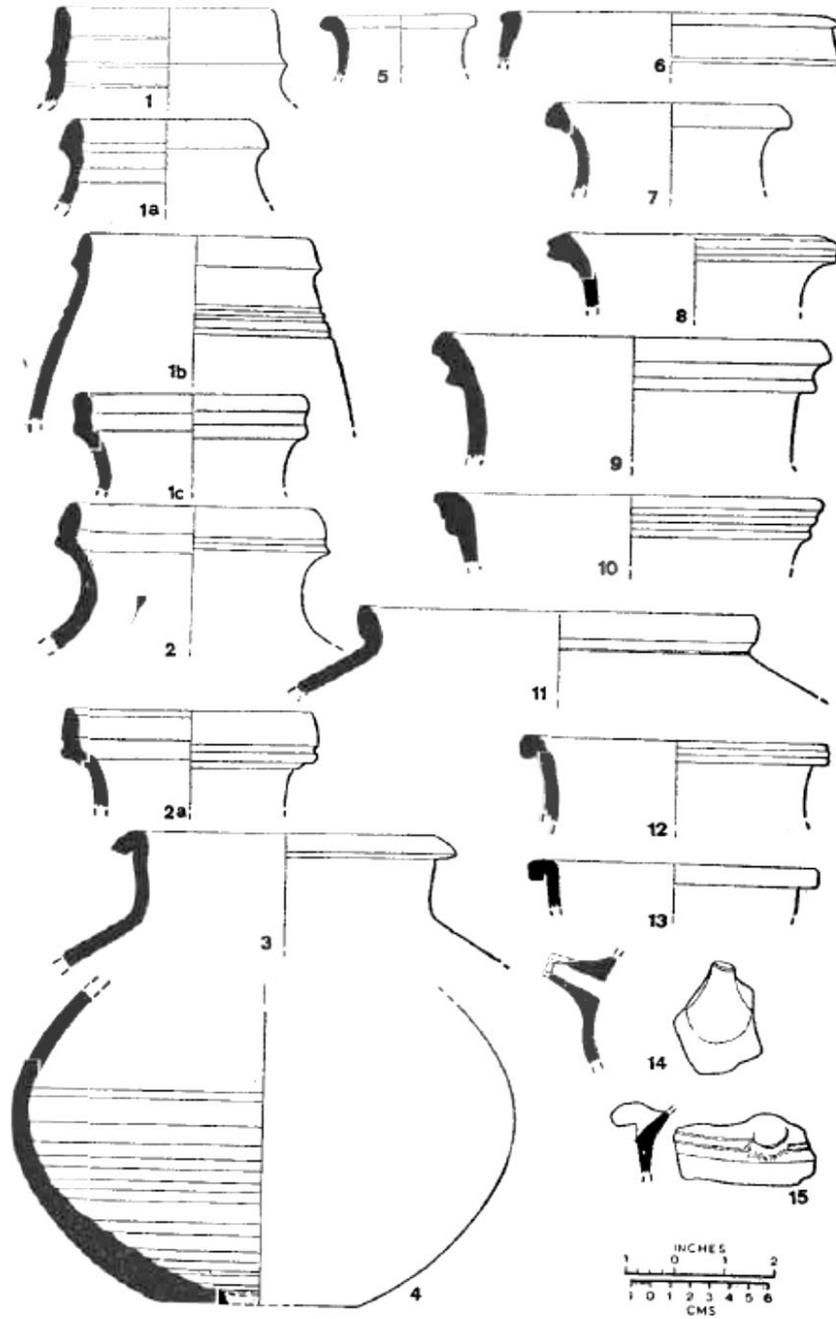


Fig. 18. Bhir Mound. Red ware of Period III

Figure 2.74 – Bhir Mound, Period III (Sharif 1969: fig. 18).

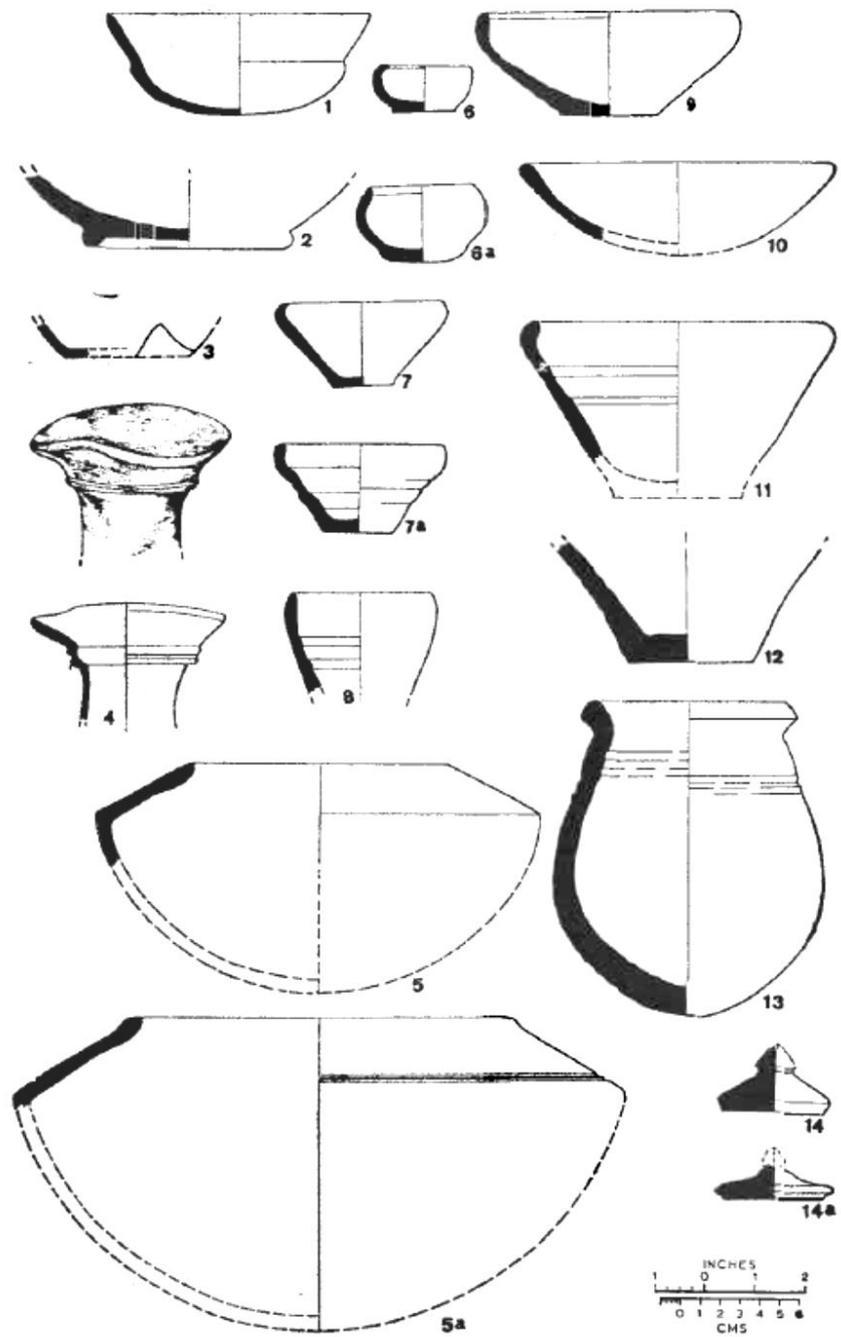


Fig. 19. Bhir Mound. Red ware of Period III

Figure 2.75 – Bhir Mound, Period III (Sharif 1969: fig. 19).

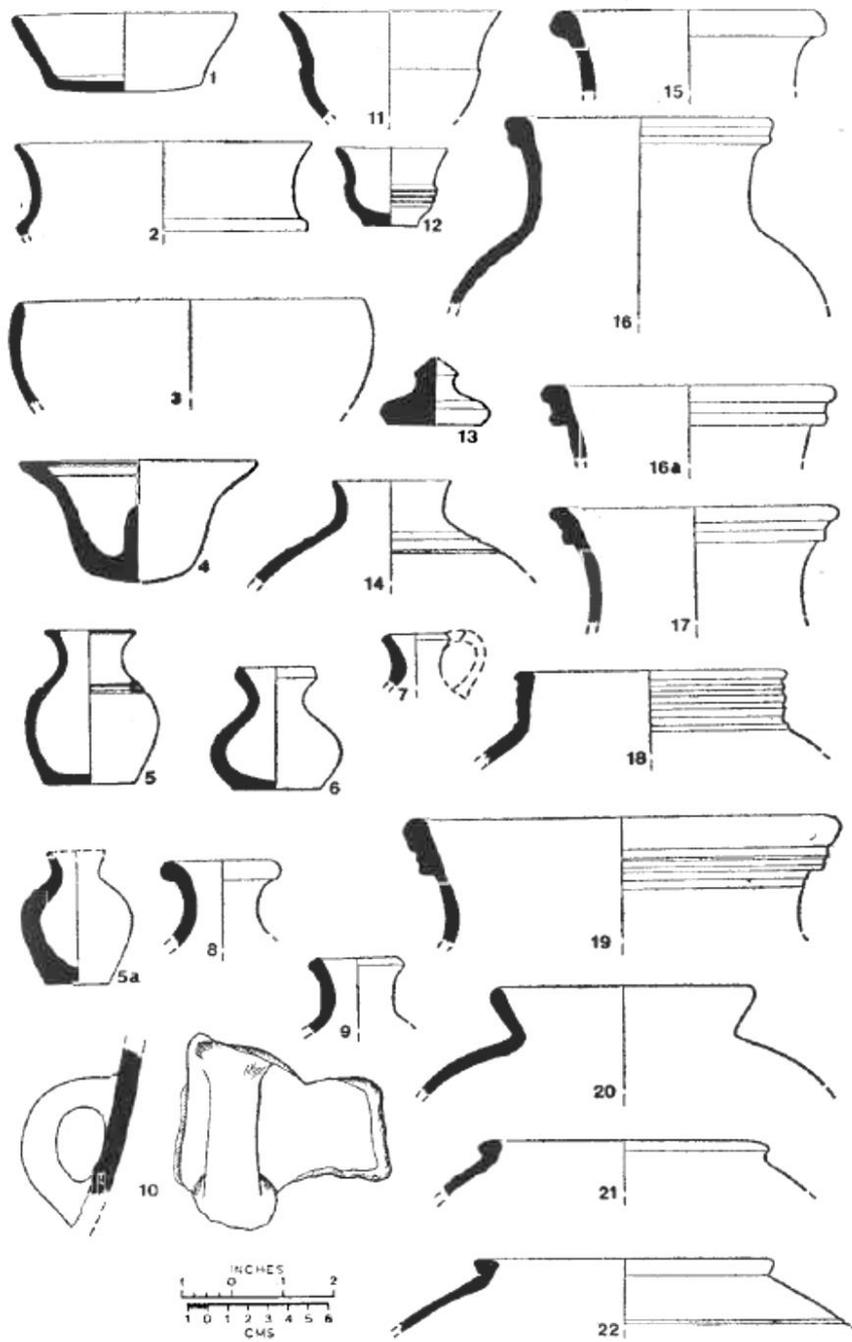


Fig. 20. Bhir Mound. Pottery of Period IV

Figure 2.76 – Bhir Mound, Period IV (Sharif 1969: fig. 20).

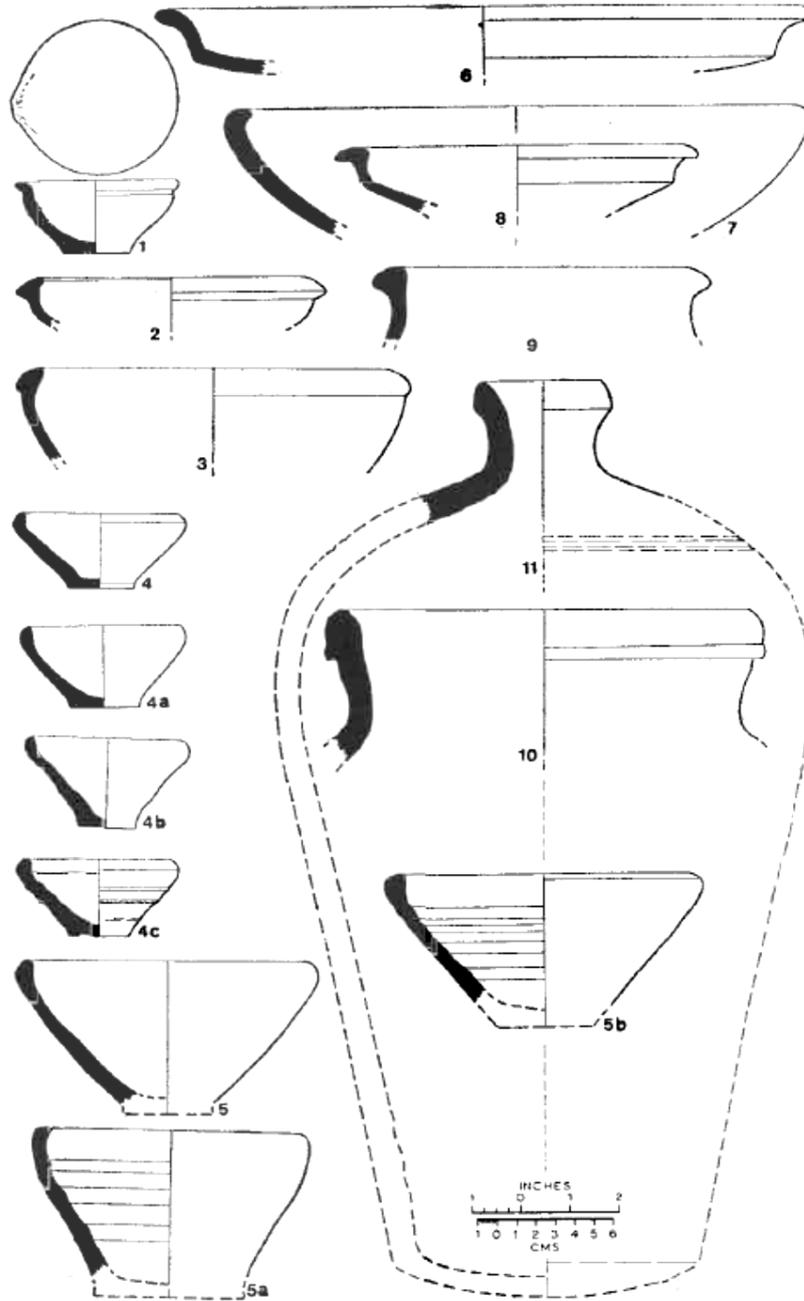


Fig. 21. Bhir Mound. Pottery of Period IV

Figure 2.77 – Bhir Mound, Period IV (Sharif 1969: fig. 21).

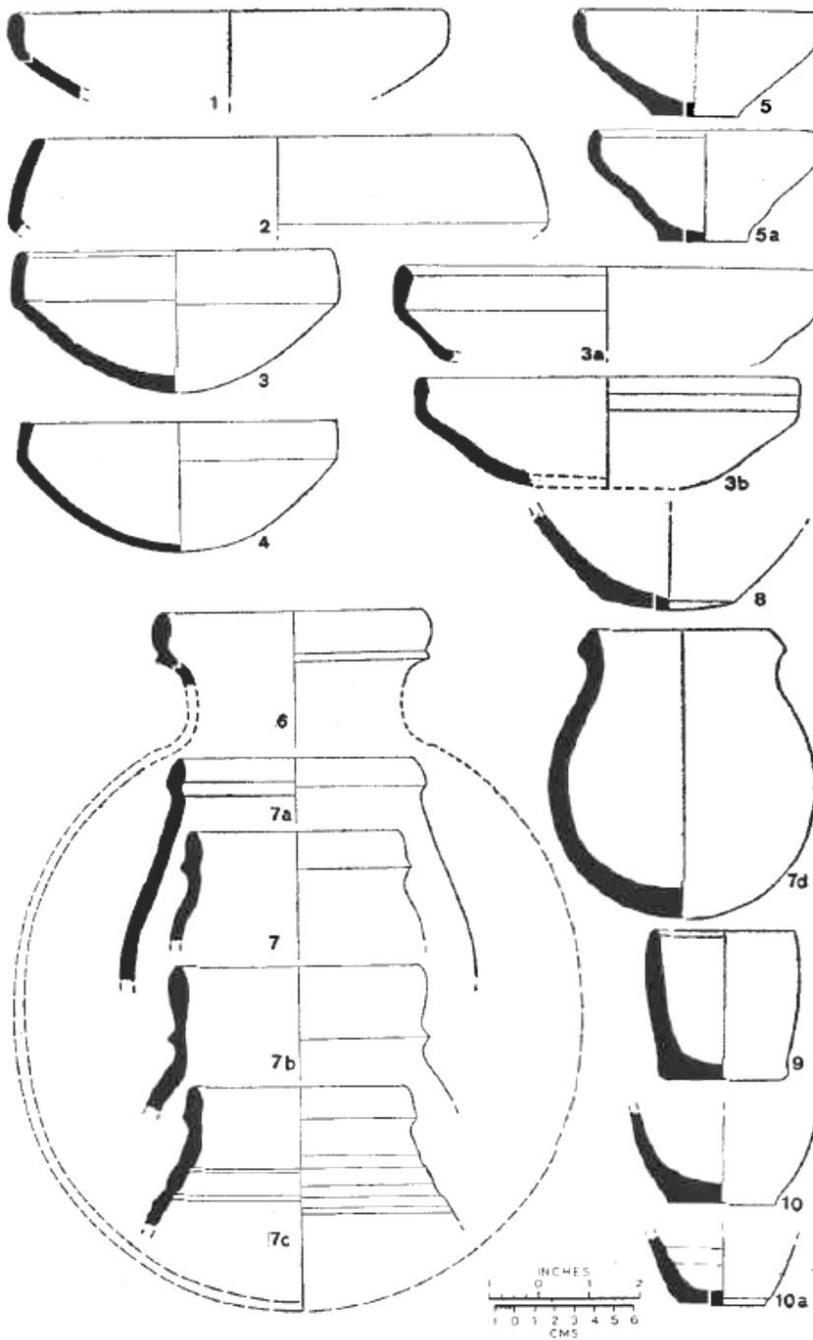


Fig. 22. Bhir Mound. Pottery of Period IV

Figure 2.78 – Bhir Mound, Period IV (Sharif 1969: fig. 22).

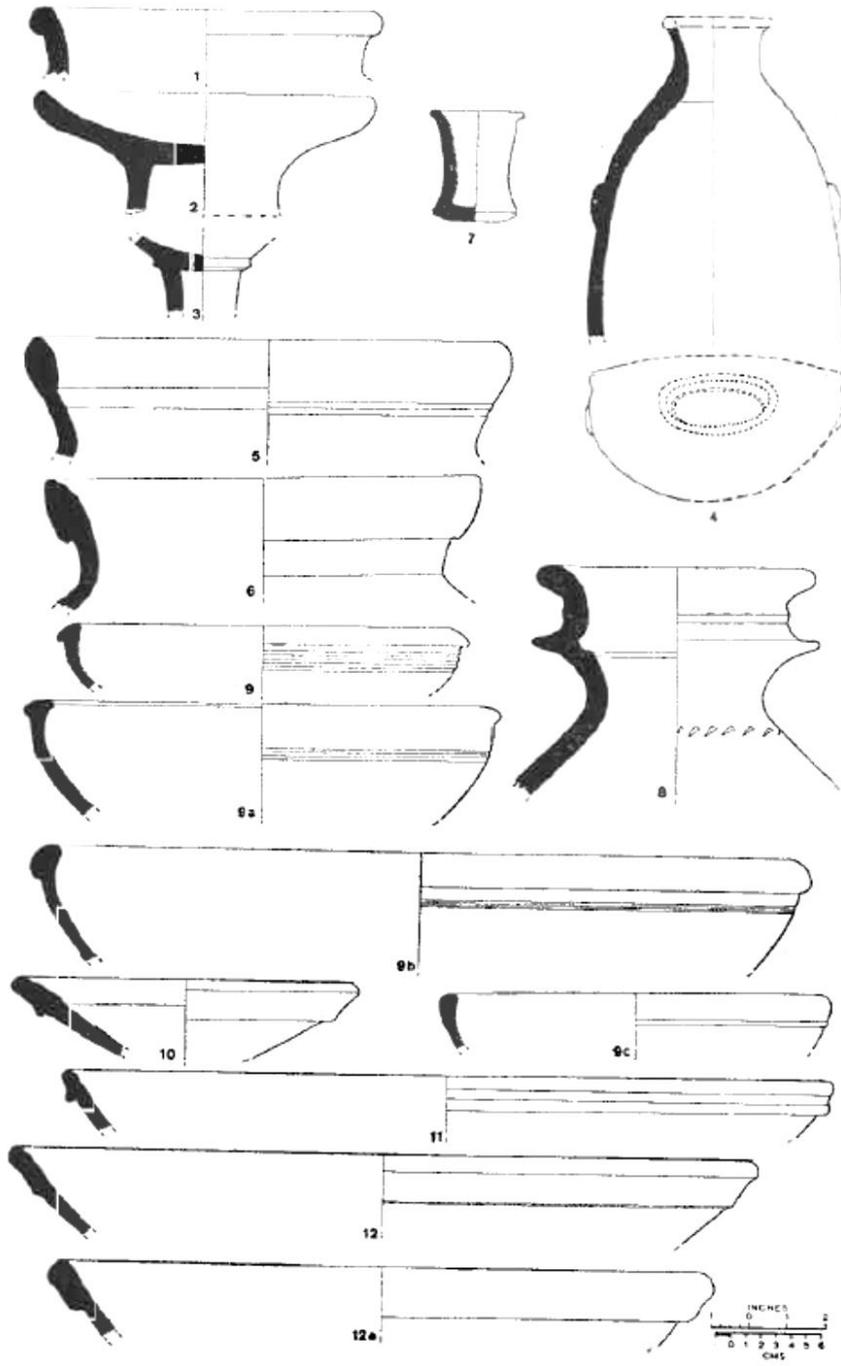


Fig. 23. Bhir Mound. Pottery of Period IV

Figure 2.79 – Bhir Mound, Period IV (Sharif 1969: fig. 23).

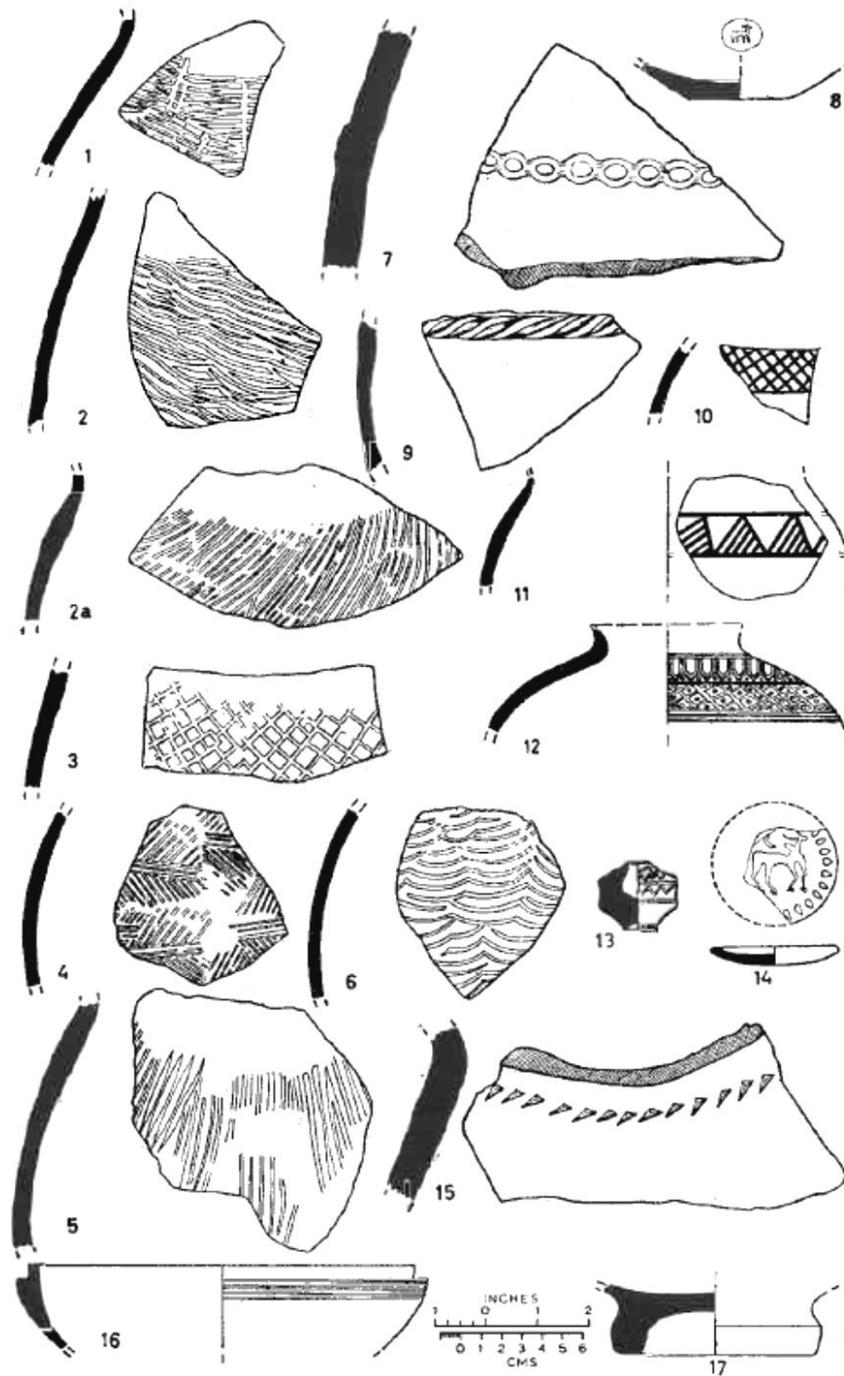


Fig. 24. Bhir Mound. Decorative and stone ware

Figure 2.80 – Bhir Mound, Decorative and stone ware (Sharif 1969: fig. 24).

Bahadur Khan Period I. The nine sherds of burnished red ware used to date the Bahadur Khan Period I to the pre-Achaemenid time do not preserve the profile, however they are confidently associated to open dish/bowl (Bahadur Khan *et al.* 2002: 75).

Bahadur Khan Period II is marked by the appearance of NBP ware and gray/black ware mostly in the form of open bowl with incurving sides. Red ware shapes are mainly represented by pear shaped jar (*ibid.*: fig. 9.4; figs 10.14-15, 17; figs 13.16, 22), hole-mouthed cooking pot with carinated shoulder (*ibid.*: figs 11.10, 13), small carinated or rounded bowl with flat everted (*ibid.*: figs 8.4,6, 21) or triangular rim (*ibid.*: fig. 8.23; fig. 12.17), truncate-conical basin/large bowl with externally thickened rim and lid with solid knob (*ibid.*: fig. 13.8). Most of the vessel forms mentioned above are distinctive of Sharif Period III assemblage.

The Bahadur Khan Period III assemblage is featured by the continuity of some forms from Period II (like pear shaped jar, truncate-conical large bowls/basins with externally thickened rim, carinated small bowl with everted or triangular rim) with few variations (e.g. carinated cooking pot are now provided with a slightly flared rim, *ibid.*: fig. 16.6). Shallow bowl/dish with incurving sides continue to appear side by side with sharply carinated thalis with upright or inflected sides (*ibid.*: fig. 15.15), both in red and gray ware. In addition, large concave lids in medium and coarse ware appear.

Bahadur Khan Period IV is marked by the introduction of new forms, among which is the Tulip bowl.

Ceramics of Bahadur Khan Period V are mostly considered Saka-Parthian. Types of the previous period, as Tulip bowl, carinated cooking pot and pear-shaped jar continue to appear. New forms include thin walled carinated bowl with flat everted rim, flanged large jars, hollow knob of lid.

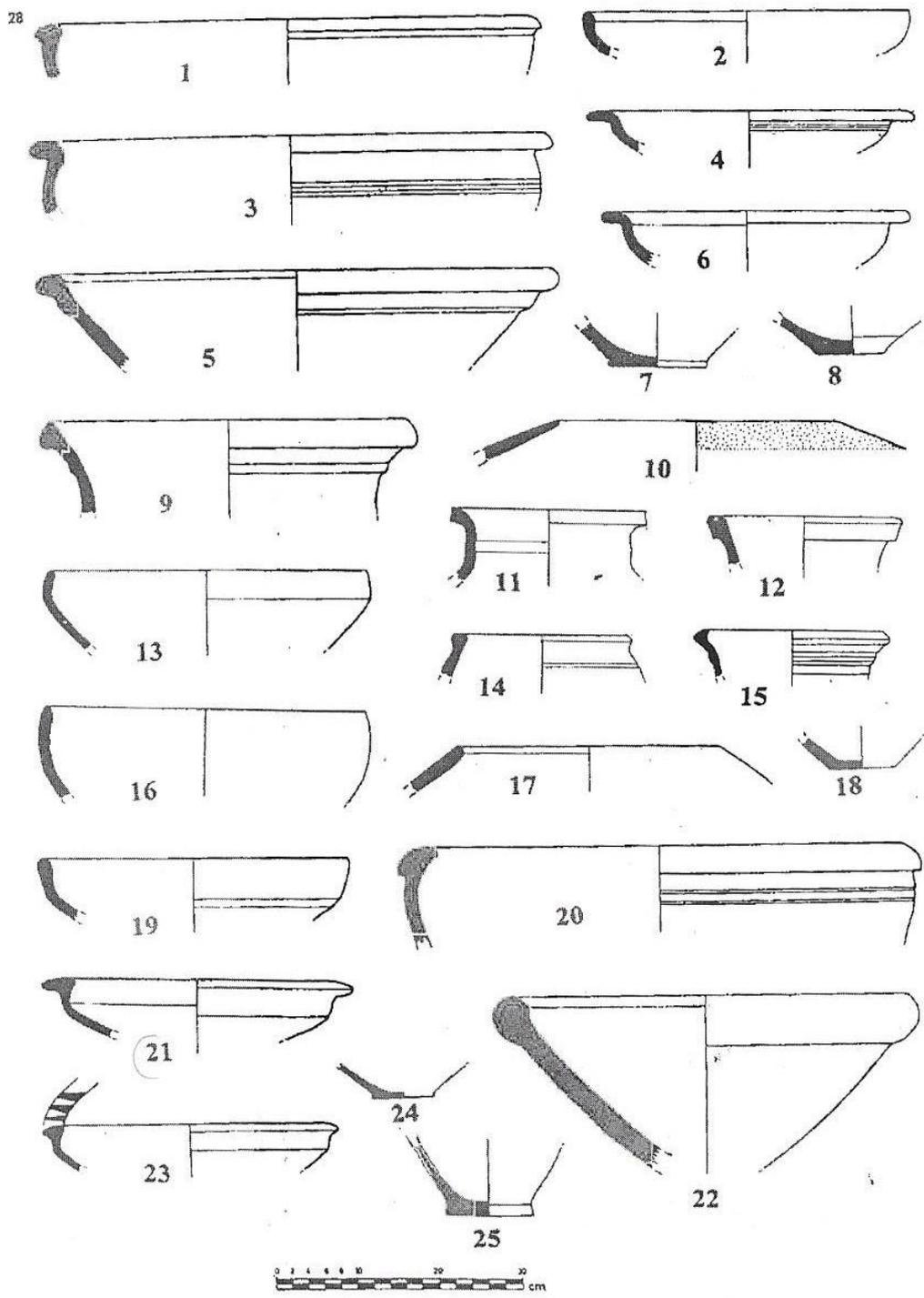


Fig.8. Plain pottery of period II (layer 12&13.)

Figure 2.81 – Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 8).

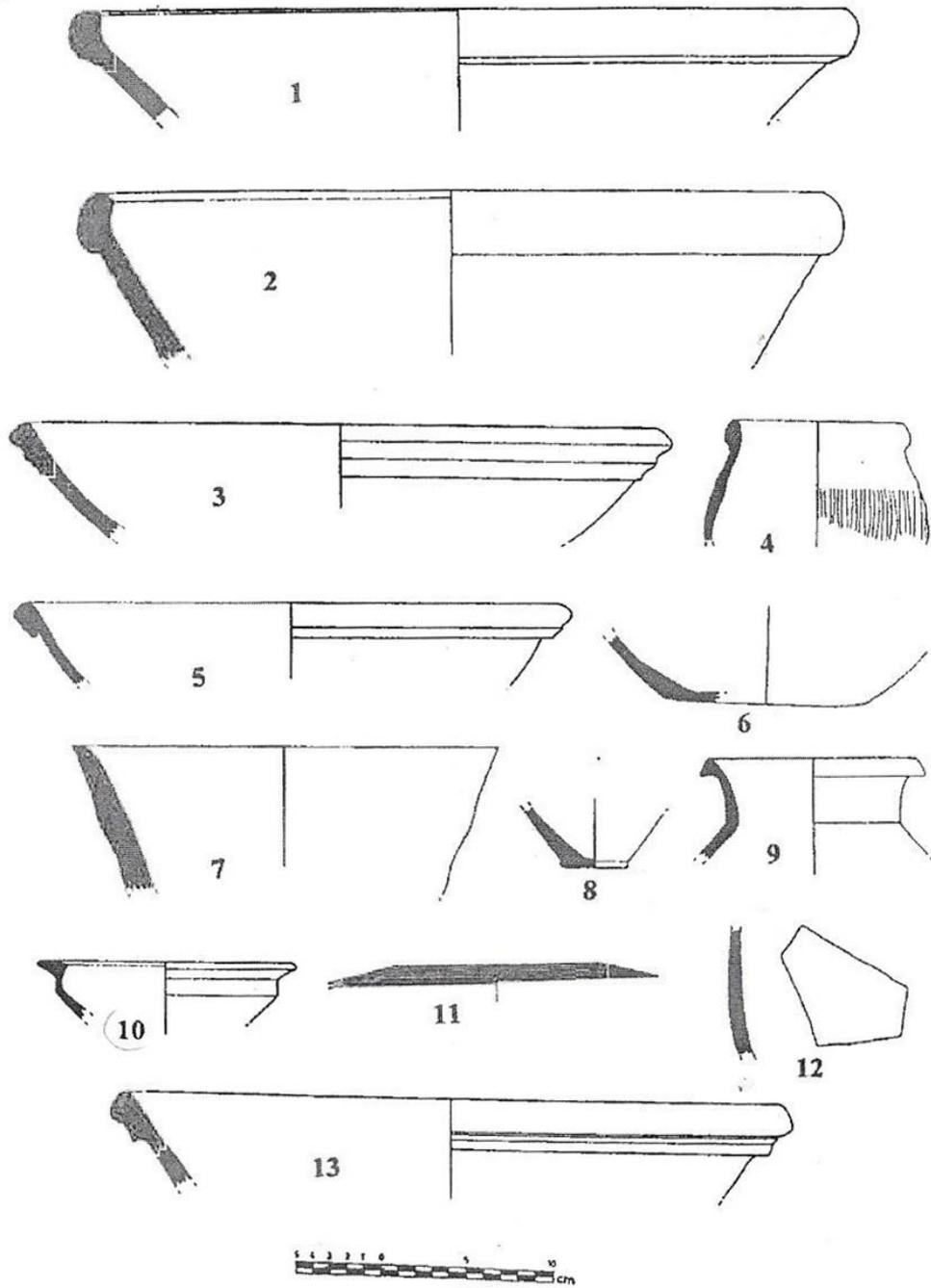


Fig.9. Plain pottery of period II (layer 12&13.)

Figure 2.82 – Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 9).

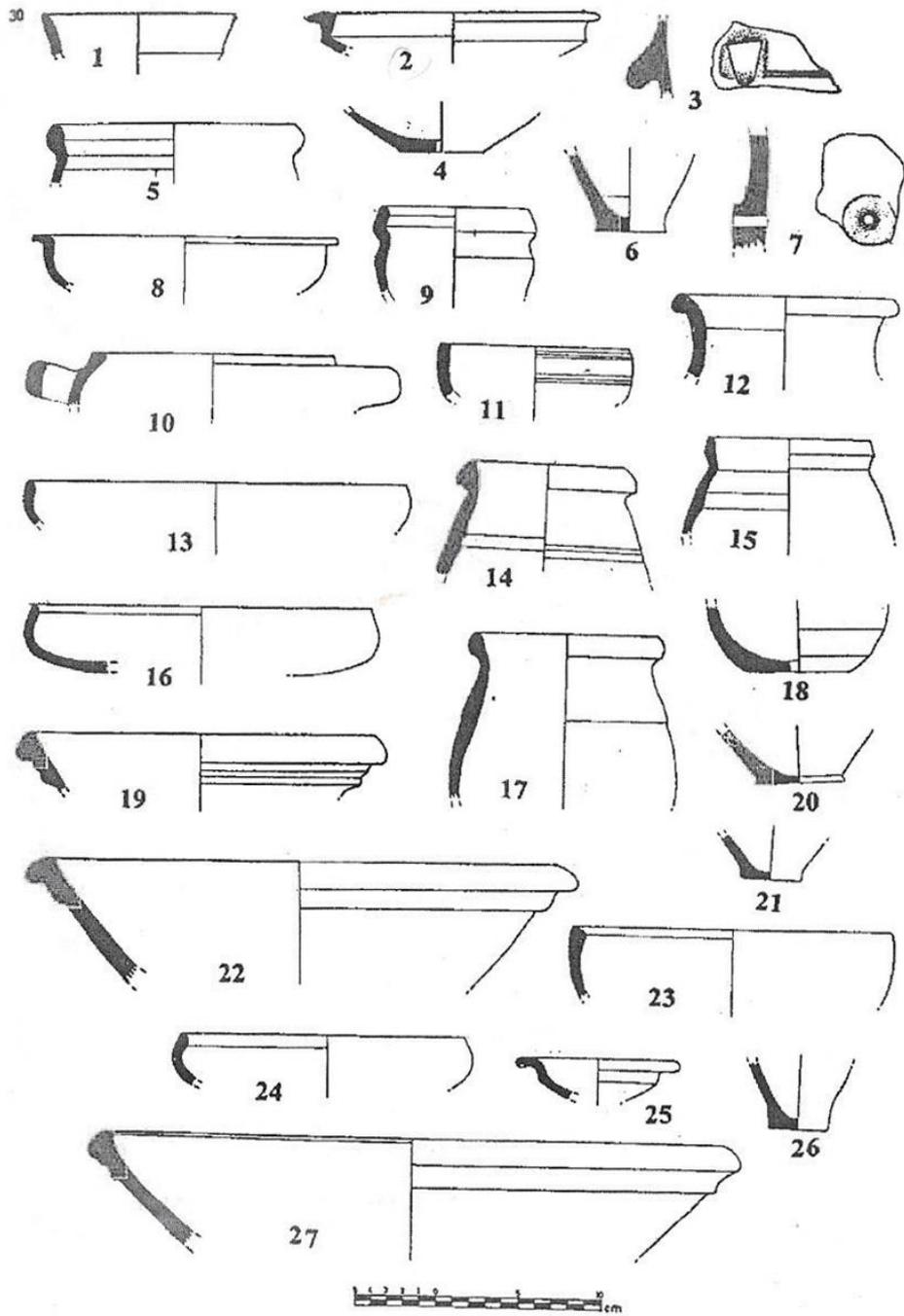


Fig.10. Plain pottery of period II (layer 12&13.)

Figure 2.83 – Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 10).

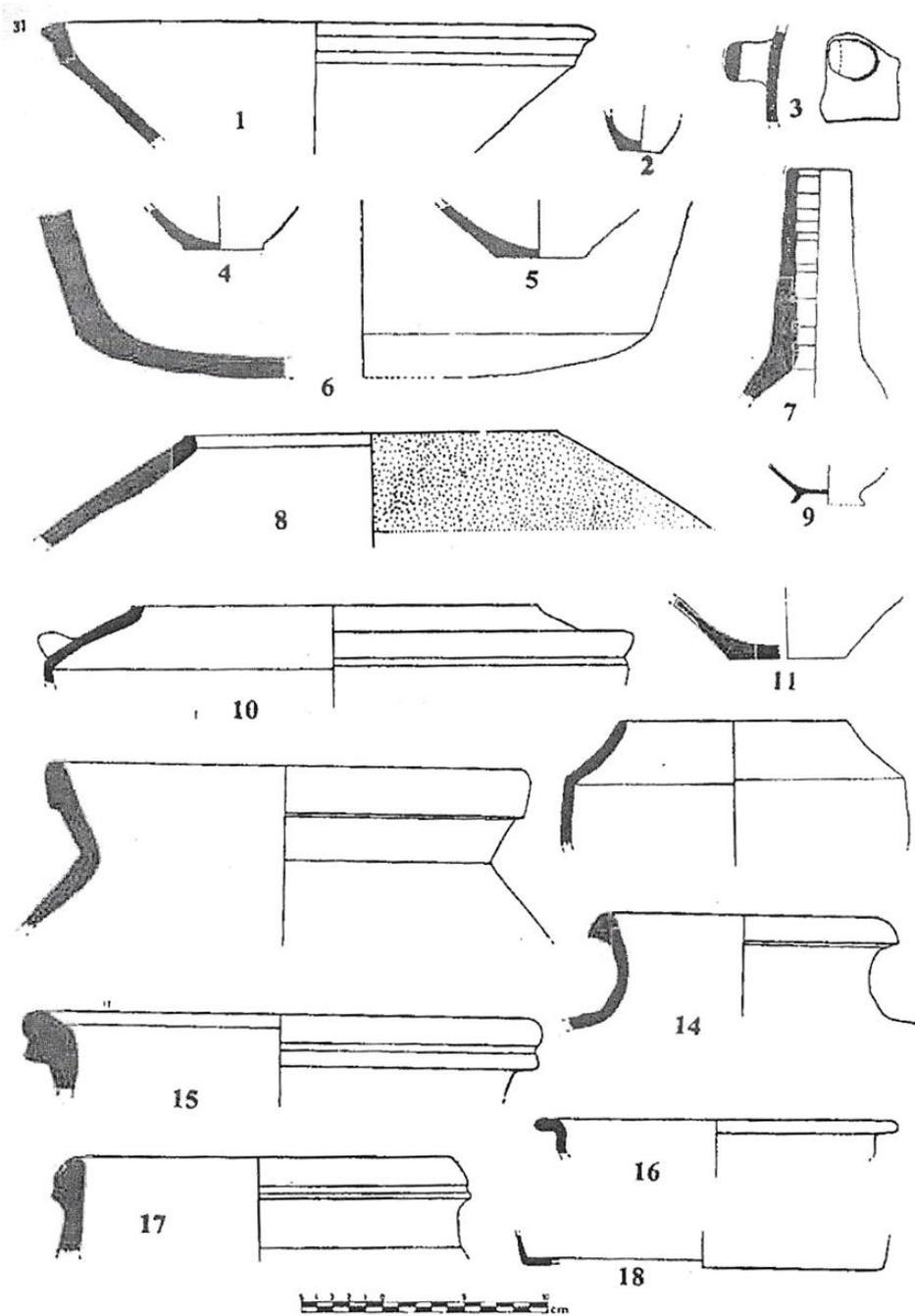


Fig.11. Plain pottery of period II (layer 12&13.)

Figure 2.84 – Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 11).

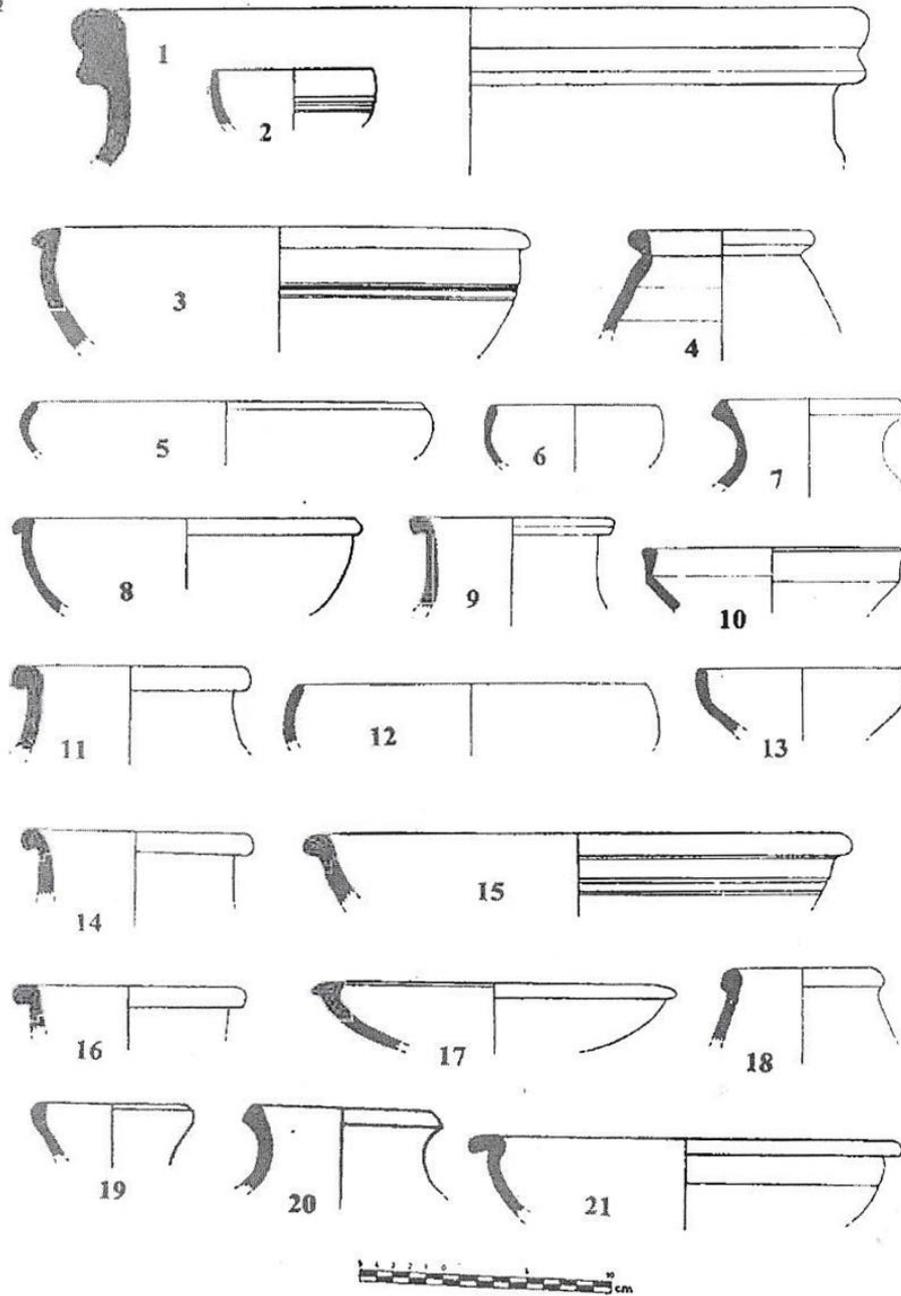


Fig.12. Plain pottery of period II (layer 12&13.)

Figure 2.85 – Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 12).

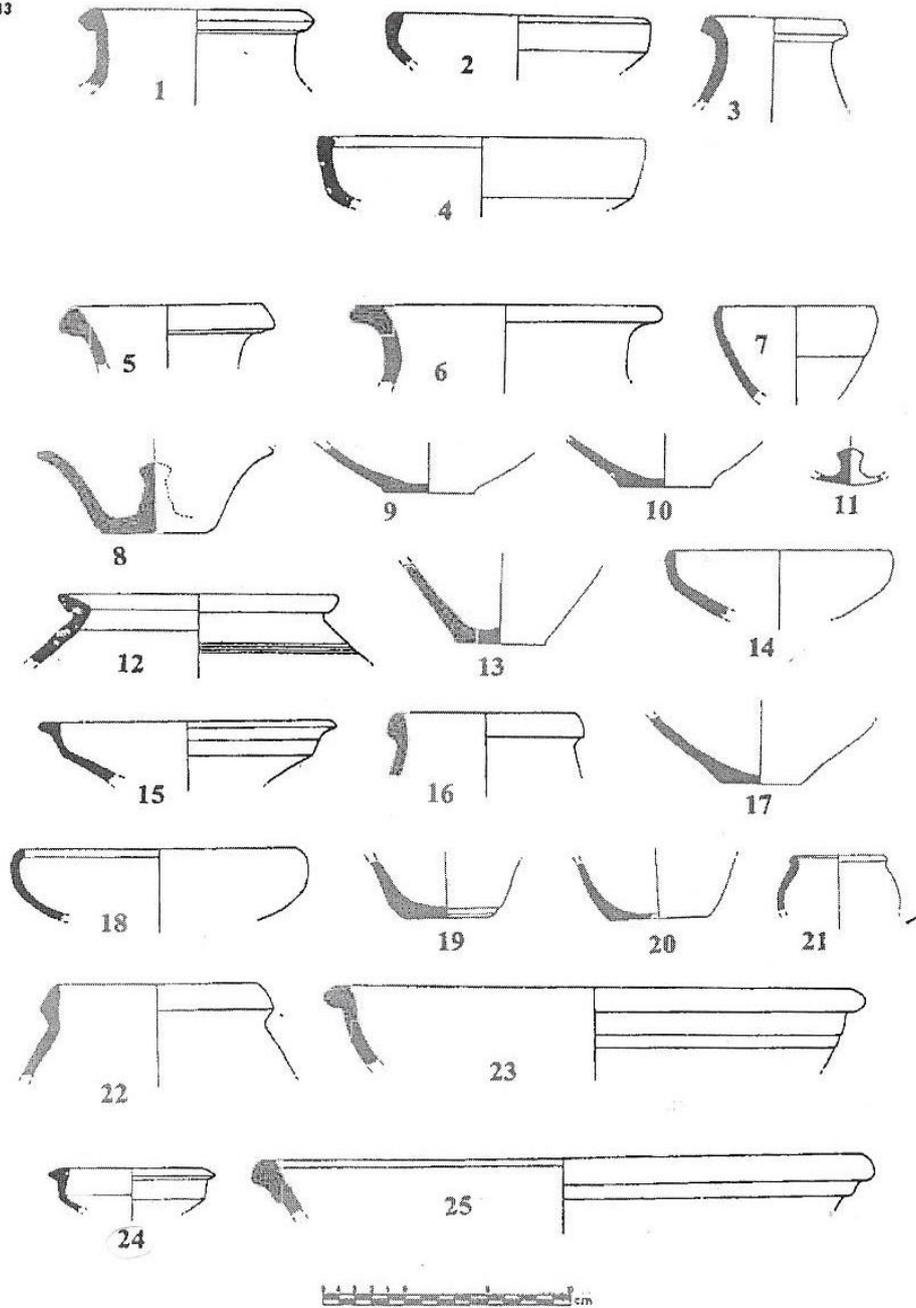


Fig.13. Plain pottery of period II (layer 12&13.)

Figure 2.86 – Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 13).

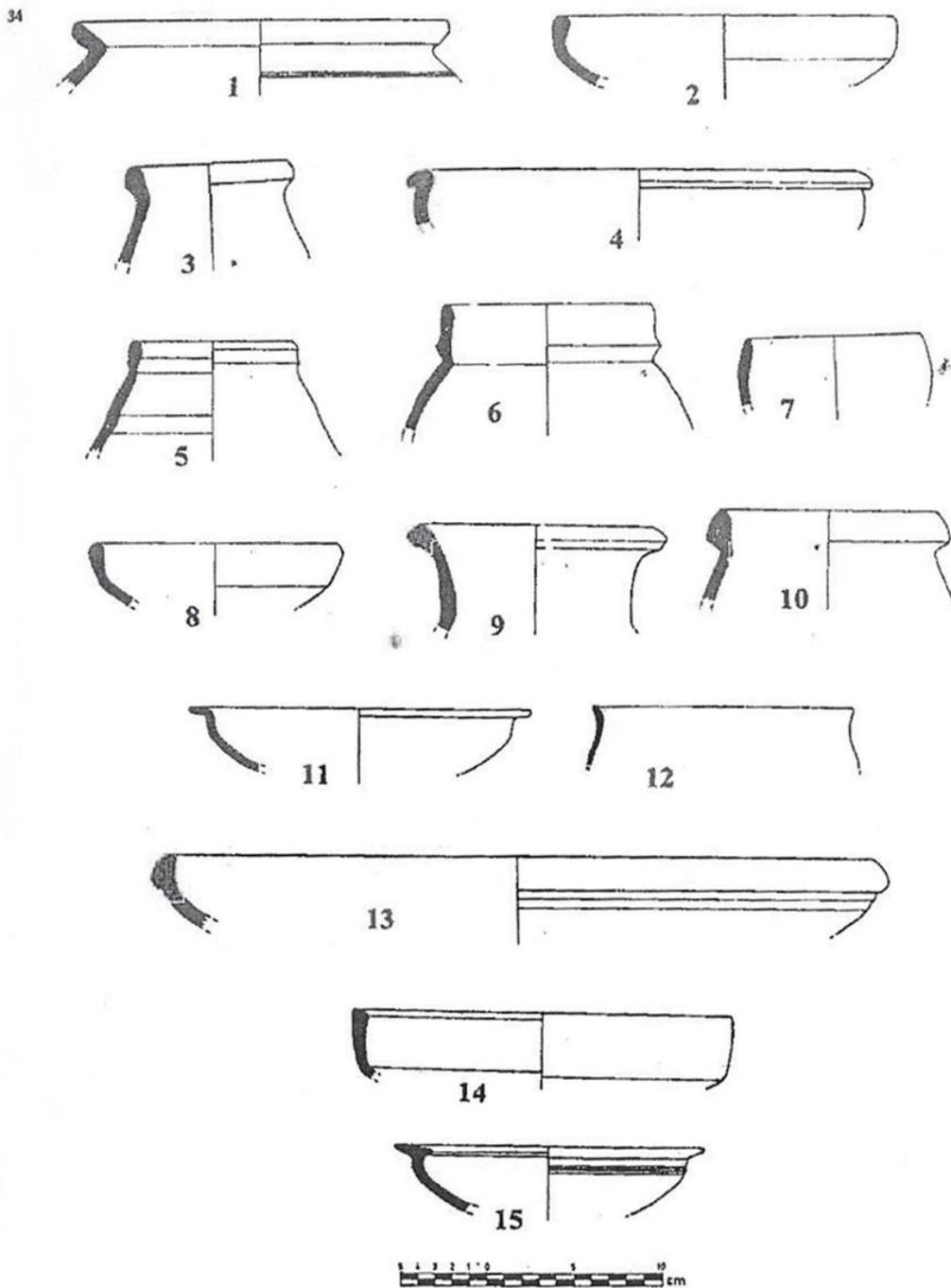


Fig.14. Plain pottery of period II (layer 12&13.)

Figure 2.87 – Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 14).

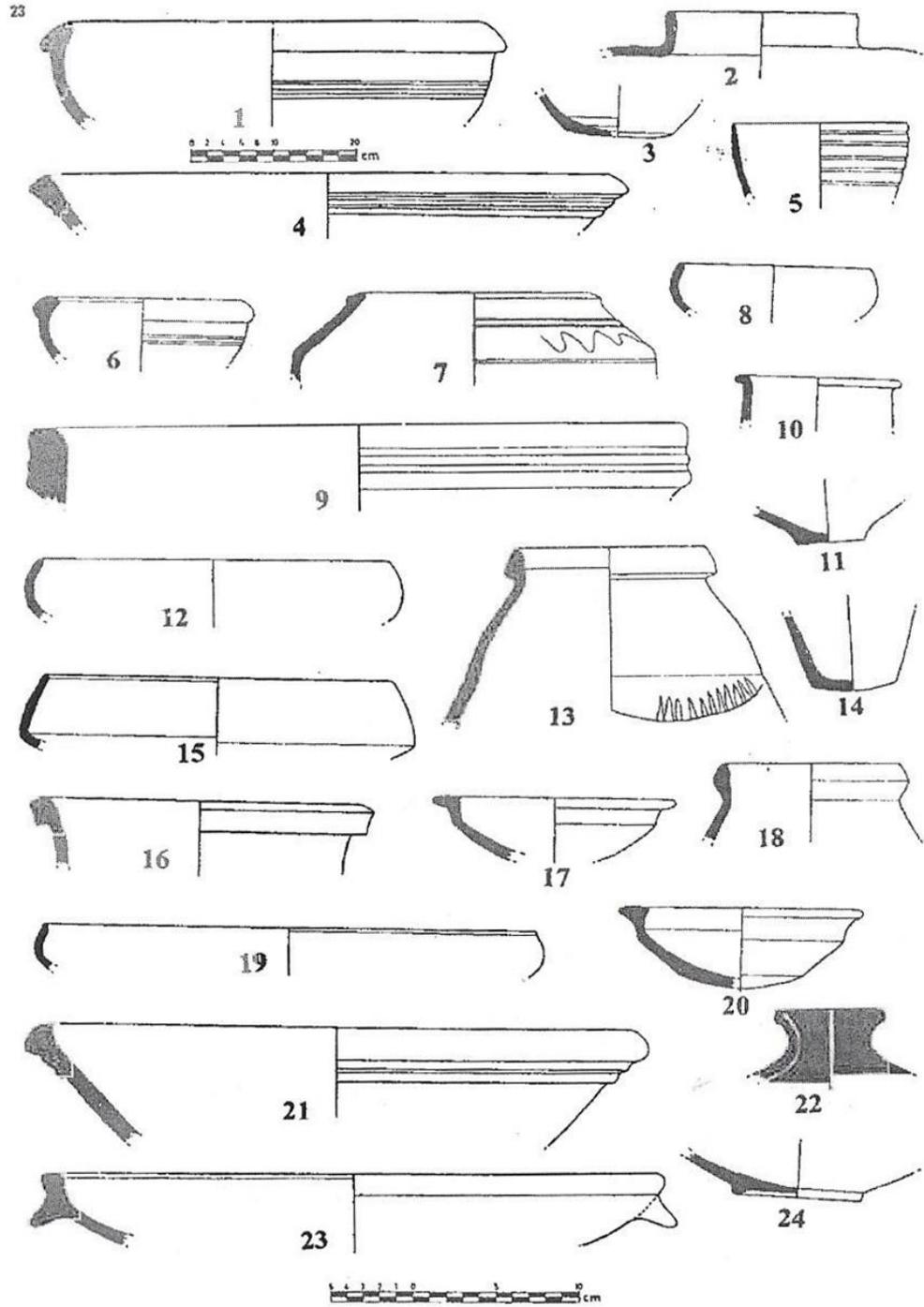


Fig.15. Plain pottery of period III (layer 8 - 11.)

Figure 2.88 – Bhir Mound, Period III (Bahadar Khan et al. 2002: fig. 15).

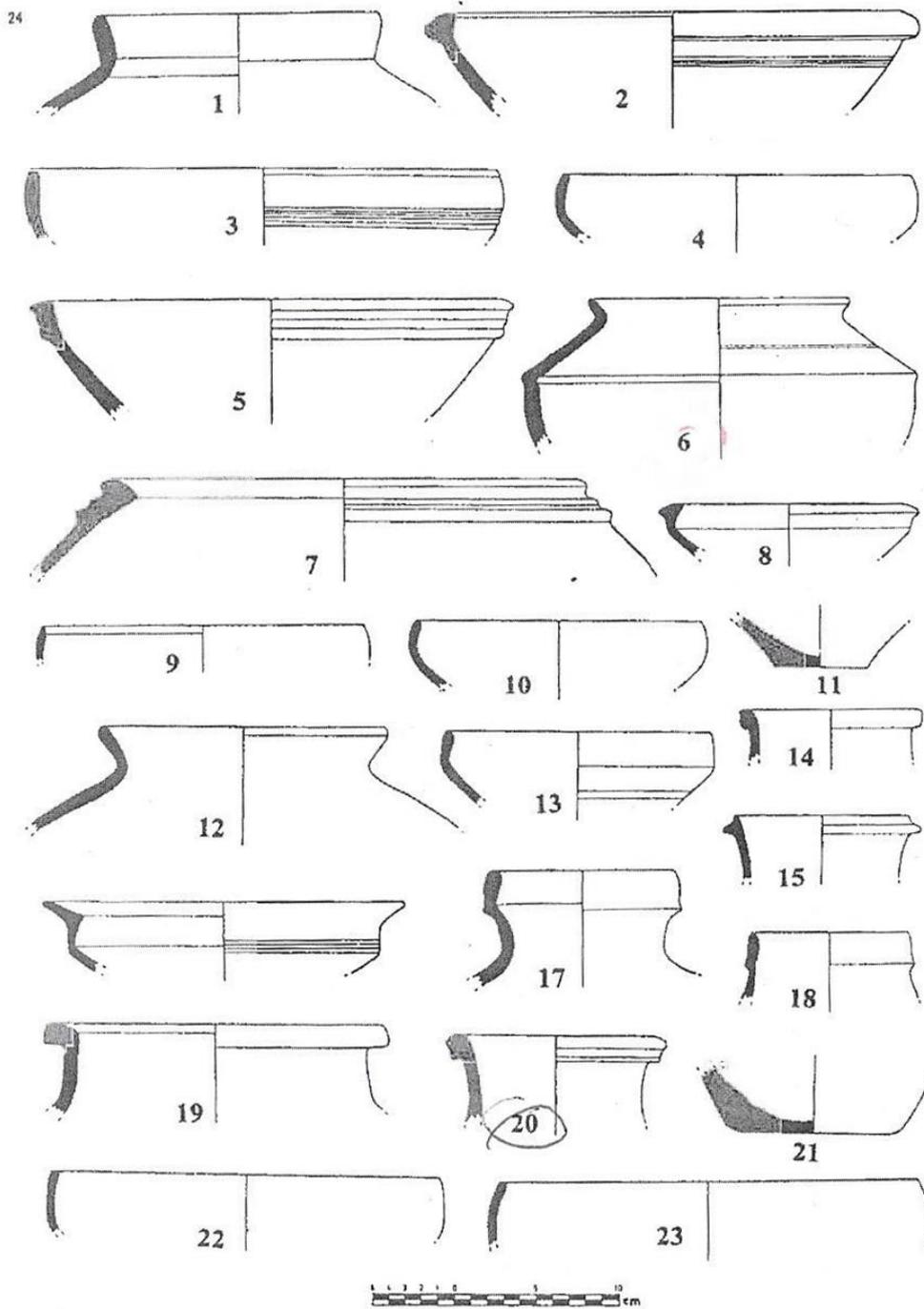


Fig.16. Plain pottery of period III (layer 8 - 11.)

Figure 2.89 – Bhir Mound, Period III (Bahadar Khan et al. 2002: fig. 16).

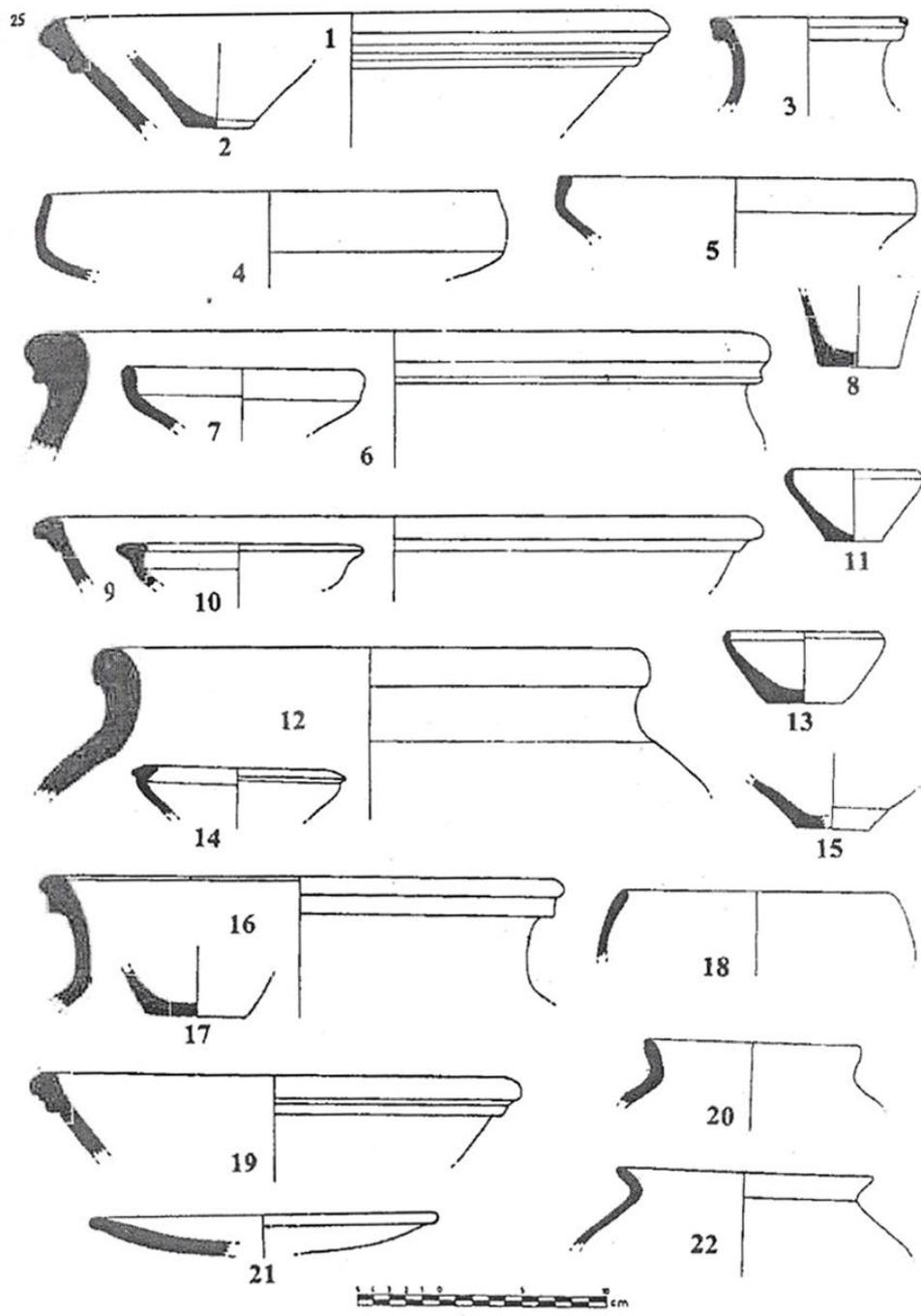


Fig.17. Plain pottery of period III (layer 8 - 11.)

Figure 2.90 – Bhir Mound, Period III (Bahadar Khan et al. 2002: fig. 17).

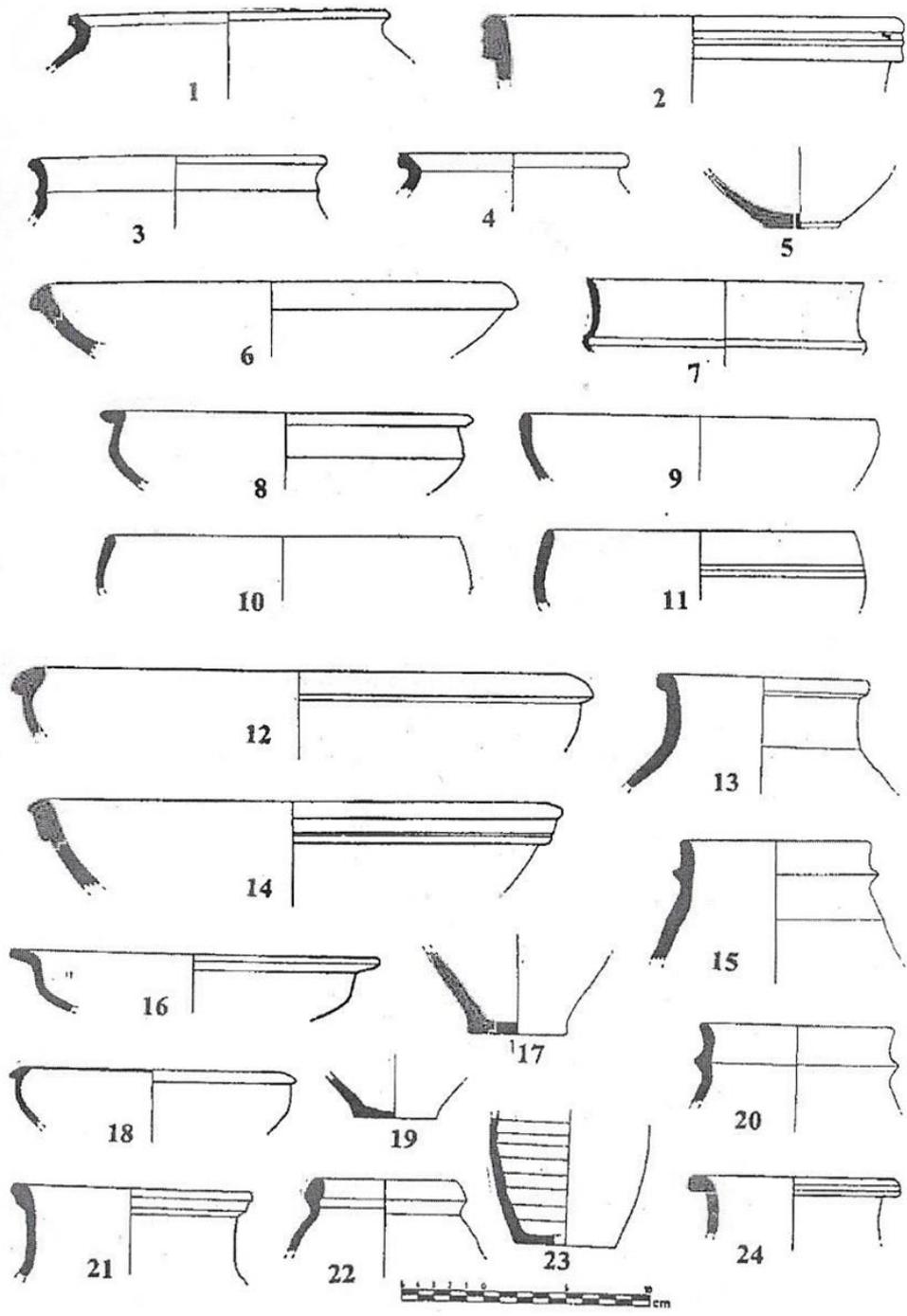


Fig.18. Plain pottery of period III (layer 8 - 11.)

Figure 2.91 – Bhir Mound, Period III (Bahadar Khan et al. 2002: fig. 18).

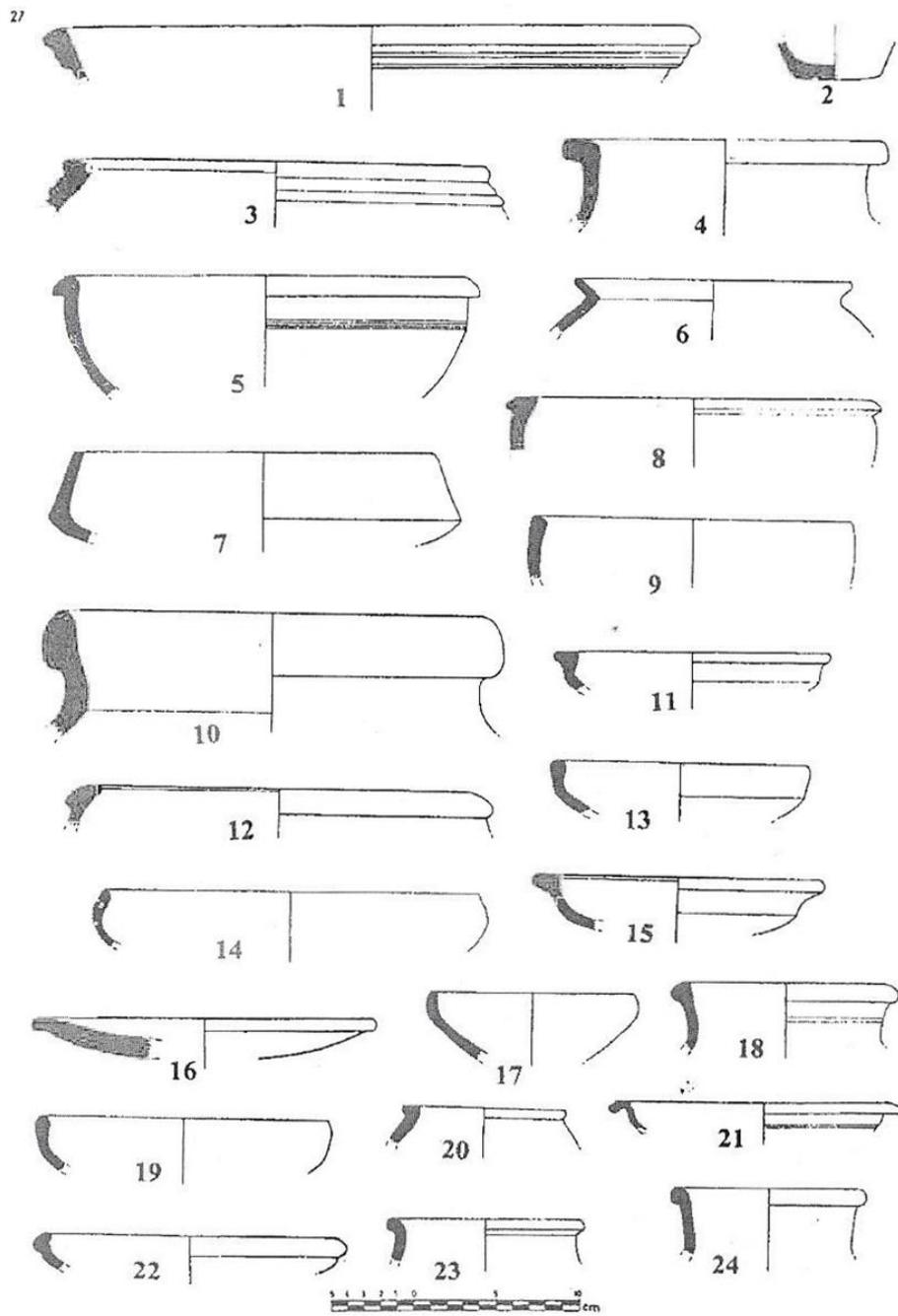


Fig.19. Plain pottery of period III (layer 8 - 11.)

Figure 2.92 – Bhir Mound, Period III (Bahadar Khan et al. 2002: fig. 19).

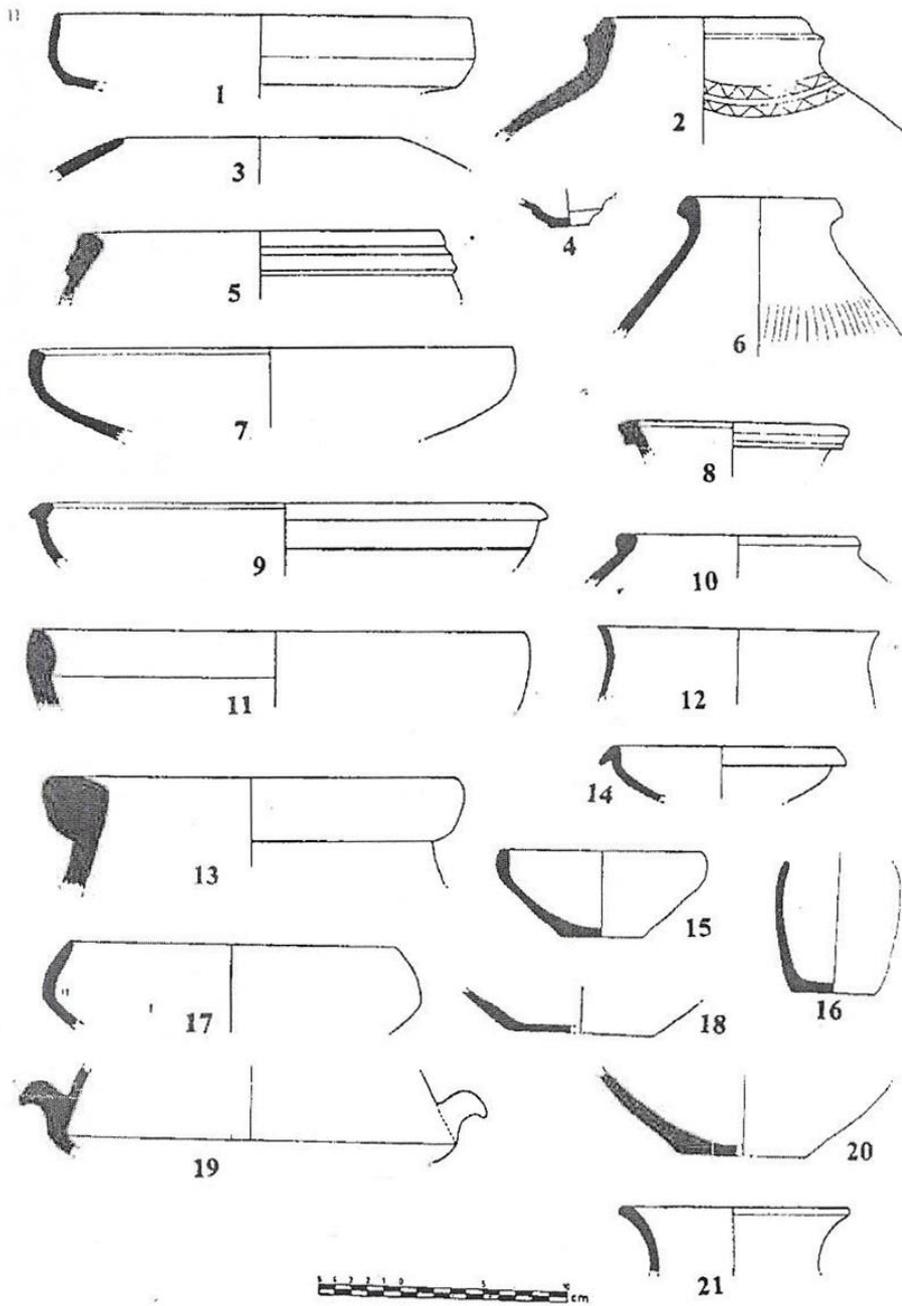


Fig.20. Plain pottery of period IV (layer 5 – 11.)

Figure 2.93 – Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 20).

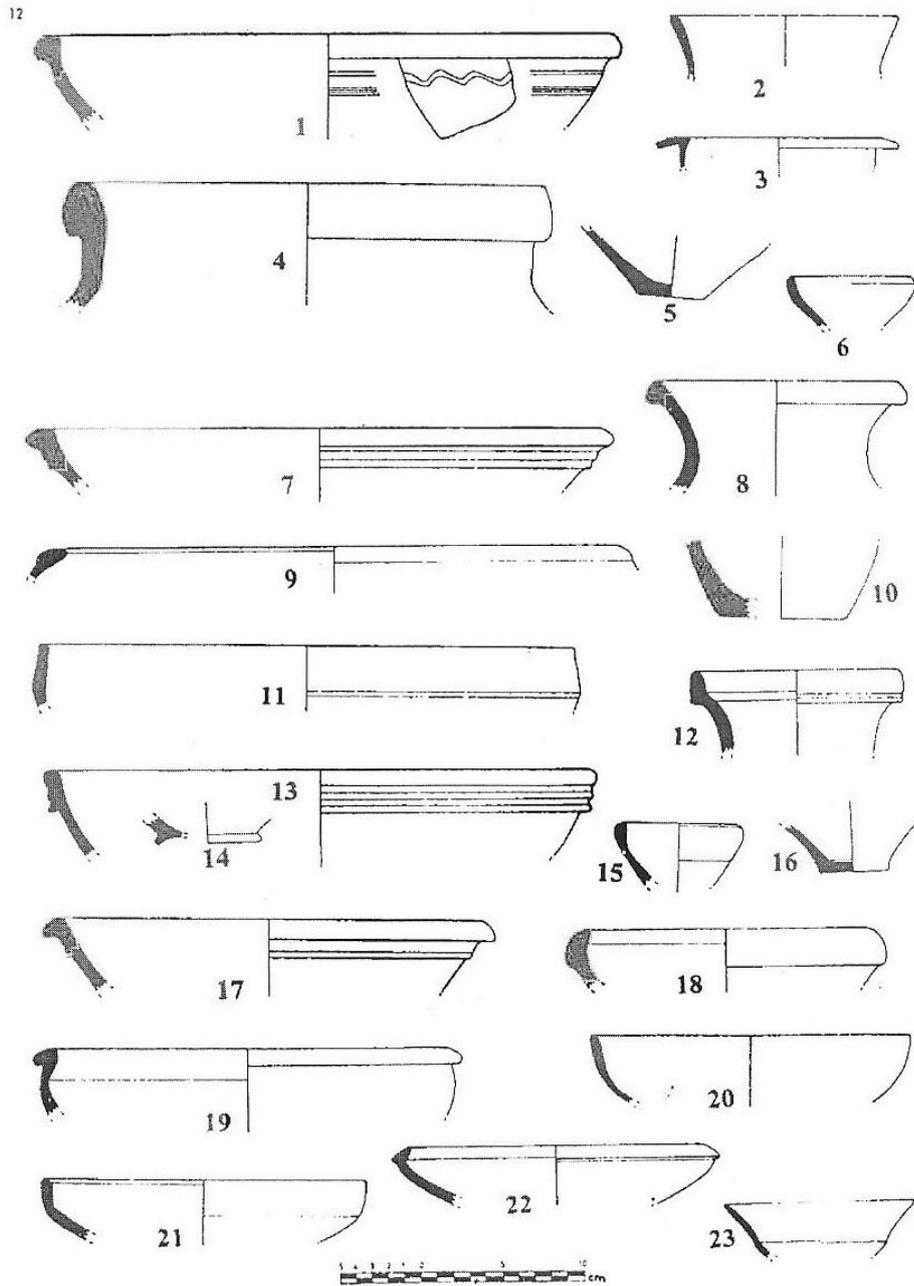


Fig.21. Plain pottery of period IV (layer 5 - 7.)

Figure 2.94 – Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 21).

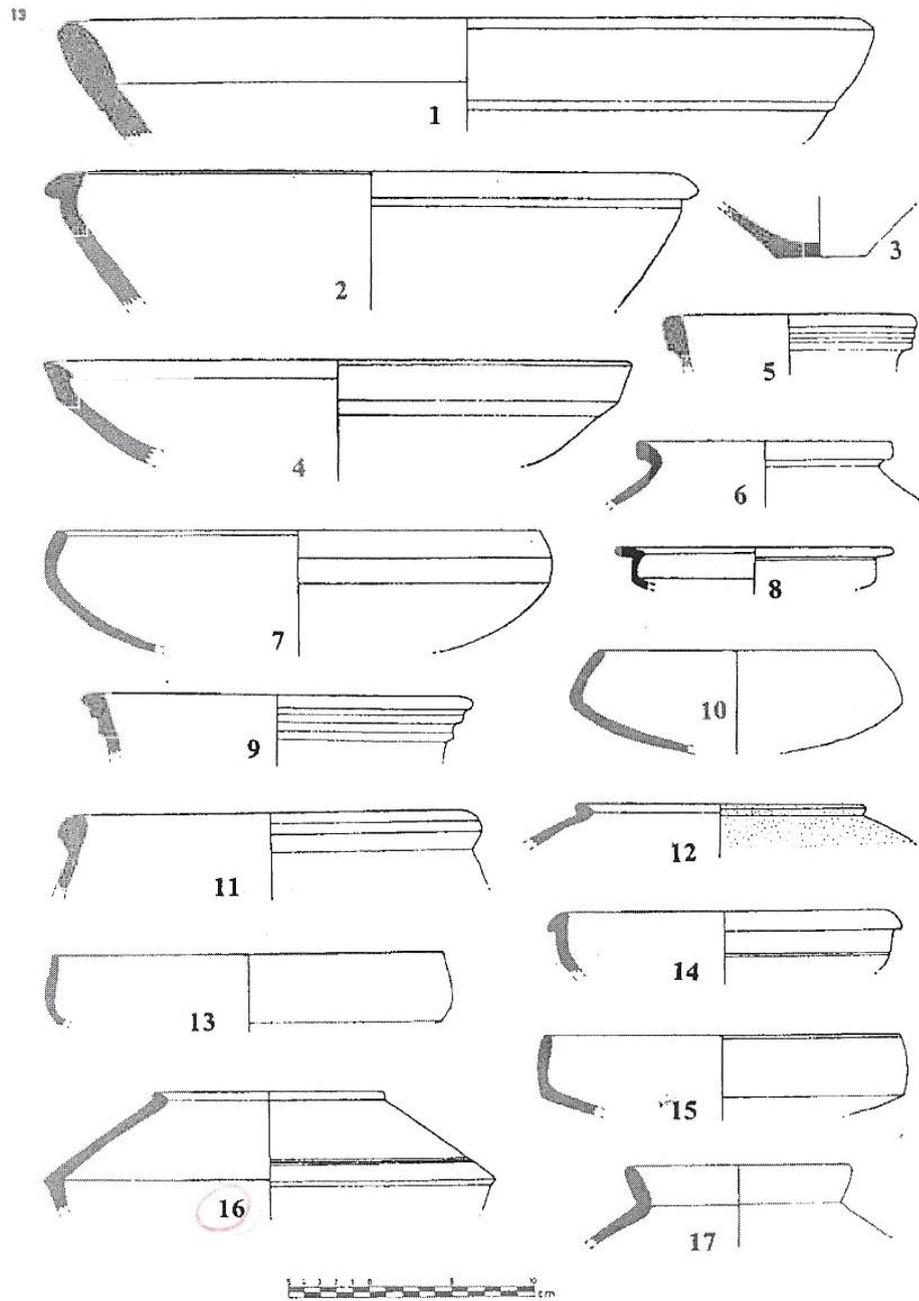


Fig.22. Plain pottery of period IV (layer 5 - 7.)

Figure 2.95 – Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 22).

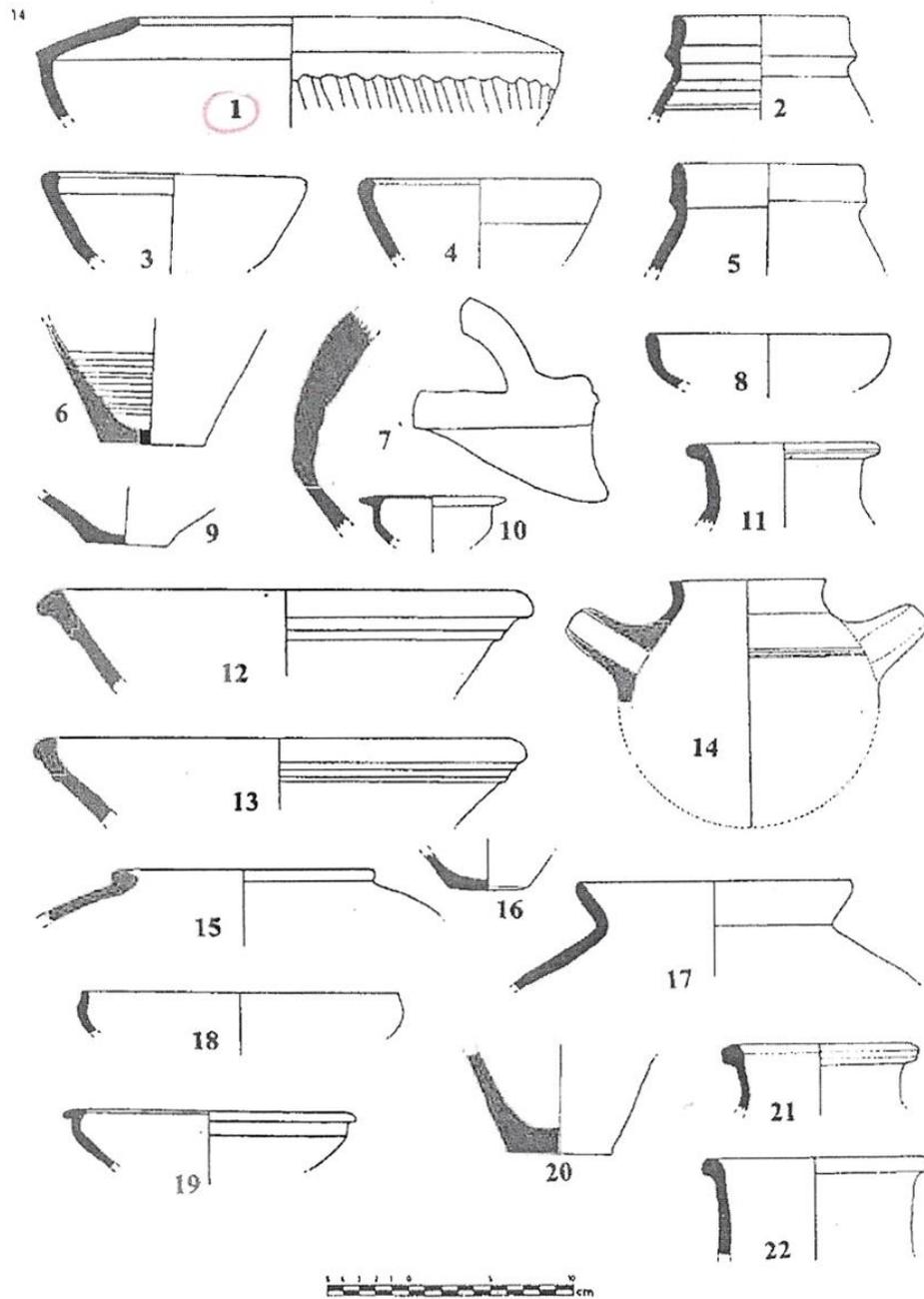


Fig.23. Plain pottery of period IV (layer 5 - 7.)

Figure 2.96 – Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 23).

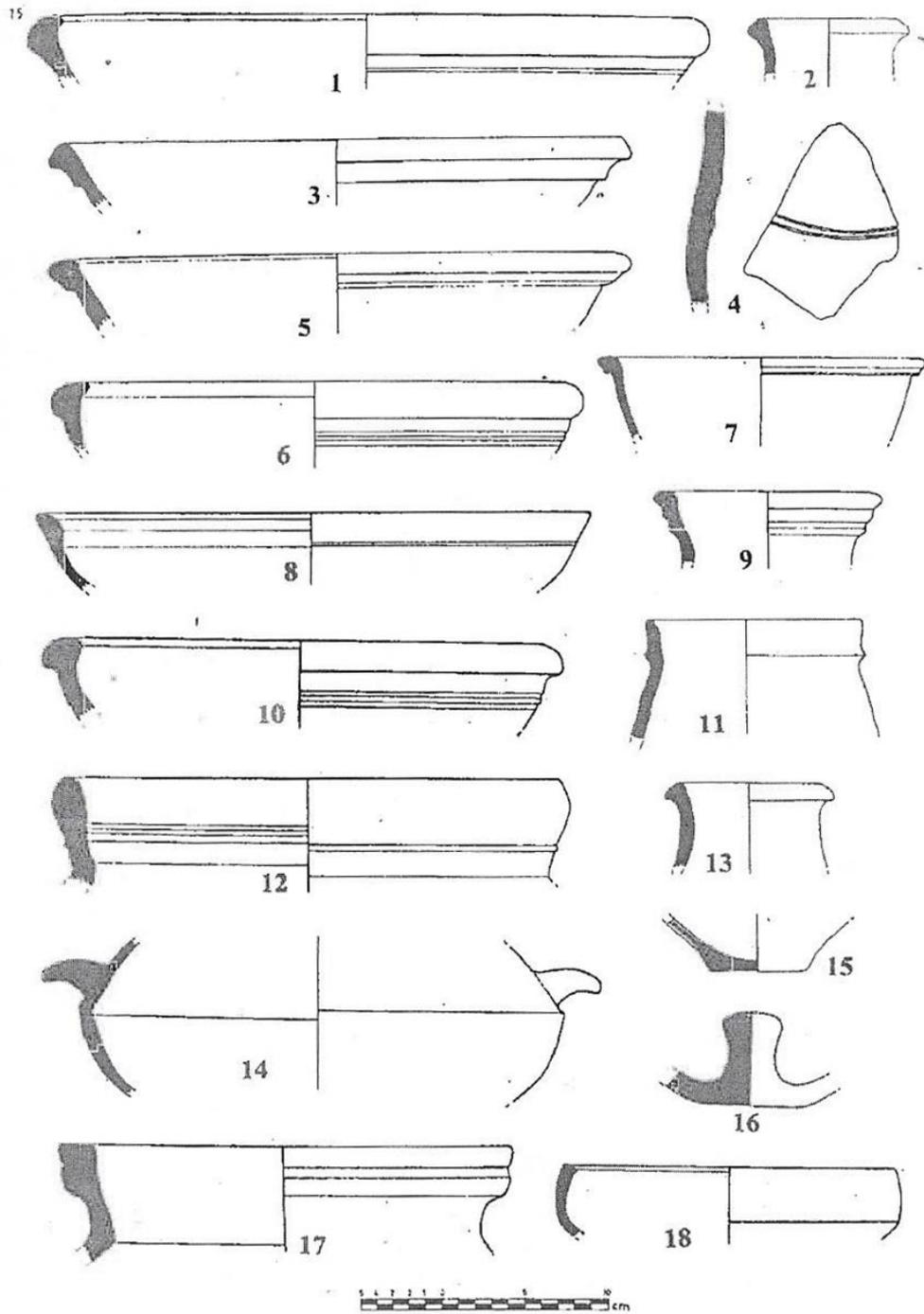
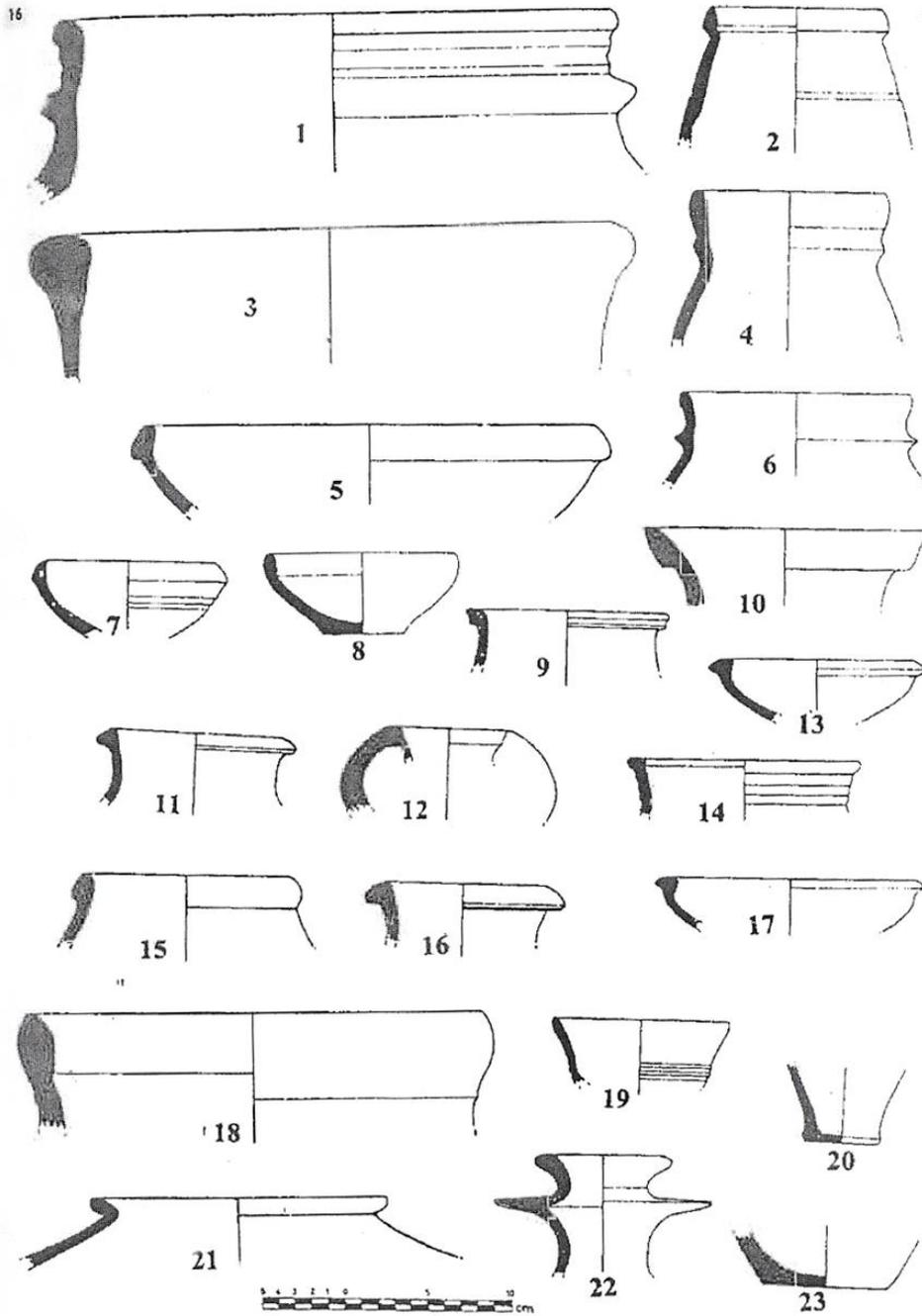


Fig.24. Plain pottery of period IV (layer 5 - 7.)

Figure 2.97 – Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 24).



**Fig.25. Plain pottery of period IV (layer 5 - 7.)**

Figure 2.98 – Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 25).

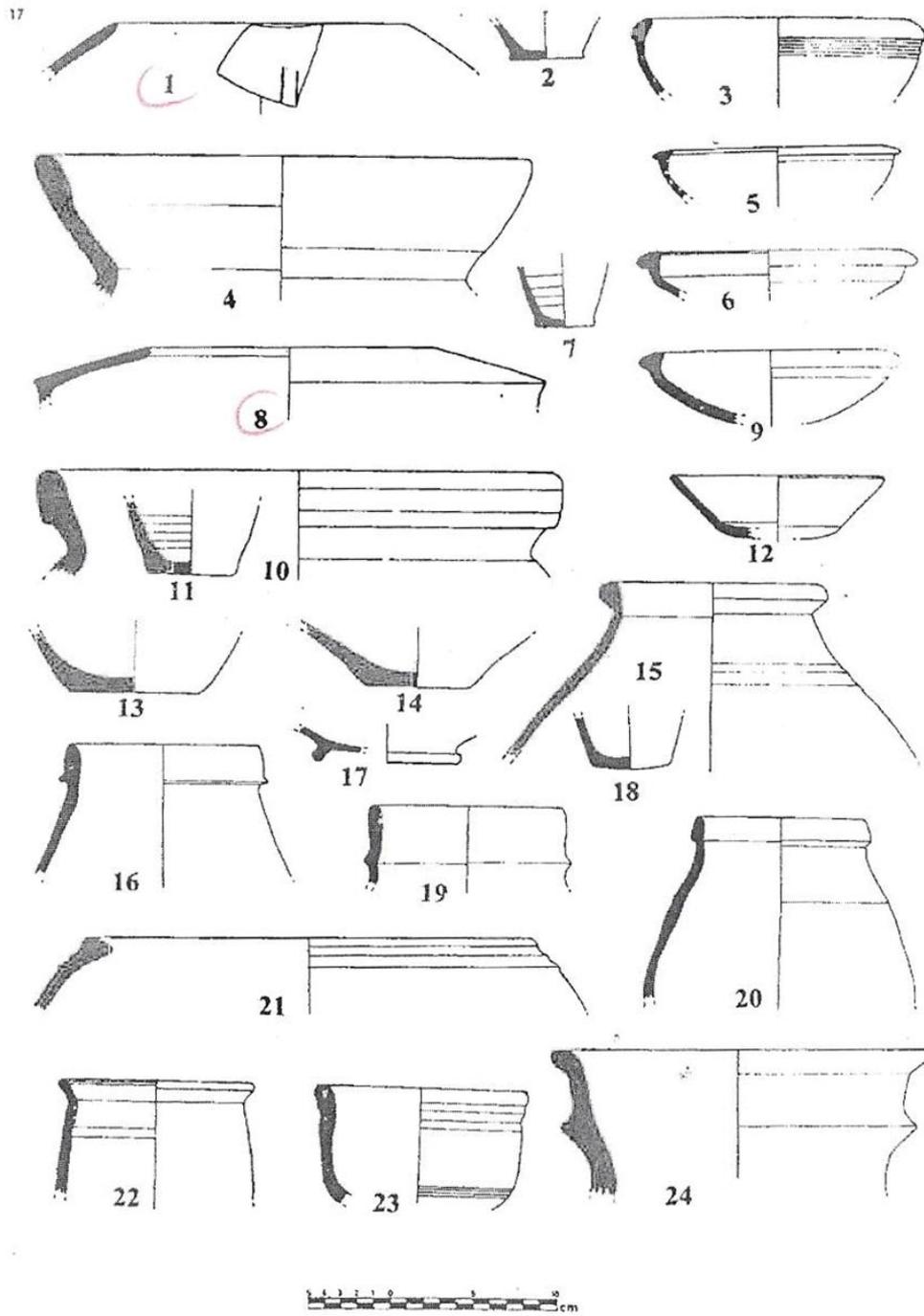


Fig.26. Plain pottery of period IV (layer 5 - 7.)

Figure 2.99 – Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 26).

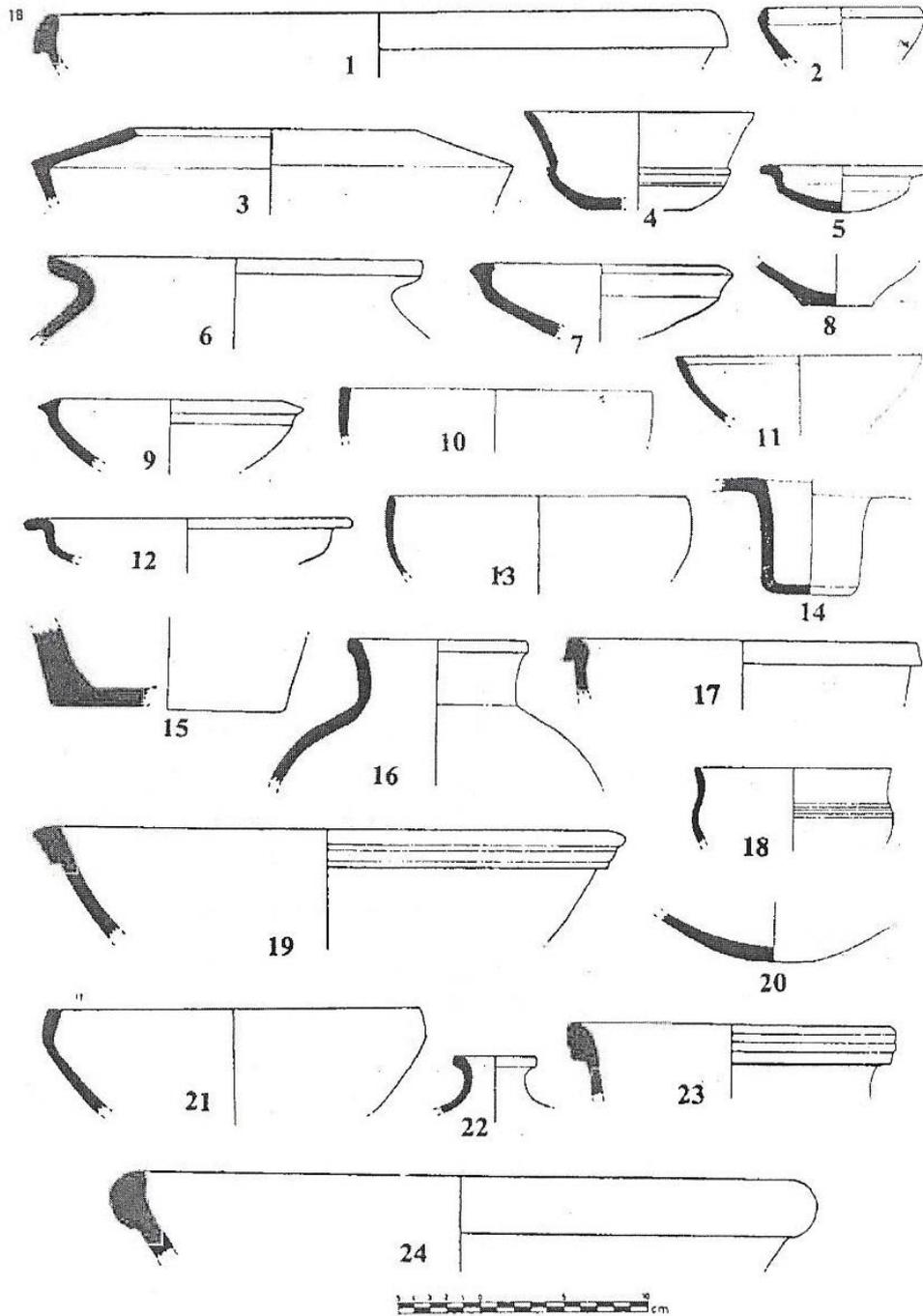


Fig.27. Plain pottery of period IV (layer 5 - 7.)

Figure 2.100 – Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 27).

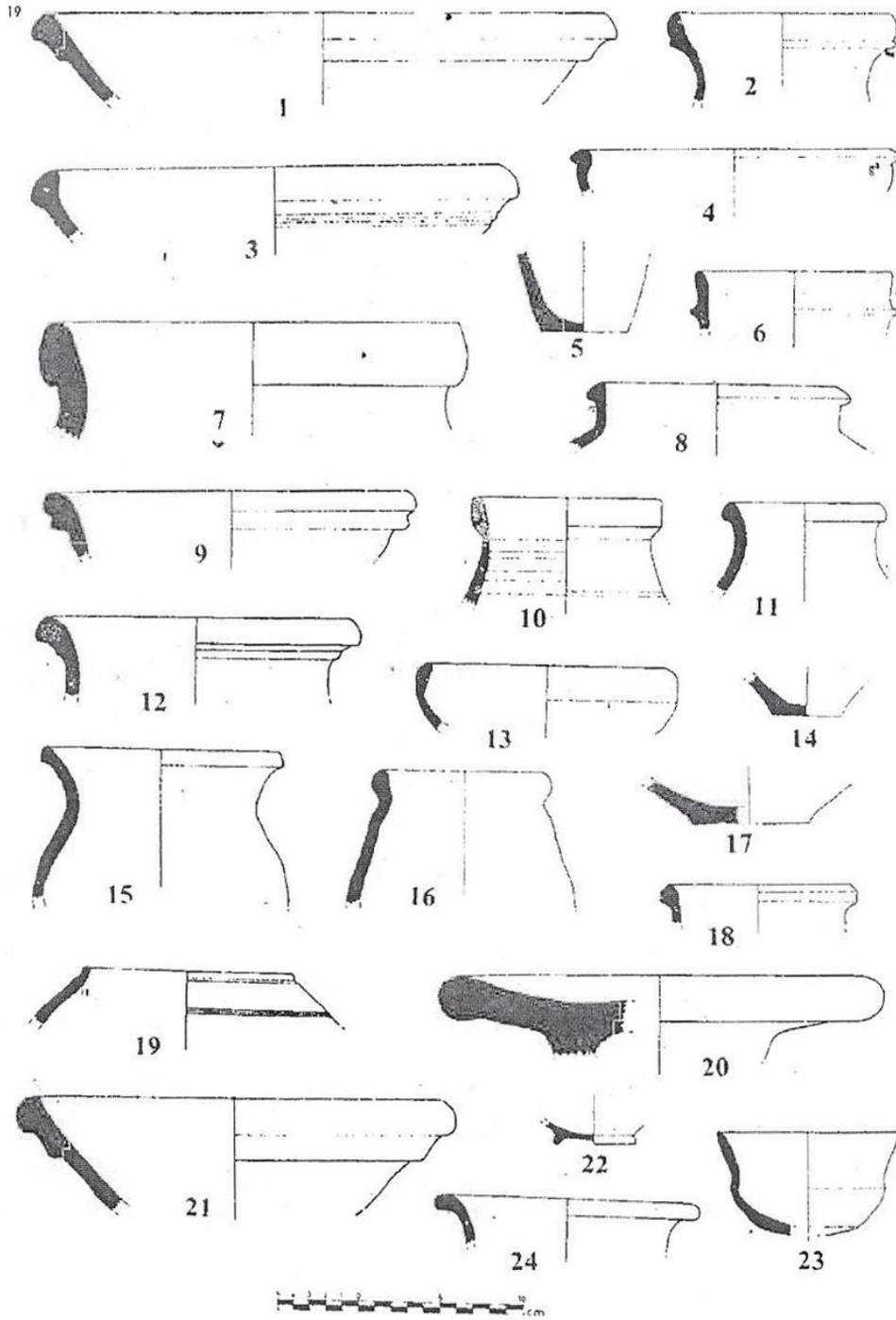


Fig.28. Plain pottery of period IV (layer 5 - 7.)

Figure 2.101 – Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 28).

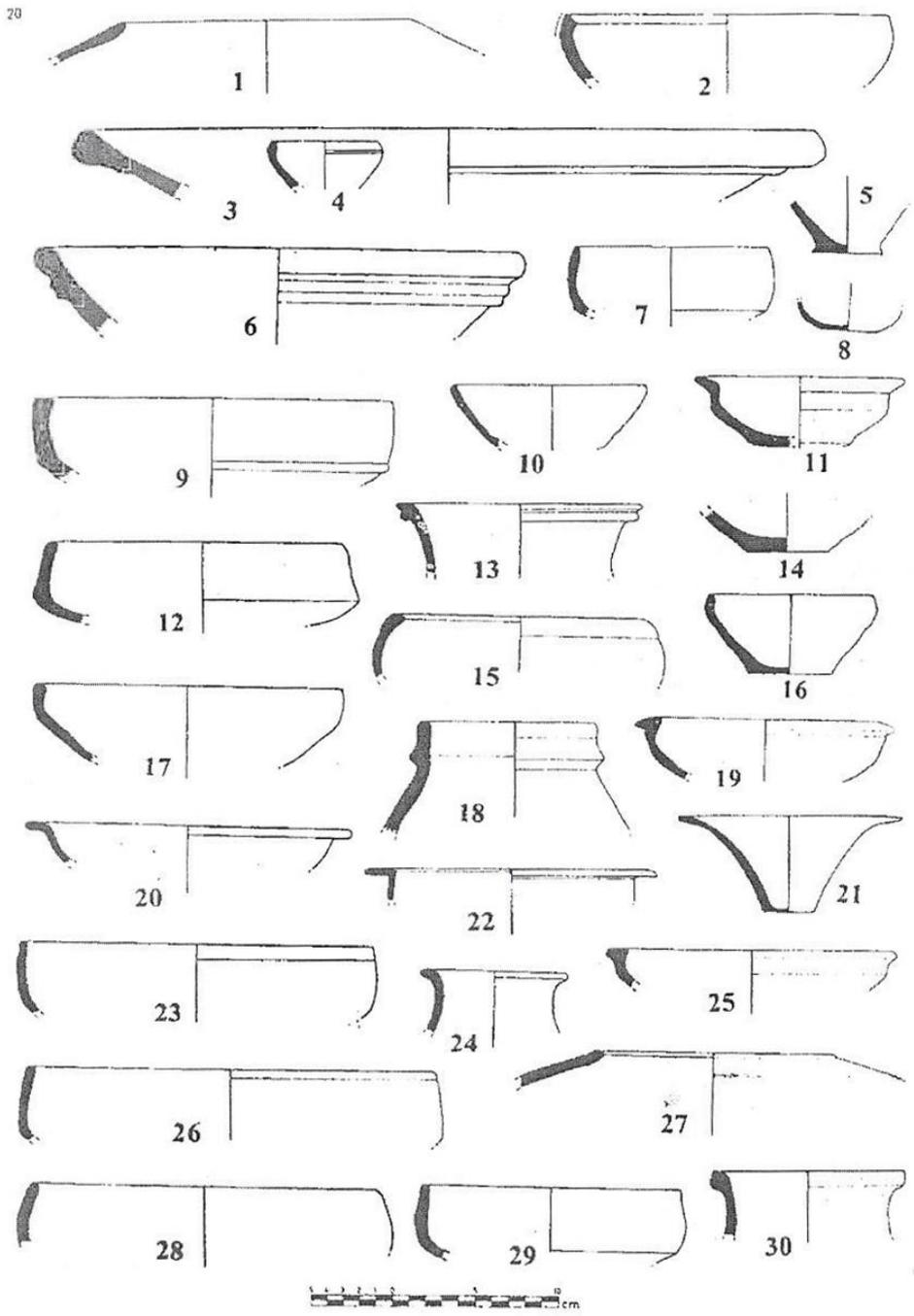
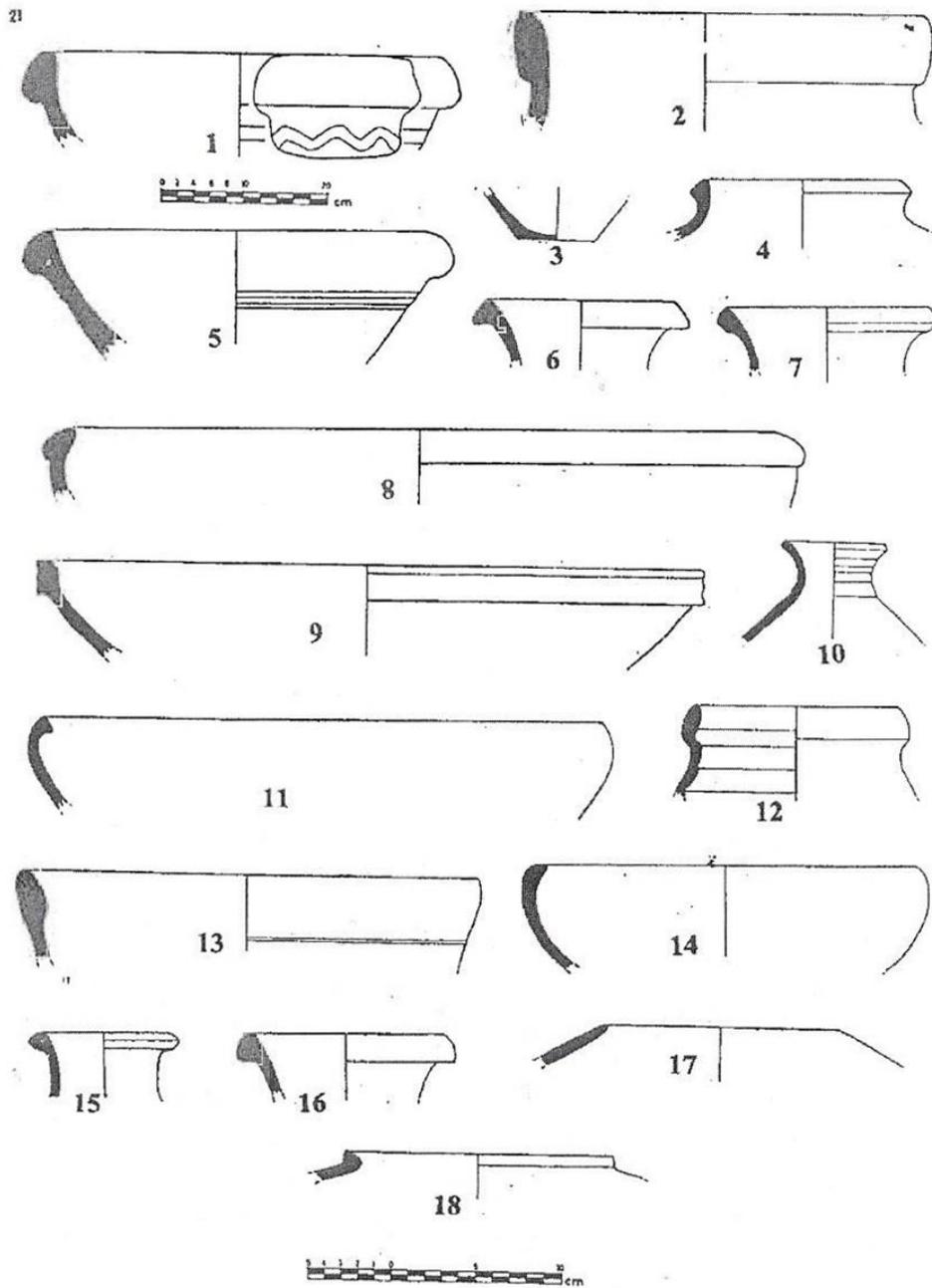


Fig.29. Plain pottery of period IV (layer 5 - 7.)

Figure 2.102 – Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 29).



**Fig.30. Plain pottery of period IV (layer 5 - 7.)**

Figure 2.103 – Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 30).

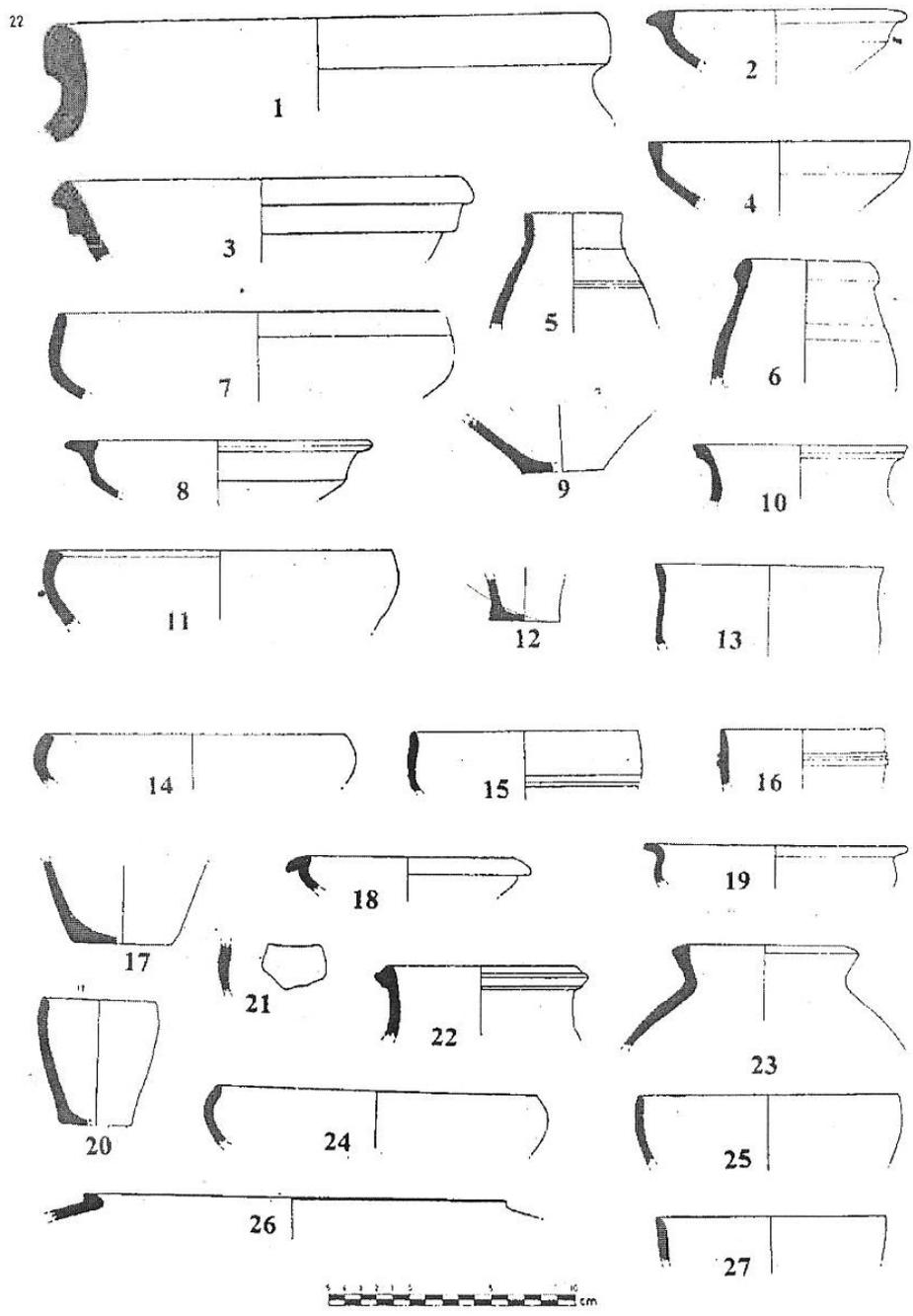


Fig.31. Plain pottery of period IV (layer 5 - 7.)

Figure 2.104 – Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 31).

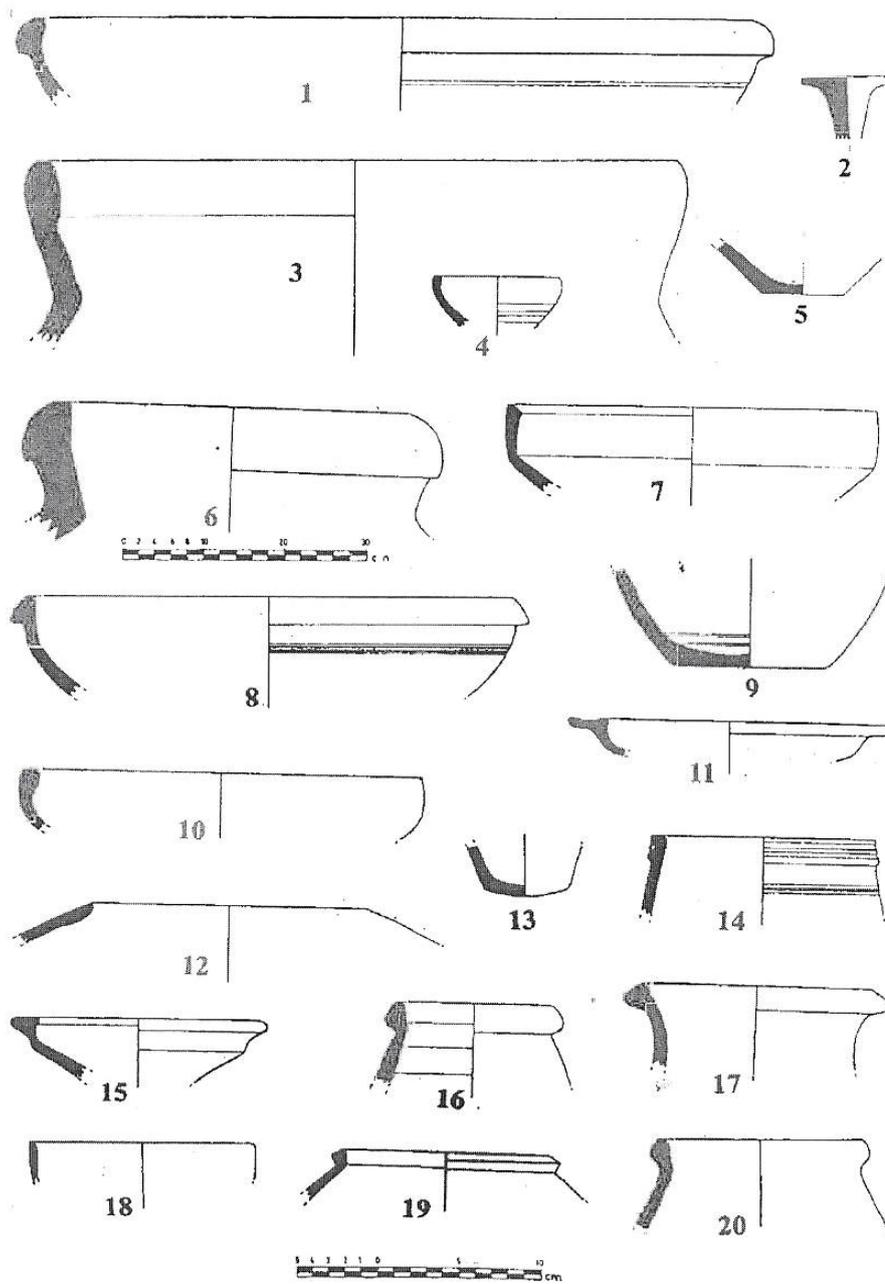


Fig.32. Plain pottery of period V (layer 1-4.)

Figure 2.105 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 32).

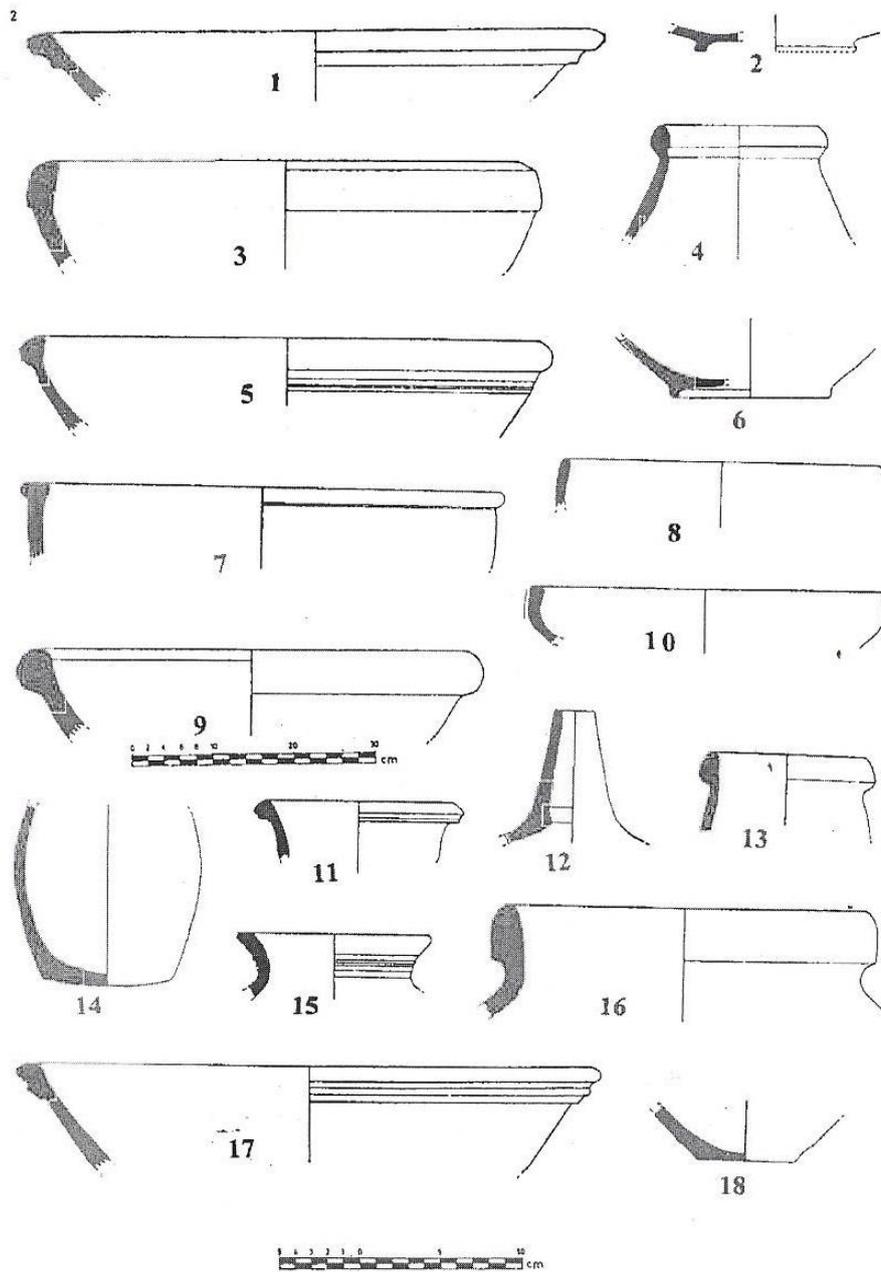


Fig.33. Plain pottery of period V (layer 1- 4.)

Figure 2.106 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 33).

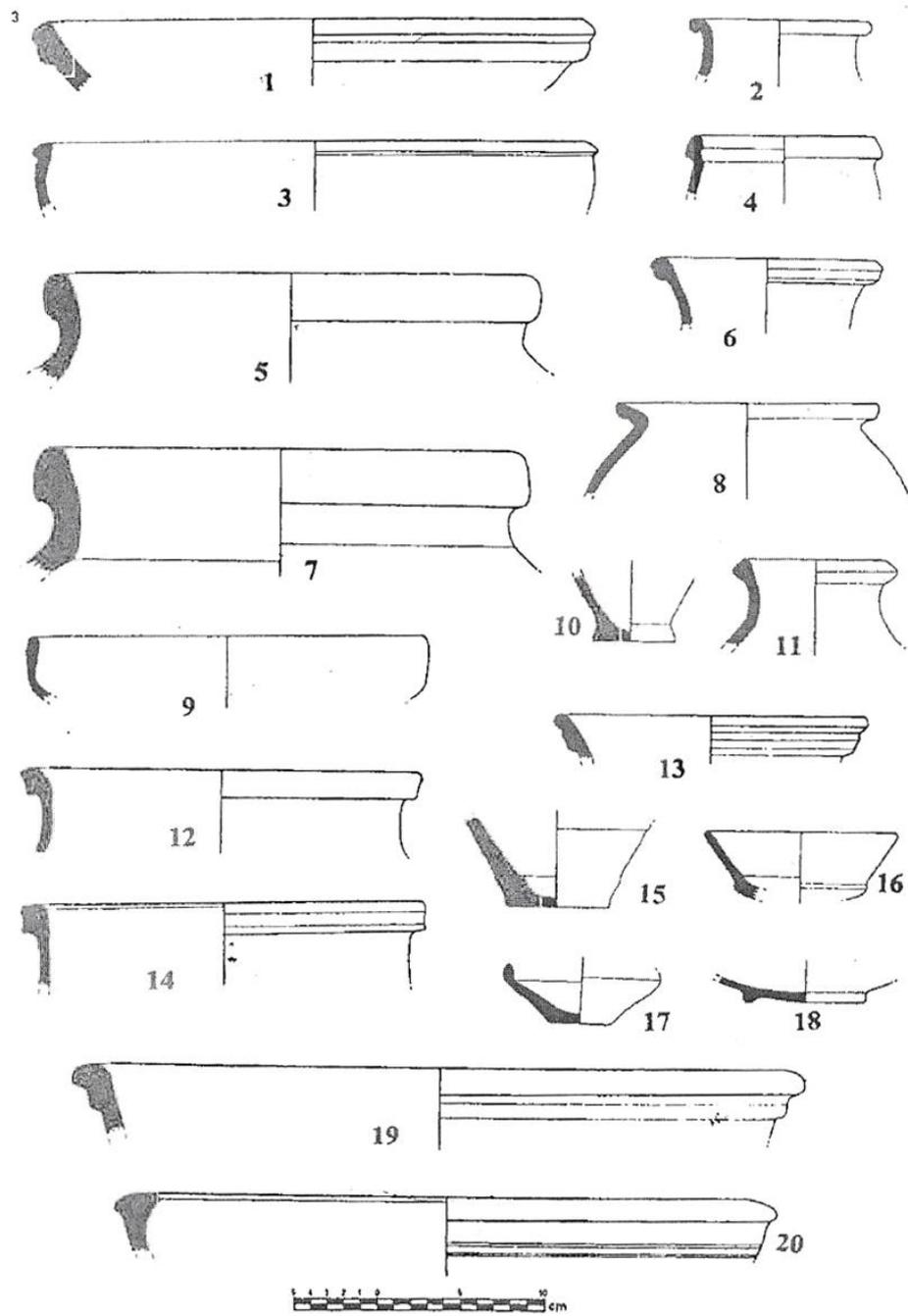


Fig.34. Plain pottery of period V (layer 1- 4.)

Figure 2.107 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 34).

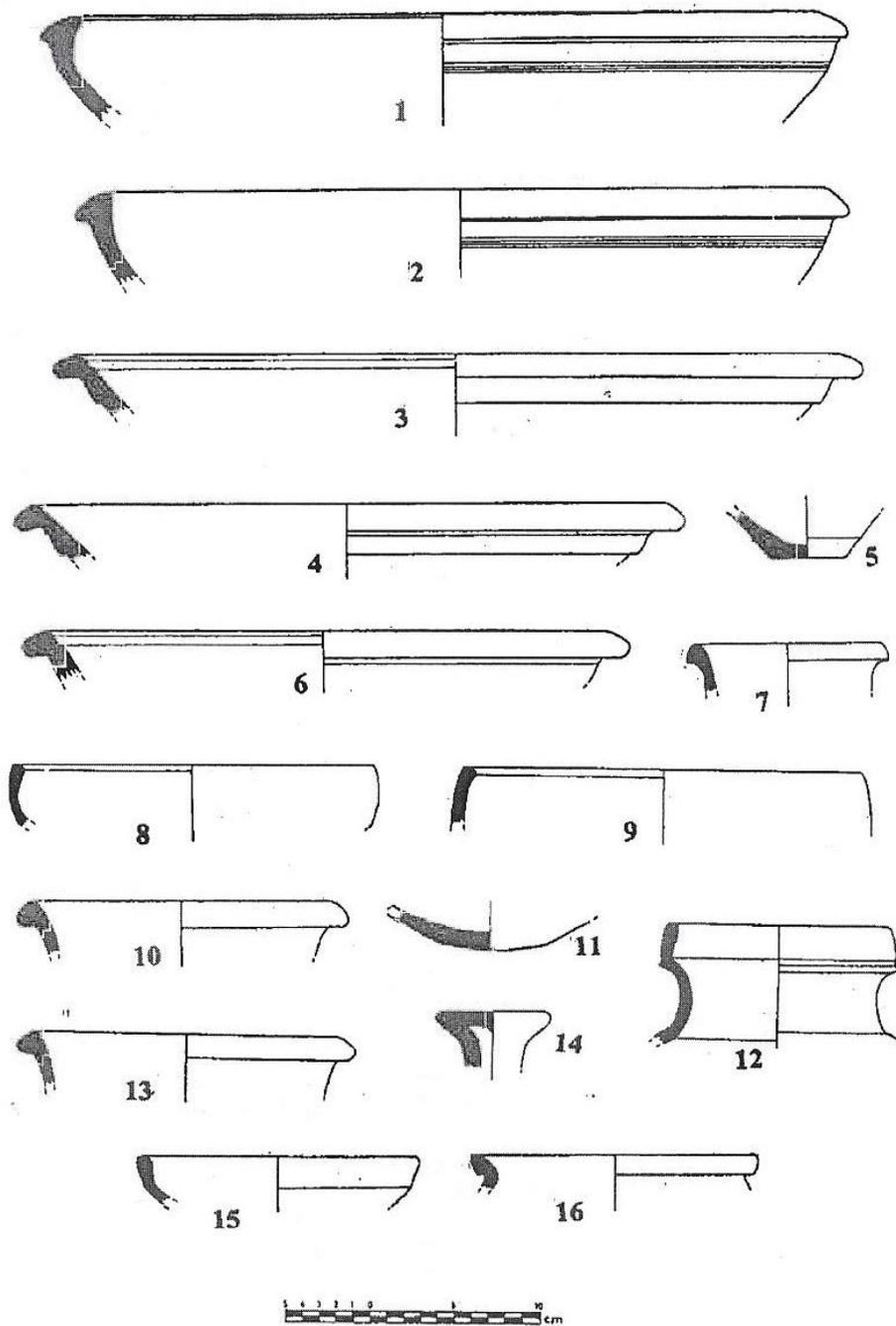


Fig.35. Plain pottery of period V (layer 1- 4.)

Figure 2.108 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 35).

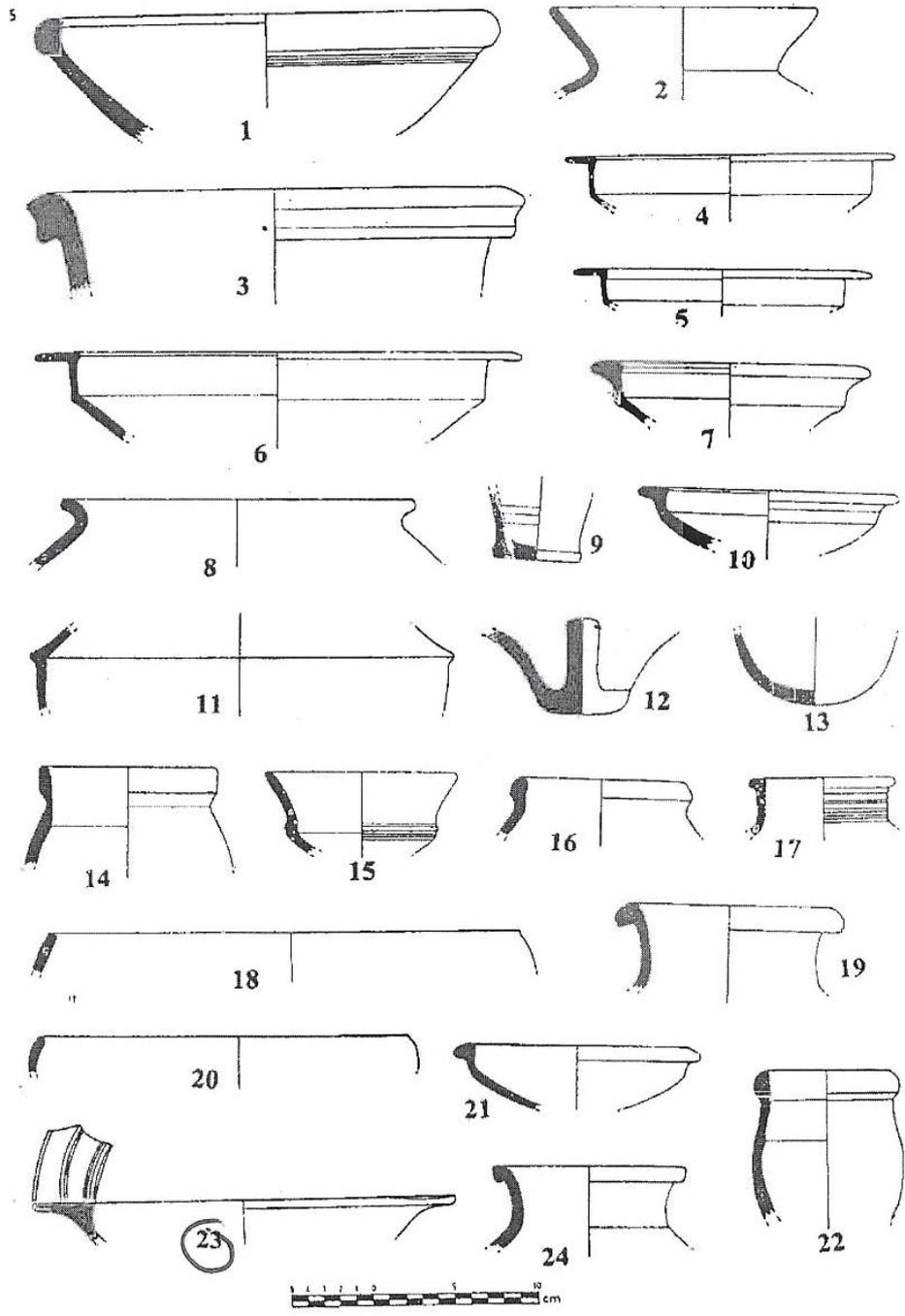


Fig.36. Plain pottery of period V (layer 1- 4.)

Figure 2.109 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 36).

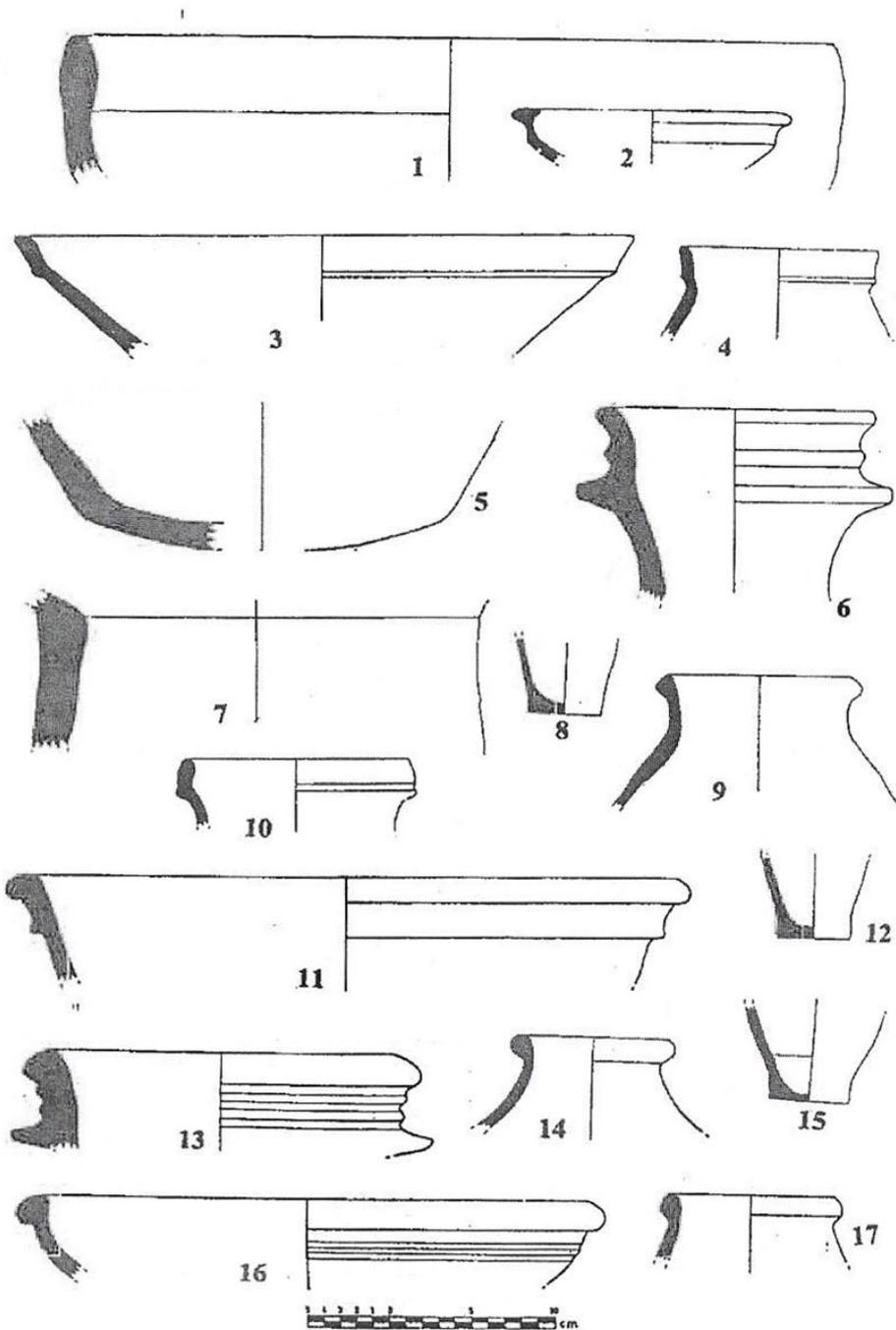


Fig.37. Plain pottery of period V (layer 1-4.)

Figure 2.110 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 37).

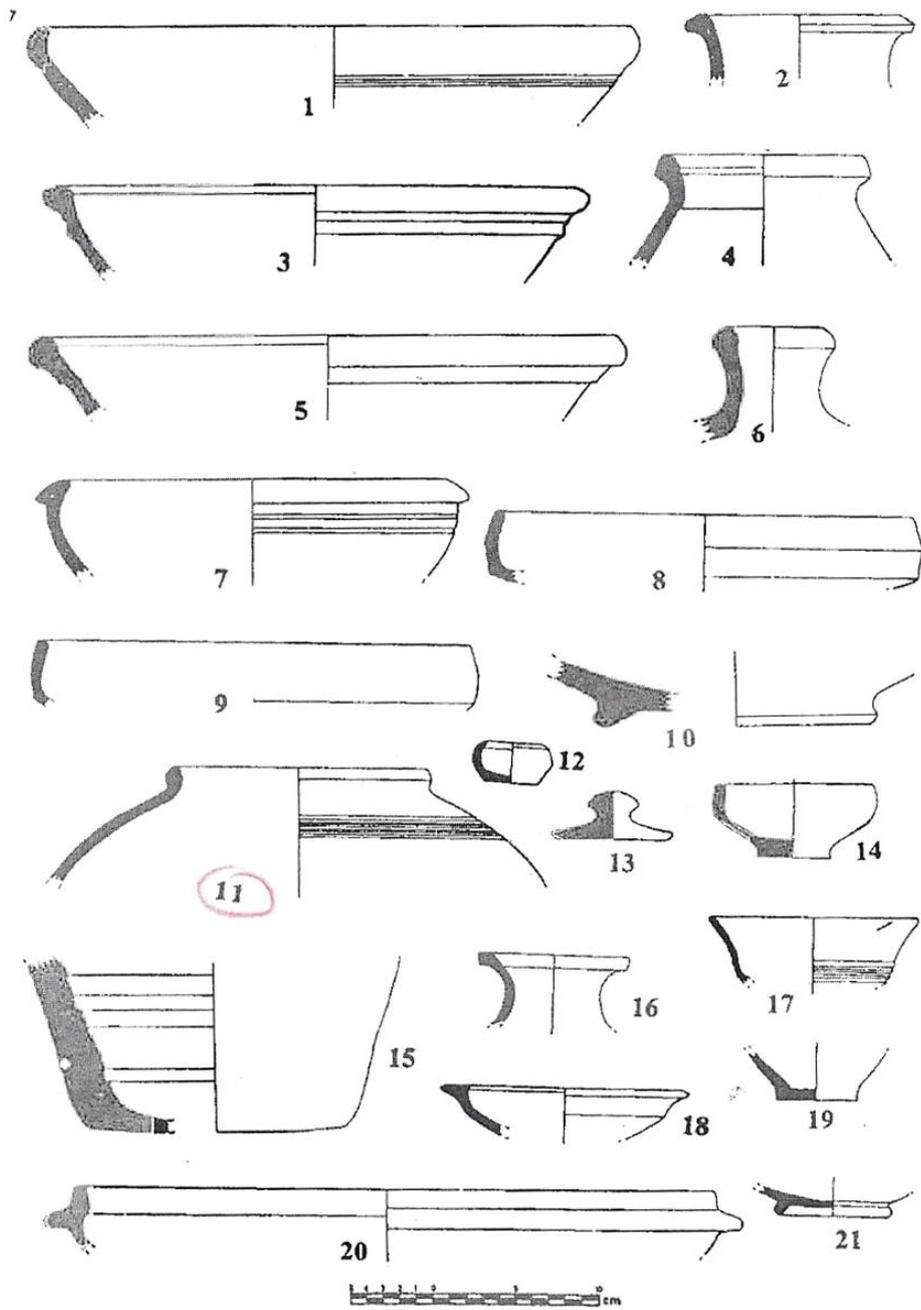


Fig.38. Plain pottery of period V (layer 1- 4.)

Figure 2.111 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 38).

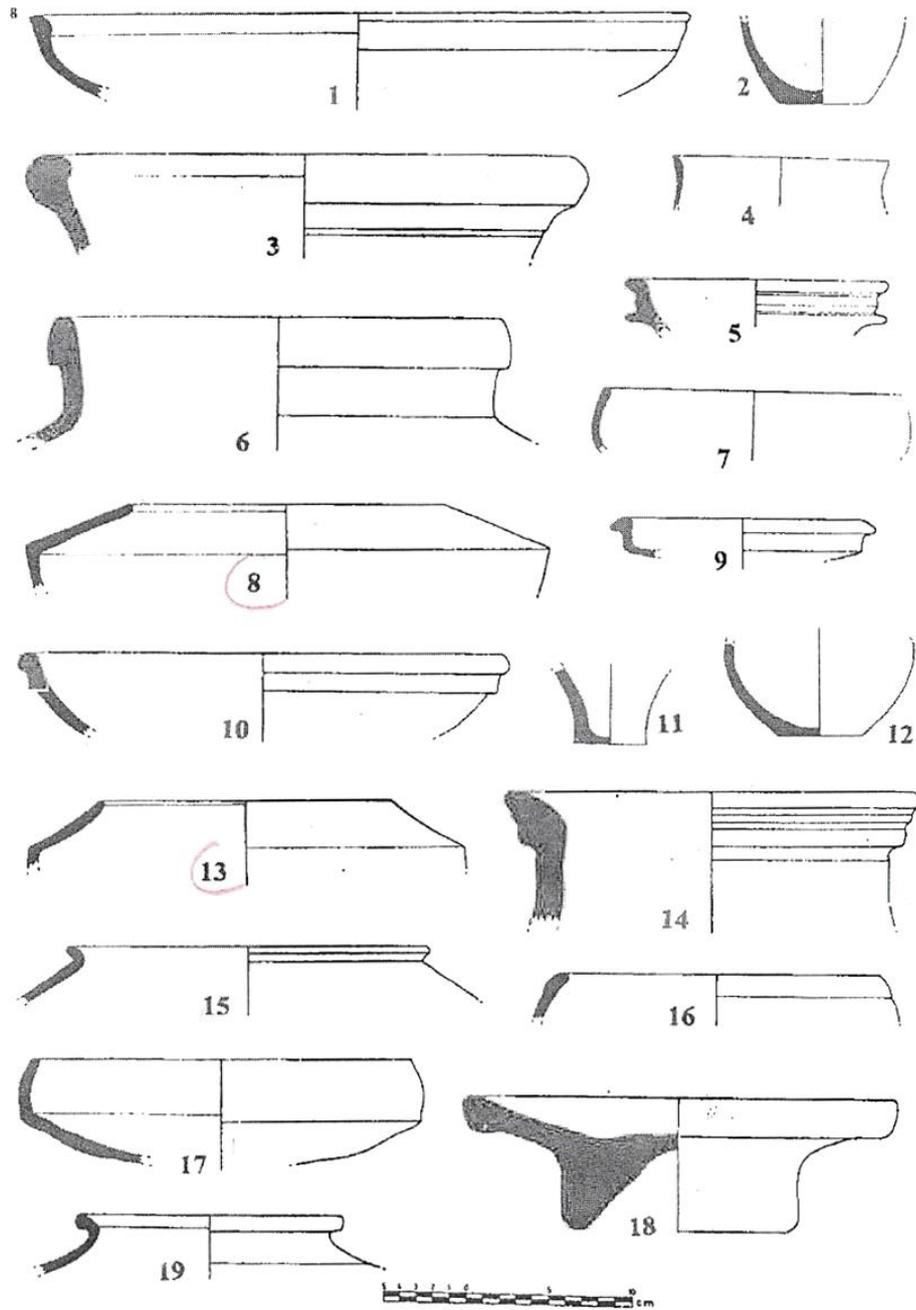


Fig.39. Plain pottery of period V (layer 1- 4.)

Figure 2.112 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 39).

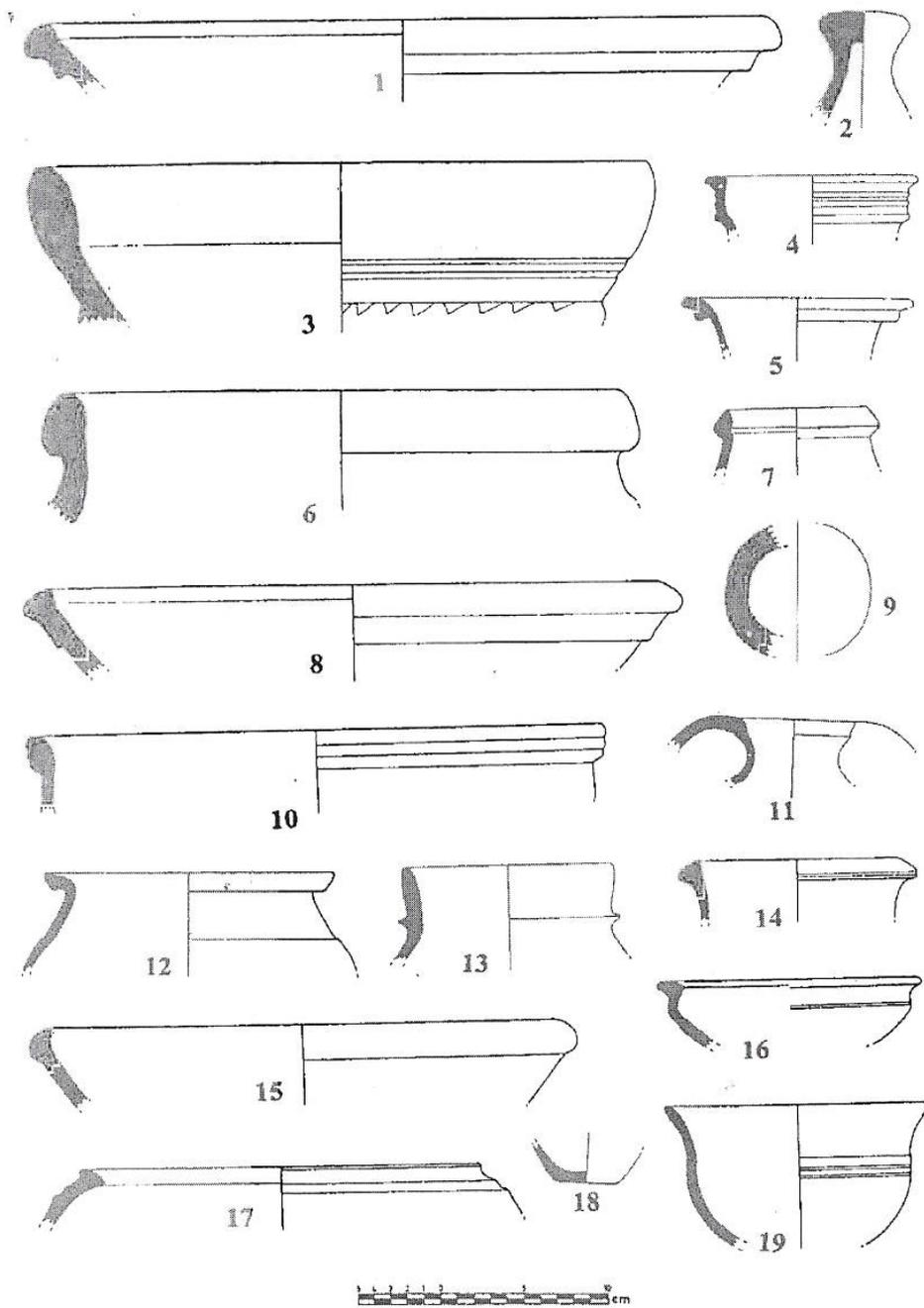


Fig.40. Plain pottery of period V (layer 1- 4.)

Figure 2.113 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 40).

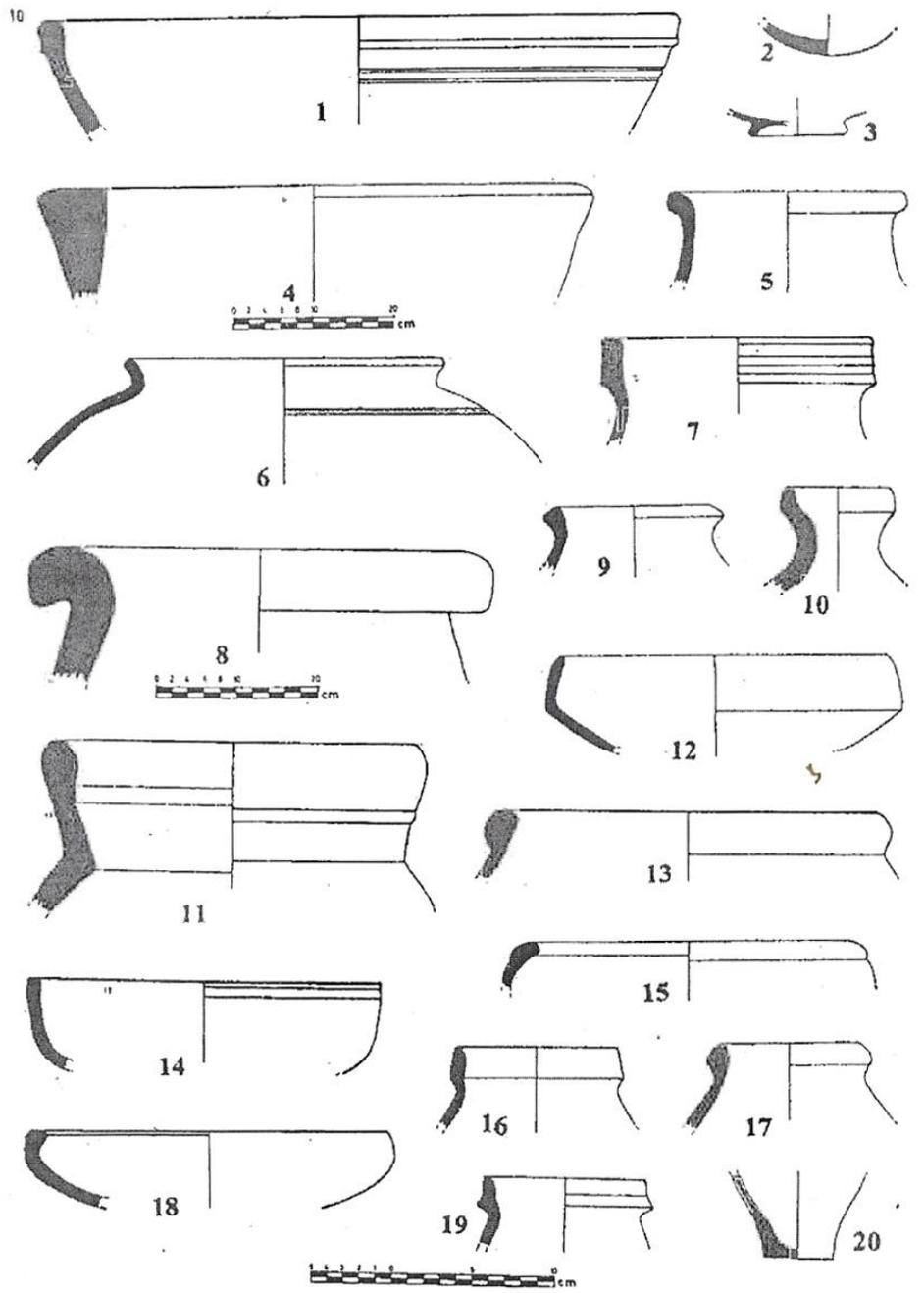


Fig.41. Plain pottery of period V (layer 1- 4.)

Figure 2.114 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 41).

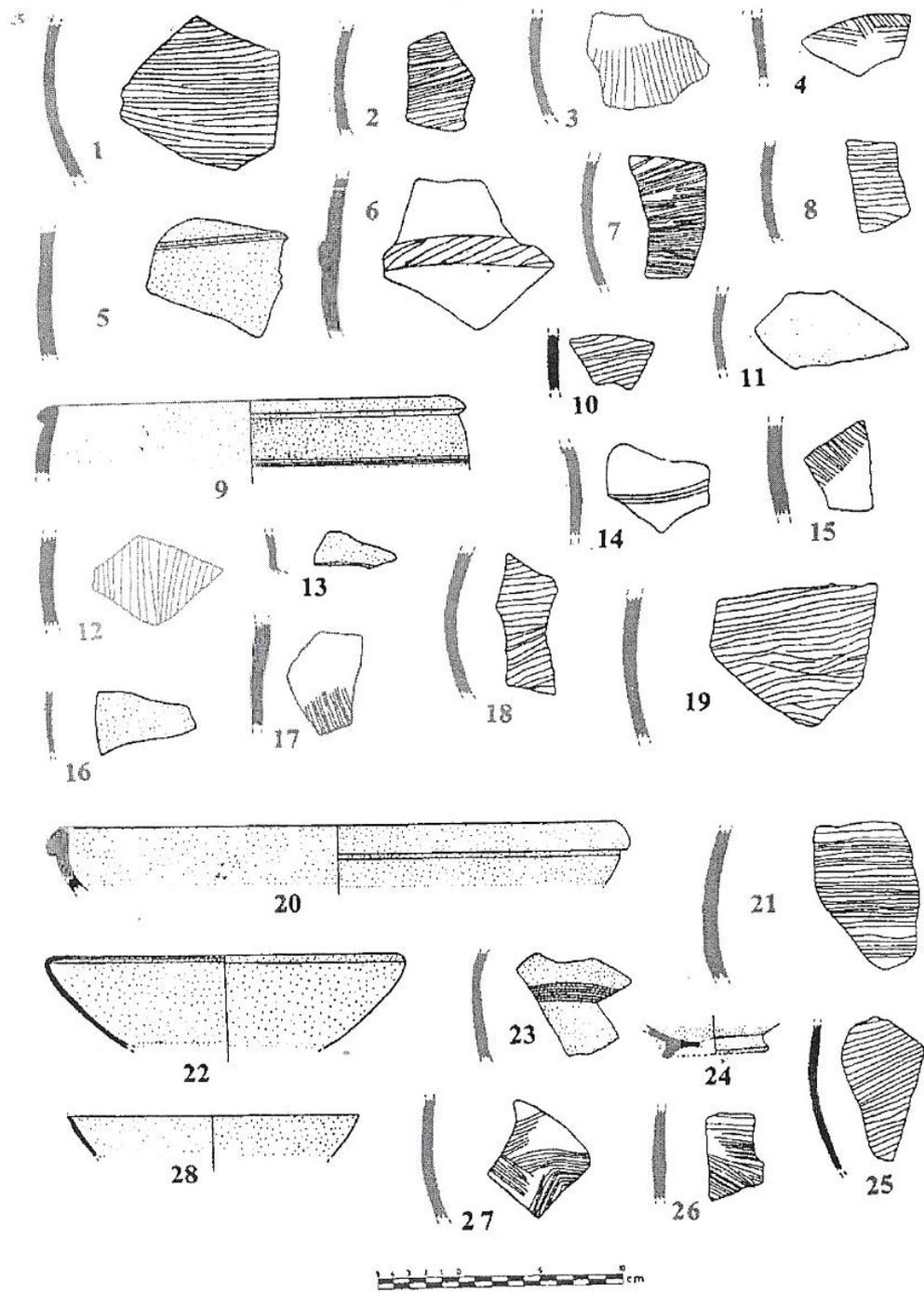


Fig.42. Decorative pottery of period V (layer 2

Figure 2.115 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 42).

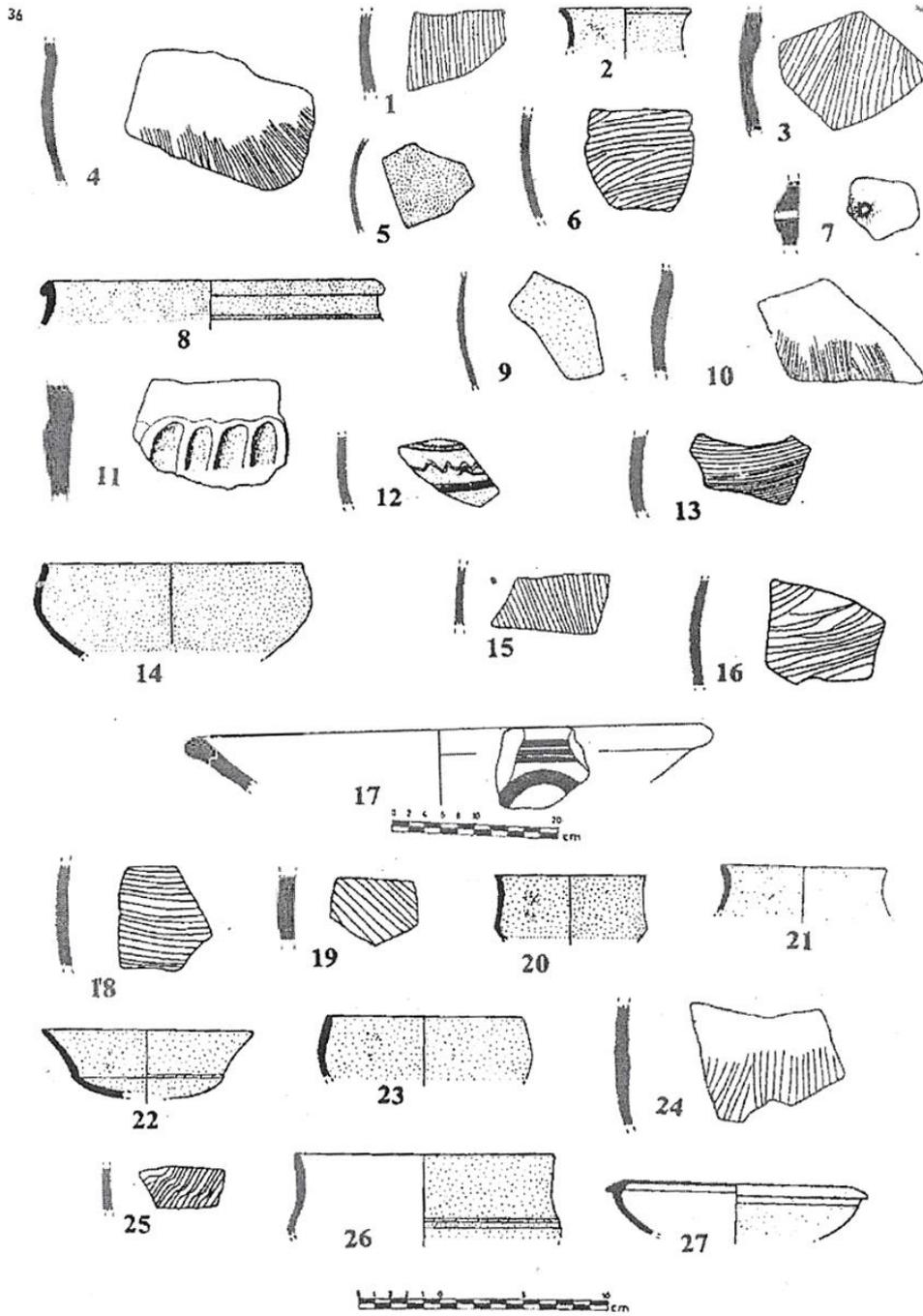


Fig.43. Decorative pottery of period V (layer 2 &3 )

Figure 2.116 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 43).

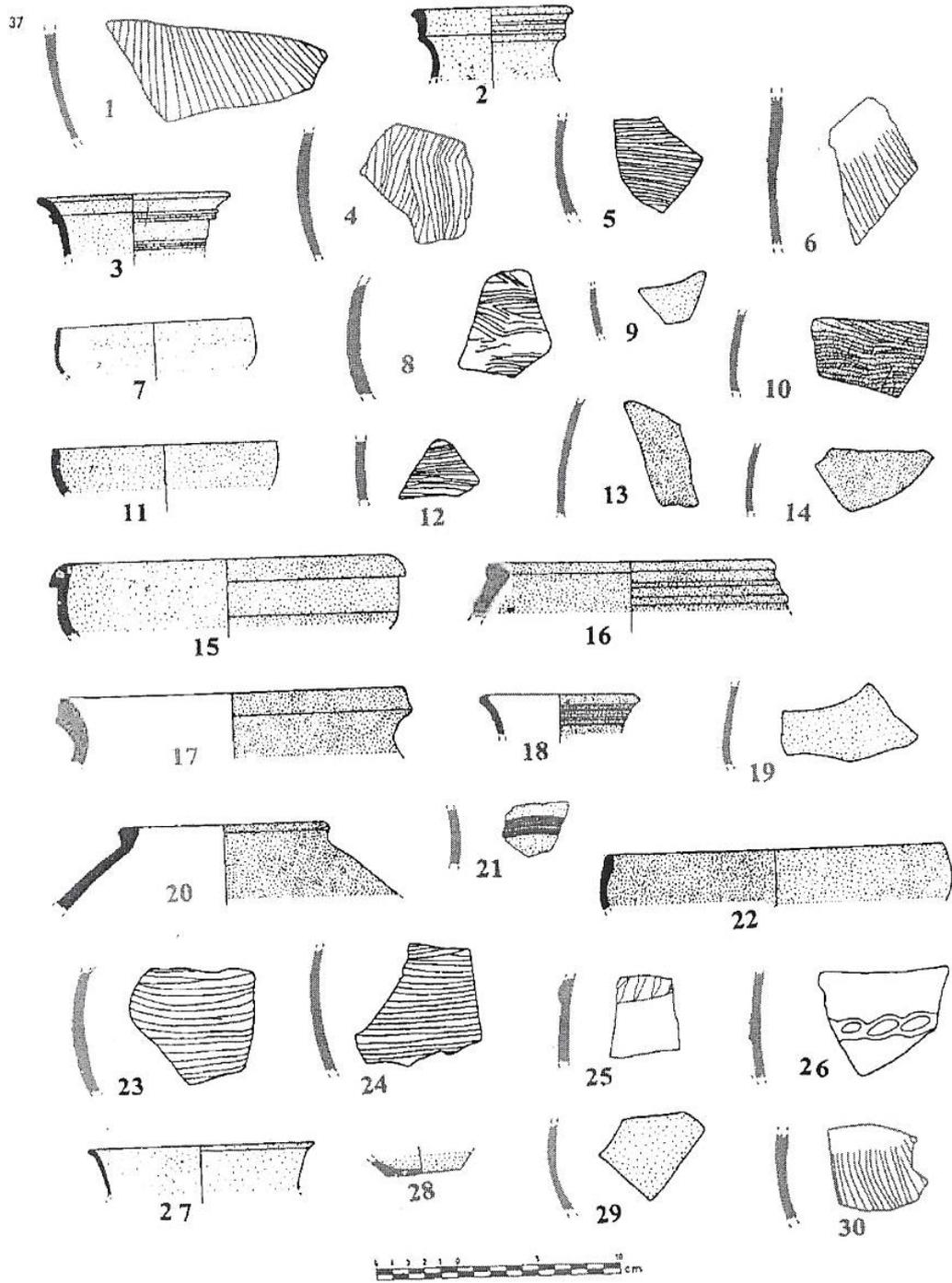


Fig.44. Decorative pottery of period V (layer 3&4

Figure 2.117 – Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 44).

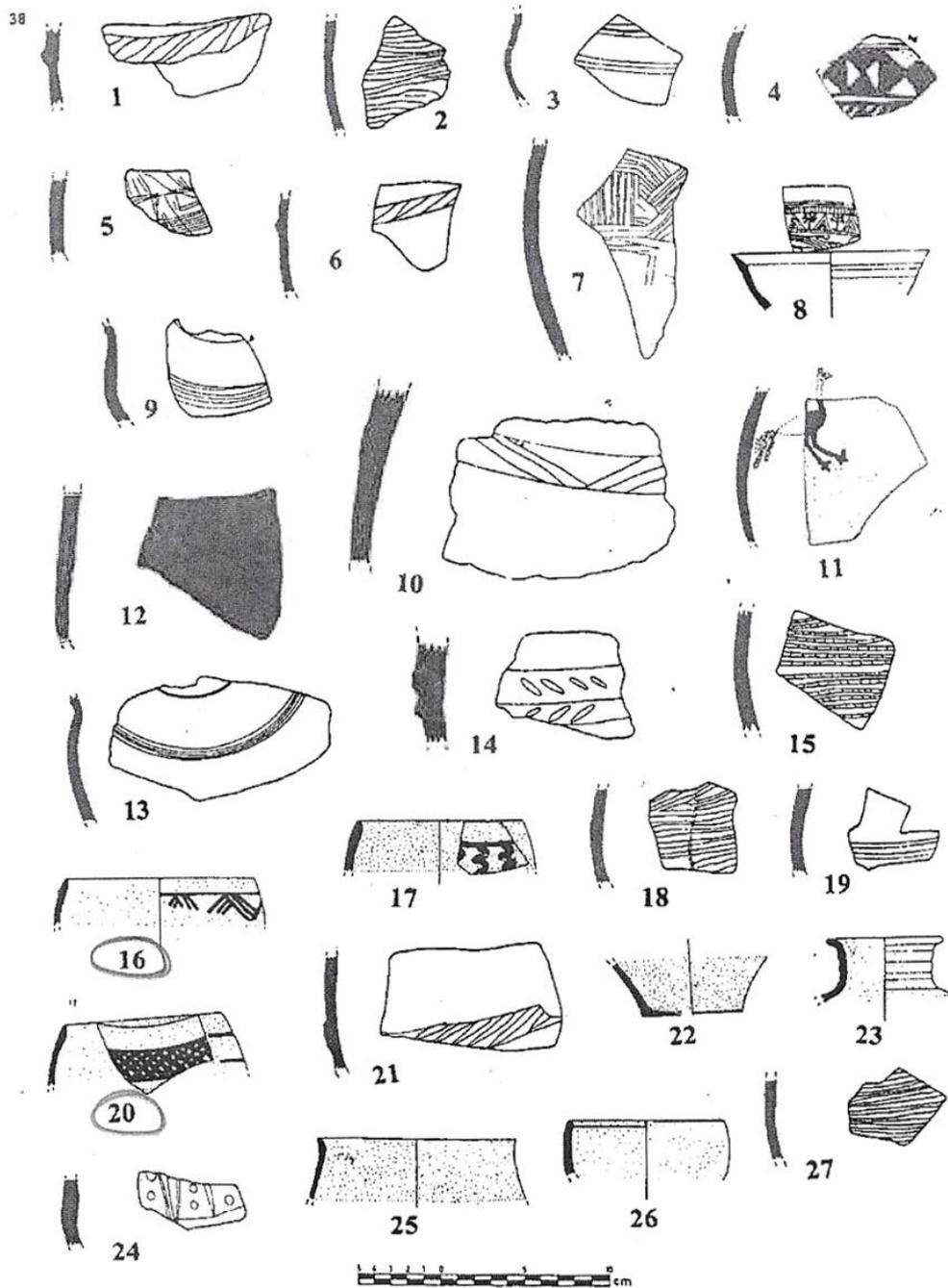


Fig.45. Decorative pottery of period II&III (layer 5 - 13

Figure 2.118 – Bhir Mound, Period II and III (Bahadar Khan et al. 2002: fig. 45).

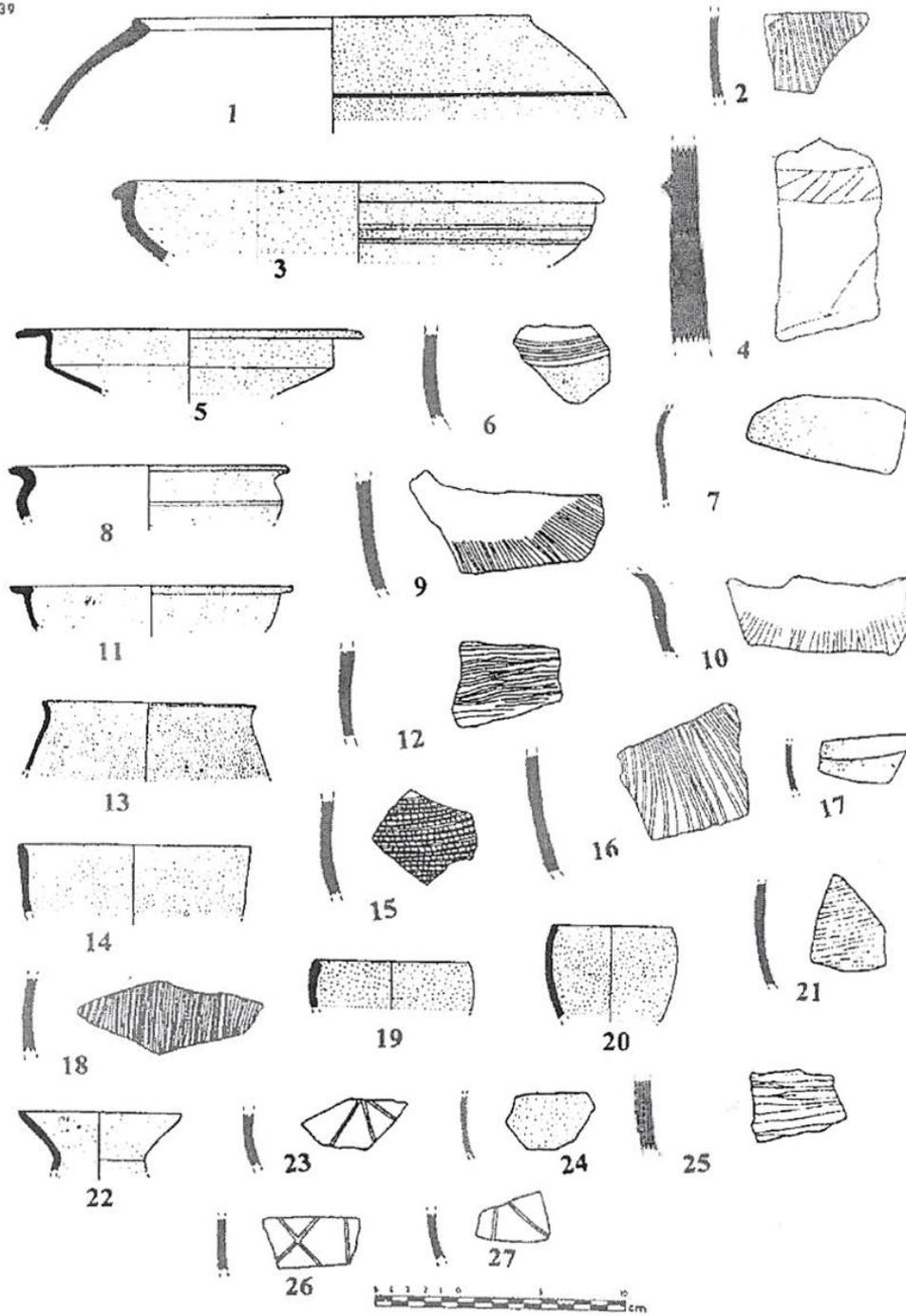


Fig.46. Decorative pottery of period .II&III (layer 5 - 13)

Figure 2.119 – Bhir Mound, Period II and III (Bahadar Khan et al. 2002: fig. 46).



## CHAPTER 3

### THE KEY EARLY HISTORIC SITE OF BARIKOT DURING THE 5<sup>TH</sup> - 1<sup>ST</sup> CENTURIES BCE

#### **3.1 The archaeological context of the research: BKG L, BKG 7, BKG 8, BKG 9, BKG K-105, BKG 12E**

The archaeological contexts of the ceramic material analyzed in this chapter involve three different sectors of the urban center of Barikot with reference to Macro-phases 2 and 3a (see Tab. 3.1): the area immediately outside the fortification wall (BKG 12E and BKG L); the western periphery of the town (BKG K-105) and the hill-top of Barikot (BKG 7-8-9), (Fig. 3.1).

Excavations at BKG 12E and BKG K-105 were undertaken during these three years of research, as two of the three areas selected in 2016 by IAM in agreement with DOAM and in collaboration with CIRCE<sup>47</sup> within the framework of a question-oriented research aimed at investigating the transition phases between Iron Age and Early Historic at Barikot<sup>48</sup>. Each archaeological layer of trench BKG K-105, like those of BKG 12W, was part of a program of floating targeted on collecting samples of different organic materials (seed, charcoals and bones) to treat and measure for <sup>14</sup>C isotopic ratio determination by AMS at the CIRCE laboratory. The trenches on the hill-top (BKG 7, BKG 8 and BKG 9) were investigated by L.M. Olivieri and R. Micheli in 1998-1999 and their stratigraphic sequences published in Callieri et. al 2000. Relatively little is instead known of the other trench taken into consideration, namely BKG L, excavated more than 30 years ago and hitherto published solely in a preliminary form. However, the presence here of a quite preserved pre-Wall stratigraphy<sup>49</sup> led us to renew the attention on this trench almost forgotten by the scholars. Information for the reconstruction of the stratigraphic sequence are gleaned from different sources: original preliminary excavation reports<sup>50</sup>, photo and notes from the IAM archive, the short reports previously published (Stacul and Filigenzi 1985; Stacul 1987).

---

<sup>47</sup>Centre for Isotopic Research on the Cultural and Environmental Heritage.

<sup>48</sup>The third trench I am referring to is BKG 12 W (see Ch. 1.1.1) is not included in this chapter since the disturbed nature of the stratigraphy relative to Macro-phase 2 and 3a.

<sup>49</sup> With the label 'pre-Wall stratigraphy' I refer to the stratigraphy antecedent to the construction of the Indo-Greek defensive wall (c. 150 BC).

<sup>50</sup> I thank Anna Filigenzi to provide her original notes, drafts and reports.

All these trenches are presented below mainly in reference to the Macro-phases 2 and 3a, while only short reference to the subsequent Macro-phases will be drawn.

Cultural phase	Lower Town						Macro-events	Acropolis			Macro-events	Relative Chronology
	BKG 4-5	BKG 11	BKG 4-5 outside the urban Wall BKG 12	BKG 1	BKG 3 outside the urban Wall	BKG 3		BKG 7	BKG 9	BKG 8 outside the Wall		Absolute Chronology
3a4	Per. III	Per. IIIA4	Ph. 3	Per. III			Fortified urban phase.				Acropolis Defensive Wall	end-2nd BCE <u>Indo-Greek</u> <u>Local Coins</u>
3a3		Per. IIIA3		Per. II	Per. IIB		Demolition of the previous structures and stratigraphy for the construction of the urban Defensive Wall					
				Per. I	Per. IIA							
3a2		Per. IIIA2										
3a1		Per. IIIA1					Urban occupation phase.					mid-3rd – early-2nd BCE
2b		Per. IIB	Ph. 2b				Probably fortified					end-4th - mid-3rd BCE <u>Mauryan</u>
2a2		Per. IIA					Urban occupation phases					5th - mid-4th BCE
2a1												6th-5th BCE

Table 3.1 - Chronology correspondence chart amongst the BKG trenches with reference to BKG Macro-phases 2 and 3a (Callieri and Olivieri, forth.).

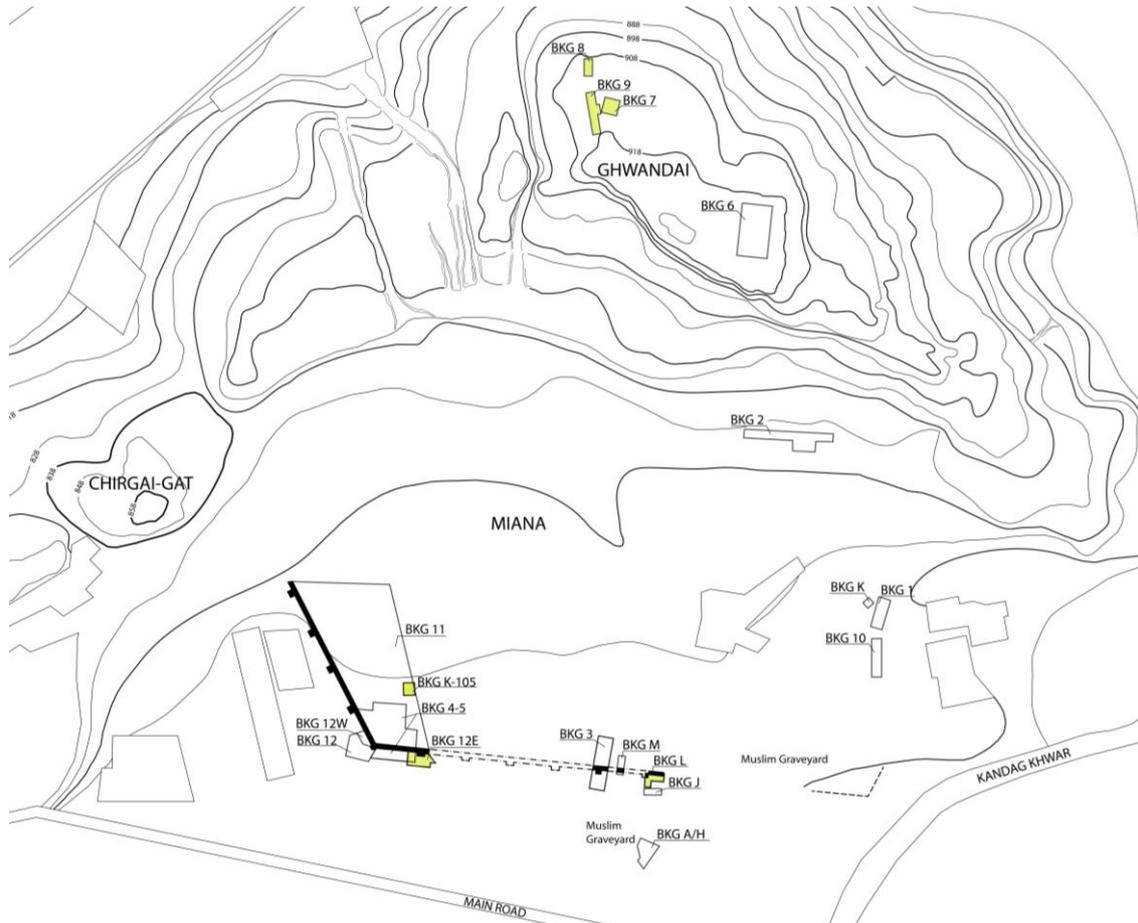


Figure 3.1 – Barikot, general map. In yellow the trenches discussed in this chapter (after Olivieri 2003: fig. 6. Elaborated by E. Iori)

### 3.1.1 Trench BKG 12E

Trench BKG 12E is located outside the first bastion E of the SW corner of the defensive wall (hereafter: Wall) (Figs. 3.2a). Trench BKG 12E covers an area of about 95 mq, and its orientation corresponds to the alignments of the W and S stretches of the Wall (Fig. 3.2b-c). The excavation was initially aimed at ascertaining the extent to which the protohistoric settlement was a living settlement at the time of its demolition<sup>51</sup>. However, the focus of the excavation changed during the execution, since the former revealed the complex sequence of constructions, collapses and abandonment dated to the Saka-Parthian and early-Kushan periods of the external service area of the SW sector of the city (Iori et al. 2015). This trench excavated in 2015 has been included in the research with reference to the floor-levels stratigraphically related to the first phase of life of the defensive wall.

<sup>51</sup> Instead the answer to this enquiry was given by trench BKG 12W (see Ch. 1; Olivieri and Iori forth.).



Figure 3.2 – a: general plan of the archaeological area of the SW quarters of the ancient settlement at Barikot (after Olivieri et al. 2015: fig.1); b: trench BKG 12E, final plan; c: cross-section AA’.

### The stratigraphic sequence

The earliest phase of occupation (Phase 1) identified in BKG 12E is related to the construction of the Wall [303] and the annexed bastion [4], dating to the Indo-Greek period (= Macrophase 3a3). The complex sequence of structures which follows contributed to alter the original external floor of the defensive wall, which anyhow has always been particularly poor of evidence related to the Indo-Greek period.

In the phase related to the 1st century BCE, besides the reconstruction of the bastion, partially collapsed after a natural event (Inter-phase A)<sup>52</sup>, most probably an earthquake, some additional structures were built in order both to reinforce the stability of the bastion (i.e. an escarpment), and to facilitate the run-off of the rainwater from the area close to the Wall down to the ditch. Once this opera of reinforcement and prevention was

<sup>52</sup> Inter-phase A correlates with inter-phase 1 in BKG 12 (Olivieri 2015), Phase 4 in BKG 4-5 (Callieri et al. 1992), and Phase IIB in BKG 3 (Callieri et al. 1990).

completed, further efforts were directed towards the construction of masonry structures not involved in the Wall's stability<sup>53</sup>, namely an extramural pit-well<sup>54</sup> and related structures (Phases 2, 3).

Although several attempts to arrest the continuous landslips and their effects on the structures, in a subsequent phase a landslide swept away part of both the retaining and defensive walls, thus creating a deep depression, which made the passage-way definitively unusable (Inter-phase C). At this point the pit-well was abandoned and sealed. By the time of Phase 4 all the preexisting external structures in BKG 12E were covered by a sequence of accumulation layers interspersed with collapsed areas. The main feature of this phase is the construction of a berm [11], to the W of the bastion and parallel to the Wall, which also acts as a retaining wall. However the functional role of the Wall at this point in time was about to change, passing from the role of fortification to that of substruction of the raising ground-level of the town (Callieri 1992: 11; Olivieri 2012, 2015).

Later on the retaining wall [11] was provided with a small additional wall [6] (Phase 4 B).

The layers taken in consideration in this research are the floor-level directly associated with the first phase of the Wall, namely layers (63), (58) located east of the bastion. Instead, the contemporary floors west of the bastion were heavily disturbed since part of the refilling of trench BKG 4-5 excavated by P. Brocato in 1990-1992 (Callieri et al. 1992).

### 3.1.2 Trench BKG L

The Trench BKG L, about 85 mq, was excavated in 1985 by Stacul and Filigenzi outside the S stretch of the defensive wall, approximately at its central area (few metres W the modern Muslim graveyard) (Fig. 3.3). The six structural Periods identified here, span between the mid-2<sup>nd</sup> millennium BCE and the first few centuries CE.

---

<sup>53</sup> The extramural sectors investigated so far have revealed little evidence beyond the defensive functions (BKG 3, Callieri et al. 1990; Trench BKG L, Filigenzi 1985: 436, 437-438; BKG 4-5, Callieri et al. 1992; Olivieri 2003; BKG 12, Olivieri 2015), the draining system (BKG 4-5, Callieri et al. 1992), and the external passageway network (BKG 12, Olivieri 2015).

<sup>54</sup> About the relation between the presence of an external pit-well and that of a secondary city gate see Iori et al. 2015.

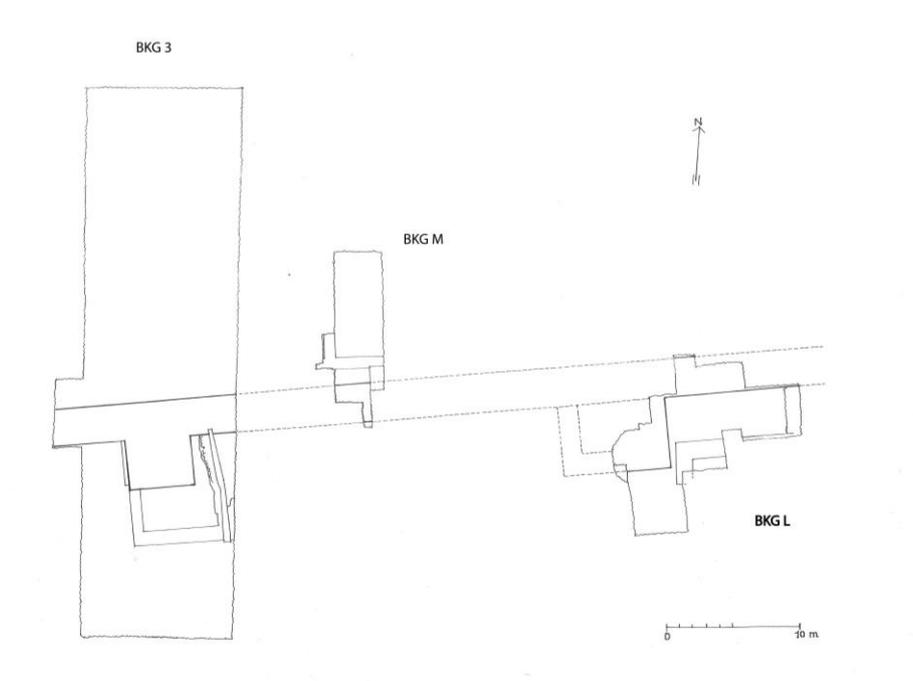


Figure 3.3 – General plan of part of the S stretch of the defensive wall. Position of trench BKG L and of the nearby trenches BKG 3 and BKG M.

### The stratigraphic sequence

The first evidence of human presence above the sterile soil are represented by layers containing ceramic material related to the Swat period IV (Period Ia; Stacul 1987). The first structural period (Period Ib), ascribed to the same cultural horizon (Stacul 1985: 431), is represented by wall [s], about 30 cm wide, N-SE oriented, built of not-dressed stone and associated to beaten earth floor-levels (Fig. 3.4a). A thick clayey and almost barren soil (14) separated structural Period I from the following structures.

The numerous structures of Period II ([h], [g], [e], [f], [m], [n], [o], [p], [q], [r]), having a width of about 50 cm and following the orientation of the previous Period, are built of river pebbles irregularly alternated with thin flat slabs. A series of small quadrangular adjacent rooms appeared in the SW area of the trench (Fig. 3.4b). The ceramic assemblage of this Period is featured by shapes considered characteristic of Swat period VII and late VI (Stacul 1985: 433).

The following Period III marked a new orientation of the structures ([i], [l]), N-S and E-W, which will be followed until the latest phases. Although these structure were substantially damaged by the leveling work occurred for construction of the Indo-Greek fortification, unlike BKG 12W (see Ch. 1), the pre-Wall stratigraphy here is partially preserved.

Period IV is marked by the construction of the Indo-Greek defensive wall [a], N, and its joint bastion [b], W, preserved up to a height of 2.8 m and still bearing traces of the original plaster coat. The Wall was exposed for a length of 11 m and the bastion was only partially uncovered due to the presence of modern buildings nearby. The bastion featured a sloping profile (escarpment) which guaranteed a better stability to the massive structure. The following Period V is attested by the construction, at a very short distance from the bastion (c. 1 m), of a thick wall [c] (about 1.50 m width) parallel to the south face of the bastion, possibly a retaining wall<sup>55</sup> (Fig. 3.4c). On the basis of the preliminary analysis of the related ceramic assemblage, Period V can be ascribed to the Saka-Parthian period<sup>56</sup>. The single-moulded terracotta figurines found in these Period (Stacul and Filigenzi 1985: figs. 20, 21) are also typical of Saka-Parthian and Kushan periods. The presence of structure [d] in Period VI seems to suggest that at that point the fortification has already lost its defensive role and that the settlement extended also in extramural area. The structures are unfortunately preserved for a short height since heavily disturbed by modern agricultural activities. The ceramic assemblage of Period VI can be broadly referred to the Kushan Period.

The layers taken in consideration are those related to structural Period III (10)-(10 pit), (9) and structural Period IV (8).

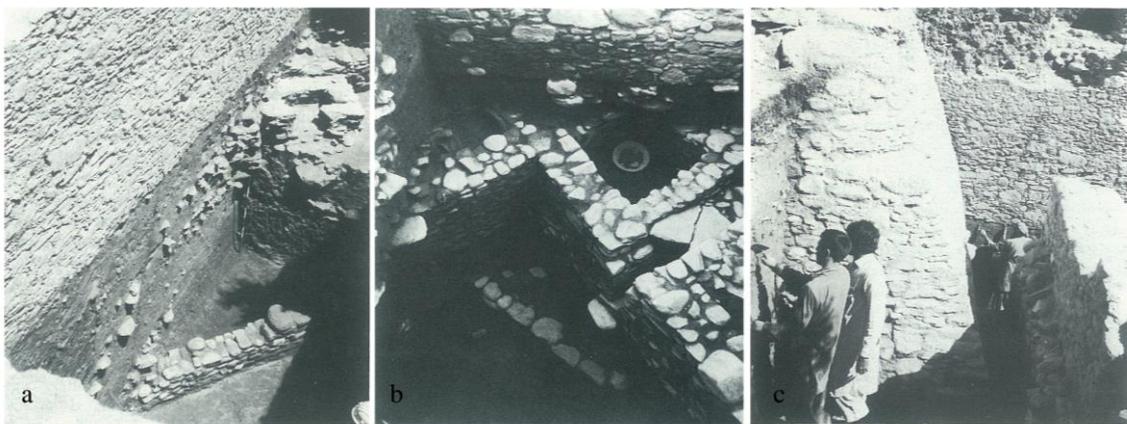


Figure 3.4 – a: structure [s] of Period I below the defensive wall [a]; structures of Period II in the SW sector of the trench; c: wall [c] in front of the bastion [b].

<sup>55</sup> This intervention recalls that already seen in BKG 12E, Phase 3, [12].

<sup>56</sup> This consideration is based on a direct exam of the selected material preserved at the IAM storehouse at Saidu Sharif. The same is true for considerations on Period VI (see below).

### 3.1.3 Trenches BKG 7-8-9

Investigations on the top of the western artificial terrace of Barikot hill (942.40 m a.s.l.) was carried out by L.M. Olivieri and R. Micheli in 1998 and 1999 (Callieri et. al 2000). Works regarded the excavation of the central sector (trenches BKG 7-9) and the NW limit of the terrace (trench BKG 8) which respectively revealed the presence of an imposing wall and of a retaining wall related to Macrophase 3a (Fig. 3.5).

It is worth stressing that the shape and profile of Barikot hill were significantly altered by artificial modifications over the time. This, along with the natural erosion are reason of a particularly squeezed stratigraphic sequence.

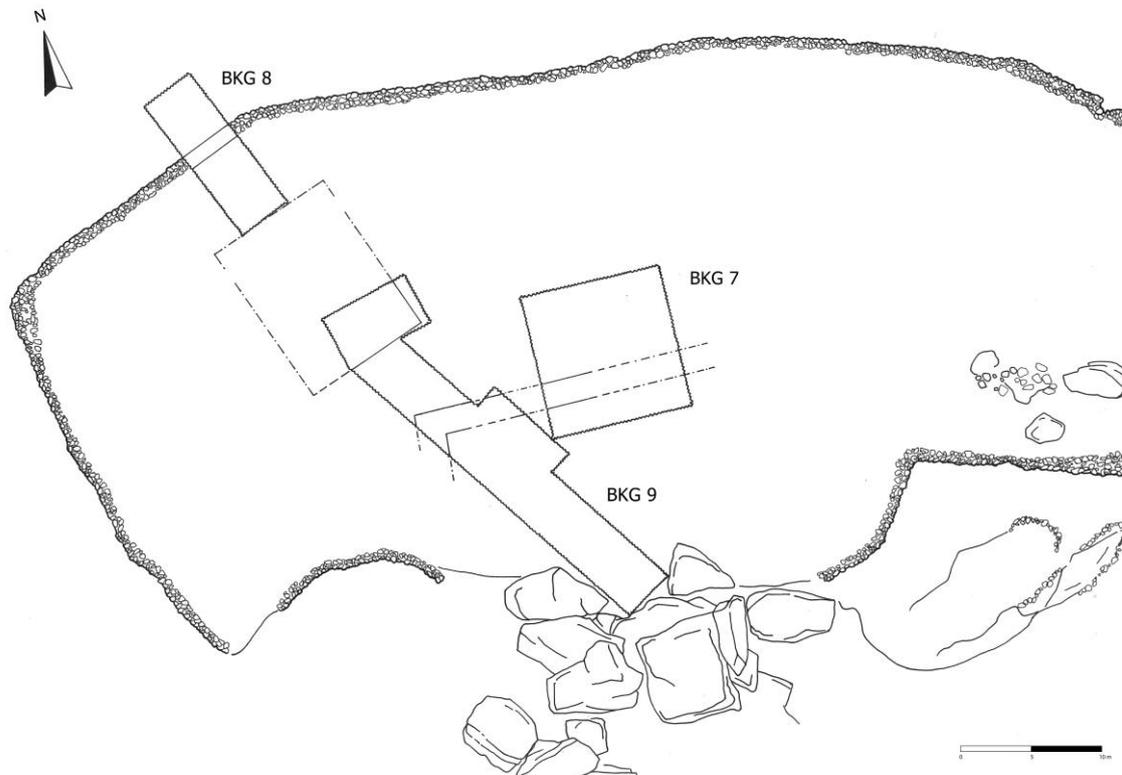


Figure 3.5 –General plan of the excavated areas of the W terrace of Barikot hill: trenches BKG 7-8-9 (Original drawing by R. Micheli).

#### The stratigraphic sequence

The trench BKG 7 (Fig. 3.6), 10 x 10 m, revealed in its deepest layers evidence ascribable to the protohistoric periods Swat period IV (BKG 7 Ia) and Swat period VII (BKG 7 Ib). These evidence are mainly represented by fillings of natural pits.

The following Period (BKG 7 II) features the construction of an imposing masonry wall [78] (c. 2.50 m thick) running E-W preserved only for few courses. The levels associated to the wall, likewise the wall itself, were heavily disturbed by the robbing work occurred in the following period. Wall [78], with no foundation trench, lies directly on the rocky bed. Later on it was flanked by a small room [86]-[87] uncovered only for a very limited extent. Pyramid-shaped terracotta weights, common in early historic phases, were found. Demolition of wall [78] occurred in the following Period BKG 7 III when its stones were re-utilized as building material. Followed some almost sterile levels.

The occupations of Periods BKG 7 IV and V are characterized by pottery and ornaments suggesting a date in the Shahi period. The following Periods BKG 7 VI (divided in four phases) and BKG 7 VII are datable to Islamic periods (Callieri et al. 2000).

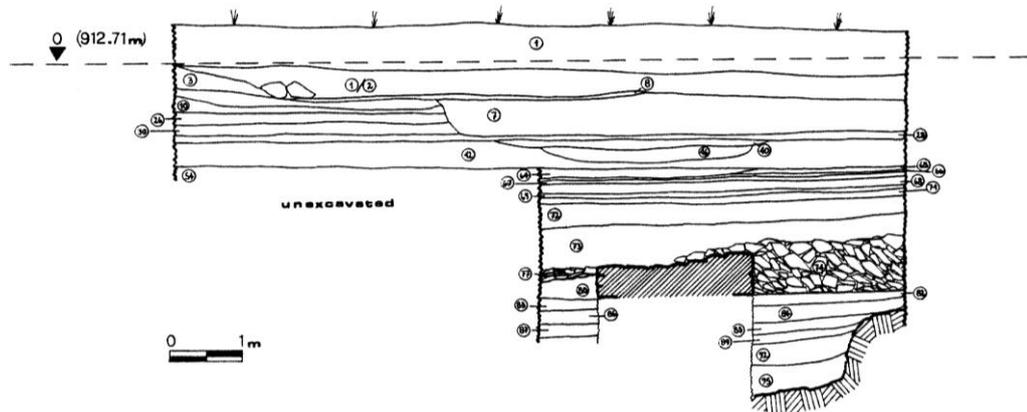


Figure 3.6 – Trench BKG 7: N-S cross-section and plan (Callieri et al. 2000: fig. 2).

Trench BKG 9 (Fig. 3.7) is a long trench (24 x 4 m), NW-SE oriented, which crosses trench BKG 7 by intercepting wall [78]. The first Period of occupation here (BKG 9 I), attributed to Swat period IV (= BKG 7 Ia, BKG 8 I), is marked by a well, with vertical wall and flat bottom, dug into the clay soil at the N sector of the trench. Period BKG 9 II, divided in two structural phases, is dated to Swat period VII (= BKG 7 Ib, BKG 8 II). This occupation bears traces of dwelling unit featuring masonry narrow walls and postholes for wooden pales supporting the roof. An almost sterile soil divides this phase from the following one.

Period BKG 9 III, divided in three sub-phases, marks the beginning of the historic phases. It is characterized by the construction of wall [78] reached in BKG 7 II, also here poorly preserved (= BKG 9 IIIa). In this sector, however, wall [78] turns at right angle dividing the ancient external ground-level sloping northward, from the inner area, S. The latter is

featured by the presence of large rocks which make the ground level very irregular (BKG 9 IIIb) and which represent the ancient profile of the hill. Indeed, in order to facilitate the accessibility to the north-western corner and to the wall a series of modifications were undertaken in Period BKG 9 IIIc. The inner corner was furnished of a cobblestone paving [59] and a series of steps were created between the boulders in order to fill the gaps between rocks by so rendering the passage gentler. In addition, large slabs were disposed in order to reinforce the stability of wall [78]. Period BKG 9 III has been dated to Macrophase 3a (= BKG 7 II) on the bases of the associated finds.

Life of the wall [78] seems to have been quite short. It is possible to interpret it as a first retaining/defensive wall dismantled shortly after for the construction, northward, of a new imposing substruction built with the aim at enlarging the surface of the hill-top by so creating a new terrace suitable for the location of large buildings which unfortunately were never found. The absence of traces of these buildings could be linked to the construction of the Sacred Building in Hindu Shahi period (Callieri 2000) when the whole area underwent a substantial restructuration (Olivieri 2003: 25-27)<sup>57</sup>.

Traces of a subsequent building site activity in Period BKG 9 IV (= BKG 7 III) are represented by accumulation layers of stone chips, traces of chiseling and several pits dug to extract natural clay.

Period BKG 9 V yields the features of an external area delimited by walls [22] and [23]. Amongst the finds, besides terracotta animal figurines and two different terracotta tripods also a schist Gandharan figurative relief was found.

The following Period BKG 9 VI (VIa, b) shows traces of sporadic occupation dated on the basis of the ceramic assemblages to Shahi period.

The cultural horizon of the upper Periods (BKG 9 VII and VIII) dates to the Islamic period.

---

<sup>57</sup> The small surface available, plus the difficulty to transport building materials on the top of the step hill might have induced to use earlier buildings as a quarry. Indeed, since the dominating position of the hilltop, it seems unlikely that the sacred building of Hindu-Shahi period had no precursors.

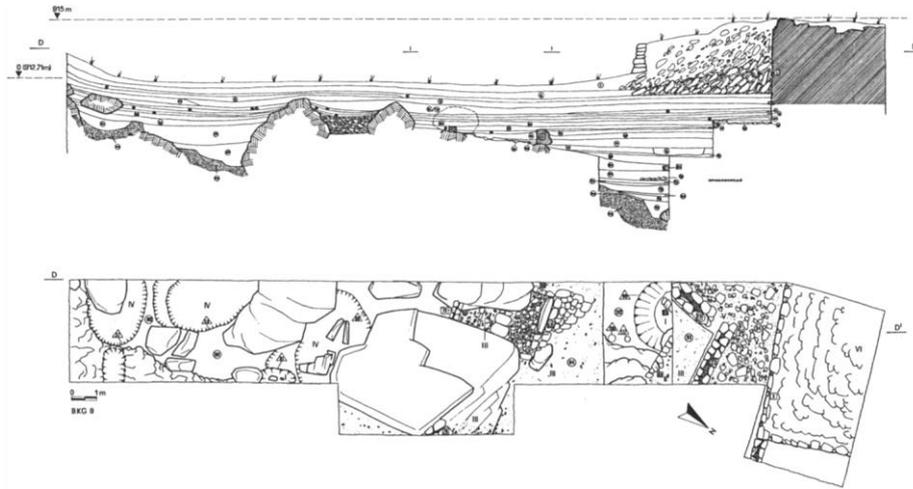


Figure 3.7 – Trench BKG 9: N-S cross-section and plan (Callieri et al. 2000: fig. 12).

Excavation in trench BKG 8 (Fig. 3.8), extended across the retaining wall [143] of the artificial terrace, was undertaken to evaluate the relation between the internal and external zone of the western terrace.

As far as concerns the protohistoric age, two periods have been identified: Period BKG 8 I (= BKG 7 Ia, BKG 9 I) the ceramic assemblage of which can be related to Swat period IV and Period BKG 8 II (= BKG 7 Ib, BKG 9 II) displaying a small wall and several potsherds.

Finds, such as pyramidal clay weights, coming from the earliest layers associated to wall [143] suggest a possible early-historic phase for this structure (Period BKG 8 III) that at some point was partially dismantled for the construction of the other retaining wall (see BKG 7II and BKG 9 III).

A phase of abandonment (Period BKG 8 IV) is indicated by the presence, outside wall [143], of a thick layer where two Muslim graves were dug (Period BKG 8 V = BKG 7 VI). Afterwards, a sequence of accumulation layers with traces of collapses of wall [143] (Period BKG 8 VI and VII).

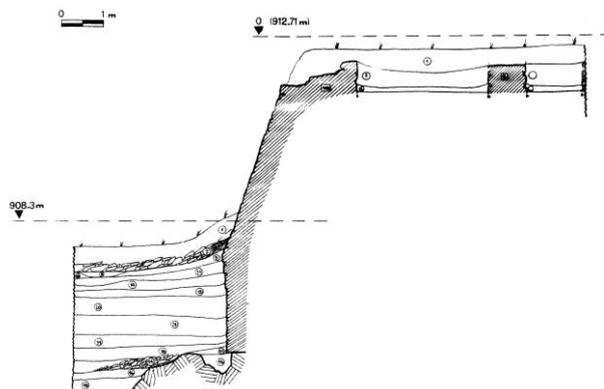


Figure 3.8 – Trench BKG 8: N-S cross-section (Callieri et al. 2000: fig. 6).

### 3.1.4 Trench BKG K-105

Trench BKG K-105, about 30 sqm, is located inside the urban area at the eastern limit of sector K (Fig. 3.2a). Here the stratigraphy is marked by a huge late Kushan building with massive walls 1.20 m thick and preserved up to 5 m from their foundation pits. The latter, where two Huvishka coins were recovered, cut the Saka-Parthian (Macrophase 3b) and Indo-Greek layers (Macrophase 3a) the former represented by a drain with its associated layers. The late Kushan walls represent the limit of the trench at the south, east and north sides. Even if during the excavation the trench went through several reductions, due to the presence of structures, we had the chance of excavating a quite substantial area over a depth of more than 6 m from the surface. Indeed, trench BKG K-105 represented the first opportunity to reach the earlier layers of the town inside the build-up area.

The following reports on the evidence related to the Early Historic Period<sup>58</sup>.

#### The stratigraphic sequence

The ancient evidence related to the establishment of the urban center (Period IIA1 = Macrophase 2a.1) is represented by an external floor-level (2182) associated to the stretch of a poorly preserved wall [1924], running E-W, which goes under W section of the trench. To the south of the structure the presence of a passage-way is proved by the documented paleo-traces of wheel tracks (Fig. 3.14a). Apart from several micro-beads in vitreous paste, a ram's head with circular eyes and curling horns was found. This specimen features a hollow body and can be tentatively interpreted as the tip of a conical vessel, hand-moulded around a wicker structure, the impressions of which are clearly visible inside (Inv. BKG 3897; Olivieri and Iori forthcoming).

The following structural phase (Period IIA2 = Macrophases 2a2) is documented by the presence of a quadrangular room (K-1900: [1930]-[1988]-[1907]), only partially exposed, which maintains the same orientation of the previous phase. The threshold [1907] of the room in this phase rests on wall [1924]. A rectangular structure [1925] which emerges from the foundation trench <2160> for only few centimeters is contemporary to the construction of the room. Its function is not clear, although it could be the base for a support in the external area (Fig. 3.14b). Room K-1900 will be continuously restored and reused until the last Indo-Greek phase. Among the finds of this phase are: an iron armour plate (Inv. BKG 3896), numerous beads and micro-beads mostly in vitreous paste

---

<sup>58</sup> The protohistoric layers of trench BKG K-105, only partially uncovered in 2016 season, are currently under investigation by M. Vidale and L.M. Olivieri.

probably locally produced as suggested by the presence of a deposit of a crucible for melting glass (Inv. BKG 3899), two small gold lamina (Inv. BKG 3850, BKG 3937), a lead rolled lamina (Inv. BKG 3868), an ivory pendant (Inv. BKG 3894), shell (Inv. BKG 3826, Inv. BKG 3878) and copper (Inv. BKG 3904) bangles, copper rings (Inv. BKG 3879-3880) and the tip of an iron javelin (Inv. BKG 3882).

In Period IIB (= Macrophase 2b) room K-1900 continues to be used without any substantial change. Significant is the presence in layer (2153) of a Mauryan copper coin (Inv. BKG 3814, Fig. 3.10d) along with some 50 micro-beads in vitreous paste, a barrel shaped bead in carnelian and the fragment of a baroque lady terracotta figurine (Inv. BKG 3793, Fig. 3.9b) in layer (2149).

The following Period (IIIA1) does not see any structural changes. The stratigraphy is marked by surface/floor levels interleaved by deposits of gravel and deperated soil with traces of water flow. Significant is the recovery of a local copper/bronze coin (Inv. BKG 3598, Fig. 3.10c) in the earliest floor of room K-1900 and of a fragment of figurative terracotta plaque in which style and figures' hairdress clearly recall a Gangetic 'taste' (Inv. BKG 3768, Fig. 3.9d).

The following three Periods IIIA2-4 represent a phase of acculturation that may be positively associated to the Indo-Greek historical phase. Period IIIA2 is marked by a building activity which involved the enlargement of room K-1900 through the demolition of the western wall [1907] and the construction, about five meters southward, of a new structure of which only the northern wall [2130], parallel to [1930], was exposed (Fig. 3.14c). The latter, with a mud superstructure and a stone foundation, was extremely damaged, probably by floods, as indicated by a sequence of layers of gravel and deperated greenish clay. An Indo-Greek chronological context is here suggested by a silver coin of Antialkidas (Inv. BKG 3534, Fig. 3.10f) found in the same layer together with a local copper/bronze coin (Inv. BKG 3535, Fig. 3.10b). As regards terracotta, beside numerous animal figurines and beads (also in vitreous paste), it is worth mentioning a baroque lady (Inv. BKG 3670) and a single moulded female figurine (Inv. BKG 3713, Fig. 3.9c) recalling Sunga style; noteworthy are also a folded leaf of gold lamina (Inv. BKG 3690) and an iron ring (Inv. BKG 3673). From the uppermost layer comes a Greek inscription on potsherd (Inv. BKG 3985, Fig. 3.11b) reporting EYMH <...>, most probably the first part of a Greek name in Εὐμη- (e.g. Εὐμήδης, Εὐμηλος or Εὐμηλίδης) (Tribulato and Olivieri 2017).

Some time later, during Period IIIA3, in order to stem the damages due to the continuous floods, a masonry drain [1674]-[1905] was constructed in the middle of the lane (or street) which divided the two buildings of Period IIIA2. At this point the southern building was not in function anymore while structure [1930]-[1988] was restored and raised through the superimposition of two walls [1655]-[1688]. Inside the room a row of two post-holes parallel to [1655] suggest the presence of wooden supports. The drain runs about 2 m to the south of room κ-1900 and it is roughly parallel to it (Fig. 3.14d). To this phase belong three baroque ladies (Inv. BKG 3946, Inv. BKG 3555, Inv. BKG 3671), a single-moulded female figurine, representing a *yakshini* (Inv. BKG 3693), and several iron objects.

Later on the continuous floods caused the obstruction of the drain and its definitive abandonment. In this Period (IIIA4) room K-1900 continued to be used and the collapse of the clay superstructure has been identified only at the end of the phase. One of the external floors related to this phase (1686) is featured by two stone-lined fire places alongside wall [1655] (Fig. 3.14e). In association with those are some iron arrow-heads and several stone/pebble tools which suggest the performance here of a working activity. The numismatic evidence (Inv. BKG 3482, Menander I, Fig. 3.10g; Inv. BKG 3483 Apollodotus II, Fig. 3.10h; Inv. BKG 3487 Antialkidas, Fig. 3.10e) point to a mature Indo-Greek phase. Three inscriptions on potsherd, one in Aramaic (Inv. BKG 3432, Fig. 3.11a) and two in Brāhmī (Inv. BKG 3634, Fig. 3.11c; Inv. BKG 3635 overwritten) were also found. The persistence of baroque lady (e.g. Fig. 3.9a) specimens confirms the trend already noted in BKG 4-5 (Callieri 2007: 146).



Figure 3.9 – Terracotta figurines/plaque from Macrophase 3a. a, Inv. BKG 3428; b, Inv. BKG 3793; c, Inv. BKG 3713; d, Inv. BKG 3768.

Figure 3.10 - a-c: square local coins (a, Inv. BKG 3398; b, Inv. BKG 3535; c, Inv. BKG 3598); d: Mauryan coin (Inv. BKG 3814); e: Antialkidas (Inv. BKG 3487); f: Antialkidas (Inv. BKG 3534); g: Menander I Soter (Inv. BKG 3482); h Apollodotus II (Inv. BKG 3483).

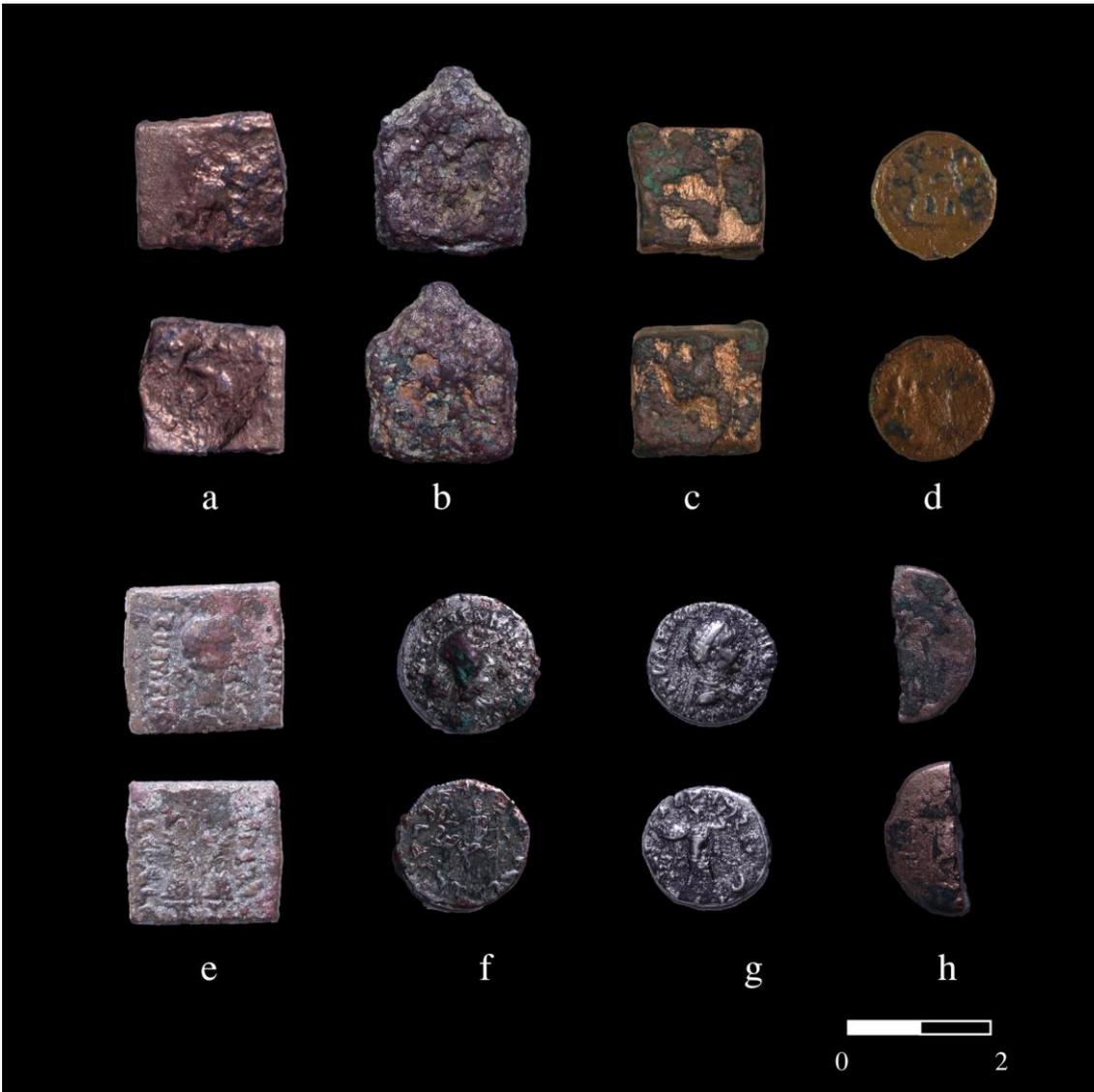




Figure 3.11 – Inscription on potsherds from Macrophases 3a. a, Inv. BKG 3432; b, Inv. BKG 3985; c, Inv. BKG 3634.

The set of chronometric data (Fig. 3.12) indicates that the first phase of occupation of the urban site, Period IIA1, should be dated to a period ranging from the mid-7<sup>th</sup> to the early-5<sup>th</sup> century BCE, by so preceding the Achaemenid historic phase corresponding to Period IIA2 (starting around the first quarter of the 5<sup>th</sup> century BCE). At that time the town of Barikot was already well established. Indeed, excavation revealed evidence of a rich urban environment with ornaments, and luxury objects (Tab. 3.3), and diversified working activities (including copper, glass and iron).

Within Period IIB, which upper phase is dated to mid-4<sup>th</sup> to early 3<sup>rd</sup> century BCE confirming the reliability of the recovery of a Mauryan coin in the latest layer of this phase, chronologically falls the episode of the Macedonian siege (autumn 327 BCE).

The dates correlated to Macrophase 3a, subdivided in four Periods, confirm the continuity of occupation of the area associated with the continuous use and restoration of the same structure built in Period IIA2.

The Indo-Greek period as indicated by both <sup>14</sup>C dates and numismatic evidence includes only its last three Periods, IIIA2-4 while Period IIIA1 covers a period corresponding to the mid-second half of the 3<sup>rd</sup> century BCE.

The macro-event of the construction of the defensive wall (c. 150 BCE) can be tentatively associated to the construction of the masonry drain [1674]-[1905] in Period IIIA3 when a systematic reorganization of the urban layout seems to be occurred. However, both <sup>14</sup>C date and numismatic evidence suggest as the urban center of Barikot fell within the Indo-Greek sphere of influence already at the beginnings of the 2<sup>nd</sup> century BCE (Period IIIA2). Hence, the strengthening of the urban defensive circuit at the mid-2<sup>nd</sup> century BCE

indicating a further economic and political effort by the Indo-Greek elites in their strategic location at Barikot, might be regarded as a direct and explicit intervention against the coming up of an external danger, perhaps the invasion of northern India attempted by Eucratides, one of the last Graeco-Bactrian sovereigns (Olivieri et al. forth.).

Periods	Boundary start	Boundary end	Boundary start	Boundary end
	1 $\sigma$	1 $\sigma$	2 $\sigma$	2 $\sigma$
IIIA4	151 BCE	86 BCE	185 BCE	39 BCE
IIIA3	186 BCE	128 BCE	201 BCE	106 BCE
IIIA2	216 BCE	170 BCE	251 BCE	146 BCE
IIIA1	307 BCE	199 BCE	324 BCE	186 BCE
IIB	342 BCE	288 BCE	356 BCE	244 BCE
IIA2	496 BCE	325 BCE	557 BCE	304 BCE
IIA1	631 BCE	531 BCE	684 BCE	475 BCE

Table 3.2 - Boundary Start and Boundary End of each phases of trench BKG K-105.

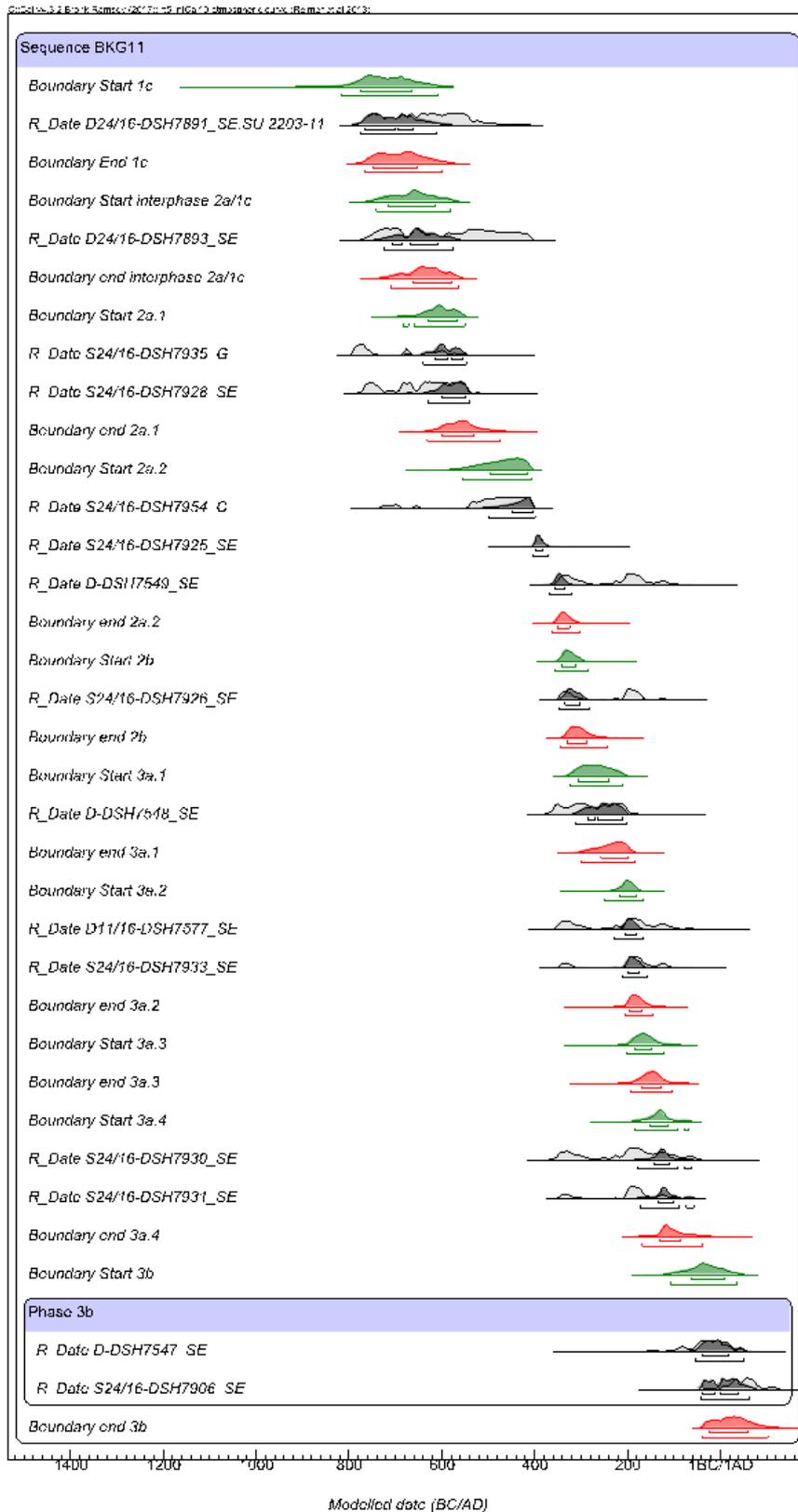


Figure 3.12 - Bayesian Sequence related to the BKG 11 phase by OXCAL 4.3 (<https://c14.arch.ox.ac.uk/oxcal.html>, Bronk Ramsey C. 2013). In green and red the Boundary Start and Boundary End respectively of each phase within trenches. In black the radiocarbon ages (elaborated by CIRCE).

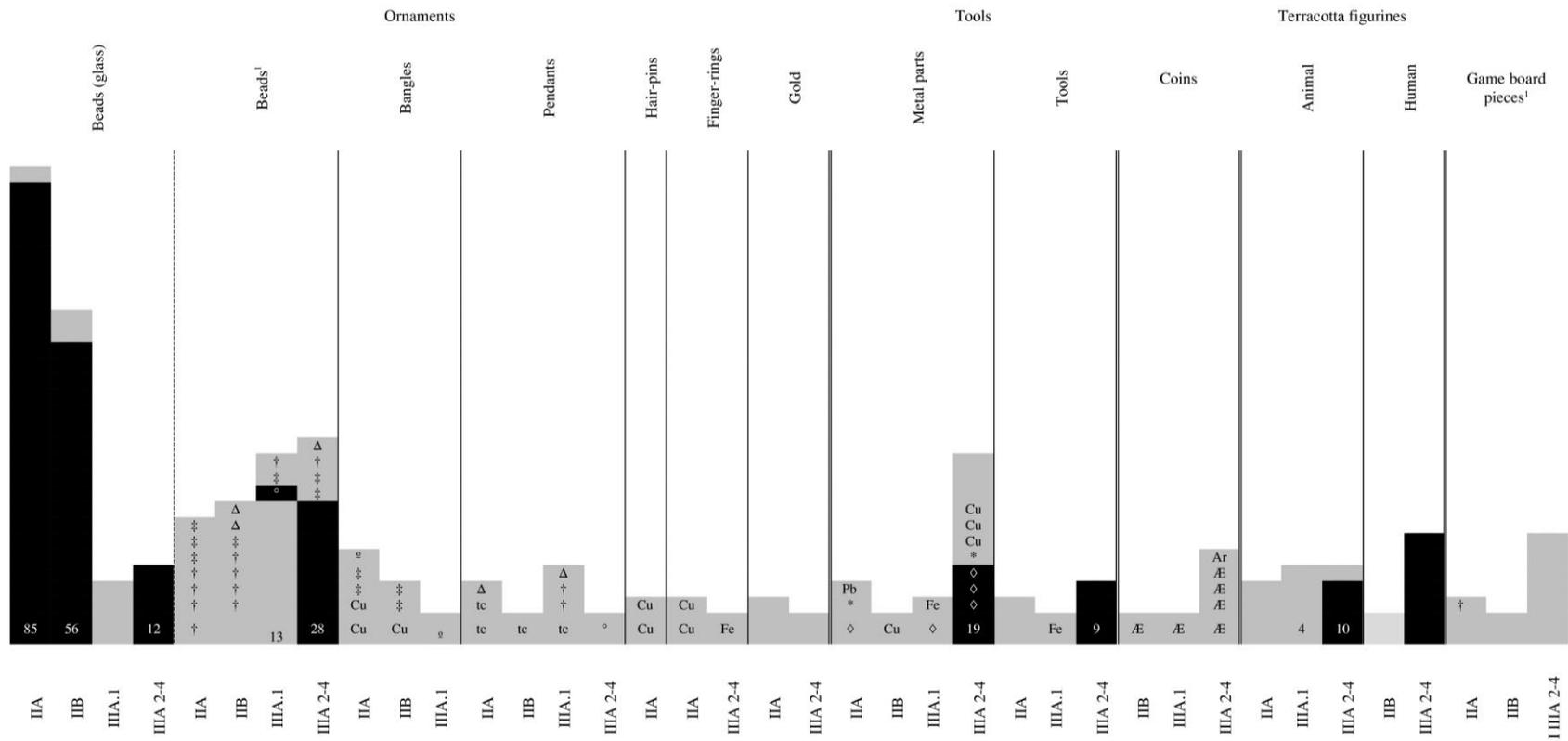


Figure 3.13 – General map of the south-west sector of the urban site of Barikot with the location of trench BKG K-105 (after Olivieri et al. 2014: plate V).



Figure 3.14 – Plans, Trench BKG K-105  
 (a: IIA1; b: IIA2; c: IIIA2; d: IIIA3; e: IIIA4).





N.B.: Black cells count x3 (with totals indicated at the bottom of each column).

<sup>1</sup> = terracotta (tc) if not otherwise indicated

◻ = vitreous paste

Δ = ivory

‡ = shell

† = semi-precious stone (and cloritoschist)

◊ = bone

\* = coat plates (scales)

◇ = weapons (arrow-heads, blades, etc.; only certain)Æ

Table 3.3 - Frequency chart with ornaments, luxury items, metal object, coins and figurines (Periods IIA-III) (Olivieri and Iori, forth.: tab.3).



## CHAPTER 4

### CERAMIC EVIDENCE FROM BARIKOT DURING THE 5<sup>TH</sup> – 1<sup>ST</sup> CENTURIES BCE

#### 4.1 Corpus of the Ceramic Material and Limits of the Research

The ceramic assemblages that are subject of this study are those from the Early Historic phases of trenches excavated after 1992 by IAM<sup>59</sup> described above, with the only exception of BKG L which was dug in 1985. The chronological limits of the ceramic corpus in exam lies between the mid-6<sup>th</sup> century BCE and the beginnings of the 1<sup>st</sup> century BCE while, in terms of spaces, the limits varies across the urban settlement of Barikot including the acropolis (BKG 7, BKG 8, BKG 9), the core of the western periphery of the town (BKG K-105) and the area immediately outside the southern stretch of the fortification wall (BKG 12E, BKG L). The primary interest, however, pertains to the ceramic sequence of the earliest Periods of trench BKG K-105 (namely Periods IIA1- IIIA4) which has provided an uninterrupted sequence of occupation since at least the second quarter of the 1<sup>st</sup> millennium BCE. The ceramic sequence of trench BKG K-105, anchored to a solid sequence of radiocarbon dates, offers the opportunity to obtain a coherent insight into the early occupation at the site and into the three cultural horizons focus of this research: Achaemenid, Maurya and Indo-Greek. The ceramic assemblages of trenches BKG 12E, BKG 7, BKG 8 and BKG 9 are included in the study as far as concerns the Indo-Greek period, which is the only Early Historic archaeological horizon here reached. Selected ceramics from BKG L are used as valid *comparanda* as regard the Achaemenid and Indo-Greek assemblages, with due care in relation to the limited stratigraphic information available.

#### 4.2 Methodology

The backbone of the methodology used in the data acquisition and data processing phases of this study is provided by collecting and selecting criteria set for the study of the ceramic material at Saidu Sharif I (Callieri 1989) and at Barikot with reference to the trenches excavated between 1984 and 1992 (Callieri and Olivieri forth.). Moreover, the reasonable amount of sherds here considered made feasible their statistic ‘measure’ throughout the

---

<sup>59</sup> As regard ceramics from 1984-1992 excavations see Callieri and Olivieri forth.

estimate vessel-equivalent (*eve*) (Orton et al. 1993: 21-22; 171-173), obtained using a rim/base-chart. The different original use of the areas where trenches were excavated and their different post-depositional history<sup>60</sup> do not make the assemblages from the different trenches statistically homogeneous. Therefore, although all the diagnostic sherds from each trench<sup>61</sup> have been ‘statistically’ measured, the resulting data are presented separately in distribution charts and compared only in a second moment.

The supporting framework for the construction of the ceramic taxonomy used in this research is provided by the study on ceramic material from the Monastery of Saidu Sharif I carried out by P. Callieri and by those conducted by the French archaeologists of DAFA on the ceramics from Eastern Bactria and from Ai Khanoum (Gardin 1973, Lyonnet 1997, 2013).

#### 4.2.1 Data acquisition

The on-site collection has regarded all the potsherds from each layer excavated in BKG 7-8-9 (Callieri et al. 2000), BKG 12E (Iori et al. 2015) and BKG K-105 (Olivieri and Iori, forth.). All the ceramic material before being stored in the storehouse of the IAM Mission House in Saidu Sharif (Swat, Pakistan) was washed and then tagged according to the excavation data (date, trench, room and stratigraphic unit). This original corpus was subsequently divided in two large categories: non-diagnostic and diagnostic pottery. The latter includes all the fragments significant in terms of form (that is those with at least two elements of the profile: rim/wall or wall/base, or accessory parts e.g. spouts, handles), decoration (painted, incised, stamped, embossed) and technological features or for other relevant information (e.g. those bearing inscriptions). Once this first selection was completed, while the non-diagnostic fragments were placed on the scaffoldings of the storehouse in their tagged boxes, the diagnostic potsherds, always accompanied by indication tags, underwent to a further selection according to their stratigraphic provenance. In fact, since the specific chronological limits of this research, only materials from the structural phases related to the Early Historic Period (namely BKG Macro-phases 2 and 3a) were selected. The rest came back on the scaffoldings of the storehouse waiting for a specific study in future.

---

<sup>60</sup> Trenches have different overall level of brokenness and completeness. The stratigraphy of the hilltop, where trenches BKG 7, BKG 8 and BKG 9 were excavated, was continuously affected by natural erosion and rehash (see Ch. 3.1); the original Indo-Greek floor outside the fortification wall (BKG 12E) was altered by interventions of reconstruction/reinforcement of the wall and additional structures since the Saka Parthian period (Ch. 3.1); the lane (or street) outside structure K-1900 (BKG K-105) was affected by several floods.

<sup>61</sup> Apart from BKG L, which include only selected material.

From among this corpus of Early Historic diagnostic fragments each potsherd representing a new pottery form was selected and was given an individual number (that is, the identification number of the form), written directly on the sherds in indelible marker, the first time it was identified, while variants were progressively noted and selected<sup>62</sup>.

All the fragments with individual number were then drawn to a 1:1 scale and at the same time described using pre-printed recording sheets bearing the following data: provenance, colour, fabric, temper, firing, finishing, decoration (if present), technology and additional notes<sup>63</sup>.

The next step was to assemble the drawings accordingly to a preliminary taxonomy and stratigraphic data on large plates.

In order to obtain a clear picture of the presence/absence data and frequency of each form in each layer and period, all the boxes containing the diagnostic fragments were hold out and, using the large plates displaying the already acquired forms as reference, the recognition of the belonging form was performed for each diagnostic potsherd eventually implementing number of forms or variants missed at a first selection.

Quantity of each form and relative variants in each stratigraphic unit was statistically 'measured' using the estimate vessel-equivalent (*eve*) calculated through a rim/base-chart (when complete also handle were counted). On the basis of these data, charts of distribution were associated to each vessel form and relative variants.

Trench BKG L is the only trench for which the process of selection has inevitably followed an independent path. Excavated in 1985 by G. Stacul and A. Filigenzi (1985) trench BKG L was partially published by Stacul with reference to the protohistoric phases (Stacul 1987). Most of the ceramic material coming from the later phases went probably 'lost' in the 2005 earthquake which caused the partial collapse of the scaffoldings of the IAM storehouse at Saidu Sharif and the consequent mix of part of the non-inventoried sherds. Therefore, a reasonable estimation of frequency of this material was by no means feasible.

Hence, what is considered here are the selected forms from Early Historic layers of BKG L which after the 1985 excavation were set aside for future study and which were not involved in the structural collapse. Each form from BKG L is therefore unique. Notwithstanding frequency analysis on these materials was no longer possible, two

---

<sup>62</sup> Therefore, the numerical order in which forms are presented in the Appendix is a random sequence.

<sup>63</sup> The nomenclature used in describing pottery is indicated in Appendix's notes.

reasons led us to include them in this research as additional comparative source: a) their relations with the earliest (Periods IIA1-2) and Hellenistic (Period IIIA) assemblages from BKG K-105 and their better condition of preservation (often complete vessels), b) their substantial informative potential.

#### 4.2.2 Data processing

The creation of a ceramic sequence, namely, the organization of the identified pottery forms according to a chronological sequence, has obviously implied the cross-linkage of the Periods in which the stratigraphic matrix of each examined trench had been previously subdivided, as shown in Tab 3.1. This work was carried out for trenches BKG K-105 and BKG 12E excavated during these three years, while the correlations have already been established for the trenches on the hill-top (Callieri et al. 2000). As far as trench BKG L is concerned, the correlation to the chronological mother-sequence of Barikot has been more a matter of deductive inferences.

The organization of pottery forms according to both stratigraphic data and morphological aspects (Taxonomy, see Chapter 4.4) resulted in the sequence shown in the Appendix. The next step was to cross-link the frequency charts of each single form over time in order to determine both distinctive and persistent forms for each Period. The aim of identifying these pottery markers (distinctive and persistent forms) for the Early Historic sequence is twofold. First of all, since Barikot so far represents the only Early Historic sites in Gandhara excavated according to a scientific methodology supported by radiocarbon analysis<sup>64</sup>, the pottery markers here identified can be addressed as comparative tools for a tentative reassessment of the fuzzy chronological sequences of the other Gandharan sites, otherwise barely able to speak until new targeted excavations will be carried out. Secondly, the study of the diachronic changes within ceramic assemblages might indirectly express the socio-cultural processes triggered by the political, economic and cultural interactions which marked the Gandhara region during the Early Historic Period.

---

<sup>64</sup> The most recent excavation carried out at Charsadda has regards only the protohistoric phases (Coningham and Ali 2007).

### 4.3 Physical and Technological Features

The definition of the physical and technological features of the ceramic artifacts is exclusively based on macroscopic observation, although petrographic and radiographic analysis, especially on some groups of classes, would be source of invaluable information<sup>65</sup>. Elements taken into consideration in the physical description of pottery are: the colour of fabric (surface/core); colour, size and frequency of inclusions; size and frequency of voids.

Details related to marks traced during manufacturing stages, or relative to the life/lives of the vessel, have also been recorded, when possible, in order to identify possible patterns of continuity and discontinuity in the potting traditions over time and within the same assemblage according to the morpho-functional types.

#### 4.3.1 Fabrics

Eleven pottery fabrics, indicated here by a capital letter, were distinguished on the basis of macroscopic features. Synthetic description of fabrics, sorted by fine and coarse/medium categories, are presented below.

It can be said that fabric at Barikot is almost uniform within each assemblage. Luxury and serving or drinking vessels are generally very depurated, containing none or only few inclusions, which can vary among small micaceous particles, vegetal inclusions and lime. The latter, although present in small quantity since Period IIA1, is more represented in Period IIIA3-4, and it is the most frequent type of inclusion of some luxury serving vessels (e.g. '*plat/assiettes-à-poisson*') in Periods IIIA3-4 which assume a characteristic red-yellowish and red pinkish colour (Fabric E). Quartz inclusions of medium/large dimension generally mark thick walled vases (mainly jars) to which they provide more strength. In general, frequency and dimension of quartz inclusions increase in proportion with thickness of the vessel (Fabrics A, B, F) although in Period IIA2 some thick-walled basins/large bowls are characterized by a depurated fabric (Fabric O). In this regard, cooking pots are the exception. Although provided with fairly thin walls, cooking pots are rich in quartz and other inclusions, mostly on the lower body more exposed to thermal and mechanical stress.

Although Period IIA1 assemblage is not representative in terms of vessel forms, the small fragments so far collected show a uniformity in terms of fabric with Period IIA2 assemblage, when almost all forms show a very depurated fabric of red/light red colour

---

<sup>65</sup> The 1976 ethnographic study by Rye and Evans is a precious source of information as concern forming and firing techniques used in the area.

(Fabric O). Characteristic of Period IIA2 is a fabric of buff to light red colour with frequent vegetal inclusions and seeds (Fabric M) confined to two morphological classes. The morphological variation of cooking pots, however limited, is not reflected into physical features which show a substantial continuity over time (Fabric N).

A certain continuity in terms of fabrics is discernible all along Macrophase 3a when depurated table vessels, in Fabric D and E, are quite common.

However, assemblages IIIA2-4 show some distinctive fabrics: one is a depurated gray fabric with thick black slip restricted to luxury vessels (Fabric G); the other is an uncommon fabric, presents only in examples from late Period IIIA2 and Period IIIA4, characterized by large and frequent schist inclusions (Fabric H).

Period IIB, featured by a contraction in amount of potsherds, seems to represent a transition step between Periods IIA and IIIA in terms of both fabric and form.

High firing skills are attested in all assemblages. Although blackish or reddish patches can appear on the external surface of bowls and basins, gray or black cores are limited to thick walled restricted vessel and in general pottery is of a good quality.

#### Fine fabrics (Fig. 4.1)

##### Fabric D

This is a very depurated fabric pink, light red or reddish yellow in colour. Variations in fabric colour are probably the result of slight firing variation as shown in Fig. 4.1 which shows a variety of nuances in a single sherd. Fabric D has a hard, compact and well fired clay body which produces a characteristic clinky sound when hit. When not well fired it assumed a reddish yellow or light reddish brown colour throughout and loss its clinky sound. At a macroscopic observation only sparse micaceous traces are visible along with hollows related to fired vegetal inclusions. Infrequent are also calcareous inclusions. This fabric occurs on open table vessels (serving and drinking vessels) like *thālīs*, cups with vertical or oblique sides and '*plat/assiettes-à-poisson*'. This fabric is characteristic of Periods IIIA assemblages.

##### Fabric E

This fabric presents a depurated clay body with fired pink to red yellowish colour. Often, but not always, there are very small micaceous inclusions and small round shaped voids in the core. Fabric E is characterized by the presence of rounded or sub-rounded white/yellowish inclusions (lime) of small and medium dimension often visible on surface. The clay body is hard, compact and clinky. This is frequently attested in open

table vessels of Periods IIIA.3-4, mostly '*plat/assiettes-à-poisson*'. Also few flat contiguous bases of medium/large sized vessels are attested in this this fabric. Moreover, this is the fabric used in Period IIIA vessels decorated with a golden slip.

#### Fabric C

This is an orange, sometimes light red fabric characterized by a great quantity of organics, often visible on surface, and small inclusions of mica. This occurs mainly on *thālīs* from Periods IIIA and on some pear shaped jar from Period IIIA3-4 in BKG 12E.

#### Fabric O

This fabric has a light red to red hard and quite compact clay body which tends towards planular breaks. Micaceous particles are mainly attested on surfaces as component of the slip rather than in the core. There are some very small to medium round shaped voids and occasionally small calcareous inclusions. Used for both thin and thick walled vessels, with a tendency to be finer in thin walled forms, this fabric is morphologically differentiated. It occurs on both restricted and unrestricted vessels of Periods IIA2. This is similar to Fabric D to which differentiates for the less quantity of mica in the core and the more reddish nuances.

#### Fabric G

This is a very depurated gray fabric with only small infrequent organic inclusions characterized by a glossy thick black slip which directly recall the Hellenistic black glazed ware. This is attested only in Indo-Greek assemblage, occurring on quite thick walled luxury vessel mostly decorated with ribs and probably imitating metal prototype.

### Coarse/medium fabrics (Figs 4.2-3)

#### Fabric A

It is fired reddish light red to red colour. This fabric has a high concentration of quartz inclusions of large/medium dimension and very small micaceous inclusions. This is characteristic of storage jars of Macrophase 3a.

#### Fabric B

The colour of this fabric ranges from pinkish and light red to red. It is characterized by high concentration of quartz of large/medium dimension scarcely visible on surface and white to yellow rounded or sub-rounded inclusions of lime; sporadic is the presence of schist of medium dimension; mica is loosely but always present along with small round

voids. Fabric B occurs almost exclusively on storage vessels, mostly thick walled storage jars, always slipped on the external surface.

#### Fabric F

This is a light red to orange fabric. Quartz inclusions of large and medium dimension are very frequent along with smoothed black inclusions (gravel/pebbles) and organic inclusions. Mica and lime inclusions are infrequent. This fabric is characteristic of thick walled vessels, mainly storage vessels and basins.

#### Fabric M

This is mostly characterized by a buff-reddish yellow body, although few specimens in orange are known. They are likely made from the same clay sources and differences in colour are probably due to slight variations during firing.

Vegetal, straws and seeds represent the most frequent, often the only, inclusions of the paste which occasionally includes very small sporadic inclusions of micaceous nature or gray/ black inclusions of medium dimension which presence is entirely fortuitous.

This fabric is a morphologically specialized one, occurring exclusively on two classes of forms devoid of slip: pear-shaped jars and small truncated-conical cups both distinctive of Period IIA2. As regards the small cups, hollow vegetal inclusions are less visible on surface and lime inclusions of medium dimension can appear, although infrequent.

#### Fabric N

This fabric, with quite hard compact clay body, is light red to red and orange. There are frequent quartz and mica inclusions of medium dimension together with organic inclusions (maybe straw) mostly visible on the internal surface. White-yellowish inclusions of calcareous nature, always present, are often visible on the external surface due to thermal spalling. Blackish or brick red inclusions of small and medium dimension can be present.

This fabric occurs mostly on cooking pots (handled or not) throughout the whole sequence, with a concentration of the inclusions on the lower body, and on some necked jars. The latter show a higher concentration of blackish and brick red inclusions, sometimes with the addition of smoothed river pebble/gravel.

The presence of a red, often thick, slip on the external surface prevents from a detection of inclusions, better visible on fracture and internal surface.

## Fabric H

This is a very rare fabric of reddish colour the basic component of which is represented by schist inclusions of medium/large dimension visible on both external and internal surfaces. Vegetal inclusions are very small in numbers while other small micaceous inclusions are quite diffused. This fabric is associated to a very few number of small nacked jars and large bowls devoid of slip.

### 4.3.2 Manufacturing Techniques and Reuses

The technological study of the stratigraphically sequential ceramic assemblages at Barikot has revealed a discontinuity in manufacturing techniques over the span of time which goes from Period IIA2 to Period IIIA4. The general trend is towards a larger use of wheel throwing since Period IIIA1 (i.e. mid-3<sup>rd</sup> century BCE). Of course such observations needs to be treated with a degree of prudence since macroscopic study can hardly focuses two questions: (a) the polysemia of surface technological marks, we mainly refer to marks traced by hand's wheel and potter's wheel (Allchin 1978; Rice 1987: 134; Vidale 2000: 79); (b) the obliteration of evidence traced during earlier forming steps by successive manufacturing stages (Rice 1987: 124-125; Van der Leeuw 1976: 123).

Period IIA2 ceramic assemblage attests a wide range of handmade methods used during primary forming, with different methods being used for different parts of the vessel or two (or more) methods used sequentially.

A combination of coiling and wheel-throwing (or other rotating) techniques is morphologically differentiated. It is used in the shaping of small truncated-conical cups showing spiral pattern on the string-cut base, saucer-like lids, basins<sup>66</sup>, and medium sized vessels with slight convex bottom. One example of the latter bears on the external surface traces of ribbing probably due to a tentative repair, not well accomplished, of the vessel which during drying started cracking in some weak points (Fig. 4.4c).

Paddle and anvil and building techniques (coiling or slab) in combination with wheel-throwing (or other rotating techniques) are typical of carinated cooking pot and pear-shaped jar<sup>67</sup> (Fig. 4.4a-b). The use of paddle and anvil in Period IIIA is mainly limited to

---

<sup>66</sup> Basins are sometimes made by slabs and then regularized with rotating techniques.

<sup>67</sup> The junction is smeared over to bond the slab to the lower wall. Potter's finger prints are visible below rim of pear-shaped jar. The upper part is firstly made by coiling and then joined to the lower body through slow wheel. In carinated cooking pots the upper part is realized by slab technique or as a single slab then joined to the lower globular body.

the enlargement of the body of different types of jars, while globular cooking pots, mostly made by molding with a neck thrown on wheel (Fig. 4.6a), slowly overcome the Gangetic carinated cooking pot of Period IIA2.

Interestingly, the almost complete example of globular cooking pot from BKG 12E Period IIIA3 has the lower body completely covered by a layer of fired depurated clay with evident impression of straws on it. Below is a dull layer of soot due to previous firing (Fig. 4.6b). The layer of clay was possibly used as temporary (post-firing) protective coating during firing in a pit-fireplace. That would explain the impression of straws used as fuel during firings.

Slab building technique is used for shaping small vessels from Period IIA2 which are known only from the base<sup>68</sup>. In Fig. 4.5a are clearly visible a horizontal line of junction (also visible on the inner surface) and vertical incisions due to the use of a pointed tool, sometimes in combination with short oblique parallel traces. The flat base, slightly concave, seems to be modeled with a tool once lifted from the working surface.

Luxury pottery, especially thin walled serving and drinking vessels, are made on potter's fast wheel throughout the whole chronological sequence<sup>69</sup>.

As far as Tulip bowls (distinctive of Period IIA2) are concerned, despite the morphological variation, they are always thrown on wheel. The lack of obvious joins seems to indicate they were thrown in one piece. Tulip bowls with flat contiguous base show traces of a small central depression probably made by finger pressure and traces of tool radially disposed around that. Bowls with very similar bases show traces of pinching on the inner bottom (Fig. 4.5b).

In Period IIA, the only flat bases bearing traces of spiral cutting-off marks belong to the truncated-conical small cup while the rest of small bowls/cups, if not round bottomed, show simple flat contiguous bases, even when made with the same technique used for the truncated-conical cups. The latter seems to be link to another potting tradition.

In Periods IIIA both spiral pattern bases and flat base are diffused on cups and bowls of same morpho-functional class. Also serving vessels as '*plat/assiettes-à-poisson*' are attested with different types of base. It is worth noting that in some cases the base with spiral pattern is covered by an additional layer of clay by so creating a more fashioning disk base (Fig. 4.6c).

---

<sup>68</sup> The same shape can be made by coiling.

<sup>69</sup> However, in few cases is possible to distinguish traces of coils used as primary technique.

Finally, it is interesting to note some traces on the upper surfaces of stands for round bottomed pots found in Macrophase 3a. They can be concentric circular ridged lines or what seems to be the impression of textiles/mats (Fig. 4.7)<sup>70</sup>.

Three most common reuse behaviours are attested at the Early Historic Barikot:

- a) Piercing out a small hole through the bases of small cups and bowls of different types (even protohistoric pottery) in order to create a sort of filter/pouring for liquids. This practice of reuse is attested since Period IIA.
- b) Cutting-off the round base of vessels and drilling a hole at the center. This object are probably used as loom weights.
- c) Cutting off a round disk from the wall of thin/medium walled vessels in order to create a token/pawn for *navakankari*-type board game<sup>71</sup>. This practice is attested since Period IIA1. Interestingly, in association with tokens, in Periods IIIA1 and IIIA2, is attested the presence of some legs of animal figurines (or part of toy) smoothed on the broken surface and thus made freestanding. It cannot be ruled out that they also were reused as token.

#### 4.3.3 Surface Treatments and Decoration

The finishing techniques identified through the macroscopic observation of the Early Historic assemblage at Barikot are the following:

##### Wet brushing or wash<sup>72</sup>

Wet brushing, less common than slip, has a shining effect due to the suspended mica. It is not exclusive of a single assemblage and it is not morphologically specialized.

Golden wet brushing is a peculiar finishing techniques given by a combination of water and talcum powder (Maritan et al., forth.). It is applied on thin walled luxury bowls and dishes in order to create a brilliant effect imitating metal vessel. This practice is known since Period IIA2 when it is used a more diluted solution rather than that applied on dishes and bowls in Hellenistic period. The latter is more close to slip consistency and it is labelled as golden slip.

---

<sup>70</sup> Incised chevrons on the top-side of pot stand are attested at Sonk (Härtel 1993: III.54).

<sup>71</sup> For references on the history of the game and recovery of game boards see Olivieri 2014: 377. The others tokens/pawns are made in schist.

<sup>72</sup> This differentiates from slip by the major addition of water than clay.

## Slip

Thick slip (in red or black) with a glossy/varnish effect. It is used for both functional and aesthetic purpose in dishes, *kraters*, bowls and jugs.

Red thin slip (indicated simply as 'slip') is the most common finishing technique applied to most of the restricted and unrestricted vessels over time.

Golden slip occurs on luxury serving vessel from Period IIIA1 (see above).

## Polishing

This is an uncommon finishing technique, mainly applicate on slip surface of thin walled bowl from Periods IIIA.

## Ribbing

Ribbing on wheel is mainly used as smoothing technique on different types of handmade vessel. This is quite common on the lower part of *thālīs* since the earlier period.

## Gritty

The application of sand and quartz grains of medium dimension to the lower external surfaces mainly involves cooking pots and large cooking dishes. It is used for the purpose of strengthening the clay structure against thermal and mechanical stress (Rye and Evans 1976: 25). Sand in small grains is also applied on the body of pear-shaped jars. Since they were jars used for the transport of water, in this case the gritty surface might be due to the necessity of having a not slippery surface.

As far as decoration is concerned, it is possible to note a compresence of incised and painted decoration since Period IIA2. Incised decoration in the form of simple grooves and wavy lines on standard bowls and basins were made with a pointed tool or knife during rotation on wheel. More complex geometrical incised patterns are instead typical of medium/large restricted forms.

Black-on-red painted decorations occur since Period IIA2 on both restricted and unrestricted vessels with geometrical and vegetal patterns, and in the Hellenistic periods it mostly decorates, but it is not limited to, the upper surface of horizontal projecting rims of hemispheric/sub-hemispheric bowls. The use of white and red pigments is attested by a badly preserved stem of a bowl (?) from BKG L Period IIA2. Other rare examples of the use of a red painting are attested in Period IIB and Period IIIA1.

Pottery stamps starts to be use in Period IIIA1. We mostly refer to lotus decoration stamped on the inner bottom of flat or round bottomed bowls.

Early Historic embossed technique (in association with a painted geometrical decoration) occurs only on two potsherds from BKG L.

No potter's workshop have been so far identified within the urban area of Barikot. However the recovery of potter's tools, setters for kiln, dabbers, stamps for impressed decoration suggest the presence of at least some potter's workshop at Barikot (Callieri and Olivieri forth.). Moreover, in trench BKG 1 some pits with slabs around the edges filled with loose clay and sand were interpreted by Callieri as "places where the potter prepared the clay, mixing it with sand *degraisant*" (Callieri 1984: 491-493). The recovery of some firing waste sherds found throughout the Early Historic sequence of trench BKG K-105<sup>73</sup> strengthen this assumption.

#### Production and Consumption stage

The two previous paragraphs are related to only two steps of the production stage of pottery which indeed includes a wider sequence of activities (Tite 1999). Selection, procurement and processing of the raw material still represent little known steps within the cycle of pottery at Early Historic Barikot, which surely deserve a specific investigation in the near future. The macroscopic observation carried out during this research has allowed to only vaguely determine the nature of the non-plastic inclusions, whereas that of clay matrix could not be properly inferred. The knowledge of the mineralogical composition of raw material over time and functional groups, in addition to analysis of local clay sources at the current stage should represent a natural and necessary step for an integrated approach to the pottery study.

An attempt to infer if vessels were produced locally, within the immediate region or imported through long-distance interregional exchange or trade in this study is only based on assumptions related to the degree of representativeness of the form vessel within the assemblage (strongly or sparsely represented), its luck over time, size, heaviness or fragility of the vessel (see Rice 1987: tab.6.3). However, even such kind of information are unable to reviving a living understanding of the practical action and conceptual models linked to these stages of the cycle of pottery. Considerations on consumption stage of vessels, with main focus on use and reuse of the artifacts, have been elicited on the basis of physical features and traces of use alteration<sup>74</sup> and are discussed case by case in Chapter 4.4.

---

<sup>73</sup> Firing waste sherds were found in the following stratigraphic units: (2159), (2157) IIA2; (2145), (2119) IIIA1; (2131) IIIA2.

<sup>74</sup> When discerned, they are indicated in the descriptive table of the Appendix.

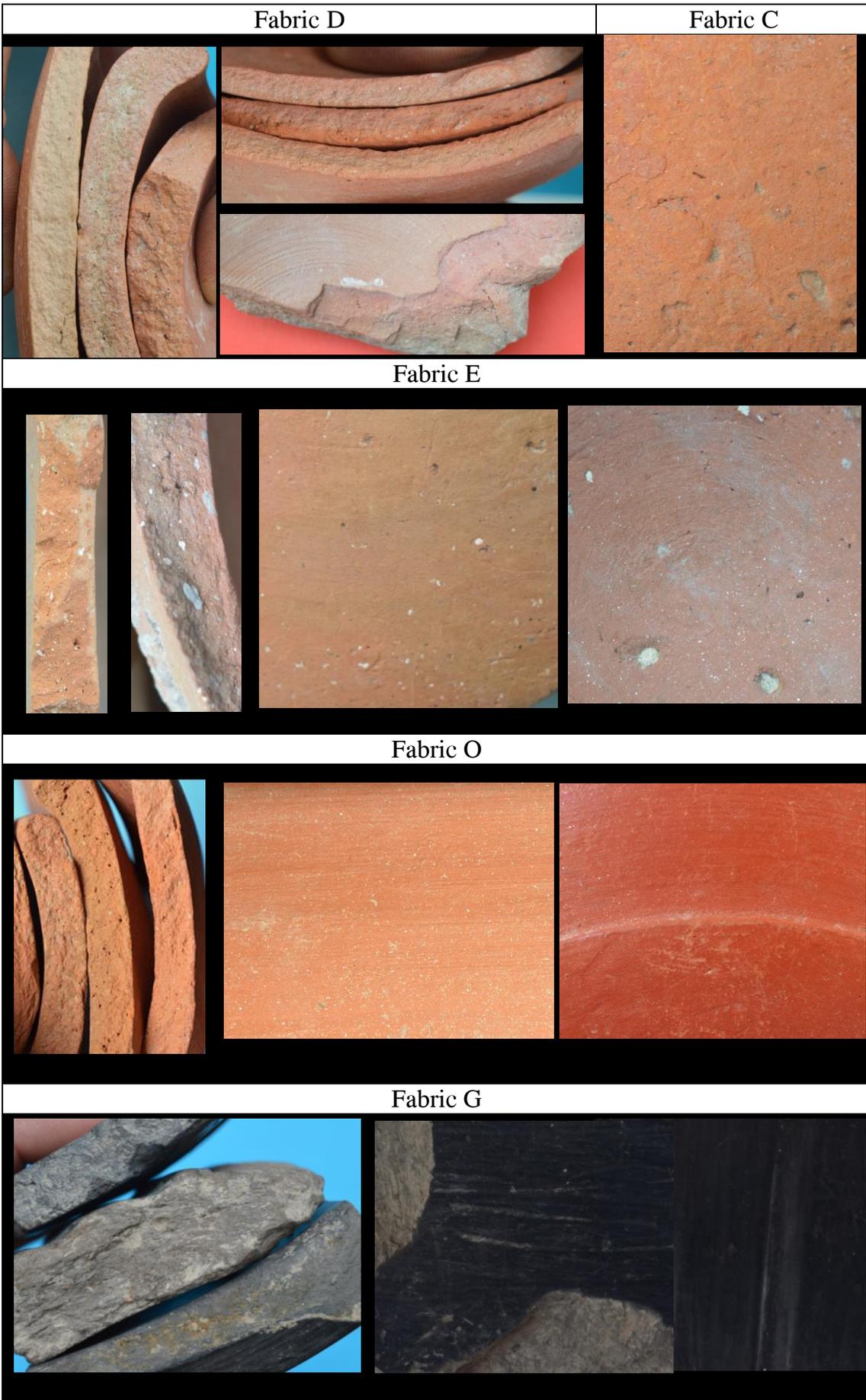


Figure 4.1 – Fine fabrics.

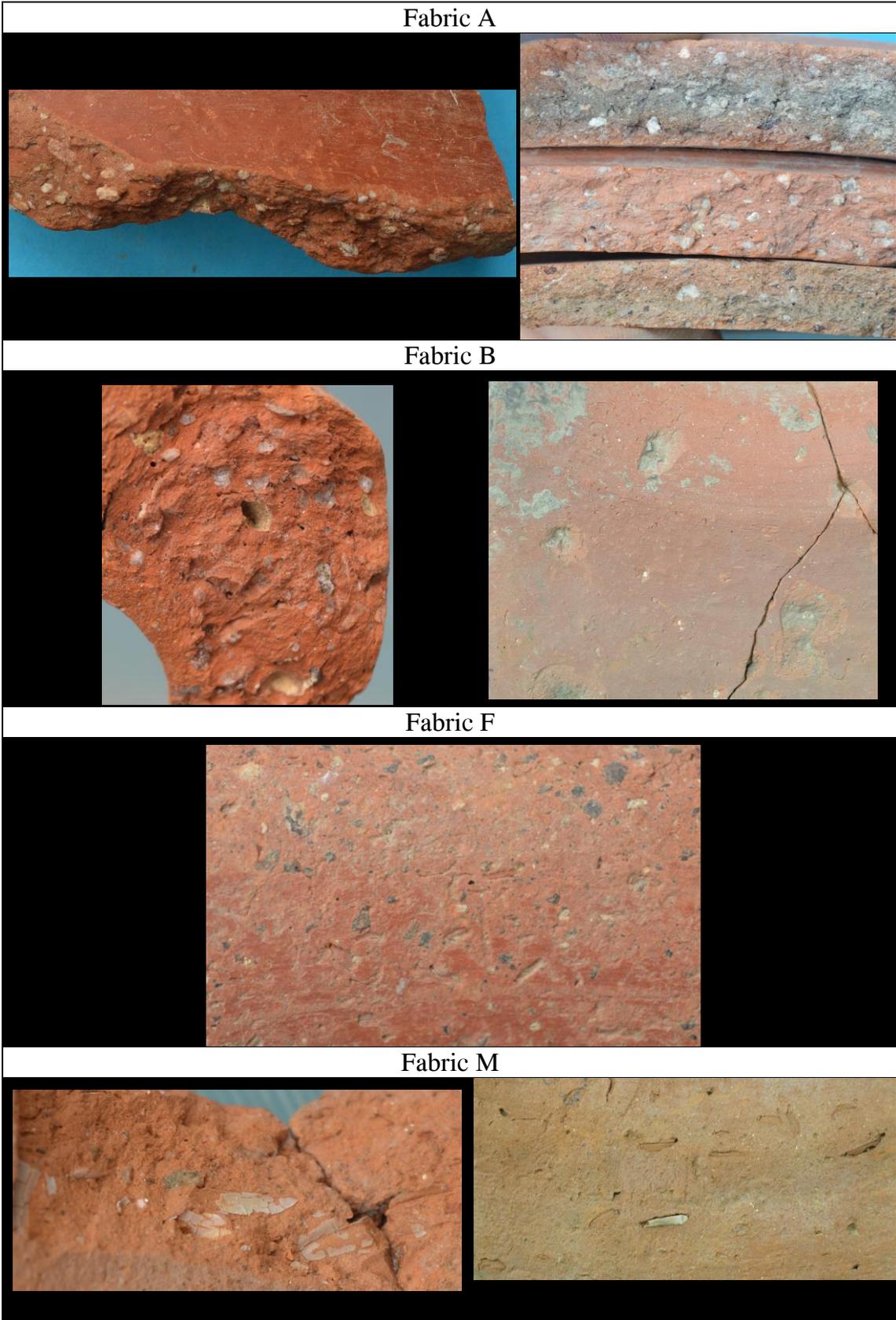


Figure 4.2 – Coarse fabrics.

Fabric N



Fabric H

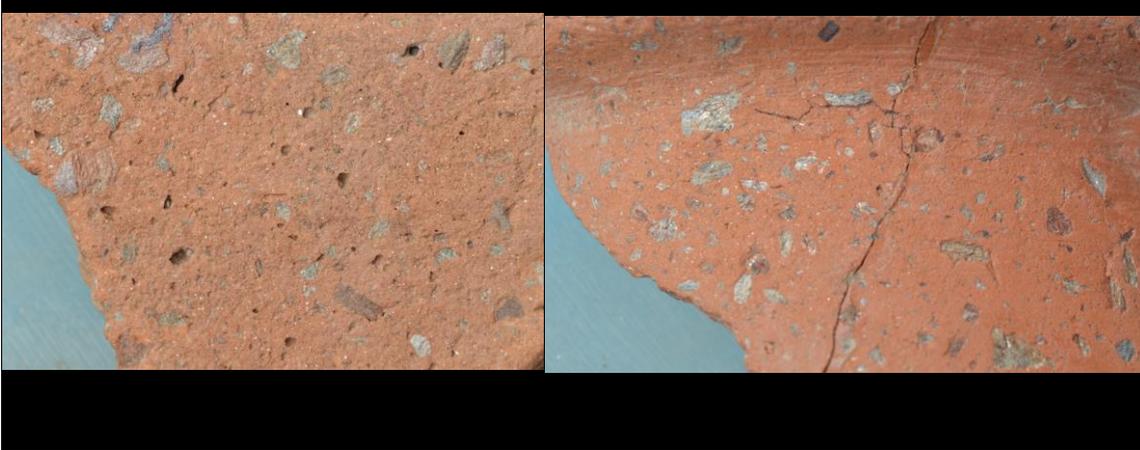


Figure 4.3 – Coarse fabrics.

a. Paddle and anvil, coiling, slow wheel



b. Coiling, slow wheel



c. Coiling, ribbing



Figure 4.4 – Traces of manufacturing technologies<sup>75</sup>.

<sup>75</sup> Figures 4.4-4.7 are purely illustrative and vessels' photos are not in scale.

a. Slab building. Traces of tool on surface and base



b . traces of tool and pinching

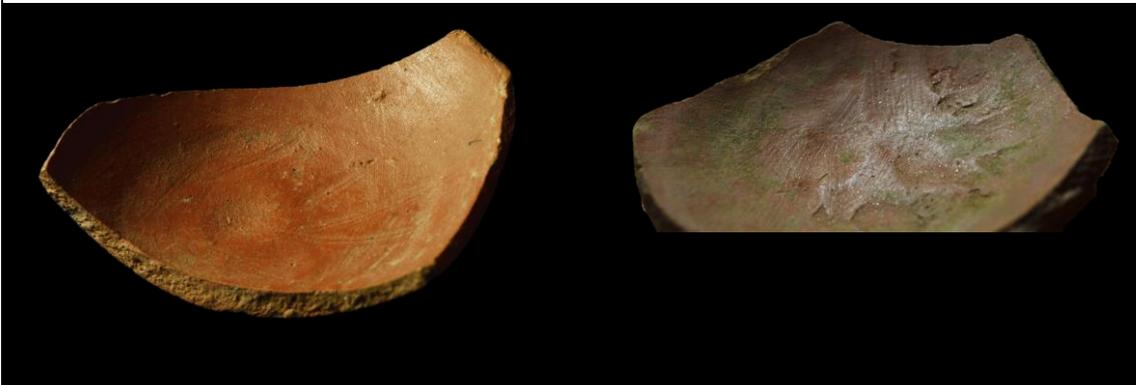
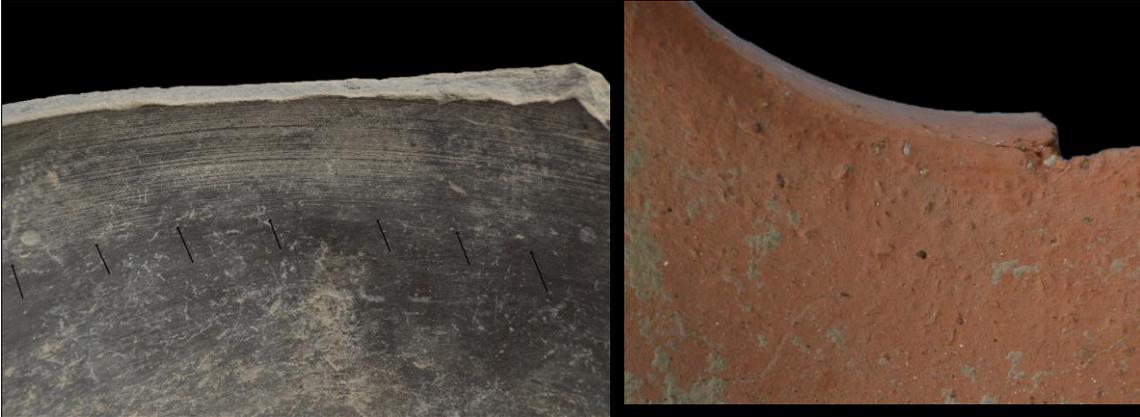
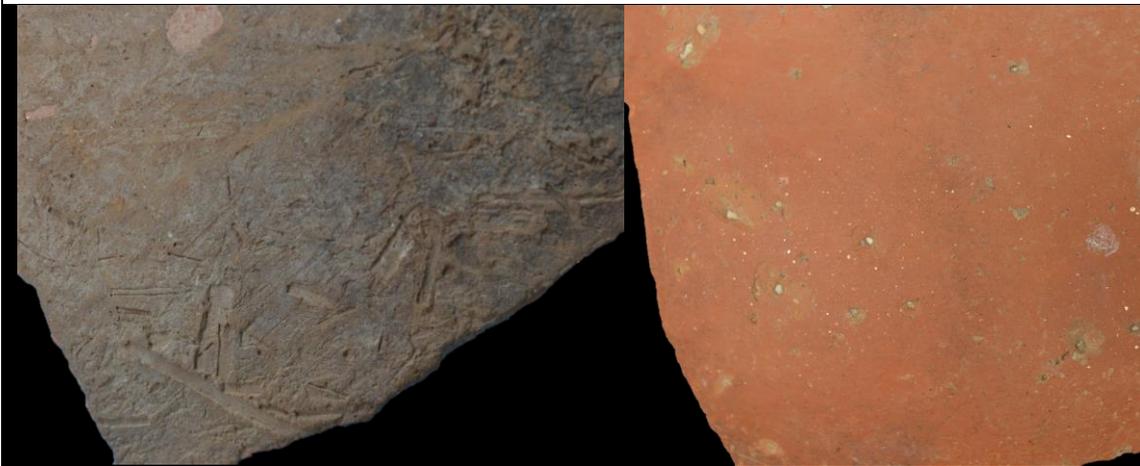


Figure 4.5 - Traces of manufacturing technologies.

a. Molding. Traces of wheel throwing where the two parts joined



b. Coating on the lower body of cooking pot. Thermal spalling of calcareous inclusions on the same pot



c. Additional layer of clay on the base. Fast wheel



Figure 4.6 - Traces of manufacturing technologies.



Figure 4.7 - Circular lines and impressions on the upper surface of pot-stands.

#### 4.4 Taxonomy

Pottery taxonomy is an essential tool for communication as well as interpretation. However, being the result of an 'etic' mental picture of morphological organization, theoretical and practical approaches and criteria of classification employed in analysis have spawned a rich literature as well as debates (Orton et al. 1993, Vidale 2007, Adams and Adams 1991).

Far from assuming that the reorganization here employed is either the only possible or the best objectification to an 'emic' dimension/level of Early Historic pottery tradition, this practical taxonomy is a simplified morphological classification based on an empirical approach which works as tool oriented onto the question asked.

The theoretical groundwork here is given by the tree-like, and not paradigmatic, classification worked out by Callieri (1989) for the Monastery of Saidu Sharif I on the basis of Gardin's work (1973) on the pottery from Ai Khanoum, and by DAFA for the ceramic from Eastern Bactria and Ai Khanoum (Lyonnet 1997, 2013).

This is a morphological classification based on a multi-level hierarchical structure in which each individual form is considered as a basic unit grouped into larger and more inclusive morphological groups on the basis of its intrinsic features<sup>75</sup>.

Each basic unit (namely, each form) is marked by an alphanumeric code which briefly synthesizes the location held within each levels of the tree-like system, that is, its exclusive formal definition.

The parameters used in the construction of this tree-like taxonomy and its resulting classification levels can be resumed as follow:

1. Categories: at first, two main categories has been distinguished: restricted forms (**C**: Closed) and unrestricted forms (**O**: Open). The boundaries between these two categories is entrusted to a mere subjective choice, since not defined by any objective measurements. In addition, two other categories are identified: varia (**V**) and miniature vessel (**MV** = height < 10 cm). The first includes significant part of the vessels (such as spout and handle) or distinctive categories or accessories (such as supports, lids, etc.). Painted (**PP**) and decorated (**DP**) potsherd fragments are also considered as a separated category when their state of preservation prevents us to reconstruct the original form.

---

<sup>75</sup> The estrinsic features (as stratigraphic position, dating, cultural and functional meaning) are integrated to taxonomy for interpretative elaborations.

2. Classes: unrestricted and restricted categories have then been divided in classes defined on the basis of macroscopic morpho-functional features, each one indicated by an upper case letter. The classes within the category of the unrestricted forms (**O**) include: dishes (**OA**), bowls (**OB**) and basins (**OBB**)<sup>76</sup>. The classes of the restricted forms (**C**) are: pots (**CA**), jars (**CB**), jugs (**CC**) and urns/crater (**CD**)<sup>77</sup>. Varia and miniature vessels are mostly unique and they are differentiated by different number, the same is true for painted and decorated categories, however grouped on the basis of technique and decorative pattern.
3. Dimension: within each class a further division was based on dimension. The potsherds were thus divided in large (**L** = height or diameter > 25 cm), medium (**Ø** = height or diameter between 15 and 25 cm) and small (**s** = height and diameter < 10 cm). Dimensional distinctions are done with due flexibility particularly in a certain difference between unrestricted and restricted forms. Basins and miniature vessels are excluded from such type of distinction for obvious reasons. Urns/craters are always medium-size vessels.

These first two levels of the classification are indicative of the general profile and dimension of the vessel. The relative code represents the first part of the formal code of the single unit (Fig. 4.8)

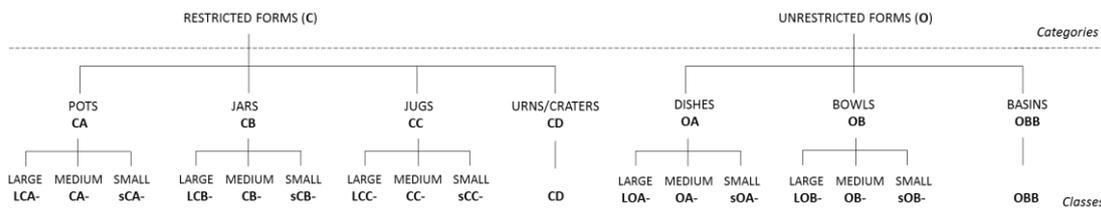


Figure 4.8 - Tree diagram representing the first two levels of the morphological classification (categories: **C**, **O**; classes: **LCA**, **CA**, **sCA**, etc.).

The second part of the formal code, separated from the first part by an en-dash, is related to more specific morphological features determining groups, series, variants and eventually sub-variants (Fig. 4.9).

4. Groups and series: the distinctive formal features taken into account in the definition of groups and series are mainly walls' profile (truncated-conical,

<sup>76</sup> The use of sigle OBB (instead of a logic OC) is shaped on the sigle ABB used in Callieri and Olivieri (forth.) for Basins. This is because "it is usually difficult, except when macroscopic size elements prevail, to distinguish between Large Bowls/Standard thick wall Bowls (ABb) and Basins (ABB)".

<sup>77</sup> Although the few urns/craters found in BKG K-105 are only fragmentary, comparable complete forms are known from trenches excavated between 1984-1992 (Callieri and Olivieri, forth.).

vertical, carinated, convex, etc.) denoted by lower case letter (i.e. LOA-a, OA-b, etc.) and rim's profile (flat, everted, etc.), indicated by a progressive number (i.e. LOA-a1, LOA-a2, etc.). Morphology together with physical features and traces of use alteration speaks of the function of the vessel. Therefore, it is only after the evaluation of these different kind of information that the concept of sub-class emerges in this study, not as initial assumption but as conclusion (see Callieri 1989: 245).

5. Variants and sub-variants are indicated by a number preceded by a point (i.e. LOA-a1.1, LOA-a2.1, and LOA-a1.1, LOA-a1.1.1, etc.) and the criteria used for their identification vary according to classes and groups.

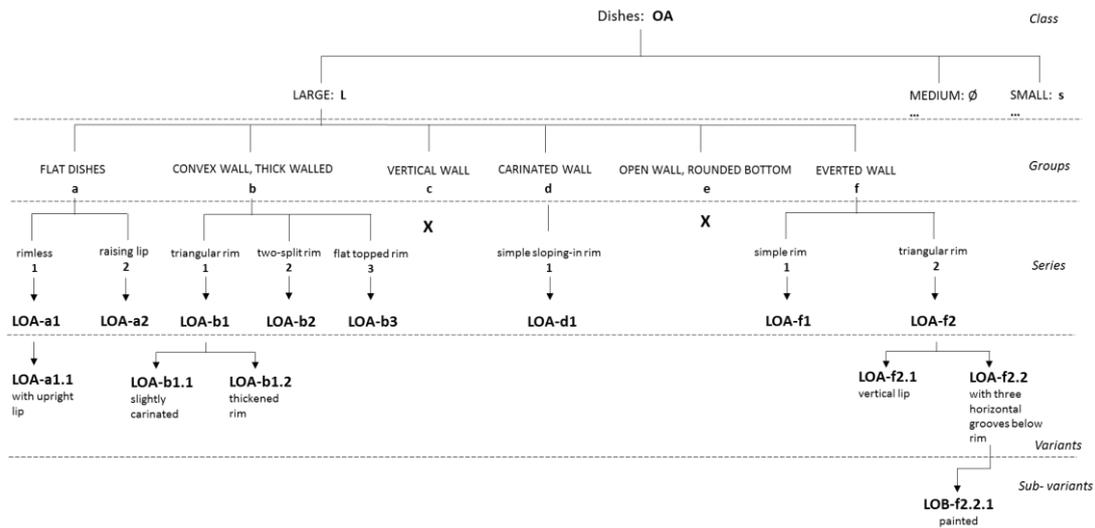


Figure 4.9- Tree diagram representing the fourth and the fifth levels of the morphological classification, Large dishes (LOA).

As regards base fragments, in the taxonomy they are defined by traditional definition (e.g. ring-foot base, flat contiguous base, etc.) since the state of conservation of the related profile is often too poor to make assumption on the vessel they belonged to. Therefore, although described and presented in the plates, vessel bases are discussed in the following paragraphs concerning unrestricted and restricted forms only when the relationship with the vessel form they belong to has a certain degree of reliability.

The sequence of presentation of the identified classes, groups and variants and sub-variants is purely arbitrary, since it does not reflect any chronological, quantitative<sup>78</sup> or

<sup>78</sup> Chronological and quantitative data are treated independently and then crossed-linked with morphological data.

functional order established *a priori* (Gardin 1973: 122). Instead, considering taxonomy as an instrumental tool, it follows practical considerations. Morphologically speaking, the basic general concept is that of showing forms from the most open flat ones to the most restricted and elongated ones. The resulting nomenclature is shown in the following table (Tab. 4.1).

UNRESTRICTED (O)				
Classes	Groups	Series	Variants	Sub-variants
<b>OA dishes (LOA, OA, sOA)</b>				
<i>Parath</i> -like dish	<b>LOA-a</b> large flat/shallow dish			
		LOA-a1 completely flat		
			LOA-a1.1 upright lip	
		LOA-a2 everted sides		
Large cooking dish	<b>LOA-b</b> thick walled dish with gritty bottom and everted/convex wall			
		LOA-b1 with triangular rim		
			LOA-b1.1 carinated	
			LOA-b1.2 thickened rim with grooves	
		LOA-b2 with two-split rim		
		LOA-b3 with flat topped rim, thick wall, gritty base		
Simple dish/bowl	<b>OA-c</b> sub-vertical/vertical wall			
	sub-vertical wall	OA-c1 with strongly inflected rim, flat bottom		
	vertical wall	OA-c2 with slightly incurving rim, flat bottom		
			OA-c2.1 groove on body	
			OA-c2.2 with carination	
				OA-c2.2.1 flat topped rim

UNRESTRICTED (O)				
Classes	Groups	Series	Variants	Sub-variants
			OA-c2.3 slightly carinated, with gritty bottom	
Large carinated dish	<b>LOA-d</b> carinated wall			
	slightly carinated	LOA-d1 with sloping-in rim, convex bottom		
Carinated dish with S-shaped rim	<b>OA-d</b> carinated wall			
		OA-d2 with externally projecting rim (sloping-in)		
			OA-d2.1 flat topped rim	
			OA-d2.2 flat bottom	
Fine round bottomed dish	<b>OA-e</b> open wall, rounded bottom			
		OA-e1 with simple rim		
		OA-e2 with horizontal projecting rim		
	<b>LOA-f</b> large dish with everted wall			
		LOA-f1 with simple rim		
Dish with everted wall	<b>OA-f</b> everted wall, flat bottom			
		OA-f1 with simple rim		
<i>Plates-à-poisson</i>		OA-f2 straight everted wall, with two lines incised inside		
			OA-f2.1 with vertical lip	
			OA-f2.2 two incised lines below rim	
		OA-f3 with simple rim and vertical lip		
			OA-f3.1 rim sloping- in	

UNRESTRICTED (O)				
Classes	Groups	Series	Variants	Sub-variants
			OA-f3.2	
			flared wall	
			OA-f3.3	
			slightly convex wall	
		OA-f4		
		with triangular rim		
			OA-f4.1	
			elongated	
		OA-f5		
		with rolled rim		
		OA-f6		
		with tri-split rim		
		OA-f7		
		with pointed rim/lip internally projecting		
			OA-f7.1	
			slightly convex wall	
			OA-f7.2	
			bi-everted rim	
<b>OB bowls (LOB, OB, sOB)</b>				
<i>Thālī</i>	<b>OB-a</b>	sub-vertical/vertical and carinated/slightly carinated wall, convex bottom		
		OB-a1		
		with flat topped rim		
			OB-a1.1	
			low carination	
				OB-a1.1.1
				slightly carinated
			OB-a1.2	
			line on top of rim	
				OB-a1.2.1
				flat bottom, smaller size
			OB-a1.3	
			smaller size	
			OB-a1.4	
			with flat topped rim inclined outside, low carination	
		OB-a2		
		with pointed rim		

UNRESTRICTED (O)				
Classes	Groups	Series	Variants	Sub-variants
	sub-vertical/vertical wall	OB-a3 with flat topped rim, projecting inward		
			OB-a3.1 rim inclined outside	
				OB-a3.1.1 pointing rim
			OB-a3.2 rim only slightly projecting	
				OB-a3.2.1 rounded
	incurving wall, slightly carinated wall	OB-a4 with inflected rim		
			OB-a4.1 flat topped rim	
			OB-a4.2 pointed rim	
			OB-a4.3 sub-vertical wall	
		OB-a5 with upright pointed rim and convex wall		
<i>Assiettes-à- poisson</i>	<b>OB-b</b> fine bowl with everted wall, flat base			
		OB-b1 with simple flat topped rim, inclined outside		
			OB-b1.1 rounded rim	
		OB-b2 with triangular rim		
			OB-b2.1 rim roughly outlined	
			OB-b2.2 thick walled	
			OB-b2.3 vertical lip	
			OB-b2.4 slightly convex	
			OB-b2.5 slightly convex wall,	

UNRESTRICTED (O)				
Classes	Groups	Series	Variants	Sub-variants
			rim roughly outlined	
		OB-b3	with rolled rim	
Fine bowls with convex wall	<b>OB-c</b> fine deep bowl with convex wall			
		OB-c1	with upright pointed rim	
			OB-c1.1 rim pointing inward	
				OB-c1.1 rounded rim
			OB-c1.2 pointed projecting rim	
				OB-c1.2.1 thin walled
				OB-c1.2.2 golden slip
	convex, slightly carinated wall, flat contiguous base	OB-c2	with external projecting rim (inclined outside)	
			OB-c2.1 higher carination	
			OB-c2.2 with groove on top of rim	
			OB-c2.3 with deeper body	
				OB-c2.3.1 thin walled
		OB-c3	with bi-everted pointed rim (inclined outside)	
		OB-c4	with projecting and strongly inclined rim	
			OB-c4.1 shallow body	
		OB-c5	with flat thickened rim inclined outside	
		OB-c6	with clubbed rim	

UNRESTRICTED (O)				
Classes	Groups	Series	Variants	Sub-variants
			OB-c6.1 painted on top of rim	
			OB-c6.2 rim pointing inward	
			OB-c6.3 flattened rim pointing inward	
				OB-c6.3.1 groove below rim, painted on top of rim
		OB-c7 with T-shaped rim		
			OB-c7.1 slightly carinated wall	
			OB-c7.2 grooves below rim	
			OB-c7.3 three grooves below rim	
			OB-c7.4 thick walled	
		OB-c8 with flat rim inclined outside, slightly projecting		
Fine bowls with round/hemispheri c wall	<b>OB-d</b> fine bowl with round/hemispheric wall			
		OB-d1 with horizontal strongly projecting rim		
			OB-d1.1 shallow body	
				OB-d1.1.1 rib on top of rim
			OB-d1.2 thick walled	
			OB-d1.3 with slightly inclined rim	
			OB-d1.4 painted, carinated wall	

UNRESTRICTED (O)				
Classes	Groups	Series	Variants	Sub-variants
		OB-d2 with flat bi- everted rim painted on top		
			OB-d2.1 shallow	
			OB-d2.2 rim slightly inclined outside	
		OB-d3 with slightly horizontal projecting rim		
			OB-d3.1 flared	
		OB-d4 with horizontal slightly projecting rim		
			OB-d4.1 flat topped rim	
			OB-d4.2 with groove below rim	
				OB-d4.2.1 carinated wall
Fine drinking hemispheric bowl	<b>OB-e</b> fine hemispheric bowl			
		OB-e1 with pointed rim, decorative omphalos		
		OB-e2 with pointed rim		
			OB-e2.1 sloping-in, with incised line below rim	
			OB-e2.2 rounded rim	
		OB-e3 with simple rim, elongated body		
		OB- e4 with flat topped rim		
		OB-e5 thin walled, flat topped rim, two grooves below rim (Lotus bowl?)		

UNRESTRICTED (O)				
Classes	Groups	Series	Variants	Sub-variants
			OB- e5.1 shallow	
		OB-e6 with simple rim, open hemispheric bowl		
			OB-e6.1 more open	
		OB-e7 with rounded slightly flared rim		
Fine drinking carinated bowl	<b>OB-f</b> fine carinated drinking bowl			
	hemispheric carinated wall	OB-f1 with everted rim, round bottom <i>Tulip with round bottom</i>		
			OB-f1.1 slightly flared rim	
			OB-f1.2 slightly flared rim and ridge on carination	
			OB-f1.3 with everted rim and ridge on carination	
			OB-f1.4 with groove on carination	
			OB-f1.5 slightly carinated, deeper body	
			OB-f1.6 with flat contiguous base and rounded rim	
				OB-f1.6.1 with pointed rim
		OB-f2 with short slight everted rim, flat contiguous base, fairly deep		
		OB-f3 with slightly everted rim,		

UNRESTRICTED (O)				
Classes	Groups	Series	Variants	Sub-variants
		ridges on carination		
			OB-f3.1	rounded rim
	slightly carinated wall, deep body	OB-f4 with vertical rim, ridges on carination		
			OB-f4.1	pointed rim
			OB-f4.2	no ridge
			OB-f4.3	ridges above carination
		OB-f5 with high slightly inverted rim, slightly carinated wall, deep body		
			OB-f5.1	slightly flared rim
Drinking bowl with vertical wall	<b>OB-g</b> vertical wall, deep bowl			
		OB-g1 with pointed rim sloping-in		
			OB-g1.1	two grooves on body
			OB-g1.2	thin walled, ridge on body
			OB-g1.3	rounded rim
		OB-g2 with thickened rounded rim		
			OB-g2.1	groove on body
	<b>sOB-g</b>			
		sOB-g3 simple rim		
			sOB-g3.1	shallow body
	<b>sOB-h</b> bowl with truncate conical wall, thick flat base			
		OB-h1 with horizontal projecting rim, flat thick base		

UNRESTRICTED (O)					
Classes		Groups	Series	Variants	Sub-variants
				OB-h1.1 only slightly projecting rim with convex surface	
				OB-h1.2 low depression on top of rim	
				OB-h1.3 shallow body	
				OB-h1.4 rim bi- everted	
					OB-h1.4.1 low depression on top of rim
					OB-h1.4.2 with two grooves on top of rim
<i>Truncated-conical cup</i>		<b>sOB-i</b> small bowl with truncate conical wall, thick flat base			
			sOB-i1 with upright pointed rim		
			sOB-i2 fine bowl, with upright pointed, medium-size		
<i>Standard bowl</i>		<b>LOB-h</b> convex wall, large size			
			LOB-h1 with flat rim, lip externally projecting		
				LOB-h1.1 slightly incurving rim	
			LOB-h2 with simple rim		
				OB-h2.1 with rounded wall	
			LOB-h3 with horizontal projecting rim, shallow body		
				LOB-h3.1 rectangular in section	

UNRESTRICTED (O)				
Classes	Groups	Series	Variants	Sub-variants
	<b>OB-h</b> convex wall, medium size	OB-h1 with lip externally projecting		
		OB-h2 externally thickened rim		
			OB-h2.1 thickened round rim	
		OB-h3 with horizontal projecting rim, shallow body		
			OB-h3.1 round in section	
	<b>LOB-i</b> rounded wall, large size			
		LOB-i1 with horizontal projecting rim		
		LOB-i2 with externally thickened rim		
		LOB-i3 with flared rim, thin wall		
	<b>OB-i</b> rounded wall, medium size			
		OB-i1 horizontal projecting rim		
			OB-i1.1 flattish rim	
				OB-i1.1.1 decorated
		OB-i2 with externally thickened rim		
			OB-i2.1 inflected	
			OB-i2.2 decorated	
			OB-i2.3 internally thickened	
		OB-i3 with projecting rim and thin wall		
		OB-i4 with internal ledge		
	<b>LOB-1</b> deep rounded body			
		LOB-11		

UNRESTRICTED (O)				
Classes	Groups	Series	Variants	Sub-variants
		with flat rim, round deep body		
			LOB-11.1 with ridge below rim	
			LOB-11.2 decorated	
		LOB-12 round rim, thickened wall		
	<b>OB-1</b> deep ovoid body			
		OB-13 with flat rim inclined inside, ovoid body		
<b>OBB Basins</b>				
	<b>OBB-a</b> rounded wall (d. ca 40 cm)			
		OBB-a1 with horizontal projecting rim, shallow body, wavy line		
			OBB-a1.1 flattish rim	
		OBB-a2 with strongly projecting rim		
			OBB-a2.1 rectangular in section	
			OBB-a2.2 shallow body	
				OBB-a2.2.1 handled
				OBB-a2.2.2 handled with grooves on top of rim
			OBB-a2.3 two-split	
		OBB-a3 with externally thickened rim		
			OBB-a3.1 groove on rim	
		OBB-a4 with inflected rim		
	<b>OBB-b</b> very thick wall			
		OBB-b1 with horizontal projecting,		

UNRESTRICTED (O)				
Classes	Groups	Series	Variants	Sub-variants
		rectangular in section		
	<b>OBB-c</b> convex wall			
		OBB-c1 with horizontal projecting rim		
		OBB-c2 thick walled, projecting rim rectangular section		
	<b>OBB-d</b> deep body, everted wall			
		OBB-d1 with flat everted rim		
		OBB-d2 with incurving rim		
		OBB-d3 with thickened flat rim		
			OBB-d3.1 projecting inward	

RESTRICTED (C)				
Classes	Groups	Series	Variants	Sub-variants
<b>CA Pots</b>				
Cooking pot	<b>CA-a</b> Globular/sub-globular cooking pot			
		CA-a1 with upright rounded rim		
			CA-a1.1 slightly convex rim	
			CA-a1.2 sub-vertical rim	
				CA-a1.2.1 pointed rim
		CA-a2 with everted rim		
		CA-a3 with flared rim		
			CA-a3.1 slightly projecting rim	
			CA-a3.2 short rim	

RESTRICTED (C)				
Classes		Groups	Series	Sub-variants
				Ca-a3.3 short rim, sub-globular body
		<b>CA-b</b> carinated cooking pot		
			CA-b1 hole-mouthed	
			CA-b2 with flared rim	
				CA-b2.1 with upper body slightly convex
<b>CB Jars (LCB, CB, sCB)</b>				
		<b>LCB-a</b> Large and thick walled hole-mouthed jar with globular body		
			LCB-a1 with flat thickened rim inclined inside, decorated cordon below rim	
			LCB-a2 with thickened rounded rim	
		<b>CB-a</b> Medium-sized hole- mouthed jar with globular body		
			CB-a1 with flat rounded rim	
				CB-a1.1 externally thickened rim
			CB-a2 with thickened rim inclined inside, ridge below rim	
				CB-a2.1 very thick rim
		<b>CB-b</b> Medium-sized hole- mouthed jar with globular body and small mouth		
			CB-b1 with pointed rim sloping-in, painted	

RESTRICTED (C)					
Classes		Groups	Series	Variants	Sub-variants
			CB-b2 with thickened rim inclined inside		
				CB-b2.2 pointed rim	
					CB-b2.2.1 sub-globular body
				CB-b2.3 slightly flared rim, sub-globular body	
				CB-b2.4 thick walled, sub-globular body	
				CB-b2.5 thick walled, short rim	
				CB-b2.6 Ovoid body	
			CB-b3 with simple rim, lip internally projecting		
		<b>LCB-c</b> Large low-necked globular jar			
			LCB-c1 with rounded thickened rim		
				LCB-c1.1 incline inside	
			LCB-c2 with rectangular rim		
			LCB-c3 with horizontal projecting rim, rectangular in section		
			LCB-c4 with two-split rim sloping-in		
		<b>CB-c</b> Low-necked globular/sub-globular jar			
			CB-c3 with horizontal projecting rim		
			CB-c4 with two split rim, globular body		

RESTRICTED (C)				
Classes		Groups	Series	Sub-variants
				CB-c4.1 thickened rim
				CB-c4.2 flat topped rim
				CB-c4.3 sub-globular body
		<b>LCB-d</b> Globular jar		
			LCB-ed1 with upright rim	
			LCB-d2 with everted rim	
				LCB-d2.1 higher rim
				LCB-d2.2 pear-shaped body
			LCB-d3 with flared rim	
		<b>sCB-d</b> small sub-globular jar		
			sCB-d4 with flared rim	
			sCB-d5 with horizontal projecting rim	
				sCB-d5.1 with parallel horizontal grooves on body
			sCB-d6 with vertical high rim	
			sCB-d7 with everted high rim	
				sCB-d7.1 thickened rim
		<b>LCB-e</b> Large necked jar		
			LCB-e1 with rounded externally thickened rim, thick walled	
				LCB-e1.1 slightly flared rim
		<b>CB-e</b> Necked jar with rounded thickened rim		
			CB-e2 with rounded externally	

**RESTRICTED (C)**

Classes	Groups	Series	Variants	Sub-variants
		thickened rim, globular body		
		CB-e3 with rounded externally thickened rim		
			CB-e3.1 with internal channel	
			CB-e3.2 slightly flared neck, thin walled (globular body)	
		CB-e4 with simple rim		
	Necked jar with grooved rim	CB-e5 with rounded externally thickened rim, one groove on rim, (medium/large size)		
			CB-e5.1 slightly flared neck	
		CB-e6 with externally thickened rim, one groove on rim (medium/small)		
			CB-e6.1 pointed rim	
			CB-e6.2 rounded rim	
			CB-e6.3 slightly flared	
			CB-e6.4 with internal channel	
				CB-e6.4.1 strongly thickened rim
			CB-e6.5 with two grooves on rim	
		CB-e7 with flared rim, rectangular in section vertical lip)		
			CB-e7.1 more projecting	

**RESTRICTED (C)**

Classes	Groups	Series	Variants	Sub-variants
			CB-e7.2	slightly concave surface
			CB-e7.3	slightly elongated rim
		CB-e8	with flaring neck	
			CB-e8.1	elongated rim
		CB-e9	three-split rim	
		CB-e10	with flat topped rim, slightly projecting	
	<b>LCB-f</b>	Jar with flared neck		
		LCB-f1	with two-split rim	
Pear-shaped jar	<b>CB-g</b>	Pear-shaped body		
		CB-g1	rim externally carinated	
			CB-g1.1	thick walled
		CB-g2	with upright triangular rim	
			CB-g2.1	rim slightly inclined
			CB-g2.2	more rounded body
		CB-g3	with upright rounded rim	
			CB-g3.1	rim slightly incurving
			CB-g3.2	flattened rim
		CB-g4	with upright rounded rim more externally thickened	
			CB-g4.1	short rim
			CB.g4.2	thin throat

RESTRICTED (C)						
Classes	Groups	Series	Variants	Sub-variants		
<b>CC Jugs</b>	<b>CC-a</b> Narrow necked jugs with vertical neck		CC-a1 with simple rim, narrow neck			
	<b>CC-b</b> carinated neck		CC-b1 with handle attached internally on rim			
			CC-b2 with concave rim			
				CC-b2.1 with handle		
				CC-b2.2 handle with dot decoration		
			CC-b3 with three-split rim			
			CC-b4 with flared triangular rim			
		<b>CC-c</b> Simple flared neck		CC-c1 with simple rim, vertical handle		
					CC-c1.1 with graffito CC-c1.2	
		<b>sCC</b> narrow necked bottle		sCC-c1 with everted rim		
	<b>CD Urns/Crater</b>					
		<b>CD-a</b> S-shaped profile		CD-a1 without handles		
				CD-a1.1 painted CD-a1.2 incised decoration		
		CD-a2 with handles				
		CD-a3 on-stand				

BASES		
	<b>B1</b> Flat contiguous base	
		<b>B1.1</b> with central depression
		<b>B1.2</b> with circular incised line
		<b>B1.3</b> with circular rib
	<b>B2</b> Flat thick base	
	<b>B3</b> Ring-foot base	
		<b>B3.1</b> with circular incised line
	<b>B4</b> Concave base	
		<b>B4.1</b> with circular incised line
	<b>B5</b> On-stand	
	<b>B6</b> Round bottom	
	<b>B7</b> Flat base with central knob	
	<b>B8</b> Base of pot-stand	

VARIA (V)		
	<b>V1</b> flask	
		<b>V1.1</b> with double spout
		<b>V1.2</b> handled flask with spout
	<b>V2</b> mouthpieces	
		<b>V2.1</b> distiller
	<b>V3</b> pipe	
	<b>V4</b> spout	
		<b>V4.1</b> U-shaped spout
		<b>V4.2</b> with knob below spout
	<b>V5</b> handle	

VARIA (V)		
		V5.1 lug
		V5.2 holed horizontal handle
		V5.3 vertical handle with knob (jug)
		V5.4 vertical handle with incised decoration (jug)
		V5.5 vertical handle triangular in section with incised decoration
		V5.6 horizontal handle with lateral knob (krater-like form)
	<b>V6</b> lid	
		V6.1 saucer-like
		V6.1.1 with thick base
		V6.1.2 knob with depression
		V6.1.3 concave knob
		V6.2 inverted (concave) truncated- conical shape
		V6.3 concave dish- like with knob
	<b>V7</b> Riducer/lid	
	<b>V8</b> pot-stand	
		V8.1 Cylindrical stand
		V8.2 <i>Lásana</i> type
		V8.3 pottery ring

MINIATURE VESSEL (MV)		
		<b>MV1</b> beacker
		<b>MV2</b> globular pot
		<b>MV3</b> flask
		<b>MV4</b> jar
		<b>MV5</b> shallow bowl
		MV5.1 set on rim of bowl
POTSHERDS (INDIVIDUAL FRAGMENTS)		
PAINTED POTSHERDS (PP)		
		<b>PP1</b> Black-on-Red
		PP1.1 Geometric motifs
		PP1.1.1 triangle ware
		PP1.2 vegetal motifs
		<b>PP2</b> Multi-colour painting
DECORATED POTSHERDS (DP)		
		<b>DP1</b> stamped
		<b>DP2</b> embossed
		DP2.1 Early Historic Embossed
		<b>DP3</b> Incised
		DP3.1 geometric
		DP3.1.1 wavy line
		DP3.2 vegetal
		<b>DP4</b> appliqué
		DP4.1 geometric
		DP4.2 vegetal
INSCRIBED POTSHERD (IP)		
		<b>IP1</b> Greek
		<b>IP2</b> Brāhmī
		<b>IP3</b> Aramaic

Table 4.1 – Taxonomic nomenclature.

#### 4.4.1 Unrestricted Forms

##### Class OA, Dishes

The class of dishes, although documented throughout the sequence, is better represented in Macrophase 3a. Six main sub-classes can be distinguished: LOA-a, LOA-c, OA-b, OA-d, OA-e, OA-f. LOA-a and LOA-c are large cooking dishes the function of which is more closed to that of pans. These along with OA-b and OA-d dishes seems to be related to a local Gandhara tradition. Fine small round bottomed dish, OA-e, are instead exclusive of BKG L layer (9). The Hellenistic tradition in Macrophase 3a marks the introduction of the so-called *plats-à-poisson* (OA-f), which more direct *comparanda* comes from the Graeco-Bactrian assemblages from Ai-Khanoum, Termez and Bactria and from Hellenistic Margiana.

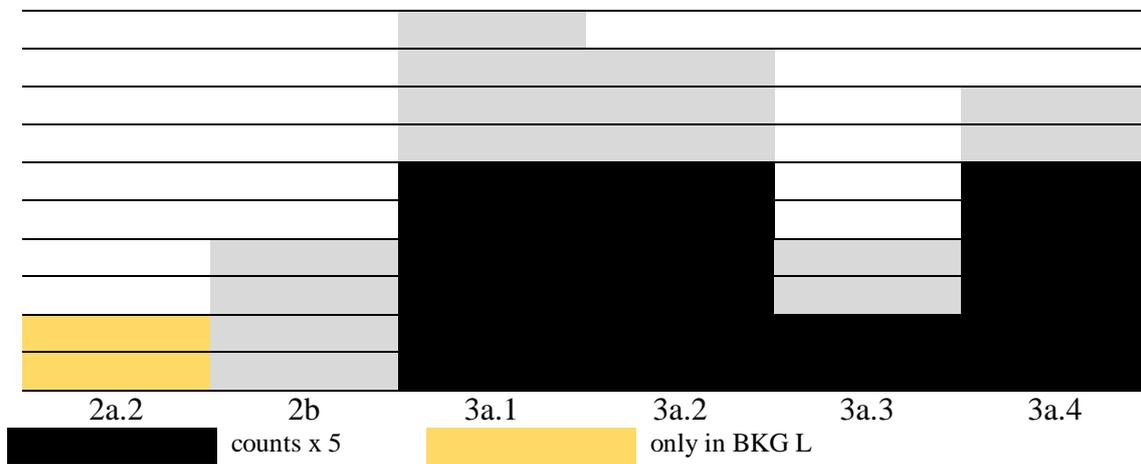


Table 4.2 – Frequency of Class OA<sup>79</sup>.

##### Sub-class LOA-a: *parath*-like dishes, cooking dishes (Pl. 1)

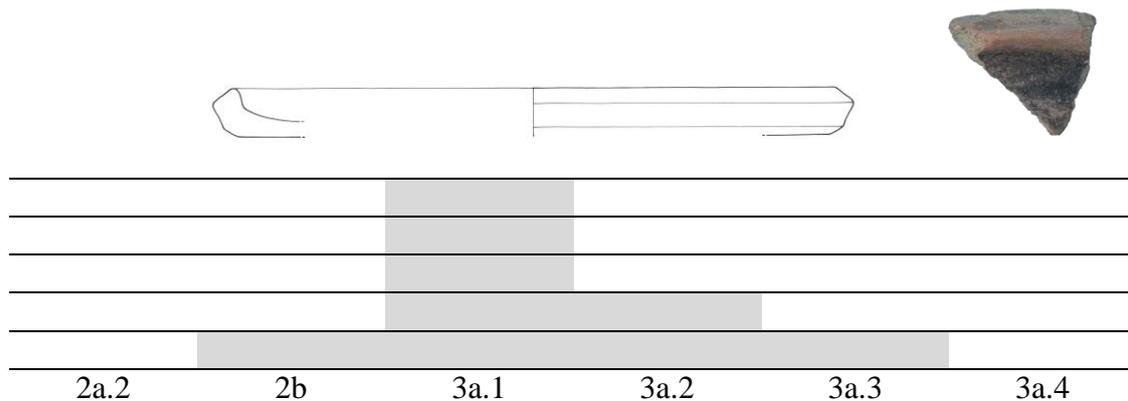


Table 4.3 – Frequency of sub-class LOA-a.

<sup>79</sup> The X axis of the distribution charts reported in this chapter indicates the chronological sequence while the quantitative value is reported along the Y axis. Each unit/cell in gray colour represents ‘a single vessel’. The quantity of vessels has been ‘measured’ according the estimate vessel-equivalent (*eve*) calculated for each single form in each single stratigraphic unit using a rim-chart (see Chapter 4.2.1). N.B.: If in black the cell count per 5 vessels. Drawings reported in distribution charts are not in scale.

Cooking vessels LOA-a are very shallow thick walled dishes in red ware with raised lips sometimes consisting of a simple flat, often gritty, surface. At the light of its ergonomic and use-alteration features we term this class as *parath*-like dishes (see Callieri and Olivieri forth.)<sup>80</sup>. Morphologically speaking, this sub-class can be included within the class of dishes. However, its function was probably more close to that of pans. In fact, these dishes frequently feature traces of soot at the bottom and sometimes carbon depositions on the upper surface caused by charring of food as shown in the figure of the above chart. The high degree of fragmentation of this vessel form must be link to the high degree of thermal and mechanical shocks to which it was exposed in the every day life. All the forms shown in Pl.1 are unique. The non-standardization of the morphology of this sub-class might suggest the familiar sphere of its production besides of its use.

Similar types<sup>81</sup> of dishes are poorly documented in Indian sites. At Kandahar they occur during the Achaemenid and the pre-Achaemenid period. I refer to the gritty ware (McNicoll and Ball 1996: fig. 45.101-103) dated to Iron Age and to genre 30 from Kandahar Epoch I (corresponding to Macrophase 2a.2; Helms 1997: figs 77, 161.2177)<sup>82</sup>. Although most of the fragments come from Period IIIA1, the chronological span covered by *parath*-like dishes goes from Period IIB to Period IIIA3, instead no evidence comes from earlier period. This class is not attested in trenches BKG7, BKG8, BKG9 and BKG 12E.

Sub-class LOA-b: large thick walled dishes with gritty bottom, cooking dishes (Pl. 2)

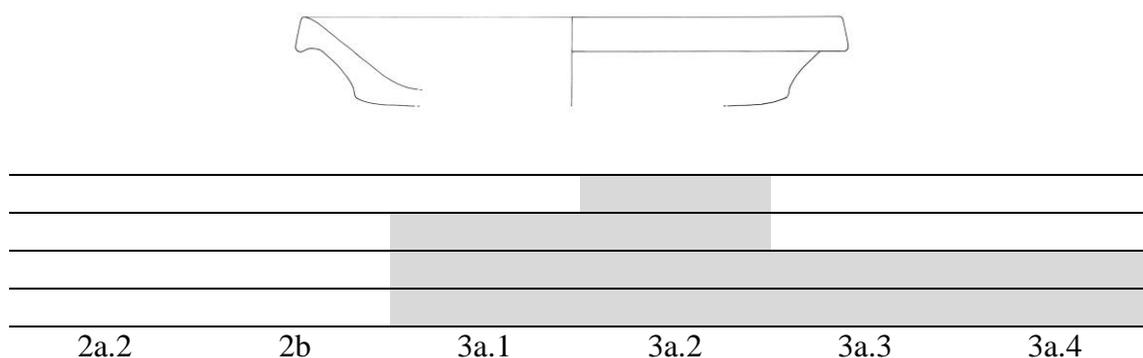


Table 4.4 - Frequency of sub-class LOA-b.

<sup>80</sup> They are labeled as “pan-cum-dish” in Sharma (1960: 61). *Parath* is a conventional term based on ethnographic comparison. In NW Pakistan this type of vessel form is traditionally indicated with this term.

<sup>81</sup> The term ‘type’ is used in this chapter only in its most general sense. *Parath* is a conventional term based on ethnographic comparison. In NW Pakistan this type of vessel form are indicated with this term.

<sup>82</sup> Although Helms’ genre 30 is classified as lid, some of the fragments illustrated are morphologically closed to *parath*-like dishes.



strongly inflected rim (OA-c1)<sup>84</sup> found in Period 2b clearly recalls an example from Bhir Mound (Period II, Sharif 1969: fig. 14.10).

From Period 2b onwards flat-bottomed dishes are in red ware, whereas from BKG L layer (9) comes a specimen in NBPW (form **16**). Sub-class OA-c1, also documented at BKG8 and BKG9 in pre-Indo-Greek layers, is attested in Swat Period VIII in red ware at Kalako-derai (Stacul and Tusa 1995: fig. 24.d) and Aligrama (Stacul and Tusa 1977: figs. 14.e, 19.e) as evolution of an earlier shape (Stacul 2000: 749) and at Charsadda I from layer (32) (Wheeler 1962: fig. 18.80), Charsadda IV and V (*ibid.*: figs. 47.491, 48.514, 49.536).

Sub-class OA-d: carinated dishes with S-shaped rim (Pl. 4)

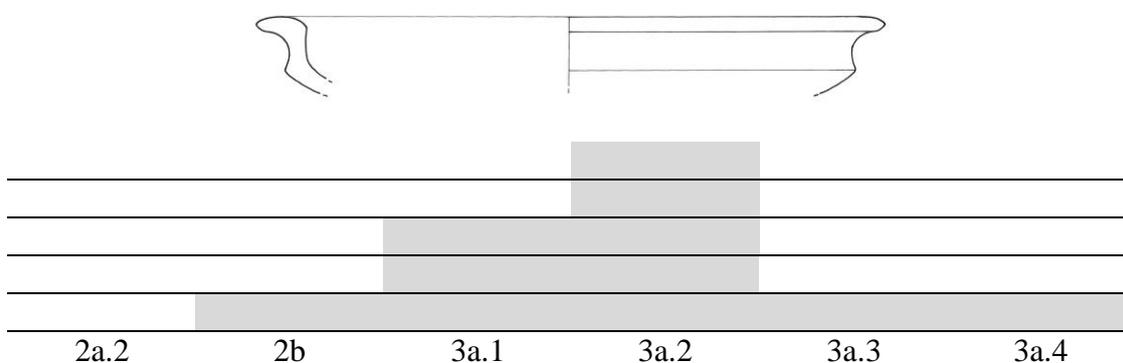


Table 4.6 - Frequency of sub-class OA-d.

Class OA-d is a fine medium/large sized (d ca. 25 cm) carinated dish/bowl with strongly projecting rim (also called S-carinated rim bowl, see Magee et al. 2005: 724) which starts to appear at BKG K-105 in Period IIB. However, this vessel form, which is also well attested in Saka-Parthian period at BKG9 and in the Indo-Greek and Saka-Parthian layers of the trenches excavated between 1984-1992<sup>85</sup> (Callieri and Olivieri, *forth.*), seems to find its roots in more ancient time. Indeed, it was a distinctive form of Swat Period VIII layers at Aligrama (Stacul and Tusa 1977: fig. 14.j, k) and Kalako-derai (Stacul and Tusa 1993: fig. 17.o; Stacul and Tusa 1995: fig. 24.g; Stacul and Tusa 1997: fig. 23.d). In particular at Aligrama this vessel form, always red slipped, is featured by a very depurated fabric very close to BKG Fabric O (BKG Period IIA1-2)<sup>86</sup>. The recovery of one example of this vessel form in a pre-Achaemenid layer (12) at BKG L together with other specimens from late protohistoric layers at the hill top of Barikot (BKG8, BKG9) are worth mentioning. At Barama S-carinated rim bowls, very frequent, are distinctive of Period 5 and 4.

<sup>84</sup> The rim of the two fragments counted in Period 3a.1 are less inflected.

<sup>85</sup> Sometimes with black painting on the rim (Callieri and Olivieri, *forth.*).

<sup>86</sup> Consideration based on macroscopic observation.

Outside the Swat area carinated dishes with S-shaped rim are well known at the Gandhara sites of Charsadda I, IV, V (Wheeler 1962: fig. 10.9-10, fig. 18.82-84, 88, fig. 20.98-99, 100-101, 104-105, fig. 21.124-126, fig. 22.135-137, fig. 23.147-149, 153-156, fig. 25.189-191, fig. 27.220-221, fig. 46.474, fig. 47.492-494, fig. 49.515, 522, 528, 532, see Chapter 2), Bhir mound (Sharif 1969: fig. 13.3-3a = Period II, fig. 17.10, = Period III; Bahadar khan et al. 2007: fig. 10.2 = Period II, fig. 18.16 = Period III, fig. 27.12 = Period IV)<sup>87</sup>, and Balambat (Dani 1967: fig. 53.9)<sup>88</sup>, while a slightly carinated version is also known from Akra, in the Bannu region (Magee et al. 2005: fig. 16).

In India this shape, although unfrequent, is attested at Sonkh from the 3<sup>rd</sup>-2<sup>nd</sup> century BCE (Hartel 1993: figs. II.39, II.70, 71, III.90), at Hastināpura in only one example from disturbed context (Lal 1954-55: fig. 9.51), at Hulas (Dickshit 1983: fig. 18.54, Period II PGW) and at Prakash (Allchin and Allchin 1982: fig. 12.11).

To the west, the best comparison comes from Kandahar (McNicoll and Ball 1996: 80.12) where the form is attested since the Achaemenid period.

The Indic or Iranian origin of this vessel form has been matter of debate (see Chapter 2) since its presence has been noticed in Achaemenid and post-Achaemenid levels also further west (Magee et al. 2005: 725-726) at site as Tepe Yahya (Magee 2004: fig. 5.5), Pasargadae (Stronach 1978: 107.7-10) and Persepolis (Schmidt 1953: pl. 74.1, Sumner 1986: Ill.1: a-d). However, it is worth noting that although the formal similarity between Gandharan carinated dishes/bowls and western carinated bowls is sometimes striking, in the sites of the Iranian Plateau and of the Achaemenid heartland this carinated vessel form is morphologically diversified in terms of size and proportions between height and rim diameter, whereas at the Gandharan sites its formal variability is very restricted to the morphofunctional sphere of dish (it is always a shallow vessel with a quite large diameter, 20 cm < d < 30 cm) and no small or deeper versions have so far been recovered. Therefore, the formal system of this carinated vessel seems to be already well established since its first appearance in Swat Period VIII, which is reasonably pre-Achaemenid in date.

Looking to the East, the rare specimens so far documented in India come from unstratified or later contexts and at the current state of art an Indic origin of carinated dish/bowl seems to be only a mere conjecture. The high frequency of this vessel form in Gandhara sites

---

<sup>87</sup> Sharif Periods II and III correspond to 3<sup>rd</sup> and 3<sup>rd</sup>-2<sup>nd</sup> century BC in Sharif chronology (Sharif 1969: 13-14). Bahadar khan Periods II, III, IV goes from late 6<sup>th</sup> to mid 2<sup>nd</sup> century BC (Bahadar khan et al. 2007: 31-34).

<sup>88</sup> At Shaikhan dheri an evolution of this form can be vaguely seen in Saka-pharthian layers

where it is attested, at least in Swat<sup>89</sup>, since pre-Achaemenid periods led us to confidentially consider the S-carinated rim bowl as distinctive of the Gandhara tradition.

Sub-class OA-e: fine round bottomed dishes (Pl. 5.1-2)

These fine dishes with round bottom and simple rounded or slightly projecting rim, have been so far attested by only two fragments from trench BKG L layer (9), the absolute chronology of which is not clear. These are in a very depurated fabric (Fabric O) covered by a red slip. This sub-class is very closed in terms of fabric and morphology to bowls OB-e6 although this has a far open wall.

Sub-class OA-f: dishes with everted sides, *Plats-à-poisson* (Pls 5-8, Fig. 4.11a-c)

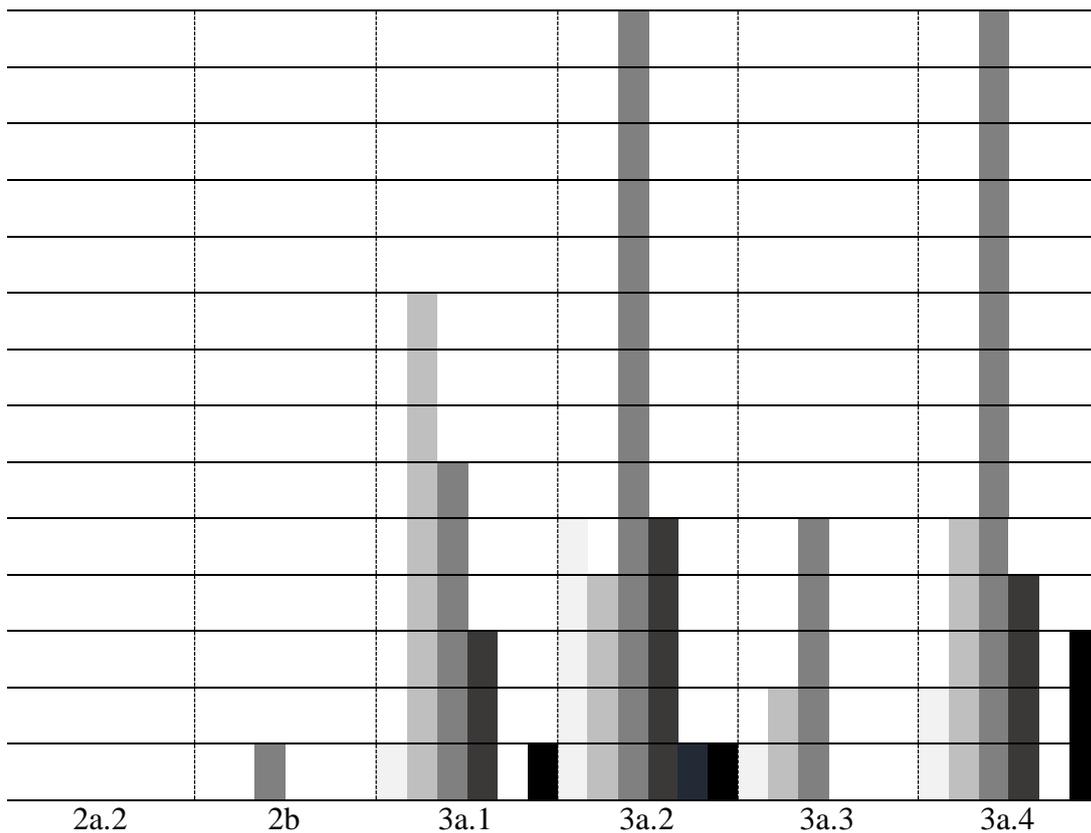
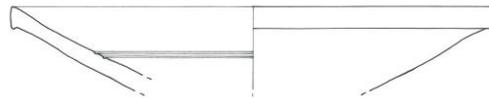


Table 4.7 - Frequency of sub-class OA-f. This chart reports on the frequency of each series in each Period . From left to right: f2, f3, f4, f5, f6, f7.

<sup>89</sup> Moreover, at the light of the data available from Aligrama, Kalako-derai and Barikot the veracity of Wheeler's claim, it' [...] is abundant from layer 27 to the bottom of the cutting soil' (Wheeler 1962: 40) become more tangible.

The *plats-à-poisson* are the most frequent table ware in trench BKG K-105 during Macrophase 3a, whilst few evidence comes from the other trenches so far excavated at Barikot (Callieri and Olivieri, forth.).

This is a table vessel of the Hellenistic Mediterranean tradition (Rotroff 1997) quite diffused in the Hellenistic East (Gardin 1985, 1990; Lyonnet 2012, 2013, Houal 2016). In particular the forms from Barikot, which find their most direct comparison with materials from Charsadda IV (Wheeler 1962: figs. 46.475, 476; 47.500, 503; 48.508) and Barama Period 3, feature close parallels with Graeco-Bactrian assemblages especially with the sites of Ai-Khanoum (Lyonnet 2013), Termez and Balkh (Houal 2016) and with Hellenistic assemblage from Kandahar (Helms 1997: fig. 92, genre 43).

They are open table vessels with everted wall the rim of which shows a high degree of variability. In fact, rim can be simple (OA-f2), with vertical lip (OA-f3), triangular (OA-f4) sometimes elongated (OA-f4.1), rolled (OA-f5), three-split (OA-f6, only one example in 3a.2) or with lip internally projecting (OA-f7). These dishes usually bear a red slip on both surfaces or only on the internal one, whereas the plates with simple rim (OA-f2) or those with simple rim and vertical lip (OA-f3), which are the most frequent since the beginning of Macrophase 3a, are often devoid of slip. The base, usually flat but also of the ring-foot type, can feature a central depression, sometimes stressed by the presence of a circular rib, or a circular incised line (single or double) on the inner bottom. OA-f3 shapes, which represents the simplest version of *plats-à-poisson*, are not attested neither in Charsadda IV or in Graeco-Bactrian assemblage. They find a better comparison in Shaikhan dheri (Dani 1965-66: fig. 15. 6-9) and in the earlier layer of Sirkap (Ghosh 1944-45: fig. 4.4-5)<sup>90</sup>. It is worth mentioning that most of the vessels associated to these two series, OA-f2 and OA-f3, frequently bear traces of soot only on rim probably indicating that they could occasionally been used as lid, also capsized.

Two incised parallel lines on the inner body of plate, or below rim are attested in Period 3a.2 which also marks the introduction of rolled rims.

Rare but present since the earlier period of Macrophase 3a is a plate with lip internally projecting (OA-f7) also attested at Ai-Khanoum since the earliest phase. Interestingly, the incised line which often appears on the external surface of these plates at Ai-Khanoum (Lyonnet 2013: figs. 105.3, 7-9, 108.2, 5), in Barikot assemblage appears at the same height but on the inner surface.

---

<sup>90</sup> See also Sverchkov 2008.

Generally, *plats-à-poisson* at Barikot are in plain red ware with no decoration and the only delight is given by the use of a red slip or rarely of a talc-based golden slip applied internally (form **256**) or on both sides (e.g. form **260**).

They can be made in two different fabrics, both very depurated: Fabric D and Fabric E (see above). The mineralogical composition of the former, the first to be attested, suggests a local production. Fabric E, which starts to appear only from Period IIIA.3, is instead unique throughout the entire occupation of Barikot and it might be imported.

LOA-f1 and OA-f1, are instead dishes with simple everted wall not compatible with *plats-à-poisson*.

Another sub-class is represented by fine dishes with wide flat or slightly convex base (Pl. 76.7), attested only by few fragments since Period IIIA2. They are always marked by a ridged or grooved circle at the center of the inner bottom.

#### Class OB, Bowls

This is the formal class most represented at Barikot showing the highest degree of variability, in terms of shape and decoration. Functional groups identified within the class of bowls are: serving vessel (food), drinking vessel and luxury vessels. A sensible formal discontinuity is documented between Macrophase 2a.2 and Macrophase 3a while the only element of continuity is represented by the persistence of the local *thālīs* (OB-a), which however underwent several formal changes during centuries.

Pottery markers of Period 2a.2 are represented by carinated drinking bowls known as Tulip bowls (OB-f1-f3), convex bowls with clubbed rim (OB-c6) and small truncated-conical bowls with flat base and upright or inflected rim (sOB-i) although the latter continues to episodically appear in larger dimension throughout the Early Historic sequence.

Macrophase 3a attests the introduction of a new formal repertoire connected both to the Hellenistic tradition - indicated by the appearance of *assiettes-à-poisson* (OB-b), hemispheric bowls with horizontal projecting (OB-d) or sharp pointed rim (OB-e2) - and to a local pottery tradition (e.g. OB-g1 and sOB-h1).

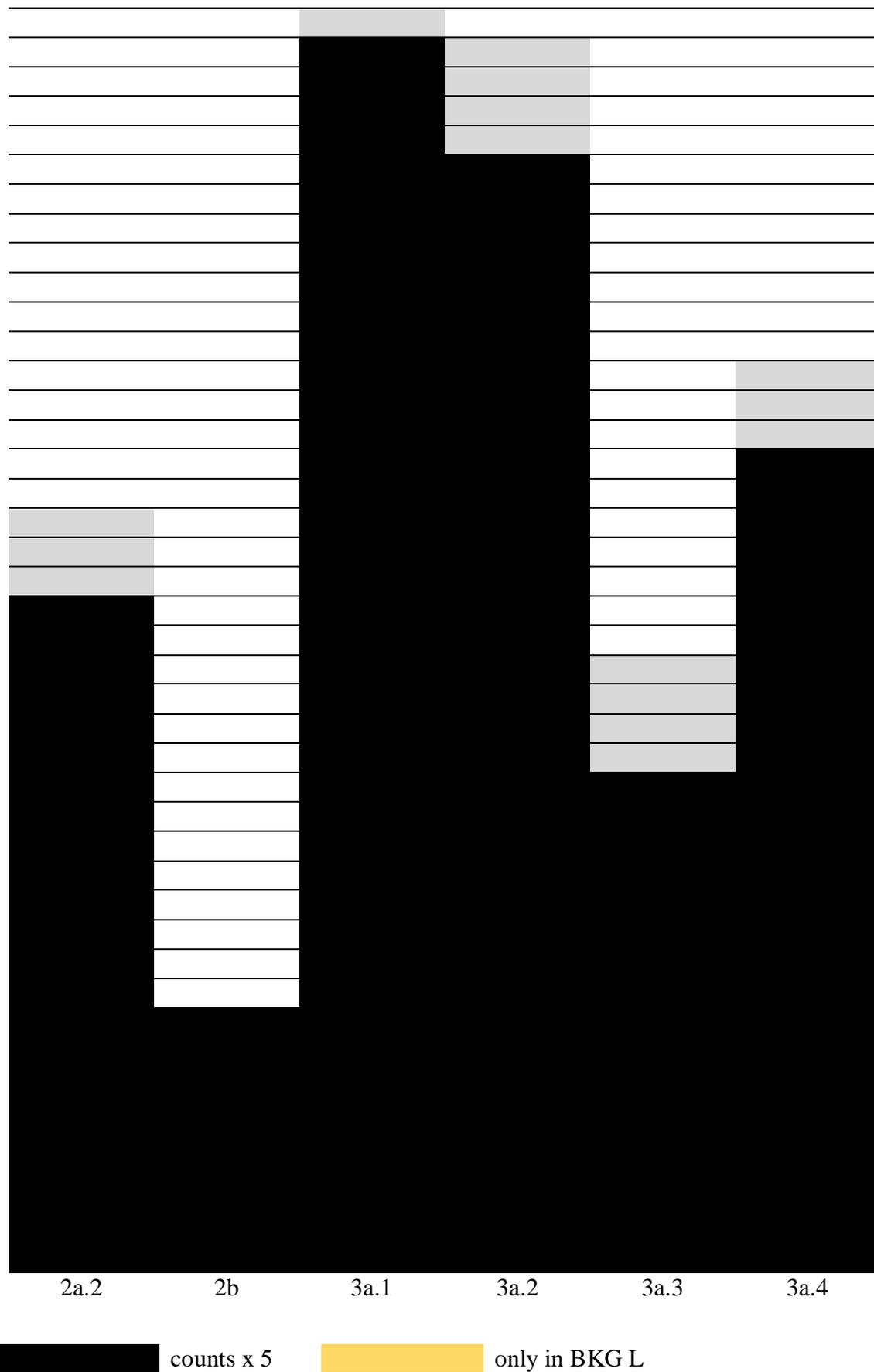


Table 4.8 - Frequency of class OB.

Sub-class OB-a: *Thālīs* (Pls 9-12, Fig. 4.10c)

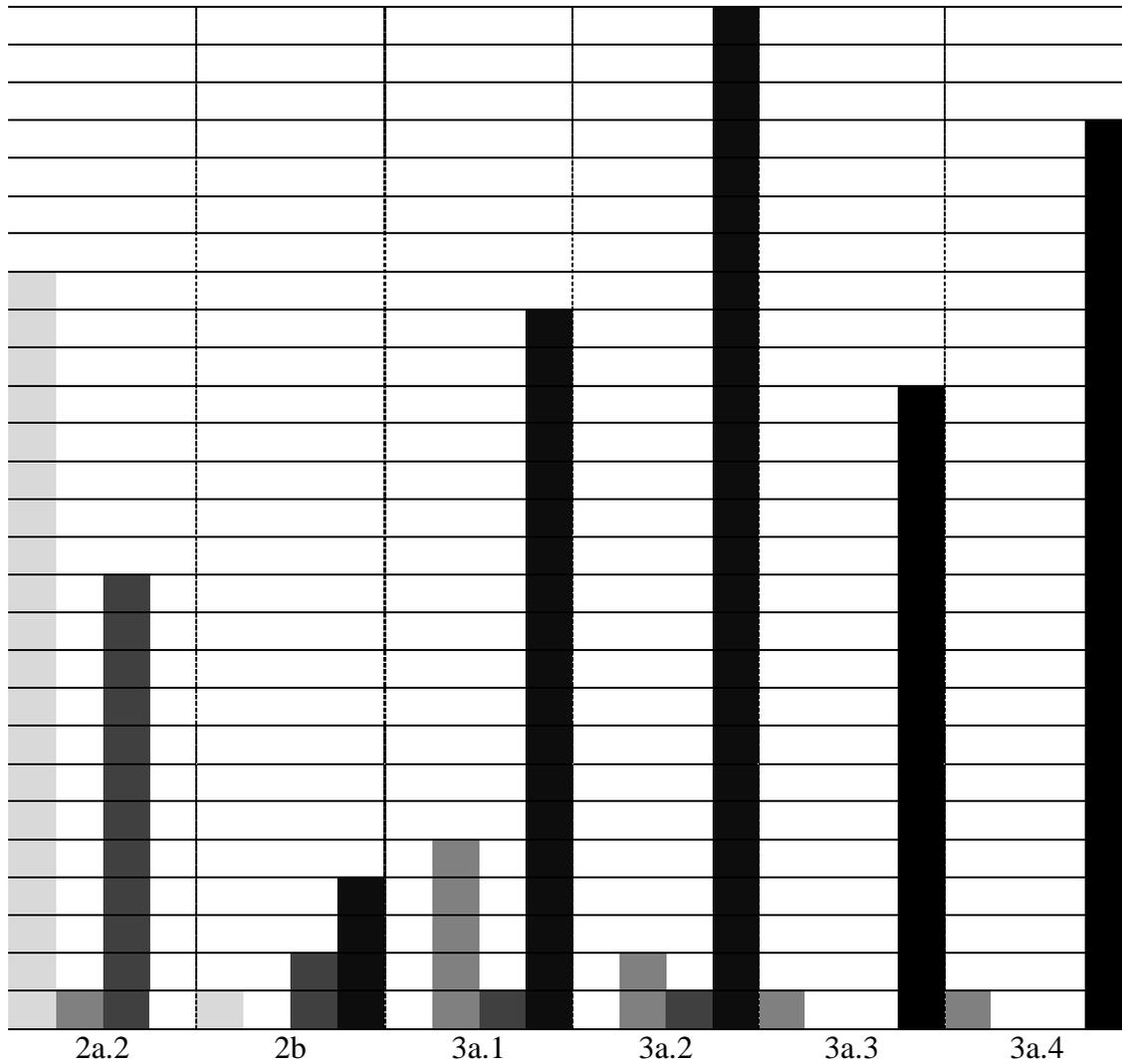
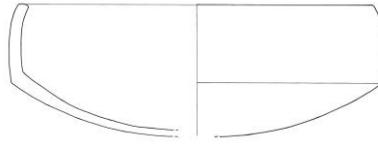


Table 4.9 - Frequency of sub-class OB-a.

This extremely diffused sub-class refers to a well defined shallow bowls in red ware with carinated or slightly carinated sides and rounded bottom, generally indicated as *thālīs*<sup>91</sup>. At BKG K-105, where it is attested through the entire sequence since Period 2a.2, a series of formal variants can be recognized<sup>92</sup>. We can distinguish five broad series, each one including variants.

<sup>91</sup> The term *thālīs* is based on ethnographic comparison. See Allchin 1959.

<sup>92</sup> This chart excludes series OB-a5 since it is represented by only one fragment.

Series OB-a1 and OB-a3 are distinctive of the earlier period. The former features vertical walls, sometimes slightly inclined inward, with a flat topped rim<sup>93</sup>. The carination is usually sharp, although it can be sometimes smoothed through ribbing (e.g. form **116**). Close parallel can be drawn with specimens from Ch. I layers (25) - (24) (Wheeler 1962: fig. 23.144, 161).

Series OB-a3 is the second most represented *thālī* shape in the Achaemenid assemblage. Featuring vertical sides and sharp carination, this series is marked by inflected, often strongly inflected, rim. A similar but shallower version of OB-a3 appears at Charsadda I in layer (27), (25) – (24) (*ibid.*: figs 20.106-109, 23.145, 157-160), whilst no comparison are known from the Early Historic Gangetic sites as well as from site of the Iranian Plateau.

It is likely that this series reflects a local variation of the original form.

Starting from Macrophase 3a the profile of *thālīs* becomes slightly carinated and the rims incurving (OB-a4). This type of *thālī*, which has some antecedents in Period 2b, occurs with the same frequency from Period 3a.1 until Period 3a.4.

Series OB-a5, represented by only one fragment found in Period 3a.4, it is marked by strongly convex sides and pointed rim. A similar shape is attested at Barama Period 4 (Pl. X) and at Shaikhan Dheri in the Greek Period (Dani 1965-66: fig. 13.1).

*Thālī* is one of the key types (type IV) identified by Wheeler<sup>94</sup> at Charsadda where it is told to be present since the earlier layers, although illustrated only from Ch. I layer (38). However, the latest excavation at Bala Hisar seems to confirm its earlier introduction at Charsadda (Coningham et al. 2007: fig. 8.11). In Swat the specimens known from Swat Period VIII layers at Aligrama (Stacul and Tusa 1977: figs 14.a-e; 19.c-g) and Kalakoderai (Stacul and Tusa 1995: fig. 24.c-e), which are more similar to OB-a1 and OB-a3, are considered a gradual evolution of forms attested in red and gray ware since Swat Period VII (Stacul 2000: 749).

Comparison of this broad sub-class comes from almost all the Early Historic sites of northern India in Gray and Red ware since ‘Painted Gray Ware tradition’ (for the gray ware see: Kauśāmbī, Sharma 1960: fig. 13.III, period II; Bhir Mound, Sharif 1969: figs. 11.3-9, 14.1a-b, period II; 13.3-6, period III; for the red ware see: Hastināpura, Lal 1954-

---

<sup>93</sup> A very similar *thālī* shape with pointed rim (OB-a2), mainly represented in Period 2a.2 of BKG L, continues to appear in Hellenistic period, mostly in Period 3a.1.

<sup>94</sup> The type labelled by Wheeler as ‘dishes with incurved sides’ was then renamed by Dittman as ‘carinated bowl in red/reddish ware (type 9, Dittman 1984) and by Vogelsang as open bowl of ‘fairly rough brown fabric’ (Vogelsang 1988).

55: fig. 12, period II, fig. 15, period III; Kauśāmbī, Sharma 1960: fig. 9.22, and fig. 13.III, period II; Sonkh, Härtel 1993).

Indeed, this form is generally considered a long-lasting class of Indian origin attested since the so-called Painted Gray Ware tradition which penetrates the NW in the second quarter-mid 1<sup>st</sup> millennium BC (Vogelsang 1992: 246). Therefore, any attempt to chronological correlation based on this sub-class must take into consideration the relevant formal changes which occurred in space and time.

Sub-class OB-b: *Assiettes-à-poisson* (Pls 13-14, Fig. 4.10f)

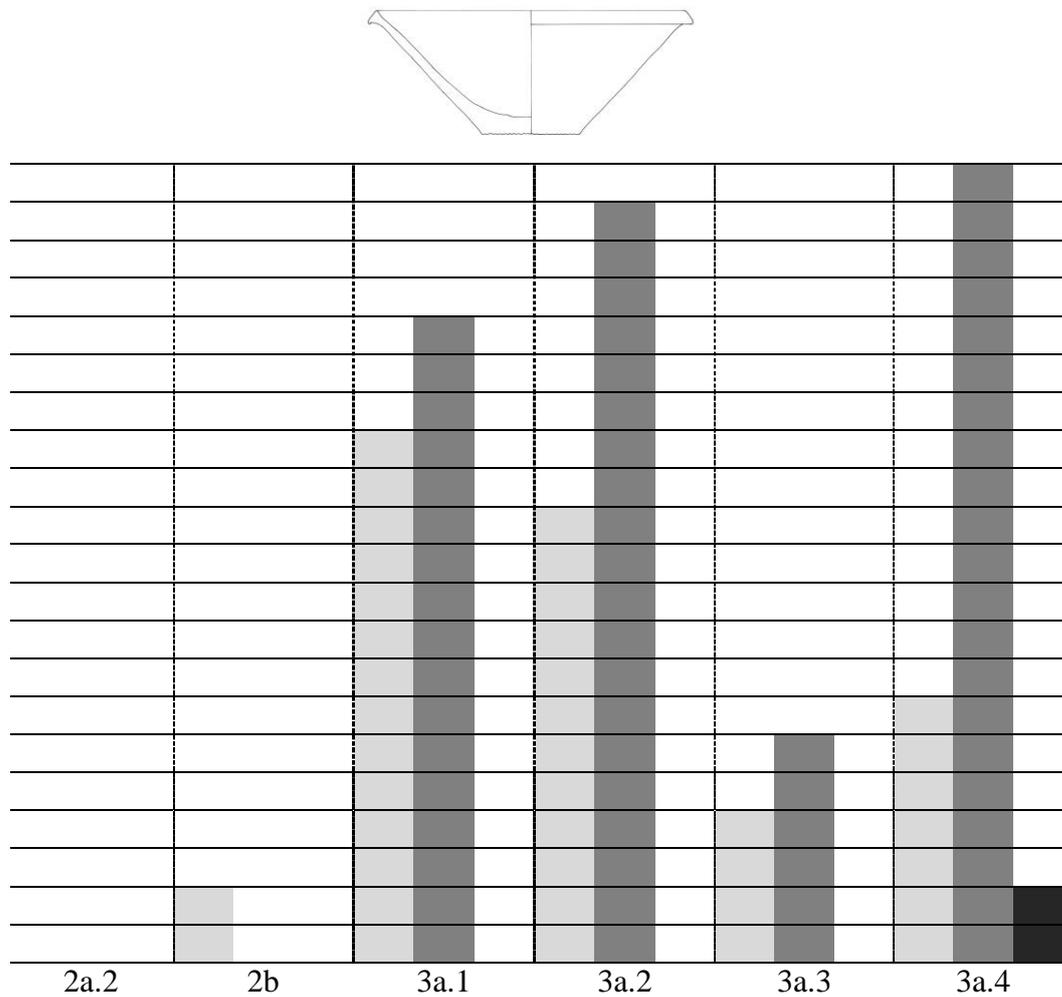


Table 4.10 - Frequency of sub-class OB-b.

*Assiettes-à-poisson* are very close in terms of morphology to the *plats-à-poisson* from Macrophase 3a mentioned above, of which it represents its deeper version. It is usually difficult, except when the profile is well preserved, to distinguish between *plats* and *assiettes*. The main difference lays in the major inclination of the wall. Rim can be simple with vertical lip (OB-b1), triangular (OB-b2) sometimes elongated (OA-b2.1) or rolled (OB-b3). The latter is attested only in the last phase of the Indo-Greek period. The most

frequent series of this sub-class is that featuring triangular rim with straight or slightly convex wall. The bases, usually thick flat with central depression and spiral patten below, probably reflects the same variations attested in the *plats-à-poisson*.

The most direct *comparanda* come from the Graeco-Bactrian assemblages (see above, *plats-à-poisson*).

Sub-class OB-c1: fine bowls with convex wall and pointed inflected rim (Pl. 15)

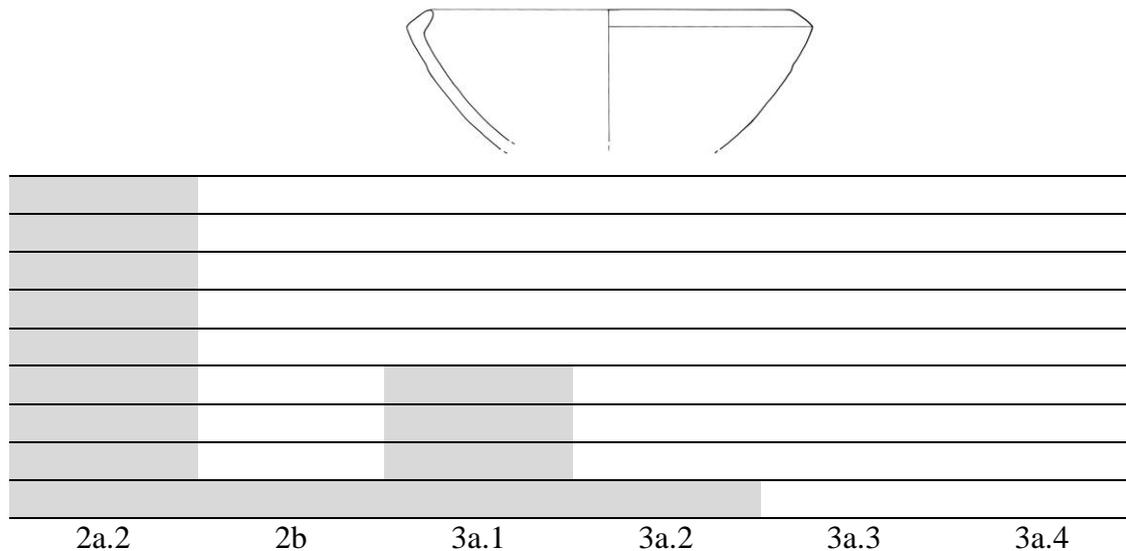


Table 4.11 – Frequency of sub-class OB-c1.

This is a fine bowl with convex wall, probably on flat base, featuring a characteristic pointed, often sharply inflected rim. Mostly frequent in Period IIA2 with a thick red slip this vessel forms continue to appear until Period IIIA2 as a fine thin walled bowl of slightly smaller size. One specimen in golden slip appears in Period 3a.1.

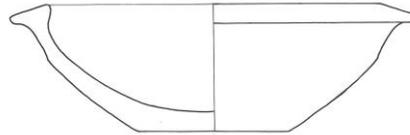
In Gandhara area similar bowls featuring inflected rim come from Charsadda I layer (22) (Wheeler 1962: fig. 26.202-203), Charsadda V (*ibid.*: fig. 50.545) and Bhir mound Bahadar Khan's Period IV (Bahadar Khan et al. 2002: fig. 21.22).

In the Indo-Gangetic tradition fine bowls in brick-red (or gray) fine fabric with convex wall and inflected rim are quite diffused in the Mauryan period at Sonkh (e.g. Härtel 1993: fig. II.46). West of Gandhara, similar vessel shapes are attested only from Hellenistic period at Kandahar (McNicoll and Ball 1996: 141. 11) as well as Ai Khanoum (Cattenat and Gardin 1977: fig. 4.g; Lyonnet 2013: fig. 119) and Termez (Houal 2016: fig. 2.2)<sup>95</sup>. This shape is indeed very close to the 'echinus bowls' of the Hellenistic period.

<sup>95</sup> See also Hermannn 1977: 55.

Bowls found in BKG K-105 Macrophase 2a.2 are different in dimension, thickness of the wall and surface treatment from those of Hellenistic time. It is possible that the similar shape does not reflect a common origin.

Sub-class OB-c2: slightly carinated fine bowls with projecting rim and flat contiguous base (Pl. 16, Fig. 4.10d)



2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

Table 4.12 - Frequency of sub-class OB-c2.

These are bowls with convex slightly carinated profile and flat contiguous base which do not have any comparison in Early Historic sites of Gandhara and NW India and no antecedents can be so far recognised in these regions.

This shape, attested only by one fragment in BKG K-105 Period IIA2, is far better represented in BKG L. The internal surface of some of the potsherds from BKG L is treated with a golden/whitish wash, poorly preserved, applied with brush. These bowls, absent at Charsadda and in the sites of NW India, appear at Barama Period IV (Fig. x) and probably at Bhir Mound in Sharif's Period III and IV (Sharif 1969: figs 17.13, 21.8) and in Bahadar Khan's Periods II-V (Bahadar Khan et al. 2002: figs. 9.10, 15.17, 20, 16.8, 26.6, 36.10).

A possible connection is offered by some bowls with high carination and flat projecting rim from the Iranian Plateau. In particular, Dahane-ye Gholaman in Sistan (Scerrato 1966: fig.52, 58; Genito 1990: fig. 1e) and Tepe Yahya in Kerman (Magee 2004: fig. 5.40). At Kandahar shapes correlated to this form start to appear only in Epoch II (Helms 1997: figs 96-97, genres 49, 52) sometimes with a 'spiral burnished' decoration which has no parallel at Barikot.

Sub-class OB-c3, OB-c4, OB-c5: fine bowls with projecting rim and flat contiguous base (Pl. 17)

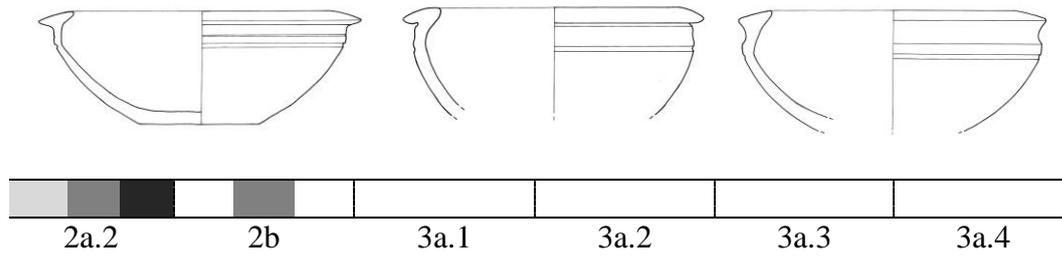


Table 4.13 - Frequency of sub-classes OB-c3, OB-c4, OB-c5.

Fine Bowls OB-c3–5 are very rare and badly preserved at BKG K-105, while they are far better preserved in BKG L. Although the data collected are statistically not relevant, it is worth to stress that their chronological distribution is confined to Periods 2a.2 and 2b. No comparable material from neighbouring areas is known to me.

Sub-class OB-c6: fine bowls with clubbed rim (Pl. 18)

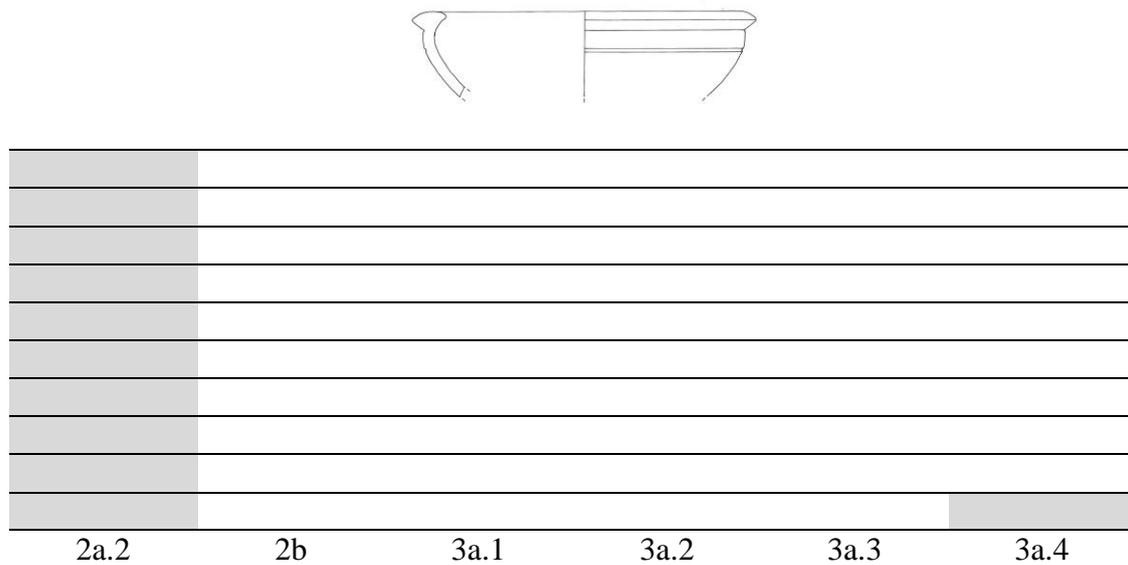


Table 4.14 - Frequency of sub-class OB-c6.

Shapes related to sub-class OB-c6 are medium/small size fine bowls in red ware with convex wall and clubbed incurving, sometimes inflected, rim. They are usually treated with red slip on both surfaces and rim can sometimes be decorated with painted strokes. Bowls OB-c6, exclusive of BKG K-105, are chronologically confined to Period 2a.2 assemblage of which they are a distinctive pottery marker. The only fragment found in

Period 3a.4 is probably in secondary deposition since coming from the first filling of the Indo-Greek drain.

Direct comparisons for form **77** come from Bhir mound Bahadar Khan's Periods III (Bahadar Khan et al. 2002: 17.14) and IV (*ibid.*: fig. 27.7). Shallower versions (OB-c6.2, OB-c6.3) are akin to bowls from Charsadda V (Wheeler 1962: fig. 50.543, 555) and from Charsadda I layer (26) (*ibid.*: fig. 22.141-142).

Absent or rare in Indian sites, this sub-class is attested at Kandahar in the Achaemenid period (McNicoll and Ball 1996: fig. 271.1).

Sub-classes c7-c8: bowls with convex body and T-shaped rim (Pl. 19)

This bowls feature a convex body and a T-shaped rim. A slightly carinated version covered by a dark red slip appear only in Period 2a.2. In general, bowls OB-c7 and OB-c8 seem to be characteristic of the late Period 2b and earlier Periods of Macrophase 3a.

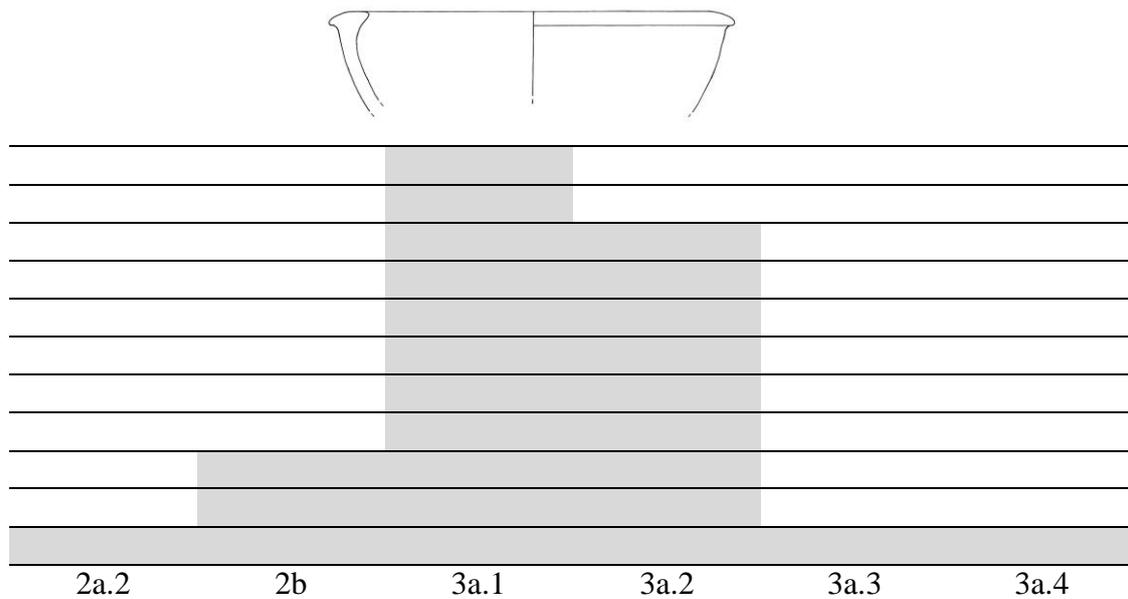


Table 4.15 - Frequency of sub-classes OB-c7, OB-c8.



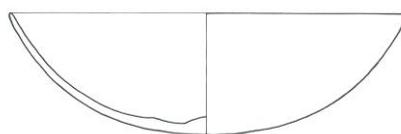
Gandharan sites and reflects a practice attested in earlier time on carinated dish with S-shaped rim and clubbed bowls.

Bowls OB-d3 and OB-d4 are simple rounded bowls with a rim only slightly projecting having the same distribution trend recorded for OB-d1 and OB-d2.

Sub-class OB-e: hemispheric drinking bowls (Pl. 23.1, 3-6)

OB-e is a rare sub-class which includes two series: OB-e1, OB-e2.

Series OB-e1 is a rare luxury hemispheric bowl attested by only a single fragment in the selected collection of BKG L (9).



However in BKG K-105 Period 2a.2 a fragments preserving only the rim and part of the thin body could refer to this form.

The main feature of this drinking cup is the thinness of its wall and the hemispheric plain body. In particular the specimen from BKG L features a decorative omphalos on the inner bottom which has no a functional role since to the inner knob does not correspond any concave base. This was probably an imitation of a metal prototype. The analogy with metalware in this case was emphasized by the application on the interior surface of a talc-based golden wash (or wet brushing) which provided that brilliant effect proper of the metal. A possible comparison come from Charsadda layer (24) (Wheeler 1962: fig. 23.146), although the potsherd does not preserve the bottom. The thinness of the wall and the pointed rim are unmistakable.

Series OB-e2 is a fine hemispheric or sub-hemispheric bowl with sharp pointed (sometimes sloping-in) rim and round bottom which occurs in Macrophase 3a, mainly in the Indo-Greek periods IIIA2 and IIIA4. Its surface can be polished or covered by a red slip, very often with one or two incised lines below rim. No similar vessel shapes are found in the other Gandharan sites. The most direct comparison is represented by a class of bowls appearing at Ai Khanoum since the earlier phase of the House featuring a 'lèvre effilée ou soulignée par un fin bourrelet à l'intérieur' (Lyonnet 2013: fig. 113. 8-14; Lyonnet 2012: fig. 8.2-3). Series OB-e4, with a flat rim slightly T-shaped rim, has the

same distribution pattern of OB-e2. This also finds comparison in the Hellenistic assemblages (e.g. Kurganzol, Sverchcov 2008: fig. 19.16)

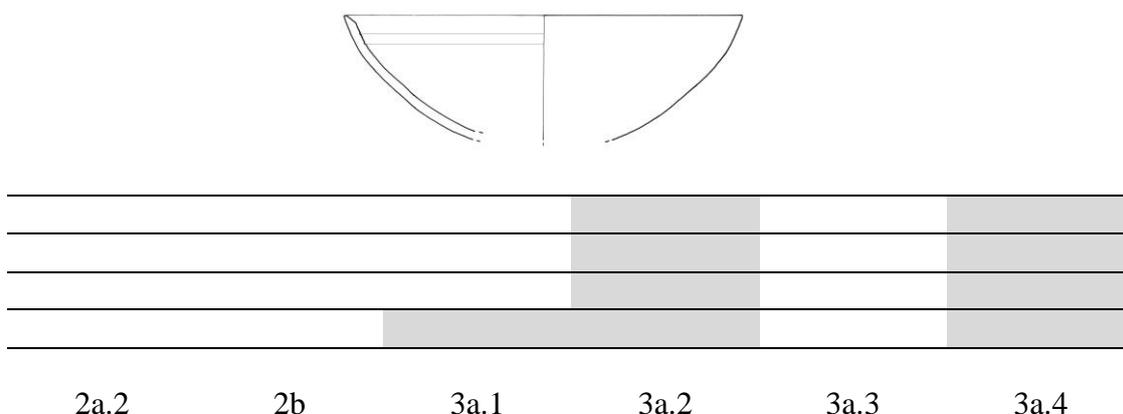


Table 4.17 - Frequency of sub-class OB-e2.

Sub-class OB-e3: fine elongated drinking bowl (Pl. 23.2)

This fine bowl is attested by only one fragment (form **111**) in the selected collection of BKG L (10p). This has a simple and an elongated sub-vertical body with slightly open side. It is difficult to draw any consideration on the basis of this unique fragment. At the moment possible comparisons comes from the Hellenistic period (Dani 1965-66: fig. 17.23).

Sub-class OB-e5: rounded bowl with thin wall (Pl. 23.7, Fig. 4.14b) ‘Lotus bowl’

This sub class is represented by only two fragments coming from Period 3a.2. However, the extreme compatibility, in terms of fabric, surface treatment and thinness of the wall, led us to considered this, although with a certain degree of prudence, as the upper part of a hemispheric bowl with stamped lotus of the same type of that found in layer (2131), 3a.2 (Pl. 85.1). If we look to the hemispheric ‘Lotus bowls’ from Charsadda, the similarity in thinness and rendering of rim is striking (e.g. Wheeler 1962: fig. 26.198, 27.213, 28.227). In particular the specimen from Ch. IV (*ibid.*: fig. 46.478) bears a decoration which is identical to that appearing in layer (2131). If the center of production of this particular type of ‘lotus bowls’ was the same is hard to say. But for sure potters who produced those used the same stamp.

Sub-class OB-e6: fine open bowls with round bottom (Pl. 24, Fig. 4.10e)

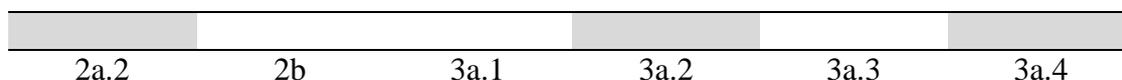
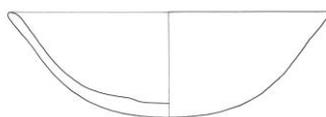


Table 4.18 - Frequency of sub-class OB-e6.

This is a fine round bottomed bowl which is formally very close to OA-e dishes. The complete example illustrated in this chart comes from BKG L and it is attested with the same fabric in BKG K-105 by only one fragment. The two fragments attested in Macrophase 3a differ from the earlier specimen in fabric (fine/medium) and in the more rounded profile. It is worth noting that this vessel form is attested also in a copper bowl from BKG K-105 (1912) 3a.2 (**BKG3568**). The earlier specimens find a direct comparison at Bhir mound in Sharif's Period III (Sharif 1969: fig. 19.10).

Sub-class OB-f1-3: carinated drinking bowls, Tulip bowls (Pls 25-27, Figs 4.10 g-h, 4.11d)

Tulip bowl is a carinated drinking bowl distinctive of the Achaemenid assemblage at Barikot in BKG K-105 and BKG L. Three different series can be distinguished on the basis of rim type and height-diameter ratio. All the potsherds are plain and devoid of decoration. Series OB-f1 has a hemispheric body with an everted or slightly flared long rim rising from a carination, usually at half way up, sometimes stessed by a sharp ledge or by an incised line or rib. The shape usually maintains thinness of the wall for all the profile. This is the most diffused type at BKG K-105 2a.2 with very few fragments found until period 3a.1. For what we can understand from 1962 work's illustration, this seems also to be the best represented type of Tulip bowl in Charsadda V, and in Charsadda I layers (28)-(25) and also the first type appearing at Bhir mound in Sharif Period III.

On the other side, in Bahadar khan Period IV, when Tulip bowl makes its first appearance, series OB-f1 (Bhadur Khan et al. 2002: fig. 21.23) is coeval to series OB-f3 (*ibid.*: fig. 25.19). The variant OB-f1.5, only vaguely carinated, attested in a layer of BKG L<sup>96</sup>

<sup>96</sup> Few Tulip bowls of this type were recovered in Indo-Greek periods (3a.3-4) of trenches excavated between 1984-1992 (Callieri and Olivieri, forth.).



Sub-class OB-f4-f5: fine bowls slightly carinated (Pl. 28)

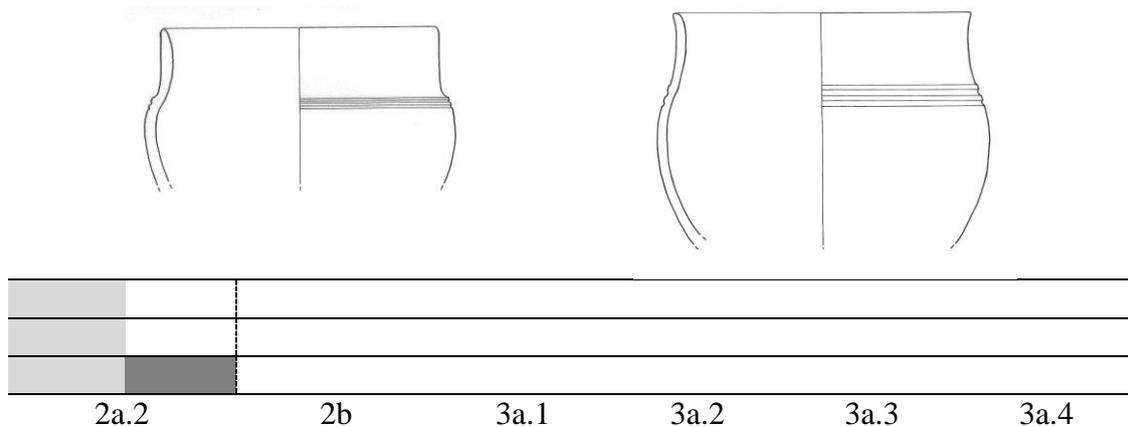


Table 4.20 – Frequency of sub-classes OB-f4, OB-f5.

These are fine bowls with almost upright rim exclusive of Period 2a.2 assemblage. They are made of the same fabric (Fabric O) used for Tulip bowls and they are wheel thrown, sometimes devoid of slip. Direct comparisons seem to be confined to Gandharan assemblages.

Bowls OB-f4 are quite close, in terms of shape, to Tulip bowls whilst OB-f5 with a more sinuous and deep profile and a carination only vaguely defined seems to be a variation of OB-f4. Both are few attested in trench BKG K-105 and most of the examples recorded comes from trench BKG L. There, bowls OB-f5 can also show a straight and slightly inverted rim (OB-f5.1) which finds its closest comparison in a form recorded in Charsadda V (Wheeler 1962: fig.50.545). Shapes included in series OB-f4 are attested at Bhir mound in Sharif's Period III (Sharif 1969: fig. 17.16 described as "cordon bowl of reddish buff ware akin to the Tulip Bowl").

Bowls OB-g: bowls with vertical wall and flat contiguous base (Pls 29-30)

Sub-class OB-g can be distinguished in two series covering a different chronological span. OB-g1 is a small cup (10 cm < d > 15 cm) with vertical wall and flat contiguous base. Rims are usually sharp pointed although a variant with rounded type is also well attested. The bases can show a spiral pattern indicating that the string-cut was done when the wheel was revolving rapidly<sup>97</sup> (Pl. 30.1) or simple streakings produced by turning (Pl. 30.2).

<sup>97</sup> This is attested since the earliest specimens.

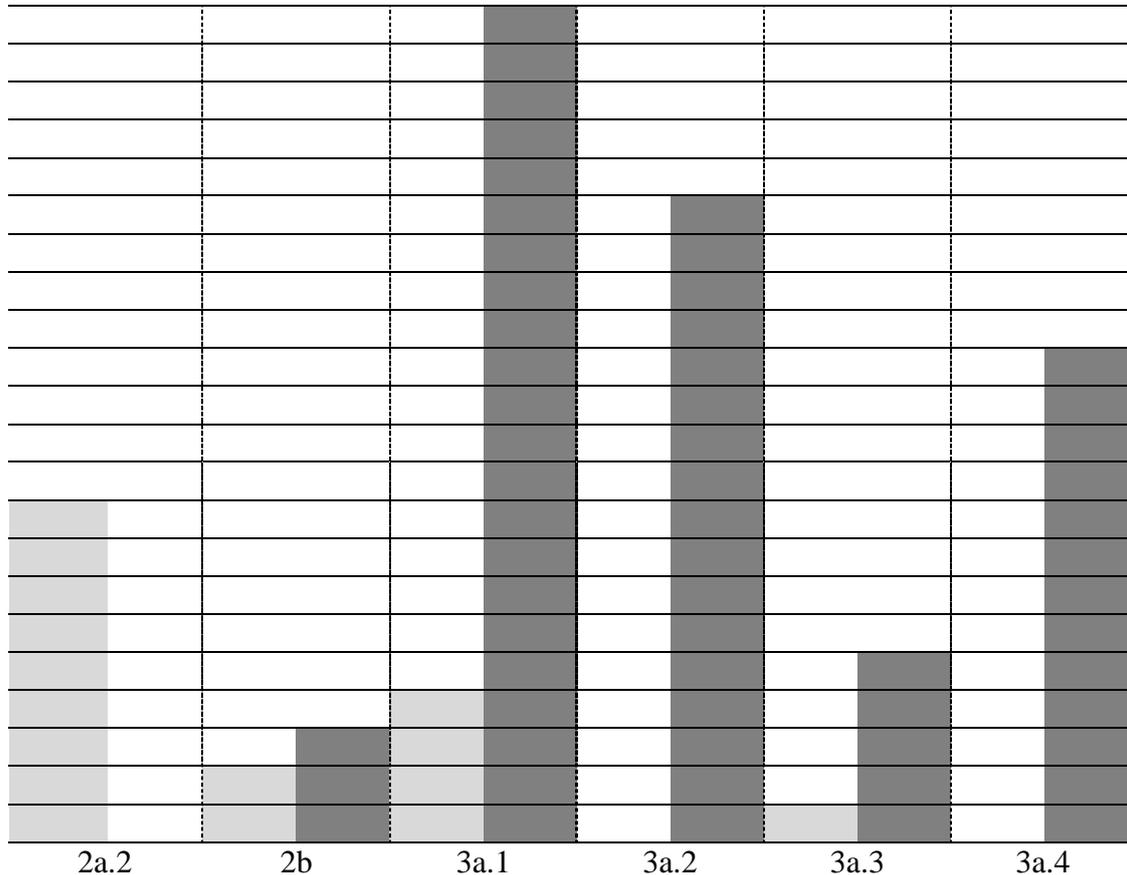
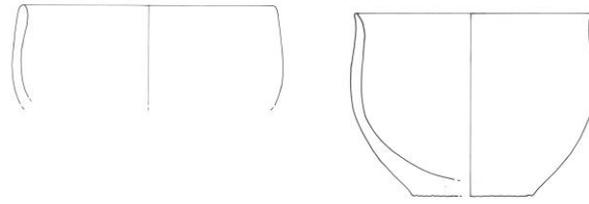


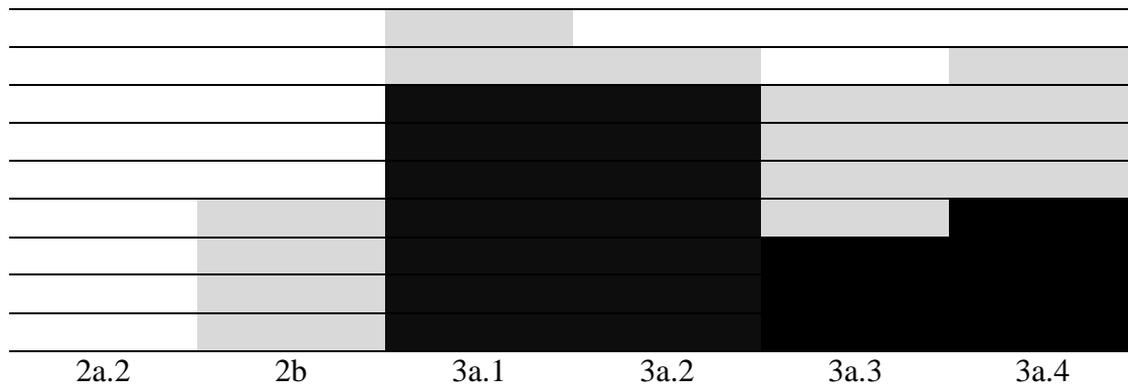
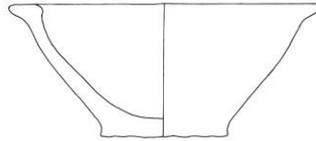
Table 4.21 – Frequency of sub-class OB-g.

This is the most frequent drinking cup of Macrophase 3a, however few fragments were also found in the latest layer of Period 2b. On this type of cup the Greek inscription (Pl. 30.3) reporting EYMH <...>, most probably the first part of a Greek name in Εὐμῆ- (Tribulato and Olivieri 2017), was incised. This is not an isolated case since other two onomastic inscriptions (Rougemont 2012, see also Harmatta 1994, Canali De Rossi 2004) were found on similar cups, during previous excavations (Callieri 1984, 2007). Smaller version of OB-g1 is represented by sub-class sOB-g3 appearing, always with a rounded rim, since Period 3a.2.

Series OB-g2 features a slightly thickened rounded rim. The profiles so far collected suggest a shallower body. These small cups, well represented in Period IIA2 assemblage,

were slowly overcome by bowls OB-g1 cup, deeper and with ointed rim, in the following periods.

Sub-class sOB-h1: small bowls on thick flat base with everted/convex wall and projecting rim (Pls 31-32)



counts x 5

Table 4.22 - Frequency of sub-class OB-h1.

This sub-class features a convex wall, horizontal projecting rim and a flat base with spiral pattern. These small bowls, usually unslipped and in medium fabric, are mostly made by coils fashioned on potter's wheel. Their fortune is linked to Macrophase 3a although they start to be attested since Period 2b. In Gandhara region, the only direct comparison comes from the Swat site of Barama in Period 4 and 3, although a broad parallel with the 'tiny bowls' from Shaikhan Dheri (Dani 1965-66: fig. 17.1-10) is possible. This is also absent in the Hellenistic assemblages further west as well as mid-1<sup>st</sup> millennium assemblages in north-west India.

On the basis of these evidence a local origin of this type of bowl is reasonable. They could be a local alternative to the truncated-conical cups of indian origin (see below) which sensibly decrease in Macrophase 3a.

Sub-class sOB-i: truncated-conical cups (Pl. 33, Fig. 4.4b)

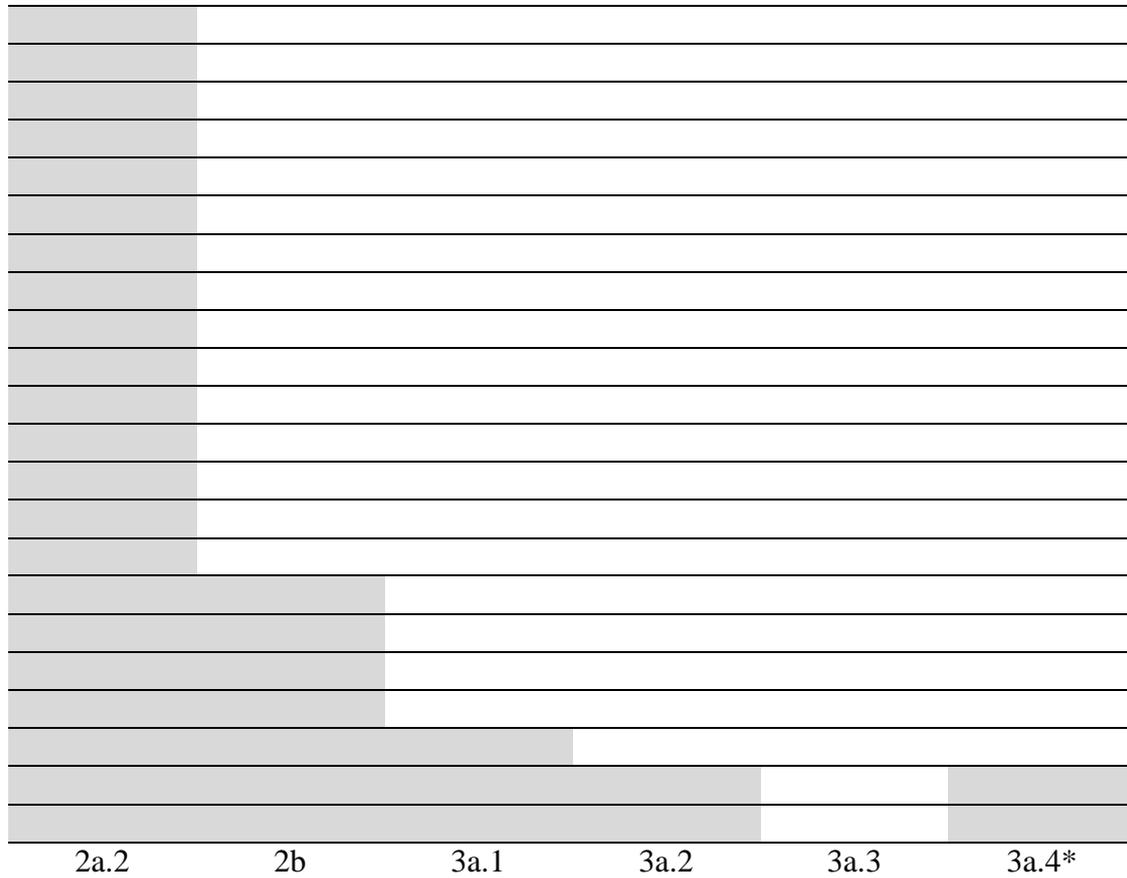
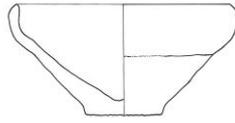


Table 4.23 - Frequency of sub-class sOB-i. \*With fine fabric and large diameter ( $15 < d < 18$ ).

sOB-i is a truncated-conical cup devoid of slip with flat thick base and upright or slightly inflected rim. This is, along with the pear-shaped jar, the only form made in fabric M. The cup, made by coiling and then thrown on wheel, shows a series of variations (see Pl. 33) in terms of profile and rim which do not seem to be connected to any functional variation.

Very distinctive of the Achaemenid assemblage, this form continues to be used in Period 2b. In Macrophase 3a, when they are very infrequent, a finer and slightly larger version is attested.

As regards the Gandhara region, this form starts to appear at Charsadda (Ch. I) in layer (26) (Wheeler 1962: fig. 22.134) and it is described by Wheeler as ‘a very long-lived type’ (*ibid.*: 60; see also figs 24.175, 25.177, 26.200-201, etc.). At Taxila, first specimens

of this form appear in Sharif's Period II (Sharif 1969: fig. 12.7) and continue through all the sequence (*ibid.*: Period III, fig. 19.7-7a; Period IV, figs 21.4, 22.5) also with larger diameter (*ibid.*: fig. 21.5). In Bahadar Khan's sequence truncated-conical cups are attested from Period II (Bahdar Khan 2002: fig. 1212.13) to Period V (e.g. *ibid.*: Period III, fig. 17.11, 13; Period IV, fig. 20.15; Period V, fig. 34.17).

Truncated-conical cups, almost absent in the Iranian Plateau are instead diffused at the Indian sites from the mid-1<sup>st</sup> millennium BCE as Kauśāmbī (e.g. Period IV, fig. 9.3-6), Atranjīkherā (e.g. Period IV, Gaur 1983: fig. 79.49), Sonkh (e.g. Period II, Härtel: fig. II.74), Hastināpura (e.g. Lal 1954-55: fig. 15.1, type I). An Indian origin of this type of bowl can be asserted.

Sub-class LOB-h, OB-h: standard bowls with convex wall (Pls 34-36)

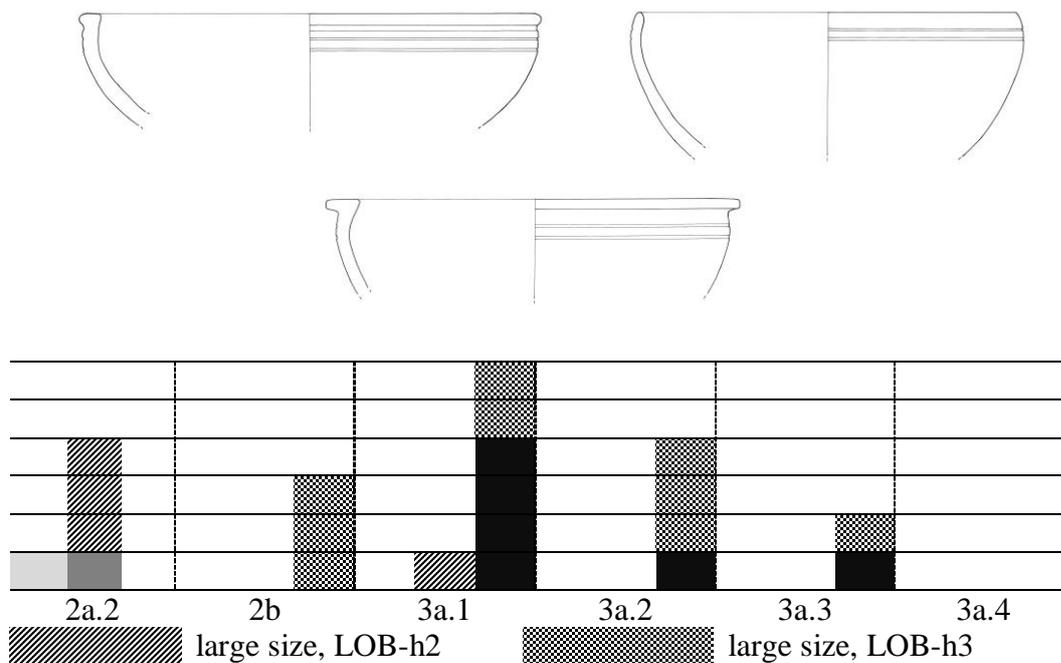


Table 4.24 - Frequency of sub-classes LOB-h, OB-h.

Standard bowls with convex wall can be distinguished in two main groups on the basis of the dimension, large (LOB-h) or medium (OB-h). Usually there is a formal correspondence between the two groups. However, this is not the rule.

Out of the three series so far identified, two (h1, h2) seems to be exclusive of the Achaemenid assemblage: medium size bowls with convex wall and simple rim (h2) and convex walled bowls with flat rim and protruding lip (h1). The latter appears in both large

and medium size, however only one example in medium size was recovered in BKG K-105 whilst the rest of the fragments comes from BKG L (10p). Both types are covered by a thick red slip, and they are decorated by parallel grooves below rim. Series h3, which start to appear in both large and medium size at the beginning of Macrophase 3a, features a flat horizontal projecting rim with parallel grooves below it. Formal connection with neighbouring centers is not so obvious. However, it is worth noting that form **207** finds a good comparison in Charsadda I layer (28) (Wheeler 1962: fig. 19.93).

Sub-class LOB-i, OB-i: standard bowls with rounded wall (Pls 37-40)

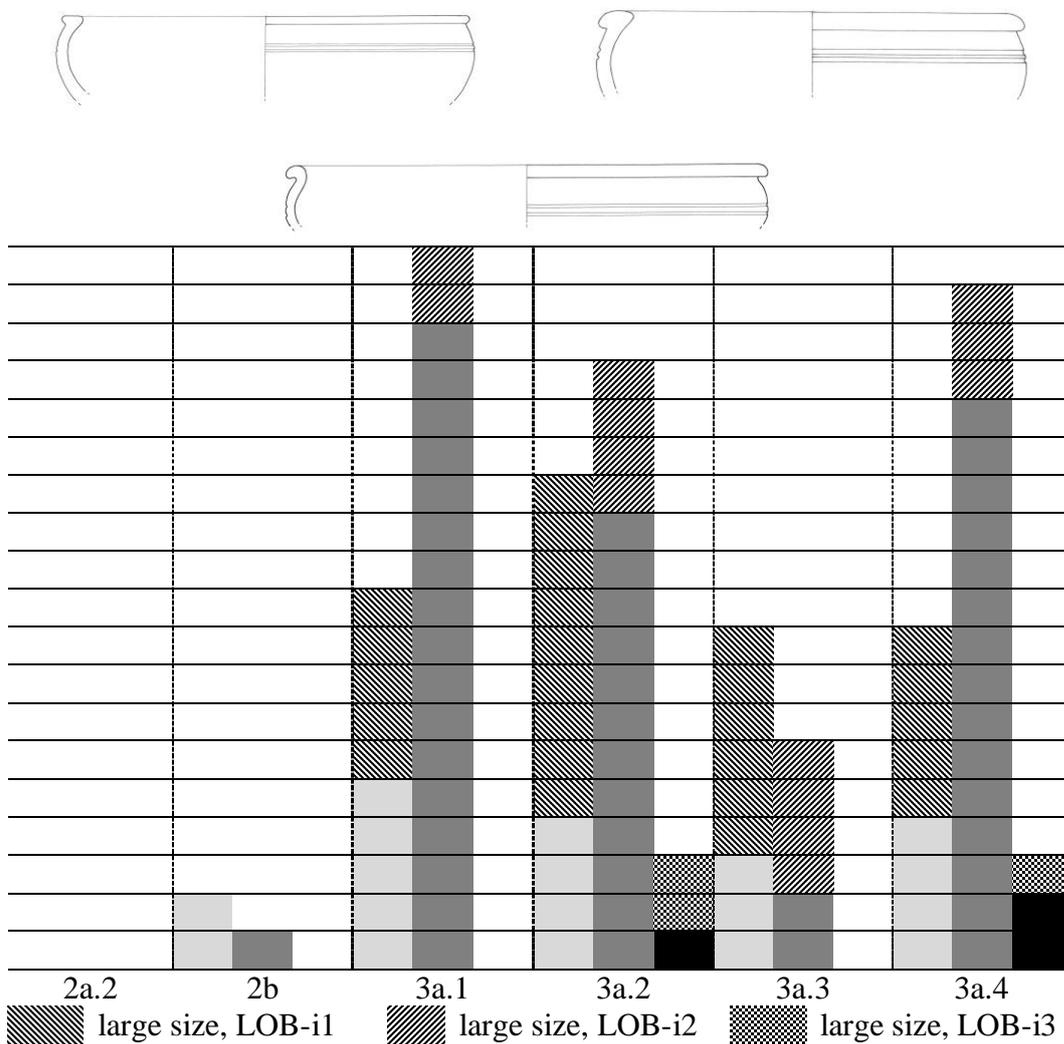


Table 4.25 - Frequency of sub-classes LOB-i, OB-i.

Standard bowls LOB-i and OB-i features a high degree of variability, mainly in terms of rim, within a general shape which is characterized by low rounded wall. Three main series have been distinguished: i1, with horizontal projecting rim; i2, with externally thickened rim; i3, with flared rim and thin wall.

All of these are attested in BKG K-105 in both medium and large size. They can be plain or decorated by parallel grooves or wavy lines. The fine thin walled bowls with flared rim (series i3) are rare and restricted to Periods 3a.2 and 3a.4. More frequent are bowls with projecting and externally thickened rim (series i1, i2).

In general standard bowls or large bowls/basin, in particular OB-h1, OB-i1-2 and OBB-a1.1, appear at Charsadda in layers (28) – (21) mainly with wavy line decoration.

Bowls LOB-1, OB-1: bowls with deep rounded/ovoidal body (Pl. 41)

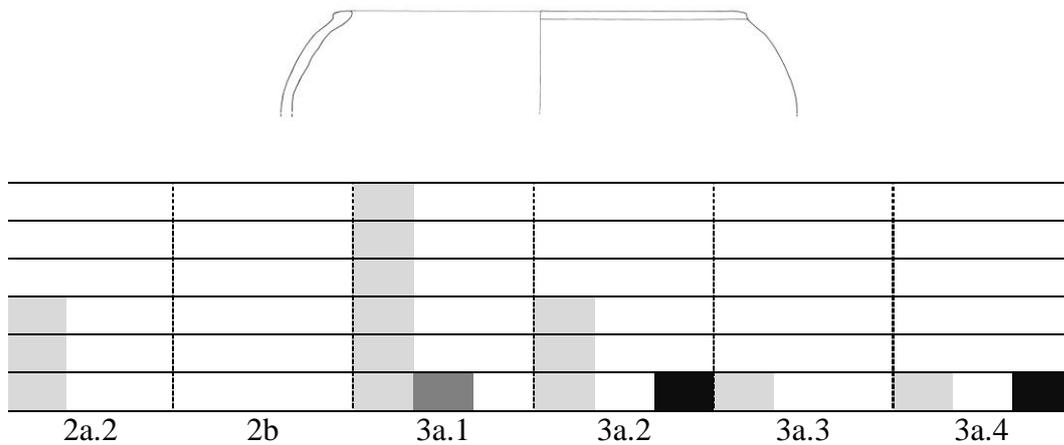


Table 4.26 - Frequency of sub-class LOB-1, OB-1.

These large bowls with deep rounded body are quite rare at Barikot and better represented in the earlier Periods. In particular, series LOB-11 with rounded body and flattish rim is the only type attested throughout the entire sequence.

In assemblage 2a.2 these bowls are characterized by a thick red slip sometimes with a ridge below the rim (Pl. 41.2). From Period 3a.1 onward these deep bowls start to be decorated with incised decoration consisting in parallel and wavy lines (Pl. 41.3). Almost episodic is the appearance of potsherds belonging to the other two series: bowls with thick wall and thickened rim (LOB-12) and ovoid bowls with flat inclined rim (OB-13).

Class OBB, Basins (Pls 42-46)

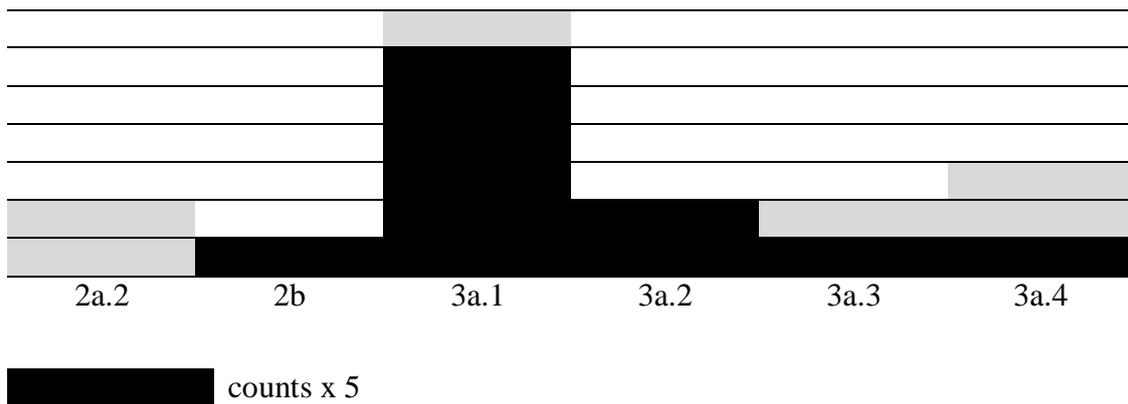


Table 4.27 - Frequency of class OBB.

Four sub-classes of basins have been distinguished at BKG K-105. Basins with rounded wall (OBB-a, Pls 42-44) attested in several variants, basins with convex wall (OBB-b, Pl. 45), with fairly thick wall (OBB-c, Pls 43.5, 45.1) and basins with deep body and everted wall (OBB-d, Pl. 46). Half of the total amount of potsherds comes Period 3a.1.

Basins with rounded wall and flat projecting rim (OBB-a1), always decorated by a wavy line, are very similar to standard bowls OB-i1. However their diameter is approximately 40 cm. They are attested in BKG K-105 by only three fragment found in Macrophase 3a. The specimen from BKG L Period 2a.2 (Pl. 42.1) is provided with horizontal handles. As already indicated similar bowls/basins with wavy line decoration appear at Charsadda mainly in layers (28) – (21).

Basins with strongly projecting rim (OBB-a2) in medium or coarse fabric, sometimes with a loop handle on rim (a2.2), are more often, but not only, attested between Period 2b and 3a.2. Distinctive is the incised decoration occurring on rim and handle in form **469** (Pl. 43.3) attested also in Barama Period 3 (see also Callieri and Olivieri, forth.).

Basins with convex wall and projecting rim (OBB-c) are represented by two rare series. In particular, series OBB-c2 has very thick wall and rim rectangular in section. These features are also distinctive of basins OBB-b in Macrophase 3a which however show rounded wall.

Basins OBB-d, with deep body and everted sides, are in general quite rare at Barikot. Series OBB-d1 with flat everted rim is attested both in BKG K-105, Periods 2b and 3a.3, and in BKG L layer (8). The type with incurving rim (OBB-d2) is represented by only one specimen in Period 3a.2. Coarse basins with thick wall, flat thickened rim and cordon

below rim (OBB-d3) are present in BKG K-105 Macrophase 3a and in BKG 9. However, they find their roots in protohistoric times (see Stacul 1993: 17k).

At Charsadda I similar shapes are mainly attested between layers (42)-(39) (Wheeler 1962: fig. 14.32-34, see also *ibid.*: fig. 41.400, Ch. III).

#### 4.4.2 Restricted forms

##### *Class CA, Pot*

Sub-class CA-a: globular cooking pots (Pl. 47, Fig. 4.10b )

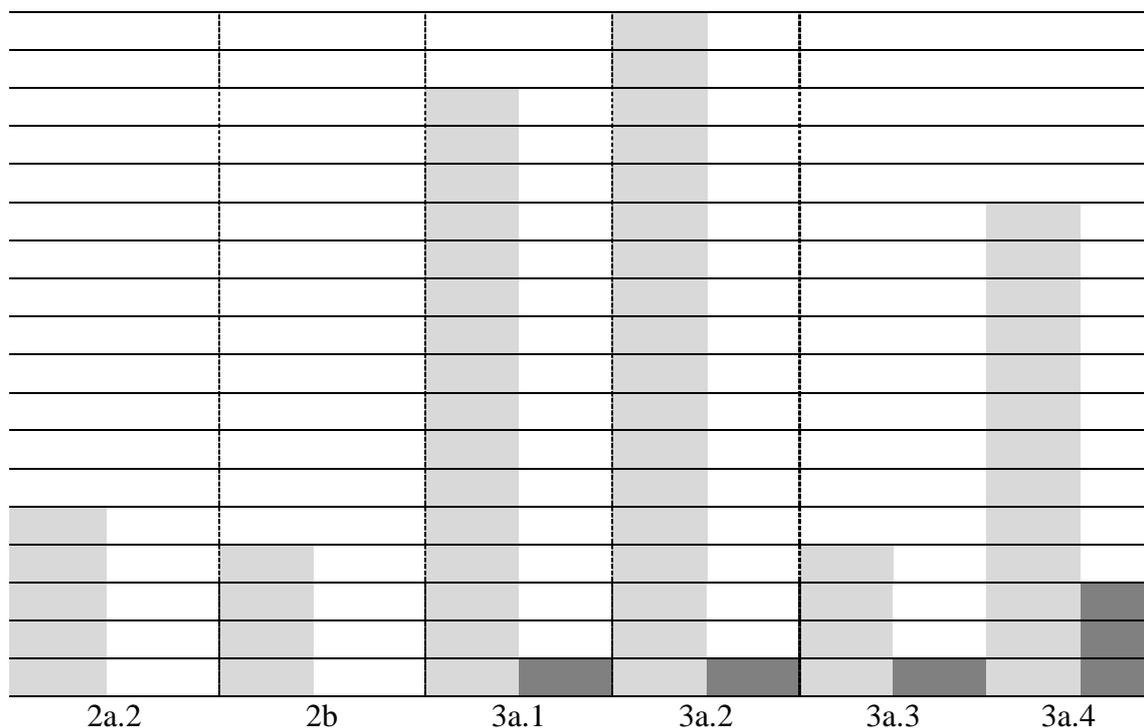
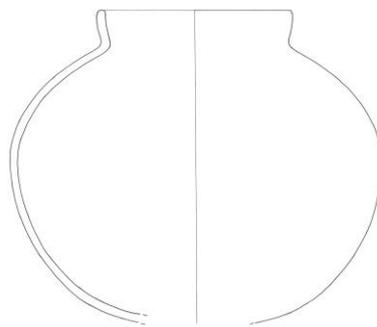


Table 4.28 - Frequency of sub-class CA-a.

This sub-class of cooking vessels is represented by round bottomed globular pots mostly with upright sooted rim (CA-a1). These pots coexist in assemblage 2a.2 with the carinated



CA-b1 and CA-b2 have same fabric (Fabric N) with a major concentration of inclusions in the lower body, below carination. Traces of soot are visible through the whole lower body below the carination, sometimes gritty, and in CA-b2 also on rim. Chronologically, both series are distinctive of earlier Periods 2a.2 and 2b. A great number of rims, in fabric N and covered by soot (Pl. 48), associable to the CA-b2 series have been found also in Macrophase 3a. Unfortunately the absence of the carinated part prevent us from any secure attribution.

As regards Gandharan sites, the carinated cooking pots, attested at Charsadda in the Indo-Greek period (Wheeler 1962: fig. 26.199), occur at Bhir mound in Sharif's Period III (Sharif 1969: figs 15.9, 19.5-5a) in the hole-mouthed version, and in Periods II-V of Bahadar Khan sequence (2002: figs 9.11, 11.13, Period II; fig. 16.6 Period III, figs 20.3, 22.16, 23.1, 25.21, 26.1, 8, 27. 3 Period IV; fig. 39.8, 13 Period V) and in Marshall's stratum III (Marshall 1951: pl. 122.49).

Outside Gandhara, carinated hole-mouthed cooking pots are well attested in northern India sites, where the shape finds its origin around the mid-1<sup>st</sup> millennium BCE. They usually appear in levels marked by the appearance of the so-called NBPW and pear-shaped jars. They can be in red or in NBPW<sup>98</sup>. Examples are known from Atranjīkherā (Gaur 1983: 342.VL.13-15), Rājghāt (Narain and Roy 1977: figs 10.10, 11.24), Hastināpura, (Lal 1954-55: figs 14.10, 19.19<sup>99</sup>), Vaiśālī (Deva and Mishra 1961: figs 21, 26.15), Śrāvastī (figs 14.XXVI, Fig.16.10),

To the west, the carinated cooking pots, both CA-b1 and CA-b2, are attested at Kandahar Epoch II (Helms 1997: fig. 117, genre 77).

Handled cooking pots (Pl. 49.3-4, Fig. 4.13c-d)

Although it is impossible to make any solid assumption on the original vessel shape they belonged to, it is worth mentioning the very frequent occurrence of loop handles covered by soot on the lower part since Period 2b. This type of handle, always treated with a red thick slip, was attached to a thin walled slightly carinated cooking vessel featuring two grooves immediately above the carination (form **440** and **290**). The handle from Period 3a.1 onward could be decorated with two applied dots on the lateral side (form **440**). No usefull comparisons are available from other sites and the original shape of the of this cooking vessel is unknown. However, a possible hint comes from Udegram 'Bazar',

---

<sup>98</sup> Also the cooking pot illustrated in Bahadar Khan et al. 2002: fig. 9.11 is in NBP Ware.

<sup>99</sup> In later period the hole-mouthed cooking pot is provided by a long out-turned rim.

stratum V (Indo-Greek Period). A photo taken during the excavation (Faccenna and Gullini 1962: 177, fig. 210) shows an hole-mouthed carinated cooking pot still *in situ* with almost vertical loop handles completely covered by soot below carination. Unfortunately this is the only available image of this pot, the rim of which it is not even well visible. Looking to BKG K-105 assemblage a possible match might be represented by what I define here as medium size hole-mouthed jar, class CB-b. This shape mostly attested from Macrophase 2b, could be compatible, also in terms of fabric, with a cooking vessel, mainly if we look to the globular pot from Charsadda IV, described by Wheeler as “cooking-pot of reddish ware, covered externally with soot below the cordon” (Wheeler 1962: 97, fig. 48.505), which however is handleless. Another possibility is that these handles belonged to carinated pots CA-b which could have been underestimated by this study. However, at the moment any speculation remains a wild guess.

*Class CB: Jars*

Sub-class LCB-a and CB-a: large and medium hole-mouthed storage jars (Pls 51-52)

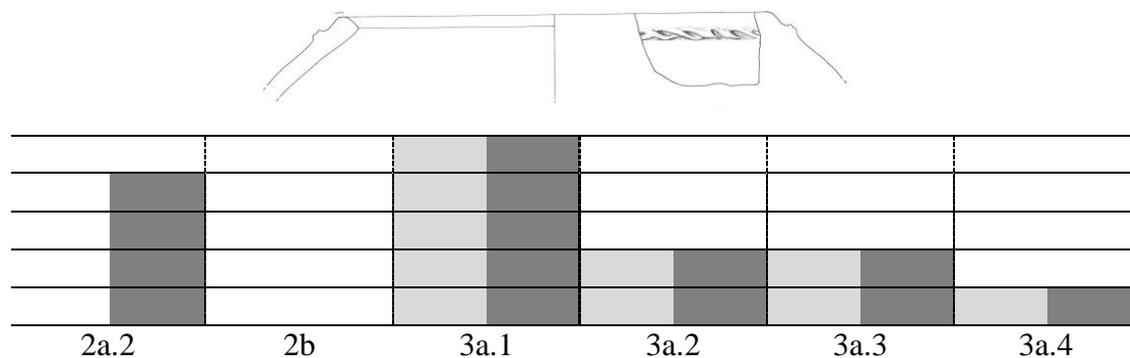


Table 4.30 - Frequency of sub-classes LCB-a, CB-a.

Large hole-mouthed jars LCB-a are rimless storage jars made by slabs having a globular body and a large mouth (d. ca 40 cm) often decorated with a cordoned ridge below the featureless rim. On the mouth, with lip inclined inside, are often visible traces of use alteration linked to the use of a heavy lid. These jars were probably used for the storage of cereals or dry food.

In BKG K-105 these jars are attested in Macrophase 3a, while in Period 2a.2 they seem to be represented by a finer and smaller version. However, the fragment from Period 2a.2 in BKG L (Pl. 51.1) suggests that the absence of the form in the earlier period of BKG K-105 could be fortuitous.

Indeed, the large storage hole-mouthed jars find their roots back in protohistoric time. The earliest examples documented<sup>100</sup> comes from Aligrama (Stacul and Tusa 1975: fig. 15.f)<sup>101</sup>, Kalako-derai (Stacul 1995: fig. 18p) and Barikot<sup>102</sup> often showing two or four horizontal lugs (sometimes double lugs) below rim probably used “either to lift the vessels so to move them through rotation, or to lace up fabric/leather cap well tight” (Callieri and Olivieri, forth.). This shape persists from protohistoric phases throughout the first phase of historical age at Barikot. It is a clear marker of a local tradition.

Medium-size hole mouthed jars (CB-a), never decorated by cordons, have usually a thickened rim and are diffused through all the sequence in medium or coarse fabric.

Sub-class CB-b: medium-size hole-mouthed jars with globular body and small mouth (Pls 53-54)

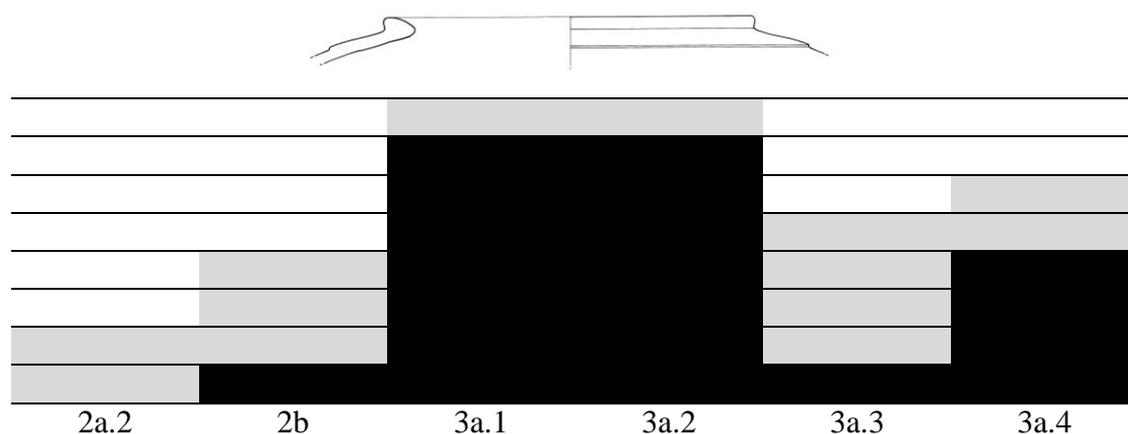


Table 4.31 – Frequency of sub-class CB-b.

This is a very common medium size hole-mouthed jars at BKG K-105, mostly in Period 3a, which features a thickened inclined rim, the diameter of which almost never exceed 15 cm. It is always treated with a red, sometimes thick, slip.

Sub-classes LCB-c, CB-c, LCB-d: Low-necked globular/sub-globular jars (Pls 55-57)

Low-necked storage jars with globular/sub-globular body, characteristic of Macrophase 3a, include two main sub-classes: jars with thickened rim (LCB-c, CB-c) round or rectangular in section and large jars with upright or everted rim (LCB-d). Distribution of

<sup>100</sup> See also Stacul 1967: fig. 25 for Buner.

<sup>101</sup> A complete example comes from trench L in Aligrama (unpublished). Fragment were recovered in Swat Period VIII layer at trench E (unpublished).

<sup>102</sup> I refer to the recent excavation carried out at BKG 12, 12W, and to BKG 7 (Period a-b).

sub-classes and series is homogeneous across the Macrophase and no significant trends can be recognized.

CB-e5-e6: necked jars with grooved rim (Pls 60-61)

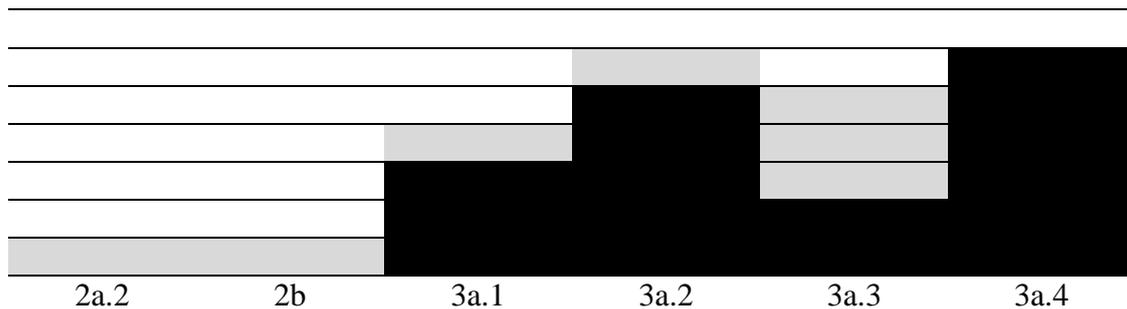
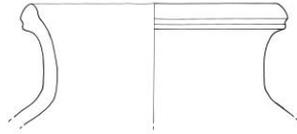


Table 4.32 – Frequency of sub-classes CB-e5, CB-e6.

These are medium-sized jars with sub-globular body, vertical neck and thickened externally-grooved rim. They are of a a medium/coarse fabric rich in vegetal inclusions, often visible on surface, and usually treated with a red slip outside. This is very diffused, in several variants, over Macrophase 3a while only a couple of fragments come from earlier Periods.

Absent at Charsadda, this sub-class appears at Taxila as a common type throughout the occupation of Bhir mound in both Sharif and Bahadar khan sequences (e.g. Sharif 1969: fig. 10.6, figs 15.15, 18.7-8, fig. 20. 16; Bahadar Khan et al. 2002: fig. 14.9, fig. 23.21) and Sirkap (Ghosh 1944-45: 59). It is locally described as *ghara* (Sharif 1969: 67) or *ghata* (Ghosh 1944-45: 59), globular water-jar.

This type of medium-sized water jar seems to find its antecedents in the Gangetic tradition (e.g. Hastināpura late Period II and Period III, Lal 1954-55: fig. 11.XII; Hulas, Period II and III, Dikshit 1981: figs 30.31, 21.20, 24).

A very similar function must had the coeval jars CB-e3 (Pl. 59), which differ only for the absence of the groove on rim.

Particularly diffused through the whole sequence are also necked jars of medium size with flared rim rectangular in section (CB-e7, Pl 61) whilst those with flaring neck (CB-e8, Pl. 62), also present at BKG 7 and BKG 9, are seldom attested.

CB-g: Pear-shaped jars (Pls 65-66; Fig. 4.10a)

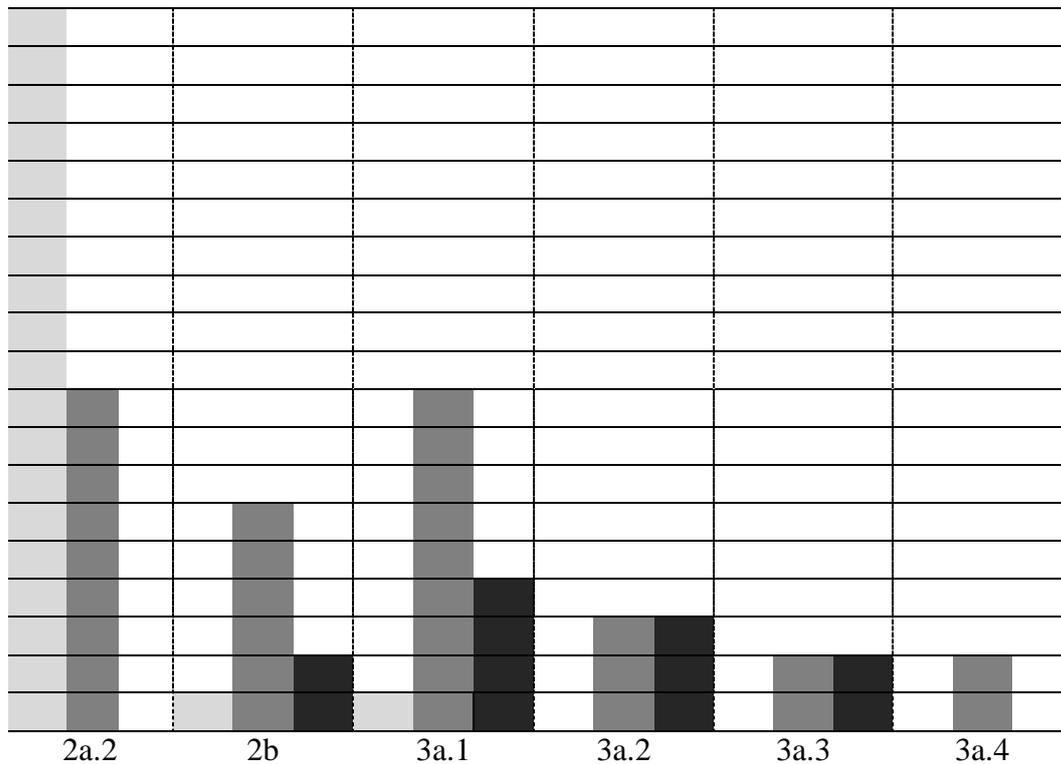
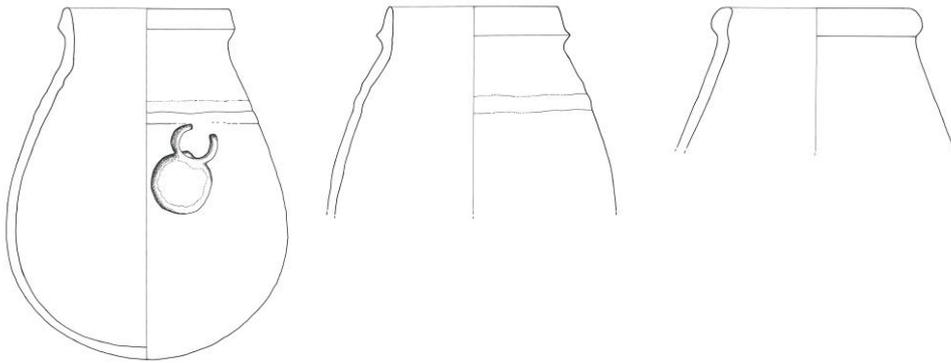


Table 4.33 – Frequency of sub-class CB-g.

Pear-shaped jars are typical of the Early Historic assemblage at Barikot. Technically, these water jars were made by joining by wheel throwing an upper part made by coiling with a pear shaped body modelled by paddle and anvil with fairly thin wall. The fabric (Fabric M) rich in vegetal inclusions visible on surface and with a buff colour is very distinctive of this vessel shape. The body is generally made gritty with the use of sand. Since the pear shaped jars were probably used for the transport of water, it is likely that the gritty surface served for making easier to grasp a surface otherwise slippery. The voids generated by the vegetal inclusions, instead, render the vessel extremely permeable so to cool its content through perspiration. One of these jars bears a stamped taurine

potter's mark<sup>103</sup> (form **70**) which is quite diffused on restricted vessel of the Historic Period in northern India (e.g. jars from Sonkh, Härtel 1993: I.53, II.16; cooking pot from Rājghāt, Narain and Roy 1977: fig. 11.24). This jar, already considered a distinctive marker of the Indo-Greek period (BKG 1= 3a.3-3a.4, Callieri 1994: 679), now can be antedated on the basis of the available data to the Achaemenid period<sup>104</sup>.

It is worth noting the evolution of the thickened rim of this type of jar: from the triangular section of the earlier period (Pl. 65.1-5) to the rounded one (Pl. 66) more typical of the later Indo-Greek periods when the shaping of the vessel is more carefully performed and the irregularity of the coiling technique and the line of joining is well smoothed by the potter.

In Gandhara, pear-shaped jars are mainly attested at Bhir mound in Sharif Period III (Sharif 1969: fig. 18.1-1b, 19.13) and Period IV (*ibid.*: fig. 22.7-7d), in Bahadar Khan's Period II (Bahadar Khan et al. 2002: figs. 9.4, 10.14, 15, 17, 14.3, 10) and period III (*ibid.*: 15.13, 18.15, 20, 22) and in Marshall's stratum II (Marshall 1951: pl. 121.32).

Pear-shaped jar can be considered part of the Gangetic/Indic pottery tradition. Indeed, this sub-class, and mostly series CA-f1, is very common in almost all the Early Historic sites of the Ganges plain: at Hastināpura in Period III (=early 6<sup>th</sup>-early 3<sup>rd</sup> centuries BCE, Lal fig. 18.XXXI), at Rājghāt in Period IC (= 4<sup>th</sup>-3<sup>rd</sup> centuries BCE, Narain and Roy, II, 1977: fig. 11.19), at Sonkh in Mauryan period (Härtel 1993: II.23, II.83-84), at Atranjīkherā in Period IV (=2<sup>nd</sup> half of the 1<sup>st</sup> millennium BCE, Gaur 1983: fig. 97.V-33) at Vaiśali in Period II and III (6<sup>th</sup>-2<sup>nd</sup> centuries BCE, Sinha and Roy 1969: fig.27.18, fig. 42.6), at Kauśāmbī in Period IV (Fig. 11.71, 92) and at Hulas (Dikshit 1983: fig. 22.24-45).

#### Class CC: Jugs (Pl. 68)

Small to medium size jugs are found at BKG K-105 since the earliest level. The most diffused groups are CC-b2-4 (Pl. 67.3-8) and CC-c1 (Pl. 68.1-3). The former, with or without handle, is characterized by a high neck and carinated rim. We do not know exactly the profile of the body but on the basis of comparison it was probably sub-globular/ovoidal (see Callieri and Olivieri, *forth.*). Made with depurated fabric, these jugs are always covered by a thick red slip and the handle, when present, can be decorated

---

<sup>103</sup> This is made of two distinct overlapping stamps. The semicircle is applied on the circular symbol.

<sup>104</sup> Besides BKG K-105 and BKG L, sub-class OB-f is attested in BKG 12E.

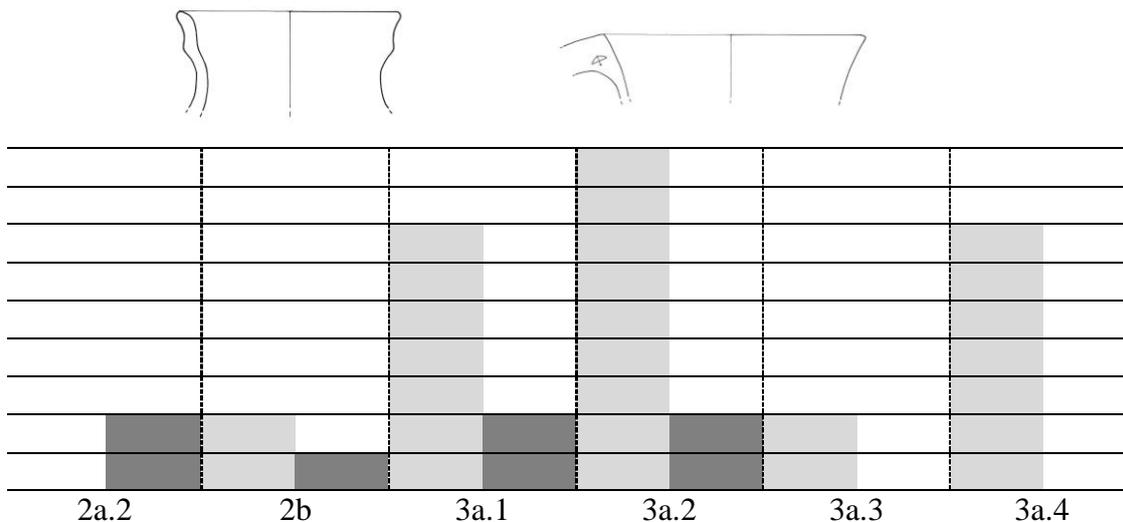


Table 4.34 – Frequency of class CC.

with an applied dot which also appear on other types of handles. Attested also in latest layers of Period 2B, this is the most common jug in Macrophase 3a.

Less common, but attested from Period 2a.2 at BKG K-105 and in an Indo-Greek level at BKG 7 are handled jugs with flared neck and simple rim. One example from the earliest phase of Macrophase 3a (form **497**) bears an incised potter's mark on the handle representing a singular 'reverse-bow with arrow' which appears also on an unpublished sporadic potsherd from Gogdara.

Unique are the two jugs found in BKG L (10p). One, is a jug with high narrow neck with handle attached at mid way of the neck (form **92**, Pl. 67.1), the other, is a pitcher with vertical top handle probably provided of spout (form **91**, Pl. 67.2) which has no comparison elsewhere.

#### Urns/crater-like forms (CD, Pls 69, 77.5, Fig. 4.12)

This class represents medium size deep vessels with S-shaped profile, sometimes with handles, which are poorly represented and poorly preserved in BKG K-105. However, from the previous excavation campaigns (Callieri and Olivieri, forth.) we know that these vessel forms, sometimes set on low stand, could have a flat squarish or projecting concave rim.

Form **32** (**BKG1013**, Pl. 77.5, Fig. 4.12a) is an unicum at Barikot. Found in BKG L layer (8) in 1985 excavation (Stacul and Filigenzi 1985) this specimen is currently exposed in the Swat Museum (Saidu Sharif, Swat). This is the lower part of a *krater*-like vessel (d. max 23 cm) in gray ware internally and externally covered by a black slip. Unlike *kraters*

from Ai-Khanoum, all wheel-turned and in red ware, usually with a red slip, the specimen from Barikot consists of a high wheel-turned foot and of a lower part mould-made then attached to an upper part by wheel throwing. In Athens these distinctive mould-made kraters (always figured) are documented only from the end of the 3<sup>rd</sup> century to the early 2<sup>nd</sup> century BCE. However the best parallels, as suggested by Gardin (1973: 146-147) for Ai-Khanoum probably come from Asia Minor where they continue to be used also in later periods.

The 'relaxed profile' of the foot suggests a 2<sup>nd</sup> century BCE chronology (Rotroff 1997: 139, figs. 607-608). Formal parallels can be made with Taxila (Marshall 1951: pl. 122.90) and Ai Khanoum (Lyonnet 2013: fig. 100.9-10; see also fig. 96).

Particularly interesting are some *krater*-like vessels with sinuous profile the rim and bottom of which are unknown (Pl. 69). Form **658** (*BKG3797*, Pl. 69.1, Fig. 4.12b; max d. ca. 25 cm) from the 'Graeco-Bactrian' Period bears a row of black-on-red painted triangles filled with parallel wavy lines on the upper part and a row of vertical parallel wavy lines on the lower register<sup>105</sup>. A similar shape decorated with incised wavy line at the max diameter (form **533**) comes from the upper layer of Macrophase 2b, while specimens in plain red ware with horizontal loop-handles comes from Indo-Greek contexts (3a.2).

Although no direct parallels can be found in Gandhara or in the neighbouring areas, the Hellenistic origin of this vessel is quite evident.

#### 4.4.3 Varia (V)

##### V1, Flasks

Multi-spouted flask akin to the specimens from Taxila stratum III (Marshall 1951: pl. 123.71) was found in BKG L (10p) (Fig. 4.13a).

##### V3, Pipes (Pl. 78.3)

Drain pipes similar to **519**, found in the upper layer of the last Indo-Greek Period, come from Sirkap (Marshall 1951: pl. 127.210-211).

##### V5, Handles (Pl. 78.6-10)

Lug-handles of hole-mouthed jars (V5.1) or lug-handles with incised decoration (V5.3, V5.4) are present, although uncommon, throughout Macrophase 3a, while the vertical handle with knob (V5.2) is one of the few element recovered in Period IIA1. From among

---

<sup>105</sup> This probably includes another painted register below.

the handles found in Macrophase 3a, particularly interesting is the horizontal loop-handle **268** (Pl. 78.10). Although the profile is incomplete, we can presume that this handle belonged to a quite large open *krater*-like vessel with slight carination. This was probably an imitation of a metal prototype. Indeed the side-knobs, or better ‘clay rivets’, visible on the handle seems to be the result of imitating in clay the methods of riveting a metal handle to its body.

#### V6, Lids (Pl. 79.1-8)

Lids are in general scarcely documented at Barikot. Three main groups can be distinguished. The so-called saucer-like lids which appear as a truncated-conical bowl with flat base and central knob-handle (V6.1) are attested only in Period 2a.2 (see Bahadar Khan 2002: fig. 13.8, Period II). The complete example preserved in BKG L (form **58**; Fig. 4.13b), made by coiling and then thrown on wheel, has a flat contiguous base whilst form **173** shows a thick disk base. Knob shown in Pl. 87.4 is also comparable with a convex lids with knob (Marshall 1951, stratum II: pl. 126.195-196) or concave dish (Bahadar Khan 2002: fig.13.11, Period II).

In Macrophase 3a.1 occur several fragments of a large hollow knob (V6.2) of the same type of that found in the latest period of Bhir mound (Bahadar Khan 2002: fig. 35.14, Period V).

This could be an inverse truncated-conical lid, however a fragment from Udegram, stratum V (see Fig. 2.19) shows this type of hollow knob associated to a simple concave dish. A possible comparison also come from a ‘basin-shaped cover’ from Bhir Mound (Marshall 1951: stratum II, pl. 126.188).

Only one fragment, heavily corroded, of a simple coarse concave dish with handle (V6.3) was found in Period 2b in BKG K-105. (Marshall, stratum II 1951: pl. 126.192). This probably served to cover a jar.

#### V7, Reducer lids (Pl. 79.9, see Fig. 4.13f)

The function of this type of objects is still not clear. The example reported in this collection is one of the two specimens coming from BKG L. Before, the shape was attested only in the disturbed Early Historic stratigraphy of trench BKG 12W. V7 is a thick and large (ext. d. 50-60 cm) ring of coarse red pottery with vertical wall on the inner end built by slab technique. The traces of worn on top of rim, sometimes so deep to uncover the black core of the object, suggest that this was covered by a large lid probably,

a stone. This object could be used as a reducer cover of a large circular container or pit-well.

#### V8, Pot stands (Pl. 80)

Three groups of pot-stands which vary in form and function were found at Barikot.

V8.1 is a hollow cylindrical pot-stand, of the types also known as ‘amphora stands’ or ‘ring-stands’, which appear at Barikot (BKG K-105 and BKG L) at the beginning of Macrophase 3a. The few specimens recovered are made by coiling and then thrown on wheel and shown on the upper side, concentric circle or mat impression (form **609**) (see Chapter 3.2).

Although possibly attested in protohistoric period in Central Asia (Bronze age, e.g. Lyonnet 1997: fig. 20.7-8) this form seems to be introduced in Swat only in the Hellenistic period<sup>106</sup> (see earliest examples in Roger Edwards 1975: pl. 25.644-645).

V8.2 is a cooking-stand better known as *λάσανα* (*lāsana*), or portable cooking tripod, so far attested at Barikot in Saka-Parthian period (Callieri and Olivieri, forth.). It is a hollow cylinder with curving profile provided with a broad base and a solid and inclined upper side. Sometimes provided of a vertical ring-handle or lug-handle, this shape is usually opened on both ends, often bearing holes pierced before firing on the body. The fabric of this object is medium to coarse, with quartz particles. It is made by coils fashioned on a potter’s wheel. Morris (1985: 394) described it as a ‘standard and long-lived element of the Greek domestic pottery repertoire. Its contexts stretch in date from early Iron Age to Hellenistic’.

R. Allchin was the first to recognize the function of these artefacts as kitchen-props on the basis of ethnographic comparison (Husain 1980: 145-146)<sup>107</sup>. All the examples so far known in Gandhara (see Petrie et al. 2008: 9-10; Marshall 1951.Pl. 126.157; Ghosh 1944-45: 64, fig. 13.72; Dani 1965-66: 187, fig. 17.21-22; Callieri and Olivieri, forth.) come from Saka-Parthian layers. The fragment found in BKG K-105, completely covered of soot, could be considered in line with this trend since it was found in last layer of phase 3a.4, and it could be intrusive. However, form **232** comes from layer (10) of BKG L (Pl. 80.4, Fig. 4.15) which on the basis of the ceramic material and structural sequence has been correlated to the Achaemenid Period. Even if we consider the possibility that layers (10) and (10p) were disturbed by the levelling work occurred for the construction of the

---

<sup>106</sup> In NW India this occurs from the 1st century BCE onward. See Sonkh, Härtel 1993: III.54, III.111, IV.60; Rājghāt, Narain and Roy 1977: fig. 20.77-79.

<sup>107</sup> However Husain rejected Allchin’s interpretation (1980: 146).

Indo-Greek fortification, as well as in BKG 12W, anyhow, the construction of the fortification (=Macrophase 3a.3) represents a *terminus ante quem* for the deposition of the object. An earlier date for the introduction of the *lásana* is supported by a badly preserved fragment found in Period 3a.1.

V8.3 is a concave slightly carinated pottery ring in unslipped red ware with a maximum diameter of 30 cm (Fig. 4.13e). It was probably used as ring-stand for a round bottomed water vessel, and used to help tip the vessel slowly<sup>108</sup>. Only two fragments of pottery ring were recovered at Barikot (BKG K-105 and BKG L) both in layers ascribable to Period 2a.2. Antecedents of this form can be found at Aligrama, trenches M (2), I (3)-(2) and U' (4)<sup>109</sup> in various sizes, sometimes also bearing pre-firing holes on the body (e.g. Fig. 2.5). Similar example also come from Udegram stratum V and from Gogdara. Curiously, an object with similar profile, although described as lid, comes from Kandahar (McNicoll and Ball 1996: fig. 11.8).

#### 4.4.4 Miniature vessels (MV) (Pl. 81)

Miniature vessels represent a widespread class in the Late Bronze age in Swat both in settlements (Barikot, Olivieri 2015: 190; Olivieri et al., forth.; Aligrama, Stacul and Tusa 1975) and in burial contexts (Vidale et al. 2016). However, at least for what we can observe in trench BKG K-105, their production seems to sensibly decrease in the Early Historic time<sup>110</sup>, when only few specimens representing miniatures jars and beakers appear.

In the Indo-Greek period is attested the practice to attach shallow miniature bowls on the flat everted rim of vessel (see Pl. 81.8). Similar *kernos*-types, absent in Graeco-Bactrian assemblages, are attested at Shaikhan Dheri in the Saka-Parthian Period (Dani 1965-66: fig. 35.4) at Hastināpura Period IV (Lal 1954-55: fig. 23.2)<sup>111</sup>, at Sonkh in period II (Härtel 1993: 387, II.110), at Hulas (Dickshit 1983: fig. 27.20, Period IV).

---

<sup>108</sup> Suggestion by Cameron Petrie.

<sup>109</sup> Unpublished (Swat Period VIII?).

<sup>110</sup> Pl. 81 represents all the miniature vessels found in this trench.

<sup>111</sup> See also Marshall 1951: pl. 125.126.

#### 4.4.5 Potsherds (individual fragments)

##### PP, Painted potsherds

##### PP1, Black-on red painted Ware (Pls 82-84)

Black-on-red painted ware is attested through all the sequence on both restricted and unrestricted vessels with a continuity of the decorative repertoire which includes geometrical (mainly hatched or cross-hatched triangles and triangle patterns filled with parallel wavy lines) and vegetal motifs. As regards the Achaemenid assemblage, it is worth mentioning a large pot with a thick dark red slip outside decorated on the shoulder by a row of parallel oblique leaves and a row of cross-hatched triangles pointing downwards, the latter pattern repeated also on the lower body (**BKG3898**, Pl. 82.1, Fig. 4.14a). Similar motifs decorate the external surface of restricted vessel at Charsadda I layers (26)-(27) (Wheeler 1962: figs. 21, 118; 22, 128). Small fragments record the use of black-on-red painting also on the thin wall of bowls and, more generally, of fine open vessel. The most common motifs are: triangle patterns filled with parallel wavy lines (Pl. 82.8) or consisting of a double line (Pl. 82.9), and vertical parallel wavy lines (Pl. 84.1). Unique in Gandhara is the combination of black-on-red painting and embossed decoration on **BKG968** organized in registers (Pl. 82.2) according to the typical scheme of the 'Early-Historic Embossed Ware' considered a local production inspired to the Indo-Gangetic tradition (Callieri 2000: 869-870, Agrawala 1976). The shape of this restricted vessel seems to be very closed to that of the painted pot mentioned above with globular body and short rim (?) and to that of other Early-Historic Embossed fragments found at Barikot (Callieri and Olivieri, forth.). Immediately below the rim, the first register is decorated by a row of triangles filled with parallel wavy lines, below is a row of embossed peacocks (?), then, on the third register, is visible a couple of facing caprids with curling horns<sup>112</sup>. Early Historic Embossed Ware fragments in Swat are attested at Barikot in Macro-phases 3a and 3b with both animal and human figures (Callieri 2000: fig. 4h-k; Callieri and Olivieri, forth.) and at Udegram 'Bazar' in strata VI and V (likely corresponding to BKG Macro-phases 2b and 3a). A common technical and figurative tradition is also recorded at Charsadda (Ch. V pit 9; Wheeler 1962: 102, pl. XIX) and at Sirkap (stratum V, Saka Period; Marshall 1951: 435, pl. 131b).

Since the Early Historic Embossed Ware has been considered a ware inspired by the Mauryan and Śūṅga tradition (Callieri 2000: 860-870), fragment **BKG968**, which was

---

<sup>112</sup> The latter represents an unicum in the figurative repertoire of Early Historic Period in Gandhara.

found in a layer of BKG L correlated to BKG Macrophase 2a.2, could be considered intrusive<sup>113</sup>. However, the presence of an Indo-Gangetic (pre-Maurya) influence on pottery tradition at BKG K-105 since the Achaemenid Period, along with the formal similarity between pot **BKG968** and pot **BKG3898** and the possible correlation between the ceramic assemblage found in Charsadda V pit 9 and that of BKG Macrophase 2a.2 should not be neglected.

From Macrophase 2b, only a very small painted fragment was found.

The repertoire of black-on-red painted motifs increases in Macrophase 3a. The typical hemispheric and sub-hemispheric bowls with horizontal projecting rim are often decorated on the upper face of the rim with hatched or cross-hatched triangles, leaves and rosettes (Pls 20.7, 21.1-2, 83.8-11, see also Callieri 2000: 859-860, fig. 1.c-d), strokes (Pl. 83.12-13) or parallel wavy lines (Pl. 83.14)<sup>114</sup> in both the ‘Graeco-Bactrian’ (3a.1) and Indo-Greek (3a.2-4) Periods. The same decorated bowls also appear at Charsadda I in layers (21)-(20) (Wheeler 1962: figs 27.206-207, 28.237).

Apart from the cross-hatched triangles and triangle patterns filled with parallel wavy lines already attested at Barikot (Callieri 2000: fig. 1.a-b), vegetal motifs (mainly leaves in different styles) also appear<sup>115</sup> on the external surface of vessels. At this regard, particularly interesting is the *krater*-like vessel with sinuous profile (form 658, **BKG3797**, Fig. 4.12b) from the ‘Graeco-Bactrian’ Period.

Black-on-Red painted ware, is attested at Charsadda I mainly in layers (28)-(20) and Charsadda IV and V<sup>116</sup>, at Shaikhan-dheri from the ‘Greek’ to the Kushana phases<sup>117</sup>, at Bhir Mound in Marshall stratum II and IV Sharif’s Period III and Bahadar Khan’s Periods II-III<sup>118</sup> and at Sirkap<sup>119</sup> in Saka Pathian levels. At Barama black-on-red triangle pattern is attested on the external surface of vessel in Period 4 (=Indo-Greek?) and 3 (Fig. 2.18).

---

<sup>113</sup> The area outside the defensive wall was affected by human activities connected to the construction of the defensive wall in Indo-Greek period.

<sup>114</sup> For this type of painted wavy-decoration illustrated see also Wheeler 1962: fig. 21. The vessel, in grey ware, was probably meant to be red, and the grey colour was due to insufficient oxidation during firing. Obviously the paint was applied before firing.

<sup>115</sup> The diverging leaf pattern between painted lines and comb-like pattern on the neck of pots attested up to the Saka-Parthian layers in BKG 12E (Iori et al. 2015, p. 77, Inv. BKG 2829, Inv. BKG 2831, Inv. BKG 2835, Inv. BKG 2834) according to the latest data, find their antecedents in Indo-Greek times (Pls 92.4, 93.1).

The rendering of leaf in Pl. 93.3 (Period 3a.1) recall the motif in **BKG3898** (Period 2a.2).

<sup>116</sup> Wheeler 1962: Ch. I, fig. 20.99-101, 21.118, 125-126, 22.128, 136-137, 141, 23.149, 24.172, 27.206-207, 28. 237; see also figs 18.81 (layer 32), 19.95 (layer 28); Ch. IV, fig. 47.493, 498; Ch. V, figs 49.515, 524, 531; see also fig. 50.542, 555.

<sup>117</sup> Dani 1965-1966: figs 21, 43.

<sup>118</sup> Marshall 1951: pl. 127 nos 217-217, see also no 223; Sharif 1969: fig. 24.10-11, pl. XVa.6; Bahadar Khan et al. 2002: fig. 45.16-17.

<sup>119</sup> Marshall 1951: pl. 127, nos 218 (stratum III) – 219 (stratum IV); Ghosh 1947-1948: fig. 3.1d).

At Old Kandahar black-on-red painted triangle and wavy lines appear on the external surface of bowl from Epoch I (=700-400 BCE; Helms 1997: fig. 52.2704, 53.774, 73.721).

#### PP2, Multi-colour painting

The only specimen attesting the simultaneous use of white, red and black painting is the stem of a large bowl (or *krater*?) from BKG L (Pl. 77.1).

#### DP1, Stamped potsherds (Pl. 85.1-2)

The only stamped decoration found in this assemblage is that appearing on the inner bottom of two bowls from Period 3a.1 and 3a.2. Morphologically speaking, they are substantially different since one is a bowl in fine/medium fabric having a flat base while the other is a very thin walled fine bowl with round bottom which should be associated to the type of rim illustrated in Pl. 23.7. The latter form (Fig. 4.14b) coincides with the hemispheric form from Charsadda indicated by Wheeler as Lotus bowls (Wheeler 1962: 40-41). These two potsherds allow to antedate the introduction of impressions of stamps with lotus at the center of the bottom of unrestricted vessels, previously attested at Barikot only from the Saka-Parthian Period (Callieri 2000: 867-868), to the 'Graeco-Bactrian' period (Period 3a.1)<sup>120</sup>.

#### DP2, Embossed ware

The only two examples of embossed ware illustrated in this collection (Pls 82.2, 85.3) comes from the disturbed stratigraphy of BKG L which antedates the construction of the Indo-Greek defensive wall. Therefore, the mid-2<sup>nd</sup> century BCE represents a *terminus ante quem* for the deposition of these objects.

#### DP3, Incised potsherds (Pls 85.4-10, 86.1-5)

Geometrical incised decorations are frequent at Barikot since protohistoric period. The wavy line decoration indicated by Wheeler (1962: 39) as a one of the key types of Charsadda ceramics, is the most recurrent pattern attested, mainly on bowls and basins of Macrophase 3a. From among the other patterns it is worth mentioning geometric motifs, mostly triangles and zig-zag lines, on the surface of restricted vessels (Pl. 85.4-5, 10) and rows of opposing oblique dentils stemming from an horizontal line, forming an horizontal stylized vegetal motif (Pl. 85.6-9).

---

<sup>120</sup> More sophisticated impressions on the bottom of restricted vessel, as heraldic bird, appear mainly in Kushan time (Callieri 2000: 867).

#### DP4, Appliqué decoration

With the label of appliqué decoration I refer to a very simple and ancient technique which consists in applying simple decorative elements on the vessel body, in our case a cordon below the rim of basins or jars, generally handmade, which is subsequently worked with a finger or knife by so creating a rope-like (Pls 46.3, 51.1-3) or a vegetal (Pl. 86.6) motif. Although in BKG K-105 this type of appliqué decoration is attested only from Period 3a.1 we know that its used goes back to Swat Period VII (e.g. Stacul 1995: fig. 18p).

#### IP, Inscribed potsherds (Pl. 86.7, Fig. 3.11)

The Indo-Greek stratigraphy of BKG K-105 has revealed four new inscriptions on sherds, one in Greek, one in Brāhmī, one in Brāhmī /Kharoṣṭhī (?) and one possibly in Aramaic, which increase to six the number of inscriptions coming from Indo-Greek Barikot<sup>121</sup>. Below we report descriptions and interpretations given by the scholars entrusted with their study, as reported in Callieri and Olivieri (forth.).

##### 1. Greek inscription (Olga Tribulato):

Form **652 (BKG3985)** BKG K-105 (2117) 3a.2, mid-2nd BCE (Pl. 30.3, Fig. 3.11b)

(Tribulato and Olivieri 2017)

Incised after firing. Swat Museum, Saidu Sharif (Reserve Collection).

The graffito consists of four letters which have an average height of 0.7 and 1.0 cm. After the fourth letter a lacuna must be posited, because the vase was broken after the graffito had been engraved. The depth of the strokes suggests that the graffito was made with a sharp and light tool; the first letter may have been re-traced. The ductus is regular, perhaps thanks to the quality of the surface.

EYMH[ ]

The lunate *epsilon* is semi-cursive. *Hypsilon* is regular. *My*, of smaller size, is close to a cursive form. *Eta* is not placed on the same horizontal line as the other letters but tends diagonally towards the right. The most likely interpretation of the four letters is that they represent the beginning of a name in Εὐμη-, e.g. Εὐμήδης or Εὐμηλος. Since names in Εὐμη- are very common in Greek texts, there cannot be any certainty as to the specific form of the name in this graffito. Εὐμήδης and Εὐμηλος, by far the two most frequent names among those in Εὐμη-, are amply attested in the onomastic record from Asia

---

<sup>121</sup> For a complete overview of the inscribed sherds from Barikot (54 in total) see Callieri and Olivieri forth (see also Callieri 1984, Harmatta 1994, Rougemont 2012: 183 (86), 185 (85), Tribulato and Olivieri 2017, Zellmann-Roher and Olivieri, forth.).

Minor. No data is available on their use in the Greek Far East (no name in Εὐμη- appears in the onomastic index of IK 65).

Graffiti with names engraved on pottery are well-attested at Barikot, where most are in Kharoṣṭhī or Brāhmī, the common scripts of the area. In all probability, the Greek graffito is an ownership inscription or – less likely – a dedication.

2. Brāhmī inscriptions (Stefan Baums):

Form 160 (**BKG3634**) BKG K-105 (2113) 3a.4, mid-2nd BCE (Pl. 86.7, Fig. 3.11c)

ayan[ā] ///

This potsherd belongs to the same mid-second century BCE layer as B52. This potsherd preserves three *akṣaras* incised in a very early, Mauryan or early post-Mauryan, form of Brāhmī. This early date is also confirmed by stratigraphic evidence. An empty space to the left indicates that the potsherd contains the beginning of the original inscription. The first two *akṣaras* are very well preserved and can be read without any doubt. The third *akṣara* can only be interpreted as (probably) *nā* or (less likely) *na*, despite of the surprising and probably non-significant doubling of its middle vertical line. It is possible that the initial *aya-* is a Middle Indo-Aryan form of Skt. *ārya-* ‘noble,’ followed by a proper name, which may then have indicated the owner of the vessel.

3. Brāhmī (?), Kharoṣṭhī (?) inscription (Stefan Baums):

Form 674 (**BKG 3635**) BKG K-105 (2113) 3a.4, mid-2nd century BCE (Pl. 12.4, Fig. 4.10c)

This potsherd belongs to the same mid-second-century-BCE layer as **BKG3634**. Its surface contains a vertical line, followed by what appear to be *akṣaras* that in general shape suggest either very early Brāhmī or Kharoṣṭhī [although chronology pushes towards the first hypothesis LMO], but cannot be read clearly as either. Both signs are crudely scratched out with, first, vertical lines across each body, and then two horizontal lines across both signs. It is possible that this erasure is the consequence of a failed attempt at producing an inscription.

4. Aramaic (?) inscription (Michael Zellmann-Rohrer):

**BKG 3432** BKG K-105 (1666) 3a.4, end-2nd century BCE (Fig. 3.11a)

(Zellmann-Rohrer and Olivieri, forth.)

Jar, fine-medium; thin red slip inside/outside; wheel-turned; painted.

Swat Museum, Saidu Sharif (Reserve Collection).

The sherd, given its inclination and curvature, could originally belong to the upper body/lower shoulder of a small-size sub-globular/slightly carinated jar (diam. <15 cm.). The orientation is not clear. The shoulder bend is marked by two thin horizontal parallel grooves, covered by a single black painted band. It cannot be ruled out that there were also similar painted parallel grooves below, thus forming a horizontal register set all around the upper body of the vessel. Below the painted grooves survive a few painted letters. These are filled with the help of finely painted vertical/oblique guidelines.

The limited extent of the surviving traces of letters restricts possible conclusions, but the following is offered with due caution. The script may with fair confidence be regarded as Aramaic, but too little remains to identify the language of the text (see further below). One letter can be read with certainty as *'aleph*, another as *gimel* or *yodh*, a third likely, and a fourth just possibly, as further *'alephs*.

] . ⚭ . ⚭ . [

Unread letters, from right: high trace of a diagonal, slight trace of an intersecting lower leg at about midpoint, most likely ⚭; apex of intersecting diagonals, most likely λ or ρ; high trace, tip of vertical stroke. Of the dotted ⚭ the left part of the diagonal and the upper leg are preserved; it is also possible that these strokes were in fact part of two different letters.



Figure 4.10 – Vessel from BKG K-105 and BKG L. a: 89; b: 683; c: 674; d: 2; e: 3; f: 254; g: 74; h: 6.



Figure 4.11 - *Plats-à-poisson* from BKG K-105 (a-c) and Tulip bowl from BKG L (d: **96**) (not in scale).

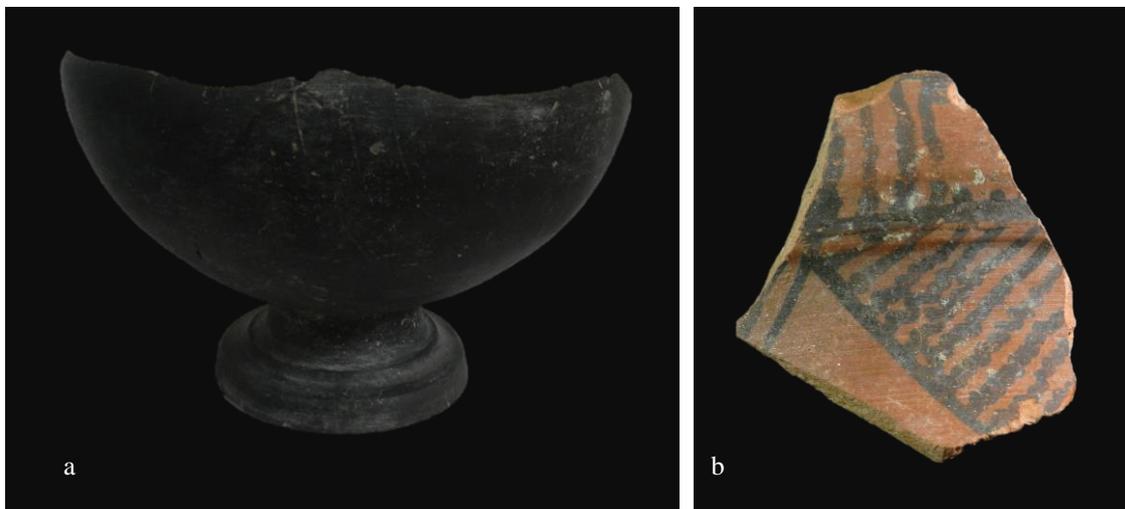


Figure 4.12 – *Krater*-like vessels from BKG L (a: **32**) and BKG K-105 (b: **658**) (not in scale).



Figure 4.13 – a: multi-spouted flask (65); b: lid (58); c-d: handles of cooking pot (440) ; e: pottery-ring (67=251); f: reducer lid from BKG 12W (see 48).



Figure 4.14 – a: Black-on-red painted Ware from BKG K-105, Period IIA2 (408); b: Lotus impression from BKG K-105, period IIIA2 (*BKG3725*), not to scale.

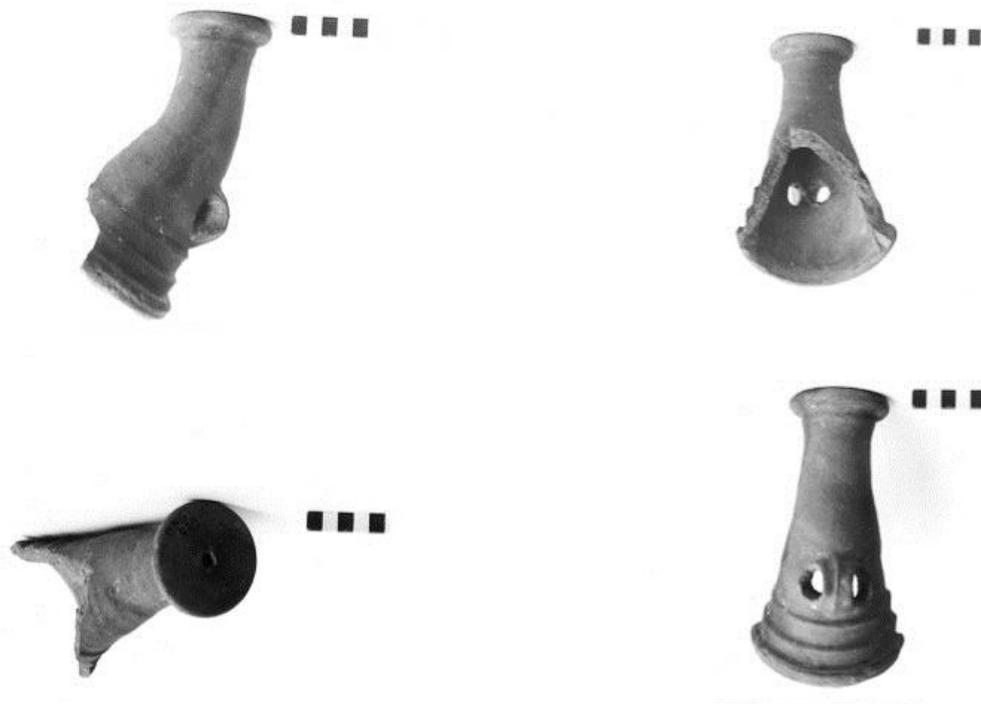


Figure 4.15 – Cooking-stand or λάσανα (*lásana*), from BKG L, layer (10) (232).



## CHAPTER 5

### A COMPREHENSIVE OVERVIEW OF GANDHARAN CERAMICS

#### 5.1 Ceramics Evidence from Barikot. A New Perspective

The calibrated probability ranges for the eleven radiocarbon dates from trench BKG K-105 (Fig. 3.12)<sup>122</sup> indicate that the corpus of ceramic material recovered in recent excavation at Barikot and analyzed in the previous chapter broadly spans the period between the 6<sup>th</sup> and the 1<sup>st</sup> centuries BCE. Within this uninterrupted chronological sequence seven structural periods have been identified<sup>123</sup>. Previous excavations documented only the last two Periods of the sequence, namely, Periods IIIA3 and IIIA4, dated to a mature Indo-Greek phase.

##### Pre-Achaemenid Period

The ancient evidence related to the establishment of the urban center (Period IIA1 = Macrophase 2a.1), represented by a poorly preserved stretch of wall associated to an external floor-level bearing paleo-traces of wheel tracks (Fig. 3.14a), is dated to ca. 6<sup>th</sup> century BCE. Unfortunately Period IIA1 revealed only few worn fragments of pottery vessels, the form of which is impossible to reconstruct. However it is worth noting that the fabric and surface treatments of these potsherds are extremely coherent with the following Period (IIA2). Particularly interesting is the recovery of a concave pottery-ring (V8.3, see Pl. 80.6, Fig. 4.13d) probably used as pottery-stand, also found in trench BKG L layer (10p). This object seems to be quite diffused at the Swat Valley in late protohistory/Early Historic period. Direct comparisons come from Udegram 'Bazar' stratum V, generally considered Indo-Greek<sup>124</sup>, and from an unstratified layer from Udegram or Gogdara (Fig. 2.20). Moreover, similar examples, but provided with holes at half way of the wall come from two unpublished trenches of Aligrama (e.g. Fig. 2.5). The ceramic assemblage of one of these trenches (trench A U', layer 4) points to a Swat period VIII context. Apart from several micro-beads in vitreous paste, other elements of this

---

<sup>122</sup> Other two 14C dates from earlier layers (interphase 2a/1c and phase 1c) point to a 7<sup>th</sup> century BCE. These two phases, however devoid of potsherds significant in terms of form or decoration, are currently under investigation and are not included in this study.

<sup>123</sup> Previous excavations documented only the last two Periods of the sequence, namely, Periods IIIA3 and IIIA4, dated to a mature Indo-Greek phase.

<sup>124</sup> This is the stratum where a Greek inscription on pottery (Rougemont 2012: 87 = IK 297) and a hoard of 23 punch-marked coins was found inside a small pottery jug.

elusive assemblage are represented by a knobbed handle of a jug (?) with almost rectangular section and a ram's head with circular eyes and curling horns, hand-moulded around a wicker structure (**BKG3897**; Olivieri and Iori, forth.). Possible comparisons are given by the pottery handles with ram's head from Charsadda (Wheeler 1962: pl. XXXIV). On the other hand, the hollow body, not mentioned in Wheeler's descriptions, could suggest that the ram's head from Barikot is the tip of a conical vessel. However, no comparable materials are available in coeval Gandharan sites for this latter interpretation.

#### Achaemenid Period

Period IIA2 (= Macrophase 2a.2), dated to the 5<sup>th</sup>-mid 4<sup>th</sup> century BCE, well fits into the time frame of the Achaemenid domination. This Period is marked by the construction of a new structure (room K-1900) associated to an external lane. Within the ceramic assemblage of this Period it is possible to pinpoint three different pottery traditions.

1. An Indo-Gangetic tradition is clearly detectable in the carinated cooking pots, the pear-shaped jars/jugs, the truncated-conical cups and the *thālīs* with sharp carination and vertical side (often with inflected rim)<sup>125</sup>. These Indo-Gangetic forms, relevant in numbers, have direct parallels in Charsadda (Bala Hisar), Bhir Mound, and most of the sites of north India<sup>126</sup>.

In particular, pear-shaped jars and truncated-conical cups are made with the same coarse fabric (Fabric M) which is restricted to the manufacturing of these two vessel forms, probably of complementary use (water jar = transport/conservation; drinking cup/lid of jar = personal consumption of water). That might suggest a non-local production of these two vessels. Unfortunately at the moment we do not have enough comparative material to infer if these vessel forms were produced locally or not. Anyhow, the strong degree of representativeness of these two vessels, which after the *thālīs* are the most frequent forms, led to assume that they were produced locally.

2. An Iranian/Achaemenian pottery tradition is mainly represented by the luxury form of Tulip bowls which is the fourth most represented form in assemblage IIA2. This has a hemispheric body with an everted or slightly flared long rim rising from a carination, usually at half way up, sometimes stressed by a sharp ledge or by an incised line or rib. This is always in Red plain Ware with a red slip treatment on both surfaces. The hemispheric Tulip bowls seem also to be the best represented type of Tulip bowl in Charsadda V, and in Charsadda I layers (28)-(25) and also the first type appearing at Bhir

---

<sup>125</sup> The latter is however an evolution of a late protohistoric form.

<sup>126</sup> Carinated cooking pots have been documented also at Aligrama, during survey collection, see Fig. 2.4.

Mound in Sharif Period III. The other two types of Tulip bowls, those with flat base and short rim and those with deep body and almost vertical rim, at the moment, are only attested in BKG L layers (10)-(9) and in later layers of Charsadda and Bhir Mound. On the basis of this evidence we can suppose they are later evolutions of the original form. Certainly coeval to the hemispheric Tulip bowls is a deep bowl with vertical or sinuous sides 'akin to tulip bowls' (Sharif 1969: 83) which appears also at Bhir Mound in Sharif's Period III.

The mineralogical composition of the fabric used in the manufacturing of Tulip bowls (Fabric O), which is that typically used in the various vessel forms of these assemblage, appears coherent with the traditional pottery of the site. Therefore, it might be hypothesized that Tulip bowls were locally produced at Barikot. In the Swat Valley other evidence of Tulip bowls, in later or mixed contexts, come from Gogdara III (Fig. 2.21), Aligrama (Stacul and Tusa 1977: 187-188, fig. 21.1) and probably from Kalako-derai (Stacul 1993, 92; Stacul 1997, 368, 372, fig. 27.c).

Another vessel form, occurring only once at BKG K-105, which could have an Iranian origin is a convex bowl with flat contiguous base, slight carination and projecting rim. This shape, attested by only one fragment in BKG K-105 Period IIA2, is far better represented in the pre-Wall stratigraphy of BKG L. The internal surface of some of the potsherds from BKG L layer (9) is also treated with a golden/whitish wash, poorly preserved, applied with brush. This form is also attested at Barama Period IV (Fig. 2.11) and probably at Bhir Mound in Sharif's Period III and IV (Sharif 1969: fig. 17.13, 21.8) and in Bahadar Khan's Periods II-V (Bahadar Khan et al. 2002: figs. 9.10, 15.17, 20, 16.8, 26.6, 36.10). Possible connections with the Achaemenid assemblage of the Iranian Plateau can be drawn with the 'carinated cups' of Dahane-ye Gholaman (Scerrato 1966: fig.58; Genito 1990: 592-593) and Sorkh-Dagh (Dales 1977: pl.19) in Sistan, with the 'carinated bowl' from Mundigak (Casal 1961: fig.124) Arachosia and with the 'ledge-rim bowls' from Tepe Yahya (Magee 2004: fig.5.5, 5.42), generally defined 'assiettes à longue lèvre horizontale' (Cattenat and Gardin 1977: fig. 6).

A distinctive pottery marker of assemblage IIA2 is represented by medium/small size convex bowls with clubbed rim treated with red slip on both surfaces and sometimes decorated with painted strokes on rim. Direct comparisons come from Charsadda I layer (26) (Wheeler 1962: fig. 22.141-142), Charsadda V (*ibid.*: fig. 50.543, 555) which are likely Achaemenid in date and from Bhir Mound Bahadar Khan's Periods III (Bahadar

Khan et al. 2002: 17.14)<sup>127</sup>. These bowls are also attested at Old Kandahar in Achaemenid period (McNicoll and Ball 1996: fig. 271.1). Apart from Arachosia, no close parallels can be drawn with the other Achaemenid assemblages of the Iranian Plateau. However, the short life span of these bowls which have no antecedent in Gandhara where they are chronologically confined to the Achaemenid assemblages, suggests that the introduction of this form was the result of an external influence, probably Iranian, then enjoying little success in the aftermath of the Achaemenid control.

As regards decoration, the Achaemenid assemblage sees the introduction of a Black-on-red painting on the external surface of restricted and unrestricted vessels<sup>128</sup>. The decorative patterns, mainly triangles filled with parallel oblique wavy lines and leaves, are coherent with the painted motifs attested in Charsadda for which R. Dittmann coined the term 'Eastern Triangle Ware' (Dittmann type 11) in order to distinguish this category from the 'Triangle Ware' of the western Iranian Plateau. This decorative repertoire which is continuously attested at Barikot until the Saka-Parthian period occurs at Charsadda (both at the Bala Hisar and Shaikhan-dheri)<sup>129</sup> and Taxila (both at Bhir Mound and Sirkap)<sup>130</sup> apparently until early Kushan phases. A key-site for reference is Kandahar (McNicoll and Ball 1996; Helms 1997). In the Swat Valley, Early Historic Black-on-red decoration is documented also at Barama I period 3 (Fig. 2.18, Saka-Parthian?) and at Udegram or Gogdara III (Fig. 2.21).

Dittmann argues that, on the basis of the relative dates for the appearance of (Western) Triangle Ware at the site of Hasanlu IIIb (north-west Iran), Eastern Triangle Ware and hence Charsadda I layers (32)-(28) (Dittmann Phase IIA) should be dated to the Early Achaemenid period. However if we look to the pottery forms of this assemblage we find close similarity with Swat Period VIII assemblage<sup>131</sup> which, according to our reassessment of the Swat sequence, is pre-Achaemenid in date. On the basis of relations between Charsadda I layers (32)-(28) and Swat Period VIII we can assume that the Eastern Triangle Ware has an independent and local development from (Western) Triangle Ware, preceding the Achaemenid domination. Said that, instead of Eastern

---

<sup>127</sup> One example is also attested at Gogdara III together with a Tulip bowl (Fig. 2.21).

<sup>128</sup> Before Early Historic period the use of a painted decoration in Swat is limited to the Swat Period IV (see Stacul 1985).

<sup>129</sup> At Bala Hisar (Charsadda I) black-on-red painted ware is attested from layers (32) to (20). See also Charsadda IV (Wheeler 1962: fig. 47.498). Shaikhan-dheri: Dani 1965-66: fig. 21, see also *ibid.*: figs. 43, 5-11.

<sup>130</sup> Bhir Mound: Marshall 1951: pl. 127, nos. 216 and 217; Sharif 1969: figs. 24.10, 11; pl. XVa.6; Cf. Taxila Museum, inv. no. BM/37 385; Bahadar Khan et al. 2002: fig. 45.16. At Sirkap this class is well present in Saka-Parthian and earlier levels.

<sup>131</sup> In Swat Period VIII no painted potsherds have been so far documented.

Triangle Ware, we prefer to use the general definition of Black-on-red painted Ware (Callieri 2000: 859-860).

Finally, although the materials from BKG L should be observed with a high degree of prudence since, as we now know, the areas immediately outside the defensive wall were subjected to a series of negative interventions connected to the construction of the Indo-Greek defensive system, it is worth mentioning a series of forms from layers (10)-(10p)<sup>132</sup> which are unknown both to the local tradition of Barikot and to the sites of north India. I refer to a multi-spouted pitcher (Pl. 68.6) which has a comparison in Bhir Mound Marshall stratum III (Marshall 1951: pl. 123.71); a fragment of a spout with rectangular section and open on the upper side (Pl. 78.5); a pitcher with narrow vertical neck and vertical top handle<sup>133</sup> (Pl. 67.2); the fragment of the stem of a medium-large vessel painted in white, black and red (Pl. 77.1); two hemispheric bowls, one, having parallel at Bhir Mound in Sharif's Period III (Pl. 24.1; Sharif 1969: fig. 19.10), the other with a decorative omphalos imitating metal prototype<sup>134</sup> (Pl. 23.1), find a possible comparison in Charsadda layer (24) (Wheeler 1962: fig. 23.146).

3. The local tradition in assemblage IIA2 mainly includes: cooking pots, storage jars, handled jugs and drinking bowls.

Globular cooking pots with vertical or slightly everted short rim, probably an evolution of the larger protohistoric cooking pots, appear side by side with the Gangetic carinated pots. The compresence of these different cooking forms in the same inhabited unit, suggests they were used by the same group of people possibly for different type of food. The technological choice of applying clay slurry on the lower part of cooking vessels, noted on some potsherds, finds its roots back into protohistoric time<sup>135</sup>.

The protohistoric holed-mouthed storage jars for the conservation of cereals are represented in assemblage IIA2 only in a finer or smaller version. However, the continuous use of these traditional storage jars is suggested by the recovery of fragments in BKG L layer (10)-(10p) and in Indo-Greek time.

Drinking bowls with vertical walls and simple rounded rim, sometimes painted, well attested in Achaemenid time, survive, with slight variations, during the entire Indo-Greek Period.

---

<sup>132</sup> The ceramics of these layers are mostly coherent with Achaemenid assemblage in BKG K-105.

<sup>133</sup> This type of handle is attested at Sravasti in early Period II (Sinha 1967: figs 14.XXVIII, 16.15) but on different type of jugs in red and gray ware.

<sup>134</sup> This potsherd comes from BKG L layer (9).

<sup>135</sup> I refer to a personal observation of the protohistoric cooking pots from the trenches excavated on the hill-top of Barikot.

## Mauryan Period

During Period IIB (= Macrophase 2b) room K-1900, which was provided with new internal and external floors, does not undergo any structural change. The sample from the external floor (see Fig. 3.12) gives the calibrated date of mid-4<sup>th</sup> - mid-3<sup>rd</sup> century BCE and it is likely that the episode of the Macedonian siege (autumn 327 BCE) falls within the chronological frame of this Period. It is worth noting that the stratigraphic deposit related to this Period is relatively poor if we considered the chronological span of one century suggested by the chronological sequence set by <sup>14</sup>C dates. That might suggest a little frequentation of this part of the inhabited area, or at least of this habitation unit, during Period IIB.

Apparently, indicative of the cultural orientation of this period are a Mauryan coin and a baroque lady terracotta figurine. However when we look at the ceramic assemblage we are not able to identify any pottery marker which clearly speaks of a Mauryan influence. The assemblage is mainly composed by forms of local or Indo-Gangetic origin already attested in the previous Period while the vessel forms of Achaemenid derivation have almost completely disappeared. The most frequent forms are the *thālīs*, the pear-shaped jars, the truncated-conical cups and the dishes with flat base and vertical sides. The hemispheric and convex bowls with horizontal projecting rim characteristic of the Hellenistic context and also the fragment of a *krater*-like vessel come from the latest layers of this period<sup>136</sup>. This could suggest a transitional phase before the massive introduction of Hellenistic material.

## Graeco-Bactrian Period

Period IIIA1 marks a substantial change in the ceramic assemblage. Chronologically, this Period spans between the mid-3<sup>rd</sup> century BCE and the early beginning of the 2<sup>nd</sup> century BCE. The only numismatic evidence is given by a local coin found in the first floor of room K-1900. In this period, the morpho-typological Achaemenid heritage has almost completely disappeared, overcome by the Hellenistic influence coming from the newly born Graeco-Bactrian reign.

The Hellenistic Mediterranean tradition of this assemblage is indicated by the introduction of a series of new vessel forms which find close connections with the Graeco-Bactrian assemblages of Ai-Khanoum, Termez, Bactra and Kurganzol (see Ch.3.2.4.1-2): in particular, *plats/assiettes-à-poisson* of different types (with vertical lip,

---

<sup>136</sup> For a total of 10 fragments. Layers (2148) and (2150).

triangular or triangular elongated rim, and thick rolled rim), deep convex bowls with incurving/inflexed rim ('echinus bowls'), hemispheric bowls with sharp pointed rim and one painted *krater*-like vessels<sup>137</sup>. The introduction of hemispheric or sub-hemispheric bowls with flat projecting rim distinctive of the Indo-Greek Period (Callieri 2000: 859) must be dated back to this first wave of Hellenistic influence. The motifs painted on top of the rim are mainly strokes and cross-hatched triangles. In general, the decorative repertoire of the Black-on-red painted Ware, firstly attested at Barikot in Macrophase 2a.2, remains constant and does not reflect any Hellenistic taste.

On the inner bottom of a bowl with flat contiguous base appears the impression of a stamp with the motif of lotus. Despite the decorative motif, this first specimen of stamped ware does not morphologically match with the vessel form indicated by Wheeler as 'Lotus bowl', confirming that the stamped lotus was not exclusive of a specific type of form.

Worth of mention is the very popular drinking bowl with vertical wall and flat continuous base on which in later periods some Greek onomastic inscriptions are incised (Tribulato and Olivieri 2017). The form, however, seems to be an evolution of the drinking bowl with vertical wall and rounded rim attested in Achaemenid Period.

It is evident that the morphological contribution of Hellenistic tradition at Barikot is almost restricted to luxury table wares<sup>138</sup> mainly with the function of serving vessel, while forms connected to basic needs remain linked to local and Indo-Gangetic traditions, the latter by now deep-rooted in the area.

As regards cooking vessels, globular pots with upright or slightly everted rim, few attested in previous periods, are abundant. However, the numerous handles of an unknown slightly carinated cooking pot, possibly related to the Indo-Gangetic carinated cooking pot, plus the cooking dishes used as pans which have parallels in the north Indian sites, speak of a compresence of local and Gangetic cooking traditions.

For the conservation of dry food and cereals the protohistoric storage hole-mouthed jars with cord-like ridge below the rim continue to be used alongside a new globular hole-mouthed jar with thickened rim inclined inside<sup>139</sup>, very well represented in this assemblage. Another quite popular storage jar is that with globular or ovoid body and two-split rim (or simply with rectangular section) attested both in large and medium size. Handed jugs with simple flared neck, of the type already attested in previous periods appear side by side with a new type of high-necked jug with carinated rim which will

---

<sup>137</sup> Another *krater*-like vessel with incised wavy-line decoration was found in the upper layer of Period 2b.

<sup>138</sup> This is also the Period in which the treatment of golden slip is attested for the first time.

<sup>139</sup> We suggested for this form also a cooking function (see Ch. 3.2.4.2).

enjoy a major success in following period. The pear-shaped jars introduced in Macrophase 2a.2 continue to appear but with a slight variation in the form of rim.

This conservative trend within cooking and storage vessels seems to indicate a continuity in the way of cooking and preserving food and liquids. Moreover, serving vessels of the local tradition, like *thālīs* and carinated bowls with S-shaped rim, survive notwithstanding the introduction of numerous Hellenistic form with similar function. The divergence of traditions exclusively within the category of serving vessels could indicate a sharp stratified society which includes on one side, a group of common people who continue to cook and preserve food for themselves and for the upper class using traditional pots, and on the other side, an élite which prefers to be served with the table wares of the emulated society, seeking to raise, through social behaviours, its own status within the society<sup>140</sup>.

#### Indo-Greek Period

Periods IIIA2-4, covering a time span ranging from the 2<sup>nd</sup> century BCE to the mid-1<sup>st</sup> century BCE include the phase of the Indo-Greek domination. Apart from a series of building activities involving the enlargement of room κ-1900 and the construction of a new structure parallel to that, Period IIIA2, in terms of ceramic assemblage, shows a general continuity with the Graeco-Bactrian period. Relevant is the presence of luxury plates with golden slip, a lotus bowl with a direct comparison with Charsadda I layer (22) and a Greek inscription on potsherds which attests the presence of Greek speakers at Barikot.

Some innovations appear only in Period IIIA3 when the luxury serving vessels of the Hellenistic tradition start to appear also in a ‘clinky’ pink to red-yellowish fabric very rich in calcareous inclusions (Fabric E), the distribution of which is chronologically limited to Period IIIA3 and IIIA4. To Period IIIA2-4 must be dated also some Gray Ware unrestricted vessels coming from the hill-top treated with a glossy thick black slip (Fabric G) imitating the Hellenistic Black Glazed Ware. All the potsherds in Fabric G belong to thick walled probably restricted vessel imitating metal prototypes. The *krater*-like vessel with black slip from BKG L layer (8) is likely to belong to Macrophases 3a.3 or 3a.4. The structural reorganization of the urban layout and the construction of the massive fortification wall, occurring in Period IIIA3, seems to be accompanied by a new wave of Hellenistic influence.

---

<sup>140</sup> On “pottery and social strategy” see Miller 1985: 184-196.

During the last Indo-Greek Period (IIIA4) there is a substantial continuity in the morphology of the ceramic assemblage which however appears particularly well fired ('clinky') and well finished, including the finest examples of *plats/assiettes-à-poisson* treated with golden slip. In general, the microscopic observation of the ceramic material from Macrophase 3a shows a progressive improvement of the manufacturing techniques at Barikot (Maritan, forth.).

## 5.2 Notes on the other Early Historic sites of the Swat Valley

During the Early Historic Period the Middle Swat was a flourishing Valley rich of urban centers. Over a distance of only 20 km, apart from poorly documented evidence of Early Historic frequentation at Aligrama, Kalako-derai and Gogdara III, there are evidence of at least two large urban settlements besides Barikot: Udegram and Barama. Udegram 'Bazar', indicated as one of the centers sieged and conquered by Alexander the Great (*Ora/Nora*), finds an Indo-Greek phase in stratum V, while stratum VII or VI possibly represents, supposing an interrupted occupation, the level of the Achaemenid time. Unfortunately, the ceramic material associated to these layers has not received the appropriate attention and as a consequence of the 2005 earthquake the possibility of studying that is completely lost.

Only 10 km to the north of Udegram is the site of Butkara/Barama. Not mentioned by the historians of Alexander, the site of Butkara appears as an important urban settlement during the 3<sup>rd</sup> century BCE, when the monumental Buddhist complex of Butkara I was founded within its urban layout. The site was identified as the ancient capital city mentioned in the late ancient Chinese travel-logs as Mengjieli (Tucci 1958: 285). The possible identification of Barama I with the "upper-town" of the urban area of Butkara, extending on its foot on the other side of the Jambil River, seems legitimate, mostly at the light of the radiocarbon dates from Period 4 which gave the results of 370 BCE (not calibrated; Alessio et al. 1966: 409). However, the preliminary morphological study of the ceramic material associated to Period 4 seems to partially reassess the radiocarbon date. In fact, the ceramic assemblage of Period 4 (Figs 2.11-13) indicates a chronological time span corresponding to Macrophase 3a of Barikot. The most characteristic vessels forms of this Period are: the hemispheric and convex bowls with horizontal projecting rim, the carinated dishes/bowls with S-shaped rim, the *thālīs* (also of the type with convex

wall and upright rim attested in BKG 3a.4), the high necked jugs with carinated rim, the medium size jar with three-split rim, a large jar with flared neck and split-rim. Moreover, a possible *plat-à-poisson* with vertical lip and a shape which resemble the hemispheric form of Lotus bowls are worth mentioning. In general, all these forms finds close comparison with the ceramic assemblage from BKG K-105 IIIA1 and IIIA2-4<sup>141</sup>.

It is difficult to speculate on the nature of the earlier historical period<sup>142</sup>. Indeed, the principal forms included in Period 5 assemblage are: the carinated bowls with S-shaped rim diffused in Swat since Swat Period VIII and the *thālīs* with sharp carination and inflected/incurving rim appearing from mid-1<sup>st</sup> century BCE. At the moment, the only one fragment of hemispheric bowl with horizontal projecting found in this assemblage is not sufficient to support a Hellenistic context for Period 5.

As we have seen at Barikot, the Mauryan phase does not seem to have any distinctive pottery markers and this historic phase was probably closer to a transitional phase. Given that, there is no reason to exclude a Mauryan horizon for Barama Period 5. However, no bold claim can be made on the basis of the ceramic material available. What is clear is that between the mid-3<sup>rd</sup> and the mid-1<sup>st</sup> century the site of Butkara/Barama was a flourishing urban center consisting of a ‘lower’ (Butkara I) and an ‘upper town’ (Barama I), including in its urban layout the most ancient Buddhist complex of the Middle Swat Valley, likely dated to the 3<sup>rd</sup> century BCE, which at the moment represent the only tangible trace of an elusive Mauryan acculturation phase in Swat<sup>143</sup>.

---

<sup>141</sup> Few high necked jars are probably intrusive (Pl. X). Apart from these few specimens the assemblage is extremely coherent.

<sup>142</sup> Period 6, covered by a thick sterile soil and mainly represented by circular pit cut into the virgin soil is considered protohistoric.

<sup>143</sup> The term “acculturation” can be here correctly utilized if - as stated by Faccenna - and proved by two inscriptions - (Faccenna 1980-81: 167; Petech 1966) - Butkara I was a royal religious foundation or *Dharmarājika-stūpa*.

### 5.3 Revising the picture of the Gandharan Ceramics

This paragraph intends to highlight the relations between the Early Historic ceramic assemblages of Barikot with those of the Early Historic sites of the southern plains, for most of which no radiocarbon dates are available. By using the pottery markers identified in the Barikot sequence as practical tools we try to tentatively revise the repeatedly questioned chronological schemes of the sites of Charsadda and Bhir Mound, stressing key-points which should be considered in future investigations at the sites.

#### 5.3.1 Bala Hisar (Charsadda)

The supposed different development between the northern valleys and the southern plains (Charsadda and Taxila) after Swat period V (Dittmann 1984; Vogelsang 1988) was only apparent. Indeed, the regional identity of Gandhara attested during Swat periods IV-V became restricted to Swat and Peshawar Valleys during Swat period VIII, then including again Taxila Valley during Early Historic time. The ceramic comparisons noted between Barikot and Charsadda (Bala Hisar) sequences are discussed below and synthesized in Tab. 5.1.

Ceramic material from Ch.I layers (36)-(29) does tally with Swat Period VIII assemblage from Aligrama and Kalako-derai including:

- a) shallow bowls/dishes with flat bottom and vertical sides (Stacul and Tusa 1977: figs 14.e, 19.e; Stacul and Tusa 1995: fig. 24.d) which appear from Ch.I layer (34) (Wheeler 1962: fig. 17.66);
- b) large deep convex bowls/basins with clubbed rim and cordon decoration (Stacul and Tusa 1993 fig.17.k; see also Fig.x from unpublished trench U' at Aligrama) attested at Ch.I layer (36b) (Wheeler 1962: fig. 17.61);
- c) hemispherical bowls (Stacul and Tusa 1977: fig.14.i) (Wheeler 1962: fig. 17.67) in Ch.I layer (35);
- d) vessels with inverted sides and upright rim with groove on body (Stacul and Tusa 1977: fig. 14.m; Stacul and Tusa 1993: fig. 17.m; Stacul and Tusa 1997: fig. 23.c) appearing from Ch.I layer (35) (Wheeler 1962: fig. 17.63);
- e) several type of jars: jars with sharply everted rim and vertical lip (Stacul and Tusa 1977: figs 14.g-h, 18.c, 19.a and Wheeler 1962: fig. 18.78, layer 32), ovoidal/sub-globular jars with short everted rim (Stacul and Tusa 1977: figs. 14.o, p; 18.d; Stacul and Tusa 1997: fig. 23a and Wheeler 1962: fig. 17.68-69, layer 34) and jars

with narrow neck and almost vertical rim (Stacul and Tusa 1977: figs. 14.1; Stacul and Tusa 1997: fig. 23.b);

- f) carinated bowls with S-shaped rim appearing from layer (32) were used by Dittmann as marker for the beginning of the Early Achaemenid presence at the light of their presumed Iranian origin (Dittmann's Phase IIA). However, also this vessel form is distinctive of Swat Period VIII (Stacul and Tusa 1977: fig. 14.j-k; Stacul and Tusa 1993: fig. 17.o; Stacul and Tusa 1995: fig. 24.g; Stacul and Tusa 1997: fig.23.d). Although no absolute datings are available, on the basis of the recent reassessment (see Ch.1.1.1) Swat Period VIII can be confidentially considered pre-Achaemenid in date.

The beginning of the Achaemenid period probably coincides with the appearance of hemispheric Tulip bowls<sup>144</sup> in Ch. I layer (28). In fact, the radiocarbon dates from Barikot suggest for Tulip bowls a mid-5<sup>th</sup> century BCE date and there is no reason why at the important site of Charsadda their first occurrence should be considered late Achaemenid (Dittmann 1984: 189) or even post-Achaemenid (Vogelsang 1988: 104). Indeed, evidence from Barikot seems to confirm the Achaemenid dating of Tulip bowls in South Asia also suggested by scholars for the site of Akra, in the Bannu region (Magee et al. 2005: 724-25; see also Petrie and Magee 2007; Magee and Petrie 2010; Petrie and Magee 2012).

It is worth noting that apart from this well-known pottery marker, the overall ceramic assemblage included between Ch. I layers (28)-(23) well fit in the framework of BKG Macrophase 2a.2.

We mainly refer to:

- a) *thālīs* (or 'dishes with incurved sides' in Wheeler) which in this period share the same features of *thālīs* from BKG Macrophase 2a.2, that is, vertical wall with flat topped (OB-a1) or inflected rim (OB-a3);
- b) furthermore Ch.I layer (26) marks the appearance of the buff truncated-conical cups of Indic origin (sOB-i) (Wheeler 1962: fig. 22.134) and of the fine convex bowls with clubbed, sometimes painted, rim (OB-c6) (*ibid.*: fig. 22.141-142), both distinctive of Macrophase 2a.2 although the former, as stressed by Wheeler (1962: 60), is a long-lasting type which survives in later periods;
- c) in layer (27) a black-on-red painted pot (*ibid.*: fig. 22.128) recalls in shape and decorative repertoire form **408** (Pl. 82.1) from BKG K-105 2a.2;

---

<sup>144</sup> Corresponding to series OB-fl in Barikot.

- d) the thin walled hemispheric bowl from layer (25) (*ibid.*: 23.146) seems analogous to the hemispheric bowl with omphalos from BKG L, the chronological position of which is unfortunately uncertain;
- e) large bowls/basins with flat slightly projecting rim and wavy line appearing in Ch.I layers (28)-(22) (e.g. *ibid.*: fig. 19.93) are attested in BKG K-105 only from Period IIIA1<sup>145</sup>, however, similar vessel shapes, without wavy line decoration (OB-h1), were found in Achaemenid assemblage at Barikot.

Coeval to BKG Macrophase 2a.2 is also the stratigraphy, at least until phase III<sup>146</sup>, of Ch. V (*ibid.* figs 49-50) where Tulip bowls, appear alongside carinated bowls with S-shaped rim, *thālīs* with inflected rim, convex bowls with clubbed rim and a deep bowl (*ibid.*: fig. 50.545) akin to OB-f5. From here also comes the Early Historic Embossed bowls with human figures.

According to Wheeler, Lotus bowls are attested at Ch. I for the first time in layer (24), although illustrated from layer (22). They represent the only new element introduced in layers (24)-(23) into the previous Achaemenid assemblage, which remains otherwise unchanged. This distinctive stamped decoration on the inner bottom of two different types of bowl is attested for the first time at Barikot in Period IIIA1 (ca. mid-3<sup>rd</sup> century BCE). However it cannot be excluded that the introduction of this type of decoration on the inner bottom of bowls occurred earlier, in Mauryan time<sup>147</sup>. For the moment we are inclined to maintain the Dittmann date for these layers.

It is only in layer (22) that the Black-on-red painted hemispheric bowls with horizontal projecting rim characteristic of the Hellenistic and mainly of the Indo-Greek period at Barikot<sup>148</sup> start to appear. However no other Indo-Greek or more generally Hellenistic pottery markers, like *plats/assiettes-à-poisson* or *thālīs* with incurving rim, are present in the quite short Hellenistic stratigraphy included between Ch.I layers (22)-(20). In fact, forms and decorations characteristic of Saka-Parthian Period are already present in layer (19).

In order to find a more consistent Hellenistic assemblage including *plats/assiettes-à-poisson* (e.g. Wheeler 1962: fig. 46.476, 500), deep *goblet* with high carination (e.g. *ibid.*:

<sup>145</sup> A specimen was however recovered in BKG L layer (10p).

<sup>146</sup> Phase IV of Ch.V features the appearance of baroque ladies, lotus bowl and NBP Ware.

<sup>147</sup> Geometric or vegetal stamps at the center of bowls in gray ware or NBP ware are attested at Hastinapura between 6th-3rd century BCE and at Kauśāmbī, Vaiśali and Pātalīputra (Lal 1945-46: fig. 16XVIII). Therefore, the stamped technique cannot be considered exclusive of Hellenistic word. Anyhow, it would be useful to know on which vessel forms the stamped lotus appear in layer (24)-(23).

<sup>148</sup> Few fragment of unpainted hemispheric bowls comes from the latest layer of Period IIB in BKG K-105.

fig.46.480-482) and a polished black amphora (Wheeler 1962: fig. 47.496) having comparisons with Barikot, Ai Khanoum and Shaikhan Dheri, as noted by Petrie (2013a: 518), we have to move to Ch. IV.

Therefore, it is possible to argue that if in Achaemenid time the inhabited area of Charsadda extended at least from Ch. I to Ch. V, in Indo-Greek time there might have been a partial eastwards shift or a contraction of the settlement due to the foundation of the nearby Shaikhan Dheri during the mid-2<sup>nd</sup> century BCE.

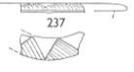
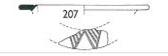
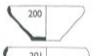
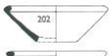
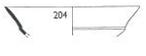
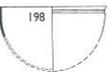
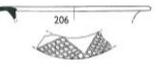
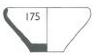
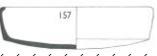
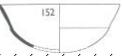
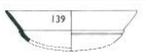
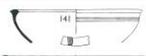
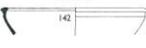
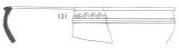
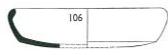
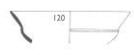
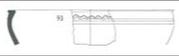
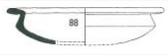
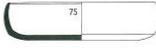
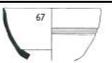
layer	Charsadda I	
20	Macrophase 3a	 
21		  
22		     
23		  
24		  
25	Macrophase 2a.2 / 2b	
26		   
27		   
28		 
30		
31		
32		
33	Macrophase 1c/2a.1	 
34		   
35		
36		

Table 5.1 – Charsadda sequence layers (36)-(19) with illustration of the vessel forms which have parallels at Barikot.

### 5.3.2 Shaikhan Dheri (Charsadda)

The structural sequence of Shaikhan Dheri is well defined on the basis of numismatic evidence and <sup>14</sup>C dates. It is therefore here considered as a valid *comparandum*.

The ‘Greek assemblage’ of Shaikhan Dheri is associated to the first structural Period of the town, the foundation of which, according to numismatic evidence and some <sup>14</sup>C dates (Dani 1965-66: 24-26, 35-38), should be set in a mature Indo-Greek Period, mid-2<sup>nd</sup> century BCE, approximately corresponding to the time of the fortification of Barikot in Macrophase 3a.3.

A series of vessel forms from the ‘Greek’ Period finds comparison at Barikot, mainly in some variations attested in Macrophase 3a.4. Interestingly, the assemblage includes also forms absent in our collection but attested at Barikot in in Saka-Parthian period (Callieri and Olivieri, forth.). It is the case of the carinated dishes with flared side (*ibid.*: fig. 11.1) and slightly carinated bowls with flared rim (*ibid.*: fig. 16.1, 5).

As regards the forms with parallels at the Indo-Greek Barikot, the characteristic hemispheric/rounded bowls with flat projecting rim painted in black (*ibid.*: fig. 21.4a-6a, 11a-12a) are well represented. The shared decorative repertoire can be considered peculiar of the Early Historic Gandharan tradition.

Apart from the Black-on-red painted Ware, another type of decoration, that is the impressions of stamps representing a lotus flower on the inner bottom of bowls/dishes appear in the ‘Greek’ level of Shaikhan Dheri (*ibid.*: fig. 20.5-9) in a variety of style. The deep horizontal grooves on the external surface of vessels illustrated in fig. 11.4 recall the base of a vessel from Period IIIA4.

*Assiettes-à-poisson* with simple rim (*ibid.*: fig. 15.8-9) are here attested alongside the *thālīs* with incurving (*ibid.*: fig. 13.3,7) or inflected side (*ibid.*: fig. 13.2, 4-5), in agreement with the Indo-Greek trends at Barikot. In particular, a *thālī* with convex side and upright rim (*ibid.*: fig. 13.1) of the type of form **662** (Pl. 12.5) from Period 3a.4 is documented.

Another elements which finds parallels at Barikot is a basin with thickened rounded rim (*ibid.*: fig. 18.4) attested in the upper layer of Period 3a.4.

In general, the ‘Greek’ assemblage of Shaikhan Dheri appears coherent with the mature Indo-Greek and early Saka-Parthian periods at Barikot.

### 5.3.3 Bhir Mound (Taxila)

Making progress on unraveling the puzzle of the Bhir Mound ceramic sequences is an ambitious enterprise which seems destined to fail. There has been considerable debate (e.g. Dittman 1984; Vogelsang 1988; Allchin 1995; Petrie 2013b) about both the relative chronology within the same sequence and cross-linking data from the three excavation works (Marshall 1951, Sharif 1969, Bahadar Khan et al. 2002) in order to obtain a relative correspondence grid for the periodization of Bhir Mound. However, looking at the three groups of materials as a whole results in tying the observer in knots. In fact the incoherence of the presence/absence of ceramic data recorded, probably with different criteria of selection, during the three separate excavation campaigns does not allow to gain any insight into the question of absolute chronology of the Bhir Mound. In particular, the most recent investigation (Bahadar Khan et al. 2002) was not carried out according to a stratigraphical methodology of excavation. In absence of radiocarbon data, an additional filter to the interpretation of the material from Bhir Mound, which is in general strongly Gangetic (Callieri 1995: 294), is represented by the too broad chronological brackets offered by the comparative material from the sites of northern India which needed some new fresh investigations.

Therefore, the discussion here will be limited to highlight, case by case, the relations between the Bhir Mound materials and the new dated materials from Early Historic Barikot in order to stress possible connections between these two areas at the opposite limits of the Gandhara region using the reliable ceramic sequence from Barikot as a term of comparison.

If the parallels between the material from Bahadar Khan Period I and Dittman Period IB (Petrie 2013a, see Ch.1.3.3) are confirmed, it is likely that the first occupation identified by Marshall and Sharif (= Bahadar Khan Period II) could be chronologically related to Dittmann Period IIA and Swat Period VIII. One of the distinctive ceramic form of Dittmann Period IIA and Swat Period VIII is the S-shaped carinated bowl.

In Sharif's sequence, as well as in Bahadar Khan's periodization, carinated bowls with S-shaped rim, not documented by Marshall, precede the appearance of Tulip bowls as is the case at Charsadda (Bala Hisar) and in Swat. Apart from this element, Sharif assemblage II, when carinated bowls with S-shaped rim start appearing<sup>149</sup>, does not share any other

---

<sup>149</sup> In Bahadar Khan's sequence S-shaped carinated bowls appear in Period II. Also in this case S-shaped carinated bowls seem to represent the only element of correlation with Charsadda (32)-(29) and Swat period VIII. However, the presence in Bahadar Khan Period II of vessels forms (like pear-shaped jars and carinated cooking pots) which both in

vessel form with Swat Period VIII<sup>150</sup> or Ch. I layers (32)-(29). In general, Sharif assemblage I and II, dominated by *thālīs* with incurving rim in gray ware and NBPW<sup>151</sup>, seems to be more Gangetic oriented (Vogelsang 1988: 108; Allchin and Allchin 1982: 323).

The passage between Period II and III is described by Sharif as sharp with a substantial decrease of Gray Ware and NBPW. Moreover what appears clear is a drastic change into the ceramic horizon. The new vessel forms of Sharif Period III find close comparison with the pottery of the Achaemenid assemblage, Macrophase 2a.2, at Barikot. I refer to the small truncated-conical cups, the carinated cooking pots and the pear-shaped jars of Indo-Gangetic origin. The latter, represented only in Marshall stratum II, is instead attested in Bahadar Khan's sequence since Period II along with the carinated bowls with S-shaped rim and the carinated cooking pots, prior to the appearance of elements of Iranian tradition, unlike Sharif's sequence. Another element of the Indo-Gangetic tradition which emerges in Sharif Period III but is not attested at Barikot, is a storage jar with ovoid body and high 'internally collared rim' (Sharif 1969: fig. 13.3-3a) which is frequently attested in the Early Historic assemblages in sites of north India as at Rājghāt (Narain and Roy 1977: fig. 13.33, Period IC), Kauśāmbī (Sharma 1960: fig. 11.64, period IV) and Vaiśālī (Sinha and Roy 1969: fig. 28.1, Period II) and is also present at Charsadda V layer (4) (Wheeler 1962: 50.552). In the same assemblage, connections with the Iranian pottery tradition are indicated by the presence of Tulip bowls of hemispheric type (Sharif 1969: fig. 19.1; see Pl. 25-26) and by the deep bowls indicated by Sharif as 'akin to the Tulip bowls' (Sharif 1969: fig. 17.16; see Pl. 28)<sup>152</sup>, both represented in Barikot Macrophase 2a.2. This is also the Period when a Black-on-red painted motif representing a row of hatched triangles (Sharif 1969: fig. 24.11) appears on the external surface of a restricted vessel. This is a similar type of that appearing at Barikot in Macrophase 2a.2 (Pl. 82.1) and at Charsadda I layer (27) (Wheeler 1962: fig. 22.128).

Therefore, the general ceramic assemblage of Sharif Period III is particularly coherent with Barikot Macrophase 2a.2. Moreover, it is worth noting that the only fragment of Baroque lady coming from this period (Sharif 1969: 32, pl. X-a.4) - the other five are

---

Barikot and in other Bhir Mound excavations appear in later period led us to treat this material with a certain degree of prudence, especially on the light of further indexes of inconsistency in this sequence (see below).

<sup>150</sup> The flat dish with incurving rim (Sharif 1969: fig.

<sup>151</sup> The latter are mostly present in Sharif Period I.

<sup>152</sup> Furthermore, the fine open bowl with round bottom (Sharif 1969: fig. 19.10) recalls form 3 in Fabric O from BKG L, with uncertain chronology.

from Sharif Period IV- was found in layer (7), the latest of Period III and this could be intrusive.

Moreover, *thālīs*, which continue to be generally in Gray Ware, start to show a sharp carination and vertical sides (Sharif 1969: fig. 15.4-4b). A complete example in Red Ware is shown in Marshall stratum III (Marshall 1951: no 96). The latter includes also a distinctive multi-spouted flask (no 71) with parallel in BKG L layer (10p) (Pl. 68.6), a bowl with vertical side and convex bottom (Marshall 1951: no 97) which clearly recalls the vessel shape found in Sharif III (Sharif 1969: fig. 17.8), and a carinated cooking pot (Marshall 1951: no 49). Excluding the Hellenistic embossed ware (*ibid.*: nos 234-235), Marshall stratum III is quite coherent with Sharif Period III and BKG Macrophase 2a.2. Other elements related to BKG Macrophase 2a.2 comes from Bahadar Khan Period III and IV. Besides Tulip bowls, which seem to appear only in Period IV, I refer to the fine bowls with clubbed rim (Pl. 18) and to the slightly carinated bowl with projecting rim (Pl.16.1) documented already in Bahadar Khan Period III (e.g. Bahadar Khan et al. 2002: figs 15.20, 17.14) along with truncated-conical cups and carinated cooking pots (both already attested in the previous period).

Interestingly, Sharif Period IV, which shows some similarities with Marshall stratum II<sup>153</sup> (e.g. storage liquid jars, Marshall 1951. No.8-9 and Sharif 1969: figs 21.11, 23.4; lamp, Marshall 1951: no 135 and Sharif 1969: 21.1), does not record elements of the Hellenistic pottery tradition. Instead, Marshall's excavation revealed fragments of Hellenistic embossed Ware in strata III (Marshall 1951: nos 234-235) and I (*ibid.*: no 237) and a *krater* provided with a handle decorated by the head of Heracles or Alexander in stratum I (*ibid.*: no 226a-b). Suggesting that the area of Bhir Mound was frequented in the Indo-Greek period are also some findings from the most recent excavation. The incised decoration of opposing oblique dentils stemming from an horizontal line, typical of the Indo-Greek Period at Barikot (Pl. 85.6-9), appears in Bahadar Khan's Period IV, strangely in the period marked by the appearance of Tulip bowls. Furthermore, the green schist bowl with flat everted grooved rim (Bahadar Khan et al. 2002: 36.23) has a direct comparison in a vessel found in the earliest Saka layers of BKG K-105 (**BKG3611**) but possibly earlier. Bowls with flat projecting rim (*ibid.*: figs 32.11, 36.4-5) are distinctive of the Hellenistic period at Barikot. Hellenistic embossed ware with flower scroll from

---

<sup>153</sup> An indic Influence in Marshall stratum II is suggested by ovoid storage jars (Marshall 1951: nos1-2), sprinklers (*ibid.*: no 66) and large bowl with knobbed loop-handle (*ibid.*: no 112) attested in Indian sites as Rajghat (Narain and Roy 1977: fig.20); Vaisali (Sinha and Roy 19: fig. 42.7, 10, 11), Kausambi (Sharma 1960: fig. 9.27), Atranjikhera (Gaur 1983: fig. 90.27), Sravasti (Sinha 1967: fig. 15)

Bahadar Khan Period III (2002: pl. XB-no2) seems curiously antedate the Iranian influence. Without entering into the problematic stratigraphic issue offered by Bahadar Khan's excavation, it is interesting to note the presence of pottery forms and decorations which together confirm an occupation of the site at least until the mid-2<sup>nd</sup> century BCE (Erdosy 1990: 665).

Far from proposing a chronological correlation among the ceramic sequences of Bhir Mound, we conclude stressing the few fix points of the Bhir Mound sequence which should be taken into consideration in the next fieldwork.

- a) The assemblages of the entire sequence show a strong Indo-Gangetic character. In particular the assemblages that should chronologically correspond to Charsadda period IIA/Swat period VIII, shared with the other late protohistoric Gandhara assemblages only the form of the so-called S-shaped carinated bowl. This brings us back on the considerations about the 'Indic influence' (Vogelsang 1988; Allchin and Allchin 1984) which, in my view, should arrive in Taxila before the date proposed by Vogelsang (1988: 108), that is, the 4<sup>th</sup> century BCE. In fact, considering Bhir Mound as an unbroken occupation, this Indic influence should chronologically correspond to Charsadda period IIA/Swat period VIII for which unfortunately we do not have absolute dating.  
However, considering that this phase of Indic influence (post-Bahadar Khan Period I) has Swat Period VI-VII (1200-700 BCE) as *terminus post quem* and the appearance of Tulip bowls (mid-5<sup>th</sup> century BCE, according to Barikot 14C dates) as *terminus ante quem*, we can tentatively place this Indic influence around the second quarter of the 1<sup>st</sup> millennium BCE.
- b) The regionalization of the ceramic assemblage in Gandhara will be achieved again under the Achaemenids, when Indo-Gangetic (e.g. carinated cooking pots, truncated-conical cups and pear shaped jars) and Iranian components (e.g. Tulip bowls) appear at the same time in Swat, Peshawar and Taxila Valleys.
- c) A Hellenistic presence at Bhir Mound until at least mid-2<sup>nd</sup> century BCE is testified by a series of vessel forms and Hellenistic decorations.





## CHAPTER 6

### CONCLUDING REMARKS. PICTURING GANDHARAN CULTURAL IDENTITY IN THE EARLY HISTORIC PERIOD

In order to draw a tentative picture of the Gandharan cultural identity in the Early Historic Period it is necessary to take a long term perspective. Only this can allow to diachronically contextualize the processes of negotiation between local and external formal features, between meanings and social values within the local material culture. In this way it may be possible to isolate the socio-cultural and economic dynamics, which drove the local choices of selection and translation of external components thereby reframed within a new identity.

#### **6.1 ‘Trans-Indus’ and ‘Cis-Indus’ Gandhara in the second quarter of the 1<sup>st</sup> millennium BCE**

There is a general agreement on the regionalization of the archaeological assemblages. Such regionalization features distinctive ceramic assemblages in the Gandhara region during the so-called Ghalegai/‘Gandharan Grave’ sequence (Stacul 1969, 1987; Dani 1967; see also Petrie and Magee 2012: 2) recently defined as ‘Swat protohistoric Graves’ (Reich et al., forth.). This distinctive regional cultural horizon is identified in settlement and graveyards distributed throughout the Gandhara region. It runs from the early 2<sup>nd</sup> millennium BCE to the first quarter of the 1<sup>st</sup> millennium BCE. As discussed in detail in Ch. 1.1.1, the recent excavations at Udegram and Gogdara (Vidale et al. 2016; see Fig. 1.1) and then Barikot (Olivieri and Iori, forth.; see Fig. 1.2) have clearly proved that the real chronological span of the Protohistory of Swat was far less extended than previously suggested. Excluding graveyards, Gandharan settlements sharing a common material culture during Protohistory are documented from the northern valleys of Swat (Aligrama, Barikot, Loebanr III and Kalako-derai) and Panjkora (Balambat) Rivers to the southern plains of Peshawar (Bala Hisar of Charsadda) and Taxila (Hathial and Bhir Mound).

The dissolution of this regional cultural identity during the first half of the 1<sup>st</sup> millennium BCE, features a different development between northern valleys and southern plains, which has been dealt in particular by Vogelsang (1988) and Tusa (1979).

On one side, W. Vogelsang affirmed the difficulty in correlating Swat (or Ghalegai) period VI-VII (= Gandhara Grave Culture III) with Charsadda, suggesting a different development between the two geographical units after Swat period V. At that time Charsadda and Taxila – two key sites of the Gandhara region - would have been influenced by the spread of Indic material, as result of an eastern shift in material culture at both sites (Vogelsang 1988: 110-2).

On the other side, S. Tusa explained the diverging sequence of Swat sites from other Gandharan sites, mainly Charsadda, as a tendency to a cultural isolation ('marginalization') of the Swat valley with the gradual shrinking of contacts with the areas outside the valley during the mid-1<sup>st</sup> millennium BCE (Tusa 1979: 691-3).

A critical reappraisal of the interpretations proposed until now can be carried out through a careful analysis of the new evidence from Swat. Let us begin from the question of absolute chronology.

The Swat period VII, traditionally dated by the Italian team to ca. 700-400 BCE (Stacul 1969; 1990: 609), can be now dated to around 1400-900/800 BCE on the basis of new <sup>14</sup>C dates from Udegram, Gogdara (Fig. 1.1) and Barikot (Fig. 1.2), and new radiocarbon dates of human remains collected in the 60s (Reich et al., forth). Remarkable are the observation made by Vidale et al. who noted that 'the two boundaries [end of Swat period IV and start of Udegram graves] show a partial overlapping and this can suggest a chronological continuity between them' (Vidale et al. 2016: 198). In fact, the modelled calibrated distribution at 2 sigma (95.4%) confidence level of available radiocarbon dates relating to the protohistoric sequence of the Swat valley questioned the general relative chronology of the Swat valley sequence which does not seem to fit well into the modelled sequence. Indeed, the chronometric evidence shows a continuity from Swat period IV (ca. 1700-1400 BCE) to the beginnings of the earlier protohistoric funerary activity at Udegram (= Swat period VI-VII, ca.1460-1133,). This datum (Vidale et al. 2016: 193-201) has two major implications:

- a) the overlapping between late Swat period IV and early Udegram graves does not leave space to the proposal time span of Swat period V (ca. 1400-1100 BCE) which however has been indirectly confirmed by the <sup>14</sup>C dating from the earlier layer of Bala Hisar (Coningham et Ali 2007)
- b) The time span of Periods VI and VII seems to be partially coeval.

At this point, the chronological boundary between the ceramic assemblages of Swat periods V, VI, VII becomes less distinctive and the formal differentiation among the

respective assemblages could be explained not in terms of chronology but as “the expression of a typological complex designed for particular activities” as already proposed by Tusa in relation to Swat period VII (Tusa 1979: 689). We must remember that materials associated to Swat period VII are absent not only in Charsadda but also in other protohistoric sites of Swat, like Aligrama (Stacul and Tusa 1977).

Given that, the difficulty in correlating Swat periods VI-VII with Charsadda, as pointed out by Vogelsang, would not have particular chronological implications since those are partially contemporary to Period V. Moreover, as noted by Stacul and Tusa (1977: 162), and further stressed above on the basis of unpublished material from Aligrama (see Chapter 5.3.1), Charsadda I layers (38)-(29) (= Dittmann Phases IB-IIA) share several formal similarities with the assemblages of Swat period VIII<sup>155</sup>. The latter, as we proposed (see Chapter 5.3, Tab. 1.2), can be tentatively dated to the second quarter of the 1<sup>st</sup> millennium BCE.

Therefore, the supposed cultural divergence between southern plains and northern valleys during the second quarter of the 1<sup>st</sup> millennium BCE due to an Indic influence from northern India that excluded the ‘relatively secluded’ highlands of Swat and Panjkora (Vogelsang 1988: 111) must be reviewed. The new element is represented now by the remodeling of Swat chronology, and by the correlation between the ceramic material of Swat period VIII and Charsadda I layers (38)-(29) (= Dittmann Phases IB-IIA) stressed in this research.

Rather than the northern valleys, what seems to fall out the boundary of a Gandhara cultural horizon at this stage is Taxila. As addressed in Chapter 5.3.3, in fact, the ceramics from Bhir Mound, particularly in earlier periods, seems to be strongly Gangetic with no links with the cultural horizon of Swat period VIII (= Dittmann Phases IB-IIA).

In order to find a reason in such a shift, it may be useful to give a look beyond the south-eastern boundary of the Gandhara region. During the first half of the 1<sup>st</sup> millennium BCE north-western India went across a period of consolidation indicated by Erdosy (1995) as ‘prelude to a second urbanization’ which will culminate with the rise of the Maurya empire. The spread of an Indic influence in Taxila should be related to the political and economic developments occurring in the Gangetic area during the Late Vedic/Early Iron Age<sup>156</sup>, which is still little known in terms of archaeological evidence, apart from the wide ‘phenomenon’ of the Painted Gray Ware.

---

<sup>155</sup> See Chapters 2.1.1 and 2.1.2 for details on Swat period VIII materials from Aligrama and Kalako-derai.

<sup>156</sup> With the term Early Iron Age we refer to 10<sup>th</sup>-6<sup>th</sup> century BCE see Erdosy 1995. For a general overview on the ‘prelude to urbanization’ in NW India see Erdosy 1995, Kenoyer 1997.

Going back to the general picture of Gandhara, the ceramic assemblages of the early Bhir Mound, during the second quarter of the 1<sup>st</sup> millennium BCE, speaks of an eastern shift of the cultural horizon, previously well integrated in the regional Gandharan horizon. This diffused Gangetic character is perhaps a consequence of historic and social processes, which centered in north India, the developments of which are hitherto still unclear.

Instead, contrary to the general opinion, northern valleys and Charsadda continue to maintain a strong interregional relation during the first half of the 1<sup>st</sup> millennium BCE. In order to explain the long-lasting links between these two areas it is useful to consider the landscape and the ecological factors.

As highlighted by Dichter (1967: 104), although the mountains and hill ranges that mark the boundary between the northern valleys and the Peshawar plain represent an apparent barrier (still today experienced by any visitors who come to cross these lands), it is indeed the Indus River that represents the main geographic and climatic barrier. As a matter of fact, the land to the east of the Indus is far more arid and drier than the territories west of it (Dichter 1967: 104). Olivieri (2003) while describing the conventional terminology used for the Swat Valley divided the area in three main sub-areas: Upper Swat, from the confluence of the Swat River with the Ugad River as far as the source; Lower Swat, from the confluence with Panjkora River as far as that with the Kabul River; and the Middle Swat, which is the course comprised between the confluence with Ugad and the confluence with Panjkora. He argues that such definitions are 'more correct than the generic use of Upper Swat for the course as far as Manglaor and Lower Swat as far as Panjkora, which leave the lower course of the Swat from here to its confluence with the river Kabul devoid of any specific denomination' (Olivieri 2003: 13). Although not clearly perceptible to the observer, since Swat and Panjkora flow into narrow gorges, the area from the confluence with the Panjkora down to the confluence with the Kabul, close to the archaeological site of Charsadda is, hydrologically speaking, part of the Swat valley. If such continuation of the Swat River is not immediately visible to the observer (with implications also in the ancient geographical knowledge, see Olivieri 1996: 58-61), that track must have represent a natural direction which the local people of the northern valleys involved in a long distance winter transhumance could follow.

Ethnographic work carried out by R. Young (2003) around the site of Charsadda and the Swat and Dir valleys has demonstrated that the modern pattern of subsistence in the northern valleys are multiple, as involving a long distance winter transhumance (from northern valleys to Charsadda District), an inter-valley winter transhumance (from the

upper to the lower regions of Swat and Dir), an inter-valleys summer transhumance (from the lower to the upper regions of Swat and Dir), within a general coexistence of nomadic pastoralism and sedentary agriculture (Young 2003: 64-75). The comparison between these modern patterns of subsistence and the archaeological environmental data from the northern valleys and the Bala Hisar (Charsadda), led R. Young to suggest a high probability that the modern patterns replicate the ancient subsistence patterns (Young 2003: 80-82).

Indeed, seasonal pastoral mobility from the northern valleys to the plain region is a possible key for the understanding of the consolidation of the network of cultural and economic relations between the 'relatively secluded' valleys of Swat and Panjkora Rivers and the plain of Charsadda and Peshawar. The symbiotic and complementary relationship established between these two areas as consequence of the subsistence strategy is probably one of the main reason behind the long-lasting process of interregional network of contacts between these two areas which last at least from the late 3<sup>rd</sup> millennium BCE until the Kushan time<sup>157</sup>.

To conclude, during the second quarter of the 1<sup>st</sup> millennium BCE Gandharan regional identity seems to be split in two areas divided by the Indus River: a 'trans-Indus' area (Taxila) which shifts its focus eastwards under the effects of historic developments which are still little known to us; and a 'cis-Indus' area (northern valleys and Peshawar plain), which maintains the previous socio-economic and cultural relations. This division seems to correspond to that mentioned by classical authors when they speak of the "Indians of this side of the Indus" (e.g. Arrian IV.22.6; Briant 1996: 777).

---

<sup>157</sup> The idea of a 'contraction' of the sites in the northern valleys in some point during the 1<sup>st</sup> millennium BCE till the spread of Kushan epoch, suggested by R. Coningham, R. Young and I. Ali (2007: 263-266), instead, must be completely reviewed at the light of the archaeological evidence.

## 6.2 The Achaemenid satrapy of *Gandāra*: the birth of the in-between context

The unification of ‘trans-Indus’ and ‘cis-Indus’ regions is accomplished again during the Achaemenid period when the two areas probably flew into the same regional competence of the satrapy of *Gandāra* (OPers.). The socio-cultural changes brought by the annexation to the Achaemenid Empire are remarkable and hitherto underrated.

As regards ceramic evidence, since the early 5<sup>th</sup> century BCE<sup>158</sup>, northern valleys and southern plains (both Charsadda and Taxila) started to share, again, a similar morpho-functional repertoire. The new features of the Gandharan ceramic horizon during the Achaemenid period include, as we have seen in Chapter 5, both elements of Iranian origin (as reasonable since the new political subordination to the Achaemenids), and, more interestingly, an equally diffused (both in trans- and cis-Indus sites) Indo-Gangetic component.

What matters here is not the quantitative value of these two components, rather the understanding of internal dynamics which determined the local choices in the selection of the external elements (both Iranian and Indo-Gangetic). In order to answer some of these questions is probably useful calling the attention on the differentiation of the morpho-functional classes involved into the process of emulation of the external traditions, Iranian and Gangetic.

The Iranian influence is circumstantiated within the classes of table ware, particularly, drinking bowls of various nature, especially Tulip bowls.

The emulation of such type of luxury vessel forms (very likely locally produced) ‘may represent shifting behaviours in those elites (including merchants) who benefited from the increased trade and inter-regional interaction’ (Petrie et al. 2008: 11) and who sought to raise, through social behaviours, its own status within the society<sup>159</sup>.

The sudden introduction of Achaemenid pottery forms already in the early Achaemenid period, and not in late/post-Achaemenid period as usually suggested (Wheeler 1962: 40; Dittmann 1984: 189; Vogelsang 1988: 104)<sup>160</sup>, clearly speaks of a radical socio-cultural shift at the beginning of the Achaemenid domination. Such trend cannot be explained by as a ‘remote sensing’ approach of the Achaemenid control in this eastern lands, but, more likely, by the internal socio-cultural dynamics triggered by the Persian political and

---

<sup>158</sup> As presumed on the basis of radiocarbon dates from Barikot.

<sup>159</sup> A similar social process during the Achaemenid period has been dealt by Dussinberre (1999, 2003) for the appearance of ceramic Tulip bowls at Sardis. As regard pottery and social strategy see Miller 1985: 184-196.

<sup>160</sup> An Achaemenid dating of Tulip bowls in South Asia was suggested for the site of Akra, in the Bannu region (Magee et al. 2005: 724-25; see also Petrie and Magee 2007; Magee and Petrie 2010; Petrie and Magee 2012).

administrative presence *strictu senso*<sup>161</sup>. Otherwise, without an element of self-interest which should be the reason for such radical cultural shift?

Moreover, the sudden disappearance of Achaemenid Tulip bowls at Barikot at the end of the Achaemenid period confirms that the emulation of Iranian forms was strictly connected to social strategy that make sense only within that specific geopolitical circumstance. With the dissolution of the Achaemenid Empire the motivations of emulatory pressures fails and Achaemenid vessel forms stopped to be produced.

On the other hand, the Gangetic component is mainly represented by vessel forms linked to activities of the everyday life, as cooking pots and water jars/jugs with associated cups/lids. Apparently, here no emulation processes connected to social strategies are involved. Rather, the reasons of the sudden appearance of Indo-Gangetic common ware (transport/storage and cooking vessels) within the Achaemenid assemblage can be searched in an increased and not episodic long-distance/transregional trade with north India. That might have involved a constant movements of travellers, technology, habits and pots as well. However, it cannot be excluded this was a reflection of the dynamic features of the boundaries of the Achaemenid administrative structure and its hierarchy in these easternmost lands of the Empire.

In fact, as already stressed (see Introduction), both the boundaries and the position of the satrapy of *Gandāra* within the Achaemenid political and administrative grid are not clear yet. As highlighted by Henkelman (2017: 208-217), the recent re-examination of the Persepolis Fortification Texts, instead of supporting the arguments traditionally used to propose a subordination of *Gandāra* to the authority of the satrap of Bactria<sup>162</sup> (Vogelsang 1990: 99-100; 1992: 221-223), indicates that authorisations for travels from *Gandāra* are mostly issued by the satrap of Hinduš and sometimes renewed by the chief administrator or satrap in Arachosia (Henkelman 2017: 155-156). Hence, Iranian administrative texts could suggest that *Gandāra* satrapy was somehow strongly connected to the satrap of Hinduš (Henkelman 2017: 210), in turn perhaps under the authority of the Arachosian satrap which according to Classical sources had overarching authority over other eastern satrapies (Jacobs 1994, Vogelsang 1985: 87-91, 1990: 99-100).

---

<sup>161</sup> For textual evidence suggesting the existence of an Achaemenid official in *Gandāra* see Giovinazzo 1994: 34, n. 16 and Henkelman 2017: 208. For Kakawišša/Kapišiya = Kāpiši/Bagrām, to the north of the Hindu Kush, as the Achaemenid administrative centre, or the satrapal seat, of the Paropamisadae subdivision of *Gandāra* see Henkelman 2017: 214-215. For a satrapal central treasury in *Gandāra* see Henkelman 2017: 212.

<sup>162</sup> These arguments are mostly based on two classical sources (see Introduction): Herodotus (VII.66) and Arrian (III.8.3).

Notwithstanding the absence of archaeological evidence confirming such administrative relation between the satrapies of *Gandāra* and Hinduš, the strongly Indo-Gangetic component of the Achaemenid assemblage from Barikot opens a series of possibilities.

In fact, even if the massive introduction of the Indo-Gangetic pottery tradition in the northern Gandharan valleys can be the result of the new role of the trade-route (between India and the Iranian Plateau) in *Gandāra* via Takšašilā-Puškaḷāvati, this phenomenon could also be a reflection of the political and administrative structure of the satrapy of *Gandāra*. The homogeneity of the ceramic assemblage of ‘trans-Indus’ and ‘cis-Indus’ areas during the Achaemenid period, in fact, might have implied that both areas were part of the same Achaemenid satrapy. The inclusion of Taxila<sup>163</sup> – that between the second quarter - mid 1<sup>st</sup> millennium BCE was strongly influenced by the political and economic developments occurring in the Ganges Valley – in the satrapy of *Gandāra* could be the reason for the shift of Indic pottery material in this phase. Taxila, along the ‘Grand Route ancienne’ (Foucher 1942: 41-43) to India, must have played a crucial role within the trade network set in Achaemenid time.

Moreover, it is worth noting that the frontiers between *Gandāra* and Hinduš (can we speak of sharp demarcation in satrapies of the same cluster?) are not obvious. Hinduš is generally associated to modern Sind (Bivar 1988: 202-204; Vogelsang 1990: 101-102) and possibly to parts of Baluchistan (Magee and Petrie 2010), however, it is not yet clear what the extent of the province might have been<sup>164</sup>.

At any rate, Hinduš is usually considered the largest Achaemenid domain in the east (Bernard 1987; see also Cook 1985: 250 in reference to Herodotus III.95) and, even if purely conjectural, it is not unlikely to imagine that Hinduš could have had overarching authority on some aspects of the administration of the satrapy of *Gandāra* to which it was strongly connected, as suggested by the Persepolis Fortification Texts. In the end both were parts of the same route of the Achaemenid trade network in the east.

---

<sup>163</sup> The geographical extension of the satrapy of *Gandāra* mentioned in the Achaemenid inscriptions, is still unclear. According to P. Briant the *Gandāra/Paropamisadae* mentioned in the Achaemenid inscriptions, would be the entire Kabul Valley as far as the Cophen River (Briant 2002: 756). Arrian (V.4.3) and Strabo (XV.1.10) pointed out that the Indus River was the boundary between the Achaemenid Empire and India in Alexander’s time (Brunt 2000: 546; Petrie and Magee 2007, Magee and Petrie 2010). In particular, Strabo giving a list of peoples from north to south and west of Indus mentions the Paropamisadae, the Arachosians and the Gedrosians, and he adds: “the Indus lies, latitudinally, alongside all these places; and of these places, in part, some that lie along the Indus are held by Indians, although they formally belonged to the Persians” (Strabo XV 2, 9) (see Briant 2002: 756). This would imply that Indus was the eastern boundary of *Paropamisadae/Gandāra* and, curiously, that Taxila was outside this satrapy. However, other sources as *Rāmāyaṇa* and Pāṇini, mention Puškaḷāvati (Charsadda) and Takšašilā/Taxila, as capitals of Gandhara.

<sup>164</sup> Fleming (1993: 68-70) proposed Taxila as capital of the Achaemenid India. Henkelman suggested that the Hinduš was initially used as a general term (Henkelman 2017: 209).

Obviously, the possibility that another satrapy had extended its administrative authority on the neighbouring satrapy of *Gandāra* does not imply that the Achaemenid political-administrative system here was devoid of an internal structure with Achaemenid officials based in *Gandāra*, as confuted by G. Giovinazzo (1994: 34, n. 16) and then by W. Henkelman (2017: 208). Moreover, the existence of an Achaemenid administrative center with a central treasury in *Gandāra* seems to be suggested by texts PF 1358-1359 which refer to tribute payments coming from *Kandara* (= *Gandāra*), (Henkelman 2017: 212). Anyhow, whatever was the form of the Achaemenid polities in this region, what really matters is that the Achaemenid annexation might have had a strong impact on the preexisting socio-economic structures of the region, exposing it – as a side-effect - to both western and eastern ‘influences’. In a word, the situation in Gandhara was stable enough to give it the profile of an economic zone, rich enough to be a market for goods coming from both sides of the Empire. It is in particular from this point in time that the Gandhara region assumed the characteristics of the in-between context of the borderland, which will never leave this region.

As regards the duration of the Achaemenid control on northern Gandhara a possible suggestion come from Barikot. The radiocarbon sequence in fact suggests that at the time of the passage of Macedonian troops, Achaemenid forms had already disappeared. The partial contraction of the archaeological deposits moreover evokes some large scale changes into the urban society/organization or layout. These evidence well fit into the picture drawn by the historians of Alexander who described the area of the Swat valley as a petty independent kingdom (the Assakenians) allied with Indian principalities. Therefore, taking into account the remarks made by P. Briant on the ‘ceremony’ performed by the Taxila chief (and others) at the arrival of Alexander (Briant 2002: 756) and the mention of Indians in Darius III’s troops at Gaugamela (Arr. III.8.3), it is possible to suggest that in late-Achaemenid period the eastern part of the satrapy of *Gandāra* (south of the Hindu Kush) had come across a contraction, losing the northern valleys but still maintaining a sort of control on the arterial road of the ‘Grand Route ancienne’ took by Hephestion and Perdikkas during the march towards the Indus. Indeed, the control of the people of the northern valleys, as also suggested by the military strategy undertaken by Alexander in 327 BCE, was essentially meant to guarantee a safe control of the road to India through Taxila. Its loss in late Achaemenid period was hence a blow to the stability of the control of the satrapy of *Gandāra*, the core of which, both north and south of the Hindu Kush, anyhow, apparently continued to be maintained.

### 6.3 The archaeological invisibility of the Mauryan domination

A striking aspect at Barikot and in Gandhara in general is the invisibility of the Maurya archaeological horizon. According to the historians (e.g. Strabon XV, 2, 9 = XV, 724), between 306 BCE and 303 BCE, Seleucus ceded to Chandragupta Maurya a series of territories<sup>165</sup>, among which is Gandhara. *Gandhāras* are in fact mentioned in Aśoka's rock-edict V, J among the *āparānta*, namely, the people leaving at the western borders of the Mauryan Empire along with Yōṇas and Kambōja (Hultzsich 1925).

Besides the Aśoka rock edicts at Mansehra and Shahbazgarhi, in Khyber Pakhtunkhwa province, few elements of the material culture, as Maurya coins and baroque lady terracotta figurines, represent evidence of the Mauryan culture in Gandhara. Indeed, the Maurya period ceramic assemblage from Barikot does not show any distinctive elements and its main feature is represented by the sudden abandonment of the Iranian traditional vessel forms and by the continuity of Indo-Gangetic and Local pottery traditions.

The most tangible trace left by Maurya domination in these territory appears to be the introduction of Buddhism, evidenced by the foundation of *Dharmarājika stūpas* at Taxila (Marshall 1951) and Butkara I (GSt.1, Faccenna 1980-81: 167; Petech 1966).

Indeed, at Butkara I the *stūpa* dated to the 3<sup>rd</sup> century BCE<sup>166</sup>, appears to be part of an urban sanctuary at the north-eastern periphery of an inhabited area (Fig. 1.8)<sup>167</sup>, the earliest evidence of which have come to light at the north and south sides of the Sacred Precinct (Faccenna 1980-1981: 729-732, 747-750; Iori and Olivieri 2016).

The two radiocarbon dates from the nearby settlement site of Barama I (Period 4: ca. 370 BCE, Alessio et al. 1966: 409; Period 6: ca. 635 BCE, Alessio et al. 1966: 409), although not calibrated and seeking of reassessment, broadly suggest an Early Historic occupation of the site. On the basis of the morphological study the ceramics, Barama Period 4 can be tentatively ascribed to the Indo Greek period (= BKG Macrophase 3a). Period 5, if the continuity of occupation is confirmed (following Faccenna 1980-1981), is likely to represent the Maurya occupation. The key forms of Period 5 (carinated bowls with S-shaped rim and *thālīs*) linked to the local and Indo-Gangetic pottery tradition, even if not chronologically distinctive, are coherent with the Mauryan ceramic assemblage of

---

<sup>165</sup> The identification of the territories ceded to Chandragupta is still debated. See Maniscalco 2014: 48-50, 70-83, Coloru 2009: 136-145.

<sup>166</sup> On the dating of the Mauryan coin found in the core of the first mound of the *stūpa* to early 3<sup>rd</sup> century BCE (Göbl 1976: n.3), late 3<sup>rd</sup> century BCE (Gupta and Hardaker 1985: series VI) or beginnings 2<sup>nd</sup> century BCE (Errington 1999/2000) see Faccenna 2002: 108.

<sup>167</sup> This urban center approximately coinciding with the nowadays Mingora city (Faccenna 1980-81: 751-756; Fig. 1.8) is mentioned in the late ancient Chinese travel-logs as the capital city Mengjieli (Tucci 1958: 285; Faccenna 1980-81: 756, fn. 1).

Barikot (= BKG Macrophase 2b)<sup>168</sup>. Once the association between the earliest Historic levels of Barama I and Butkara I (IA/GSt.1) suggested by Faccenna (1980-81: 751, 765; Tab. 1.3) is confirmed, Barama I, on the other side of the Jambil River, could represent the “upper-town” of the Mauryan age urban area of Butkara I.

At any rate, although there is very little evidence for the socio-cultural implications of the Mauryan control in Gandhara, the royal<sup>169</sup> foundation of a Buddhist complex within an urban context (IA of Butkara I or IA of Butkara I as ‘lower town’ and Barama I as ‘upper town’) must be interpreted as a political choice/investment of the central power and it is a clear evidence of a Maurya acculturation *per se*. Another marker of political investment is obviously represented by the establishment of the two rock edicts in the region immediately east of Swat (see below).

---

<sup>168</sup> Apart from one fragment of hemispheric bowl with horizontal projecting rim (Fig. 2. 10), both Iranian and Hellenistic elements are absent from this assemblage.

<sup>169</sup> The adjective ‘royal’ can be here correctly utilized if, as stated by Faccenna (1980-1981: 167; see also Petech 1966), the earliest *stūpa* of Butkara I was a *Dharmarājika stūpa*.

## 6.4 Beyond Alexander. The first direct transmission of Hellenistic elements in Gandhara

Even if Alexander's passage escapes the archaeological investigations, given the short presence of Macedonians in these areas<sup>170</sup>, it left a deep mark into Western imaginary. The historical memory of Alexander's march must have had, among the Greek communities living at the eastern edge of the Hellenistic *oikoumene*, a great repercussion on the political and cultural choices of the eastern Hellenistic reigns, whereas India was always seen as natural offshoot of the Hellenistic kingdoms<sup>171</sup>.

During Alexander's time the trade-route to/from India must have still represented a precious gateway to exotic resources for both East and West. There is no point to exclude that this trade network was maintained even in the aftermath of Alexander.

After a period of instability due to the revolts promoted by the neo-established Maurya kingdom<sup>172</sup>, the treaty between Seleucus and Chandragupta recreates a political *equilibrium* in the north-west of the Indian subcontinent. The diplomatic relations between Seleucids and Mauryas testified by the presence of Seleucid ambassadors in India, as Megasthenes and Daimachus<sup>173</sup>, and by Aśoka's notions on western politics, as indicated in edict XIII<sup>174</sup>, appear to be quite frequent and stable. Interestingly, as proposed by Scharfe (1971: 211-225) and Daffinà (1977: 28) and recently by Maniscalco (2014: 77), the epithet *devānām-priya* used by Aśoka in reference to his predecessors as well as to himself is translated in the Aramaic inscription from Kandahar as *mārān*, that is, 'satrap or governor' (Scharfe 1971: 213). This would suggest that the relationship between Maurya and Seleucids, sealed in the treaty between Seleucus and Chandragupta, was comparable to a sort of affiliation<sup>175</sup>. In this regards, it is worth mentioning that when Antiochus III, after the agreement with the Graeco-Bactrian king Euthydemus, crossed the Hindu Kush around 206 BCE, he renewed the friendship (τὴν τε φιλίαν ἀνενώσατο,

---

<sup>170</sup> However, the importance of the stable presence of Macedonians and Hellenistic culture in Gandhara at least for some decades (Bosworth 1983: 38-39) has already been stressed (Callieri 1993: 135).

<sup>171</sup> Several scholars (Musti 1966:84-85; Daffinà 1974-75: 80; Berthelot 1930: 78; Filliozat and Renou 1947: 213) supposed that Seleucus, before the territorial concession to Chandragupta, tried to militarily re-conquest the Indian territories which had belonged to Alexander (contra Bernard 1985: 94-95 and Coloru 2009: 142). The sources are the following: Justin (XV.4.10-14), Paulus Orosius (III.23.44-46) and Appian (LV.282). The meaning of the *exuviae elephantis* on Seleucus' coins (from 305 BCE at the mint of Susa, from 303 BCE at the mint of Ecbatana) is significant at this regard (Newell 1938: 38).

<sup>172</sup> Justin (XV.4.13) links to Chandragupta the murder of Greek *praefecti* in Indian territories.

<sup>173</sup> Megasthenes, author of *Indikā*, is generally considered the ambassador of Seleucus at Chandragupta's court at Pataliputra. Regarding Megasthenes as ambassador of the satrap of Arachosia Sybirtius see Bosworth 1996: 120. Daimachus was the emissary of Antiochus I at the court of Bindusāra, son of Chandragupta. Another Hellenistic sovereign Tolomeus II Philadelphus (ca. 285-247) sent an emissary, Dyonisus, to Bindusāra (Daffinà 1995: 12-14)

<sup>174</sup> In Aśoka's Edict XIII are mentioned the kings to whom the Maurya king had sent his 'emissary' of *Dharma*: Antiochus (Aṃtiyoka), Tolomeus (Turamāya), Antigonus (Aṃtikina), Magas (Magā) and Alexander (Alikasudara).

<sup>175</sup> This would further confirm the veracity of Seleucus war to Chandragupta.

Polibius XI.34.11) with Sofagasenus, identified by Eggermont (1965-1966: 58-66) with Somaśarman Maurya (ca. 208-201 BCE), whose possession, according to Charpentier (1930-1932: 304, fn. 1) and Filiozat and Renou (1947: 224), included Gandhara (see Maniscalco 2014: 93-94).

Taken together, these textual evidence highlights that Seleucids did care to ensure a conflict-free border at the east. This might be due to the crucial interest in preserving the viability of the 'Grand Route ancienne' via Charsadda-Taxila. It is not a case that Graeco-Bactrians will wait the death of Antiochus III in 187 BCE to extend their domains to Arachosia and Gandhara, which the Seleucids apparently still considered as part of their legacy.

Until now the first archaeological evidence related to the transmission of Hellenistic culture in Gandhara were usually dated to the Indo-Greeks. However, the picture which emerges from the recent investigations at Barikot, does indeed add an important piece in the mosaic of the Hellenistic Far East.

In fact, the analysis of the ceramic material have proved that the beginnings of the interaction between Swat valley and the Hellenistic culture must be dated back to at least the mid-3<sup>rd</sup> century BCE (Chapter 5.1). Indeed, the large-scale introduction of Hellenistic pottery tradition which have close parallels with the rest of eastern Hellenistic *oikoumene* (e.g. Ai-Khanoum, Termez, Bactra, Kurganzol and Kandahar, see Chapter 5.1) in a period which precedes the Indo-Greek domination indicates that even before the Graeco-Bactrian extension southwards, there are clear evidence of intensive exchanges' relations between Hellenistic reign and Gandhara region.

Moreover, presuming that the Hellenistic influence in Swat arrived through Charsadda, which is on the main road to Afghanistan/India, then we can assume that the first Hellenistic evidence at both Charsadda and Taxila are coeval if not slightly earlier than those from Barikot and they can be tentatively dated at least to the time of the first Graeco-Bactrian kings, if not to Seleucids.

In fact, even if one does not accept the consideration on Mauryas' affiliation to the Seleucids at the north-western border, it is undeniable that textual sources clearly speak of a great interest of Seleucids in preserving relationship (through ambassadors and military campaigns) with north-west India. The stability and exploitation of the trade network via Charsadda-Taxila at the time of Seleucids and Maurya cannot be excluded *a priori*. This fact can at the same time explain the presence of the Hellenistic material, and the rather invisible presence of - a still not better defined - Mauryan pottery assemblage.

At any rate, the Indo-Greek reigns occurred in an environment which was at the fringes of the Hellenistic world from at least half a century. Of course the Indo-Greek political domination involved a more intense cohabitation where an élite bearing Greek names found itself within multi-lingual and probably multi-ethnic community.

This is the picture offered by the small corpus of Greek inscriptions on sherds from Barikot, which, by the way, represents the easternmost archaeological evidence of Greek script in South Asia (with the exception of coins). Whether the Greek onomastic inscriptions reflect an ethnic belonging to a Greek community or a ‘constructed’ ethnic identity is hard to say. The practice of incising onomastic inscription on pottery after firing is however completely new at Barikot, while common in Greek epigraphy (Tribulato and Olivieri 2017). Not only Greek, but also Brāhmī was employed for this kind of owners’ inscription. The two scripts are equally represented, but interestingly appear on different type of vessel forms: Brāhmī appears on sherds from Indo-Gangetic vessel form while Greek on small drinking cups/bowls. Such differentiation might reflect a social and ethnic stratification (Tribulato and Olivieri 2017).

To which extent the ‘Greekness’ was expressed and experienced by the local communities remains to be better defined. At Barikot, the material culture of Hellenistic matrix apparently did not exceed the limits of the élites’ needs and habits, and remained basically confined to coinage, writing, military architecture<sup>176</sup>, and luxury items.

The ruling Greek minority tended to behave conformably to the Indian traditions as suggested by the coinage (see Fussman 1993b), by terracotta production (Callieri 2007: 145-146) and by the religious tolerance of Indo-Greek kings and officials<sup>177</sup>.

The mid-late 2<sup>nd</sup> century BCE saw a great economic investment of the Indo-Greeks in Gandhara. In the Swat Valley Indo-Greek élite was engaged with the construction of a massive defensive wall (= BKG Macrophase 3a.3, see Chapters 1.2.6, 3.1.4). At Charsadda, in the southern Gandharan Plain, the site of Bala Hisar yields scanty evidence of Hellenistic material culture in the main trench Ch. I<sup>178</sup> which are instead abundant in

---

<sup>176</sup> The defensive wall at Barikot defined as “a good example of Eastern Hellenistic architecture” (Callieri 2007: 142) was constructed according to Greek unit of measure.

<sup>177</sup> *Milindapañha* suggests at least a great tolerance of Buddhism by Menander. The pillar of Heliodorus, Greek ambassador of Antialcidas to the Shunga court, at Viḍiśa, is the first inscription related to Vaishnavism in India.

<sup>178</sup> In Ch. I plats-à-poisson are completely absent, whilst fragments of deep goblets can be recognized in layers (21)-(20) (Wheeler 1962: fig. 27, no. 214; fig. 28, no. 228) along with few bowls with flat everted and painted rim (ibid.: nos 206-207, 237), characteristic of the Indo-Greek phase at Shaikhan Dheri (Dani 1965-66: fig. 21) and Barikot (Callieri 2000: 859, fig. 1.c-d), are present.

Ch. IV<sup>179</sup> on the other side of the ancient river bed. As suggested by Petrie (2013a: 518) the scarce representation of Hellenistic forms in Ch. I, layers (21)-(20), may implicate a gap in the chronological sequence of Bala Hisar, possibly due to a partial shift of the settlement during the Indo-Greek domination.

Indeed, such reconstruction seems coherent with the supposed dating of the foundation of the nearby city of Shaikhan Dheri which is considered, mainly on the basis of numismatic evidence, mature Indo-Greek (mid-2<sup>nd</sup> century BCE) in date<sup>180</sup>. The analogies between the so-called ‘Greek’ ceramic assemblage of Shaikhan Dheri and the - possibly coeval - mature Indo-Greek and early Saka-Parthian assemblages from Barikot (see Chapter 5.3.2) may confirm the hypothesis. Moreover, Shaikhan Dheri was probably provided of fortification wall - which unfortunately remained unexcavated - the east sector of which was easy detectable on surface (Dani 1965-66: 22).

Unfortunately the excavation of what certainly was an important *polis* in Swat at Udegram (Ora) (Olivieri 2018: 187) were not sufficiently well documented, but we should certainly include Udegram in the list of the new foundations of the mature Indo-Greek period (see Chapters 1.2.5, 2.1.4).

Both in northern valleys and in southern plains, circa post-150 BC the Indo-Greek started being busy with the re-organization of the urban layouts, with the militarization of Swat, and with the foundation of a new city, possibly fortified, at Shaikhan Dheri of Charsadda and presumably at Taxila<sup>181</sup>. Such interventions could be referred to a period of consolidation after the intensive conquests of the early Indo-Greeks.

However, it is not unreasonable attempting to link these still scanty evidence to a precise episode of the history of the Indo-Greeks (see Olivieri 2008: 188). We know that around 171 BCE Eucratides I uprooted the Euthydemid dynasty in Bactria. Justin (XLI.6.5) lists Indians as one of the rivals of the military campaigns carried out by Eucratides in the tentative to re-conquest the territories became independent. The Indo-Greek king Menander I (ca. 165-130 BCE), rival of Eucratides I in India, must have been aware of the Eucratides’ intention to march towards the Indian territories at the end of the western conflicts.

---

<sup>179</sup> Hellenistic key-types with close parallels in Ai Khanoum assemblage (Lyonnet 2013: figs 101-105) are represented by *plats-à-poisson* (e.g. Wheeler 1962: fig. 46, nos 475-476, 500), a deep *gobelet* with high carination (e.g. *ibid.*: fig. 46, nos. 480-482) and a polished black amphora (*ibid.*: fig. 47, no. 496).

<sup>180</sup> The earliest period (VI) features one coin each of Agathocles, Apollodotus and Menander while the coins of the following period (V) belonged to Indo-Greek kings from the late 2<sup>nd</sup> century BCE to the 1<sup>st</sup> century BCE.

<sup>181</sup> At Taxila the Indo-Greek city has not been certainly located yet and the presence of the earliest Indo-Greek phases has been suggested on the Hathial mound (Allchin 1982: 13).

It is tempting to interpret the construction of the massive Hellenistic fortification at Barikot as part of the defensive program carried out by Menander in order to face Eucratides' military reaction in India (Olivieri and Iori, forth.)<sup>182</sup>. The military strategy undertaken by Alexander in 327 BCE, who tried to subdue the hill people of the northern Gandharan valleys in order to guarantee a safe occupation of the southern plains (Arr. IV.22.1ff; Curtius Rufus VIII.10; see Bosworth 1995: 158ff), after about one century and a half, must still have had an echo in the military plan of the 'western' invaders. Within this historical picture, the costly economic investment of the Indo-Greek élite in the Swat valley, represented by the construction of an imposing defensive wall at Barikot, makes more sense.

The nomad occupation of eastern Bactrian territories around the 145 BCE represents another turning point in the history of Gandhara. As suggested by Callieri (Callieri 1995: 306) that must have entailed an exodus of Greek citizens and skilled craftsmen to the closest Hellenistic reign, namely, that of the Indo-Greeks. The presence of coin/gem engravers and craftsmen trained in the Hellenistic tradition, is in fact suggested by the introduction in mature Indo-Greek period of luxury objects, coins and seals in pure Hellenistic style in sites as Charsadda, Taxila and Barikot.

The Early Historic Period was a key historical chapter for the formulation of the Gandharan cultural identity. This engages, since the mid-1<sup>st</sup> millennium BCE, in wider political and economic scenario. The Achaemenids, possibly as a consequence of the new political and administrative organization, indirectly promoted the breaking down of the cultural boundaries of the regions included in their easternmost satrapies. Consequently Gandhara assumed a crucial role, as a crossing point between the territories east and west of the Indus. The intensification of relations between Gandhara and north India therefore finds its roots back to the Achaemenid time. In the aftermath of Alexander passage, the network of relations between India and the Hellenistic *oikoumene* was probably maintained during Maurya domination and the first direct transmission of Hellenistic elements in Gandhara should be dated back to the second quarter-mid 3<sup>rd</sup> century BCE. During more than two centuries Gandhara interacts with a different aspects and accents of the Hellenistic world, the latter being mediated and reformulated through a variability of actors (Seleucids, Graeco-Bactrians, Indo-Greeks) and factors (environment, languages, social contexts, etc.). The consequent cultural and social code-switches are

---

<sup>182</sup> It is something more than a mere hypothesis (O. Coloru, pers. comm.).

naturally difficult to follow, especially if one considers the inevitable internal dynamics which involved both élites and non-élites.

The Early Historic Gandharan cultural identity was thus constructed on an ‘in-between’ ground, where linguistic, environmental, ethnic, economic, social and political frontiers met. The directions of these interactions were multiple and acted on different scales of magnitude across the territory (northern valleys/southern plains, ‘trans-Indus’/‘cis-Indus’ areas, East/West) and across society (élites/natives, shepherds/farmers, urban/rural, Dards/Greeks/Iranians/Indians, etc.) thus forging an identity that was anything but monolithic.



## APPENDIX

### *Introduction note*

#### Plates<sup>183</sup>

In sequencing the plates I have tried to respect, as far as possible, the two key criteria of this study, namely, the chronological and taxonomic sequence, in order to graphically highlight the presence of possible instrumental pottery markers.

Drawings, namely forms, are therefore grouped by plates according to their morphological features, as resumed in Table 4.1. To sum up, the general order is the following: Unrestricted vessels (O), Restricted vessels (C), Bases (B), Varia (V), Miniature Vessels (MV), Painted (PP), Decorated (DP) and Inscribed (IP) potsherds. Sometimes, for reasons of space, more than one sub-class can be represented in the same table, however, always accordingly to the taxonomic sequence indicated in Table 4.1. In each plate forms belonging to the same sub-class are presented according to a general chronological order. I speak of 'general chronological order' since most of the forms are not exclusive of a single period and/or Macrophase, the pottery tradition of which cannot be considered as a closed box. For this reason drawings are mainly arranged in accordance with their frequency over Periods.

#### Descriptions

To each single drawing is associated a synthetic description referred to its extrinsic and intrinsic features. The extrinsic features, mainly related to stratigraphic and chronological data, are indicated as followed:

e.g. 2 - **672 (BKG3740) (=428)** BKG K-105 (2142) 3a.1 OA-f4

Soot on rim

Cf. Lyonnet 2013: fig. 104.6-9; Wheeler 1962: figs. 47.500, 48.508

---

<sup>183</sup> Organization and description of plates are shaped on the basis of the scheme proposed in Callieri and Olivieri forth. The great number of the original drawings, namely those representing potsherds from trenches BKG K-105, BKG 12E and BKG L were made in a 1:1 scale by myself during 2016 and 2017 research seasons. Drawings of potsherds from BKG7, BKG8 and BKG9 were made by L.M. Olivieri and R. Micheli during 1998-1999 excavation seasons. Drawings representing those forms from BKG L which I was not able to physically find in the IAM storehouse at Saidu Sharif were realized on the basis of drafts made by N. Olivieri in 1985 and preserved at the IAM archive. These drawings are easily recognizable since they are the only to which no description of the physical features of the fragment are associated.

2: number of the drawing within the plate;

**672**: identification number or number of the form (always in bold type) randomly associated to the potsherd at the moment of its first identification during the data acquisition process (see Ch. 3);

***BKG3740***: inventory number if any (always in italics and bold type);

(=428): forms identified during the data acquisition process and then unified during the data processing step because exactly alike;

BKG K-105 (2142) 3a.1: trench, stratigraphic unit and Macrophase of provenance of the potsherd;

OA.f4: taxonomic unit of belonging. If any decoration/inscription is present also the code indicating the type of decoration (painted, stamped, embossed or incised)/writing (Greek, Brāhmī, Aramaic) is indicated between brackets.

Soot on rim: the additional note originally reported on the pre-printed recording sheet, mainly relative to use alteration traces and decoration, are placed here for reason of space;

Cf.: bibliographic references used as comparison

The pre-printed recording sheets used in the data acquisition step are synthetized according to the following scheme:

<b>Colour</b>	<b>Fabric</b>	<b>Temper</b>	<b>Firing</b>	<b>Finish</b>	<b>Technique</b>
LR	coarse (M)	organics and seeds diffused	uniform	slip (R)	coiling, P&A, slow wheel

Key of abbreviations:

Colour: R= Red; LR= Light red; R/P= Red/Pinkish; R/Y= Red/Yellowish; O= Orange; B= Buff; G= Gray

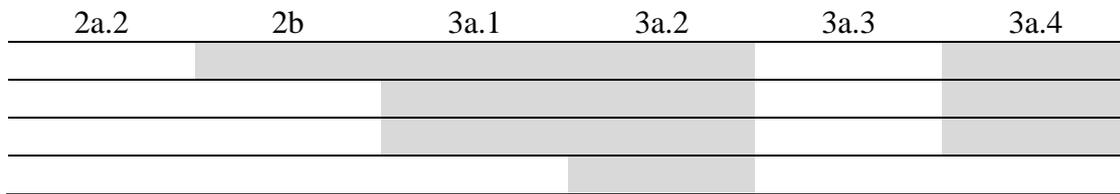
Fabric: the upper case letter between brackets refers to the type of Fabric discussed in Ch. 3.2.3.1

Finish: the colour of the slip can be R=Red, G= Golden, B= Black

Technique: the only abbreviation used for manufacturing technique is P&A= Paddle and anvil

Distribution charts:

The frequency of each single form over the Periods is represented in a distribution chart of the following type:

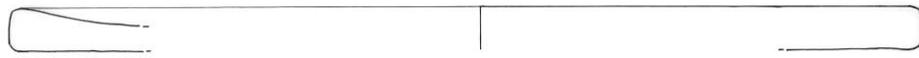


On the top, along the X axis, is indicated the chronological sequence while the quantitative value is reported along the Y axis.

The distribution chart concerns all the diagnostic fragments collected in trench BKG K-105. Each unit/cell in gray colour represents one vessel. The quantity of vessels has been 'measured' according the estimate vessel-equivalent (*eve*) obviously calculated separately for each single form in each single stratigraphic unit (see Ch. 4.2.1).

N.B.: If in black the cell count per 5 vessels.

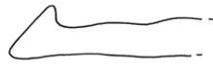
The count of sherds in BKG 12E and BKG7, BKG8 and BKG9 are indicated by notes following an asterisk (\*) at the end of the distribution chart.



1



2



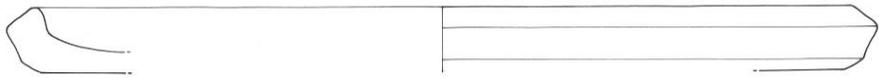
3



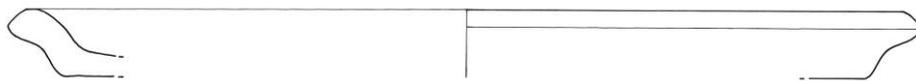
4



5



6



7



Plate 1 – Macrophases 2b-3a

1 – **404** BKG K-105 (1692) 3a.3 LOA-a1

Red Ware

R	coarse	quartz, mica and organics diffused (N)	uniform	gritty base	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **584** BKG K-105 (1919) 3a.1 LOA.a1

Red Ware

R	coarse	quartz diffused, mica, organics (N)	uniform	gritty base	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **499** BKG K-105 (2148) 2b LOA-a1.1

Red Ware

R	coarse	quartz, mica and organics diffused (N)	uniform	gritty base	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **383** BKG K-105 (2131) 3a.2 LOA-a2

Red Ware

R	coarse	quartz, mica and organics diffused (N)	uniform	gritty base	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **236** BKG K-105 (1910) 3a.2 LOA-a2

Red Ware

R	coarse	quartz diffused, mica, organics (N)	uniform	no slip	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

6 – **172** BKG K-105 (1919) 3a.1 LOA-a2

Red Ware

Soot inside

R	coarse	quartz, mica and organics diffused(N)	uniform	no slip	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

7 – **501** BKG K-105 (2146) 3a.1 LOA-a2

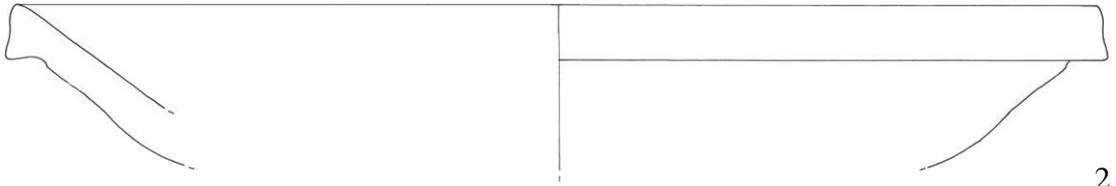
Red Ware

R	coarse	quartz, mica and organics diffused (N)	uniform	gritty base	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

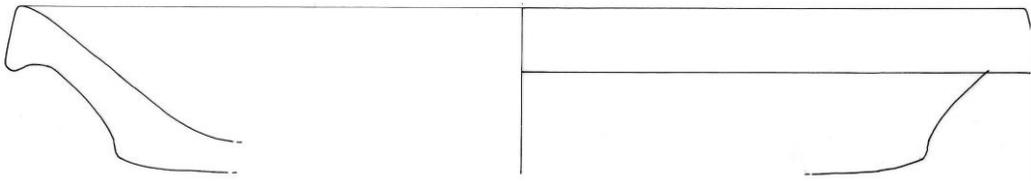


1a

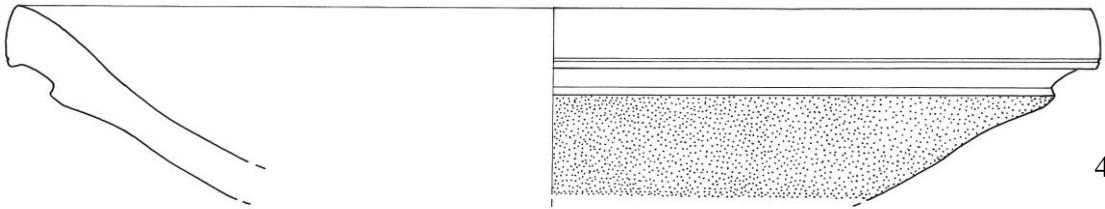
1



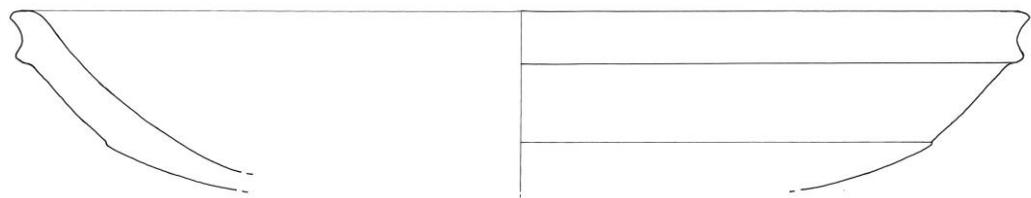
2



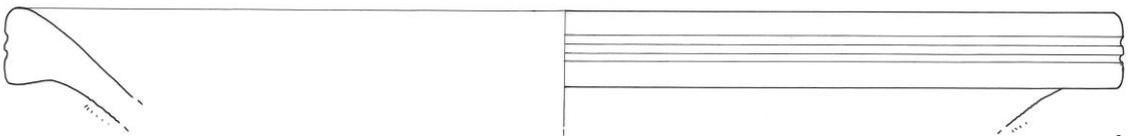
3



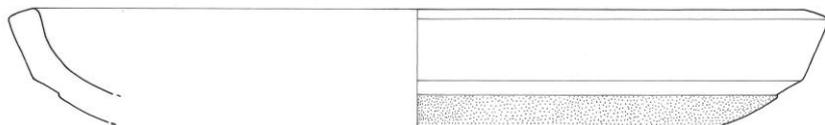
4



5



6



7



Plate 2 – Macrophase 3a

1 – **284** BKG K-105 (1692) 3a.3 LOA-b1

Red Ware

White/yellowish incrustation

LR/Br	coarse	mica, quartz and schist f medium dimension diffuse some organics (A)	gray core	gritty outside below rim	handmade, wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **49** BKG L (8) 3a LOA-b1

Red Ware

LR	coarse	mica and quartz of medium/large dimension diffused, few organics (A)	uniform	slip (R)	handmade, wheel
----	--------	--	---------	----------	--------------------

3- **312** BKG K-105 (1909) 3a.2 LOA-b1

Red Ware

Yellowish incrustation on the external surface

Cf. Helms 1997: fig.59.2353, 2161

LR	coarse	mica and quartz of medium/large dimension diffused, organics diffused (A)	uniform	Gritty bottom	handmade, wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **434** BKG K-105 (2131) 3a.2 LOA-b1.1

Red Ware

LR/Br	coarse	mica and quartz of medium/large dimension diffused, few organics (A)	black core	gritty outside below rim	handmade, wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **413** BKG K-105 (2118) 3a.2 LOA-b2

Red Ware

Cf. McNicoll & Ball 1996: fig.79. type 1.3

LR	medium	mica, quartz and organics diffused (N)	gray core	gritty below carination	handmade, wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

6 – **616** BKG9 (73) 3a.2-4 LOA-b1.2

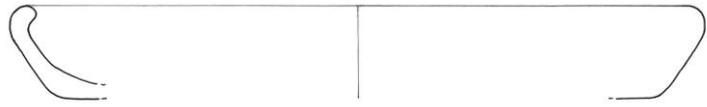
Red Ware

LR	coarse	mica and quartz diffused, few organics (A)	gray core	gritty outside below rim	handmade, wheel
----	--------	---	-----------	-----------------------------	--------------------

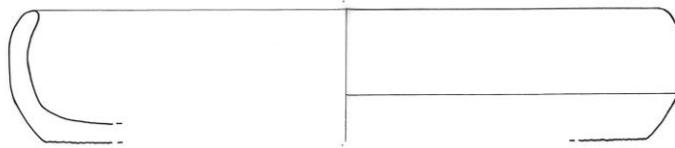
7 – **628** BKG K-105 (2138) 3a.1 LOA-b1

Red Ware

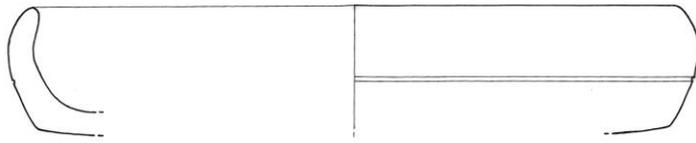
R	coarse	quartz diffused, mica, organics	uniform	gritty base	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4



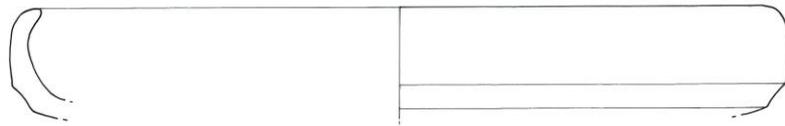
1



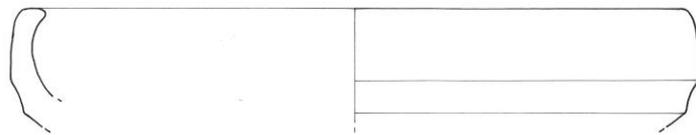
2



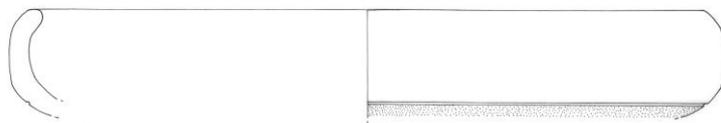
3



4



5



6



Plate 3 – Macrophases 2a.2-3a

1 – **724** BKG K-105 (2148) 2b OA-c1

Red Ware

Sharif 1969: fig. 14.10 (Period II)

LR	medium	few mica, some organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 - **515 (=592)** BKG K-105 (2153) 2b OA-c2

Red Ware

Rough base.

Stacul & Tusa 1995: fig. 24.d

LR	medium	organics diffused (D)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 - **16** BKG L (9) OA-c2.1

Gray Ware (NBP?)

B/G	fine	few organics (D)	uniform	slip (B)	wheel
-----	------	------------------	---------	----------	-------

4 – **326** BKG K-105 (1916) 3a.1 OA-c2.2

Red Ware

R	medium	some lime, organics diffused (D)	uniform	slip (R)	slow wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 - **620** BKG K-105 (2141) 3a.1 OA-c2.2.1

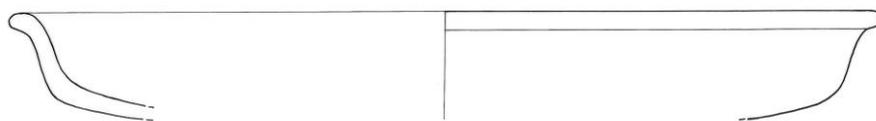
Red ware

LR	medium	few mica, few organics (D)	uniform	slip (R) out	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

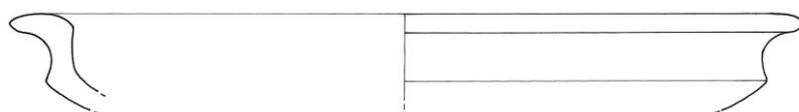
6- **173** BKG K-105 (2165) 2a.2 OB-c2.3

Red Ware

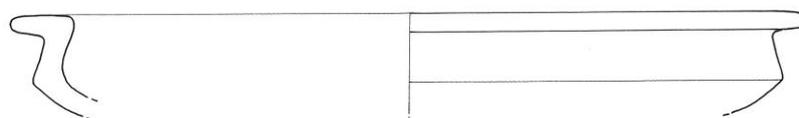
LR	medium	few mica, organics diffused (D)	uniform	gritty base	wheel
----	--------	---------------------------------	---------	-------------	-------



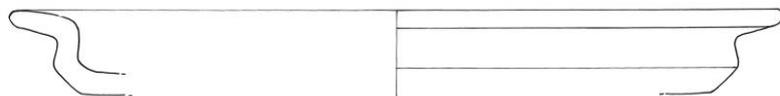
1



2



3



4



Plate 4 – Macrophase 3a

1 – **603** BKG L (9) LOA-d1

2 - **463** (=464) BKG K-105 (2133) 3a.1 OA-d2

Red Ware

LR	fine	few mica, few organics, few lime (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **402** BKG K-105 (2125) 3a.2 OA-d2.1

Red Ware

R	medium	few mica, few organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

\*N.B. 1 also in BKG 8 (45), BKG 9 (98)

4 – **492** BKG K-105 (2142) 3a.1 OA-d2.2

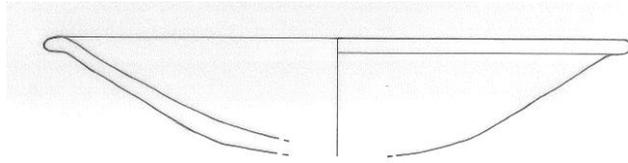
Red Ware.

Rough base

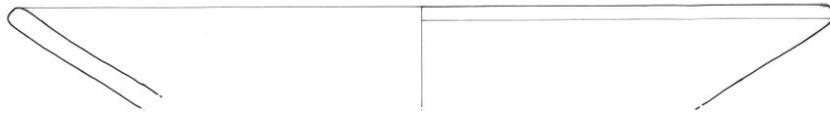
LR	medium	few mica (D)	uniform	slip (DR)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



1



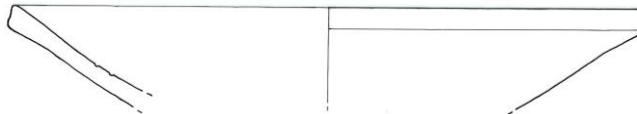
2



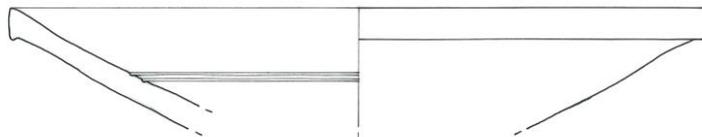
3



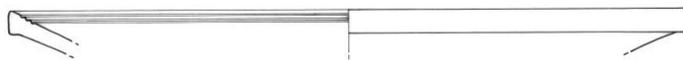
4



5



6



7



Plate 5 - Macrophases 2a.2-3a

1 - **40** BKG L (9) OA-e1

Red Ware

R	fine	lime, organics diffused	uniform	slip (R)	wheel
---	------	-------------------------	---------	----------	-------

2 - **590** BKG L (9) OA-e2

3 - **741** BKG K-105 (2131) 3a.2 LOA-f1

Red Ware

R	medium	lime, organics diffused	uniform	no slip	wheel (?)
---	--------	-------------------------	---------	---------	-----------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

4 - **300** BKG K-105 (1912) 3a.2 OA-f1

Red Ware

Soot outside/rim

LR	medium	mica, organics diffused (D)	uniform	slip (R) inside	wheel (?)
----	--------	-----------------------------	---------	-----------------	-----------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

5 - **427** BKG K-105 (2131) 3a.2 OA-f2

Red Ware

Two parallel grooves inside.

R	medium	few organics (E)	uniform	thin slip (R)	wheel
---	--------	------------------	---------	---------------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

6 - **418** BKG K-105 (2118) 3a.2 OA-f2.1

Red Ware

Cf. Lyonnet 2013: figs. 102.7, 104.10

R	fine	lime, few organics (D)	uniform	slip (R)	wheel
---	------	------------------------	---------	----------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

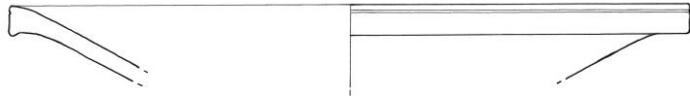
7 - **309** BKG K-105 (1909) 3a.2 OA-f2.2

Red Ware

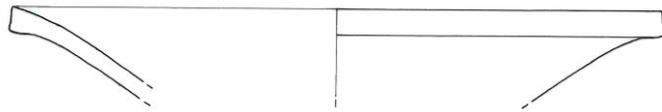
Cf. Lyonnet 2013: fig. 104.13

R	fine	lime, few organics	uniform	slip (R) inside	wheel
---	------	--------------------	---------	-----------------	-------

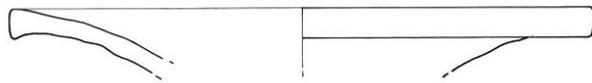
2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------



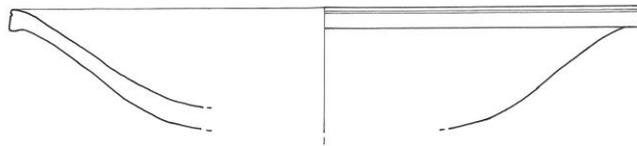
1



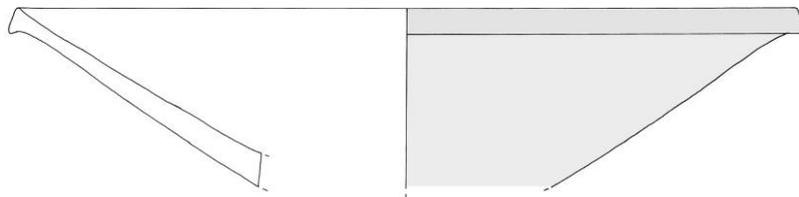
2



3



4



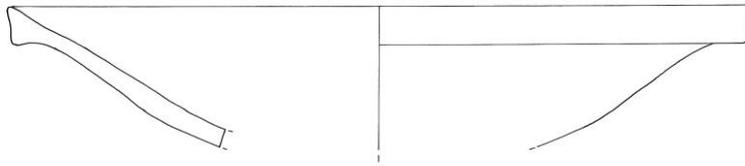
5



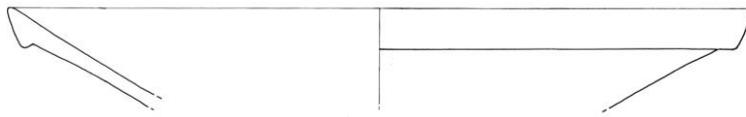




1



2



3



4



Plate 7 – Macrophase 3a

1 – **710 (=258)** BKG K-105 (1683) 3a.2 OA-f4.1

Red Ware

Cf. Lyonnet 2013: fig. 101

R	fine	lime diffused, few organics (E)	uniform	slip (R) inside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 - **672 (BKG3740)** (=428) BKG K-105 (2142) 3a.1 OA-f5

Red Ware

Cf. Lyonnet 2013: fig. 104.6-9; Wheeler 1962: figs. 47.500, 48.508

R	fine	lime, few organics (D)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 - **667 (BKG 3472)** BKG K-105 (1672) 3a.4 OA-f5

Red Ware

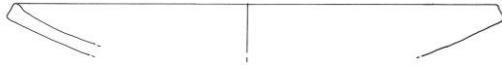
Cf. Lyonnet 2013: fig. 103.13; Wheeler 1962: fig. 46.476

R	fine	lime, few organics (D)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 - **715** BKG K-105 (2129) 3a.2 OA-f6

Red Ware with golden slip

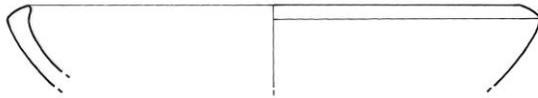
LR/P	fine	lime, few organics (D)	uniform	slip (G)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



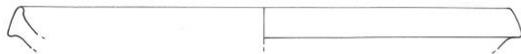
1



2



3



4



Plate 8 – Macrophases 2b-3a

1 - **223** BKG K-105 (1920) 3a.1 OA-f7

Red Ware

Cf. Lyonnet 2013: fig. 105.1-3, 5-10 see also *ibid.* fig.108; Houal 2015: figs. 4.1, 5.2, 3.2

R	fine	few organics, few mica	uniform	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 - **256** BKG K-105 (1687) 3a.4 OA-f7

Red Ware

Cf. -Lyonnet 2013: fig. 105.11; Houal 2015: figs. 4.1, 5.2, fig.3.2; Wheeler 1962: fig. 47.503

LR	medium	much lime, organics (E)	uniform	slip (G) inside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 - **517** BKG K-105 (2120) 3a.2 OA-f7.1

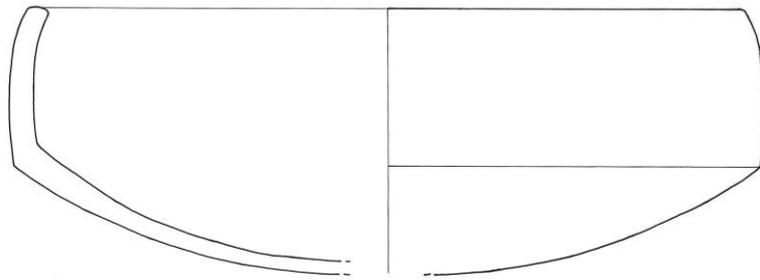
Red Ware with golden slip

LR	fine	few lime	uniform	slip (G)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

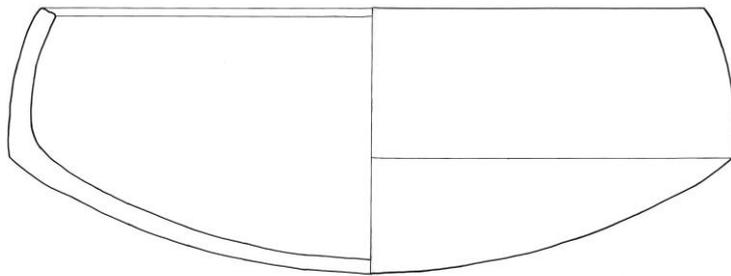
4 - **537** BKG K-105 (1667) 3a.4 OA-f7.2

Red Ware

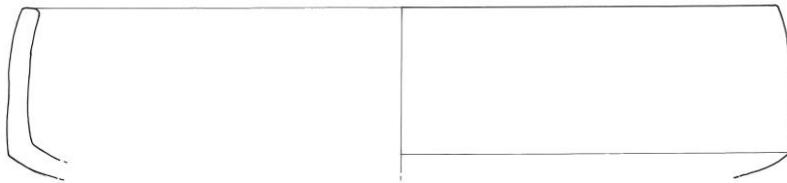
R	fine	few mica, few organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



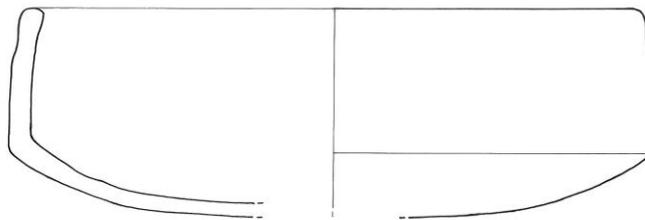
1



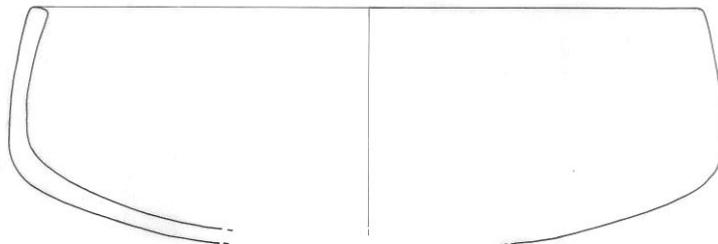
2



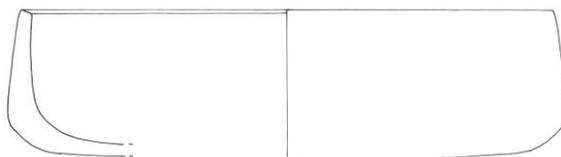
3



4



5



6



Plate 9 – Macrophases 2a.2, 3a

1 – **24 (=27)** BKG L (9) OB-a1  
Red Ware

R	fine	few lime, few mica, few organics (D)	uniform	thick slip (DR)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **112** BKG L (10p) 2a.2 OB-a1.2

Red Ware

Traces of tool on rim

Sharif 1969: fig. 22.2 (Period IV)

LR	fine	lime, few organics (O)	uniform	slip (DR)	wheel
----	------	------------------------	---------	-----------	-------

3 – **55** BKG L (9) OB-a1.1

Red Ware

Cf. Wheeler 1962: fig. 23.161

LR	fine	few lime, much organics (D)	uniform	thick slip (DR)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **23** BKG L (9) OB-a1.1

Red Ware

LR	fine	few lime, few mica, much organics (D)	uniform	thick slip (DR)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **116** BKG L (10p) 2a.2 OB-a1.1.1

Red Ware

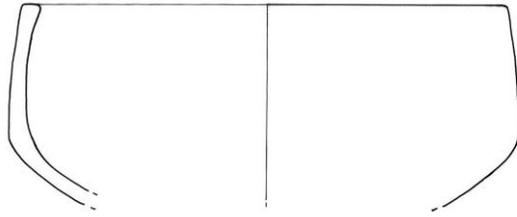
Traces of tool on rim. Ribbing on carination

LR	fine	few lime, few mica, few organics (O)	uniform	slip (DR)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

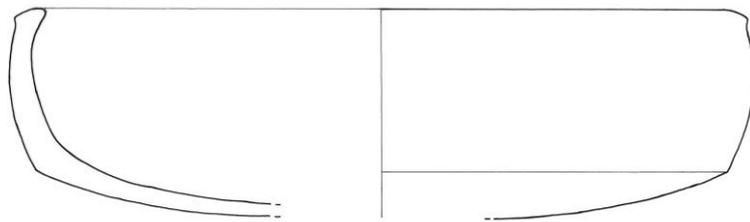
6- **43** BKG L (8) 3a.3-4 OB-a1.2.1

Red Ware

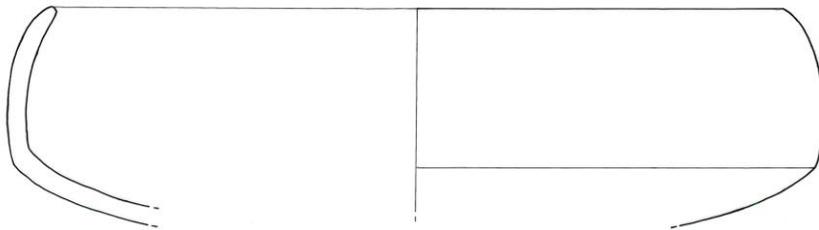
R	fine	few lime, few mica (O)	uniform	slip (DR)	wheel, ribbing
---	------	------------------------	---------	-----------	----------------



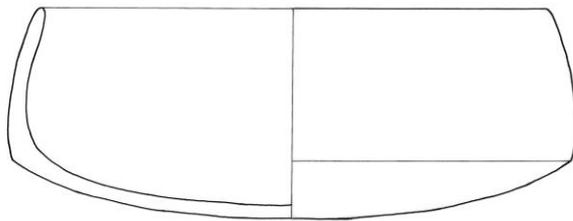
1



2



3



4



Plate 10 – Macrophase 2a.2

1 – **113** (=179) BKG L (10p) 2a.2 OB-a1.3

Red Ware

LR	fine	lime diffused, few mica (O)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4
[Redacted]					
[Redacted]					
[Redacted]					

2 – **214** (=249=218=118) BKG K-105 (1926) 2a.2 OB-a1.4

Red Ware

LR	medium	few lime, organics diffused (O)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4
[Redacted]					
[Redacted]					
[Redacted]					

3 – **115** (=313) BKG L (10p) 2a.2 OB-a2

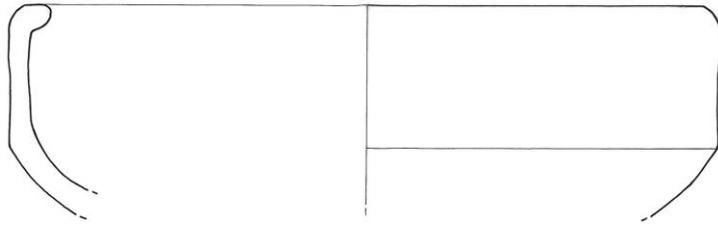
Red Ware

LR	fine	few organics (O)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4
[Redacted]					
[Redacted]					
[Redacted]					

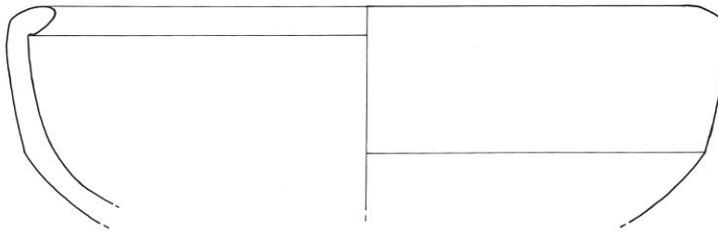
4 – **114** BKG L (10p) 2a.2 OB-a2

Red Ware

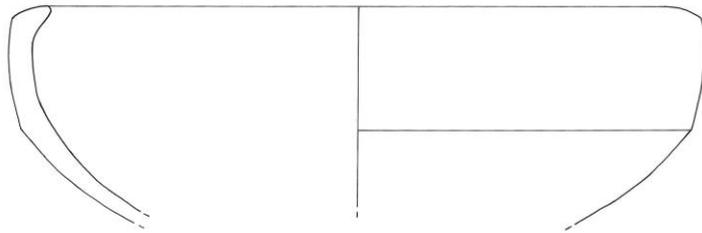
LR	fine	lime diffused (O)	uniform	slip (R)	wheel
----	------	-------------------	---------	----------	-------



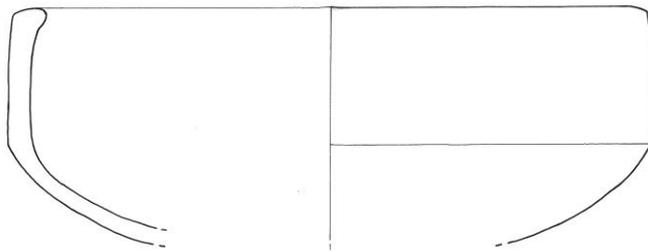
1



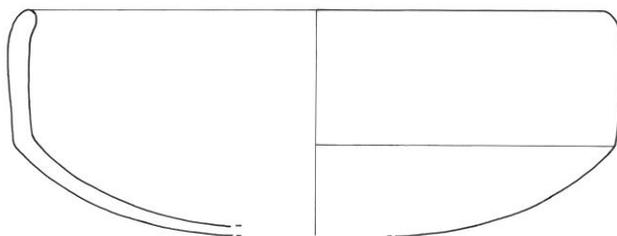
2



3



4



5



Plate 11 – Macrophases 2a.2, 3a

1 – **71 (=22)** BKG L (10) 2a.2 OB-a3

Red Ware

LR	fine	lime and organics diffused (O)	uniform	thick slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **42 (=130)** BKG L (8) 3a OB-a3.1

Red Ware

LR	fine	few lime, few mica, organics diffused (D)	uniform	slip (DR)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **217 (=204=164=165=167)** BKG K-105 (1926) 2a.2. OB-a3.1.1

Red Ware

Cf. Wheeler 1962: fig. 25.184

LR	fine	some lime, some organics	black patches	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **56 (=216=118=119)** BKG L (8) 3a OB-a3.2

Red Ware

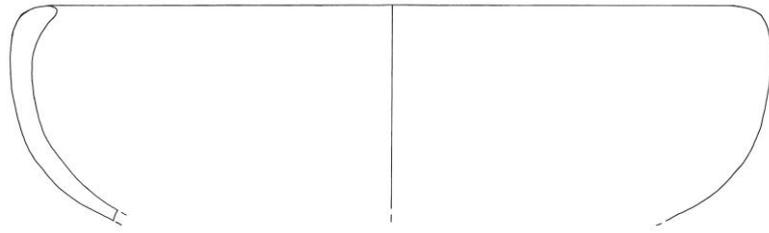
LR	fine	few lime, few mica, much organics (O)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **686 (=685)** BKG 12 E (63) 3a.3 OB-a3.2.1

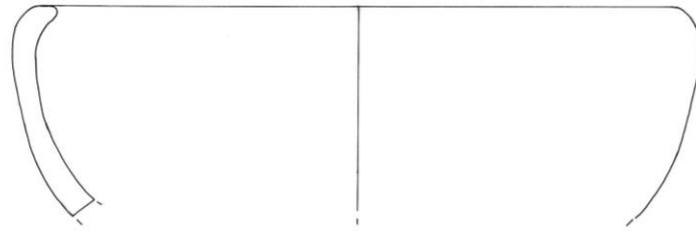
Red Ware

Traces of ribbing

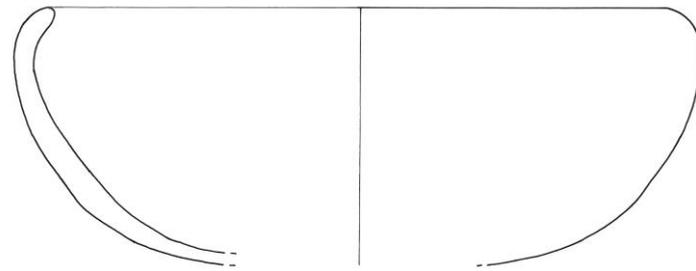
LR	fine	few mica, organics diffuse	uniform	slip (R)	wheel, ribbing
----	------	----------------------------	---------	----------	----------------



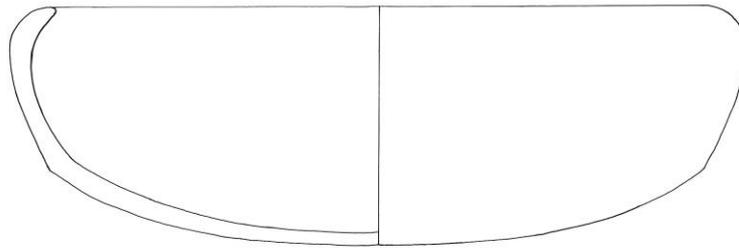
1



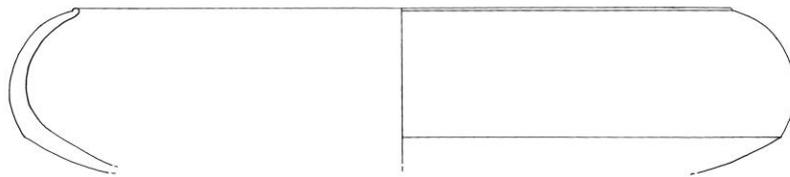
2



3



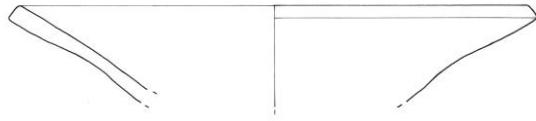
4



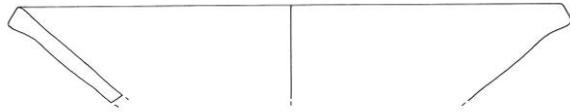
5



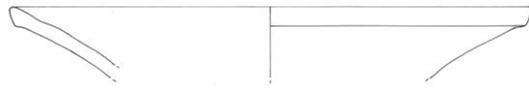




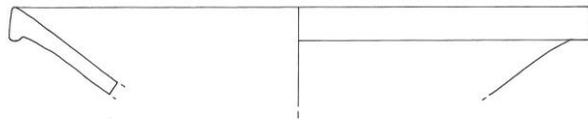
1



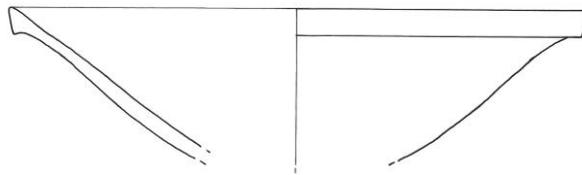
2



3



4



5



Plate 13 – Macrophase 3a

1 - **302** BKG K-105 (1909) 3a.2 OB-b1

Red Ware

LR	fine	few organics, mica, few lime (D)	gray patches inside	slip (R) inside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2- **354 (=208=391=18)** BKG K-105 (1910) 3a.2 OB-b1

Red Ware

R	fine	few organics (D)	uniform	slip (R) inside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 - **410** BKG K-105 (2113) 3a.4 OB-b1.1

Red Ware

LR	medium	some lime, some mica, organics diffused	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 - **301** BKG K-105 (1912) 3a.2 OB-b2.3

Red Ware

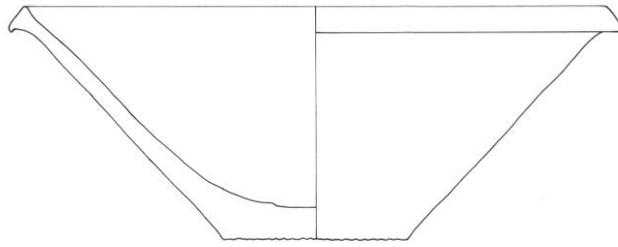
Soot

LR	fine	some lime, some organic (D)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

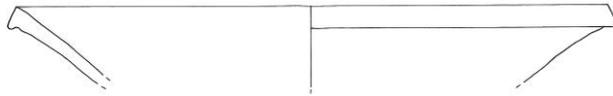
5 - **528** BKG K-105 (1663) 3a.4 OB-b3

Red Ware

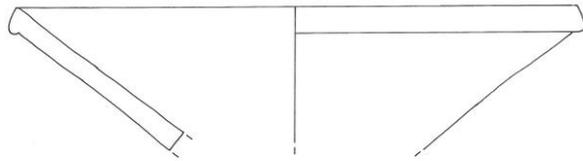
R	fine	few organics (D)	uniform clinky	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



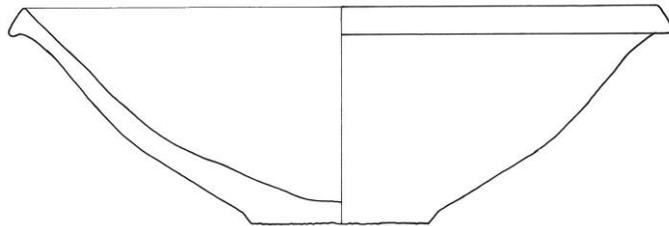
1



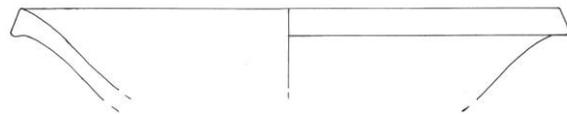
2



3



4



5



Plate 14 – Macrophase 3a

1 – **254** BKG K-105 (1676) 3a.4 OB-b2

Red Ware

LR	medium	some lime, few organics, few mica (E)	uniform (clinky)	no slip	slow wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **134** BKG K-105 (1908) 3a.2 OB-b2.1

Red Ware

LR	fine	few mica, some organics (D)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **148** BKG K-105 (1912) 3a.2 OB-b2.2

Red Ware

Soot outside

LR	fine	some mica, organics diffused (D)	patches outside	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **275 (=355)** BKG K-105 (1691) 3a.3 OB-b2.4

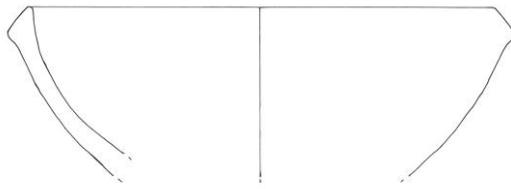
Red Ware

LR/P	medium	lime diffused, few organics (E)	uniform (clinky)	no slip	slow wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

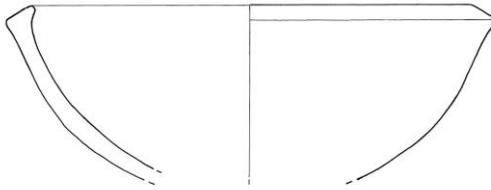
5 – **136 (=340=264)** BKG K-105 (1909) 3a.2 OB-b2.5

Red Ware

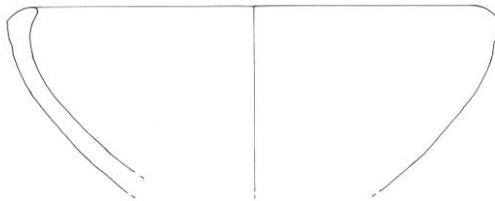
LR	medium	organics diffused (D)	uniform	no slip	slow wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



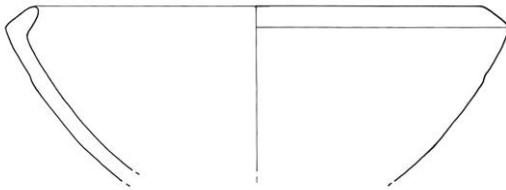
1



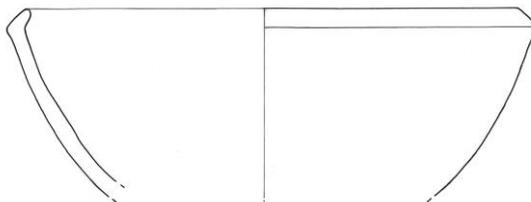
2



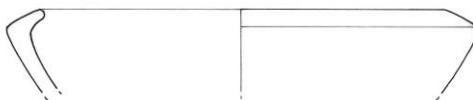
3



4



5



6



Plate 15 - Macrophase 2a.2, 3a

1 – **222** BKG K-105 (1923) 2a.2 OB-c1

Red Ware

Cf. McNicoll 1975: fig. 8.1; Lyonnet 2013: fig. 119.6, 11

R	fine	few lime, few organics (O)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 - **78** (=192) BKG L (10p) 2a.2 OB-c1.1

Red Ware

R	fine	few lime, few organics (O)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 - **195** BKG L (9) OB-c1.1.1

Red Ware

Cf. Lyonnet 2013: fig. 119.7

R	fine	few lime, few organics (O)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 - **117** (=202=156) BKG L (10p) 2a.2 OB-c1.2

Red Ware

Corroded

R	fine	few lime, few organics (O)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 - **105** BKG L (10p) 2a.2 OB-c1.2.1

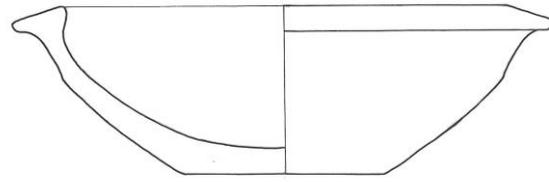
Red Ware

R	fine	few lime, few mica	uniform	slip (R)	wheel
---	------	--------------------	---------	----------	-------

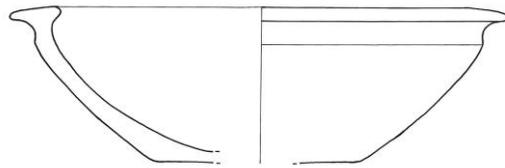
6-**732** BKG K-105 (2141) 3a.1 OB-c1.2.2

Red Ware

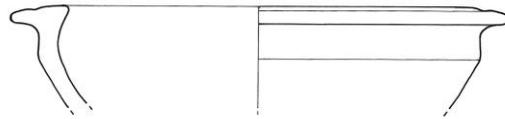
R	fine	few lime, some organics	black core	slip (G)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



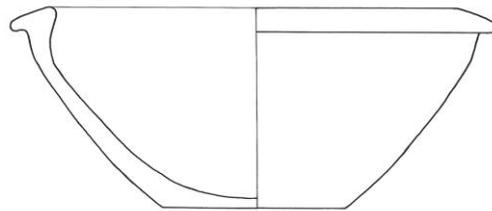
1



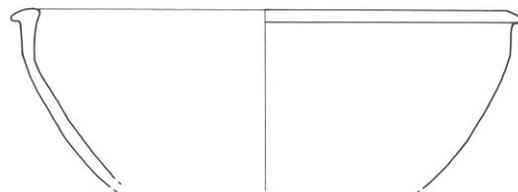
2



3



4



5



Plate 16 - Macrophase 2a.2

1 - **2** BKG L (9) OB-c2

Red Ware

R/Y	fine	few lime, few organics	uniform	golden wash inside	wheel
-----	------	------------------------	---------	-----------------------	-------

2 – **95** BKG L (10p) 2a.2 OB-c2.1

Red Ware

LR	fine	few organics, few mica	uniform	slip (R)	wheel
----	------	------------------------	---------	----------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

3 – **95b** BKG L (10p) 2a.2 OB-c2.2

Red Ware

LR	fine	few lime	uniform	slip (?)	wheel
----	------	----------	---------	----------	-------

4 – **13** BKG L (9) OB-c2.3

Red Ware

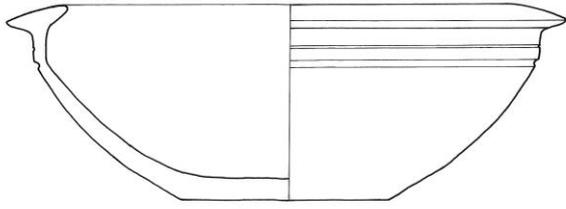
LR	fine	few lime	uniform	slip (?)	wheel
----	------	----------	---------	----------	-------

5 – **12** BKG L (9) OB-c2.3.1

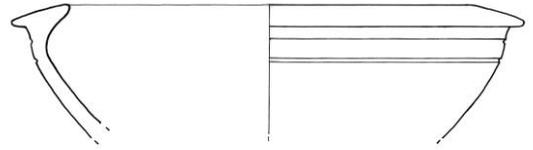
Red Ware

Soot

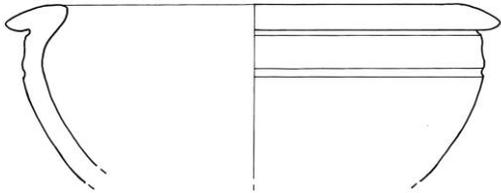
R	fine	lime, few organics	uniform	slip (?)	wheel
---	------	--------------------	---------	----------	-------



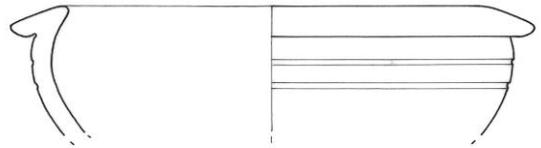
1



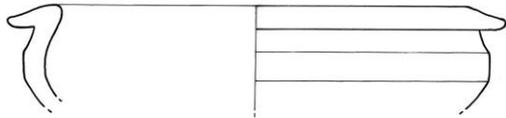
2



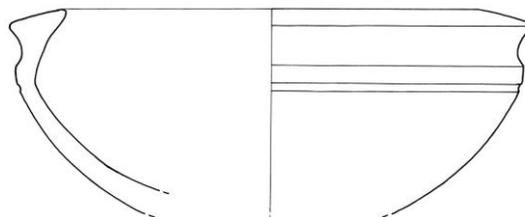
3



4



5



6



Plate 17 – Macrophases 2a.2-3a

1 - **41** (=196) BKG L (8) 3a OB-c3

Red Ware

LR	fine	lime, few organics, mica (D)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 - **107** BKG L (10p) 2a.2 OB-c3

Red Ware

LR	fine	lime, few organics, mica (D)	uniform	no slip (?)	wheel
----	------	---------------------------------	---------	-------------	-------

3 – **64** BKG L (10p) 2a.2 OB-c4

Red Ware

Soot outside/inside

LR	fine	lime, few organics, quartz and mica, red-brick inclusions (O)	uniform	slip (?)	wheel
----	------	---	---------	----------	-------

4 – **194** BKG K-105 (2152) 2b OB-c4

Red Ware

Soot outside/inside

R	fine	lime, few organics	uniform	slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **128** BKG L (10p) 2a.2 OB-c4.1

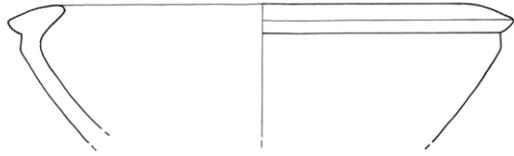
Red Ware

R	fine	few mica, few organics	uniform	slip	wheel
---	------	------------------------	---------	------	-------

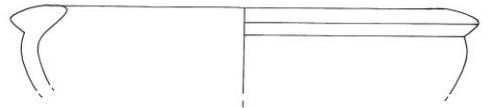
6 - **63** BKG L (10p) 2a.2 OB-c5

Red Ware

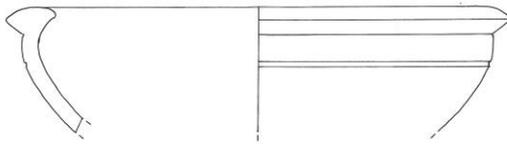
LR	fine	lime, few organics and mica (O)	uniform	slip (R) golden wash inside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



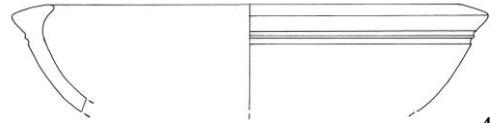
1



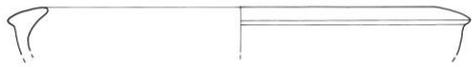
2



3



4



5



6



Plate 18 – Macrophases 2a.2-3a

1 - **77 (=157)** BKG L (10p) 2a.2 OB-c6

Red Ware

Cf. Bahadur Khan et al. 2002: fig. 17.14

LR/B	fine	few organics (O)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **670 (BKG 3786)** BKG K-105 (2149) 2b OB-c6.1 (PP1.1)

Red Ware.

Painted black-on-red. Strokes on top of rim

R	fine	few lime, organics (D)	uniform	slip (R)	wheel
---	------	------------------------	---------	----------	-------

3 – **638 (BKG 3865)** BKG K-105 (2165-7) 2a.2 OB-c6

Red Ware.

Cf. Wheeler 1962: fig. 22.141-142

R	fine	few mica, few organics (C)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **189 (BKG 3866)** BKG K-105 (2167) 2a.2 OB-c6.2

Red Ware.

R	fine	few mica, few organics (O)	uniform	slip (R)	wheel
---	------	----------------------------	---------	----------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

5 – **233** BKG K-105 (2156) 2a.2 OB-c6.3

Red Ware.

Cf. Wheeler 1962: fig. 50. 543, 555

R	fine	few mica, few organics (D)	uniform	slip (DR)	wheel
---	------	----------------------------	---------	-----------	-------

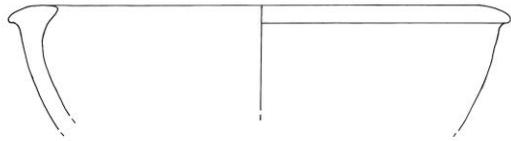
2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

6 – **382** BKG K-105 (2110) 3a.4 OB-c6.3.1 (PP1.1)

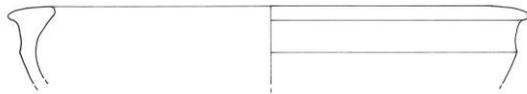
Red Ware.

LR	fine	few mica, some organics (D)	uniform	slip (?)	wheel
----	------	-----------------------------	---------	----------	-------

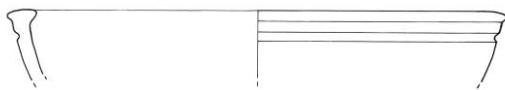
2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------



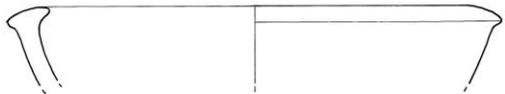
1



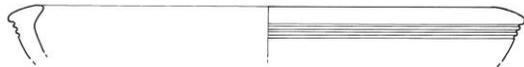
2



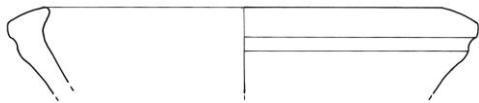
3



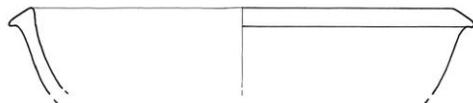
4



5



6



7



Plate 19 – Macrophases 2a.2, 3a

1 – **365** (=490=425) BKG K-105 (1910) 3a.2 OB-c7

Red Ware

LR	fine	few lime, organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **231** BKG K-105 (2157) 2a.2 OB-c7.1

Red Ware

LR	fine	few organics (O)	uniform	slip (DR)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **39** BKG L (9) 2a.2 OB-c7.2

Red Ware.

R	fine	few lime, organics, mica (D)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **480** BKG K-105 (2142) 3a.1 OB-c7

Red Ware.

R	fine	few mica, organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **443** BKG K-105 (2131) 3a.2 OB-c7.3

Red Ware

LR-P	fine	mica, organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

6 – **447** BKG K-105 (2131) 3a.2 OB-c7.4

Red Ware

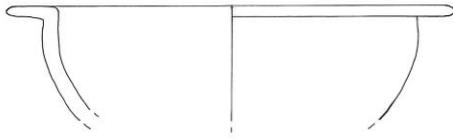
LR/B	fine	few lime, organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

7 – **495** BKG K-105 (2147) 3a.1 OB-c8

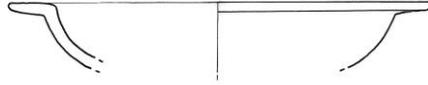
Red Ware.

Soot outside

LR	fine	few lime, organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



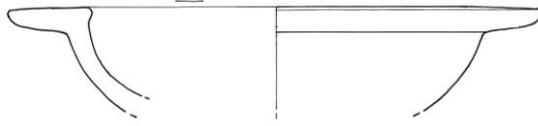
1



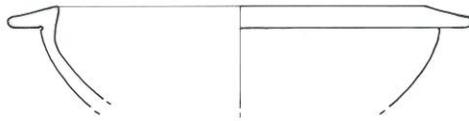
2



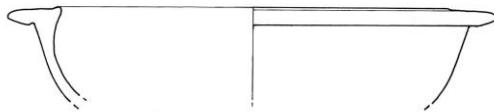
3



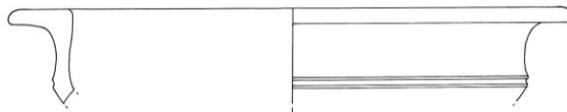
4



5



6



7



Plate 20 – Macrophase 3a

1 – **362** BKG K-105 (1910) 3a.2 OB-d1

Red Ware

LR	fine	few mica, few organics (D)	gray patches	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **310** BKG K-105 (1917) 3a.1 OB-d1.1

Red Ware

LR	fine	few organics (D)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **534** BKG K-105 (2131) 3a.2 OB-d1.1.1

Red Ware.

LR	fine	few lime, few organics (D)	uniform	slip (G) outside/rim	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **375** BKG K-105 (1904) 3a.4 OB-d1.2

Red Ware

LR	medium	few mica, organics diffused (E)	gray core	slip (R) traces	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **421** BKG K-105 (2117 E) 3a.2 OB-d1.3

Red Ware

LR/P	fine	few mica (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

6 – **282** BKG K-105 (1692) 3a.3 OB-d1.3

Red Ware

Soot outside

LR	fine	few lime, mica (D)	uniform	slip (R) traces	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

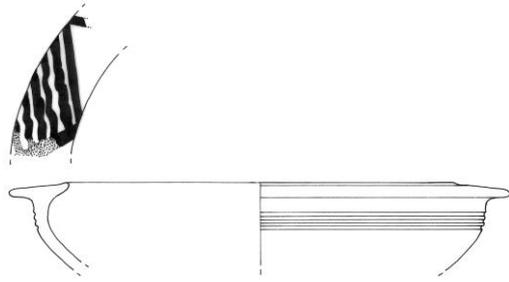
7 – **663 (BKG 3547)** BKG K-105 (1904) 3a.4 OB-d1.4 (PP1.1.1)

Red Ware

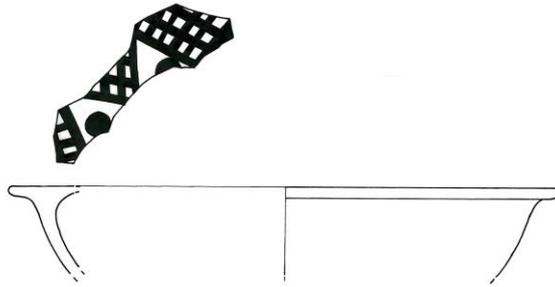
Painted black-on-red. Row of hatched triangles

Cf. Wheeler 1962: fig.47.498 (Ch. IV)

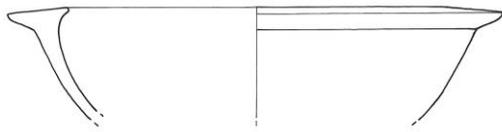
LR	fine	few mica, few organics	uniform	slip (R)	wheel



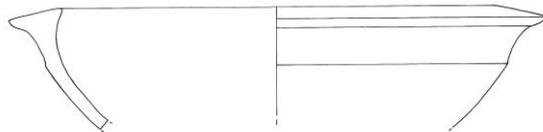
1



2



3



4

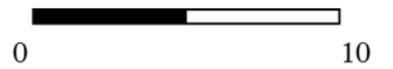


Plate 21 – Macrophase 2a.2, 3a

1 – **17** BKG L (9) OB-d2.1 (PP1.1.1)

Red Ware

Painted black-on red: row of hatched triangles

R	fine	few organics	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **253** BKG K-105 (1692) 3a.3 OB-d2 (PP1.1.1)

Red Ware

Painted black-on-red. Cross-hatched triangles and rosette (?)

R	fine	-	uniform (clinky)	thick slip (DR)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **283** BKG K-105 (1692) 3a.3 OB-d2.2

Red Ware

LR	fine	few lime, mica (E)	uniform	slip (R) traces	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **263** BKG K-105 (1673) 3a.4 OB-d2.2

Red Ware

R	fine	some mica, some organics (E)	slightly gray core	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

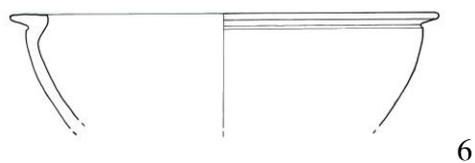
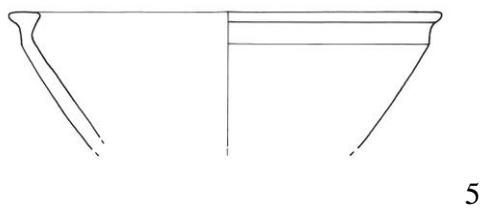
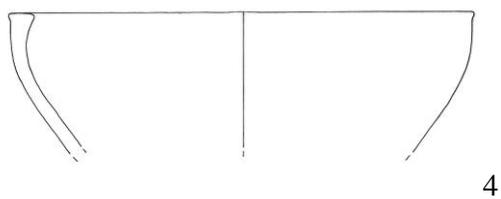
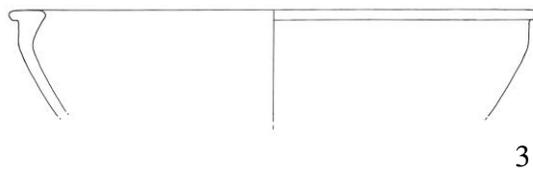
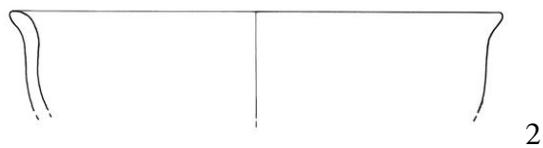
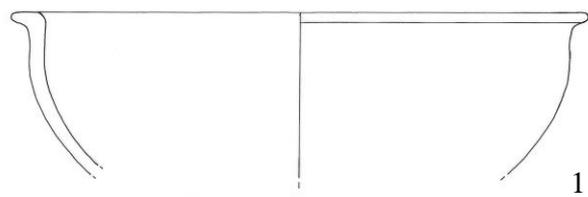


Plate 22- Macrophase 3a

1 – **315** BKG K-105 (1909) 3a.2 OB-d3

Red Ware

R	medium	few lime, few organics (D)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **503 (=388)** BKG K-105 (2146) 3a.1 OB-d3.1

Red Ware

LR	fine	few organics, few mica (C)	black core	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **317** BKG K-105 (1909) 3a.2 OB-d4

Red Ware

R	medium	lime, organics diffused (E)	uniform	thin slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 - **261** BKG K-105 (1673) 3a.4 OB-d4.1

Red Ware

R	fine	some lime, some organics (E)	uniform (clinky)	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **276** BKG K-105 (1691) 3a.3 OB-d4.2.1

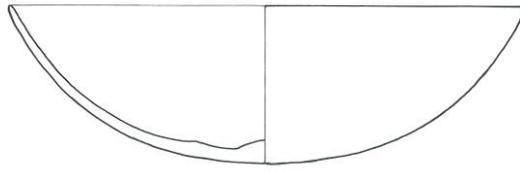
Red Ware.

LR	fine	few organics, few black inclusions (E)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

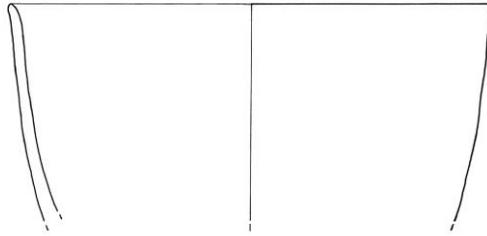
6 – **496** BKG K-105 (2147) 3a.1 OB-d4.2

Red Ware

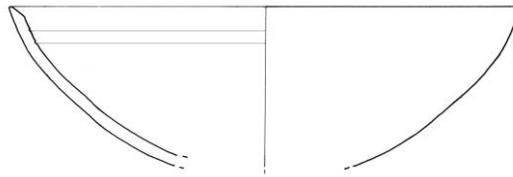
LR	fine	few organics, few mica (E)	Black core	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



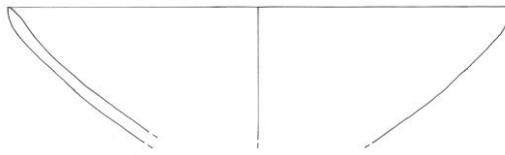
1



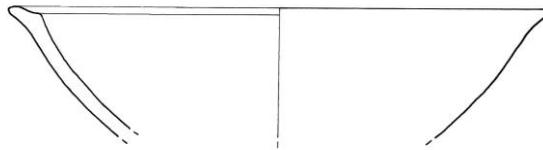
2



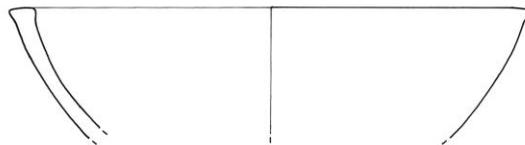
3



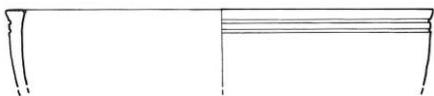
4



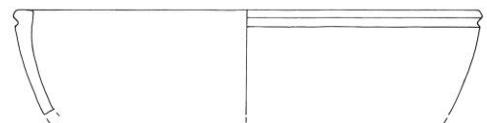
5



6



7



8



Plate 23 – Macrophase 2a.2, 3a

1 - **4** BKG L (9) OB-e1

Red Ware

R	fine	few lime, few organics	uniform	golden wash	molding, wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2-**111** BKG L (10p) 2a.2 OB-e3

3 – **536** BKG K-105 (1667) 3a.4 OB-e2.1

Red Ware

Cf. Lyonnet 2013: fig. 113. 8, 10, 12; also Lyonnet 2012: fig. 8.3

R	fine	-	gray core	polished	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **255** BKG K-105 (1676) 3a.4 OB-e2

Red Ware

Cf. Lyonnet 2013: fig. 113. 8, 10, 12; also Lyonnet 2012: fig. 8.3

R	fine	few organics (D)	uniform	polished	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **444** BKG K-105 (2131) 3a.2 OB-e2.2

Red Ware

Cf. Lyonnet 2013: fig. 113.13

R	fine	few organics (D)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

6 – **535 (=389)** BKG K-105 (1667) 3a.4 OB-e4

Red Ware

R	fine	few mica, few organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

7 – **299** BKG K-105 (1912) 3a.2 OB-e5

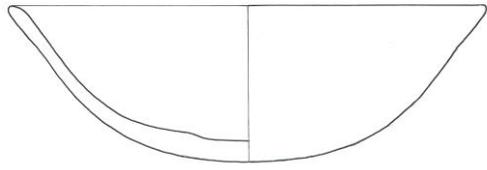
Red Ware

LR	fine	few mica, few organics	uniform (clinky)	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

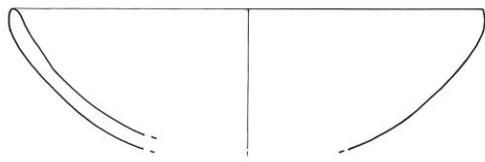
8 – **471** BKG K-105 (2141) 3a.1 OB-e5.1

Red Ware

R	fine	-	uniform		wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



1



2



3



4

Plate 24 – Macrophases 2a.2, 3a

1 - **3** BKG L (9) OB-e6

Red Ware

Cf. Sharif 1969: fig. 19.10

R	fine	lime, organics	uniform	slip (R)	wheel
---	------	----------------	---------	----------	-------

2 – **3b** BKG L (10) 2a.2 OB.e6

Red Ware

R	fine	few organics (D)	uniform	slip (R)	wheel
---	------	------------------	---------	----------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

3 – **739** BKG K-105 (2131) 3.2a OB-e6.1

Red Ware

LR	fine	few organics (D)	uniform	slip (R)	wheel
----	------	------------------	---------	----------	-------

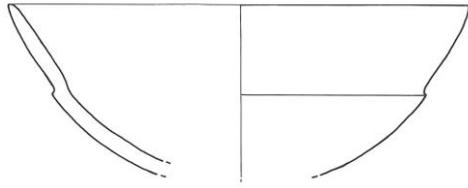
2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

4 – **432** BKG K-105 (2131) 3a.2 OB-e7

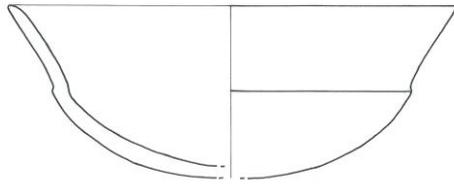
Red Ware.

LR	fine	few mica, organics (D)	black patches	no slip	wheel
----	------	------------------------	---------------	---------	-------

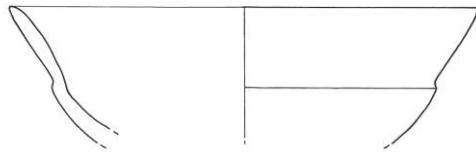
2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------



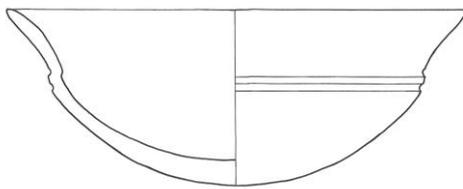
1



2



3



4

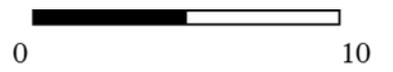


Plate 25 – Macrophase 2a.2

1 - **96** BKG L (9) OB-f1

Red Ware

R	fine	few lime, few organics (O	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 - **97** BKG L (10p) 2a.2 OB-f1.1

Red Ware

Cf. Wheeler 1962: fig. figs. 49.526, 50.544 (Ch. V), Sharif 1969: fig. 19.1 (Period III)

R	fine	few lime, few organics	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 - **7 (=10)** BKG L (9) OB-f1.1

Red Ware

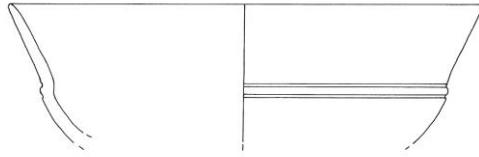
R	fine	lime, organics	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 - **6** BKG L (9) OB-f1.2

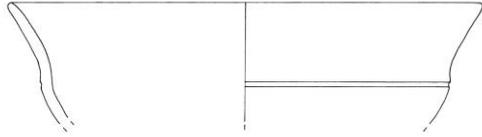
Red Ware

Corroded

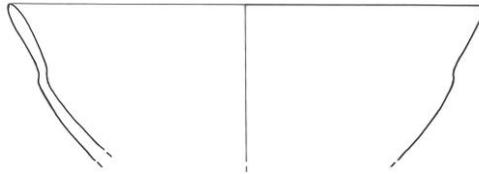
R	fine	few lime, organics	uniform	slip (R)	wheel
---	------	--------------------	---------	----------	-------



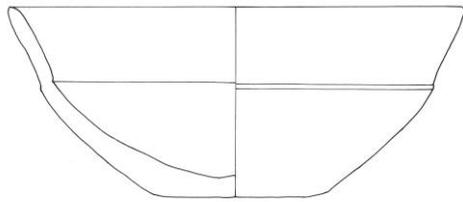
1



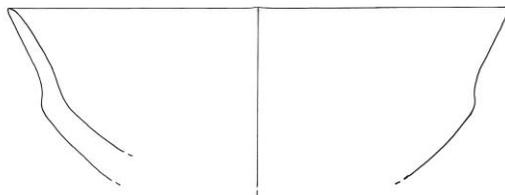
2



3



4



5



Plate 26 – Macrophases 2a.2, 3a

1 - **640 (BKG 3864)** BKG K-105 (1926bis) 2a.2 OB-f1.3

Red Ware

R	fine	few lime, few organics (O)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **158** BKG K-105 (2167) 2a.2 OB-f1.4

Red Ware

R	fine	few mica, organics diffused (O)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **573** BKG L (8) 3a OB-f1.5

Cf. Lyonnet 2013: fig. 111.6

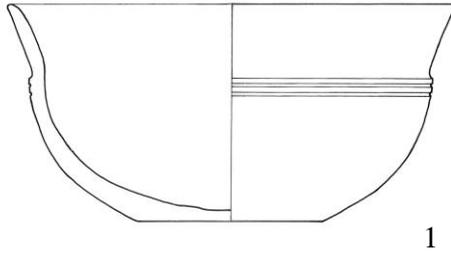
4 - **139 (BKG935)** BKG L (10p) 2a.2 OB-f1.6

Red Ware

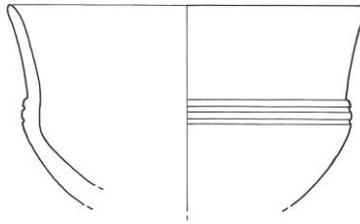
5 – **332** BKG K-105 (1919) 3a.1 OB-f1.6.1

Red Ware

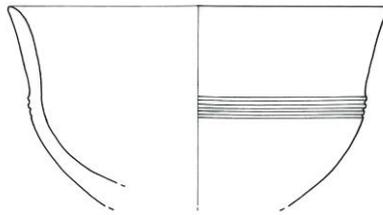
R	fine	few mica, some organic: (D)	uniform	slip (DR)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



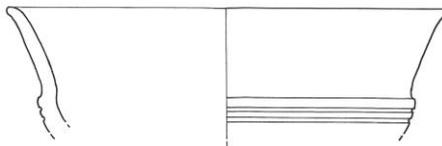
1



2



3



4

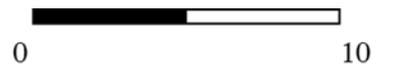


Plate 27 – Macrophase 2a.2

1 - **74** BKG L (10p) 2a.2 OB-f2

Red Ware

Heavily corroded

O/R	fine	few lime, few organics	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 - **9** BKG L (9) OB-f3

Red Ware

R	fine	lime, few organics	uniform	slip (R)	wheel
---	------	--------------------	---------	----------	-------

3 - **98** BKG L (10p) 2a.2 OB-f3

Red Ware

Cf. Bahadur Khan et al. 2002: fig. 25.19

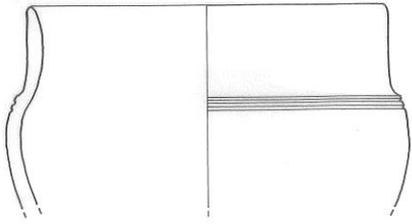
R	fine	few lime, few organics	uniform	slip (R)	wheel
---	------	------------------------	---------	----------	-------

4 - **11** BKG L (9) OB-f3.1

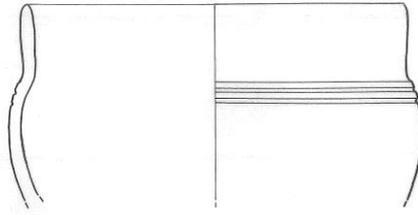
Red Ware

See Sharif 1969: fig. 27.4

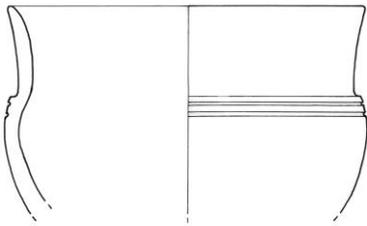
R	fine	lime, few organics, few mica (O)	uniform	slip (R)	wheel
---	------	----------------------------------	---------	----------	-------



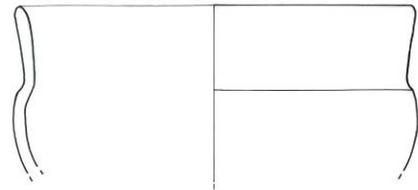
1



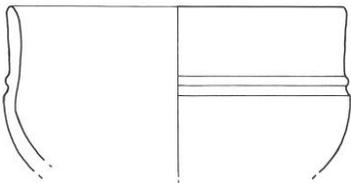
2



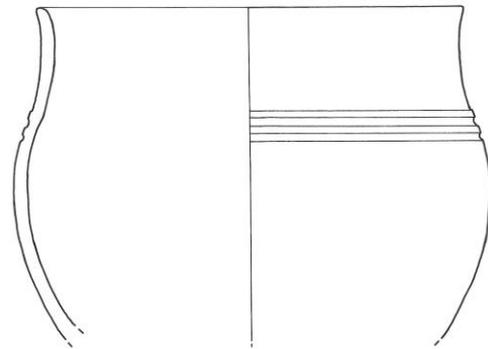
3



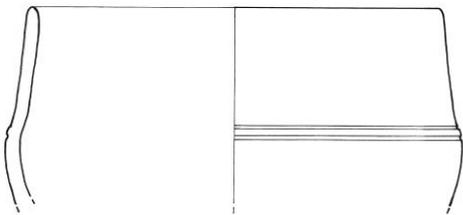
4



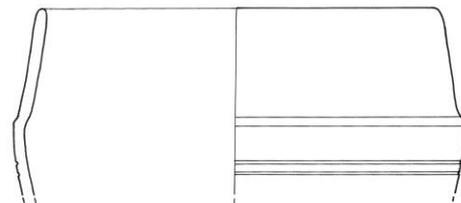
5



6



7



8



0

10

Plate 28 – Macrophases 2a.2, 3a

1 – **44** BKG L (10p) 2a.2 OB-f4  
Red Ware

R	fine	few lime, some organics (O)	black patches	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **293** BKG L (8) 3a OB-f4  
Cf. Sharif 1969: fig. 17.16

3 - **73** BKG L (10p) 2a.2 OB-f4.1  
Red Ware  
Soot

LR	fine	few organics (O)	uniform	slip (R)	wheel
----	------	------------------	---------	----------	-------

4 - **101** BKG L (10p) 2a.2 OB-f4.2  
Red Ware  
Cf. McNicoll and Ball 1996: fig. 274.2

LR	fine	few organics (O)	uniform	slip (R)	wheel
----	------	------------------	---------	----------	-------

5 - **15** BKG L (9) OB-f4.3  
Red Ware  
Whitish incrustation

R	fine	few lime, organics diffuse (D)	uniform	slip (R)	wheel
---	------	-----------------------------------	---------	----------	-------

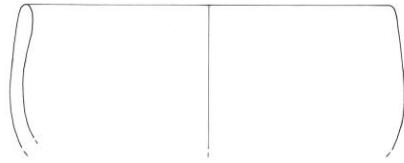
6 - **5** BKG L (9) OB-f5.  
Red Ware

R	fine	lime, few organics (D)	uniform	slip (R) outside	wheel <i>tracce r</i>
2a.2	2b	3a.1	3a.2	3a.3	3a.4

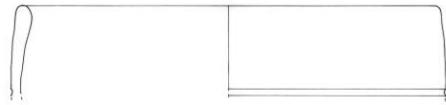
7 - **99** BKG L (10p) 2a.2 OB-f5.1  
Red Ware  
Cf. Wheeler 1962: fig. 50.545 (Ch. V)

R	fine	few lime, few organics (O)	uniform	thin slip (R)	wheel <i>tracce r</i>
---	------	----------------------------	---------	---------------	-----------------------

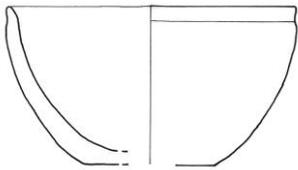
8 – **155** BKG L (10p) 2a.2 OB-f5.1



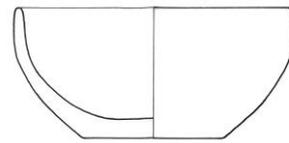
1



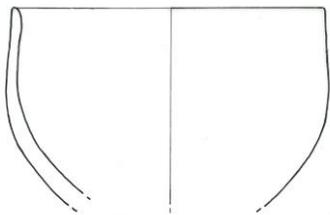
2



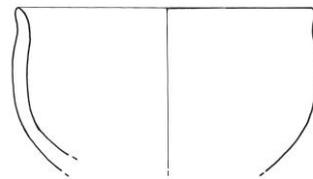
3



4



5



6



0

10

Plate 29 – Macrophases 2a.2, 3a

1 - **153** (=345) BKG K-105 (2164) 2a.2 OB-g2

Red Ware

R	fine	few mica, some organics (D)	uniform	slip (R) traces	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 - **190** (=181) BKG K-105 (2161) 2a.2 OB-g2.1

Red Ware

R	fine	organics diffused (O)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 - **75** (=21) BKG L (10p) 2a.2 sOB-g3.1

Red Ware

LR/B	fine	few organics	uniform	slip (R) traces	wheel
------	------	--------------	---------	-----------------	-------

4 - **76** BKG L (10p) 2a.2 sOB-g3.1

Red Ware

LR	fine	few organics	uniform	slip (R) traces	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 - **420** BKG K-105 (2117 E) 3a.2 sOB-g3

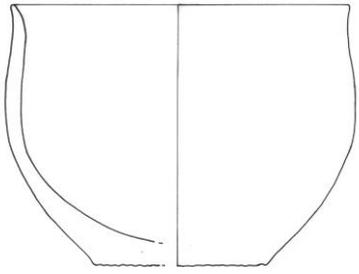
Red Ware

LR	fine	few organics, few mica (D)	gray core	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

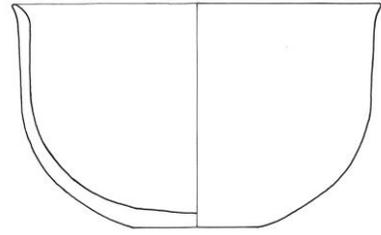
6 - **504** BKG K-105 (2116) 3a.3 sOB-g3

Red Ware

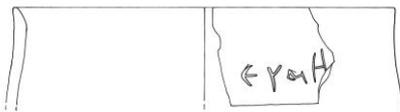
LR	fine	few organics, few mica (D)	black core, black patches out	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



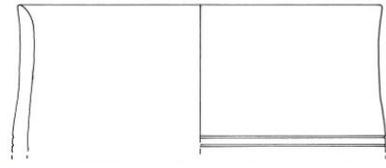
1



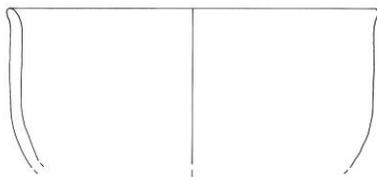
2



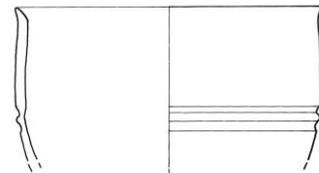
3



4



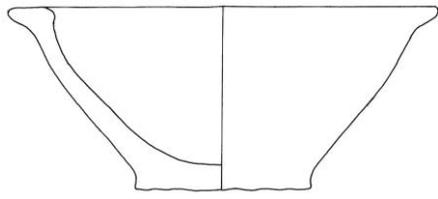
5



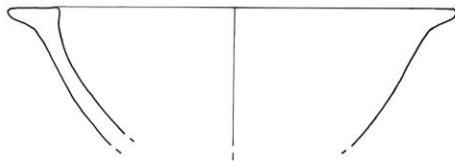
6



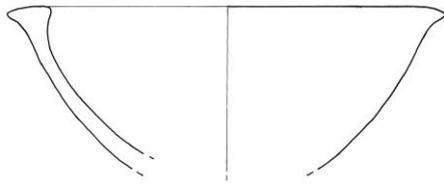




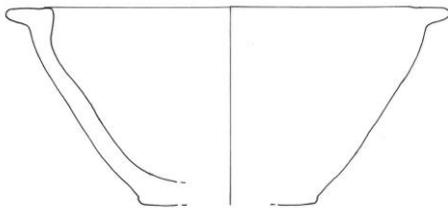
1



2



3



4



0

10



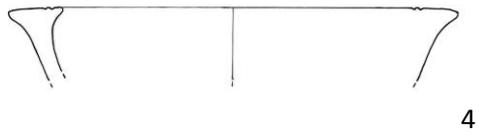
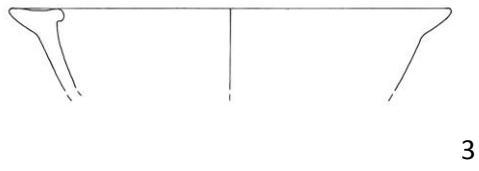
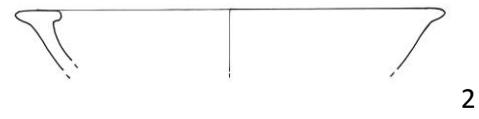


Plate 32 - Macrophase 3a

1 – **363** BKG K-105 (1910) 3a.2 sOB-h1.3

Red Ware.

LR	fine	few organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **460** BKG K-105 (2135) 3a.1 sOB-h1.4

Red Ware.

LR	medium	few organics (D)	black core overfired	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **364** BKG K-105 (1910) 3a.2 sOB-h1..4.1

Red Ware.

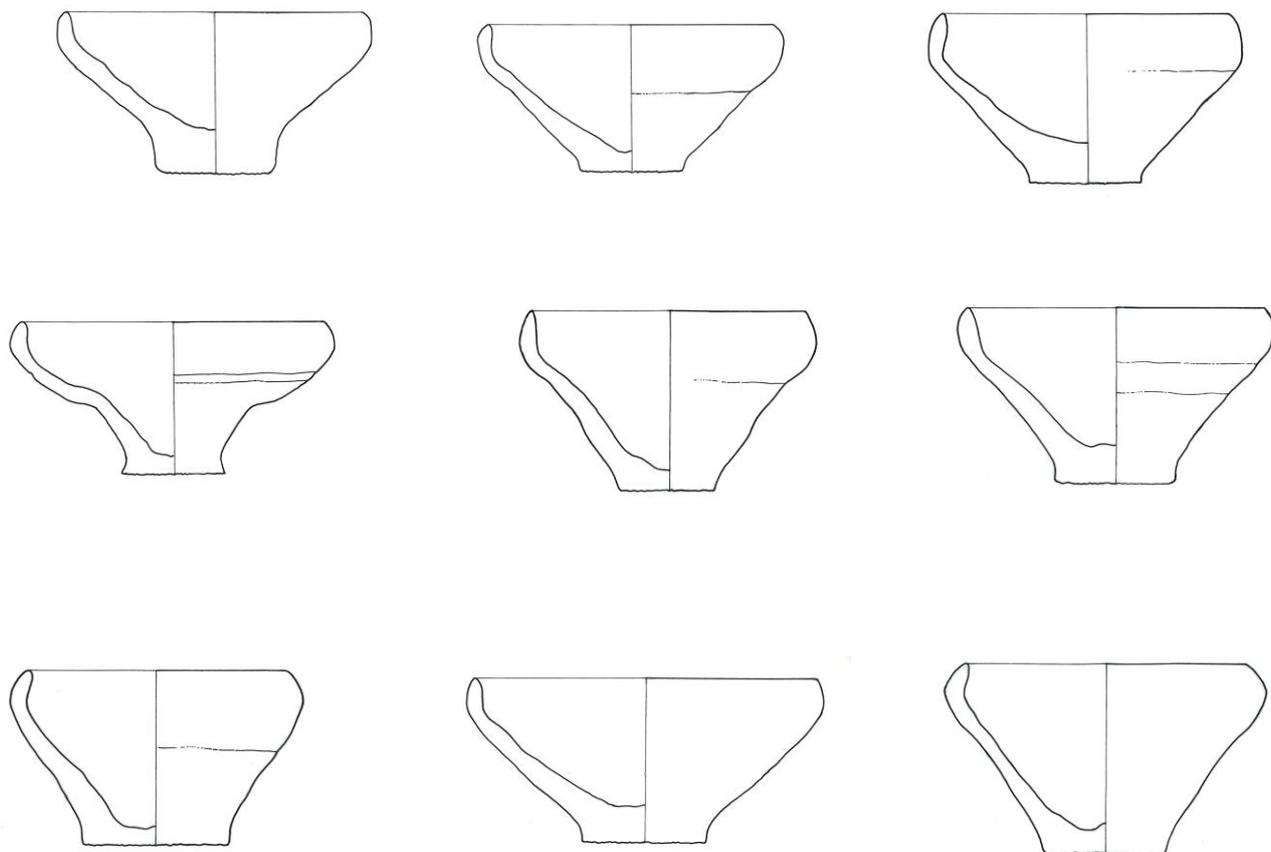
LR	medium	few mica, some organics (D)	uniform	slip (R)	Slow wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **376** BKG K-105 (1904) 3a.4 sOB-h1.4.2

Red Ware.

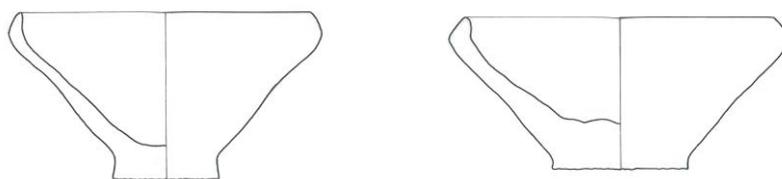
LR	fine	few lime, some organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

BKG L (10P)

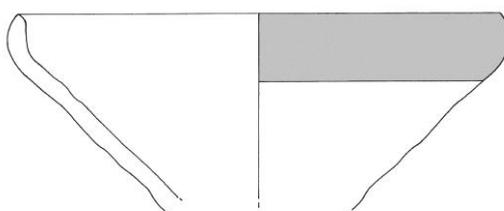


1

BKG L (9)



1



2





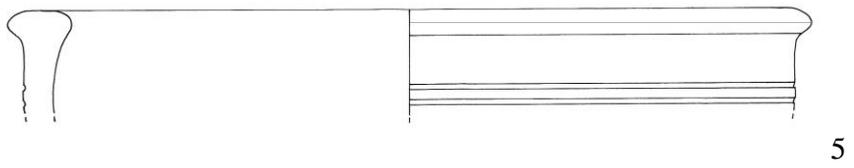
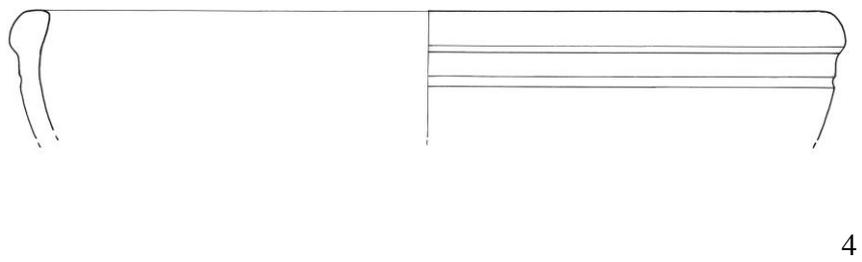
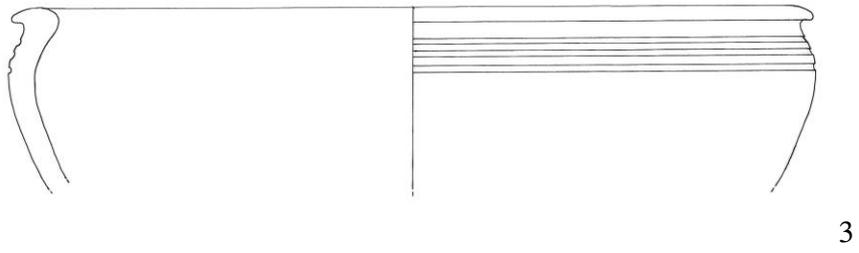
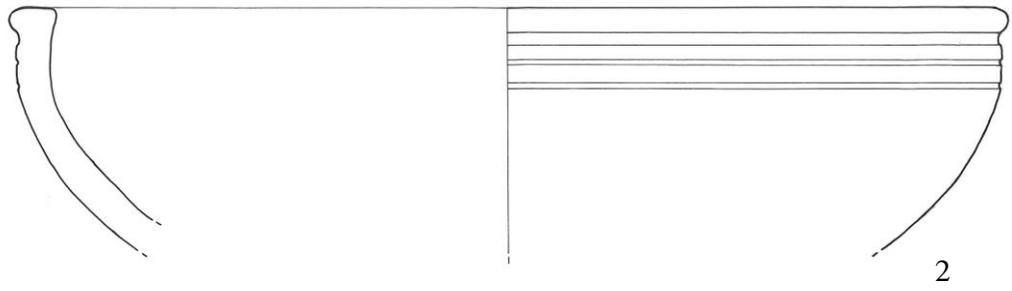
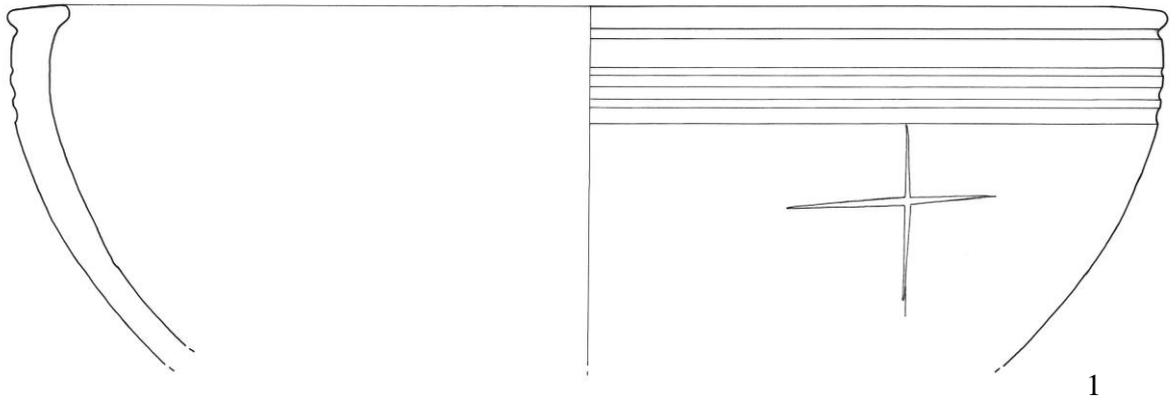


Plate 34 – Macrophase 2a.2

1 – **80** BKG L (10p) 2a.2 LOB-h1.1

Red Ware

Corroded

LR	fine	some lime, few mica, organics diffused (O)	gray core	slip (R)	handmade, wheel
----	------	---	-----------	----------	-----------------

2 – **59** BKG L (10p) 2a.2 LOB-h1

Red Ware

R	fine	mica diffused, few organics (O)	uniform	slip (R)	wheel (?)
---	------	------------------------------------	---------	----------	-----------

3 – **207** BKG K-105 (1928) 2a.2 OB-h1

Red Ware

Cf. Wheeler 1962: fig. 19.93 (layer 28)

LR	fine	few mica, organics diffused (O)	uniform	slip (R)	wheel
----	------	------------------------------------	---------	----------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

4 – **38 (=227)** BKG K-105 (2159) 2a.2 OB-h2.1

Red Ware

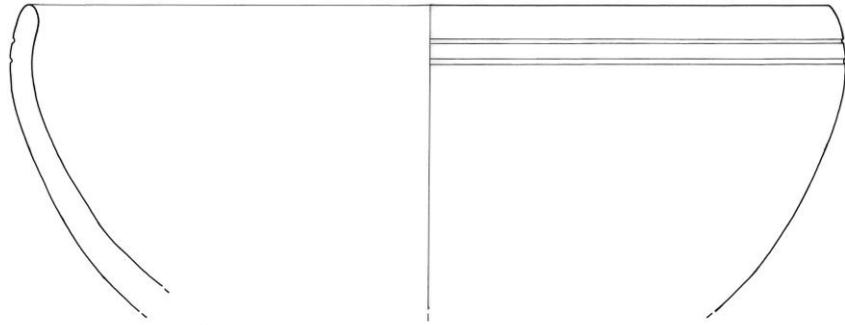
LR	fine	Organics diffused, few mica (C)	uniform	slip (R)	wheel
----	------	------------------------------------	---------	----------	-------

5 – **234** BKG K-105 (2156) 2a.2 OB-h2.1

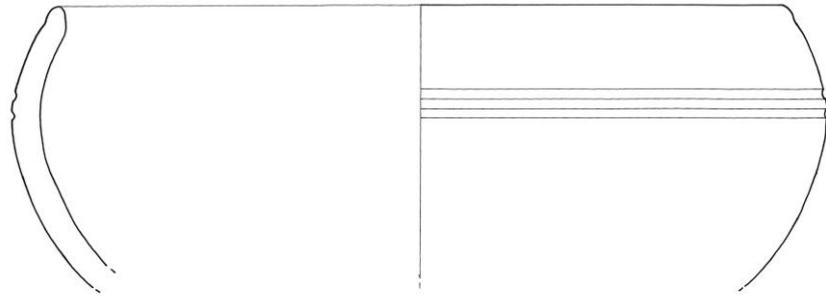
Red Ware

LR	fine	few organics, few mica (O)	uniform	thick slip (R)	wheel
----	------	-------------------------------	---------	----------------	-------

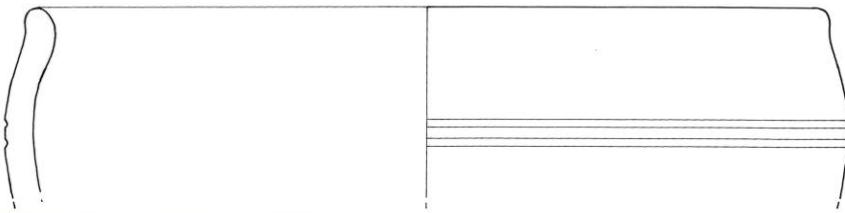
2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------



1



2



3



Plate 35 – Macrophase 2a.2

1 – **110** BKG L (10p) 2a.2 LOB-h2

Red Ware

LR	fine	lime diffused, few mica	uniform	slip (R)	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

\*N.B.: also 1 in BKG9 (73)

2 – **20** BKG L (9) 2a.2 LOB-h2

Red Ware

R	fine	Some lime and mica, organics diffused	uniform	thick slip (DR)	handmade, wheel
---	------	--	---------	-----------------	-----------------

3 – **19** (=147=**335**) BKG L (9) 2a.2 LOB-h2.1

Red Ware

R	fine	few mica, few organics, few quartz (?) of large dimension	uniform	thick slip (DR)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

\*N.B.: also 1 in BKG9 (73)

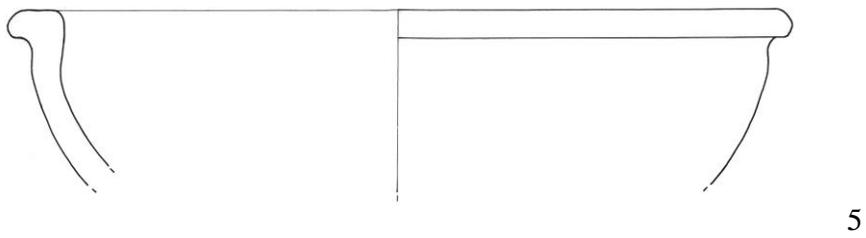
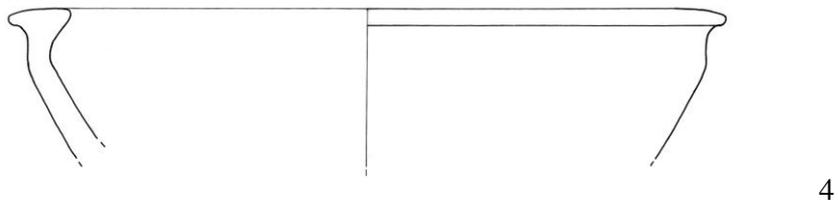
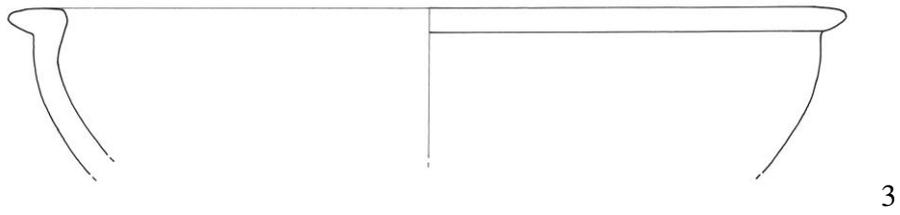
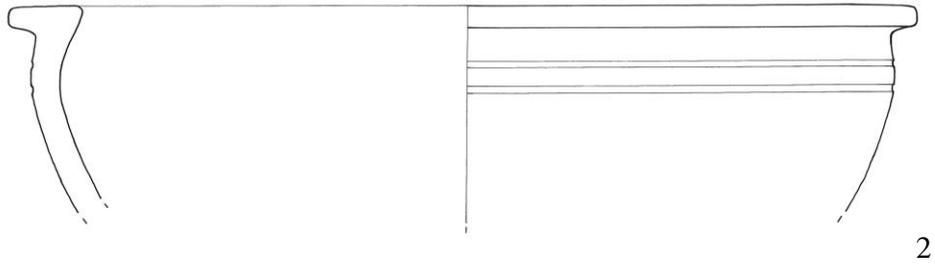
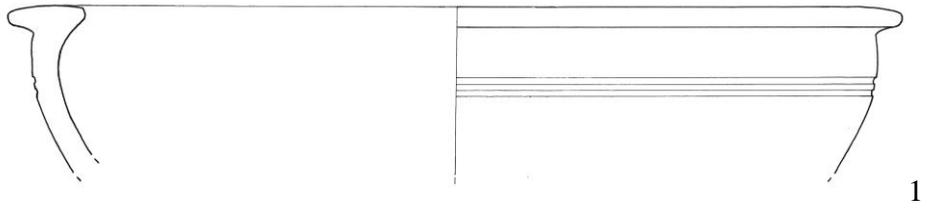


Plate 36 – Macrophase 2b-3a

1 – **487** BKG K-105 (2149) 2b LOB-h3

Red Ware

LR	medium	Some lime, brick-red inclusions, few mica (N)	black core	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **536** BKG K-105 (1920) 3a.1 LOB-h3.1

Red Ware

R	fine	few organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **478** BKG K-105 (2142) 3a.1 OB-h3

Red Ware

LR	medium	some mica and organics	uniform	slip (?)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **556** BKG 7 (82) 3a OB-h3

Red Ware

LR	few	few lime, few mica, organics diffused	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **474** BKG K-105 (2141) 3a.1 OB-h3.1

Red Ware

LR	medium	some lime, red-brick inclusions, few mica, few organics (N)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

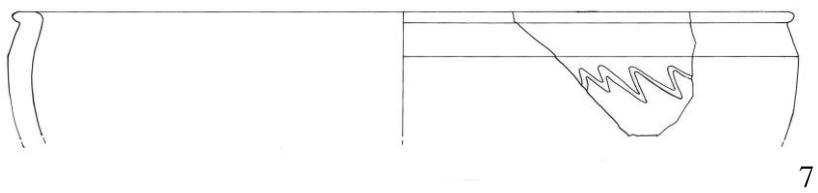
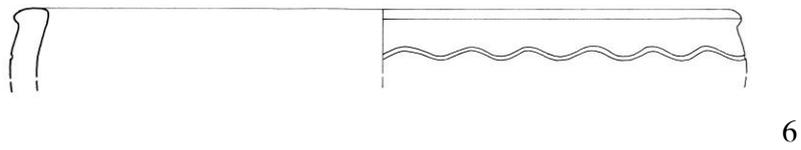
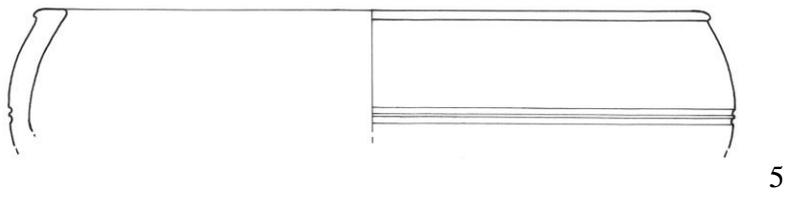
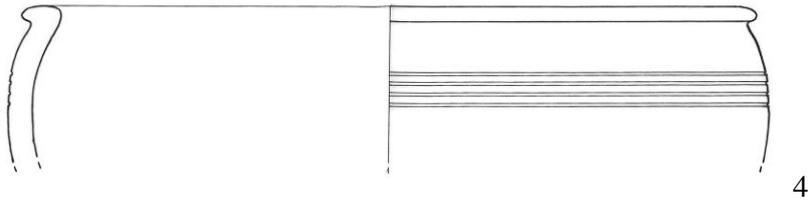
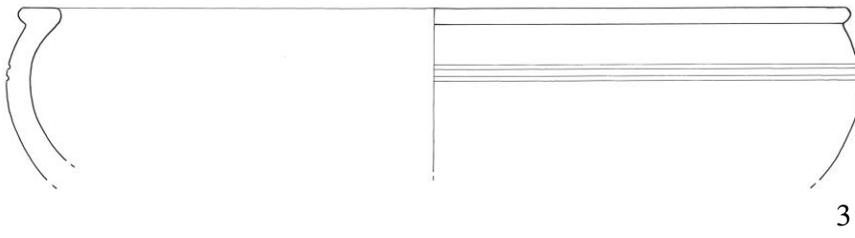
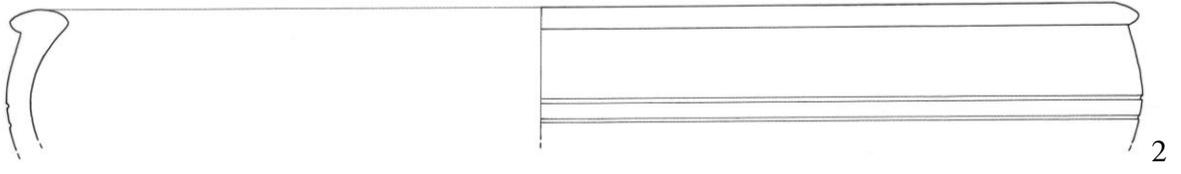
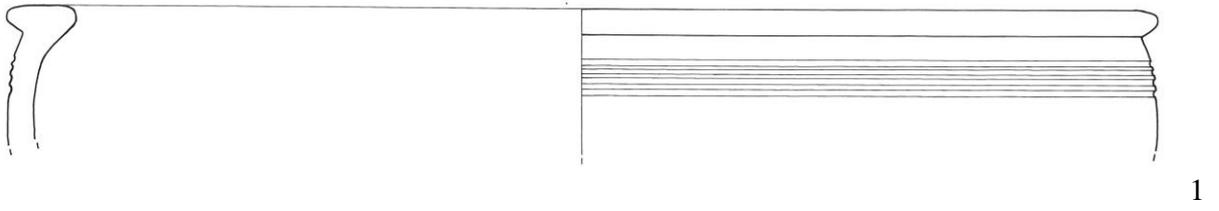


Plate 37 – Macrophase 3a

**1 - 456 BKG K-105 (2131) 3a.2 1 LOB-i1**

Red Ware

LR	coarse	few mica, quartz diffused, some organics (A)	red patches outside	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

**2 – 445 BKG K (2131) 3a.2 LOB-i1**

Red Ware

R	medium	some lime, some organics (M)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

**3 – 505 BKG K (2116) 3a.3 OB-i1**

Red Ware

R	fine	few mica, few organics (D)	black core	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

**4 – 558 BKG 709 (82) 3a OB-i1**

Red Ware

R	fine	few organics	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

**5 – 707 BKG K-105 (2148) 2b OB-i1.1**

Red Ware

LR	fine	few organics, few mica	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

**6 – 577 BKG7 (79) 3a.2-4 OB-i1.1.1**

Red Ware

Corroded

Incised decoration. Wavy line

LR	medium	lime and mica diffused	uniform	slip (R)	
2a.2	2b	3a.1	3a.2	3a.3	3a.4

**7 – 656 (BKG3723) BKG K-105 (2136) 3a.1 OB-i1.1.1 (DP3.1.1)**

Red Ware

Incised decoration. Wavy line

R	fine	few mica, few organics (D)	uniform	slip (DR)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

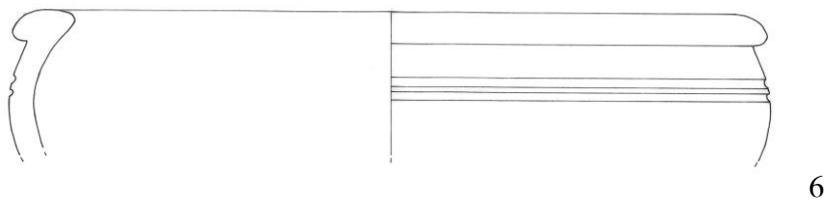
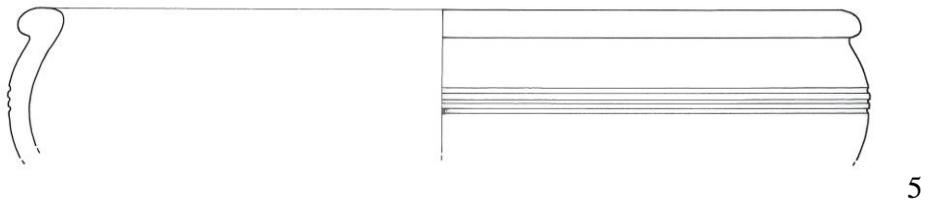
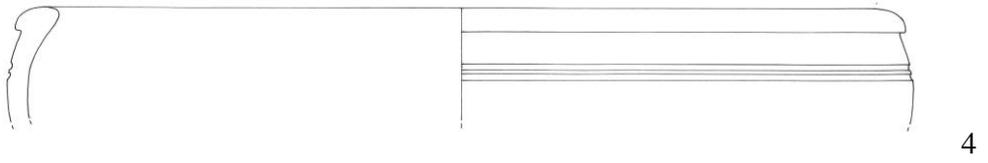
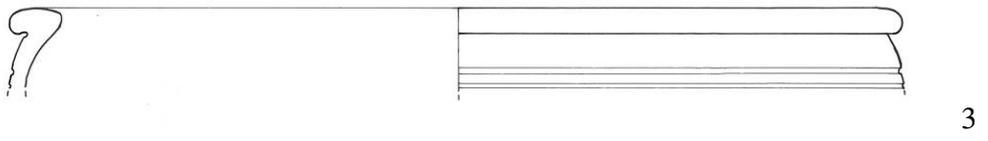
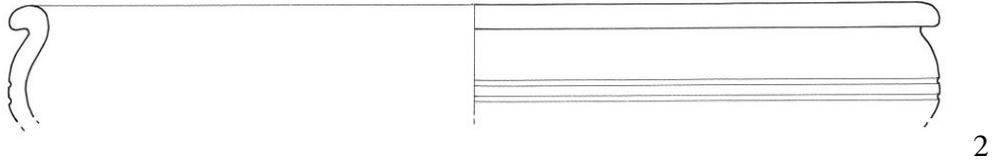
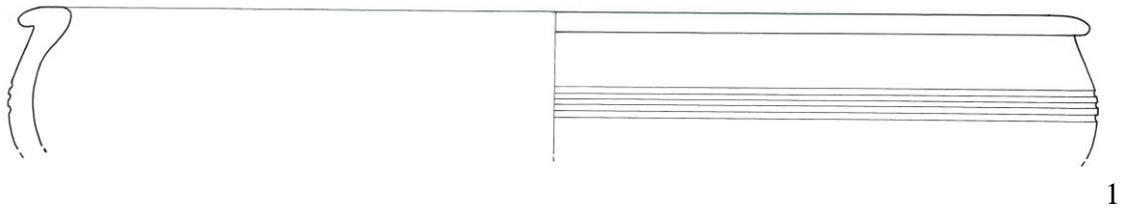


Plate 38 – Macrophase 3a

1 – **450** (=372) BKG K (2118) 3a.2 LOB-i1

Red Ware

R	fine	Organics diffused, few mica (C)	black patches outside	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **431** BKG K (2131) 3a.2 LOB-i3

Red Ware

LR	fine	few mica, few organics	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **294** BKG K (1681) 3a.4 OB-i3

Red Ware

LR	fine	few organics (D)	black core	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **273** (=451) BKG K (1672) 3a.4 LOB-i2

Red Ware

O/P	fine	few mica, organics diffused (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **446** BKG K-105 (2131) 3a.2 OB-i2

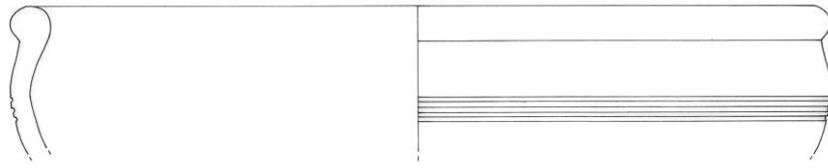
Red Ware

LR	medium	some organics, few mica (C)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

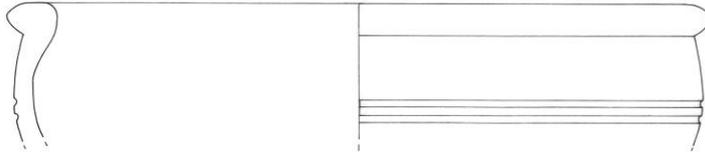
6 – **406** BKG K-105 (2113) 3a.4 OB-i2

Red Ware

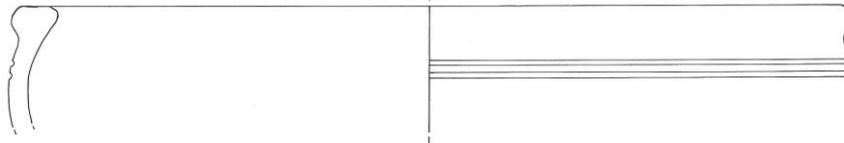
LR	fine	few mica, few organics (E)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



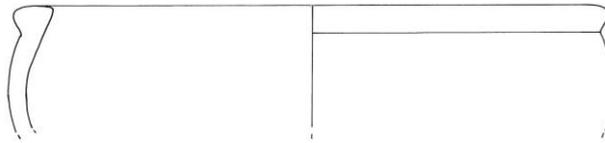
1



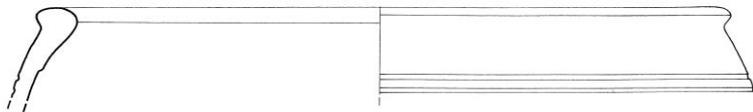
2



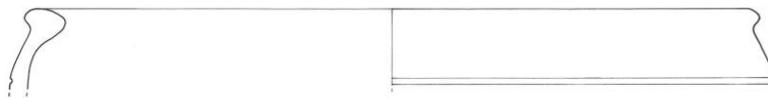
3



4



5



6



Plate 39 – Macrophase 3a

1 – **328** BKG K-105 (1916) 3a.1 OB-i2

Red Ware

R/O	medium	few mica, some organics (C)	uniform	slip (R)	slow wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **407** BKG K-105 (2113) 3a.4 OB-i2

Red Ware

LR	fine	few organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **396** BKG K-105 (2112) 3a.4 OB-i2

Red Ware

LR	fine	few mica, few organics, few lime (E)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **244** BKG K-105 (1917) 3a.1 OB-i2

Red Ware

R	fine	few mica, few organics	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **601** BKG 8 (45) 3a.2-4 OB-i2.1

Red Ware

R	fine	few mica, few organics	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

6 – **738** BKG K-105 (2113) 3a.4 OB-i2.2

Red Ware

R	fine	few mica, few organics, lime (E)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

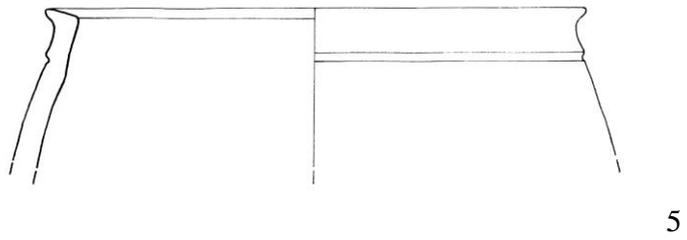
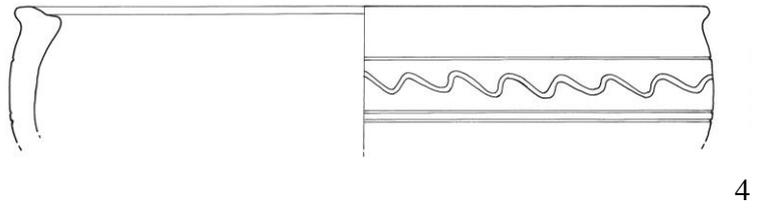
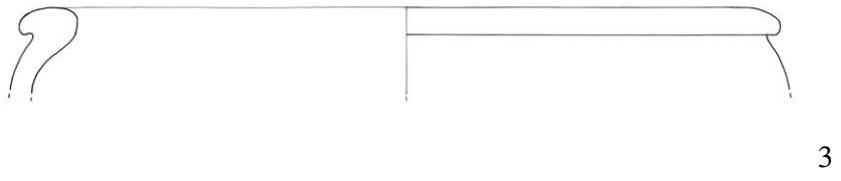
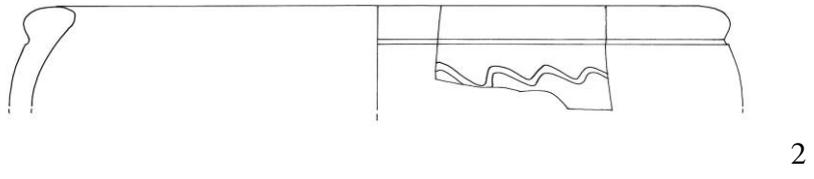
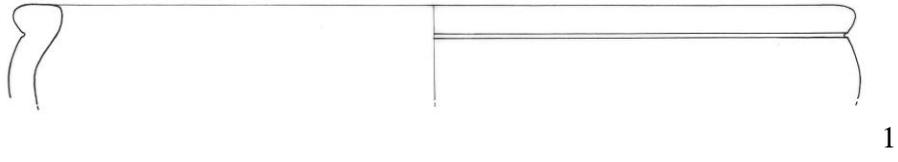


Plate 40 – Macrophase 3a

1 – **709** BKG K-105 (1909) 3a.2 OB-i2

Red Ware

R	fine	few mica, few organics	gray core	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **671 (BKG3734)** BKG K-105 (2132) 3a.1 OB-i2.2 (DP3.1.1)

Red Ware

R	medium	few mica, few organics	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 - **734** BKG K-105 (2133) 3a.1 OB-i2.3

Red Ware

LR	medium	mica and quartz of medium dimension diffused	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **330** BKG K-105 (1916) 3a.1 OB-i4 (DP3.1.1)

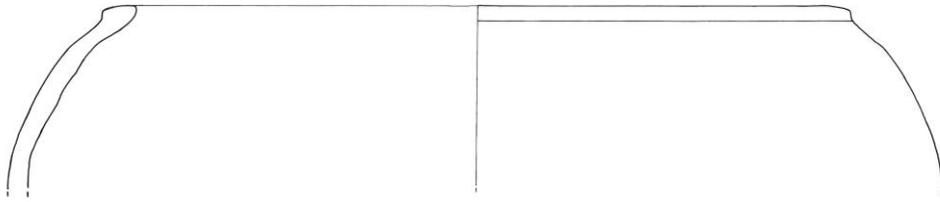
Red ware

LR	medium	few mica, organics diffused (C)	uniform	Slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

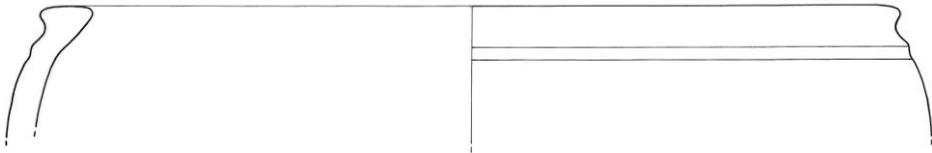
5 – **547** BKG 7 (83) 3a.2-4 OB-13

Red Ware

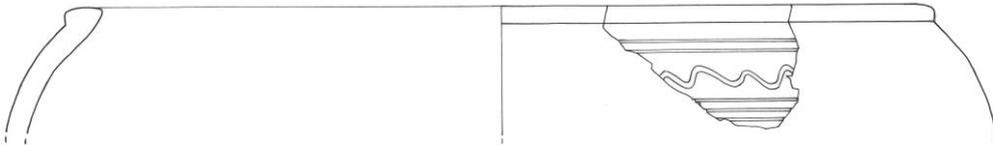
R	fine	mica diffused	uniform	slip (R)	-
2a.2	2b	3a.1	3a.2	3a.3	3a.4



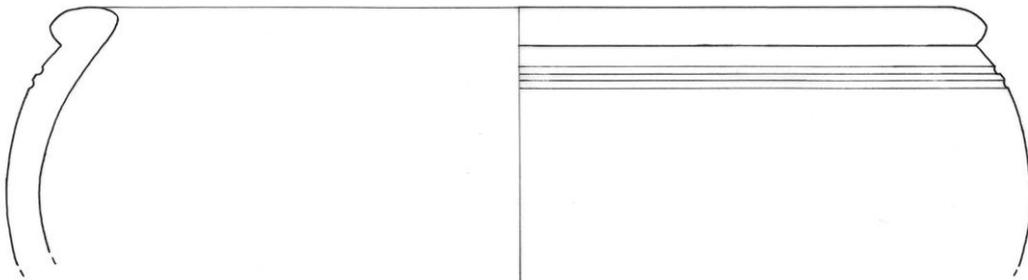
1



2



3



4



Plate 41 – Macrophases 2a.2, 3a

1 – **29** BKG L (9) LOB-11

Red Ware

R	fine	some organics, some mica and quartz	uniform	thick slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **85** BKG L (10p) 2a.2 LOB-11.1

Red Ware

R	fine	few mica, organics diffused (O)	uniform	thick slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **183** (=593) BKG K-105 (2133) 3a.1 LOB-11.2 (DP3.1.1)

Red Ware

R	fine	few mica, organics diffused	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

\*N.B.: 1 also in BKG9 (82)

4 – **626** BKG K-105 (2133) 3a.1 LOB-12

Red Ware

LR	medium	some mica, few organics	black core	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

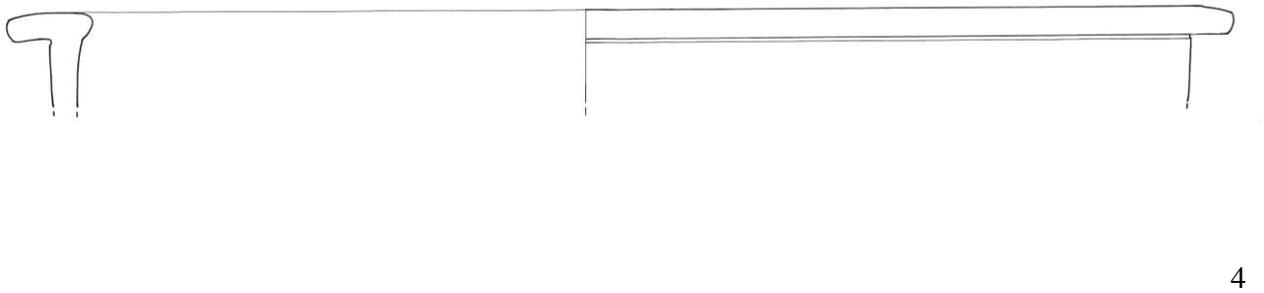
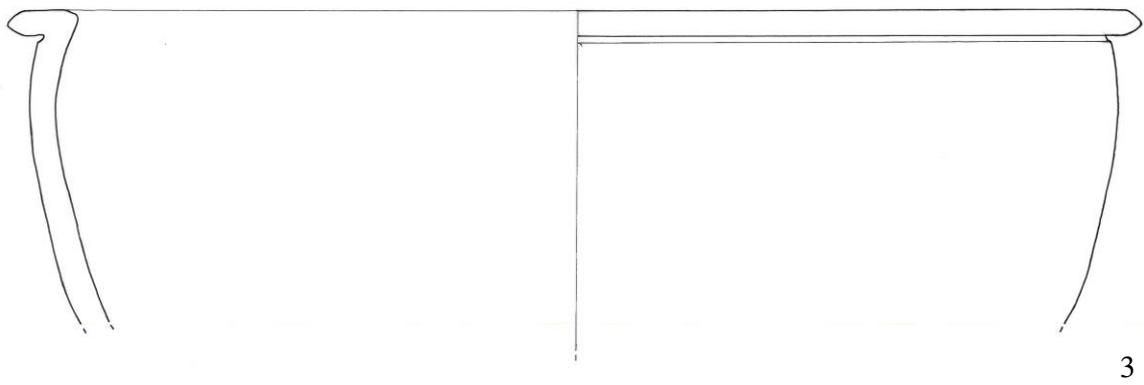
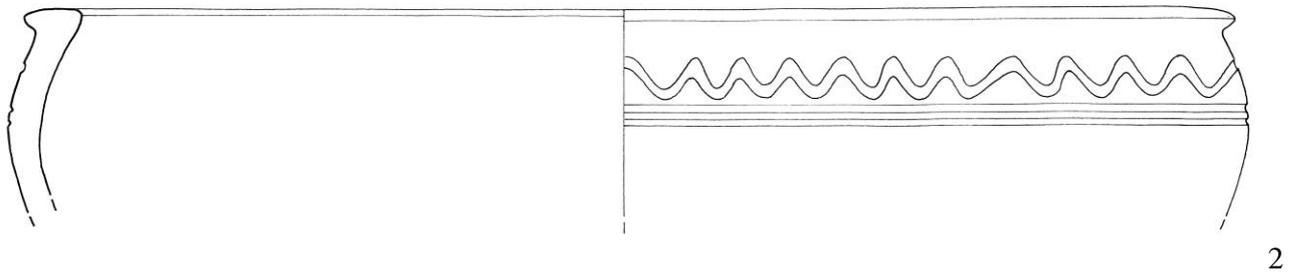
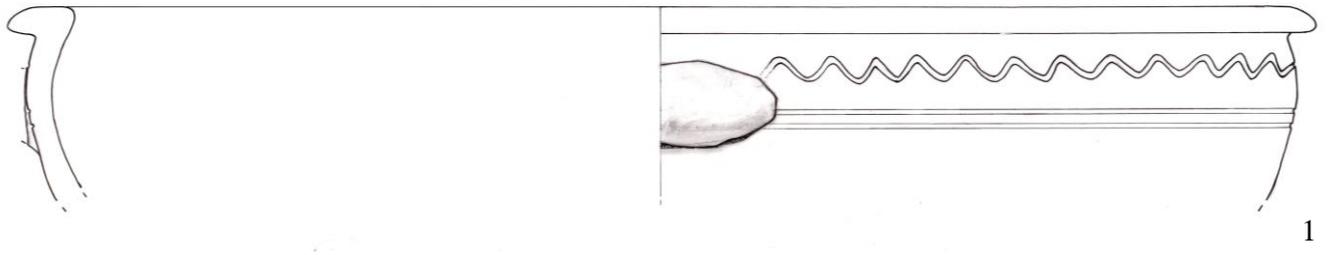


Plate 42 – Macrophase 2a.2, 3a

1 – **72** BKG L (10p) 2a.2 OBB-a1 (DP3.1.1)

Red Ware

Handle horizontal

R	medium	some lime, mica and organics diffused (O)	gray core	thick slip (DR)	wheel
---	--------	---	-----------	-----------------	-------

2 – **548** BKG 7 (82) 3a.2-4 OBB-a1.1 (DP3.1.1)

Red Ware

Cf. Wheeler 1962: fig. 22.131

LR	medium	few lime, mica diffused large dimension	uniform	slip (R)	wheel
----	--------	---	---------	----------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

3 – **377 (=338)** BKG K-105 (1904) 3a.4 OBB-a2

Red Ware

LR	coarse	quartz diffused, brick-red inclusions, organics diffused (N)	uniform	thin slip (R)	molding, wheel (?)
----	--------	--	---------	---------------	--------------------

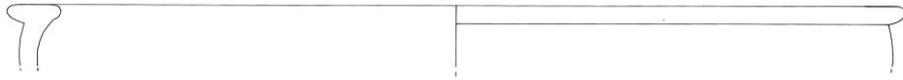
2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

4 – **320** BKG K-105 (1909) 3a.2 OBB-a2.1

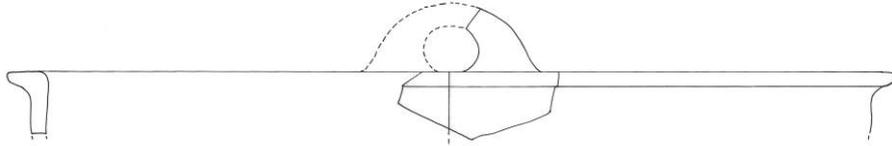
Red Ware

LR	coarse	few mica, quartz diffused, organics diffused (B)	gray core	slip (R)	wheel (?)
----	--------	--	-----------	----------	-----------

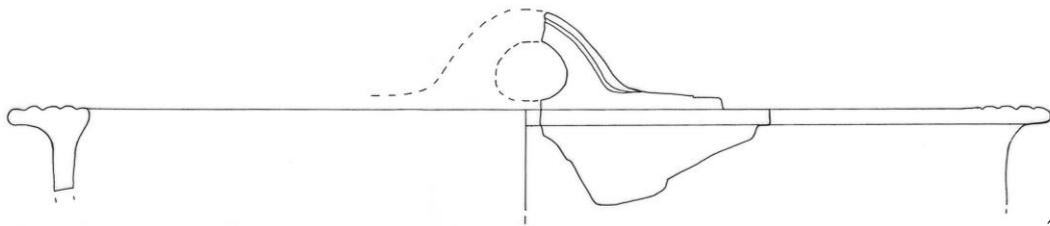
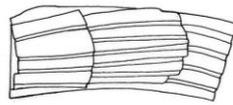
2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------



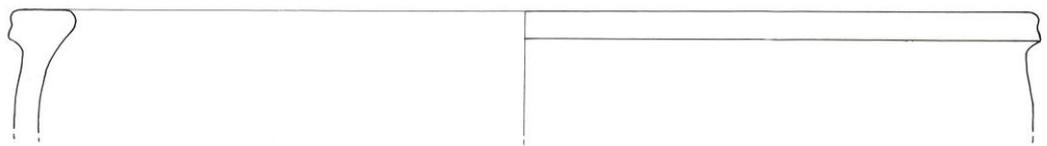
1



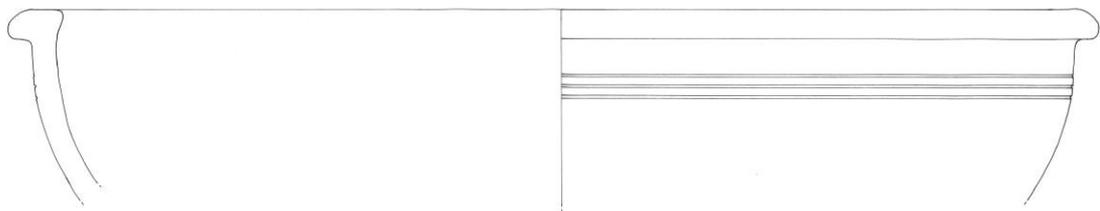
2



3



4



5



Plate 43- Macrophase 3a

1 – **692 (=455)** BKG K-105 (1919) 3a.1 OBB-a2.2

Red Ware

R	medium	few mica, few organics, quartz diffused (A)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **339 (=468)** BKG K-105 (1919) 3a.1 OBB-a2.2.1

Red Ware

LR	medium	few organics, some mica (N)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **469 (=655 BKG3703)** BKG K-105 (2141) 3a.1 OBB-a2.2.2

Red Ware

LR	coarse	lime, quartz and mica diffused (A)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **502 (=151)** BKG K-105 (2146) 3a.1 OBB-a2.3

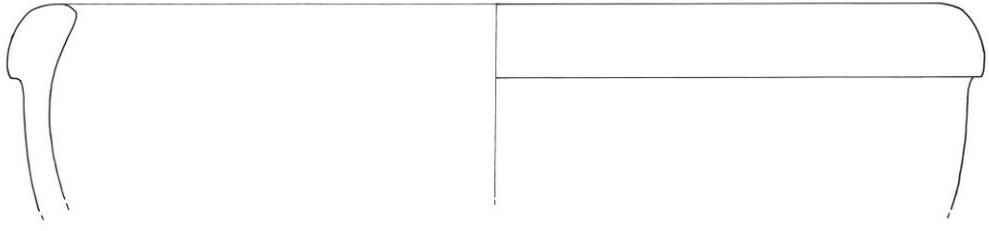
Red Ware

LR	fine	few mica, few organics, quartz of medium dimension diffused (N)	black core	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

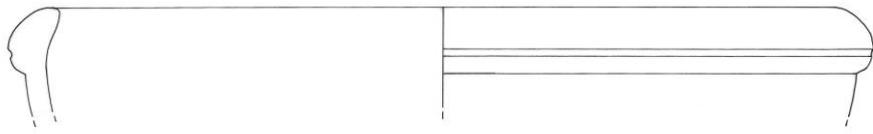
5 – **581** BKG K-105 (2110) 3a.4 OBB-c1

Red Ware

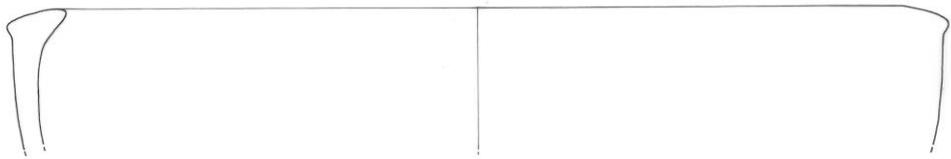
R	medium	few schist large dim, some mica, quartz and organics (B)	black patches	no slip	molding, wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



1



2



3



Plate 44 – Macrophase 2b-3a

1 – **523** (=552=582) BKG K-105 (1663) OBB-a3

Red Ware

LR	medium	few quartz, organics diffused	gray core	no slip	wheel
----	--------	----------------------------------	-----------	---------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

\*N.B.: 1 also in BKG7 (83)

2 – **246** BKG K-105 (1921) 2b OBB-a3.1

Red Ware

R	coarse	some mica, organics diffused	gray core	slip (R)	wheel (?)
---	--------	---------------------------------	-----------	----------	-----------

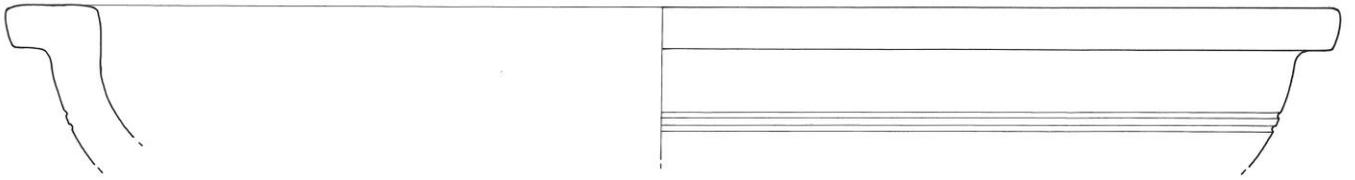
2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

3 – **353** BKG K-105 (1910) 3a.2 OBB-a4

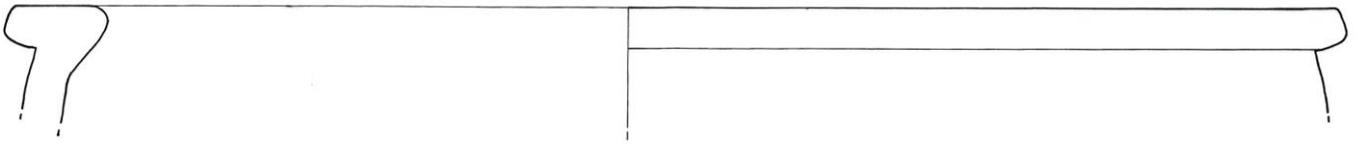
Red Ware

R	fine	few organics	uniform	slip (R)	wheel
---	------	--------------	---------	----------	-------

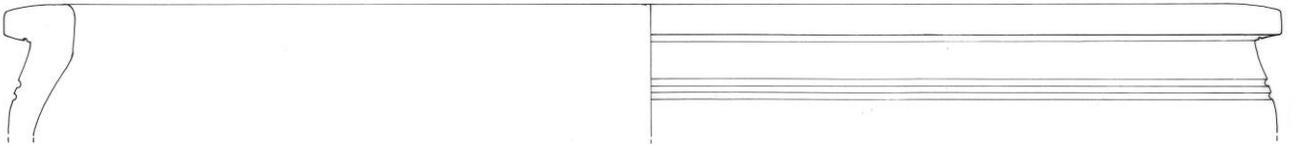
2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------



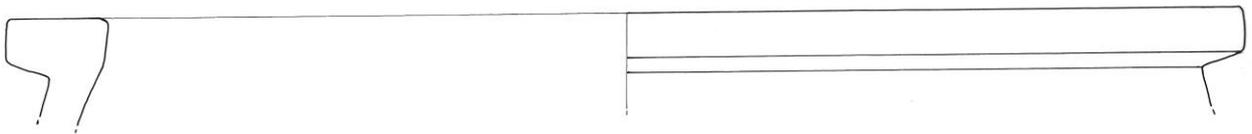
1



2



3



4



Plate 45 – Macrophase 3a

1 – **279** BKG K-105 (1691) 3a.3 OBB-c2

Red Ware

LR	fine	few lime, few mica (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **502** BKG K-105 (2146) 3a.1

Red Ware

LR	fine	few mica, few organics	black core	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **513** BKG K-105 (2137) 3a.1 OBB-b1

Red Ware

R	medium	schist, some mica, quartz and organics (B)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **386** BKG K-105 (2110) 3a.4 OBB-b1

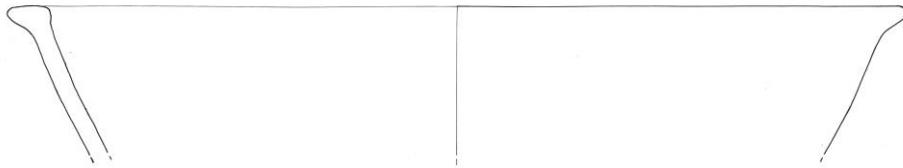
Red Ware

R	coarse	quartz of large dimension diffused, organics diffused, few schist (B)	gray core	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

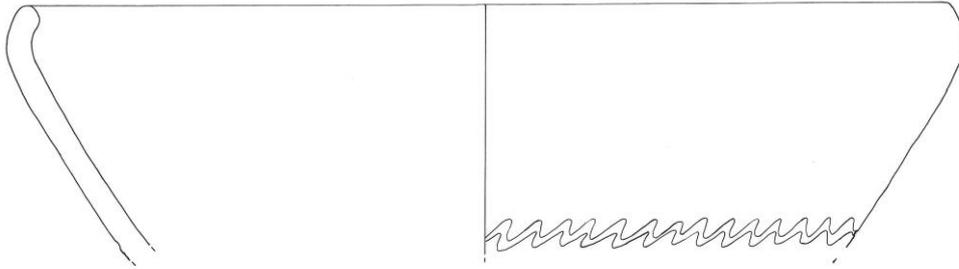
5 – **481** BKG K-105 (2142) 3a.1 OBB-b1

Red Ware

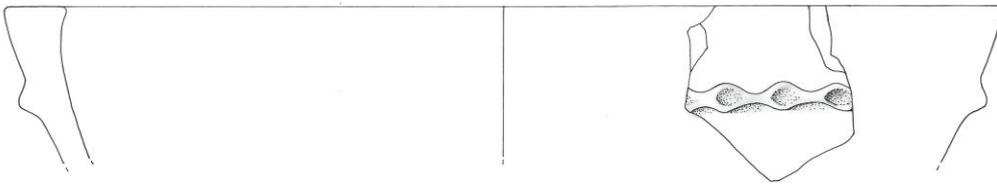
R	medium	few mica, few organics (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



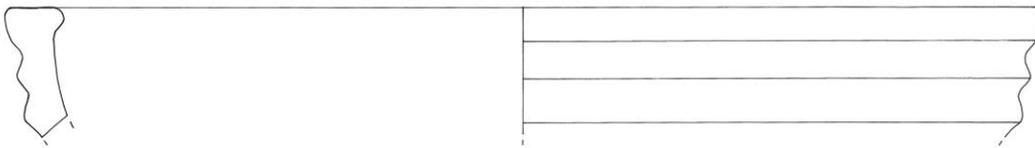
1



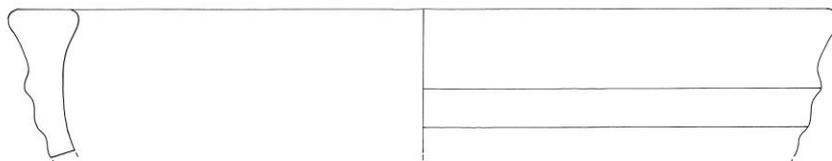
2



3



4



5



Plate 46 – Macrophase 2b-3a

1 – **733 (=53 BKG L 8)** BKG K-105 (2149) 2b OBB-d1

Red Ware

LR	fine	lime diffused, few mica, organics diffused	uniform	thick slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **369** BKG K-105 (1910) 3a.2 OBB-d2 (DP3.1.1)

Red Ware

LR	medium	organics diffused	uniform	slip (R)	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **678 (BKG3737)** BKG K-105 (2119) 3a.2 OBB-d3 (DP4.1)

Red Ware

Decorated. Cord-like ridge below the rim.

Cf. Wheeler 1962: fig. 14.32, 34

R	coarse	quartz and mica of medium dimension diffused	gray core	no slip	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **677 (BKG3474)** BKG K-105 (1673) 3a.4 OBB-d3

Rope-like incised motif.

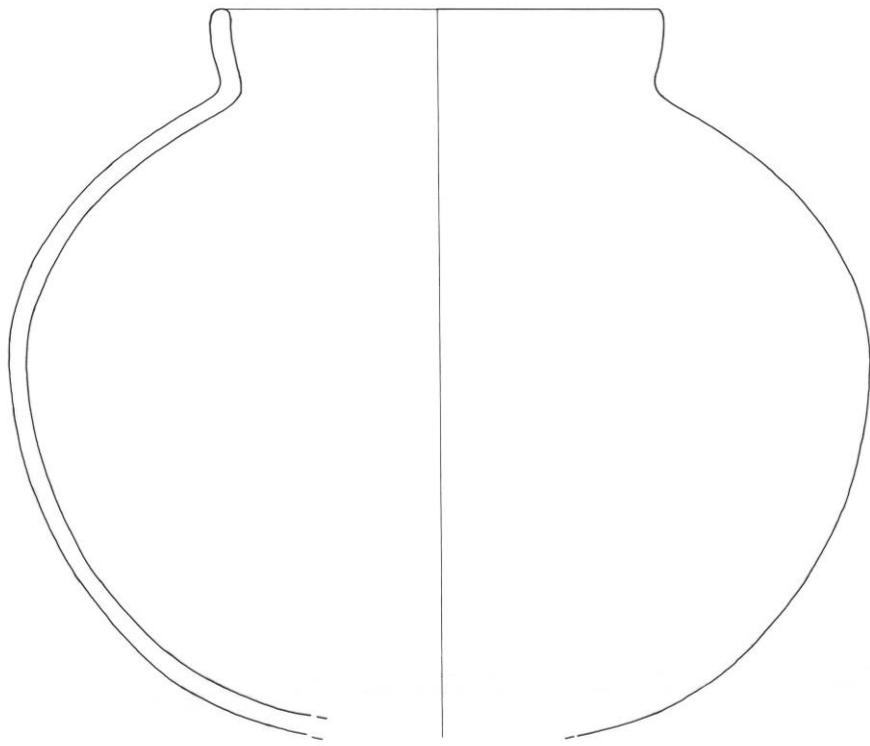
R	coarse	quartz and mica of medium dimension diffused	gray core	slip (R)	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **395** BKG K-105 2112) 3a.4 OBB-d3.1

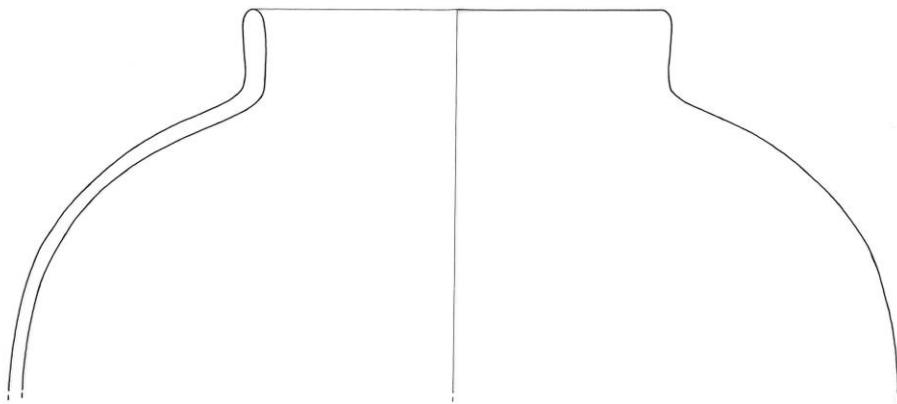
Red Ware

R	coarse	quartz, mica and organics diffused, few schist (B)	uniform	slip (DR)	-
2a.2	2b	3a.1	3a.2	3a.3	3a.4

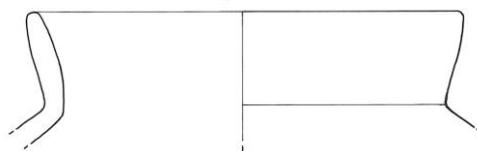
\*N.B.: also in BKG9 (73)



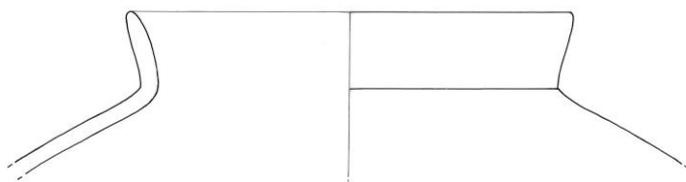
1



2



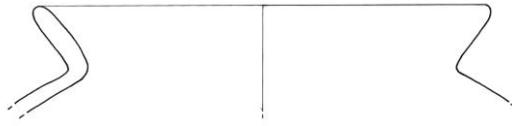
3



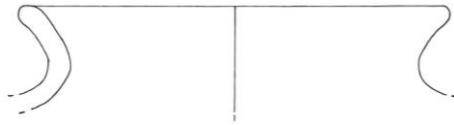
4







1



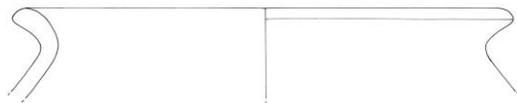
2



3



4



5



Plate 48 – Macrophase 3a

1 - **271** BKG K-105 (1672) 3a.4 CA-a2

Light Red/Buf Ware

LR	medium	lots of mica and quartz of medium dimension, few organics (N)	uniform	slip (R) outside/rim	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

\*N.B.: 2 also in BKG7 (82)

2 – **346** BKG K-105 (1919) 3a.1 CA-a3

Red Ware

Soot on rim

LR	medium	mica and quartz of medium dimension diffused, organics diffused (N)	uniform	slip (R) outside/rim	wheel*
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **348** BKG K-105 (1919) 3a.1 CA-a3.1

Red Ware

Soot on rim

LR	medium	mica and quartz of medium dimension diffused, organics diffused	uniform	slip (R) outside/rim	wheel*
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **416 (=618)** BKG K-105 (2118) 3a.2 CA-a3.2

Red Ware

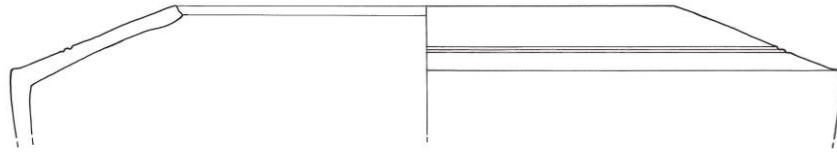
Soot on rim

LR	medium	mica and quartz of medium dimension diffused, organics diffused (N)	gray inside	slip (R) outside/rim	wheel*
2a.2	2b	3a.1	3a.2	3a.3	3a.4

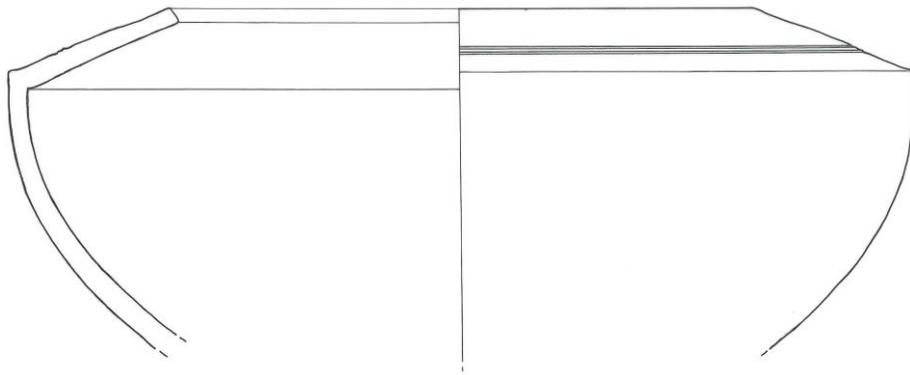
5 – **272 (=398)** BKG K-105 (1683) 3a.3

Red Ware Soot on rim

LR	medium	mica and quartz of medium dimension diffused, organics diffused	gray core	slip (R) outside/rim	wheel*
2a.2	2b	3a.1	3a.2	3a.3	3a.4



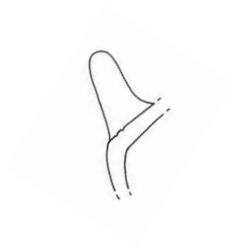
1



2



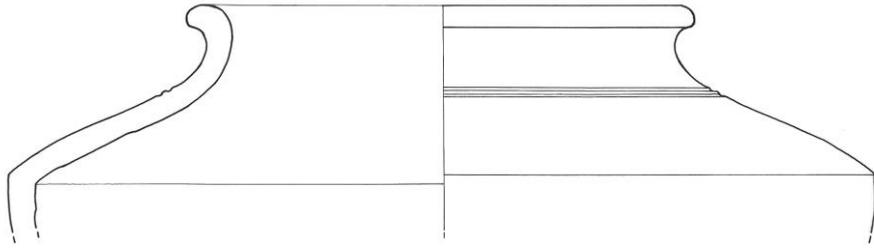
3



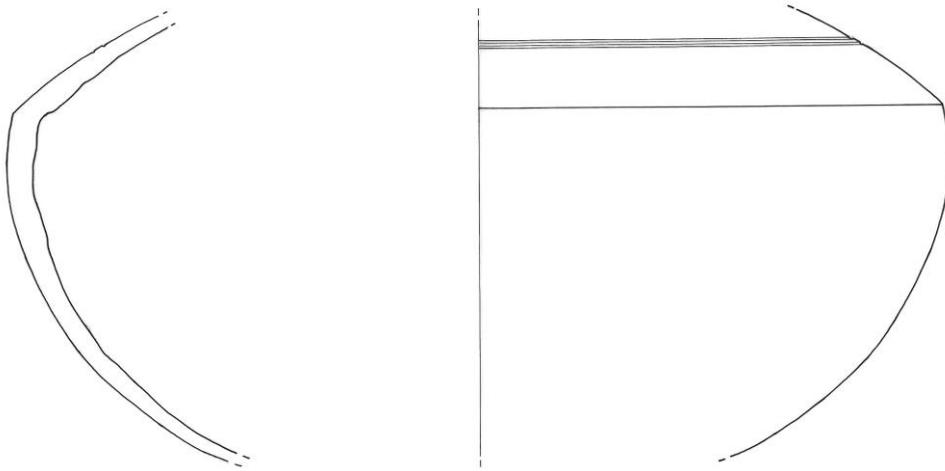
4



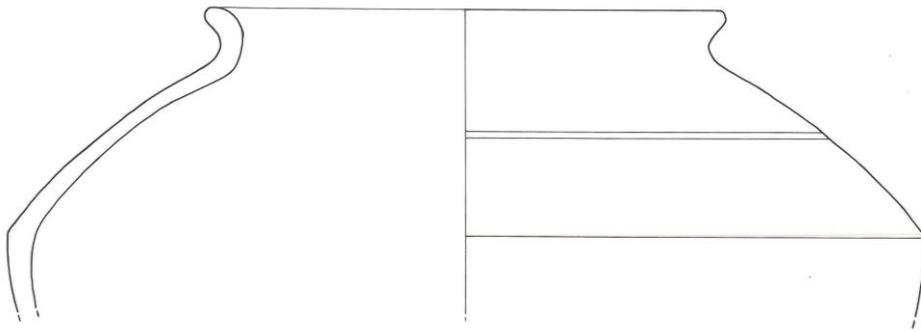




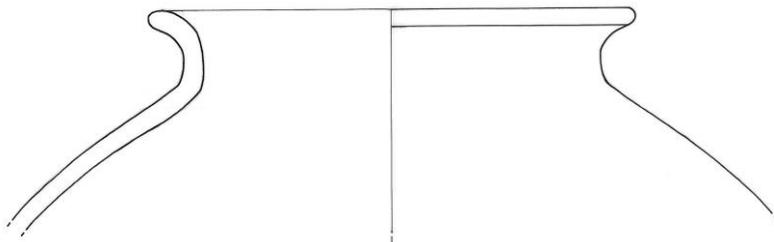
1



2



3



4



Plate 50 - Macrophase 2a-3a

1 – **60 (=61)** BKG L (10p) 2a.2 CA-b2 \*similar in BKG L (8) **54**

Red Ware

Soot on rim/below carination

LR	medium	Lots of mica and quartz of medium dimension, brick-red inclusions, some organics (N)	uniform	slip (R) outside/rim	wheel, P&A
2a.2	2b	3a.1	3a.2	3a.3	3a.4
[Redacted]					
[Redacted]					

2 – **61 (=60)** BKG L (10p) 2a.2 CA-b2

Red Ware

Soot below carination, black carbonized bottom

LR	medium	Lots of mica and quartz of medium dimension, brick-red inclusions, some organics (N) (mostly on lower body)	uniform	slip (R) outside (preserved on upper body only)	wheel, P&A
----	--------	---	---------	---	------------

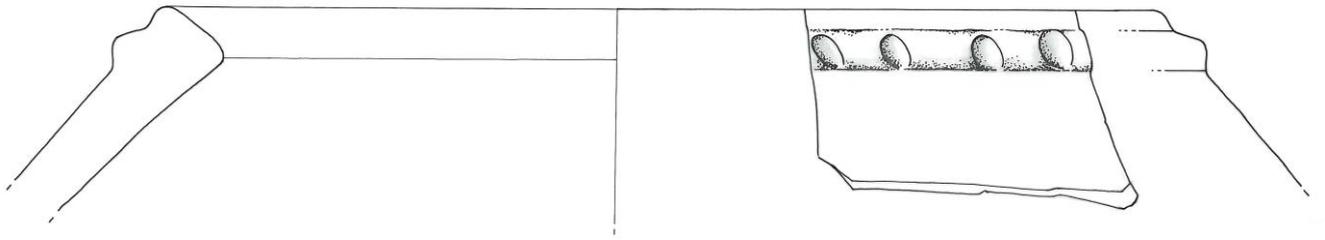
3 – **108** BKG L (10p) 2a.2 CA-b2.1

4 – **82** BKG L (10p) 2a.2 CA-b2.1

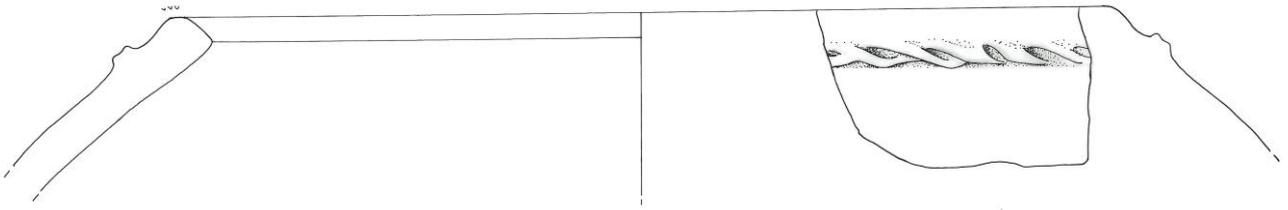
Red Ware

Soot on rim

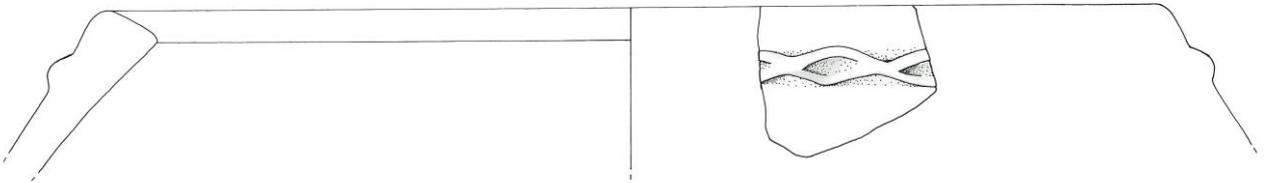
LR	medium	Lots of mica and quartz of medium dimension, lime diffused, few organics (N)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4
[Redacted]					
[Redacted]					



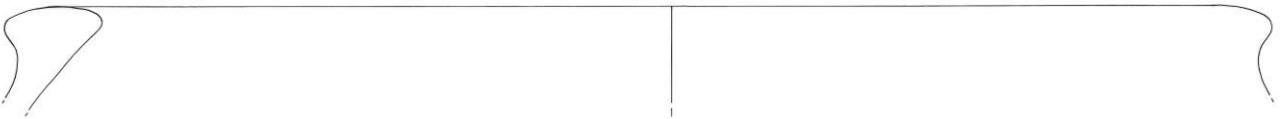
1



2



3



4



Plate 51 - Macrophases 2a-3a

1 – **221** BKG L (10p) 2a.2 LCB-a1 (DP4.1)  
 Red Ware  
 Heavily corroded

LR	coarse	mica and quartz of medium dimension diffused, organics diffused	gray core	slip (R) outside	slab
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **681** (*BKG3752*) BKG K-105 (2141) 3a.1 LCB-a1 (DP4.1)  
 Red Ware  
 Cord-like ridge below rim.  
 Traces of attrition by lid on top of rim

LR	coarse	mica and quartz of medium dimension diffused, organics diffused	gray core	slip (R) outside (traces)	slab
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **680** (*BKG3806*) BKG K-105 (2147) 3a.1 LCB-a1 (DP4.1)  
 Red Ware  
 Cord-like ridge below the rim.

LR	coarse	mica and quartz of medium dimension diffused, organics diffused	black core	no slip	slab
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **347** BKG K-105 (1919) 3a.1 LCB-a2  
 Red Ware  
 Soot below carination/lower part of the handle

LR	medium	mica and quartz of medium dimension diffused, organics diffused	black core	slip (R) outside	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

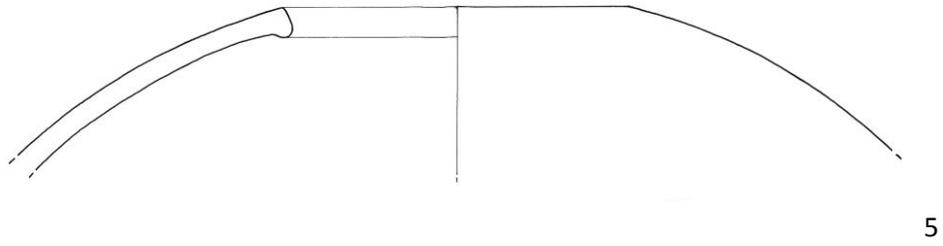
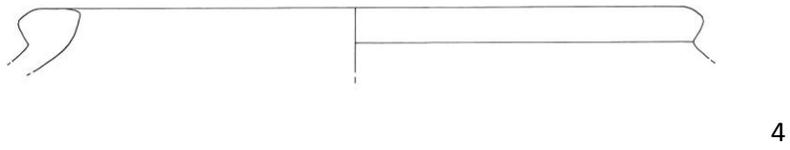
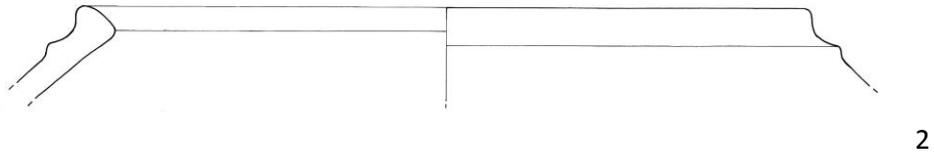
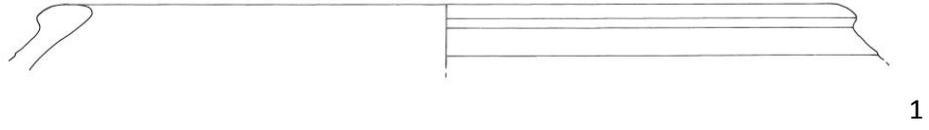


Plate 52 - Macrophases 2a.2-3a

1 – **161** BKG K-105 (2167) 2a.2 CB-a1  
Red Ware

LR/P	fine	some organics	gray core, black patches outside	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **46** BKG L (8) 3a CB-a2  
Red Ware

R	fine	few lime, few organics	uniform	thick slip (DR) outside/rim	wheel
---	------	------------------------	---------	-----------------------------	-------

3 – **694** BKG K-105 (1919) 3a.1 CB-a2.1  
Red Ware

R	medium	some mica and organics	uniform	slip (R) traces outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **695** BKG K-105 (2112) 3a.4 CB-a1.1  
Red Ware

LR	coarse	some schist, mica and quartz of medium dimension diffused	uniform	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **414** BKG L (2118) 3a.2 CB-b3  
Red Ware

LR/B	coarse	mica, quartz and lime of small/medium dimension diffused	uniform	no slip	molding
2a.2	2b	3a.1	3a.2	3a.3	3a.4

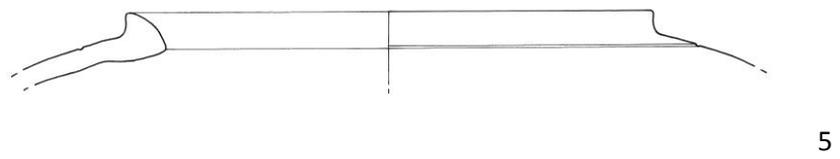
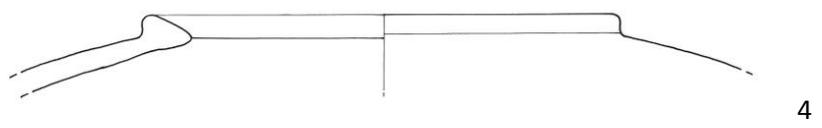
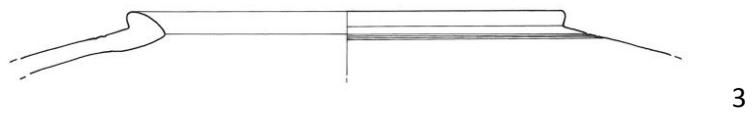
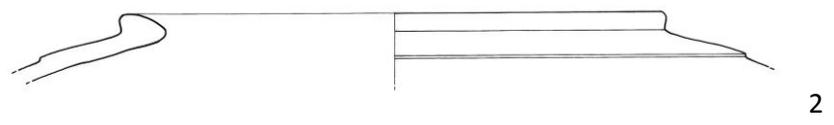
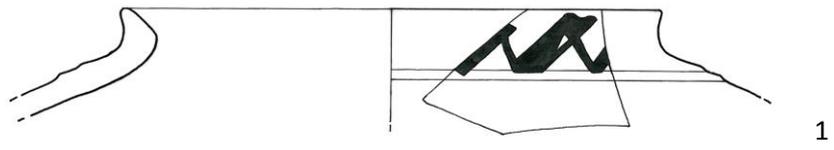


Plate 53 - Macrophases 2a-3a

1 – **120** BKG L (10p) 2a.2 CB-b1 (PP1)

Red Ware

P	fine	some organics		uniform	slip (DR) outside	wheel
---	------	---------------	--	---------	-------------------	-------

2 – **36** BKG L (9) CB-b2

Red Ware

R	fine	some organics		uniform	slip (DR) outside/rim	wheel
---	------	---------------	--	---------	--------------------------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

3 – **286** BKG K-105 (1692) 3a.3 CB-b2

Red Ware

P	medium	some mica and organics (C		uniform		wheel
---	--------	---------------------------	--	---------	--	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

4 – **509** BKG K-105 (2114) 3a.3 CB-b2

Red Ware

Soot on lower part

R	coarse	quartz of medium dimension diffused, mica and organics diffused (N)		black core	no slip	wheel
---	--------	---	--	------------	---------	-------

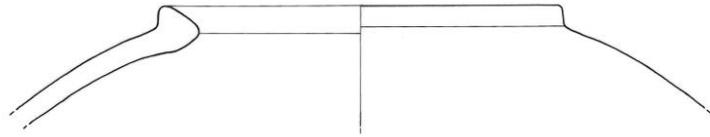
2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

5 – **321 (=266)** BKG K-105 (1909) 3a.2 CB-b2.2

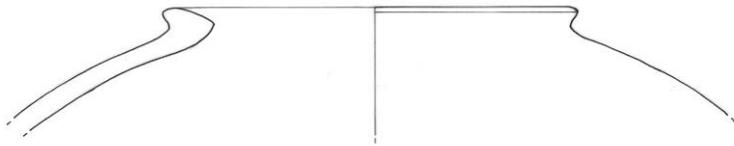
Red Ware

LR	medium	quartz and mica of medium dimension diffused, some black inclusions and organics (N)		uniform	slip (R) outside	wheel
----	--------	---	--	---------	------------------	-------

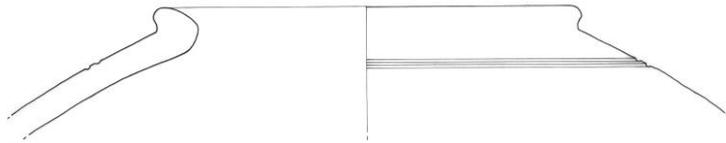
2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------



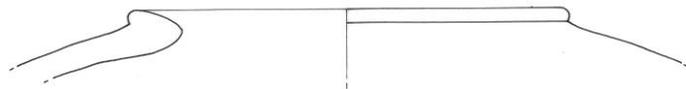
1



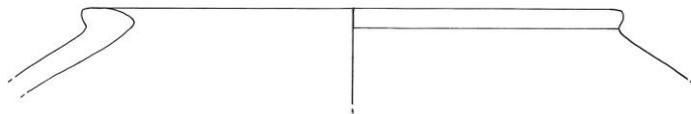
2



3



4



5



0

10

Plate 54 - Macrophases 2a-3a

1 – 559 BKG 7 (82) CB-b2.2.1  
Red Ware

2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – 704 BKG K-105 (2152) 2b CB-b2.3  
Red Ware

R	medium	some mica, few organics, brick-red inclusions	uniform	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – 352 BKG K-105 (1910) 3a.2 CB-b2.4  
Red Ware

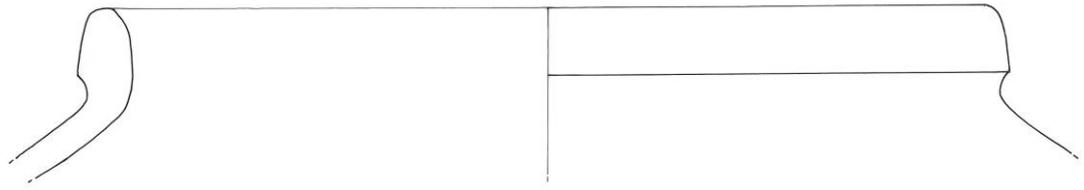
R	coarse	mica and quartz of medium dimension diffused, organics diffused (A)	black core	no slip	molding (?)
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4– 706 BKG K-105 (1672) 3a.4 CB-b2.5  
Red Ware

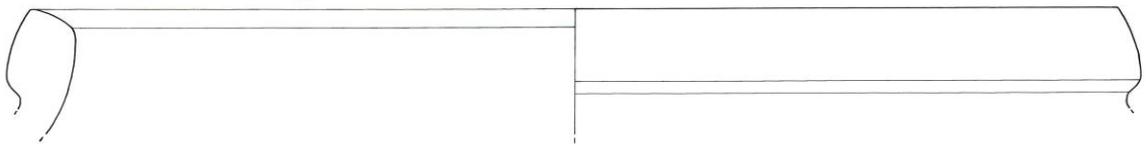
LR/P	medium	quartz and mica of medium dimension diffused, organics diffused, red-brick inclusions	uniform	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – 337 (=705) BKG K-105 (1919) 3a.1 CB-b2.6  
Red Ware

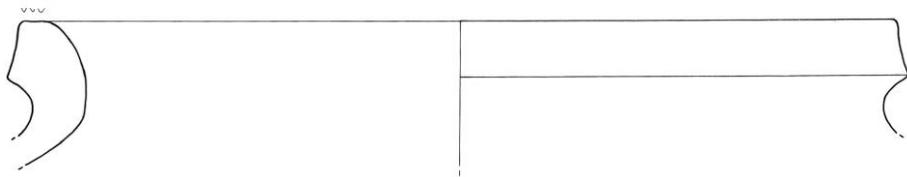
R	medium	few lime, mica and organics diffused	uniform	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



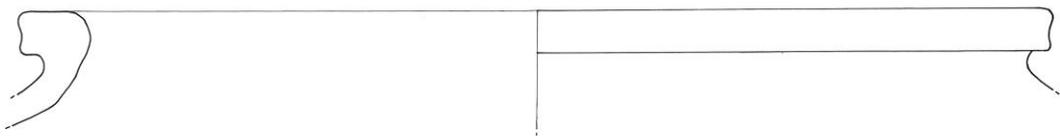
1



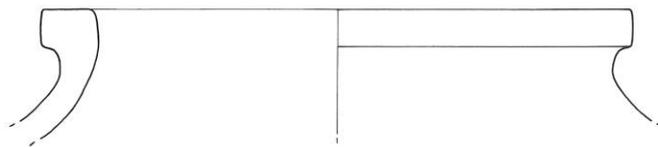
2



3



4



5



0

10

Plate 55 – Macrophase 3a

1 – **521** BKG K-105 (1663s) 3a.4 LCB-c1

Red Ware

R	coarse	schist, mica, quartz and lime of medium/large dimension diffused (A)	gray core	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **436** BKG K-105 (2131) 3a.2 LCB-c1.1

Red Ware

LR	coarse	mica, quartz and ne of medium/large dimens diffused (B)	black core	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **540** BKG 7 (84) 3a.2-4 LCB-c2

Red Ware

Attrition by lid on top of rim

2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **378** BKG K-105 (1904) 3a.4 LCB-c3

Red Ware

LR	medium	some schist, mica and quartz of medium dimension diffused, organic diffused	uniform	slip (DR) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **323** BKG K-105 (1909) 3a.2 CB-c3

Red Ware

LR	medium	quartz and mica of mediun dimension diffused, few organics (A)	gray core	no slip	wheel (?)
2a.2	2b	3a.1	3a.2	3a.3	3a.4

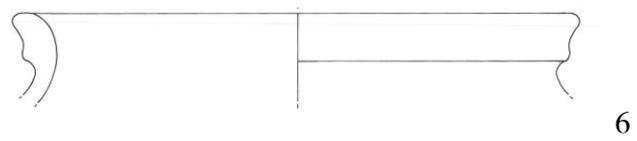
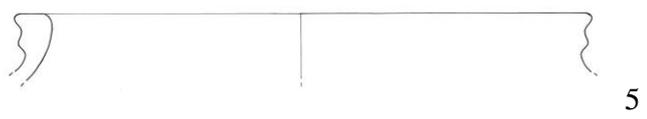
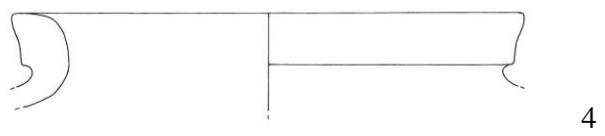
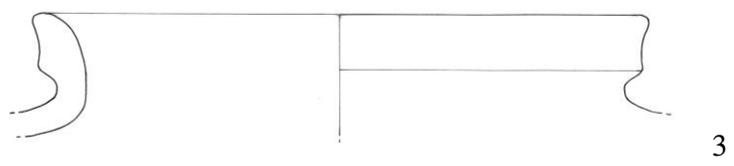
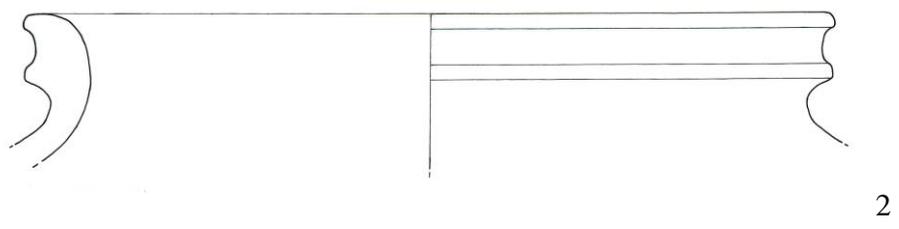
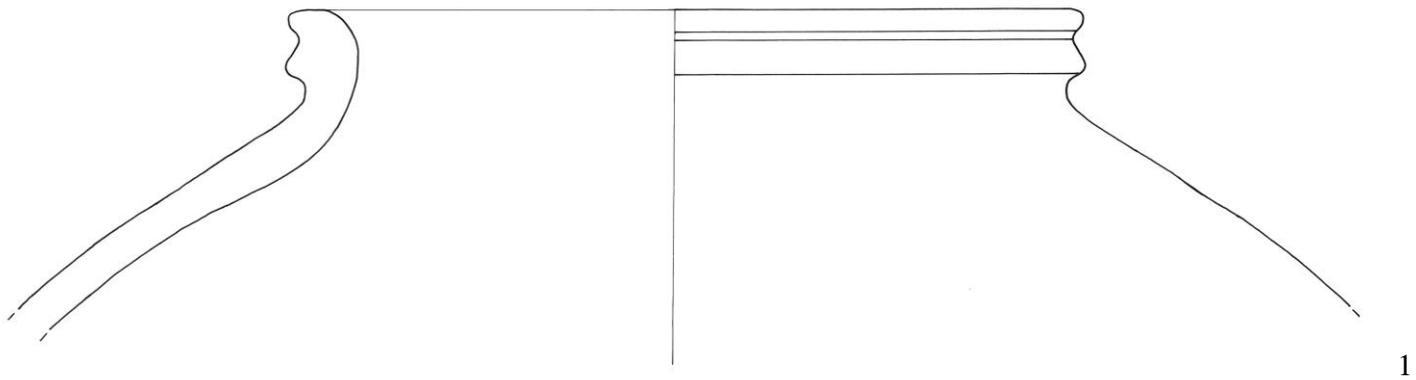


Plate 56 - Macrophases 2a-3a

1 – **435** BKG K-105 (2131) 3a.2 LCB-c4

Red Ware

R	coarse	schist, mica, quartz and lime of medium/large dimension diffused (B)	gray core	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **441** BKG K-105 (2131) 3a.2 LCB-c4

Red Ware

LR	medium	mica and quartz of medium dimension diffused, organics diffused (A)	gray core	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **399** BKG K-105 (2113) 3a.4 CB-c4

Red Ware

LR	coarse	schist, mica, quartz and lime of medium/large dimension diffused, (B)	gray core	slip (R) outside/rim	wheel (?)
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **696** BKG K-105 (2113) 3a.4 CB-c4.1

Red Ware

LR	medium	quartz of medium/large dimension diffused, some organics (A)	black core	slip (R) outside/rim	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **731** BKG K-105 (2111) 3a.4 CB-c4.2

Red Ware

LR	medium	quartz of medium dimension diffused, few black inclusions some organics	uniform	slip (R) outside/rim	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

6 – **341 (=728)** BKG K-105 (1919) 3a.1 CB-c4.3

Red Ware

P	medium	quartz and mica of medium dimension diffused, some organics (A)	uniform	slip (R) outside/rim	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

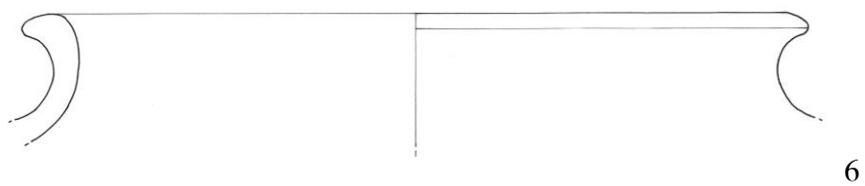
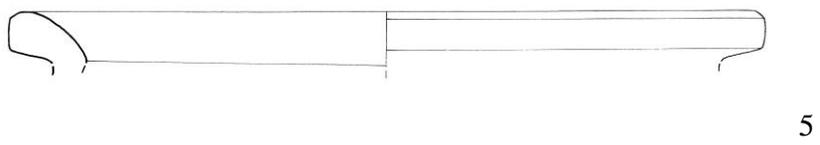
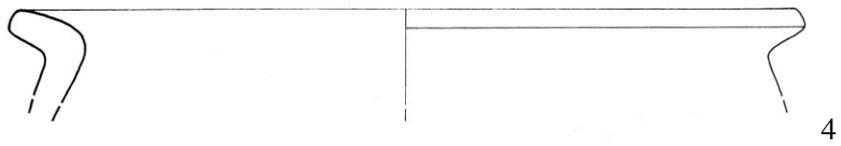
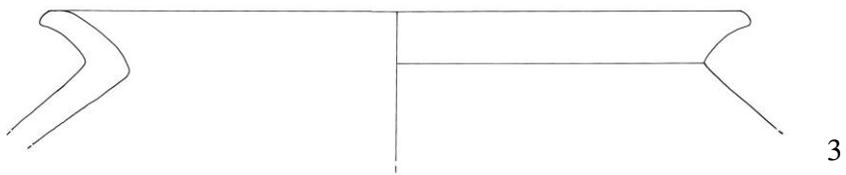
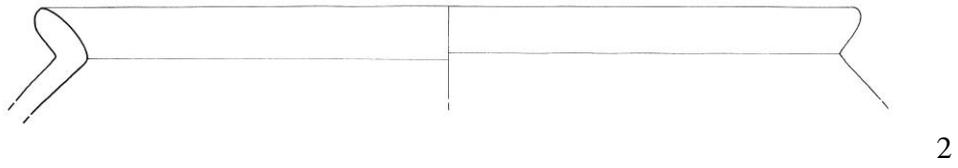
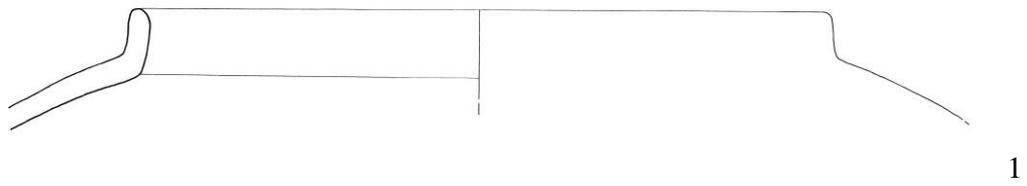


Plate 57 - Macrophase 2a-3a

1 – **551** BKG 7 (82) 3a.2-4 LCB-d1

Red Ware

2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **571** BKG 7 (82) 3a.2-4 LCB-d2

Red Ware

2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **343** BKG K-105 (1919) 3a.1 LCB-d2.1

Red Ware

R	coarse	mica and quartz of large dimension diffused, few organics	gray core	slip (R) outside traces	wheel*
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **570** BKG 7 (82) 3a.2-4 LCB-d2.2

Red Ware

2a.2	2b	3a.1	3a.2	3a.3	3a.4

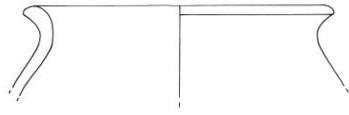
5 – **579** BKG 7 (82) 3a.2-4 LCB-d2.2

Gray Ware with Black slip

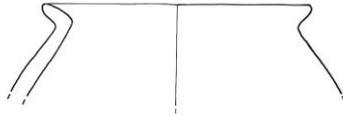
6 – **714** BKG K-105 (1909) 3a.2 LCB-d3

Red Ware

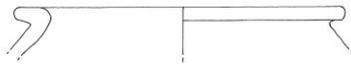
R	medium	quartz and mica diffused, few lime	uniform	slip (R) outside/rim	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



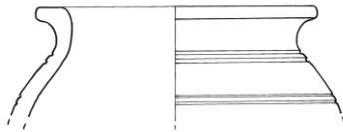
1



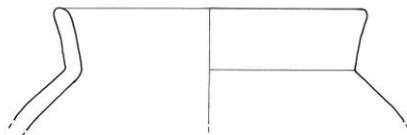
2



3



4



5



Plate 58 - Macrophases 2a-3a

1 – **240** BKG K-105 (1917) sCB-d4  
Red Ware

LR	medium	quartz and mica of medium dimension diffused, some lime	black patches outside	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **477** BKG K-105 (2141) 3a.1 sCB-d4  
Red Ware  
Soot

LR	coarse	few mica and organics (D)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **144** BKG K-105 (1920) 2b sCB-d5  
Red Ware

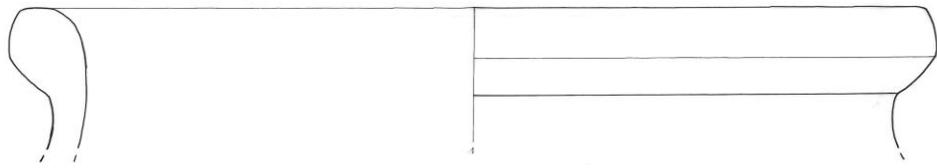
R	medium	some mica and quartz	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **298** BKG K-105 (1912) 3a.2 sCB-d5.1  
Red Ware

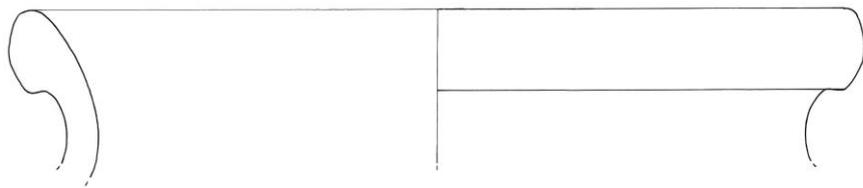
R/P	fine	some mica and organics (E)	uniform	slip (R) traces outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **703** BKG K-105 (2131) 3a.2 sCB-d6  
Red Ware

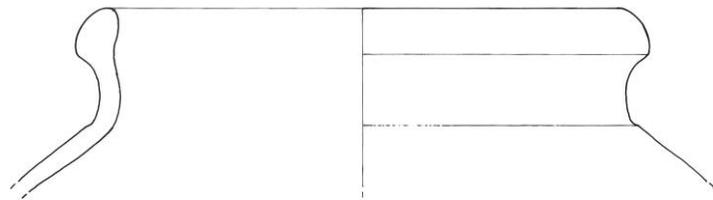
LR	fine	few organics (D)	black core	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



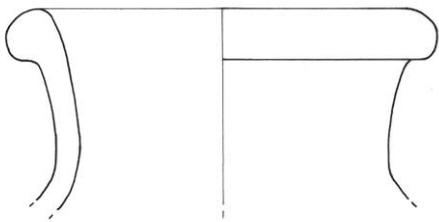
1



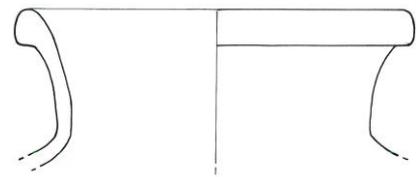
2



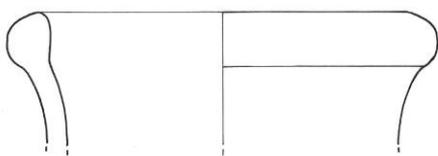
3



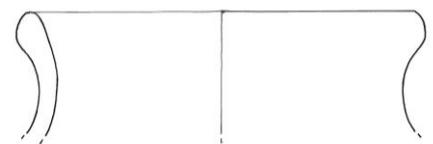
4



6



5



7



Plate 59 - Macrophases 3a

1 – **442** BKG K-105 (2131) 3a.2 LCB-e1

Red Ware

LR	coarse	few lime, some quartz and mica of medium dimension diffused (A)	black core	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **510** BKG K-105 (2116) 3a.3 LCB-e1.1

Red Ware

LR	coarse	quartz of large dimension diffused, few organics (A)	black core	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **267** BKG K-105 (1673) 3a.4 CB-e2

R	medium	quartz, mica and black inclusions diffused, organics diffused (N)	uniform	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **725** BKG K-105 (2137) 3a.1 CB-e3

Red Ware

LR	medium	some quartz and mica, organics diffused	uniform	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **275** BKG K-105 (2133) 3a.1 CB-e3.1

Red Ware

LR	medium	some quartz and mica, organics diffused	uniform	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

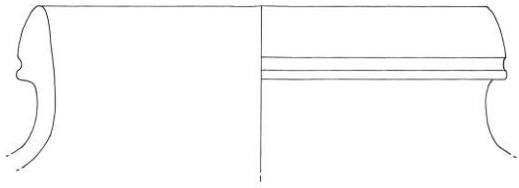
6 – **51** BKG L (8) 3a.2-4 CB-e3.2

O/R	medium	some quartz and mica, organics diffused (D)	uniform	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

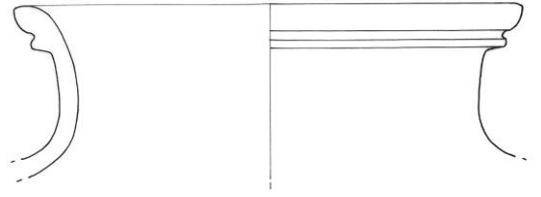
7 – **291** BKG K-105 (1981) 3a.4 CB-e4

Red Ware

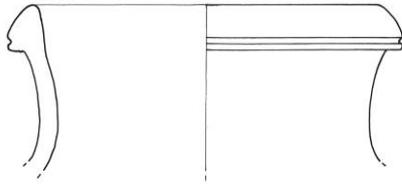
LR	medium	few organics (D)	uniform	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



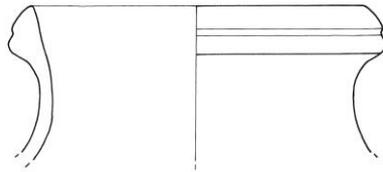
1



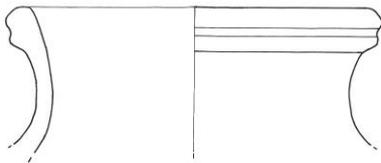
2



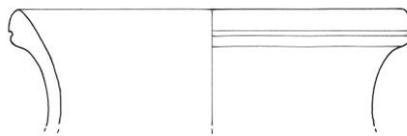
3



4



5



6



Plate 60 - Macrophase 3a

1 –333 BKG K-105 (1919) 3a.1 CB-e5

Red Ware

R	fine	brick red inclusions (N)	gray core	slip (DR) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 –383 BKG K-105 (2117E) 3a.2 CB-e5.1

Red Ware

LR	fine	quartz of medium dimension diffused, some mica and lime, few organics	uniform	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 –721 BKG K-105 (2138) 3a.1 CB-e6

Red Ware

Cf. Sharif 1969: fig. 10.6 (Period I)

LR	medium	mica quartz and black inclusions diffused, organics diffused	gray core	slip (R) outside/neck	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 –374 BKG K-105 (1904) 3a.4 CB-e6.1

Red Ware

LR	medium	mica quartz and black inclusions diffused, organic diffused (N)	gray core	slip (R) outside/neck	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – 400 BKG K-105 (1672) 3a.4 CB-e6.2

Red Ware

Cf. Sharif 1969: fig. 18.8 (Period III)

LR	coarse	mica quartz and black inclusions diffused	uniform	slip (R) outside/neck	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

6 –719 BKG K-105 (1919) 3a.1 CB-e6.3

Red Ware

LR	medium	quartz, lime and organics diffused	uniform	slip (R) outside/neck	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

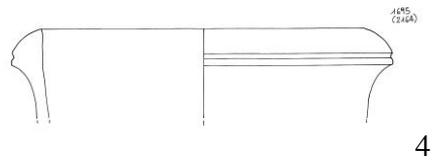
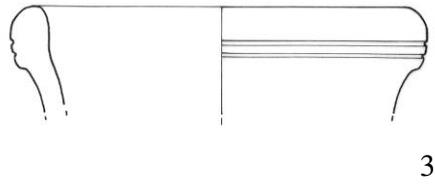
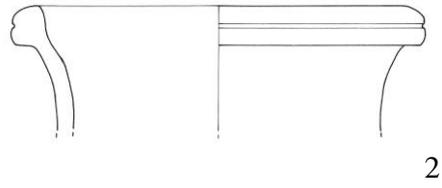
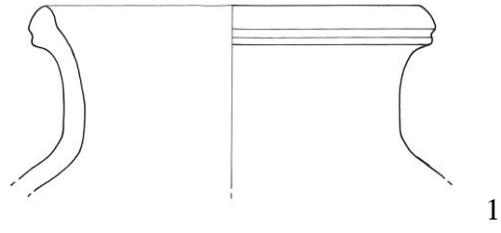


Plate 61 – Macrophase 3a

1 –**319** (=457=366) BKG K-105 (1909) 3a.2 CB-e6.4

Red Ware

Cf.

LR	medium	mica quartz and black inclusions diffused, organic diffused (C)	gray core	slip (R) outside/neck	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4
				457	
			457		
					457

2 –**170** BKG K-105 (2137) 3a.1 CB-e6.4.1

Red Ware

Cf. Sharif 1969: fig. 18.7 (Period III)

LR	medium	mica and organics diffused	gray core	slip (R) outside/neck	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 –**716** BKG K-105 (2124) 3a.2 CB-e6.5

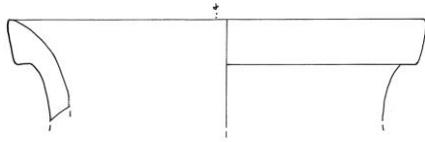
Red Ware

LR	medium	quartz, mica and organics diffused	gray core	slip (R) outside	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

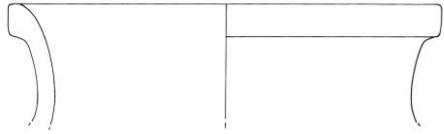
4 –**154** BKG K-105 (2164) 2a.2 CB-e6

Red Ware

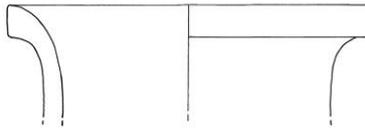
LR	medium	quartz, mica and organics diffused	black core, black patches	no slip	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



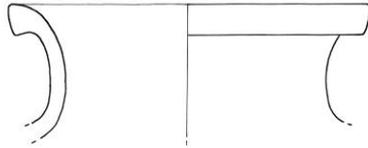
1



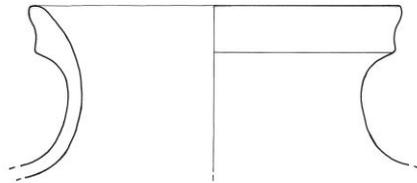
2



3



4



5



Plate 62 - Macrophases 2a.2-3a

1 -163 BKG K-105 (2167) 2a.2 CB-e7.7.1  
Red Ware

2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 -698 BKG K-105 (1917) 3a.1 CB-e7  
Red Ware

LR	medium	some quartz, mica and organics	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 -243 (=397) BKG K-105 (1917) 3a.1 CB-e7.1  
Red Ware

R	medium	mica and organics diffused (H)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 -585 BKG 8 (31) 3a.2-4 CB-e7.3  
Red Ware

R	fine	few mica and organics	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 -25 (=718) BKG L (9) CB-e7.2  
Red Ware

R	fine	Few, lime and mica (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

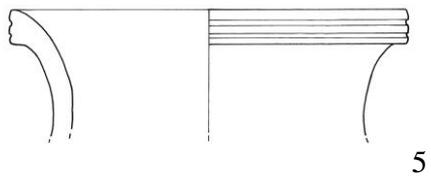
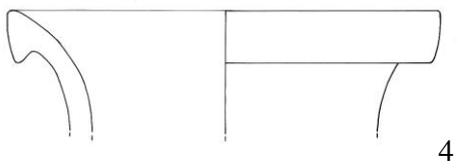
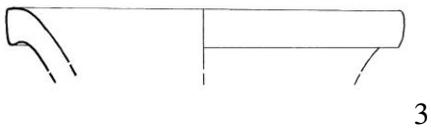
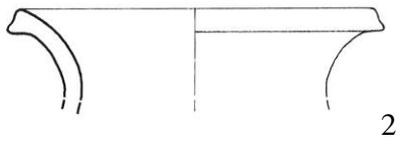
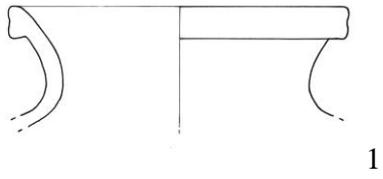


Plate 63 - Macrophases 3a

1 – **50** BKG L (8) 3a.2-4 CB-e8

Red Ware

R	fine	some quartz, few organics (D)	black core	slip (R) traces	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **634** BKG9 (91)

Red Ware

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

3 – **611** BKG 9 (73) 3a.2-4

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

4 – **314** BKG K-105 (1909) 3a.2 CB-e8.1

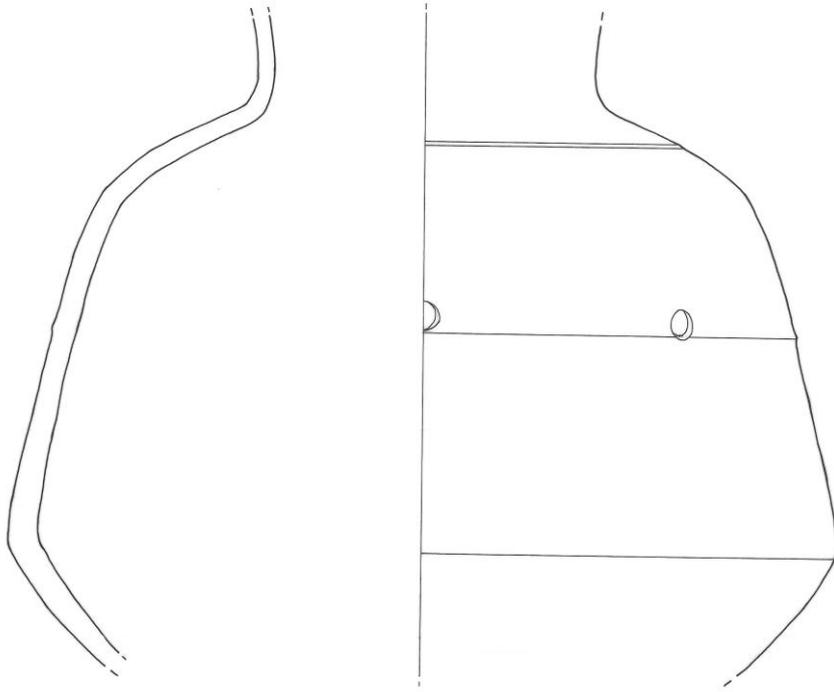
Red Ware

R	fine	Some black inclusions, mic and quartz of medium dimension (N)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

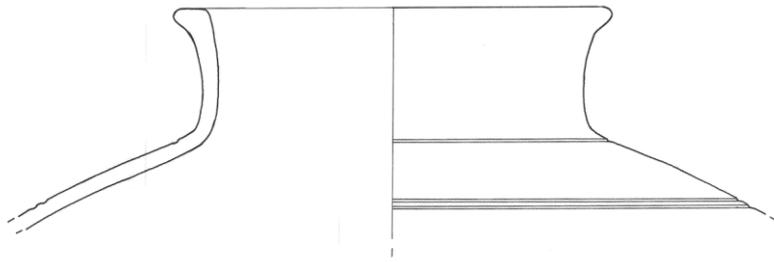
5 – **462** (=270) BKG K-105 (2137) 3a.1 CB-e9

Red Ware

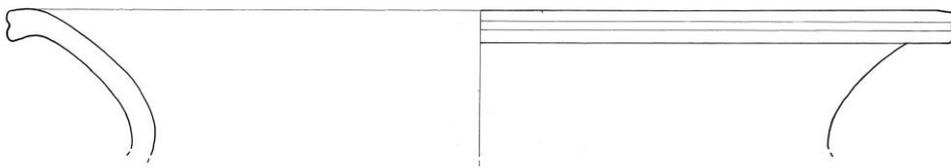
LR	fine	few mica (D)	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4



1



2



3

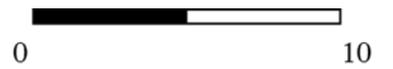


Plate 64 – Macrophase 2a.2-3a

1 – **508** BKG L (10p) 2a.2

2 – **47** BKG L (9) 2a.2 CB-e10

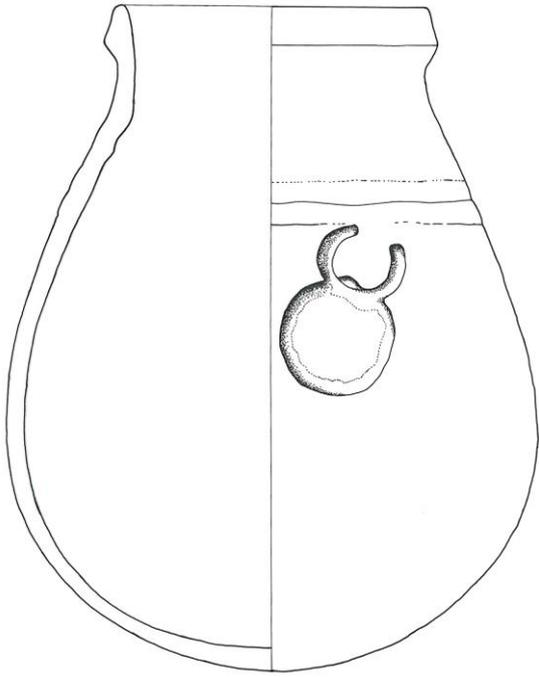
3 - **493** BKG K-105 (2147) 3a.1

Red Ware

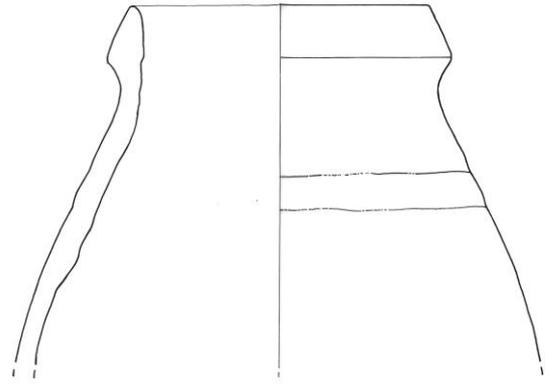
---

R	fine	few quartz, mica and organics (D)	black core	slip (R)	wheel
---	------	--------------------------------------	------------	----------	-------

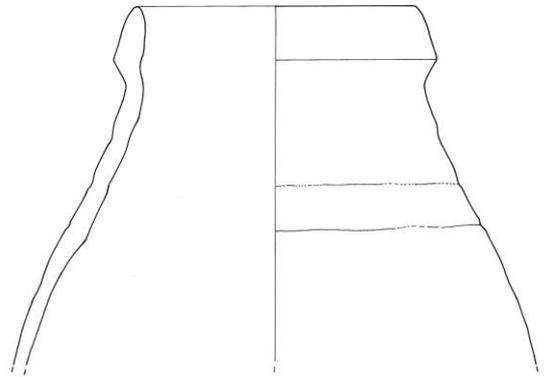
---



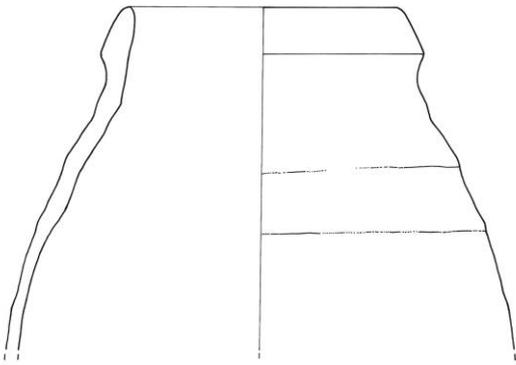
1



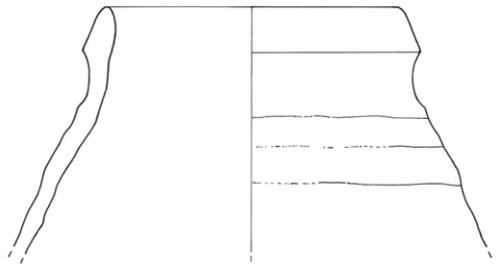
2a



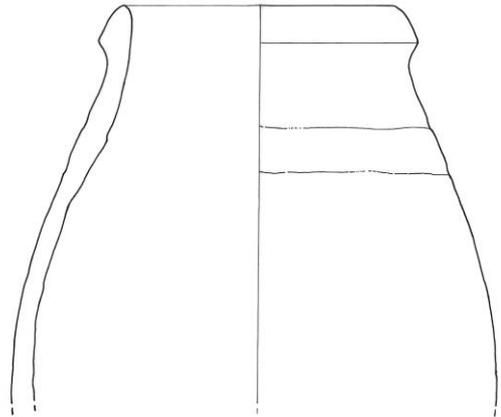
2b



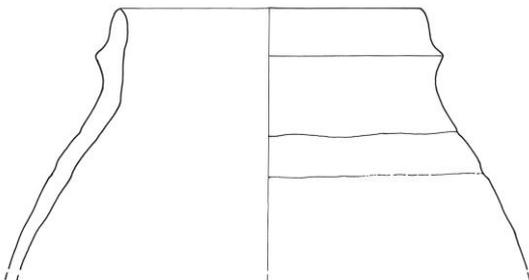
3a



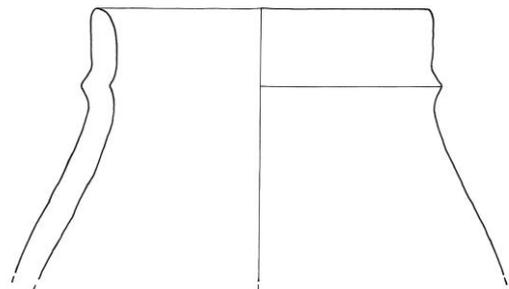
3b



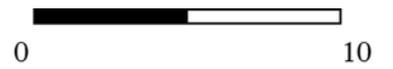
4



5



6



0

10

Plate 65 - Macrophases 2a-3a

1 - **70 (BKG 948)** BKG L (10p) 2a.2 CB-g1  
Buff Ware. With taurine stamp on the body

2a-2b – **89** BKG BKG L (10p) 2a.2 CB-g2

B	coarse	organics and seeds diffused few quartz of large dimension (M)	uniform	no slip	coiling, P&A, slow wheel
O/R	coarse	organics and seeds diffused (M)	uniform	no slip	coiling, P&A, slow wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3a-b – **90** BKG L (10p) 2a.2 CB-g2.1  
Red Ware

B	coarse	organics and seeds diffused few inclusions of large dimension (M)	uniform	no slip	coiling, P&A, slow wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **69 (=150)** BKG L (10p) 2a.2 Cb-g2.2  
Red Ware

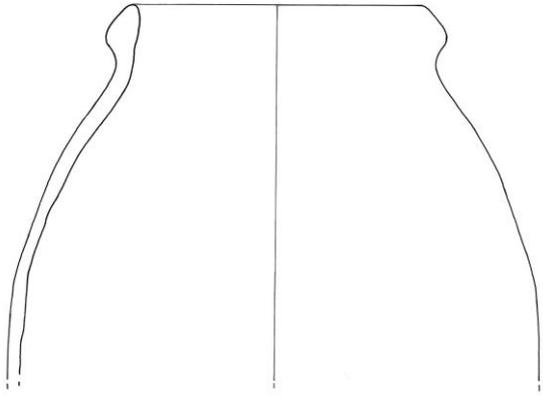
B	coarse	organics and seeds diffused few inclusions of large dimension (M)	uniform	no slip	coiling, P&A, slow wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 - **87** BKG L (10p) 2a.2 g1  
Buff Ware

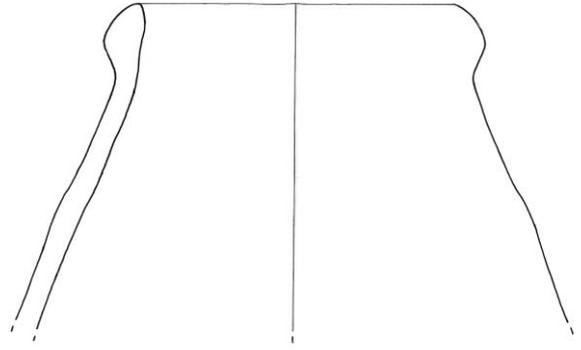
B	coarse	organics and seeds diffused (M)	uniform	no slip	P&A + slow wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

6 – **689** BKG BKG 12E (55) 3a.3 g1.1

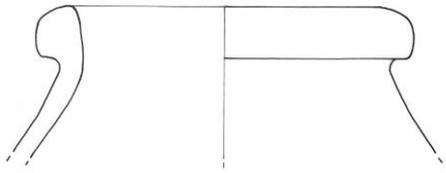
O	coarse	organics and seeds diffused few lime (C)	uniform	no slip	P&A + slow wheel
---	--------	---	---------	---------	---------------------



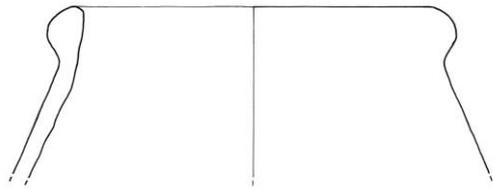
1



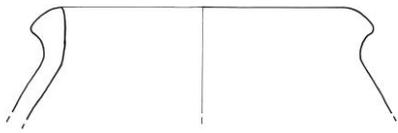
2



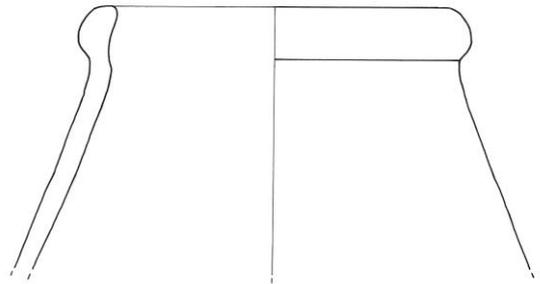
5



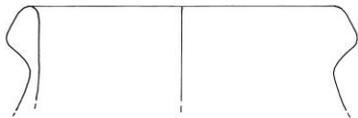
3



6



4



7



Plate 66 - Macrophases 2a.2-3a

1 – **86b** BKG BKG L (10p) 2a.2 CB-g3

Red Ware

B	coarse	organics and seeds diffused	uniform	no slip	P&A, slow wheel
---	--------	-----------------------------	---------	---------	-----------------

2 – **86** BKG BKG L (10p) 2a.2 CB-g3

Red Ware

O	coarse	organics and seeds diffused few lime	uniform	no slip	P&A + slow wheel
---	--------	--------------------------------------	---------	---------	------------------

2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **691 (=470)** BKG 12E (55) 3a.3 CB-g3

Red Ware

O	medium	organics and seeds diffused, few lime (M)	uniform	no slip	P&A, slow wheel
---	--------	---	---------	---------	-----------------

2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 - **690** BKG BKG 12E (55) 3a.3 CB-g3.1

Red Ware

O	medium	organics and seeds diffused, few mica (M)	uniform	no slip	P&A, slow wheel
---	--------	---	---------	---------	-----------------

2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **88** BKG K-105 (2154) 2b CB-g4

Red Ware

B	medium	organics and seeds diffused	uniform	no slip	P&A, slow wheel
---	--------	-----------------------------	---------	---------	-----------------

2a.2	2b	3a.1	3a.2	3a.3	3a.4

6 – **247** BKG K-105 (2133) 3a.1 CB-g4.1

Red Ware

B	medium	organics and seeds diffused	uniform	no slip	P&A, slow wheel
---	--------	-----------------------------	---------	---------	-----------------

2a.2	2b	3a.1	3a.2	3a.3	3a.4

7 - **176** BKG K-105 (2163) 2a.2 g4.2

Red Ware

B	medium	organics and seeds diffused	uniform	no slip	P&A, slow wheel
---	--------	-----------------------------	---------	---------	-----------------

2a.2	2b	3a.1	3a.2	3a.3	3a.4

counts x 5

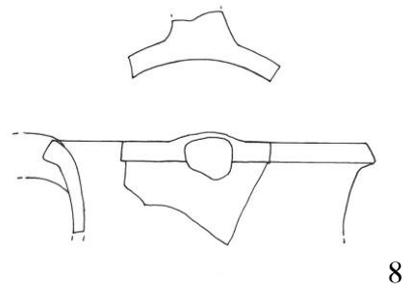
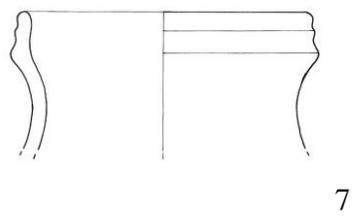
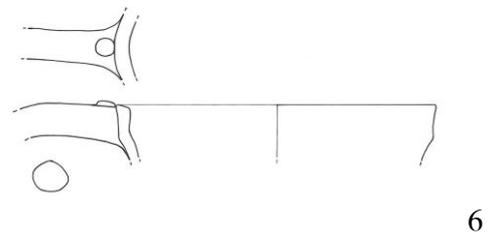
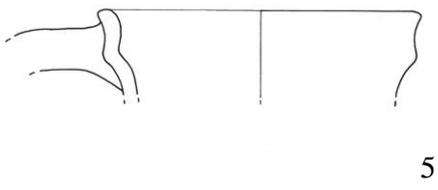
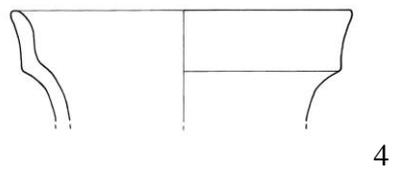
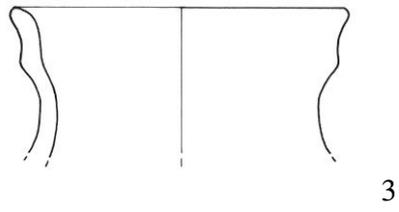
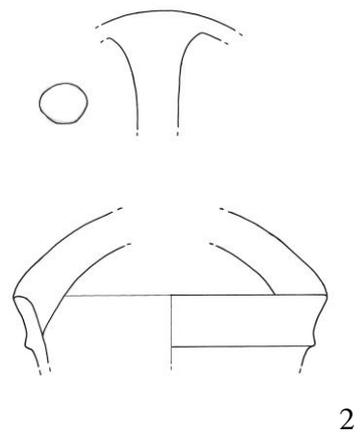
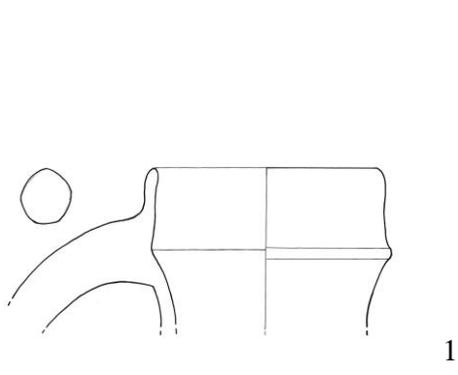


Plate 67 - Macrophase 2a.2-3a

1 – **92** BKG L (10p) 2a.2 CC-a1

Red Ware

LR	fine	-	uniform	slip (R)	wheel
----	------	---	---------	----------	-------

2 – **91** BKG L (10p) 2a.2 CC-b1

Red Ware

R	fine	few lime (O)	uniform	thick slip (R)	wheel
---	------	--------------	---------	----------------	-------

3 – **236** BKG K-105 (2148) 3a.1 CC-b2

Red Ware

R	fine	few organics (D)	uniform	slip (R)	wheel
---	------	------------------	---------	----------	-------

4 – **465** BKG K-105 (2133) 3a.1 CC-b2

Red Ware

LR	fine	few organics (D)	uniform	slip (R)	wheel
----	------	------------------	---------	----------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4

5 – **530 (=401)** BKG K-105 (1663) 3a.4 CC-b2.1

Red Ware

Corroded

LR	fine	few organics (D)	uniform	slip (R)	wheel
----	------	------------------	---------	----------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4

6 – **281** BKG K-105 (1692) 3a.3 CC-b2.2

Red Ware

Corroded

LR	fine	few mica and lime	uniform	slip (R) traces	wheel
----	------	-------------------	---------	--------------------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4

7 – **367** BKG K-105 (1910) 3a.2 CC-b3

Red Ware

LR	fine	few organics and mica (D)	uniform	slip (R)	wheel
----	------	---------------------------	---------	----------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4

8 – **368 (=467)** BKG K-105 (1910) 3a.2 CC-b4

Red Ware

LR	fine	few mica and organics (D)	uniform	slip (R)	wheel
----	------	---------------------------	---------	----------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4

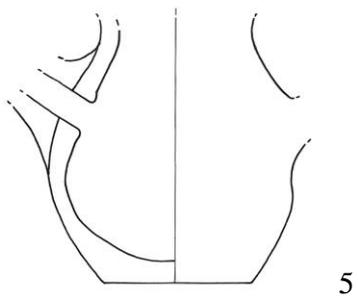
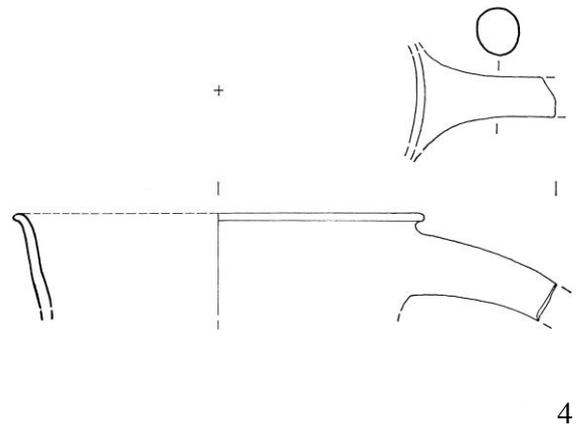
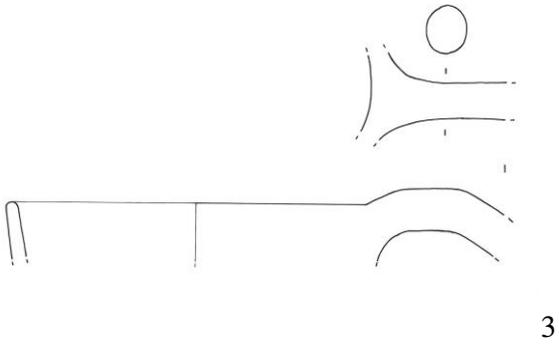
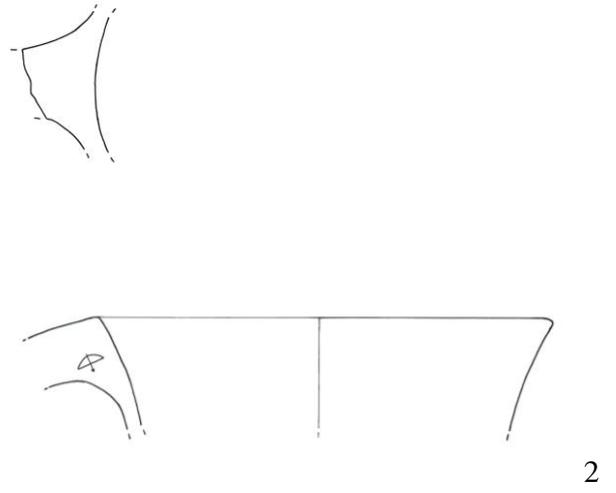
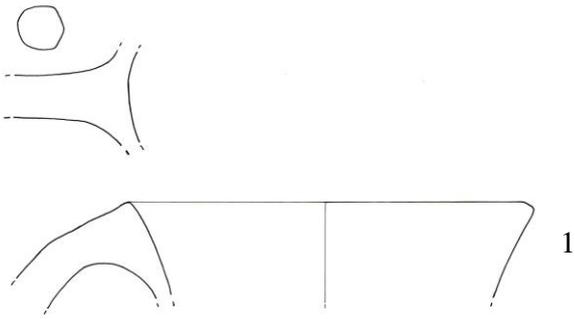


Plate 68 – Macrophase 3a

1 – **484** BKG (2142) 3a.1 CC-c1

Red Ware

R	fine	few mica and organics (D)	uniform	slip (R)	wheel (?)
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **497** BKG (2147) 3a.1 CC-c1.1

Red Ware

R	fine	few mica and organics (D)	uniform	slip (R)	coiling, wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **560** (=185=186=621) BKG 7 (82) CC-c1.2

Red Ware

R	fine	few mica and organics (D)	uniform	slip (R)	
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 – **554** BKG 7 (82) 3a.2-4

5- **66** BKG L (10p) 2a.2 V1.2

Red Ware

LR	fine	-	gray core and internal surface	no slip	handmade, wheel
----	------	---	--------------------------------	---------	-----------------

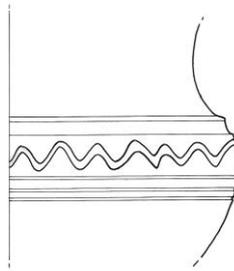
6- **65** BKG L (10p) 2a.2 V1.1

Red Ware

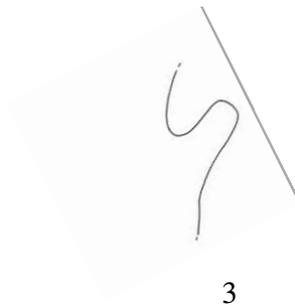
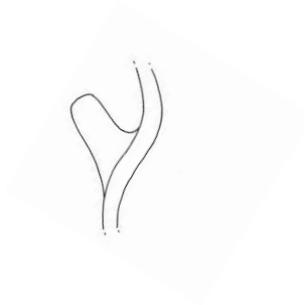
LR	fine	-	uniform	slip (R) outside	handmade, wheel
----	------	---	---------	------------------	-----------------



1



2



3

Plate 69 – Macrophase 2b-3a

1 – **658** BKG K-105 (2147) 3a.1 CD-a1.1 (PP1.1.1)

Red Ware

*Krater*-like vessel painted black-on-red. From top:

R	fine	-	uniform	thick slip (B)	molding, wheel
---	------	---	---------	----------------	----------------

2 – **533** BKG K-105 (2150) 2b CD-a1.2 (DP3.1.1)

Red Ware

*Krater*-like vessel with incised wavy line

R	fine/medium	organics and schist diffused (B)	uniform	slip (R) outside	wheel
---	-------------	-------------------------------------	---------	------------------	-------

3 – **526** BKG-105 (1663) 3a.4 CD-a2

Red Ware

Handled *krater*-like vessel

R	fine	organics and mica diffused, few quartz (N)	uniform	slip (R)	wheel
---	------	---	---------	----------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

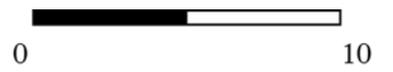
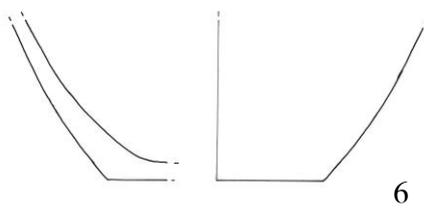
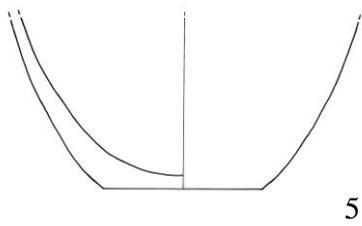
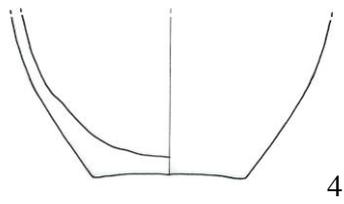
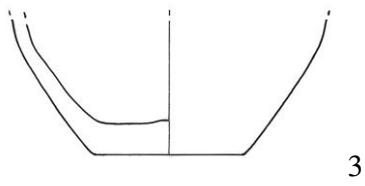
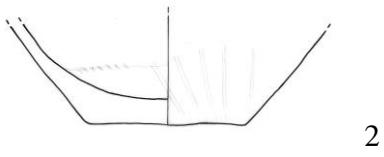
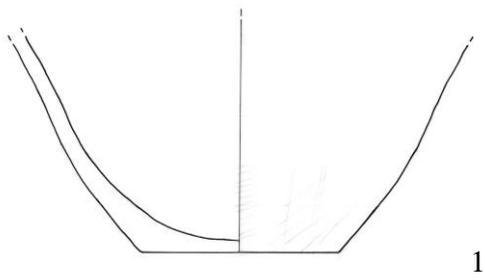


Plate 70 – Macrophase 2a.2

1 - **109** BKG L (10p) 2a.2 B1

Red ware

Flat contiguous base (unrestricted vessel)

Horizontal traces of tool

R	medium	few mica and organics (O)	uniform	slip (R) outside/inside on upper part	building technique, ribbing
---	--------	------------------------------	---------	---	-----------------------------------

2 – **109a** BKG L (10p) 2a.2 B1

Red ware

Flat contiguous base (unrestricted vessel)

Vertical traces of pointed tool

R	fine	few mica and organics (O)	uniform	slip (R)	building technique, ribbing
---	------	------------------------------	---------	----------	-----------------------------------

3 – **109c** BKG L (10) 2a.2 B1

Red Ware

Flat contiguous base (unrestricted vessel)

R	fine	few mica and organics (O)	uniform	slip (R)	building technique (?)
---	------	------------------------------	---------	----------	---------------------------

4 – **14** BKG L (9) B1

Red ware

Slightly concave base

Traces of tool at the base

R	fine	few mica and organics (O)	uniform	slip (DR)	building technique
---	------	------------------------------	---------	-----------	-----------------------

5 – **93** BKG L (10p) 2a.2 B1

Red ware

Flat contiguous base (unrestricted vessel)

R	fine	few mica and organics, lime diffused (O)	uniform	slip (R) outside	wheel (?)
---	------	---	---------	------------------	-----------

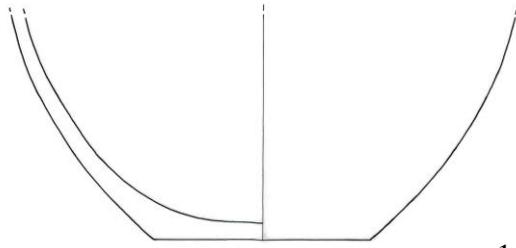
6 – **93b** BKG L (10p) 2a.2 B1

Red ware

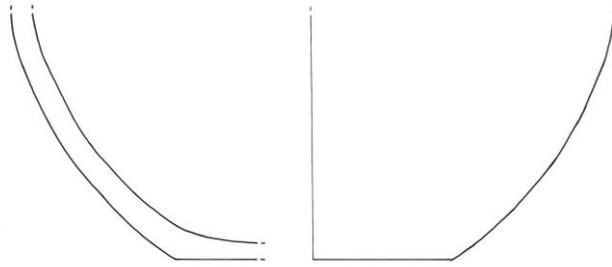
Flat contiguous base

Irregular scratches at the inner bottom

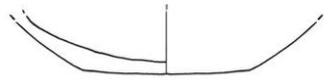
R	fine	few mica, lime and organics (O)	uniform	slip (R) outside	wheel
---	------	------------------------------------	---------	------------------	-------



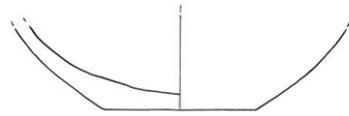
1



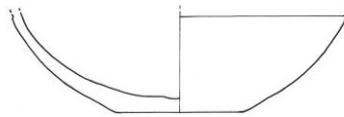
2



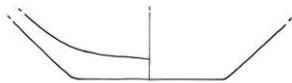
3



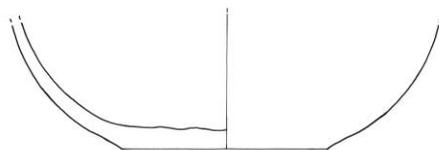
4



5



6



7



Plate 71 – Macrophase 2a

1 - **68** BKG L (10p) 2a.2 B1

Red ware

Flat contiguous base (medium size vessel with rounded wall)

Irregular scratches at the inner bottom

LR	fine	few mica and organics (O)	uniform	slip (R)	coiling
----	------	---------------------------	---------	----------	---------

2 – **28** BKG L (9) 2a.2 B1

Red ware

Flat contiguous base (medium size vessel with rounded wall)

Vertical traces of pointed tool

R	fine	w lime, few mica and orgar	uniform	slip (DR) outside	wheel
---	------	----------------------------	---------	-------------------	-------

3 – **102** BKG L (10p) 2a.2 B1

Red Ware

Flat contiguous base (tulip?)

R	fine	Few organics (O)	uniform	slip (R)	wheel?
---	------	------------------	---------	----------	--------

4 – **104** BKG L (10p) 2a.2 B1

Red ware

Flat contiguous base (bowl)

Traces of pinching on the inner bottom

LR	fine	few organics, few mica	uniform	slip (R)	handmade
----	------	------------------------	---------	----------	----------

5 – **8** BKG L (9) 2a.2 B1

Red ware

Flat contiguous base (base of tulip bowl)

LR	fine	-	uniform	slip (R)	wheel
----	------	---	---------	----------	-------

6 – **103** BKG L (10p) 2a.2 B1

Red ware

Flat contiguous base

Traces of pinching on the inner bottom

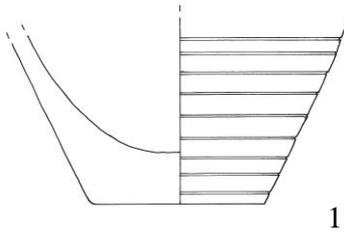
LR	fine	mica diffused (O)	uniform	slip (R)	handmade
----	------	-------------------	---------	----------	----------

7 – **94** BKG L (10p) 2a.2 B1

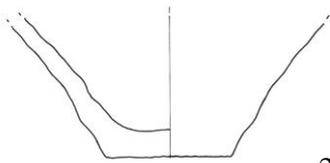
Red ware

Flat contiguous base with basket impression at the bottom

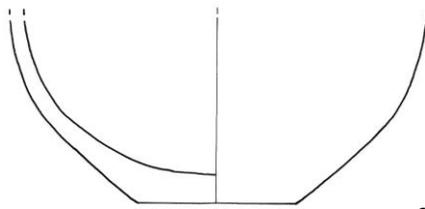
G	fine	-	uniform	no slip	Handmade
---	------	---	---------	---------	----------



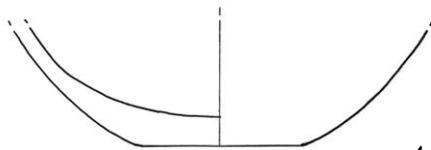
1



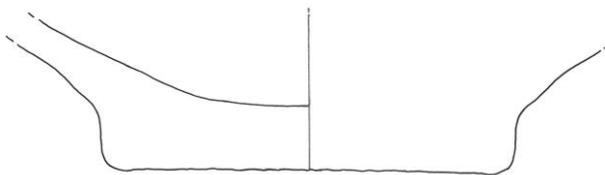
2



3



4



5



Plate 72 – Macrophase 2b-3a

1 – **659 (BKG3505)** BKG K-105 (1663) 3a.4 B1

Red Ware

Flat contiguous base

LR	fine	mica and quartz diffused, few organics	patches outside	slip (R) inside, deep horizontal grooves on the external wall	wheel
----	------	---	-----------------	--	-------

2 – **489 BKG K-105** (2149) 2b B1

Red Ware

Flat contiguous base (bowl) with spiral pattern

LR/brownish	coarse	organics and quartz of medium dimension diffuse black inclusions diffused (M)	black core, black inside	slip (R), gritty bottom	handmade
-------------	--------	--	-----------------------------	----------------------------	----------

3 – **438** BKG K-105 (2131) 3a.2 B1

Red Ware

Flat contiguous base with spiral pattern (base of bow with vertical wall, OB-g)

R/Pinkish	fine	few mica and organics (D)	black patches inside	no slip	wheel
-----------	------	---------------------------	-------------------------	---------	-------

4 – **206 (=297)** BKG K-105 (1912) 3a.2 B1

Red Ware

Flat contiguous base (base of bow with vertical wall, OB-g)

LR	fine	few mica and organics (D)	uniform	slip (R)	wheel
----	------	---------------------------	---------	----------	-------

5 – **458** BKG K-105 (2131) 3a.2 B2

Red Ware

Thick flat base with mat impression at the bottom

LR	coarse	quartz grains and mica of medium dimension diffused	black core and inside	slip (R) outside, gritty bottom with mat impressions	handmade
----	--------	---	--------------------------	--	----------

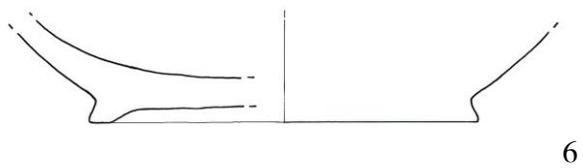
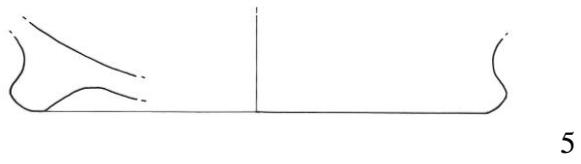
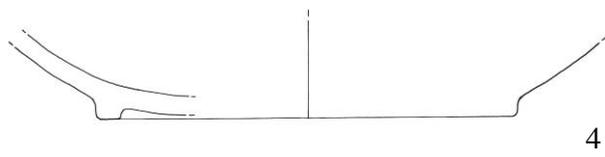
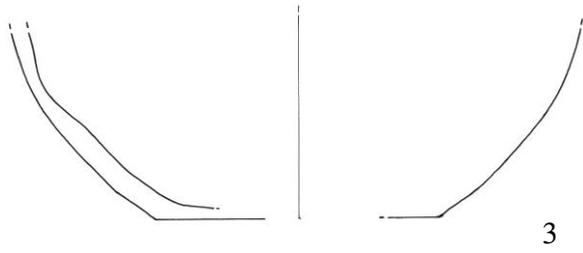
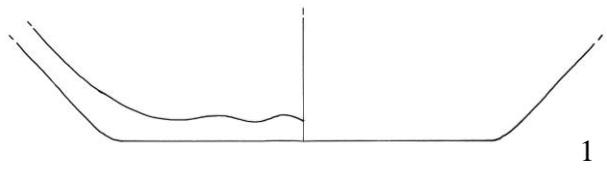


Plate 73 – Macrophase 3a

1 - **311** BKG K-105 (1917) 3a.1 B1

Red ware

Flat contiguous base (medium size vessel)

LR	fine	few organics (D)	uniform	slip (DR) outside	wheel
----	------	------------------	---------	-------------------	-------

2 – **277** BKG K-105 (1691) 3a.3

Red ware

Flat contiguous base B1

LR	fine	-	black core	slip (R) outside	wheel
----	------	---	------------	------------------	-------

3 – **270** BKG K-105 (1672) 3a.4

Red ware

Flat contiguous base

LR	fine	-	uniform	slip (R) outside	coiling, ribbing
----	------	---	---------	------------------	------------------

4 – **360 BKG K-105** (1910) 3a.2 B3

Red Ware

Ring-foot base (medium/large size vessel)

LR	fine	few lime, few mica (D)	uniform	slip (R) outside	wheel
----	------	------------------------	---------	------------------	-------

5 – **522** BKG K-105 (1663s) 3a.4 B3

Red ware

Ring-foot base (large size vessel)

LR	coarse	organics diffused, quartz o: medium dimension diffuse	uniform	slip (DR) outside	wheel
----	--------	--	---------	-------------------	-------

6 – **516** BKG K-105 (2119) 3a.2 B3

Red ware

Ring-foot base (medium size vessel)

R	fine	few mica and organics, some lime (D)	black core	slip (DR) outside	wheel
---	------	---	------------	-------------------	-------

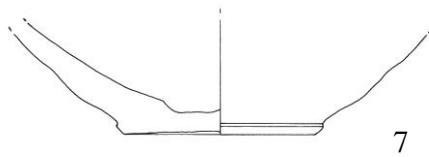
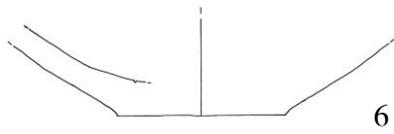
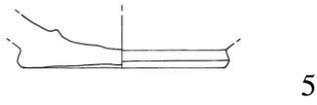
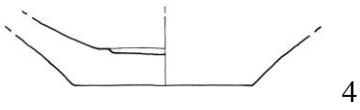
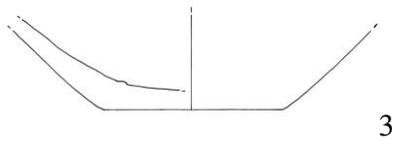
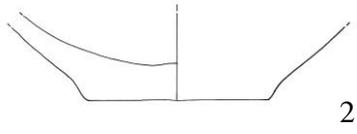
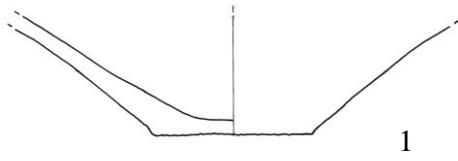


Plate 74 – Macrophase 3a

1 - **280** BKG K-105 (1691) 3a.4 B1

Red ware

Flat contiguous thin base (*plat-à-poisson*)

Spiral pattern at the bottom

R/Pinkish	fine	few mica and organics (D)	uniform	slip (R)	wheel
-----------	------	---------------------------	---------	----------	-------

2 – **307** BKG K-105 (1912) 3a.2 B2

Red ware

Flat contiguous thick base with spiral pattern (*assiette-à-poisson*)

R/Yellowish	fine/medium	some organics	gray core	no slip	wheel
-------------	-------------	---------------	-----------	---------	-------

3 – **701** BKG K-105 B1.3

Red Ware

Flat contiguous base with circular rib on the inner bottom (*plat/assiette-à-poisson*)

R/Yellowish	fine/medium	some organics (D)	gray core	no slip	wheel
-------------	-------------	-------------------	-----------	---------	-------

4 – **453** BKG K-105 (2131) 3a.2 B1.3

Red Ware

Flat contiguous base with circular rib on the inner bottom (*plat/assiette-à-poisson*)

Spiral pattern at the base. Soot inside

LR	medium	few mica and organics (D)	Patches inside	slip (R)	wheel
----	--------	---------------------------	----------------	----------	-------

5 – **393** BKG K-105 (2112) 3a.4 B1.3

Red Ware

Slightly concave disk base with circular rib on the inner bottom

R	fine	few organics (D)	uniform	slip (R)	-
---	------	------------------	---------	----------	---

6 – **702** BKG K-105 (1921) 3a.1 B2

Red Ware

Flat contiguous base with circular incised line on the inner bottom (*plat/assiette-à-poisson*)

R/O	medium	few mica, organics diffused (D)	uniform	slip (R)	wheel
-----	--------	------------------------------------	---------	----------	-------

7 – **318** BKG K-105 (1909) 3a.2 B1.1

Red Ware

Flat contiguous base with depression on the inner bottom

LR	medium	few mica	buff patches inside	slip (?)	wheel
----	--------	----------	------------------------	----------	-------

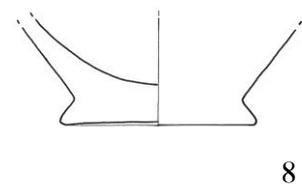
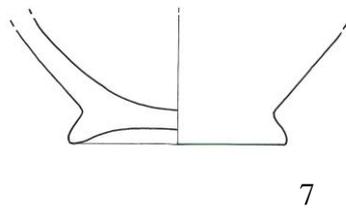
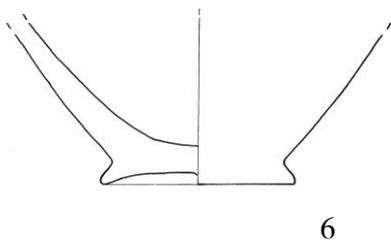
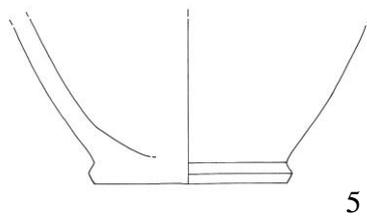
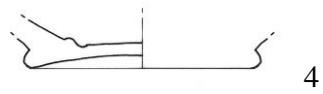
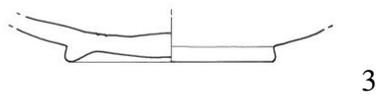
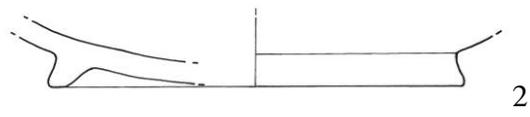


Plate 75 – Macrophase 3a

1 - **361** BKG K-105 (1910) 3a.2 B3

Red ware

Ring-foot base

R	medium	some lime, few mica (D)	uniform	gritty bottom slip (DR) outside	-
---	--------	-------------------------	---------	------------------------------------	---

2 – **379** BKG K-105 (1904) 3a.4 B3

Red ware

Ring-foot base

R	medium	organics, quartz and mica iffuse, black inclusion (visil inside)	uniform	slip (R) outside	wheel
---	--------	--	---------	------------------	-------

3 – **419** BKG K-105 (2118) 3a.2 B3.1

Red Ware

Ring-foot base with two circular incised line on the inner bottom (*plat-à-poisson*)

LR	fine	few mica and organics (D)	uniform	slip (R)	wheel
----	------	---------------------------	---------	----------	-------

3 – **700** BKG K-105 (1687) 3a.4 B4.1

Red ware

Concave disk base with depression on the inner bottom (*plat/assiette-à-poisson*)

R/Pinkish	fine	few mica (D)	uniform	slip (R)	wheel
-----------	------	--------------	---------	----------	-------

4 – **700a** BKG K-105 (2116) 3a.3 B4.1

Red ware

Concave disk base with circular groove/ridge on the inner bottom (*assiette-à-poisson?*)

R/Pinkish	fine	few mica (D)	uniform	slip (R)	wheel
-----------	------	--------------	---------	----------	-------

5 - **392 (=409)** BKG K-105 (2112) 3a.4 B2

Red ware

Thick flat base (goblet)

LR	fine	few mica, some organics (D)	gray core	slip (R)	wheel
----	------	--------------------------------	-----------	----------	-------

6 – **412** BKG K-105 (2114) 3a.3 B4

Red ware

Concave broad concave base (goblet)

R/Pinkish	fine	few mica (D)	uniform	slip (R)	wheel
-----------	------	--------------	---------	----------	-------

7 – **448** BKG K-105 (2131) 3a.2 B4

Red Ware

Concave broad concave base (goblet)

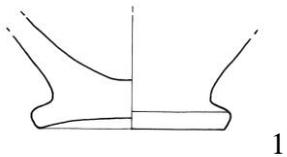
LR	fine	few mica, organics diffusec (D)	uniform	slip (DR) outside	wheel
----	------	------------------------------------	---------	-------------------	-------

8 – **449** BKG K-105 (2131) 3a.2 B4

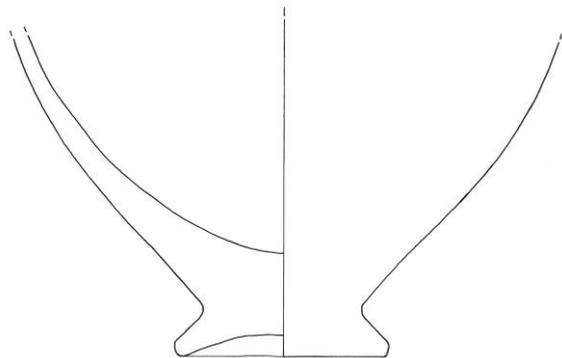
Red ware

Broad disk base (goblet)

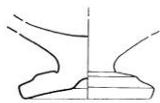
R/pinkish	fine	few mica (D)	gray core	slip (R) outside	wheel
-----------	------	--------------	-----------	------------------	-------



1



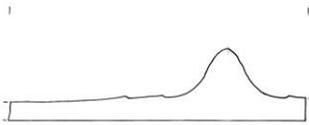
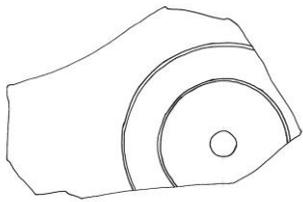
2



3



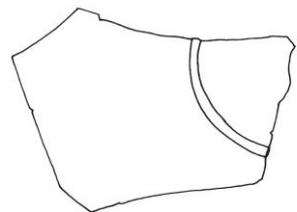
4



5



6



7



0

10

Plate 76 – Macrophase 3a

1 – **278** BKG K-105 (1691) 3a.3 B4

Red ware

Concave base, rectangular in section (goblet)

R/Pinkish	fine	lime diffused (E)	uniform	slip (R) outside, traces	wheel
-----------	------	-------------------	---------	-----------------------------	-------

2 – **664** (*BKG3401*) BKG K-105 (1662) 3a.4 B4

Red ware

Thick concave base, (goblet)

R/Pinkish	fine	few lime and mica (D)	uniform	slip (R) traces	handmade (?)
-----------	------	-----------------------	---------	-----------------	--------------

3 – **550** BKG 7 (82)

Red Ware

4 – **549** BKG 7 (83)

Red Ware

5 – **262** BKG K-105 (1673) 3a.4 B7

Red Ware

Flat base with central knob

Cf. Dani 1965-66: fig. 22.1

R/Pinkish	fine	few mica and lime (D)	black on the bottom	slip (R) traces	handmade
-----------	------	-----------------------	------------------------	-----------------	----------

6 – **359** BKG K-105 (1910) 3a.2 B7

Red Ware

Flat base with circular ridge

LR	fine/medium	few mica (D)	Gray core	rough at the bottom	wheel
----	-------------	--------------	-----------	------------------------	-------

7 – **172** BKG K-105 (1681) 3a.4 B6

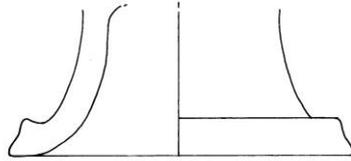
Red Ware

Rounded bottom (dish or bowl)

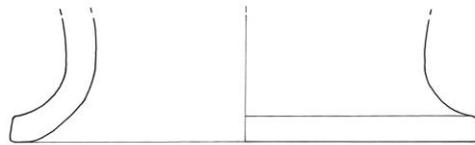
LR	fine	few mica, lime diffused (E)	uniform	slip (R) on the upper surface	Handmade
----	------	--------------------------------	---------	----------------------------------	----------



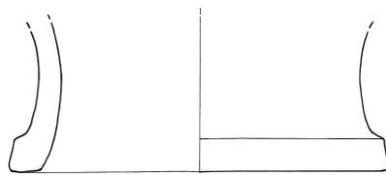
1



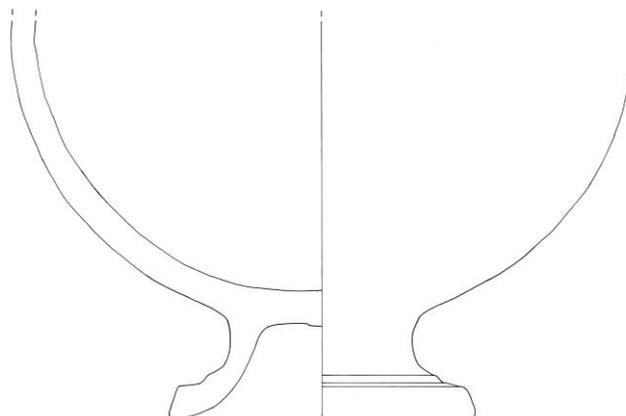
2



3



4



5



Plate 77 – Macrophase 2a.2-3a

1 - **84** BKG L (10p) 2a.2 B5 (PP2)

Red ware

Stem painted in black, red and white

LR	fine	few mica and lime	uniform	painted	wheel (traces)
----	------	-------------------	---------	---------	----------------

2 - **405** BKG K-105 (1910) 3a.2 B5

Red ware

Hollow stem

LR	fine	-	black core	slip (R)	wheel
----	------	---	------------	----------	-------

3 - **274** BKG K-105 (1672) 3a.4 B8

Red Ware

O	medium	organics , quartz and mica diffused	uniform	slip (R) outside	wheel
---	--------	--	---------	------------------	-------

4 - **723** BKG K-105 B8

Red Ware

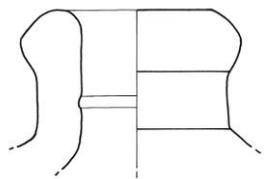
LR	medium	organics , quartz and mica diffused	uniform	slip (R) outside	wheel
----	--------	--	---------	------------------	-------

5 - **32** BKG L (8) 3a.3-4 B5/CD-a3

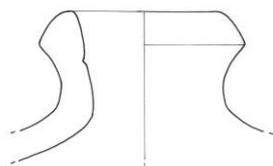
Gray Ware

*Krater*-like vessel on stand

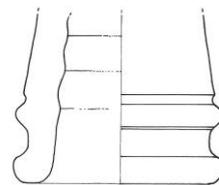
B	fine	quartz and mica of medium dimension diffused (A)	uniform	thick slip (B)	molding, wheel
---	------	---	---------	----------------	----------------



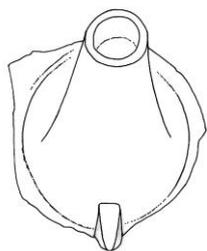
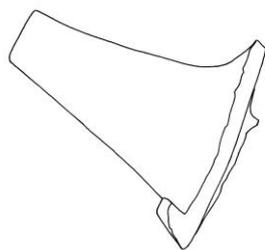
1



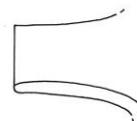
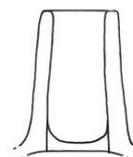
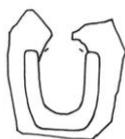
2



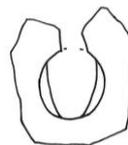
3



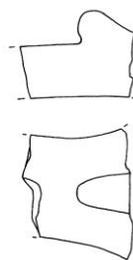
4



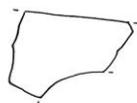
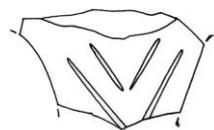
5



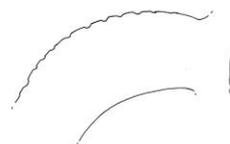
6



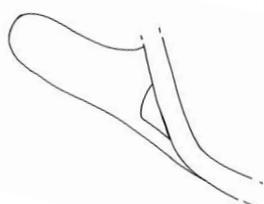
7



8



9



10



Plate 78 – Macrophase 2a.2-3a

1 – **31** BKG L (9) 2a.2 V2.1

Red Ware

B	coarse	some mica and quartz of medium dimension, few organics	uniform	no slip	handmade
---	--------	--	---------	---------	----------

2 – **635** BKG K-105 (2117) 3a.2 V2.1

Red Ware

LR	coarse	mica and quartz of medium dimension diffused, organics diffused	uniform	no slip	handmade
----	--------	---	---------	---------	----------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

3 – **519** BKG K-105 (1666) 3a.4 V3

Red Ware

P	medium	mica and quartz of medium dimension diffused, organics diffused	gray core	no slip	coiling, wheel
---	--------	---	-----------	---------	----------------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

4 - **479 (BKG3706)** BKG K 105 (2136) 3a.1 V4.2

Red Ware

R	fine	few mica, few organics	uniform	slip (R)	handmade
---	------	------------------------	---------	----------	----------

5 – **125** BKG L (10) 2a.2 V4.1

Red Ware

R	fine	-	uniform	slip (DR)	handmade
---	------	---	---------	-----------	----------

6 – **45** BKG L (8) 22.2 V5.1

Red Ware

R	medium	mica and quartz of medium dimension diffused, organics diffused	uniform	slip (R) outside	slab
---	--------	---	---------	------------------	------

7 – **649 (BKG3963)** BKG K 105 (2182) 2a.1 V5.2

Red Ware

R	fine	-	uniform	slip (DR)	handmade
---	------	---	---------	-----------	----------

8 – **643 (BKG3689)** BKG K 105 (2131) 3a.2 V5.3 (DP3.1)

Red Ware

LR	medium	mica and quartz of small dimension diffused	uniform	slip (DR)	handmade
----	--------	---	---------	-----------	----------

9 – **665 (BKG3557)** BKG K 105 (1910) 3a.2 V5.4

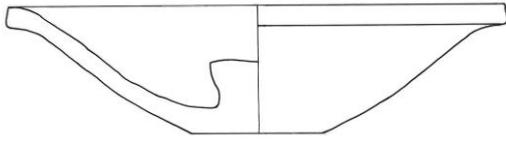
Red Ware

R	coarse	mica, quartz and lime of small dimension diffused (A)	black core	no slip	handmade
---	--------	---	------------	---------	----------

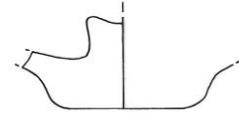
10 – **268 (BKG3970)** BKG K 105 (1909) 3a.2 V5.5

Red Ware

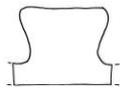
LR	medium	quartz and mica of medium dimension diffused, organic diffused (N)	gray core	slip (R) outside	molding (?)
----	--------	--	-----------	------------------	-------------



1



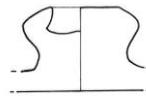
2



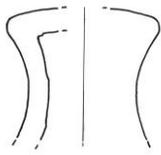
3



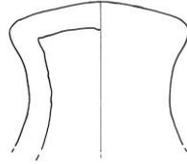
4



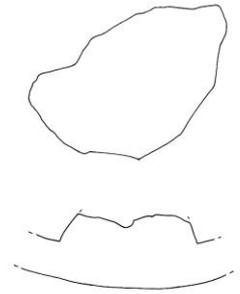
5



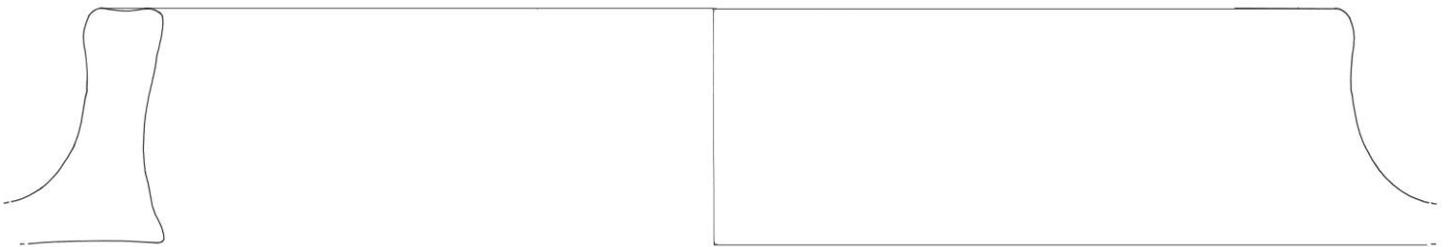
6



7



8



9



Plate 79 – Macrophase 2a.2-3a

1 – **58** BKG L (10p) 2a.2 V6.1

Red Ware

Soot outside/inside

O/R	medium	some lime, few mica, organics diffused (D)	uniform	no slip	coiling, wheel
-----	--------	---	---------	---------	----------------

2 – **173** BKG K-105 (2163) 2a.2 V6.1.1

Red Ware

Rough on bottom

LR	medium	few mica, organics diffused (D)	uniform	slip (R) traces	wheel (?)
----	--------	---------------------------------	---------	-----------------	-----------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

3 – **174** BKG K-105 (2163) 2a.2 V6.1

Red Ware

LR	medium	few mica	uniform	slip (R)	wheel (?)
----	--------	----------	---------	----------	-----------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

4 – **123** BKG L (10) 2a.2 V6.1.3

Red Ware

P	fine	few lime, mica and organics	uniform	slip (R)	wheel
---	------	--------------------------------	---------	----------	-------

5 – **124** BKG L (10) 2a.2 V6.1.2

Red Ware

LR	fine	few organics	uniform	slip (R)	wheel
----	------	--------------	---------	----------	-------

6 – **500 (=483=533)** BKG K-105 (2146) 3a.1 V6.2

Red Ware

LR	medium	few lime and mica, organic diffused (D)	uniform	slip (R) outside	coiling, wheel
----	--------	--	---------	------------------	----------------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

7 – **322** (BKG3764) BKG K 105 (2148) V6.3

Red Ware

Heavily corroded

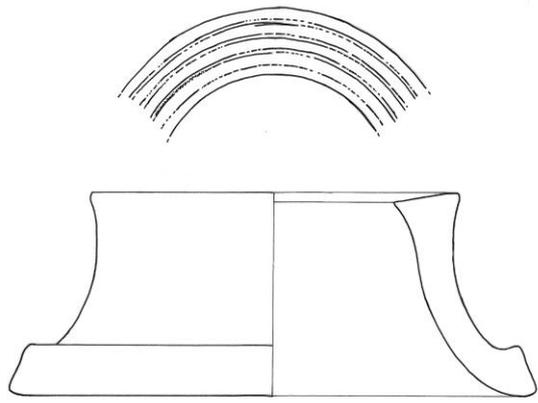
LR	coarse	few organics	gray core	no slip	handmade
----	--------	--------------	-----------	---------	----------

8 – **48** BKG L (8) 3a.2-4 V7

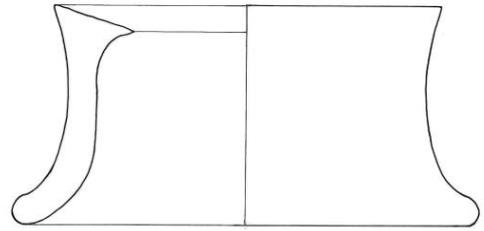
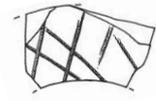
Red Ware

LR/B	coarse	mica and quartz of medium dimension diffused, organics diffused	black core	no slip	handmade
------	--------	---	------------	---------	----------

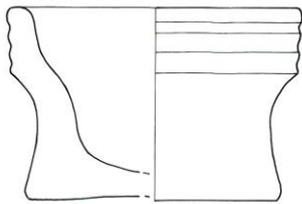
\*N.B. 1 also from BKG L (11)



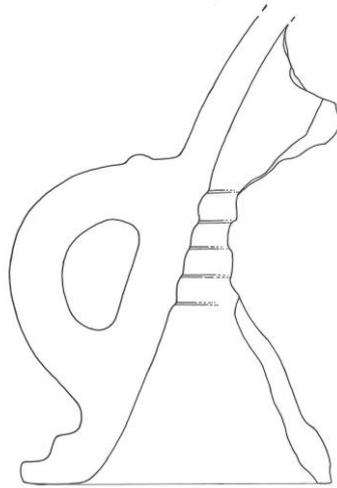
1



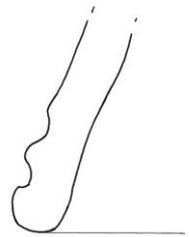
2



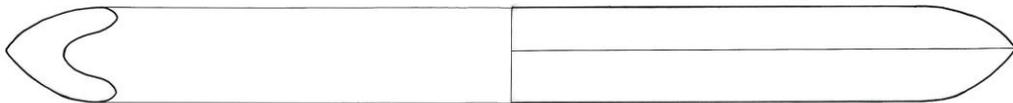
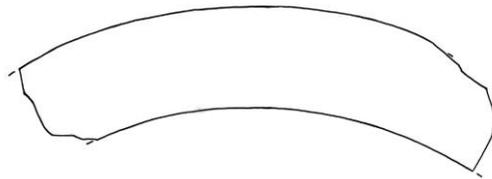
3



4



5



6



Plate 80 – Macrophase 2a.2-3a

1 – **433** BKG K-105 (2131) 3a.2

Red Ware

LR	medium	organics, mica, lime and schist diffused (B)	uniform	no slip	coiling, wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 – **609** BKG 9 (73) 3a.2-4

Red Ware

tracce usura in basso

LR	medium	lime and organics diffused	uniform	gritty outside	handmade
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 – **466** BKG K 105 (2133) 3a.1

Red Ware

LR	medium	mica and quartz of small/medium dimension diffused, some organics	gray core	slip D(R)	wheel
----	--------	---	-----------	-----------	-------

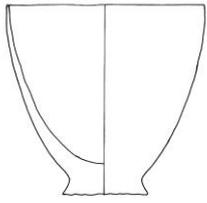
4 – **232** BKG L (10p) 2a.2 V8.1

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

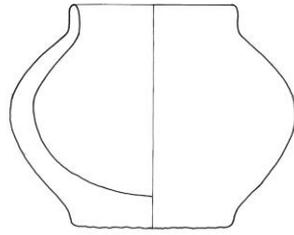
5 – **67 (=251)** BKG L (10p) 2a.2 V9

Red Ware

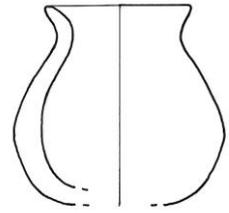
R	fine	some lime of medium dimension, few organics (C)	uniform	slip (R)	wheel
<b>2a.1</b>	2a.2	2b	3a.1	3a.2	3a.3



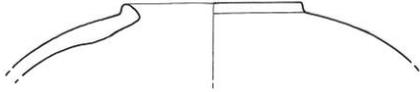
1



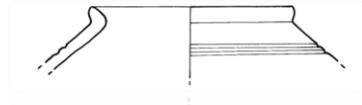
2



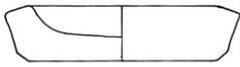
3



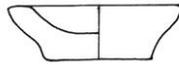
4



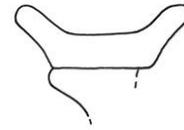
5



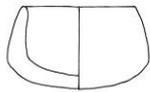
6



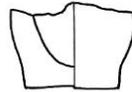
7



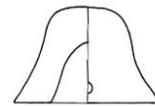
8



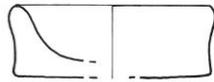
9



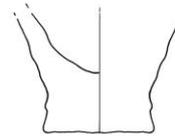
10



11



12



13



Plate 81 – Macrophases 2a.2 – 3a

1 – **235** BKG K-105 (1920) 3a.1 MV1

Red Ware

LR/P	fine	-	uniform	no slip	coiling, wheel
------	------	---	---------	---------	----------------

2 – **676 (BKG3567)** BKG K-105 (1912) 3a.2 MV2

Red Ware

LR	fine	few organics (D)	uniform	slip (R) outside	wheel
----	------	------------------	---------	------------------	-------

3 – **327** BKG K-105 (1916) 3a.1 MV3

Red Ware

LR	fine	few organics (D)	uniform	slip (R) outside	wheel
----	------	------------------	---------	------------------	-------

4 – **520** BKG K-105 (1666) 3a.4 MV4

Red Ware

LR	fine	few organics (D)	uniform	slip (R) outside	wheel
----	------	------------------	---------	------------------	-------

5 – **485** BKG K-105 (2142) 3a.1 MV4

Red Ware

R	fine	few organics (D)	uniform	slip (R) outside	wheel
---	------	------------------	---------	------------------	-------

6 – **647 (BKG3468)** BKG K-105 (1676) 3a.4 MV5

Red Ware tracce usura rim

LR	fine	-	uniform	no slip	handmade
----	------	---	---------	---------	----------

7 – **646 (BKG3654)** BKG K-105 (2117) 3a.2 MV5

Red Ware

LR	fine	-	uniform	no slip	handmade
----	------	---	---------	---------	----------

8 – **215** BKG K-105 (1925) 2b MV5

Red Ware

O	fine	few mica, few lime (O)	uniform	slip (R) traces	wheel
---	------	------------------------	---------	-----------------	-------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

9 – **648 (BKG3696)** BKG K-105 (2137)

Red Ware

Brownish	coarse	few organics (D)	gray core	no slip	pinching
----------	--------	------------------	-----------	---------	----------

2a.2	2b	3a.1	3a.2	3a.3	3a.4
------	----	------	------	------	------

10 – **644 (BKG3704)** BKG K-105 (2133) 3a.1

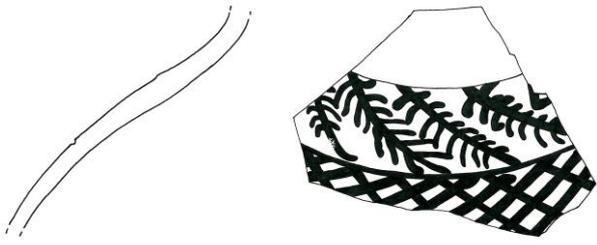
Red Ware

Brownish	fine	few organics (D)	uniform	no slip	pinching
----------	------	------------------	---------	---------	----------

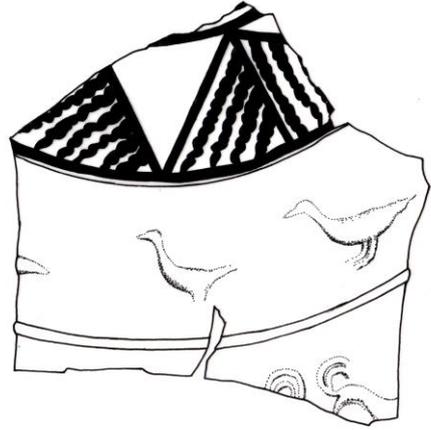
11 – **669 (BKG3573)** BKG K-105 (1920) 3a.1

Red Ware

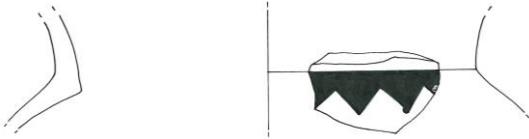
LR	fine	few organics (D)	uniform	slip (R) outside	pinching
----	------	------------------	---------	------------------	----------



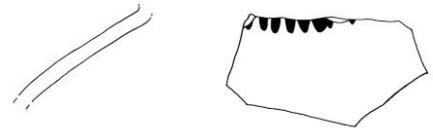
1



2



3



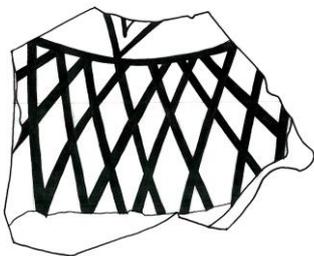
4



5



6



7



8



9

Plate 82 - Macrophases 2a.2-3a

1 – **408 (BKG3898)** BKG K-105 (2175) 2a.2 PP1.1.1

Red Ware

Painted black-on-red. 1) From top: row of leaves below the rim; row of cross-hatched triangle pointed downwards; 2) row of cross-hatched triangle pointed downwards.

R	fine	few mica (D)	uniform	slip (R) outside	wheel
---	------	--------------	---------	------------------	-------

2 – **666 (BKG968)** BKG L (10p) 2a.2 PP1.1.1/DP2.1

Red Ware

Painted black-on-red triangles, embossed peakoks (?) and goat (?)

3 – **212 (BKG3626)** BKG K-105 (2113) 3a.4 PP1.1

Red Ware

Painted black-on-red. Row of triangles pointing upwards on shoulder

LR	medium	some mica, quartz and organics	gray core	thick slip (DR) outside	wheel
----	--------	--------------------------------	-----------	-------------------------	-------

4 – **394 (BKG3762)** BKG K-105 (2142) 3a.1 PP1.1

Red Ware

Painted black-on-red. Comb-like lines.

LR	medium	some mica, quartz and organics	uniform	slip (R) outside	wheel
----	--------	--------------------------------	---------	------------------	-------

5 – **306 (BKG3839)** BKG K-105 (2157) 2a.2 PP1.2

Red Ware

Painted black-on-red. From top: horizontal line, organics motif (?)

R	fine	few mica	uniform	thick slip (DR) outside	wheel
---	------	----------	---------	-------------------------	-------

6 – **308 (BKG3727)** BKG K-105 (2139) PP1.1

Red Ware.

Painted black-on-red. Four parallel horizontal lines.

LR	medium	few mica, few organics (D)	uniform	slip (DR)	wheel
----	--------	----------------------------	---------	-----------	-------

7 – **52** BKG L (8) 3a-3-4 PP1.1

Red Ware.

Painted black-on-red. From top: downward triangle (?), basket-like pattern.

LR/P	fine	some lime, mica diffused, few quartz of medium dimension	uniform	slip (R)	wheel
------	------	--	---------	----------	-------

8 – **53 (BKG3836)** BKG K-105 (2159) 2a.2 PP1.1.1

Red Ware

Painted black-on-red. Triangle with oblique wavy lines.

LR	fine	few mica and organics	uniform	slip (R) outside	wheel
----	------	-----------------------	---------	------------------	-------

9 – **145 (BKG3911)** BKG K-105 (2176) 2a.2 PP1.1

Red Ware

Painted black-on-red. Row of triangles with parallel lines.

See Bahadar Khan et al. 2002: fig. 45.16 (Period III); Helms 1997: fig. 53.1539

R	fine	-	uniform	slip (R) outside	wheel
---	------	---	---------	------------------	-------



1



2



3



4



5



6



7



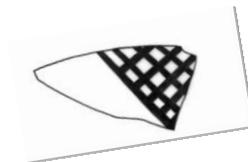
8



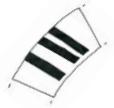
9



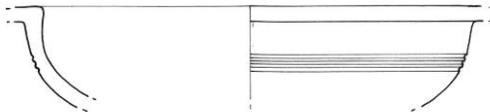
10



11



12



13



14

Plate 83 - Macrophases 2b-3a

1 – **147 (BKG3660)** BKG K-105 (1910) 3a.2 PP1.2

Red Ware

Painted Black-on-red. Leaves or garland motif (?).

R	fine	few mica	uniform	slip (R) outside	wheel
---	------	----------	---------	------------------	-------

2 – **203 (BKG3664)** BKG K-105 (1672) 3a.4 PP1.2

Red Ware

Painted Black-on-red. From top: cross-hatched triangles pointing downwards; dotted leaf (?)

R	fine	few mica	uniform	slip (R) outside	wheel
---	------	----------	---------	------------------	-------

3 – **146 (BKG3585)** BKG K-105 (1916) 3a.1 PP1.1.1

Red Ware

From a vessel with handle.

Painted black-on red. Organics motif within a triangular frame pointed downward.

R	fine	few mica and organics	gray core	slip (R) outside	wheel
---	------	-----------------------	-----------	------------------	-------

4 – **639 (BKG3685)** BKG K-105 (2131) 3a.2 PP1.1

Red Ware. Painted black-on-red. From top: row of triangles, incised and painted horizontal line.

R	fine	few mica and organics	uniform	thick slip (R) outside	wheel
---	------	-----------------------	---------	------------------------	-------

5 – **588 (BKG3569)** BKG K-105 (1910) 3a.2 PP1.1.1

Red Ware

Painted black-on red. Hatched pattern; lower horizontal line painted on horizontal groove.

LR	fine	few mica and organics	uniform	slip (R) outside	wheel
----	------	-----------------------	---------	------------------	-------

6 – **289 (BKG3586)** BKG K-105 (1663) 3a.4 PP1.2

Red Ware

Painted black-on-red (inside): leaf.

LR	fine	few mica and organics	uniform	slip (R)	wheel
----	------	-----------------------	---------	----------	-------

7 – **631 (BKG3726)** BKG K 105 (2141) 3a.1 PP1.1

Red Ware

Painted black-on red. Row of cross-hatched triangles pointing downwards.

LR	medium	some mica, quartz and organics	uniform	slip (R) outside	wheel
----	--------	--------------------------------	---------	------------------	-------

8 – **461 (BKG3543)** BKG K-105 (1908) 3a.2 PP1.1.1

Red Ware

Painted black-on-red. Grid-like motif and three diagonal lines

LR	fine	few mica and organics	uniform	slip (R) on top of rim	wheel
----	------	-----------------------	---------	------------------------	-------

9 – **498 (BKG3700)** BKG K-105 (2133) 3a.1 PP1.1.1

Red Ware

Painted black-on-red. Cross-hatched triangle pointing inward.

LR	fine	few mica and organics	uniform	slip (R)	wheel
----	------	-----------------------	---------	----------	-------

10 – **729** PP1.1.1

Red Ware

Painted black-on-red. Cross-hatched triangles on top of rim

LR	fine	few mica and organics	uniform	slip (R)	wheel
----	------	-----------------------	---------	----------	-------

11 – **507** BKG K-105 (1923) 2b PP1.1.1

Red Ware

Painted black-on-red. Cross-hatched triangles pointing inward on top of rim

LR	fine	few mica and organics ©	uniform	slip (R)	wheel
----	------	-------------------------	---------	----------	-------

12 – **482** BKG K-105 (2137) 3a.1 PP1.1; 13 - **167** BKG K-105 (2142) 3a.1 PP1.1

Red Ware

Painted black-on-red. Strokes on top of rim

LR	fine	few mica	uniform	no slip	wheel
----	------	----------	---------	---------	-------

14 - **654 (BKG3492)** BKG K-105 (1687) PP1.1

Red Ware. Painted black-on-red. Parallel wavy line on top of rim



Plate 84 – Macrophases 2a.2-3a

1 - **651 (BKG3838)** BKG K-105 (2157) 2a.2 PP1.1

Red Ware

Painted black-on-red. From top: horizontal line; four vertical wavy lines

See Helms 1997: fig. 51.991, 2697 (Epoch I)

LR	fine	few mica	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

2 - **653 (BKG3901)** BKG K-105 (2175) 2a.2 PP1.1

Red Ware

Painted black-on-red. From top: horizontal line below rim; two parallel vertical lines

LR	fine	few mica	uniform	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

3 - **654 (BKG3785)** BKG K-105 (2149) 2b PP1.1

Red Ware

Painted black-on-red. From top: horizontal line; wavy line (?)

LR	fine	few mica	uniform	slip (DR)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

4 - **675 (BKG3584)** BKG K-105 (1916) 3a.1 PP1.2

Red Ware

Painted black-on-red. From top: organics motif (?); wavy line between two horizontal lines

LR	fine	few organics, few mica	black core	slip (R)	wheel
2a.2	2b	3a.1	3a.2	3a.3	3a.4

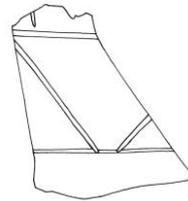
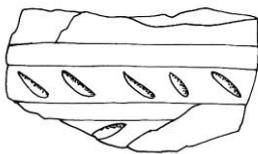
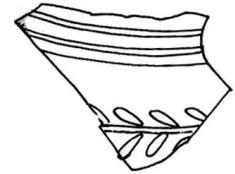
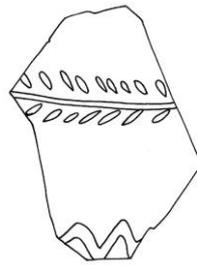
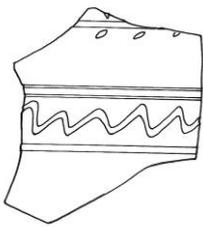
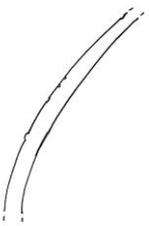
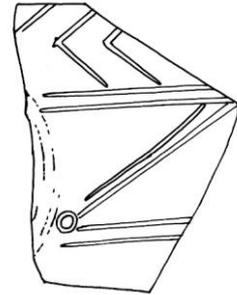
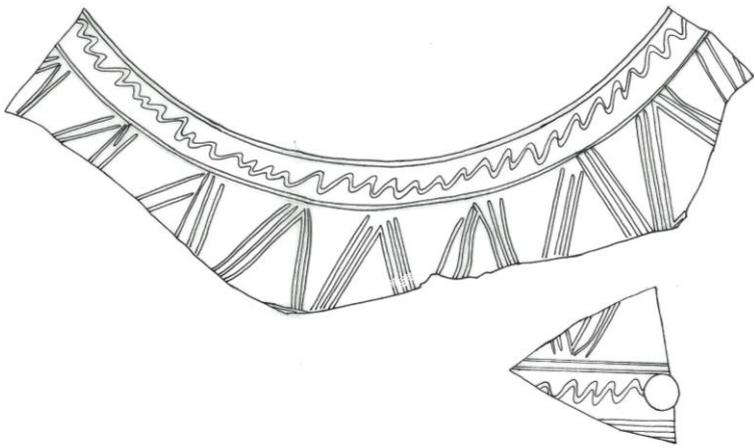
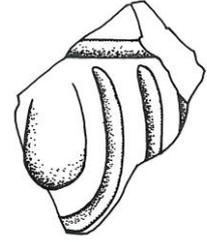
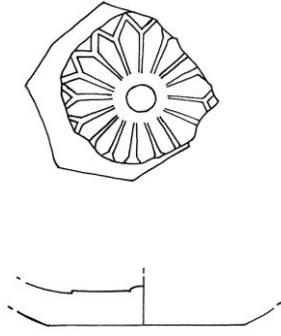
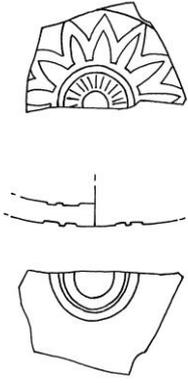


Plate 85 – Macrophase 2a.2-3a

1 – **619 (BKG3725)** BKG K-105 (2131) 3a.2 DP1

Red Ware

Stamps on the inner/outer bottom of bowl. Inside: full-blown lotus with lanceolate (12?) ridged petals; outside: concentric circles.

R	fine	-	uniform	slip (R)	wheel
---	------	---	---------	----------	-------

2 – **614 (BKG3742)** BKG K-105 (2142) 3a.1 DP1

Red Ware

Stamp on the inner bottom of a flat base bowl. Full-blown lotus with 16 petals.

LR	fine	some mica and organics	uniform	slip (R)	wheel
----	------	------------------------	---------	----------	-------

3 – **615** BKG L (8) 3a.3-4 DP2

Red Ware

Embossed *ovulo* motif. Heavily corroded.

R	fine	-	uniform	slip (R)	wheel
---	------	---	---------	----------	-------

4 – **613 (BKG3405)** BKG K 105 (1666) 3a.4 DP3.1

Red Ware

Incised decoration. From top: rib, wavy line, row of triangles between incised horizontal lines, wavy line with button

R	fine	-	uniform	slip (R)	wheel
---	------	---	---------	----------	-------

5 – **475 (BKG3513)** BKG K 105 (1687) 3a.4 DP3.1

Red Ware

Incised decoration. From top: row of chevrons pointing left, oblique double-line with button at the end between lines. Spouted vessel.

R	fine	-	uniform	slip (R)	wheel
---	------	---	---------	----------	-------

6 – **476 (BKG3661)** BKG K 105 (1910) 3a.2 DP3.1.1

Red Ware

Incised decoration. From top: horizontal organics motif (stem/line and leaves/notches); two incised lines; wavy line; ridged line.

LR	fine	-	uniform	no slip	wheel
----	------	---	---------	---------	-------

7 – **224 (BKG3512)** BKG K 105 (1687) 3a.4 DP3.2

Red Ware

Incised decoration. From top: horizontal organics motif (stem/line and leaves/notches); wavy line.

LR	fine	-	uniform	no slip	wheel
----	------	---	---------	---------	-------

8 – **225 (BKG3479)** BKG K 105 (1681) 3a.4 DP3.2

Red Ware

Incised decoration. From top: three horizontal parallel lines; horizontal organics motif (stem/line and leaves/notches).

LR	fine	-	uniform	no slip	wheel
----	------	---	---------	---------	-------

9 – **226 (BKG3474)** BKG K 105 (1673) 3a.4 DP3.2

Red Ware

Incised decoration. Horizontal organics motif (stem/line and leaves/notches) between ribs.

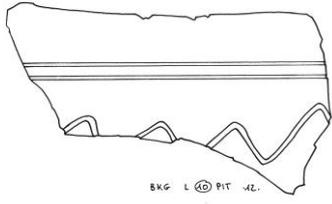
LR	medium/coarse	quartz and mica of medium dimension diffused, few organics	uniform	slip (R)	wheel
----	---------------	--	---------	----------	-------

10 – **228** BKG K 105 (2165) 2a.2 DP3.1

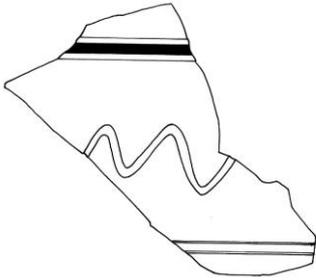
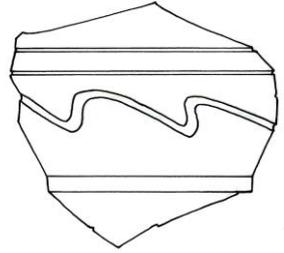
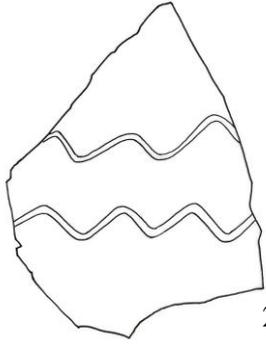
Red Ware

Incised decoration. From top: row of triangles between lines

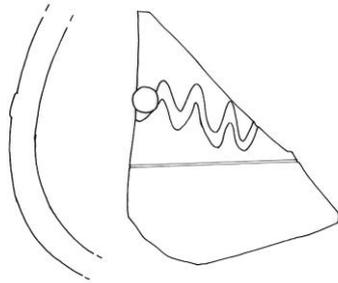
LR	medium/coarse	quartz and mica of medium dimension diffused, few organics	uniform	slip (R)	wheel
----	---------------	--	---------	----------	-------



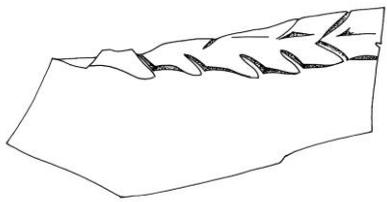
1



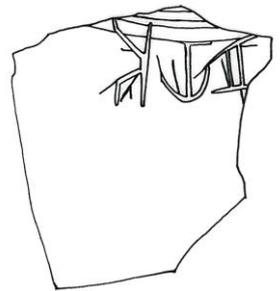
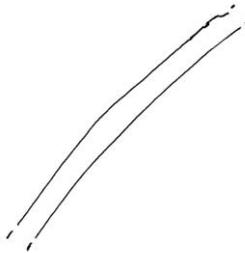
4



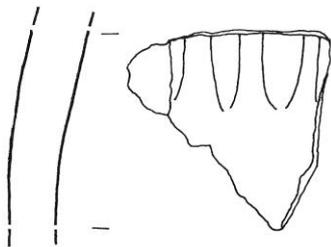
5



6



7



8

Plate 86 – Macrophases 2a.2, 3a

1 – **121** BKG L (10p) 2a.2 DP3.1.1

Red Ware

Incised decoration. From top: two parallel horizontal line, wavy line

R	coarse	quartz of large dimension diffused, organics diffused few mica	uniform	thick slip (R) outside	handmade (slab)
---	--------	--	---------	---------------------------	-----------------

2 – **171** BKG L (10p) 2a.2 DP3.1.1

Red Ware

Incised decoration. Two parallel horizontal wavy lines

R	coarse	quartz of large dimension diffused, organics diffused few mica	uniform	thick slip (R) outside	handmade (slab)
---	--------	--	---------	---------------------------	-----------------

3 – **122** BKG L (10p) 2a.2 DP3.1.1

Red Ware

Incised decoration. From top: two parallel horizontal line, wavy line, rib

R	coarse	quartz of large dimension diffused, organics diffused few mica	uniform	slip (R) outside	wheel
---	--------	--	---------	------------------	-------

4 – **159 (BKG3663)** BKG K 105 (1910) 3a.2 DP3.1.1

Red Ware

Incised decoration. From top: rib painted in black; incised wavy line; two incised lines.

R	medium	quartz and mica of medium dimension diffused, organic diffused	gray core, black patches outside	slip (DR)	wheel
---	--------	--	-------------------------------------	-----------	-------

5 – **162 (BKG3687)** BKG K 105 (2110) 3a.4 DP3.1.1

Red Ware

Incised decoration. Two parallel horizontal wavy lines

LR	medium	mica and organics diffused	gray core	slip (R)	wheel
----	--------	----------------------------	-----------	----------	-------

6 – **196 (BKG3501)** BKG K 105 (1663) 3a.4 DP4.2

Red Ware

Applique decoration. Horizontal rope-like motif.

R	coarse	quartz and mica of medium dimension diffused	gray core	slip (R) outside	handmade
---	--------	---	-----------	------------------	----------

7 – **160 (BKG3634)** BKG K 105 (2113) 3a.4 IP2

Red Ware

Inscribed potsherd. Brāhmī: ayan[ā] ///

LR	fine	few mica	uniform	slip (R) outside	wheel
----	------	----------	---------	------------------	-------

8 – **168** BKG 7 (82) 3A.2-4

Gray Ware

Inscribed potsherd.

G	fine	-	uniform	thick slip (B)	handmade
---	------	---	---------	----------------	----------

## LIST OF ILLUSTRATIONS

### TABLES

No.		Page
1.1	Occurrence of Swat periods in the occupation sequences of the Swat settlements	3
1.2	Correspondence chart showing Ghalegai Late Bronze-Early Iron age periods according to Stacul (1969), Dittmann (1984), Vogelsang (1988), Müller-Karpe (1983) and recent reassessment (Olivieri and Iori, forth.)	10
1.3	Stratigraphical and temporal correlation between the GSt. Pr., SP and FA, IA and their hypothetical correlation with BA I. The proto-historic periods are not showed in the table (Iori 2016: tab. 1)	24
1.4	Chronology correspondence chart amongst the BKG trenches (after Colliva 2011, Olivieri and Callieri, forth.)	32
1.5	Correspondence table showing the chronological correlations of the Bhir Mound periods	51
2.1	Distribution of the most recurrent vessel types during the Early Historic Period at Bala Hisar	84
3.1	Chronology correspondence chart amongst the BKG trenches with reference to BKG Macro-phases 2 and 3a (after Colliva 2011, Olivieri and Callieri, forth.)	186
3.2	Boundary Start and Boundary End of each phases of trench BKG K-105	201
3.3	Frequency chart with ornaments, luxury items, metal object, coins and figurines (Periods IIA-III) (Olivieri and Iori, forth.: tab.3)	205
4.1	Taxonomic nomenclature	230
4.2	Frequency of Class OA	252
4.3	Frequency of sub-class LOA-a	252
4.4	Frequency of sub-class LOA-b	253
4.5	Frequency of sub-class OA-c	254
4.6	Frequency of sub-class OA-d	255
4.7	Frequency of sub-class OA-f	257
4.8	Frequency of class OB	260
4.9	Frequency of sub-class OB-a	261
4.10	Frequency of sub-class OB-b	263
4.11	Frequency of sub-class OB-c1	264
4.12	Frequency of sub-class OB-c2	265
4.13	Frequency of sub-classes OB-c3, OB-c4, OB-c5	266
4.14	Frequency of sub-class OB-c6	266
4.15	Frequency of sub-classes OB-c7, OB-c8	267
4.16	Frequency of sub-class OB-d	268
4.17	Frequency of sub-class OB-e2	270
4.18	Frequency of sub-class OB-e6	271
4.19	Frequency of sub-classes OB-f1, OB-f2, OB-f3	272
4.20	Frequency of sub-classes OB-f4, OB-f5	273
4.21	Frequency of sub-class OB-g	274
4.22	Frequency of sub-class OB-h1	275
4.23	Frequency of sub-class sOB-i	276
4.24	Frequency of sub-classes LOB-h, OB-h	277
4.25	Frequency of sub-classes LOB-i, OB-i	278
4.26	Frequency of sub-class LOB-l, OB-l	279
4.27	Frequency of class OBB	280
4.28	Frequency of sub-class CA-a	281
4.29	Frequency of sub-class CA-b	282
4.30	Frequency of sub-classes LCB-a, CB-a	284
4.31	Frequency of sub-class CB-b	285
4.32	Frequency of sub-classes CB-e5- CB-e6	286
4.33	Frequency of sub-class CB-g	287
4.34	Frequency of class CC	289
5.1	Charsadda sequence layers (36)-(19) with illustration of the vessel forms which have parallels at Barikot	319

## FIGURES

No.		Page
1.1	Modelled calibration distribution at 95,4% confidence level of 14C datings of Gogdara IV and Udegram graves (from Vidale et al. 2016: fig. 232)	8
1.2	Bayesian Sequence related to the BKG 12 W Trench by OXCAL 4.3 ( <a href="https://c14.arch.ox.ac.uk/oxcal.html">https://c14.arch.ox.ac.uk/oxcal.html</a> , Bronk Ramsey C. 2013). In green and red the Boundary Start and Boundary End of phase 1b. In black the radiocarbon ages (elaborated by CIRCE/IAM)	9
1.3	Map showing the main archaeological sites of the Swat and Panjkora Valleys discussed below (elaborated from map by Karel Kriz and Daniel Nell, University of Vienna, Department of Geography and Regional Research)	11
1.4	Aligrama. Sketch map of the archaeological site (Stacul and Tusa 1977: fig. 1)	13
1.5	Aligrama, trench E: plan (after Stacul and Tusa 1977: fig. 2)	15
1.6	Aligrama, trench K: plan (after Stacul and Tusa 1977: fig. 9)	15
1.7	Kalako-derai. Sketch map of the excavated areas on the top of the hill (Stacul 1997: fig. 1)	16
1.8	Sketch map of the area between the Jambil and Saidu Valleys, graphic transposition from an aerial photograph. In red the archaeological site of Butkara I and Barama I, in yellow the archaeological surface evidence. In the background the current urban layout, from a Google Earth image (Iori 2016: fig. 7)	22
1.9	General plan of the IA north of the SP (Faccenna 1981, 4: pl. XXIV)	23
1.10	West-east Section of the two platforms in the terrace of the excavation at Barama, showing the two trial trenches (Faccenna 1964-65: fig. 3)	23
1.11	General plan of the sites of Udegram and Gogdara (after Faccenna and Gullini 1962: pl. XVIII)	25
1.12	Udegram 'Bazar': plan stratum V (ibid: pl. XIX)	28
1.13	General Plan of the archaeological area of Barikot with indication of the excavated trenches	30
1.14	Sketch of the hypothetical sequence of the construction phases of the defensive wall	35
1.15	Balambat, Period III. Plan of the Achaemenid building (Coningham and Young 2015: fig.10.14)	39
1.16	General plan of Pakistan with indication of the main Early Historic sites in Peshawar and Taxila Valleys.	40
1.17	Plan of the location of trenches Ch.I-V (Wheeler 1962) and Ch. III, Ch.VI, Ch.VII, Ch. VIII/IX (Coningham et al. 2007) (Coningham et al. 2007: fig. 1.1)	42
1.18	Plan of the excavated trenches at Shaikhan Dheri (Dani 1965-66: fig. 3)	46
1.19	At left: sketch of Gor kuttree site with indication of the excavated trenches (Durrani 1997: 203). At right: photo of the second deep trench	48
1.20	The cities of Taxila (Wheeler 1950: fig. 7)	50
2.1	Swat period VIII assemblage from Aligrama (Stacul and Tusa 1977: fig. 14). Scale 1:4	57
2.2	Swat period VIII assemblage from Aligrama (Stacul and Tusa 1977: fig. 18). Scale 1:4	58
2.3	Swat period VIII assemblage from Aligrama (Stacul and Tusa 1977: fig.19). Scale 1:4	59
2.4	Sporadic vessels from Aligrama (unpublished, materials stored at the IAM headquarter, Saidu Sharif, Swat)	60
2.5	Aligrama. Trench U', layer (4), room 4. Swat Period VIII. Drawings by E. Iori (unpublished, materials stored at the IAM headquarter, Saidu Sharif, Swat).	61
2.6	Swat period VIII assemblage from Kalako derai (Stacul and Tusa 1993: fig.17.j-o)	62
2.7	Swat period VIII assemblage from Kalako derai (Stacul and Tusa 1995: fig. 24 c-j). Scale 1:4	63
2.8	Swat period VIII assemblage from Kalako derai (Stacul and Tusa 1997: fig. 23 a-f). Scale is not indicated in the original report	63
2.9	Barama, Period 6. Original drawings by P. Callieri (unpublished).	64
2.10	Barama, Period 5. Original drawings by P. Callieri (unpublished)	65
2.11	Barama, Period 4. Original drawings by P. Callieri (unpublished)	66
2.12	Barama, Period 4. Original drawings by P. Callieri (unpublished)	67
2.13	Barama, Period 4. Original drawings by P. Callieri (unpublished)	68
2.14	Barama, Period 3. Original drawings by P. Callieri (unpublished)	69
2.15	Barama, Period 3. Original drawings by P. Callieri (unpublished)	70
2.16	Barama, Period 3. Original drawings by P. Callieri (unpublished)	71
2.17	Barama, Period 3. Original drawings by P. Callieri (unpublished)	72
2.18	Barama, Period 3. Decorated sherds. Original drawings by P. Callieri (unpublished). Not to scale	73
2.19	Udegram 'bazar' stratum V (IAM archive)	74
2.20	Udegram 'bazar' sporadic (IAM archive)	74
2.21	Gogdara III and Udegram 'bazar' (IAM archive)	75
2.22	Black-on Red ware from Indo-Greek period (Callieri 2000: fig.1. a-d)	76
2.23	Trench BKG 1 (Callieri 1994: fig. 1)	77
2.24	Balambat (Dani 1967: 255, fig. 57)	78

No.		Page
2.25	Balambat (Dani 1967: 256, fig. 58)	79
2.26	Balambat (Dani 1967: 257, fig. 59)	80
2.27	Balambat (Dani 1967: 258, fig. 60)	81
2.28	Bala Hisar (Wheeler 1962: fig. 15)	88
2.29	Bala Hisar (Wheeler 1962: fig. 16)	89
2.30	Bala Hisar (Wheeler 1962: fig. 17)	90
2.31	Bala Hisar (Wheeler 1962: fig. 18)	91
2.32	Bala Hisar (Wheeler 1962: fig. 19)	92
2.33	Bala Hisar (Wheeler 1962: fig. 20)	93
2.34	Bala Hisar (Wheeler 1962: fig. 21)	94
2.35	Bala Hisar (Wheeler 1962: fig. 22)	95
2.36	Bala Hisar (Wheeler 1962: fig. 23)	96
2.37	Bala Hisar (Wheeler 1962: fig. 24)	97
2.38	Bala Hisar (Wheeler 1962: fig. 25)	98
2.39	Bala Hisar (Wheeler 1962: fig. 26)	99
2.40	Bala Hisar (Wheeler 1962: fig. 27)	100
2.41	Bala Hisar (Wheeler 1962: fig. 28)	101
2.42	Bala Hisar (Wheeler 1962: fig. 29)	102
2.43	Bala Hisar (Wheeler 1962: fig. 46)	103
2.44	Bala Hisar (Wheeler 1962: fig. 47)	104
2.45	Bala Hisar (Wheeler 1962: fig. 48)	105
2.46	Bala Hisar (Wheeler 1962: fig. 49)	106
2.47	Bala Hisar (Wheeler 1962: fig. 50)	107
2.48	Bala Hisar (Wheeler 1962: pl. XIX)	108
2.49	Shaikhan Dheri (Dani 1965-66: fig. 10)	110
2.50	Shaikhan Dheri (Dani 1965-66: fig. 11)	111
2.51	Shaikhan Dheri (Dani 1965-66: fig. 12)	112
2.52	Shaikhan Dheri (Dani 1965-66: fig. 13)	113
2.53	Shaikhan Dheri (Dani 1965-66: fig. 14)	114
2.54	Shaikhan Dheri (Dani 1965-66: fig. 15)	115
2.55	Shaikhan Dheri (Dani 1965-66: fig. 16)	116
2.56	Shaikhan Dheri (Dani 1965-66: fig. 17)	117
2.57	Shaikhan Dheri (Dani 1965-66: fig. 18)	118
2.58	Shaikhan Dheri (Dani 1965-66: fig. 19)	119
2.59	Shaikhan Dheri (Dani 1965-66: fig. 20)	120
2.60	Shaikhan Dheri (Dani 1965-66: fig. 21)	121
2.61	Bhir Mound stratum IV (Marshall 1951: pls 121-123, 128)	124
2.62	Bhir Mound, stratum III (Marshall 1951: pls 122-124, 126-128)	124
2.63	Bhir Mound Stratum II (Marshall 1951: pls 121-123)	125
2.64	Bhir Mound Stratum II (Marshall 1951: pls 123-128, 130)	126
2.65	Bhir Mound, stratum I (Marshall 1951: pls 126, 128, 130, 204)	127
2.66	Bhir Mound, Period I (Sharif 1969: fig. 10)	129
2.67	Bhir Mound, Period I (Sharif 1969: fig. 11)	130
2.68	Bhir Mound, Period II (Sharif 1969: fig. 12)	131
2.69	Bhir Mound, Period II (Sharif 1969: fig. 13)	132
2.70	Bhir Mound, Period II (Sharif 1969: fig. 14)	133
2.71	Bhir Mound, Period III (Sharif 1969: fig. 15)	134
2.72	Bhir Mound, Period III (Sharif 1969: fig. 16)	135
2.73	Bhir Mound, Period III (Sharif 1969: fig. 17)	136
2.74	Bhir Mound, Period III (Sharif 1969: fig. 18)	137
2.75	Bhir Mound, Period III (Sharif 1969: fig. 19)	138
2.76	Bhir Mound, Period IV (Sharif 1969: fig. 20)	139
2.77	Bhir Mound, Period IV (Sharif 1969: fig. 21)	140
2.78	Bhir Mound, Period IV (Sharif 1969: fig. 22)	141
2.79	Bhir Mound, Period IV (Sharif 1969: fig. 23)	142
2.80	Bhir Mound, Decorative and stone ware (Sharif 1969: fig. 24)	143
2.81	Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 8)	145
2.82	Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 9)	146
2.83	Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 10)	147
2.84	Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 11)	148
2.85	Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 12)	149
2.86	Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 13)	150
2.87	Bhir Mound, Period II (Bahadar Khan et al. 2002: fig. 14)	151
2.88	Bhir Mound, Period III (Bahadar Khan et al. 2002: fig. 15)	152

No.		Page
2.89	Bhir Mound, Period III (Bahadar Khan et al. 2002: fig. 16)	153
2.90	Bhir Mound, Period III (Bahadar Khan et al. 2002: fig. 17)	154
2.91	Bhir Mound, Period III (Bahadar Khan et al. 2002: fig. 18)	155
2.92	Bhir Mound, Period III (Bahadar Khan et al. 2002: fig. 19)	156
2.93	Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 20)	157
2.94	Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 21)	158
2.95	Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 22)	159
2.96	Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 23)	160
2.97	Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 24)	161
2.98	Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 25)	162
2.99	Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 26)	163
2.100	Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 27)	164
2.101	Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 28)	165
2.102	Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 29)	166
2.103	Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 30)	167
2.104	Bhir Mound, Period IV (Bahadar Khan et al. 2002: fig. 31)	168
2.105	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 32)	169
2.106	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 33)	170
2.107	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 34)	171
2.108	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 35)	172
2.109	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 36)	173
2.110	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 37)	174
2.111	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 38)	175
2.112	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 39)	176
2.113	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 40)	177
2.114	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 41)	178
2.115	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 42)	179
2.116	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 43)	180
2.117	Bhir Mound, Period V (Bahadar Khan et al. 2002: fig. 44)	181
2.118	Bhir Mound, Period II and III (Bahadar Khan et al. 2002: fig. 45)	182
2.119	Bhir Mound, Period II and III (Bahadar Khan et al. 2002: fig. 46)	183
3.1	Barikot, general map.	187
3.2	a: general plan of the archaeological area of the SW quarters of the ancient settlement at Barikot (after Olivieri et al. 2015: fig.1); b: trench BKG 12E, final plan; c: cross-section AA'	188
3.3	General plan of part of the S stretch of the defensive wall. Position of trench BKG L and of the nearby trenches BKG 3 and BKG M	190
3.4	a: structure [s] of Period I below the defensive wall [a]; structures of Period II in the SW sector of the trench; c: wall [c] in front of the bastion [b]	191
3.5	General plan of the excavated areas of the W terrace of Barikot hill: trenches BKG 7-8-9.	192
3.6	Trench BKG 7: N-S cross-section and plan (Callieri et al. 2000: fig. 2)	193
3.7	Trench BKG 9: N-S cross-section and plan (Callieri et al. 2000: fig. 12)	195
3.8	Trench BKG 8: N-S cross-section (Callieri et al. 2000: fig. 6)	195
3.9	Terracotta figurines/plaque from Macrophase 3a. a, Inv. BKG 3428; b, Inv. BKG 3793; c, Inv. BKG 3713; d, Inv. BKG 3768	199
3.10	a-c: square local coins (a, Inv. BKG 3398; b, Inv. BKG 3535; c, Inv. BKG 3598); d: Mauryan coin (Inv. BKG 3814); e: Antialkidas (Inv. BKG 3487); f: Antialkidas (Inv. BKG 3534); g: Menander I Soter (Inv. BKG 3482); h Apollodotus II (Inv. BKG 3483)	199
3.11	Inscription on potsherds from Macrophases 3a. a, Inv. BKG 3432; b, Inv. BKG 3985; c, Inv BKG 3634	200
3.12	Bayesian Sequence related to the BKG K-105 phase by OXCAL 4.3 ( <a href="https://c14.arch.ox.ac.uk/oxcal.html">https://c14.arch.ox.ac.uk/oxcal.html</a> , Bronk Ramsey C. 2013). In green and red the Boundary Start and Boundary End respectively of each phase within trenches. In black the radiocarbon ages (elaborated by CIRCE)	202
3.13	General map of the south-west sector of the urban site of Barikot with the location of trench BKG 11 K-105 (after Olivieri et al. 2014: plate V)	203
3.14	Plans, Trench BKG K-105 (a: IIA1; b: IIA2; c: IIIA2; d: IIIA3; e: IIIA4)	204
4.1	Fine fabrics	220
4.2	Coarse fabrics	221
4.3	Coarse fabrics	222
4.4	Traces of manufacturing technologies	223
4.5	Traces of manufacturing technologies	224
4.6	Traces of manufacturing technologies	225
4.7	Circular lines and impressions on the upper surface of pot-stands.	226
4.8	Tree diagram representing the first two levels of the morphological classification (categories: C, O; classes: LCA, CA, sCA, etc.)	228

No.		Page
4.9	Tree diagram representing the fourth and the fifth levels of the morphological classification, Large dishes (LOA)	229
4.10	Vessel from BKG K-105 and BKG L. a: <b>89</b> ; b: <b>683</b> ; c: <b>674</b> ; d: <b>2</b> ; e: <b>3</b> ; f: <b>254</b> ; g: <b>74</b> ; h: <b>6</b>	300
4.11	<i>Plats-à-poisson</i> from BKG K-105 (a-c) and Tulip bowl from BKG L (d: <b>96</b> )	301
4.12	<i>Krater</i> -like vessels from BKG L (a: <b>32</b> ) and BKG K-105 (b: <b>658</b> )	301
4.13	a: multi-spouted flask ( <b>65</b> ); b: lid ( <b>58</b> ); c-d: handles of cooking pot ( <b>440</b> ); e: pottery-ring ( <b>67=251</b> ); f: reduction lid from BKG 12W (see <b>48</b> )	302
4.14	a: Black-on-red painted Ware from BKG K-105, Period IIA2 ( <b>408</b> ); b: Lotus impression from BKG K-105, period IIIA2 ( <b>BKG3725</b> )	303
4.15	Cooking-stand or <i>λάσανα</i> (lásana), from BKG L, layer (10) ( <b>232</b> )	303

## PLATES

No.		Page
I	General map of Central Asia with indication of the area focus of this research. In red the archaeological sites treated in this research.	xxi
1	Macrophases 2b-3a	348
2	Macrophase 3a	350
3	Macrophases 2a.2-3a	352
4	Macrophase 3a	354
5	Macrophases 2a.2-3a	356
6	Macrophase 3a	358
7	Macrophase 3a	360
8	Macrophases 2b-3a	362
9	Macrophases 2a.2-3a	364
10	Macrophase 2a.2	366
11	Macrophases 2a.2, 3a	368
12	Macrophase 3a	370
13	Macrophase 3a	372
14	Macrophase 3a	374
15	Macrophases 2a.2, 3a	376
16	Macrophase 2a.2	378
17	Macrophases 2a.2-3a	380
18	Macrophases 2a.2-3a	382
19	Macrophases 2a.2-3a	384
20	Macrophase 3a	386
21	Macrophases 2a.2, 3a	388
22	Macrophase 3a	390
23	Macrophases 2a.2, 3a	392
24	Macrophases 2a.2, 3a	394
25	Macrophase 2a.2	396
26	Macrophases 2a.2, 3a	398
27	Macrophase 2a.2	400
28	Macrophases 2a.2, 3a	402
29	Macrophases 2a.2, 3a	404
30	Macrophase 3a	406
31	Macrophase 3a	408
32	Macrophase 3a	410
33	Macrophases 2a.2, 3a	412
34	Macrophase 2a.2	414
35	Macrophases 2a.2	416
36	Macrophases 2b-3a	418
37	Macrophase 3a	420
38	Macrophase 3a	422
39	Macrophase 3a	424
40	Macrophase 3a	426
41	Macrophases a.2, 3a	428
42	Macrophases 2a.2, 3a	430
43	Macrophase 3a	432
44	Macrophases 2b-3a	434
45	Macrophase 3a	436
46	Macrophases 2b-3a	438

No.		Page
47	Macrophases 2a.2-3a	440
48	Macrophase 3a	442
49	Macrophases 2a-3a	444
50	Macrophases 2a-3a	446
51	Macrophases 2a-3a	448
52	Macrophases 2a.2-3a	450
53	Macrophases 2a.2-3a	452
54	Macrophases 2b-3a	454
55	Macrophase 3a	456
56	Macrophases 2a-3a	458
57	Macrophase 3a	460
58	Macrophase 3a	462
59	Macrophase 3a	464
60	Macrophase 3a	466
61	Macrophase 3a	468
62	Macrophases 2a.2-3a	470
63	Macrophase 3a	472
64	Macrophases 2a.2-3a	474
65	Macrophases 2a-3a	476
66	Macrophases 2a.2-3a	478
67	Macrophases 2a.2-3a	480
68	Macrophase 3a	482
69	Macrophases 2b-3a	484
70	Macrophase 2a.2	486
71	Macrophase 2a	488
72	Macrophases 2b-3a	490
73	Macrophase 3a	492
74	Macrophase 3a	494
75	Macrophase 3a	496
76	Macrophase 3a	498
77	Macrophases 2a.2-3a	500
78	Macrophases 2a.2-3a	502
79	Macrophases 2a.2-3a	504
80	Macrophases 2a.2-3a	506
81	Macrophases 2a.2 – 3a	508
82	Macrophases 2a.2-3a	510
83	Macrophases 2b-3a	512
84	Macrophases 2a.2-3a	514
86	Macrophases 2a.2-3a	516
86	Macrophases 2a.2, 3a	518

## REFERENCES

- Adams, W.Y and Adams, E.W. (1991) *Archaeological Typology and Practical Reality: A Dialectical Approach to Artifact Classification and Sorting*, New York.
- Agrawala, R.C. (1976) A newly discovered sherd from Sonkh and the Kinnari pot from Begram. *East and West*, 26: 341-342.
- Agrawala, V.S. (1953) *India as Known to Pānini: A Study of the Cultural Material in the Ashtādhyāyī*, Lucknow.
- Alessio, M., Bella, F., Bachechi, F. and Cortesi, C. (1966) University of Rome Carbon-14 Dates IV. *Radiocarbon*, 8: 401-412.
- Ali, I. (1994) Settlement History of Charsadda District. *Ancient Pakistan*, 9: 1-164.
- Ali, I. (2003) Early Settlements, Irrigation and Trade-Routes in Peshawar Plain, Pakistan. *Frontier Archaeology*, 1: 1-289.
- Ali, I. and Naeem Qazi, M. (2008) *Gandharan Sculptures in the Peshawar Museum (Life Story of Buddha)*, Manshera.
- Allchin, F.R. (1959) Poor men's *thālīs*. A Deccan potter's technique. *Bulletin of the School of Oriental and African Studies*, 22: 250-257.
- Allchin, F.R. (1960) Review of Rydh 1959. *Bulletin of the School of Oriental and African Studies*, 23, 2: 406.
- Allchin, F.R. (1978) The archaeological significance of a modern Indian potter's technique. In D. Chattopadhyaya, ed., *History and Society. Essays in Honour of Prof. Niharranjan Ray*, Calcutta: 1-14.
- Allchin, F.R. (1982) How old is the city of Taxila? *Antiquity*, 65, 216: 8-14.

Allchin, F.R. (1989) City and state formation in Early Historic South Asia. *South Asian Studies*, 5: 1-16.

Allchin, B. and Allchin, F.R. (1982) *The Rise of Civilization in India and Pakistan*, Cambridge.

Bagnera, A. (2015) *The Ghaznavid Mosque and the Islamic Settlement at Mt. Rāja Gīrā. Udegram*. ACT Reports and Memoirs, V, Lahore.

Bahadar Khan, M., Hassan, M., Habibullah Khan Khattak, M., Faiz-ur-Rehman and Aqleem Khan, M. (2002) *Bhir Mound: The First City of Taxila (Excavations Report 1998-2002)*, Lahore.

Bernard, P. (1985) *Fouilles d’Ai Khanoum IV. Les monnaies hors trésors, question d’histoire gréco-bactrienne*, Memoires de la Délégation Archéologique Française en Afghanistan, 28, Paris.

Bernard, P. (1987) Les Indiens de la liste des tributs d’Hérodote. *Studia Iranica*, 16: 177-91.

Bernard, P., Pinault, G.-J. and Rougemont, G. (2004) Deux nouvelles inscriptions grecques de l’Asie Centrale. *Journal des Savants* (juillet-décembre): 227-356.

Bernhardt, W. (1969) Preliminary report on the human skeletal remains from the prehistoric cemetery of Sarai Khola. *Pakistan Archaeology*, 6: 100-15.

Berthelot, A. (1930) *L’Asie ancienne centrale et sud-orientale d’après Ptolémée*, Paris.

Bivar, A.D.H. (1988) The Indus Lands. In J. Boardman, N.G.L. Hammond, D.M. Lewis and M. Oswald, eds., *The Cambridge Ancient History: Persia, Greece and the western Mediterranean, c. 525 to 479 B.C*, 4, Cambridge: 194-210.

Bopearachchi, O. (1991) *Monnaies gréco-bactriennes et indo-grecques. Catalogue raisonné*, Paris.

Bosworth, A.B. (1995) *A Historical Commentary on Arrian's History of Alexander*, 2, *Commentary on Books IV-V*, Oxford.

Bosworth, A.B. (1996) *Alexander and the East*, Oxford.

Briant, P. (1982) *Rois, tributs et paysans: études sur les formations tributaires du Moyen-Orient ancien*, Paris.

Briant, P. (1997) Note d'histoire militaire achéménide. À propos des éléphants de Darius III. In P. Brulé and J. Oulhen, eds., *Esclavage, guerre économie en Grèce Ancienne. Hommages à Yvon Garlan.*, Rennes: 177-190.

Briant, P. (2002) *From Cyrus to Alexander: a history of the Persian Empire*, Winona Lake.

Briant, P., Henkelman, W. and Stolper, M.W.S., eds., (2008) *L'archive des Fortifications de Persépolis. État des questions et perspectives de recherches (Persika 12)*, Paris.

Callieri, P. (1984) A Potsherd with a Greek Inscription from Bir-kot (Swat). *Journal of Central Asia*, 7, 1: 49-53.

Callieri, P. (1989) *Saidu Sharif I (Swāt, Pakistan)*, 1. *The Buddhist Sacred Area, The Monastery*, ISMEO Reports and Memoirs XXIII, 1, Rome.

Callieri, P. (1990) Archaeological Activities at Bīr-kot-ghwandai, Swāt: A Contribution to the Study of the Pottery of Historic Age from N.W.F.P. In P. Callieri and M. Taddei, eds., *South Asian Archaeology 1987*, Serie Orientale Roma, 66, 2, Rome: 675-692.

Callieri, P. (1993a) Ranneistoricheskij Svāt: primer akkul'turacii? *Vestnik Drevnej Istorii*, 2 :131-136.

Callieri, P. (1993b) Excavations of the IsMEO Italian Archaeological Mission at the Historic Settlement of Bir-kot-ghwandai, Swat, Pakistan: 1990-91 Campaign. In A.J. Gail and G. J. R. Mevissen, eds., *South Asian Archaeology 1991*, Stuttgart: 339-348.

Callieri, P. (1995) The North-West of the Indian subcontinent in the Indo-Greek Period: the Archaeological Evidence. In A. Invernizzi, ed., *In the Land of the Gryphons* (Monografie di *Mesopotamia*), Firenze: 293-308.

Callieri, P. (1996) Margiana in the Hellenistic Period: problems of archaeological interpretation. In E. Acquaro, ed., *Alle soglie della classicità. Il Mediterraneo tra tradizione e innovazione. Studi in onore di Sabatino Moscati*, 2, Pisa-Roma: 569-578.

Callieri, P. (1997) *Seals and Sealings from the North-West of the Indian Subcontinent and Afghanistan (4th Century BC - 11th Century AD). Local, Indian, Sasanian, Graeco-Persian, Sogdian, Roman*, with contributions by E. Errington, R. Garbini, Ph. Gignoux, N. Sims-Williams, W. Zwalf (Dissertationes, 1), Istituto Universitario Orientale Naples.

Callieri, P. (2000) Decorated Pottery from the IsIAO Excavations at Bīr-koṭ-ghwanḍai (Swat, Pakistan, 2nd cent. B.C.-15th cent. AD). In M. Taddei and G. De Marco, eds., *South Asian Archaeology 1997*, Serie Orientale Roma, 90, 2, Rome: 857-876.

Callieri, P. (2002) Gli Indo-Greci nel Pakistan settentrionale. In P. Callieri and A. Filigenzi, eds., *Il Maestro di Saidu Sharif. Alle origini dell'arte del Gandhara. Museo nazionale d'arte orientale, Roma, Palazzo Brancaccio, 18 aprile - 21 luglio*, Roma: 47-55.

Callieri, P. (2004) s.v. India, iii: Political and cultural relations, Achaemenid period. *Encyclopaedia Iranica*, 13: 10–3.

Callieri, P. (2007) Barikot, An Indo-Greek Urban Center in Gandhāra. In D.M. Srinivasan, ed., *On the Cusp of an Era. Art in the Pre-Kuśāṇa World*, Leiden- Boston: 133-164.

Callieri, P. (2010) Bīr-koṭ-ghwaṇḍai in the Post-Kushan Period. In M. Alram, D. Klimburg-Salter, M. Inaba and M. Pfisterer, eds., *Coins, Art and Chronology II. The First Millennium CE in the Indo-Iranian Borderlands*, Denkschriften der philosophisch-historischen Klasse 412/Veröffentlichungen der Numismatischen Kommission, 50, Wien: 371-387.

Callieri, P. (2014) Margiana in the Hellenistic Period: Again on problems of Archaeological Interpretation. In C.C. Lamberg-Karlovsky and B. Genito, eds., *'My Life is like the Summer Rose' Maurizio Tosi e l'Archeologia come modo di vivere. Papers in honour of Maurizio Tosi for his 70<sup>th</sup> birthday*, BAR International Series 2690, Oxford: 59-62.

Callieri, P., Faccenna, D. and Filigenzi, A. (1984) Pakistan 1. Excavations and Researches in the Swat Valley – Bīr-koṭ-ghwaṇḍai. *East and West*, 34, 4: 493-500.

Callieri, P., Filigenzi, A. and Stacul, G. (1990) Bir-Kot-Ghwandai, Swat: 1987 Excavation Campaign. *Pakistan Archaeology*, 25: 183-192.

Callieri, P., Brocato, P., Filigenzi, A., Nascari, M. and Olivieri, L.M. (1992) *Bīr-koṭ-ghwaṇḍai 1990-1992. A Preliminary Report on the Excavations of the Italian Archaeological Mission, IsMEO*, *Annali dell'Istituto Universitario Orientale di Napoli*, 52, 4, Suppl. 73, Napoli.

Callieri, P., Colliva, L., Micheli, R., Abdul Nasir and Olivieri, L.M. (2000) Bīr-koṭ-ghwaṇḍai, Swāt, Pakistan. 1998-1999 Excavation Report. *East and West*, 50, 1-4: 191-226.

Callieri, P., Colliva, L. and Nasir A. (2000-2001) Bir-kot-ghwandai, Swat, Pakistan. Preliminary Report on the Autumn 2000 Campaign of the IsIAO Italian Archaeological Mission in Pakistan. *Annali dell'Istituto Universitario Orientale di Napoli*, 60-61, Naples: 215-32.

Callieri, P. and Olivieri, L.M. (forth.) *Ceramics from the Excavations in the Historic Settlement at Bīr-koṭ-ghwaṇḍai (Barikot), Swat, Pakistan (1984-1992)*.

Canali De Rossi, F. (2004) *Iscrizioni dello Estremo Oriente Greco. Un repertorio. Inschriften griechischer Städte aus Kleinasien*, 65, Bonn.

Cardona, G. (1976) *Pāṇini: a survey of research*, The Hague.

Casal, J.-M. (1961) *Fouilles de Mundigak*. Memoires de la Délégation Archéologique Française en Afghanistan, 17, 1-2, Paris.

Cattenat, A. and Gardin, J-C. (1977) Diffusion comparée de quelques genres de poterie caractéristiques de l'époque achéménide sur le Plateau Iranien et en Asia centrale. In J. Deshayes, ed., *Le Plateau Iranien et l'Asie Centrale des origines a la conquête Islamique*, Paris: 225-248.

Charpentier, J. (1930-1932) Antiochus king of the Yavanas. *Bulletin of the School of Oriental Studies*, 6: 303-321.

Colliva, L. (2011) The Excavation of the Archaeological Site of Barikot (Bīr-koṭ-ghwaṇḍai) and its Chronological Sequence. In Ghani-ur-Rahman and L.M. Olivieri, eds., *Italian Archaeology and Anthropology in Northern Pakistan (1955-2011)*, *Journal of Asian Civilizations*, Special Issue 34, 1: 157-191.

Coloru, O. (2009) *Da Alessandro Magno a Menandro: il regno greco di Battriana*, Pisa-Roma.

Coningham, R. and Ali, I. (2007) *Charsadda. The British-Pakistani Excavations at the Bala Hisar*, Society for South Asian Studies Monograph No 5. BAR, International Series, 1709, Oxford.

Coningham, R. and Young, R. (2015) *The Archaeology of South Asia. From the Indus to Asoka, c. 6500 BCE-200 CE*, Cambridge World Archaeology, Cambridge.

Cunningham, A. (1872 [2000]) *Archaeological Survey Reports, Vol.II. Archaeological Survey of India*, Delhi.

Cuomo di Caprio, N. (2008) *La Ceramica in Archeologia. 2. Antiche tecniche di lavorazione e moderni metodi di indagine*, Roma.

Daffinà, P. (1975) *Elementi di geografia ed etnografia storiche dell'Asia interna, desunti dalle fonti classiche, dispense di storia dell'Asia centrale, a.a. 1974-1975*, Roma (unpressed).

Daffinà, P. (1977) India e mondo classico. Nuovi risultati e prospettive. *Annali della facoltà di Lettere e Filosofia dell'Università di Macerata*, 10: 10-33.

Daffinà, P. (1995) Le relazioni tra Roma e l'India alla luce delle più recenti indagini. *Conferenze IsMEO*, Roma.

Dales, G.F. (1977) *New Excavations at Nad-i Ali (Sorkh Dagh), Afghanistan*. Centre for South and South-East Studies, 16, Berkeley.

Dani, A.H. (1965-66) Shaikhan Dheri Excavation. 1963 & 1964 seasons. *Ancient Pakistan*, 2: 17-214.

Dani, A.H. (1967) Timargarha and Gandhara Grave Culture. *Ancient Pakistan*, 3: 1-407.

Dani, A.H. (1986) *The Historical City of Taxila*, Lahore.

Di Florio, M.R., Lorenzoni, S., Zanettin Lorenzoni, E. and Olivieri L.M. (1993) Evidence on Ancient Stone Quarrying in Lower Swat, NWFP, Pakistan. A Geo-archaeological study. *Science and Technology for Cultural Heritage*, 2: 63-74.

Dichter, D. (1967) *The North-West frontier of West Pakistan. A study in regional geography*, Oxford.

Dikshit, K.N. (1983) *Excavations at Hulas (19787-1983). From Harappan times to Early Medieval*. Archaeological Survey of India, New Delhi.

Dittmann, R. (1984) Problems in the Identification of an Achaemenian and Mauryan Horizon in North-Pakistan. *Archäologische Mitteilungen aus Iran*, 17: 155-193.

Dittmann, R. (2008) The Importance of Pottery in Archaeology – What we know about pottery and what we would like to know. Opening Speech, International Workshop on the North Jordanian Plateau during Late Bronze and Iron Ages based on Ceramic Studies (30 October-1st November 2008), Münster [unpublished, [www.academia.edu](http://www.academia.edu)].

Durrani, F.A., Ali, T. and Rehman, I. (1997) Excavation at Gor Khuttree - A Preliminary Note. *Athariyyat (Archaeology): a Research Bulletin of the National Heritage Foundation, Peshawar, Pakistan*, 1: 185-212.

Dusinberre, E. R. M. (1999) Satrapal Sardis: Achaemenid Bowls in an Achaemenid Capital. *American Journal of Archaeology*, 103, 1: 73-102.

Dyson Jr., R. H. (1999) The Achaemenid painted pottery of Hasanlu IIIA. *Anatolian Studies*, 49 (Anatolian Iron Ages 4, Proceedings of the Fourth Anatolian Iron Ages Colloquium, Mersin, 19-23 May 1997): 101-110.

Eggermont, P.H.L. (1965-1966) New notes on Aśoka and his Successors. *Persica*, 2: 27-70.

Erdosy, G. (1990) Taxila: Political History and Urban Structure. In P. Callieri, M. Taddei, eds., *South Asian Archaeology 1987*, Serie Orientale Roma, 66, 2, Rome: 657-674.

Fabrégues, C. (2006) Taxila earrings of Achaemenid derivation. *Journal of Inner Asian Art and Archaeology*, 1: 71–79.

Faccenna, D. (1964) *A Guide to the Excavations in Swat (Pakistan) 1956-1962*, Rome.

Faccenna, D. (1964-65) Preliminary Report on the 1963 Excavation Campaign of Barama I (Swat-Pakistan). *East and West*, 15, 1-2: 7-23.

Faccenna, D. (1980-81) *Butkara I (Swāt-Pakistan), 1956-1962*. IsMEO Reports and Memoirs, 3, 1-5, Rome.

Faccenna, D. and Gullini, G. (1962) *Mingora: Site of Butkara I. Udegram*, IsMEO Reports and Memoirs, 1, Rome.

Ferreras Martínez, V., Ariño Gil, E., Gurt Esparraguera, J.M. and Pidaev, S. (2014) The enclosure of Tchingiz-Tepe (Ancient Termez, Uzbekistan) during the Kushan and Kushan-Sassanian periods. Archaeological stratigraphy and 14C dating analyses. *Iranica Antiqua*, 49: 736-764.

Ferreras Martínez, V., Gurt Esparraguera, J.M., Hein, A., Pidaev, S. and Rtveladze, E.V. (2016) Tableware in the Hellenistic tradition from the city of Kampyr Tepe in ancient Bactria (Uzbekistan). *Archaeometry*, 58, 5: 736-764.

Ferreras Martínez, V., Angourakis, A., Hein, A., Gurt Esparraguera, J.M., Sverchkov, L.M. and Sánchez Del Corral, A. (2016) Pottery in Hellenistic tradition from ancient Bactria: The Kurganzol fortress (Uzbekistan, Central Asia). *Journal of Archaeological Sciences*, 10 (available online 30 December 2016).

Filigenzi, A. (2015) *Art and Landscape. Buddhist Rock Sculpture of Late Antique Swat/Uḍḍiyāna*. With contributions by L.M. Olivieri and P. Rockwell. Österreichische Akademie der Wissenschaften, Philosophisch-Historische Klasse Denkschriften, 462, Wien.

Filliozat, J. and Renou, J. (1947) *L'Inde Classique: manuel des études indiennes*, Paris.

Fleming, D. (1982) Achaemenid Sattagydia and the geography of Vivana's campaign (DB III, 54-75). *Journal of the Royal Asiatic Society*, 1: 102-122.

Fleming, D. (1993) Where was the Achaemenid India? *Bulletin of the Asia Institute*, 7: 67-72.

Foucher, A. (1939) La Nicée d'Afghanistan. *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres*, 83: 435-47.

Foucher, A. (1942) *La vieille route de l'Inde de Bactres à Taxila*, 1-2, Paris.

Francfort, H.P. (1979) *Les palettes du Gandhāra*. Mémoires de la Délégation Archéologique Française en Afghanistan, 23, Paris.

Francfort, H.P. (1988) Central Asia and Eastern Iran. In J. Boardman, N.G.L. Hammond, D.M. Lewis and M. Oswald, eds., *The Cambridge Ancient History: Persia, Greece and the western Mediterranean, c. 525 to 479 B.C*, 4, Cambridge: 165-193.

Fussman, G. (1972) Intailles et empreintes indiennes du Cabinet des Médailles de Paris. *Revue Numismatique*, 6, 14: 21-47.

Fussman, G. (1993a) Taxila: the Central Asian Connection. In H. Spodek and D.M. Srinivasan, eds., *Urban Form and Meaning in South Asia: the Shaping of Cities from Prehistoric to Precolonial Times*, Washington, D.C.: 83-100.

Fussman, G. (1993b) L'indo-Grec Ménandre ou Paul Demièville revisité. *Journal Asiatique*, 281: 61-137.

Gardin, J.-C. (1957) *Céramiques de Bactres*. Mémoires de la Mission archéologique Française en Afghanistan, XV, Paris.

Gardin, J.-C. (1973) Les céramiques. In P. Bernard, ed., *Fouilles d'Aï Khanoum, I (Campagnes 1956, 1966, 1967, 1968)*, Mémoires de la Mission archéologique Française en Afghanistan, 21, Paris.

Gardin, J.-C. (1985) Les relations entre la Méditerranée et la Bactrine dans l'antiquité, d'après des données céramologiques inédites. In J. Deshayes, ed., *De l'Indus aux*

*Balkans*, Paris: 447-460.

Gardin, J.-C. (1990) La céramique hellénistique en Asie Centrale. Problèmes d'interprétation. In *Akten des XIII. internationalen Kongresses für klassische Archäologie, Berlin 1988*, Deutsches Archäologisches Institut, Mainz am Rhein: 187-193.

Garrick, H.W.B. (1885) Report on A Tour Through Behar, Central India, Peshawar and Yusufzai in 1881-1882. *Archaeological Survey of India Reports, 19*, New Delhi.

Gaur, R.C. (1983) *Excavations at Atranjīkherā. Early Civilization of The Upper Gaṅgā Basin*, Delhi.

Genito, B. (1986) Dahan-I Ghulaman: una città achemenide tra centro e periferia dell'impero. *Oriens Antiquus*, 25, 3-4: 287-317.

Genito, B. (1990) The most frequent Pottery Types at Dahān-e Gholāmān (Sistan) and Their Spatial Variability. In P. Callieri and M. Taddei, eds., *South Asian Archaeology 1987*, Serie Orientale Roma, 66, 2, Rome: 587-604.

Genito, B. (2010) The Achaemenid Empire as seen as from its Eastern Periphery: the Case of Dahan-I Ghulaman in Sistan. Forty years later, a Preliminary Revision Data. 6 *ICAANE, International Congress on Archaeology of Ancient Near East*, (5-10 May 2008): 77-92.

Ghani-ur-Rahman and Olivieri L.M., eds, (2011) *Journal of Asian Civilization*, Special issue, 34.

Ghosh, A. (1947-1948) Taxila (Sirkap) 1944-5. *Ancient India*, 4: 66-79.

Giovinazzo, G. (1994) Les documents de voyage dans les textes de Persepolis. *Annali dell'Istituto Universitario Orientali di Napoli*, 54, 1: 18-31.

Göbl, R. (1976) *A Catalogue of Coins from Butkara I (Swat, Pakistan)*, IsMEO Reports and Memoirs, 4, Rome.

Greenfield, J. C. (1985) Aramaic in the Achaemenian Empire. *The Cambridge History of Iran*, 2, Cambridge: 698-713.

Halim, M.A. (1970-71) Excavations at Sarai Khola. *Pakistan Archaeology*, 7: 23-89.

Harmatta, J. (1994) Greek language and script in Central Asia. In J. Harmatta, ed., *History of Civilizations of Central Asia II. The Development of Sedentary and Nomadic Civilizations: 700 BC to AD 250*, Paris: 405-408.

Härtel, H. (1993) *Excavations at Sonkh*, Monographien zur indischen Archäologie, Kunst und Philologie, 9, Berlin.

Helms, S.W. (1997) *Excavations at Old Kandahar 1976 and 1977 Conducted on Behalf of the Society for South Asian Studies (Society for Afghan Studies): Stratigraphy, Pottery and Other Finds*, Society for South Asian Studies Monograph 1. BAR, International Series, 686, Oxford.

Henckelman, W. (2017) Imperial Signature and Imperial Paradigm Achaemenid administrative structure and system across and beyond the Iranian plateau. In B. Jacobs, W.F.M. Henckelman and M.W. Stolper, eds., *Die Verwaltung im Achämenidenreich – Imperiale Muster und Strukturen / Administration in the Achaemenid Empire – Tracing the Imperial Signature*, *Classica et Orientalia*, 17, Wiesbaden: 45-256.

Houal, J.B. (2016) The Hellenistic Period through the Ceramics of Termez (Uzbekistan) and Balkh (Afghanistan). In S. Japp and P. Kögler, eds., *Traditions and Innovations. Tracking the Development of Pottery from the Late Classical to the Early Imperial Periods*, Wien: 465-478.

Houal, J.B. and LeMaguer, S. (2013). La céramique de Termez des époques antique et médiévale. In J. Bendezu-Sarmiento, ed., *L'Archéologie Française en Asie Centrale. Nouvelles recherches et enjeux socioculturels*, Cahiers d'Asie Centrale 21/22, Paris-

Bichkek-Kaboul: 423-442.

Hultzsch, E. (1925) Inscriptions of Asoka. New Edition. In *Corpus Inscriptionum Indicarum*, 1, Oxford.

Husain, J. (1980) *Shaikhan Dheri Pottery: A Methodological and Interpretative Approach*, PhD Dissertation, University of Cambridge (unpressed).

Husain, J. (1993) Evolution of pottery types at Shaikhan Dheri. *Journal of Pakistan Archaeologists' Forum*, 2/1-2: 176-240.

Iori, E. and Olivieri, L.M. and Afridi, A. (2015) Urban defenses at Bīr-koṭ-ghwaṇḍai, Swat (Pakistan). Data from the 2015 excavation campaign. *Pakistan Heritage*, 7: 73-94.

Iori, E. and Olivieri, L.M. (2016) The Early-Historic Urban Area at Mingora in the light of Domenico Faccenna' Excavations at Barama - I (Swat). *Frontier Archaeology*, 7: 99-112.

Jacobs, B. (1994) *Die Satrapienverwaltung im Perserreich zur Zeit Darius' III*, Wiesbaden.

Jarrige, J.-F and Santoni, M. (1979) Fouilles de Pirak Volume I: Texte. *Fouilles de Pakistan*, 2, Paris.

Kenoyer, J.M. (1997) Early City-State in South Asia, Comparing the Harappan Phase and Early Historic Period. In T.H. Charlthton and D.L. Nichols, eds., *The Archaeology of City-states: Cross-cultural Approaches*, Washington: 51-70.

Kenoyer, J.M. (2006) New Perspectives on the Mauryan and Kushana Periods. In P. Olivelle, ed., *Between the Empire. Society in India 300BCE to 400 CE*, Oxford: 33-49.

Khan, G.M. (1983) Hathial excavation: a preliminary account. *Journal of Central Asia*, 6, 2: 35-44.

Kintigh, K.W. (2006) Ceramic Dating and Type Associations. In J.L. Hantman and R. Most, eds., *Managing Archaeological Data: Essays in Honor of Sylvia W. Gaines*. Arizona State University, Anthropological Research Papers, 57: 17-26.

Lal, B.B. (1954-55) Excavations at Hastināpura and other Explorations in the Upper Gangā and Sutlej Basins 1950-52. *Ancient India*, 10-11: 5-151.

Leriche, P. (2013). L'apport de la Mission Archéologique Franco-Ouzbèque (MAFOuz) de Bactriane du Nord à l'histoire de l'Asie Centrale. In J. Bendezu-Sarmiento, ed., *L'Archéologie Française en Asie Centrale. Nouvelles recherches et enjeux socioculturels*, Cahiers d'Asie Centrale 21/22, Paris-Bichkek-Kaboul: 135–164.

Lyonnet, B. (1997) *Prospection archéologiques en Bactriane orientale (1974-1978) 2. Céramiques et peuplement du Chalolitique à la conquête arabe*, Mémoires de la Mission archéologique Française en Asie centrale, 8, Paris.

Lyonnet, B. (2012) Questions on the Date of the Hellenistic Pottery from Central Asia (Ai Khanoum, Marakanda and Koktepe). *Ancient Civilizations from Scythia to Siberia*, 18: 143-173.

Lyonnet, B. (2013) La céramique de la maison du quartier sud-ouest d'Aï Khanoum. In Lecuyot, G., *Fouilles d'Aï-Khanoum. IX. L'habitat*, Mémoires de la Mission Archéologique Française en Afghanistan, 9, Paris: 179-191.

Lo Muzio, C. (2002) L'artigianato di lusso nel Nord-Ovest di epoca indo-greca, Saka e partica: i “piattelli per cosmetici”. In P. Callieri and A. Filigenzi, eds., *Il Maestro di Saidu Sharif. Alle origini dell'arte del Gandhara*. Museo nazionale d'arte orientale, Roma, Palazzo Brancaccio, 18 aprile - 21 luglio, Roma: 77-83.

MacDowall, D.W. and Callieri P. (2004) *A Catalogue of Coins from the Excavations at Bīr-koṭ-ghwaṇḍai 1984-1992. Bīr-koṭ-ghwaṇḍai Interim Reports II*, IsIAO Reports and Memoirs, New Series 3, Rome: 27-90.

Magee, P. (2004) *The Iron Age Settlement*. In C.C. Lamberg-Karlovsky, ed., *Excavations at Tepe Yahya, Iran - 1967-1975*. American School of Prehistoric Research Bulletin, Cambridge (MA).

Magee, P., Petrie, C.A., Knox, R., Khan, F. and Thomas, K. (2005) The Achaemenid Empire in South Asia and Recent Excavations in Akra in Northwest Pakistan. *American Journal of Archaeology*, 109: 711-741.

Magee, P. and Petrie, C.A. (2010) West of the Indus, East of the Empire: The Archaeology of the Pre-Achaemenid and Achaemenid Periods in Baluchistan and the North-West Frontier Province, Pakistan. In Curtis, J. and Simpson, S.J. eds., *The World of Achaemenid Persia*, London: 503-522.

Mairs, R. (2011) *The Archaeology of the Hellenistic Far East: A Survey. Bactria, Central Asia and the Indo-Iranian Borderlands, c. 300 BC – AD 100*. BAR, International Series, 2196, Oxford.

Mairs, R. (2014a) *The Hellenistic Far East: Archaeology, Language and Identity in Greek Central Asia*, Berkeley.

Mairs, R. (2014b) Models, Moulds and Mass Production: The Mechanics of Stylistic Influence from the Mediterranean to Bactria. *Ancient West and East*, 13: 175-195.

Mairs, R. (2015) Heroes and Philosophers? Greek Personal Names and their Bearers in Hellenistic Bactria. In M.N. Walter and J.P. Ito-Adler, eds., *The Silk Road: Interwoven History*. Vol. 1: *Long-Distance Trade, Culture, and Society*, Cambridge (MA): 71-100.

Maniscalco, F. (2014) *Arachosia. Terra d'incontro tra Oriente e Occidente*, Roma.

Maresca, G. (2010) Reconsidering the pottery from Dahān-i Ghulāmān (Iran, Sīstān -

6th century BC): Some preliminary production-related typological observations. In P. Matthiae, F. Pinnock, L. Nigro and N. Marchetti, eds., *Proceedings, 6th International Congress on the Archaeology of the Ancient Near East (ICAANE)*, 1, Wiesbaden: 423-442.

Maresca, G. (2016) Echoes of Regional Traditions plus Western Typological Influences: Some Notes about the Post-Achaemenid Pottery Assemblage from the Italian Excavations at Qal'a-ye Sam (Iran, Sistan). In O. Kaelin, R.A. Stucky and H.P. Mathys, eds., *Proceedings, 9th International Congress on the Archaeology of the Ancient Near East (ICAANE)*, 2, Wiesbaden: 195-207.

Maritan, L. et al. (forth.) Looking like gold: golden-slip ware technology in the Swat valley (north-western Pakistan). *Journal of Archaeological Sciences*.

Marshall, J. (1904) *Archaeological Survey of India Reports for the Years 1902-1903*, Calcutta.

Marshall, J. (1951) *Taxila. An illustrated account of archaeological excavations carried out at Taxila under the orders of the Government of India between the years 1913 and 1934*, 1-3, Cambridge.

Maxwell-Jones, C.E. (2015) *Typology and Chronology of Ceramics of Bactra, Afghanistan 600 BCE-500 CE*, PhD Dissertation, University of Michigan.

McNicoll, A. (1978) Excavations at Kandahar, 1975. Second Interim Report. *Afghan Studies*, 1: 41-66.

McNicoll, A. and Ball, W. (1996) *Excavations at Kandahar 1974 and 1975. The First Two Seasons at Shahr-i Kohna (Old Kandahar) Conducted by the British Institute of Afghan Studies*, Society for South Asian Studies Monograph 1, BAR, International Series, 641, Oxford.

Miller, D. (1985) *Artefacts as categories. A study of ceramic variability in Central India*, Cambridge.

Miller, D. (2007) Structures and Strategies: an aspect of the relationship between social hierarchy and cultural change. In I. Hodder, ed., *Symbolic and Structural Archaeology*, Cambridge: 89-98.

Monier-Williams, M. (1899), *Sanskrit-English Dictionary*, Oxford.

Morris, S.P. (1985) ΛΑΣΑΝΑ: A Contribution to the ancient Greek Kitchen. *Hesperia*, 54, 4: 393-409.

Müller-Karpe, H. (1983) *Jungbronzezeitlich-früheisenzeitliche Gräbfelder der Swat-Kultur in Nord-Pakistan*, München.

Musti, D. (1966) Lo stato dei Seleucidi. Dinastia popoli città da Seleuco I ad Antioco III. *Studi Classici ed Orientali*, 15: 61-201.

Narain, A. K. (1957) *The Indo-Greeks*, Oxford.

Narain, A.K. and Roy, T.N. (1977) *Excavations of Rajghat (1957-1958; 1960-1965). Part II. The Pottery*, Varanasi.

Nath, A. (1995) Antiquities of Graeco-Roman Affinity from Adam. An Inland Mart of Central India. *East and West*, 45, 1-4: 149-171.

Newell, E.T. (1938) *The Coinage of the Eastern Seleucid Mints from Seleucos I to Antimachus III*, New York.

Olivieri, L.M. (1996) Notes on the Problematical Sequence of Alexander's Itinerary in Swat: A Geo-Historical Approach. *East and West*, 46, 1-2: 45-78.

Olivieri, L.M. (2003) *The Survey of the Bir-kot Hill. Architectural Comparisons and Photographic Documentation. Bīr-koṭ-ghwaṇḍai Interim Reports I*, ISIAO Reports and Memoirs, Series Minor, 4, Rome.

Olivieri, L.M. (2006) The IsIAO Italian Archaeological Mission in Pakistan. A selected Bibliography (1956-2006). *East and West*, 56, 1-3 (Special Issue for the 50<sup>th</sup> Anniversary of the IsIAO Italian Archaeological Mission in Pakistan): 301-318.

Olivieri, L.M. (2012) When and why the ancient town of Barikot was abandoned? A preliminary note based on the last archaeological data. *Pakistan Heritage*, 4: 109-120.

Olivieri, L.M. (2012 [2017]) The Last Phases at Barikot: Urban Cults and Sacred Architecture. Data from the Spring 2013 Excavation Campaign in Swat. *Journal of Inner Asia Art and Archaeology*, 7: 7-30.

Olivieri, L.M. (2014) *Digging up. Fieldwork guidelines for archaeology students*. ACT Report and Memoirs, Series Minor, 1, Lahore.

Olivieri, L.M. (2015) Urban defenses at Bīr-koṭ-ghwaṇḍai, Swat (Pakistan). New data from the 2014 excavation campaign. *Ancient Civilizations from Scythia to Siberia*, 21, 1: 183-199.

Olivieri, L.M. (2016) The graveyard and the Buddhist shrine at Saidu Sharif (Swat, Pakistan). Fresh chronological and stratigraphic evidence. *Vestnik Drevnej Istorii*, 76, 3: 559-578.

Olivieri, L.M. (2018) Vajīrasthāna/Bazira and Beyond. Foundation and current status of the archaeological work in Swat. In H.P. Ray, ed., *Buddhism and Gandhara. An Archaeology of Museum Collections*, London and New York: 173-212.

Olivieri, L.M. and Vidale, M. et al. (2006) Archaeology and Settlement History in a Test-Area of the Swat Valley. Preliminary Report on the AMSV Project (1st Phase). *East and West*, 44, 1-4: 73-150.

Olivieri, L.M. et al. (2014) *The Last Phases of the Urban site of Bir-kot-ghwandai (Barikot). The Buddhist sites of Gumbat and Amluk-dara (Barikot)*. ACT Reports and Memoirs, 2, Lahore.

Olivieri, L.M. and Iori, E. (forth.) Beginnings and Abandonment of an Early-Historic Town in the North-West of the Subcontinent. Data from the 2015 and 2016 excavation campaigns at Bīr-koṭ-ghwaṇḍai, Swat (Pakistan). *Proceedings EASAA 23<sup>rd</sup> biennial conference*.

Orton, C. (2009) «Four Pots Good, Two Pots Bad»: Exploring the Limits of Quantification in the Study of Archaeological Ceramics. *Facta: a Journal of Roman Material Culture Studies*, 3: 1.9.

Orton, C., Tyers, P. and Vince, A.P. (1993) *Pottery in Archaeology*. Cambridge Manuals in Archaeology, Cambridge.

Orton, C. and Hughes, M. (2013) *Pottery in Archaeology*. Cambridge Manuals in Archaeology, Cambridge.

Papadopoulos, J.K. (1992) ΛΑΣΑΝΑ, Tuyeres, and Kiln Firing Supports. *Hesperia*, 61, 2: 203-221.

Petech, L. (1966) A Kharoṣṭī Inscription from Butkara I (Swat). *East and West*, 16, 1-2: 80-81.

Petrie, A.C. (2013a) Charsadda. In D.K. Chakrabarti and M. Lal, eds., *History of Ancient India, 3. The Text, Political History and Administration till c. 200 BC*, New Delhi: 512-522.

Petrie, A.C. (2013b) Taxila. In D.K. Chakrabarti and M. Lal, eds., *History of Ancient India, Vol. III. The Text, Political History and Administration till c. 200 BC*, New Delhi: 652-663.

Petrie, C.A. and Magee, P. (2007) Histories, Epigraphy and Authority: Achaemenid and Indigenous Control in Pakistan in the 1st millennium BC. *Gandhāran Studies* 1: 3-22.

Petrie, C.A., Magee, P. and Khan, M.N. (2008) Emulation at the edge of empire: the adoption of non-local vessel forms in the NWFP, Pakistan during the mid-late 1<sup>st</sup> millennium BC. *Gandhāran Studies* 2: 1-16.

Petrie, C.A. and Magee, P. (2012) The Achaemenid expansion to the Indus and Alexander's Invasion of North-West South Asia. In D.K. Chakrabarti and M. Lal, eds., *History of Ancient India, III: The Vedic, Buddhist and Jaina Texts, and Political History and Administration till c.200 BC*, New Delhi: 205-230.

Pugliese Carratelli, G. (1966) Greek Inscriptions of the Middle East. *East and West*, 16, 1-2: 31-36.

Rapin, C. (1992) *Fouilles d'Aï Khanoum VIII. La Trésorerie du palais hellénistique d'Aï Khanoum. L'Apogée et la chute du royaume grec de Bactriane*. Mémoires de la Délégation Archéologique Française en Afghanistan, 33, Paris.

Rapson, E. (1922 [1970]) The Successors of Alexander the Great. *The Cambridge History of India*, 1, Cambridge: 558.

Ray, H.P. (2006) Inscribed Pots, Emerging Identities: The Social Milieu of Trade. In P. Olivelle, ed., *Between the Empires. Society in India 300 BCE to 400 CE*, Oxford: 113-143.

Raychandhri, H. (1953) *Political History of Ancient India, from the Accession of Parikshit to the Extinction of the Gupta Dynasty*, Calcutta.

Rahman, A. (1968-69) Excavation at Damkot. *Ancient Pakistan*, 4: 103-250.

Rehman, A. (2009) A note on the etymology of Gandhāra. *Bulletin of the Asia Institute*, 23: 143-46.

Rice, P.M. (1987) *Pottery Analysis. A Sourcebook*, Chicago and London.

Roaf, M. (1974) The subject peoples on the base of the statue of Darius. *Cahiers de la Délégation Archéologie Française en Iran*, 4: 73-160.

Roger Edwards, G. (1975) *Corinthian Hellenistic Pottery. Corinth. Results of the Excavations, 2, Part III The Plain Wares*, American School of Classical Studies at Athens. Princeton, New Jersey.

Rotroff, I.S. (1996) *The Missing Kraters and the Hellenistic Symposium: Drinking in the Age of Alexander the Great*. Broadhead Classical Lecture No. 7, University of Canterbury, Christchurch, New Zealand.

Rotroff, I.S. (1997) *Hellenistic Pottery. Athenian and Imported Wheelmade Table Ware and Related Material. 1-2. The Athenian Agora. 24*. American School of Classical Studies at Athens. Princeton, New Jersey.

Rotroff, I.S. (2006) *Hellenistic Pottery: The Plain Wares. The Athenian Agora. Vol. XXXIII*. American School of Classical Studies at Athens. Princeton, New Jersey.

Rougemont, G. (2012) Inscriptions grecques d'Iran et d'Asie centrale, *Corpus Inscriptionum Iranicarum, Part II: Inscriptions of the Seleucid and Parthian Periods and of Eastern Iran and Central Asia, 1: Inscriptions in Non-Iranian Languages*. School of Oriental Studies, London.

Rye, O.S. and Evans, C. (1976) *Traditional Pottery Techniques of Pakistan. Field and Laboratory Studies*. Smithsonian Contributions to Anthropology, 21, Washington D.C.

Sachau, E.C. (1910 [1983]) *Alberuni's India*, New Delhi.

Saraswati, B. (1979) *Pottery-making cultures and Indian civilization*, New Delhi.

Scerrato, U. (1966) Excavations at Dahan-i Ghulaman (Seistan-Iran). First Preliminary Report (1962-1963). *East and West*, 16, 1-2: 9-30.

Scerrato, U. (1985) Research on the Archaeology and History of Islamic Art in Pakistan: Excavation of the Ghaznavid Mosque on Mt. Rāja Gīrā, Swāt. *East and West*, 36, 4: 496-511.

Scharfe, H. (1971) The Maurya dynasty and the Seleucids. *Zeitschrift für Vergleichende Sprachforschung*, 85: 211-225.

Scharfe, H. (1977) Grammatical Literature. *A History of Indian Literature* 3, 2. Wiesbaden.

Scharfe, H. (2009) A new perspective on Pāṇini. *Indologica Taurinensia*, 35: 3–272.

Schmidt, E.F. (1953) *Persepolis I: Structures, Reliefs, Inscriptions*. Oriental Institute Publications No.68, Chicago.

Schmidt, E.F. (1970) *Persepolis III: The Royal Tombs and Other Monuments*. Oriental Institute Publications No.70, Chicago.

Seibert, J. (2002) Unterwegs auf den Strassen Persiens zur Zeit der Achämeniden. *Iranistik*, 1: 7-40.

Senior, R.C. (1999) The Coinage of Hermaios and its imitations struck by the Scythians. *Classical Numismatic Studies*, 3.

Sharif, M. (1969) Excavation at Bhir Mound, Taxila. *Pakistan Archaeology*, 6: 6-69.

Sharma, G. R. (1960) *The Excavations at Kauśāmbī (1957-69). The Defences of the Śyneciti of the Puruṣamedā*, Allahabad.

Shepard A.O. (1961) *Ceramics for the Archaeologist*, Washington D.C.

Sinha, K.K. (1967) *Excavations at Sravasti 1959*. Monograph of the Department of Ancient India History, Culture and Archaeology, Banaras Hindu University, 2, Varanasi.

Sinha, B.P. and Roy, S.R. (1969) *Vaiśālī excavations 1958-1962*, Patna.

Sinopoli, C.M. (1991) *Approaches to Archaeological Ceramics*, New York and London.

Stacul, G. (1967) Excavations in a Rock Shelter near Ghalighai (Swat, W. Pakistan). *East and West*, 17: 185-219.

Stacul, G. (1969) Excavation near Ghālīgai (1968) and Chronological Sequence of Protohistorical Cultures in the Swāt Valley (W. Pakistan). *East and West*, 19: 44-91.

Stacul, G. (1973) A Decorated Vase from Gogdara (Swāt, Pakistan). *East and West*, 23, 3-4: 245-248.

Stacul, G. (1976) Excavation at Loebanr III (Swāt, Pakistan). *East and West*, 26, 1-2: 13-30.

Stacul, G. (1978) Excavation at Bīr-kōt-ghuṇḍai (Swāt, Pakistan). *East and West*, 28, 1-4: 137-150.

Stacul, G. (1980a) Bīr-kōt-ghuṇḍai (Swāt, Pakistan): 1978 Excavation Report. *East and West*, 30, 1-4: 55-65.

Stacul, G. (1980b) Loebanr III (Swāt, Pakistan): 1979 Excavation Report. *East and West*, 30, 1-4: 55-65.

Stacul, G. (1982) Bīr-koṭ-ghuṇḍai. *East and West*, 32: 217-219.

Stacul, G. (1984) Cultural Change in the Swāt Valley and Beyond, c. 3000-1400 B.C. In B. Allchin, ed, *South Asian Archaeology 1981*, Cambridge: 205-211.

Stacul, G. (1985) A Harappan Post-Urban Outpost in the Swat Valley. In J. Schotsman and M. Taddei, eds., *South Asian Archaeology 1983*, Istituto Universitario Orientale, Naples: 357-367.

Stacul, G. (1986) Review of Müller-Karpe, H. Jungbronzeitlich-früheisenzeitliche Gräberfelder der Swat-Kultur in Nord-Pakistan, München 1983. *Praehistorische Zeitschrift*, 61, 1: 90-91.

Stacul, G. (1987) *Prehistoric and Protohistoric Swat, Pakistan (c. 3000-1400 B.C.)*, IsMEO Reports and Memoirs, 20, Rome.

Stacul, G. (1990) On Chārsada and Beyond: What is wrong with Sir Mortimer Wheeler. In P. Callieri and M. Taddei, eds., *South Asian Archaeology 1987*, Serie Orientale Roma, 66, 2, Rome: 605-609.

Stacul, G. (1993) Kalako-deray, Swāt: 1989-1991 Excavation Reports. *East and West*, 43, 1-4: 69-94.

Stacul, G. (1995) Kalako-deray, Swāt: 1992-1993 Excavation Reports. *East and West*, 45, 1-4: 109-126.

Stacul, G. (1997a) Kalako-deray, Swāt: 1994-1996 Excavation Reports. *East and West*, 47, 1-4: 363-378.

Stacul, G. (1997b) Early Iron Age in Swat: Development or Intrusion? In F.R. Allchin and B. Allchin, eds., *South Asian Archaeology 1995*, Cambridge-New Delhi-Calcutta: 209-216.

Stacul, G. (2000) The Late 'Gandharan Grave' Complex and the Following Stage. In G. De Marco and M. Taddei, eds., *South Asian Archaeology 1997*. SOR, 90, 2: 747-757.

Stacul, G. (2001) The Swat Valley in the Late 2<sup>nd</sup> and Early 1<sup>st</sup> Millennium BC. In R. Eichmann and H. Parzinger, eds., *Migration und Kulturtransfer. Der Wandel worder-*

*und zentralasiatischer Kulturen im Umbruch vom 2. zum 1. vorchristlichen Jahrtausend.*  
Kolloquien zu Vor- und Frühgeschichte, 6, Bonn: 237-246.

Stacul, G. and Tusa, S. (1975) Report on the Excavations at Aligrāma (Swāt, Pakistan) 1966, 1972. *East and West*, 25, 1-4: 291-321.

Stacul, G. and Tusa, S. (1977) Report on the Excavations at Aligrāma (Swāt, Pakistan) 1974. *East and West*, 27, 1-4: 151-205.

Stacul, G. and Filigenzi, A. (1985) Pakistan 1. Excavations at Bīr-koṭ-ghwaṇḍai: the Protohistoric Layers/ Excavations at Bīr-koṭ-ghwaṇḍai: the Historical Layers. *East and West*, 35, 4: 430-500.

Stein, M.A. (1930) *An Archaeological Tour in Upper Swāt and Adjacent Hill Tracts*, Memoirs of the Archaeological Survey of India, 42, Calcutta.

Stronach, D. (1978) *Pasargadae: a report on the excavations conducted by the British Institute of Persian Studies from 1961-196*, Oxford.

Sumner, W.M. (1986) Achaemenid Settlement in the Persepolis Plain. *Journal of Archaeology*, 90, 1: 3-31

Sverchkov, L. (2008) The Kurganzol Fortress (on the History of Central Asia in the Hellenistic Era). *Ancient Civilizations from Scythia to Siberia* 14: 123-191.

Tarn, W.W. (1951) *The Greeks in Bactria and India*, 2nd ed., Cambridge.

Terrasi, F. et al. (2008) *Nuclear Instruments and Methods in Physics*, B 266 (10): 2221-2224.

Thapar, R. (1997) *Asoka and the decline of the Mauryas*, Oxford.

Tite (1999) Pottery Production, Distribution, and Consumption: The Contribution of the Physical Sciences, *Journal of Archaeological Method and Theory*, 6, 3: 181-233.

Tourovets, A. (2001) Nouvelles propositions et problèmes relatifs à l'identification des délégations de l'escalier est de l'Apadana (Persépolis). *Archäologische Mitteilungen aus Iran und Turan* 33: 219-56.

Tribulato, O. and Olivieri, L.M. (2017) Writing Greek in the Swat region: A new graffito from Barikot (Pakistan). *Zeitschrift für Papyrologie und Epigraphik*, 204:128-135.

Tucci, G. (1958) Preliminary Report on an Archaeological Survey in Swāt. *East and West*, 9, 4: 279-348.

Tucci, G. (1963) *La Via dello Swat*, Rome.

Tucci, G. (1977) On Swāt. The Dards and Connected Problems. *East and West*, 27, 1-4: 9-85, 94-103.

Tusa, S. (1979) The Swat Valley in the 2nd and 1st Millennia B.C.: A Question of Marginality. In M. Taddei, ed., *South Asian Archaeology 1977*, Istituto Universitario Orientale, Naples: 675-695.

Tusa, S. (1981) Notes on Some Protohistoric Finds in the Swāt Valley (Pakistan). *East and West*, 31, 1-2: 99-120.

Vidale, M. (2000) *The Archaeology of the Indus Crafts. Indus Craftspeople and Why We Study Them*, IsIAO Reports and Memoirs, Series Minor, 4, Rome.

Vidale, M. (2007) *Ceramica e Archaeologia*, Roma,

Vidale, M. and Lugli, F. (1996) Making and using ceramics: On the role of technical events in the generation of functional types. *Origini*, 20: 351-382.

Vidale, M., Micheli, R. and Olivieri, L.M., eds. (2016) *Excavations at the Protohistoric Graveyards of Gogdara and Udegram*. ACT Reports and Memoirs, 3, Lahore.

Vidale, M. and Micheli, R. (2017) Protohistoric graveyards of the Swat Valley (Khyber Paktunkhwa, Pakistan): new light on funerary practices and absolute chronology. *Antiquity*, 356: 389-405.

Vogelsang, W. J. (1985) Early historical Arochosia in southeast Afghanistan. Meeting - Place between East and West. *Iranica Antiqua*, 20: 55-99.

Vogelsang, W. J. (1986) Four Short Notes on the Bisutun Text and Monument. *Iranica Antiqua*, 21: 121-140.

Vogelsang, W. (1987) Some Remarks on Eastern Iran in the Late-Achaemenid Period. In H. Sancisi-Weerdenburg, ed., *Achaemenid History*, 1, Leiden: 183-89.

Vogelsang, W. (1988) A Period of Acculturation in Ancient Gandhara. *South Asian Studies*, 4: 103-113.

Vogelsang, W. J. (1990) The Achaemenids and India. In H. Sancisi-Weerdenburg and A. Kuhrt, eds., *Achaemenid History IV, Centre and Periphery. Proceedings of the Groningen 1986 Achaemenid History Workshop*: 93-110.

Vogelsang, W. (1992) *The Rise and Organisation of the Achaemenid Empire: The Eastern Iranian Evidence*, Leiden.

Wallace, S. (2016) Greek Culture in Afghanistan and India: Old Evidence and New Discoveries. *Greece and Rome*, 63, 2: 205–226.

Wheeler, M. (1954) *Archaeology from the Earth*, Oxford.

Wheeler, M. (1962) *Chārsada. A Metropolis of the North-West Frontier*, Oxford.

Whitehouse, D. (1978) Excavations at Kandahar, 1974. First Interim Report. *Afghan*

*Studies*, 1: 9-39.

Witzel, M. (1980) Early Eastern Irān and the Atharva Veda. *Persica*, 9: 86-128.

Witzel, M. (2011) Gandhāra and the formation of the Vedic and Zoroastrian canons. In F. Rotaru, ed., *Le livre, la Roumanie, l'Europe*, 3, Études euro- et afro-asiatiques, Bucarest: 490-532.

Young, R. (2001) Environmental Archaeology in NWFP, Pakistan: Using Plant and Animal Assemblages to Distinguish Between Urban and Rural. In C. Jarrige and V. Lefèvre, eds., *South Asian Archaeology 2001*, Paris: 337-343.

Young, R. (2003) *Agriculture and Pastoralism in Late Bronze and Early Iron Age, North West Frontier Province, Pakistan*, BAR, International Series, 1124, Oxford.

Zellmann-Rohrer, M. and Olivieri, L.M. (forth.) An inscribed sherd in Aramaic script from Barikot (Pakistan). *Bulletin of the American Society of Oriental Research*

#### ANCIENT SOURCES

Appian, *Historiae Romanae* = Goukowsky, P. (2007) *Histoire Romaine, Livre XI, le livre siriaque*, Paris.

Flavius Arrianus (Arrian), *Alexandri Anabasis* = Brunt, P. A. (1976, 1983), *History of Alexander and Indica*, I-II, London.; Ambagli, D. (1994) *Anabasi di Alessandro*, Milano.

Claudius Ptolemy, *Geographika hyphegesis* = Renou, L. (1925) *La Géographie de Ptolemée, L'Inde* (VII, 1-4), Paris.

Diodorus Siculus, *Biblioteca Historica* = Alfieri Tonini, T. (1985) *Biblioteca Storica*, Milano.

Herodotus, *Historia* = Asheri, D. and Medaglia, S.M. (1990) *Le Storie. La Persia*, Milano.

Justin, *Epitoma Historiarum Philippicarum Pompei Trogi* = Santi Amantini, L. (1981) *Epitome di Pompeo Trogo*, Milano.

Paulus Orosius, *Historiae adversus paganos* = Lippold, A. (1976) *Storie contro i pagani, I-II*, Milano.

Pliny, *Naturalis Historiae* = Centi, R. and Marcone, A. (1982) *Storia Naturale, I*, Torino.

Polybius, *Historiae* = Musti, D., Mari, M. and Thornton, J. (2002) *Polibio. Storie, Libri VII-XI*, Milano.

Quintus Curtius Rufus, *Historiarum Alexandri Magni libri qui sepersunt* = Giaccone, A. (1977) *Storie di Alessandro Magno*, Torino.

Strabo, *Geographica* = Jones, H.L. (1983) *The Geography of Strabo, VII*, London.