



**A preliminary assessment of the pottery assemblage
from the port town of Adulis (Eritrea)**

*Chiara Zazzaro and Andrea Manzo (in collaboration with Ghirmay Teklemariam,
Mehretab Tabo Sium, Thomas Tesfagiorgis Paulos)*

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Editorial

This issue of *BMSAES* contains the proceedings of the Annual International Egyptological Colloquium, entitled *Mariners and traders: Connections between the Red Sea littoral, Arabia and beyond*, and Rudolfo Fattovich's Raymond and Beverley Sackler Foundation Distinguished Lecture in Egyptology, 'Egypt's trade with Punt: Recent discoveries on the Red Sea coast,' both held at The British Museum on 2 August 2011.

Professor Fattovich's contribution neatly summarizes a decade of extraordinary finds at Middle Kingdom Mersa Gawasis/Wadi Gawasis on Egypt's Red Sea coast. The colloquium papers present other important, new fieldwork elucidating ancient maritime and over-land routes connecting Egypt to the Levant, East Africa, Arabia, Central Asia and India and dating from as early as the Old Kingdom through the Byzantine period.

Julie Anderson, who organised the colloquium, guest-edited the volume. Editorial assistance was provided by Tiffany Chezum, Ruiha Smalley, Alice Springuel, Michaela Binder, Elisabeth R. O'Connell and especially Topy Fiske.

Elisabeth R. O'Connell

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Chiara Zazzaro and Andrea Manzo

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A preliminary assessment of the pottery assemblage from the port town of Adulis (Eritrea)

Chiara Zazzaro and Andrea Manzo (in collaboration with Ghirmay Teklemariam, Mehretab Tabo Sium, Thomas Tesfagiorgis Paulos)

Adulis was the port town for the Aksumite Empire and one of the most prominent Red Sea ports during the Roman and Byzantine periods. The site is located on the Eritrean Red Sea coast, on the crossroads for trade between the Mediterranean and the Indian Ocean, in a favourable position in the protected Gulf of Zula which is delimited to the north by the Ghedem Massif, a mountain still used today as a landmark by ships navigating in the area (Fig. 1). At present, the site is situated some 7km from the coast, on the north bank of the Haddas River. The Haddas valley was a caravan track linking the coast and the Qohaito highland where the Aksumite town of Koloe was located, the stopping point for caravans heading to Aksum as their final destination.

Like the Egyptian ports of Berenike and Myos Hormos, Adulis was one of the most important ports in the Red Sea for trade between the Mediterranean and the Indian Ocean. Literary sources testify to the activity of the Adulis port from the 1st century AD (*Periplus maris Erythraei* and *Naturalis historia* by Pliny the Elder). Exported products from Adulis cited in the classical sources were mainly ivory, obsidian, rhinoceros horns and tortoise shells. Also mentioned among imported products are textiles from Egypt and the East, glass from Judea, metals from India, oil and wine from Italy and Syria. The site is known also in Byzantine sources (i.e., *History of the wars* by Procopius and the *Christian topography* by Cosmas Indicopleustes) as the main port for trade between the Mediterranean and the Indian Ocean on the African coast of the Red Sea (Munro-Hay 1982). The other main port was Aila (Aqaba) in the Gulf of Aqaba.

Excavations conducted by the British Museum initially, and then by Richard Sundström (1907) and Roberto Paribeni (1907) at the beginning of the 20th century, and by Francis Anfray in the 1960s (Anfray 1963; 1966; 1974) revealed the importance and richness of the town site. Monumental buildings, churches and large housing compounds were uncovered; test pits excavated by Paribeni also revealed the presence of different phases of occupation. More recently, surface investigations conducted by the University of Southampton added further information on the topography of the town and its contextualisation with the environment and the coastal region (Peacock and Blue 2007).

A re-examination of the pottery collections and other finds from Paribeni and Anfray's excavations conducted by Zazzaro in 2004–2005 in the museum storerooms in Rome, Addis Ababa and Asmara, aimed to provide further information on trade contacts and the people who inhabited the site. Unfortunately, the lack of stratigraphic excavations had prevented the possibility of creating a reliable sequence and dating for the pottery assemblage found in Adulis. In January 2011, an Italian-Eritrean Joint Expedition of the National Museum of Asmara, CeRDO (Eastern Desert Research Centre), the Museum of Rovereto and the CGT (Centre of Geological Technologies) of the University of Siena resumed archaeological

excavations in Adulis. The project aimed to expose monumental buildings excavated in the past, to build the cultural and stratigraphic sequence of the site and to find the origins and reasons for the abandonment of the town. This paper brings together the study of pottery collections from past excavations and from the recent stratigraphic excavation conducted in the south-eastern sector of the site, providing a preliminary dating and contextualisation of the pottery assemblage in the different phases of occupation.

During the 2011 field season three excavation sectors were investigated, and plans of structures and the topography of the site were produced. One sector of excavation was located in the centre of the town where Paribeni found the palaeo-Christian church (Sector 2). The church is today in a state of ruin, but the rectangular plan and an apse flanked by two rooms (*pastophoria*) were identified. The masonry is typical of the region, called ‘graduated or step masonry.’ The church can be dated, according to associated materials, to the 6th–7th century AD. Two other sectors of excavation (Sector 1 and Sector 3) were opened to the southwest and to the southeast in order to investigate the stratigraphic sequence. Another small trench was opened in the Haddas River, where archaeological materials had been brought to the light by erosion (Sector 4).

Sector 1 and Sector 4

The pottery on which this paper is focused comes from two excavation units (Sector 1 and Sector 4), located on the southern fringes of the site, the only area that actually delivered a reasonable number of pottery samples. The excavation of Sector 1 was conducted by the authors in collaboration with our Eritrean colleagues Ghirmay Teklemariam, Mehretab Tabo Sium and Thomas Tesfagiyorgis Paulos, while Sector 4 was investigated by Dr. Yosief Libsekal in collaboration with Lelemba Tsehaye.

The area was chosen because it is where Paribeni excavated a 12m deep test pit which revealed earlier phases of occupation of the site and uncovered a long stratigraphic sequence characterised by atypical black and micaceous pottery and remains of huts and hearths. The Sector 1 trench was positioned close to the Haddas at an absolute elevation of c. 4m lower than the area excavated by Paribeni, due to the active erosion of the stream (Fig. 2). The intention was to quickly reach the earlier levels which we had expected to find closer to the present surface. In order to avoid substantial architectural remains of the later phases, which might have prevented archaeologists from accessing the earlier levels, it was decided to investigate an area immediately south of a large mound that originated from the collapse of a building dating, according to associated materials, to the last phase of the occupation of the city. The sector of the excavation unit south of the wall had been affected several times by the activity of streams which crossed it before and after the collapse of this building. The streams’ action and the slope undoubtedly favoured the mixing of materials and the disturbance of the excavated contexts and assemblages with the exception of two occupation surfaces which seem to have been less affected by the natural erosion and post-depositional disturbances. It is interesting to note that in contrast to what Paribeni found in the area, i.e., mainly traces of huts and fireplaces, excavations in 2011 revealed remains of stone structures.

Sector 4 was located south of Sector 1 on the edge of a stream where erosion brought to light several layers characterised by concentrations of archaeological materials, possibly related to occupation surfaces, which are apparently earlier than the structures and occupation surfaces investigated in Sector 1.

So far, in Sector 1 archaeologists have found three architectural phases and three levels of occupation, identified by the presence of walls and their collapse, which included concentrations of rubble and archaeological materials associated with floors and interrupted by alluvial phases. Unfortunately, these walls were only partially unearthed, and present data do not allow further interpretations of the nature of the structures to which the walls belong.

The results of C14 dating indicate that the earliest date for the assemblages from this sector is the 2nd century AD. While the earlier phases of occupation were not reached during the 2011 field season, it was interesting to note that the building sequence in this sector of the site is very intense over an apparently relatively short period of time.

The pottery assemblage

The study of the Adulitan pottery started in 2003 as part of Zazzaro's PhD thesis under the tutorship of Rodolfo Fattovich and assisted by Andrea Manzo, who has extensive experience in the study of Aksumite pottery. The collections examined derive from previous excavations conducted by Paribeni and Anfray at Adulis, and they are kept in the former Museo Africano in Rome, the National Museum of Asmara and the Museum of Addis Ababa. Unfortunately, no reliable stratigraphic information accompanied the record of this pottery. Consequently the study was mainly focused on a preliminary description of the local pottery tradition, comparing it to pottery production on the highlands and on the definition of trade contacts through an analysis of the imported pottery (Zazzaro 2009). This preliminary study facilitated a better approach to the study of the pottery coming from the 2011 excavation and, in the future, will hopefully allow the finds by Paribeni and Anfray to be related to a firmer cultural and chronological sequence.

The project of studying Adulitan pottery was also part of long-term research started by Rodolfo Fattovich at the University of Naples 'L'Orientale' that aimed to investigate the circuits of exchange in the Red Sea during antiquity. Excavations directed by Fattovich and Kathryn Bard (Boston University) are still ongoing at the pharaonic site of Mersa Gawasis. Part of this same program of research are also excavations lead by Andrea Manzo (University of Naples 'L'Orientale') in Sudan. Of note is the discovery at Mersa Gawasis of pottery probably coming from the Ethiopian-Eritrean regions in a context dating to the 2nd millennium BC, evidence that suggests the involvement of Adulis in the earlier exchange circuit in the Red Sea (Manzo 2010, 2012). So far, very little is known about the site of Adulis before the 1st century AD. The discovery of a south Arabian alabaster lid, which Zazzaro recognised in the Paribeni collection of the Asmara Museum, suggests that the site had contact with the opposite coast as early as the 3rd century BC based upon comparison with similar objects found in south Arabia (Zazzaro 2009, 50 fig. 6.1). With this in mind, the 2011 analysis of the local pottery

was aimed at:

1. Identifying stylistic and technological features that could be ascribed to a regional pottery production;
2. Where possible, contributing to the interpretation of excavated contexts (domestic, funerary, ceremonial, etc.) on the basis of the ceramic typology and forms;
3. Contributing to the establishment of a preliminary chronological sequence of the pottery.

The pottery was studied on the site using a portable microscope and a geological lens. A more precise characterisation of the fabrics will be possible as soon as the analysis results for the samples submitted for thin sections are available. This may also further define the characteristics of locally produced pottery and may help determine whether some ceramics were brought to the site from the highlands or if they were locally produced following the style of the highlands in terms of shape, surface treatment and decoration. The preliminary typological and chronological analysis for this pottery had to rely for comparisons on the dated materials from the regions of Aksum and Adigrat, from Yeha and Matara, and from the Ona sites in the Asmara area as well as from other sites on the Red Sea coastal region.

One of the most outstanding results was the defining of a local ceramic tradition starting at least in the 1st millennium BC and apparently continuing into the 1st millennium AD. This tradition, the existence of which was first suggested by Paribeni and re-examined by Zazzaro (2009), has been named Adulitan, and it has never been analysed before in a stratigraphic sequence. So far we can say that in the earlier phases, the Adulitan ceramic tradition was characterised by black-grey, brown-grey, orange-red mineral tempered micaceous wares with smoothed to burnished surfaces. According to the geologist of the expedition, this very typical mineral micaceous fabric may result from the use of the local sand as a temper, and this may be confirmed by the rounded shape of the mineral inclusions. An orange-red ware fabric characterised by the association of the mineral micaceous temper with organic inclusions was recorded as well.

Concerning the surface treatments, this pottery is characterised by the occurrence of smoothing/burnishing, well-defined horizontal, diagonal or vertical lines on the external surface and, in the open shapes, on the internal surface (Fig. 3). Decorations of incised and impressed patterns on the external surface are typical (Fig. 4). Grey and black polished bowls or cups are often characterised by rim bands while brown or grey ware rims, flat and triangular in section, are often associated with oblique incisions (Fig. 5). Sometimes the impressions are characterised by a wavy outline, possibly obtained by impressing the edge of a shell on the wet paste (Fig. 6).

From a technological point of view, all the Adulitan vessels were handmade. The recorded shapes were all characterised by a rounded bottom. Cups, bowls, carinated bowls and basins could have alternatively open or closed rims (Fig. 7). The shape of necked jars and bottles was very distinctive and characterised by a flat or rounded rim and a slender shoulder, possibly associated with a bag-shaped body (Fig. 8).

In the later phases, which can be related to highland assemblages dating between the 3rd

to 7th centuries AD, the same micaceous paste was also characterised by an orange-red to brown colour. Very typical of these phases were jars or bottles with a cylindrical neck and a moulded ledge between neck and shoulder, as already remarked upon by Paribeni (1908, 447). The ledge is very often characterised by an impressed or incised decoration (Fig. 9). Also typical were small, brown micaceous ware flasks with oblique ledge rims and horizontal parallel comb incisions on the external surface delimiting red-slipped sectors of the surface, and large open bowls with thickened and flat rims, sometimes characterised by impressed or incised cross decorations on the lip (Fig. 10). The occurrence of sherds with incised crosses on the external surface is typical of this phase.

The traces of wear on Adulitan ceramic types and their forms point to the interpretation of the excavated contexts as prevalently domestic in nature, although some sherds from Sector 1 are comparable with vessel types occurring in funerary contexts on the highlands. This could be due to the fact that some contexts were subjected to stratigraphic disturbance from natural factors, mainly stream action.

As remarked above, the later assemblages are characterised by the occurrence of Adulitan pottery similar to pottery types dating to the 1st millennium AD in the sites of the highland and by the occurrence of sherds with incised crosses on the external surface (see e.g., Phillips 2000). Interestingly, nothing related to the highland ceramics dating to the late 1st–early 2nd millennium AD was discovered at Adulis, confirming that at that time the town was abandoned (Anfray 1974).

Unfortunately, suitable samples from the earlier levels of Sector 4 were not available for C14 dating. Nevertheless, in this context, Adulitan vessels were associated with black topped bowls and beakers (Fig. 11), which are a widespread feature of the 1st millennium BC ceramic assemblages in the whole region and were previously unnoticed at Adulis. Moreover, the wavy-shaped impressions, possibly obtained by means of the edges of shells, occurring in these assemblages although typical of Adulis, were also recorded in assemblages dating to the 2nd millennium BC in sites close to Djibouti (Gutherz et al. 1996, 273–79) and even on the Egyptian Red Sea coast, in an Egyptian Middle Kingdom assemblage, where they are considered as imports from the southern Red Sea (Manzo 2012).

Some vessels with scraped external surface were associated with the earlier assemblages of the Sector 4 profile (Fig. 12). The surface scraping treatment is a very ancient feature of some ceramic traditions in north-eastern Africa dating from the 6th millennium BC onwards (Fattovich 1991); nevertheless, a geographically and perhaps even chronologically closer comparison for the sherds from Adulis seems to be with the collections from eastern Tigrey dating to the 1st millennium BC (D'Andrea et al. 2008). Interestingly, the bag-shaped jars characterising the earlier phase of the Adulitan ceramic tradition were discovered in Egypt and on the Yemeni Tihama in assemblages firmly dated from the 2nd millennium BC (Manzo 2012); the use of burnished lines as a decoration, which is a very common feature in archaic Adulis, is also widespread in the Yemeni Tihama (Buffa 2007, 34–35) and recorded in some materials imported from the southern Red Sea on the Egyptian Red Sea coast (Manzo 2012).

These data could provide the first firm stratigraphic evidence that the site was occupied much earlier than it has been suggested before and that it was involved in the circuit of exchange among Egypt, Sudan and South Arabia. So far, this latter hypothesis has been

suggested by some scholars on the basis of admittedly limited elements. This is not only relevant for a preliminary outline of the absolute chronology of the Adulitan ceramic tradition, but also suggests that, since the very beginning of its history, Adulis played a crucial part both in the dynamics of Red Sea contacts and as a gateway to the highland. Future investigations will help archaeologists to fully evaluate this importance.

Frontispiece. The site of Adulis in 2011 (photograph, C. Zazzaro).

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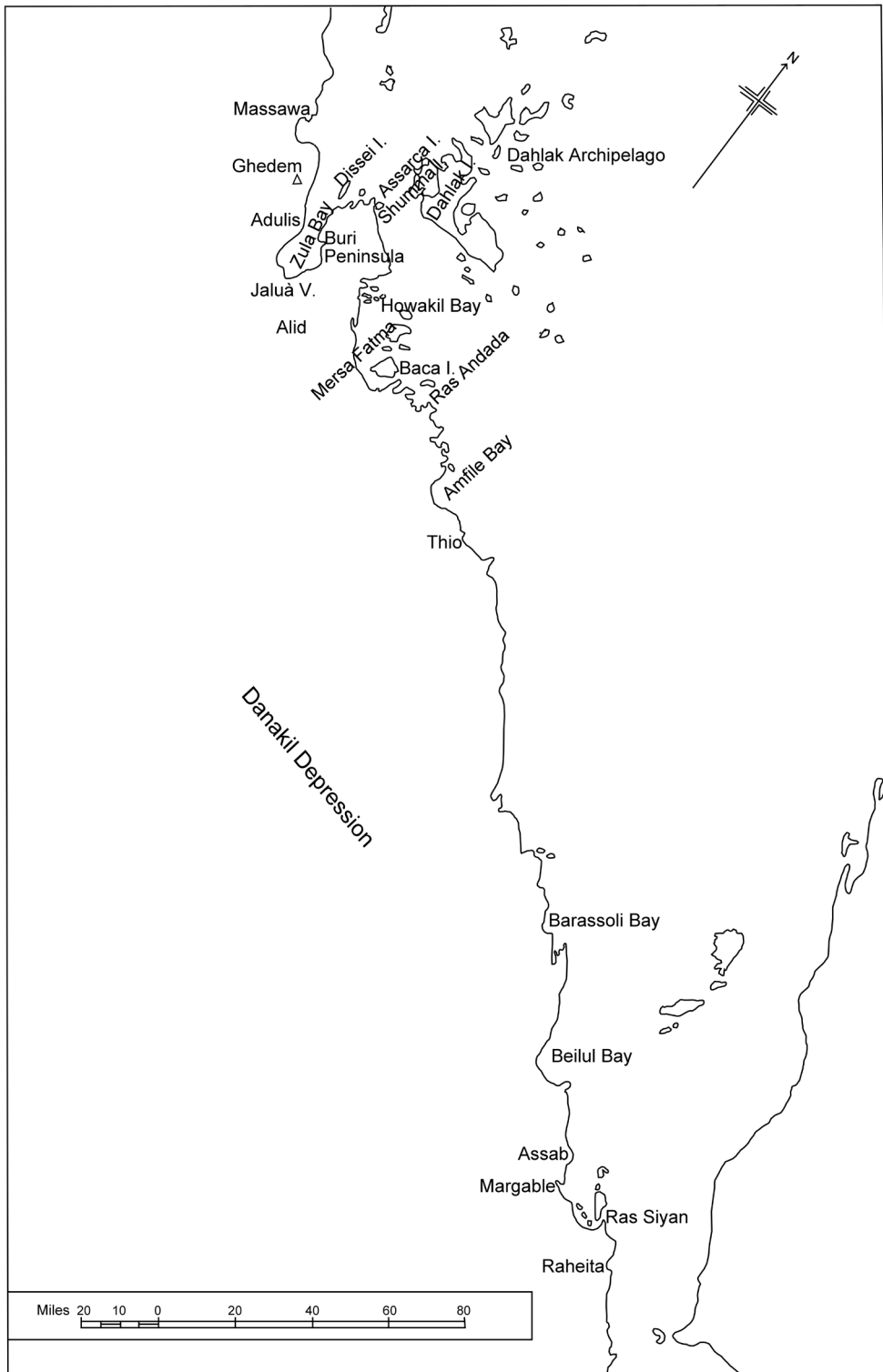


Fig. 1: Map of Adulis and the Eritrean coast.



Fig. 2: Sector 1, view from south of a collapsed wall from the latest occupation phase.



Fig. 3: Fragment of a black-grey polished mineral and micaceous Adulitan carinated bowl with decoration along the rim and the carina possibly obtained by impressing the edge of a shell on the wet paste (Paribeni collection, National Museum of Asmara).



Fig. 4: Decoration of incised and impressed patterns on the external surface of some black-grey ware sherds of Adulitan bowls (Paribeni collection, National Museum of Asmara).



Fig. 5: Rim sherds of Adulitan black-grey micaceous ware bowl with flat triangular in section rim, decorated with oblique incisions on the external surface.



Fig. 6: Wavy outline impression, possibly obtained by impressing on the wet paste the edge of a shell (Paribeni collection, National Museum of Asmara).

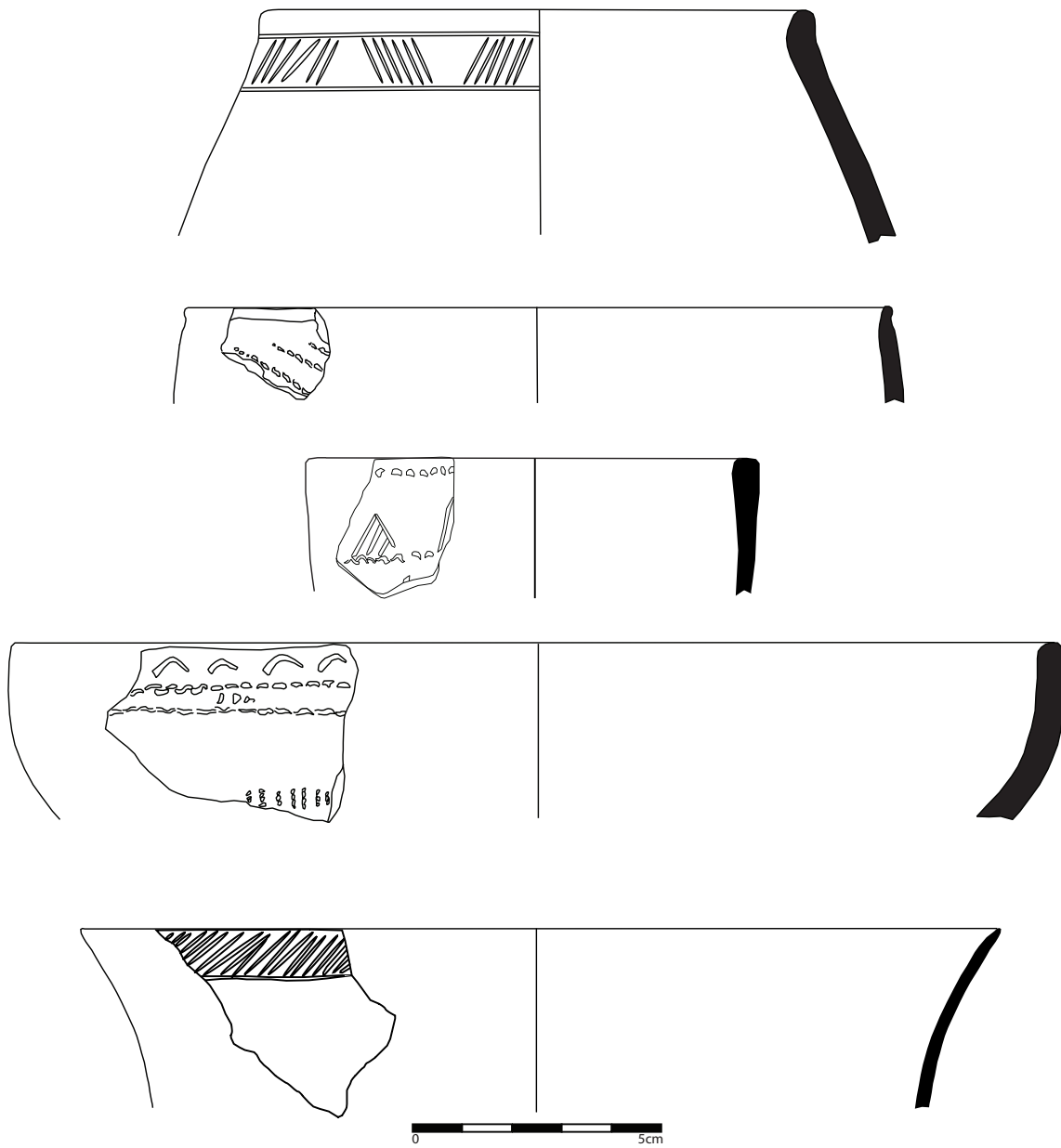


Fig. 7: Different rim shapes of black-grey ware Adulitan vessels.



Fig. 8: Fragments of orange-red micaceous ware bag-shaped Adulitan jars.



Fig. 9: Fragments of red-brown micaceous and organic tempered ware Adulitan bowls with incised rim, jars or bottles with incised moulded ledges on the shoulders.



Fig. 10: Rim sherd of brown mineral tempered ware red slipped closed cup with vertical grooves and a cross and a Ge'ez inscription under the rim.



Fig. 11: Black-topped beakers.



Fig. 12: Large orange-red micaceous ware rim sherd of a jar with scraped external surface.