



WADI QITNA REVISITED

Hans BARNARD, Eugen STROUHAL¹

Among its many treasures from all over the world the Náprstek Museum possesses an almost unique collection of earthenware pots and potsherds from Egyptian Nubia. These were donated to the museum by the Egyptian authorities out of gratitude for the Czech involvement in the UNESCO Nubian Monuments Salvage Campaign in the early 1960's. This Campaign entailed the famous lifting, above the expected level of the quickly rising Lake Nasser, of the monuments at Kalabsha, Wadi al-Sabu'a, Amada and Abu Simbel but also many rescue excavations. One of these was the expedition of the Charles University, directed by the late Professor Zbyněk Žába, to the cemeteries of Wadi Qitna and Kalabsha South in the spring of 1965 (Strouhal 1984, 1991). It was there that the vessels described in this article were unearthed.

Hand-made vessels from Lower Nubia

Many of the potsherds found in the tumuli at Wadi Qitna and Kalabsha South, dating from the 4th–5th centuries AD, were of cups and bowls made without the use of a potter's wheel. The vessels had often been highly polished and decorated with incised and impressed decorations. The clay of which the vessels were made was mixed with sand rather than the usual organic temper. Many of the decorations, frequently in strangely asymmetric patterns, were enhanced with a white inlay or a partial red slip (Plate 1).

Very few parallels for this unusual type of pottery were known at the time of excavation and publication. Kalabsha North, Sayala, Wadi al-Arab and Qasr Ibrim in the same area, also known as the Dodecaschoinos (Fig. 1), had produced a few similar sherds, among many from Egyptian and X-group vessels (Ricke 1967, Kromer 1967, Badawi 1976, Emery and Kirwan 1935, Rose 1992).

¹ H. Barnard, Research Associate; Cotsen Institute for Archaeology at UCLA; PO-box 951510; Los Angeles, CA 90095; USA and Professor E. Strouhal,; Institute for the History of Medicine and Foreign Languages; Kateřinská 32; 121 08 Prague 2. We would like to thank the Náprstek Museum, section of the National Museum, Prague, for their immediate and enthusiastic assistance with our research. This project would not have been possible without the financial and logistic support of Ms. A. A. Barnard-Van der Nat.

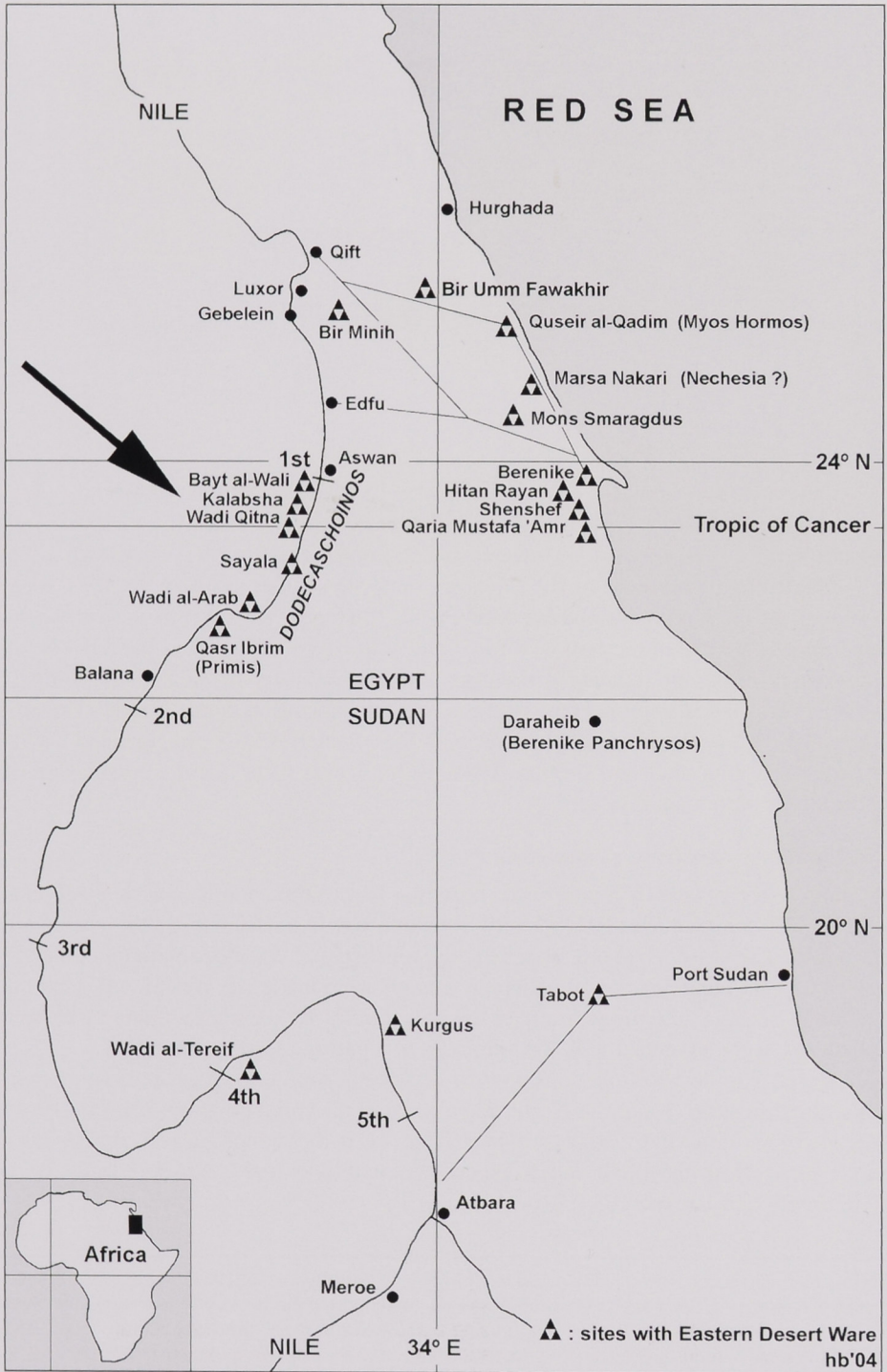


Fig. 1: Map of the desert between the Nile and the Red Sea in southern Egypt and northern Sudan. 1st–5th = 1st to 5th Cataracts

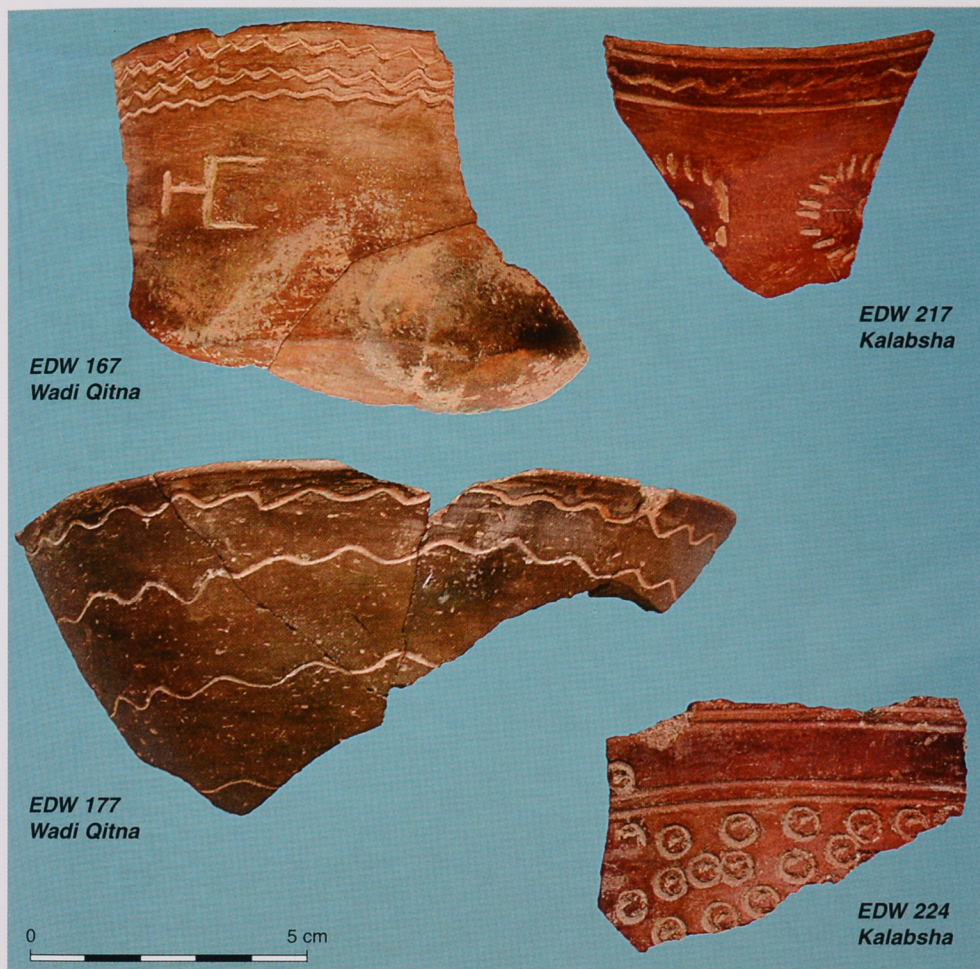


Plate 1: Example of four sherds from Wadi Qitna and Kalabsha South

Given the special nature of the sherds, and indeed of the sites where they were found in such abundance, they were studied in detail. A system for classification was created, both for the shape of the vessels (H 1 – H 9) and the lay-out of the decoration (D 1 – D 9). The chemical composition of the fabric of 61 sherds was analyzed by emission spectroscopy.² Many of the vessels could be repaired and restored but with the vanishing of Lower Nubia under the waters of Lake Nasser the prospects for the emergence of additional information seemed lost.

² By J. Čejka, E. Kaprálová and Z. Urbanec using a Zeiss Jena Q24 prism spectrograph and a Zeiss Jena SP2 spectrum projector. Their semi-quantitative results are given in Appendix II where they are compared with a quantitative analysis, in parts per million, by inductively coupled plasma mass spectrometry of twelve Eastern Desert Ware sherds from elsewhere (by S. Sakai, H. Neff and H. Barnard) and ten sherds from the Egyptian Nile Valley (after Mallory-Greenough and Greenough 1998). See Glowacki et al. 2002 for an discussion of these research techniques.

Tab. 1. Revised classification of EDW according to vessel form and decorative pattern (after Strouhal 1984).

H 0	Unknown	H 1	Cup
H 1a	Cup with S-shaped profile	H 1b	Carrinated cup
H 1c	Cylindrical cup	H 1d	Conical cup
H 2	Bowl	H 2a	Globular bowl
H 2b	Hemispherical bowl	H 2c	Conical bowl
H 2d	Footed or suspending bowl	H 3	Jar / pot
H 4	Goblet	H 5	Miniature
H 5a	Miniature cup	H 5b	Miniature bowl
H 5c	Miniature jar / pot	H 5d	Miniature goblet
H 6	Beak-spouted vessel	H 6a	Beak-spouted cup
H 6b	Beak-spouted globular bowl	H 6c	Beak-spouted hemispherical bowl
H 6d	Beak-spouted vessel with handle	H 7	Tubular-spouted vessel
H 8	Ladle	H 9	Dish
H 10	Other		

Tab. 2. Revised classification of EDW according to decorative pattern (after Strouhal 1984).

D 0	Unknown / no decoration	D 1	Exclusively on rim
D 2	Narrow, single band	D 3	Multiple, horizontal bands
D 4	Vertical with metopes	D 5	Vertical without metopes
D 6	Horizontal and vertical	D 7	Continuous diagonal
D 8	Unarticulated / asymmetric	D 9	Zoomorphic
D 10	Other		

Pottery from the Eastern Desert

Almost thirty years after the expedition to Wadi Qitna, very similar sherds were discovered in two unexpected places: Tabot, in the Eastern Desert of Sudan (Magid et al. 1995, Magid 1998, Barnard et al. in press), and Berenike, on the Egyptian Red Sea coast (Rose 1995, Sidebotham et al. 2001, Barnard et al. in press). Unexpected because Berenike and Tabot are not only far from Lower Nubia, and indeed the Nile Valley, but also over 500 km. of arid wasteland apart (Fig. 1). The same type of pottery has since then been found, always in small quantities among numerous sherds from imported vessels, at many other sites. Most notably among these are Wadi al-Tereif, in another area that will soon be lost because of a dam across the Nile, and Mons Smaragdus (Fig. 1). This last site comprises a number of ancient beryl mines of which the 5th century AD Egyptian diplomat Olympiodorus remarked that they could only be visited with the permission of the chieftain of the Blemmyans.³

The occurrence of the pottery coincides with an influx of a large number of people from outside. Miners, traders and quarrymen temporarily settled in the desert and provided an infrastructure that may have facilitated the production of pottery and has certainly enabled its accumulation and current study. Recent residue analysis by one of the authors,⁴ has shown that the vessels had been used for food and were therefore most likely utilitarian and

³ Olympiodorus 1.37 (see Eide et al., 1998, No. 309 for a translation and discussion). Our other major historical source on the Blemmyans are the writings of the military historian Procopius who described the Roman retreat from the Dodecaschoinos in 298 AD, almost three centuries after he supposed these events took place (De Bellis 1.19.27–37; Eide et al., 1998, No. 309, No. 328).

⁴ Using the Micromass GCT gas chromatographer and EI/CT TOF mass spectrometer, acquired through NSF grant CHE 0078299, of the Pasarow mass spectrometry laboratory at UCLA with the kind assistance and support of Alek N. Dooley and Dr. Kym F. Faull (see Charters et al. 1995 or Malainey et al. 1999 for an introduction in this research technique).

not primarily grave goods. With this pottery so different from the pottery produced in the Nile Valley at the time, in both production technique and decoration, it must have served as a strong cultural and maybe even ethnic marker for those using it. A preliminary interpretation of the chemical (Appendix III) and microscopic analysis of their fabric seems to indicate that they were made in a large number of geologically different places. Combined with the geographical distribution of the finds, this has led to the conclusion that the vessels may have been made and used by the more or less permanent dwellers of the desert (Rose 1995, Barnard 2002). Today the region can support roughly 30–40 000 pastoral nomads and there are reasons to assume that this might have been even more in the 4th–6th centuries AD.

The identification of these desert dwellers as the Blemmyans of the historic sources, as has been suggested, remains uncertain. Not only are the sources incomplete and ambiguous at best,⁵ but they seem to indicate that the Blemmyans inhabited a smaller area over a longer period of time (Eide et al. 1998). Perhaps the name should be understood more like the modern 'gypsy' or 'Bedouin'. Given all these certainties and uncertainties the pottery was prudently named 'Eastern Desert Ware (EDW)' and a research group was formed to study the material in further detail.⁶ One of the tasks this group set itself to do is the study of Eastern Desert Ware in museum collections and this article is one of the results of that.⁷

Eastern Desert Ware in the Náprstek Museum

A selection of 64 of the 190 EDW sherds currently kept by the Náprstek Museum were selected for further study, 54 from Wadi Qitna and 10 from Kalabsha South. The 110 repaired and reconstructed vessels were excluded, as were sherds that did not appear promising of yielding much information. Of the eight most typical reconstructed vessels, however, a full circle of 18 digital photographs was taken, each after rotating the vessel 20°. This enabled the creation of a three dimensional image for future reference.⁸ Four of the selected sherds had been published before (Strouhal 1984).⁹ All sherds were photographed and drawn in a formalized way aimed at reconstructing the vessel on paper (Plate 1, Figs. 2–8). The original circumference of the rim or the base was established, with a rim gauge, as was the thickness in several places along the break line. The average thickness and the percentage of the rim or base that was actually preserved, the 'estimated vessel equivalent', were noted down as indicators of the accuracy of the reconstruction. As

⁵ It is, for instance, difficult to say how remarks like 'the Blemmyans are reported to have no heads, their eyes and mouth being attached to their chests (Pliny the Elder, *Natural History* 5, 46)' should be interpreted.

⁶ This research group now consists of Dr. Anwar Abdel-Magid Osman (University of Madrid), Dr.J.L. Bintliff (Leiden University), Dr.J.F. Borghouts (Leiden University), Dr.S.M. Burstein (CSU Los Angeles), Dr.J.H.F. Dijkstra (Groningen University), Dr.J.W. Eerkens; (UC Davis), Dr.A. Manzo (Napels University), Dr.H. Neff (SCU Long Beach), Dr.P.T. Nicholson (University of Wales), Dr.R.H. Pierce (University of Bergen), Dr.C.C. Rapp (UC Los Angeles), Dr.P.J. Rose (Cambridge University), Dr.S.A. Rosen (Ben-Gurion University), Dr.S.E. Sidebotham (University of Delaware), Dr.S.T. Smith (UC Santa Barbara), Dr.R.S. Tomber (University of Southampton), Dr.J. van der Vliet (Leiden University), Dr.W.Z. Wendrich (UC Los Angeles), Dr.K.A. Willemsse (Erasmus University), Dr.G. Pyke, Dr.M. Serpico and the authors.

⁷ More general information and some more results can be found at the project's website www.barnard.nl/EDWdata

⁸ One of the animated version of these can be viewed at the project's website www.barnard.nl/EDW-data while the remainder is stored at a pass-word protected part of www.archbase.org

⁹ These were identified as P 1126 (here EDW 168), P 1202a (here EDW 181), P 1237b (here EDW 192) and P 1277 (here EDW 205).

most of the previous publications on this type of pottery show the section on the right side of the drawings, we have chosen to do the same.

A description of each sherd was entered into a relational data-base, using FileMaker Pro 5.5.¹⁰ The color of the inside, the outside and the break of each sherd was compared against the standard colors of the Munsell Soil Chart. The usual practice of forcing a fresh break could not be maintained as these sherds are part of a museum collection. Instead a small stretch of the break was scraped with a scalpel but the actual color might be slightly different from the one given here. With two exceptions all sherds were of the typical rusty red to orange fabric with clearly visible, poorly sorted white inclusions of quartz and limestone known from Berenike, Kab Marfu'a and Tabot (Barnard et al. in press). The most common arrangement is now identified as EDW-1. Fabric EDW-2 is similar to EDW-1, but has some reduced organic material rendering part of the break much darker. EDW-3 is similar to EDW-1, but has additional flakes of golden mica which appear as shiny spots on the surfaces. Two vessels (EDW 190 and 207) were most probably made of Nile silt, the rest was of a fabric very similar to EDW-1, yet with a slightly different appearance. These were entered as 'unclassified' (Table 3). Again, the absence of a fresh break leaves the identification of the fabric uncertain.

Special attention was given to the surface treatment of each vessel and to the way in which the decoration appeared to have been made. Similar to EDW found at other sites, many vessels had been polished ('burnished') by rubbing them against a hard surface of stone or metal. Most decorations were made with a triangular tool, most likely the thorn of a date palm (*Phoenix dactylifera*), or a rounded point. In two instances (EDW 167 and 207) part of the decoration seemed to have been incised after the vessel was fired. These may have served as owners marks or to signify the intended use or contents of the vessel. EDW 200 shows how the shape of the vessel is sometimes used to enhance the decoration ('plastic') and EDW 218 shows an instance where the decoration was not properly executed and impressed twice.

The lay-out of the decoration on each vessel could be classified using the system put forward earlier (Strouhal 1984). The classification system for the form of the vessels was slightly adapted because the recently studied sites produced larger vessels than the cemeteries of Wadi Qitna and Kalabsha South on which the original classification was based. The three vessels at the end of the catalogue, which are not from Wadi Qitna or Kalabsha South nor in the collection of the Náprstek Museum, may serve as an example for this. The phenomenon may well reflect the selection of more personal vessels, cups and small bowls, to serve as grave goods rather than larger, communal serving vessels and pottery with another function. An entry 'jar/pot' was introduced as class 'H 3', replacing the 'footed or suspending bowl' which is now class 'H 2d', and the classes '0' (unknown) and '10' (other) were added to both classification systems (Table 1.). A remarkable variation on a common form are the cups with an extremely flaring rim, most notably in EDW 189 and 204. Even more remarkable is EDW 192, an almost square spouted bowl probably meant for serving melted butter, fat or oil during meals.

Future research

Next to the on-going collection of macroscopic data on EDW sherds, both in the field and in museums, and the further analysis of the collected data, more sherds will be prepared for laboratory analysis. This will include the cutting and studying of petrologic thin-sections and trace element analysis (by inductively coupled plasma mass spectrometry) to better un-

¹⁰ This database will be made available at a pass-word protected part of www.archbase.org

derstand where the pottery was made (Appendix II). But also additional fatty acid residue analysis (by gas chromatography followed by mass spectrometry) to establish what the vessels were once used for. Apart from the study of the ancient material, experiments have begun with the production of vessels similar to EDW, to better understand the problems and possibilities of a basic pottery industry. A number of food stuffs have been prepared in new vessels to analyze the residue that they leave and compare this with the residues found in the ancient sherds. And an ethno-archaeological comparison is being made with the current pastoral nomads in the area, the Ababda Bedouin. Hopefully all this will not only shed some light on the people that once made and used this rather special pottery, but also on the question why so much of it was found in Wadi Qitna and Kalabsha South.

Appendix I – Catalogue

Description of 54 Eastern Desert Ware sherds from Wadi Qitna and ten from Kalabsha South, compared with one Eastern Desert Ware sherd from Gebel Zabara (Mons Smaragdus area) and two from Kurgus (not in the collection of the Náprstek Museum).

Format EDW number and context. Weight and average thickness. Munsell color and treatment of inside. Munsell color and treatment of outside. Method of decoration, tools and direction. Rim diameter and estimated vessel equivalent. Color of break, fabric. Classification of form and lay-out, predominant motifs. Remarks.

Wadi Qitna

EDW 161 Wadi Qitna, WQ 48 – P 1106b (burial mound). Weight 23 g. Thickness 5.9 mm. Inside 10 R 4/4, smoothed. Outside 10 R 4/4, burnished. Decoration incised, impressed with chisel (direction unknown). Rim diameter 11 cm. (18 %). Break 2.5 YR 6/6, fabric EDW-1. Form and lay-out H 1, D 2 (lines, waves). One of three different vessels from the same context of which only two have been recorded (cf. EDW 162).

EDW 162 Wadi Qitna, WQ 48 – P 1106c (burial mound). Weight 37 g. Thickness 5.8 mm. Inside 2.5 YR 4/4, smoothed. Outside 2.5 YR 4/6, burnished. Decoration incised, impressed with triangular tool (direction unknown). Break 5 YR 5/1, fabric unclassified. Form and lay-out H 1, D 0 (zigzag). Base of a cup (diameter 8 cm.). One of three different vessels from the same context of which only two have been recorded (cf. EDW 161).

EDW 163 Wadi Qitna, WQ 25 – P 1108 (burial mound). Weight 40 g. Thickness 4.9 mm. Inside 10 YR 4/1, burnt. Outside 10 R 5/6, burnished. Decoration impressed with triangular tool (direction unknown). Break 5 YR 4/1, fabric unclassified. Form and lay-out H 1c, D 6 (waves, X-motif). Base of cylindrical cup with elaborate decoration (diameter 10 cm.).

EDW 164 Wadi Qitna, WQ 53 – P 1111a (burial mound). Weight 16 g. Thickness 3.8 mm.

Inside 10 YR 5/3, wiped. Outside 2.5 YR 5/6, burnished. Decoration incised with chisel (direction unknown). Break 5 YR 5/6, fabric unclassified. Form and lay-out H 1, D 6 (waves). Large body sherd.

EDW 165 Wadi Qitna, WQ 53 – P 1111b (burial mound). Weight 11 g. Thickness 4.1 mm. Inside 5 YR 5/4, wiped. Outside 2.5 YR 5/4, smoothed. Decoration impressed with chisel (working left to right). Break 7.5 YR 5/3, fabric EDW-1. Form and lay-out H 0, D 3 (running dog, waves). Body sherd, too little remains for certain classification.

EDW 166 Wadi Qitna, WQ 55 – P 1112 (burial mound). Weight 60 g. Thickness 4.8 mm. Inside 2.5 Y 4/4, burnished. Outside 2.5 Y 5/3, burnished. Decoration impressed, incised with triangular tool (direction unknown). Rim diameter 9 cm. (52 %). Break 2.5 Y 4/1, fabric unclassified. Form and lay-out H 1b, D 3 (triangles, waves). Decorated on both outside and inside.

EDW 167 Wadi Qitna, WQ 65 – P 1125 (burial mound). Weight 91 g. Thickness 4.8 mm. Inside 7.5 YR 4/4, burnished. Outside 10 YR 5/4, burnished. Decoration impressed with chisel (direction unknown). Rim diameter 11 cm. (40 %). Break 10 YR 7/6, fabric unclassified. Form and lay-out H 1b, D 2 (waves). Has a singular decoration, possibly an owner's mark incised in the

fired vessel, next to the rather common wavy lines just below the rim (cf. EDW 207).

EDW 168 Wadi Qitna, WQ 69 – P 1126 (burial mound). Weight 24 g. Thickness 4.1 mm. Inside 5 YR 3/1, burnt, wiped. Outside 5 YR 5/4, smoothed. Decoration impressed, incised with chisel (working left to right). Rim diameter 9 cm. (27 %). Break 5 YR 5/2, fabric unclassified. Form and lay-out H 1, D 6 (running dog, triangles). See Strouhal 1984, Fig. 128 for another drawing of the same vessel.

EDW 169 Wadi Qitna, WQ 77 – P 1132 (burial mound). Weight 145 g. Thickness 5.3 mm. Inside 5 YR 6/6, burnished. Outside 10 R 4/4, red slip. Decoration incised with triangular tool and filled in (direction unknown). Rim diameter 14.5 cm. (74 %). Break 7.5 YR 6/6, fabric unclassified. Form and lay-out H 2c, D 7 (triangles). Red slip spills over on inside rim.

EDW 170 Wadi Qitna, WQ 89 – P 1134 (burial mound). Weight 54 g. Thickness 4.8 mm. Inside 2.5 YR 4/4, burnished, smoothed. Outside 2.5 YR 4/6, burnished, mottled. Decoration incised with chisel and filled in (direction unknown). Rim diameter 9 cm. (25 %). Break 2.5 YR 5/6, fabric unclassified. Form and lay-out H 1c, D 2 (waves).

EDW 171 Wadi Qitna, WQ 90a – P 1153 (burial mound). Weight 10 g. Thickness 4.3 mm. Inside 7.5 YR 3/3, smoothed. Outside 7.5 YR 4/4, smoothed. Decoration impressed with chisel (direction unknown). Rim diameter 8 cm. (10 %). Break 10 YR 5/1, fabric unclassified. Form and lay-out H 1, D 2 (waves).

EDW 172 Wadi Qitna, WQ 92 – P 1157 (burial mound). Weight 17 g. Thickness 4.8 mm. Inside 2.5 YR 5/4, smoothed. Outside 10 R 5/6, burnished. Decoration impressed, incised with triangular tool and filled in (direction unknown). Rim diameter 10 cm. (16 %). Break 7.5 YR 6/3, fabric unclassified. Form and lay-out H1, D 5 (X-motif).

EDW 173 Wadi Qitna, WQ 95 – P 1161 (burial mound). Weight 32 g. Thickness 4.6 mm. Inside 5 YR 4/4, wiped. Outside 5 YR 4/4, burnished, red slip. Decoration incised, punctuated with triangular tool (direction unknown). Rim diameter 18 cm. Break 5 YR 4/1, fabric EDW-2. Form and lay-out H 2, D 5 (lines, triangles). Base of bowl (diameter 12 cm.).

EDW 174 Wadi Qitna, WQ 107 – P 1165 (burial mound). Weight 38 g. Thickness 4.2 mm. Inside 10 YR 4/1, smoothed. Outside 2.5 YR

4/4, burnished, red slip. Decoration impressed, incised with chisel, triangular tool (direction unknown). Rim diameter 13 cm. (10 %). Break 5 YR 5/1, fabric unclassified. Form and lay-out H 1, D 7 (rhomboids, triangles). Red slip spills over on inside rim?

EDW 175 Wadi Qitna, WQ 107 – P 1166 (burial mound). Weight 11 g. Thickness 5.1 mm. Inside 10 R 5/4, wiped. Outside 10 R 5/6, smoothed. Decoration impressed, incised with triangular tool (direction unknown). Break 10 R 5/3, fabric unclassified. Form and lay-out H 0, D 6 (X-motif). Body sherd, too little remains for certain classification.

EDW 176 Wadi Qitna, WQ 109 – P 1177 (burial mound). Weight 19 g. Thickness 4.1 mm. Inside 7.5 YR 5/3, wiped. Outside 7.5 YR 5/3, smoothed. Decoration impressed, punctuated with chisel, triangular tool (direction unknown). Rim diameter 12 cm. (11 %). Break 7.5 YR 4/1, fabric unclassified. Form and lay-out H 1c, D 3 (lines, waves).

EDW 177 Wadi Qitna, WQ 116 – P 1187 (burial mound). Weight 59 g. Thickness 5.7 mm. Inside 10 YR 4/2, wiped. Outside 7.5 YR 4/3, burnished. Decoration incised with chisel and filled in (direction unknown). Rim diameter 15 cm. (35 %). Break 10 YR 5/1, fabric unclassified. Form and lay-out H 2b, D 3 (waves).

EDW 178 Wadi Qitna, WQ 115 – P 1188 (burial mound). Weight 12 g. Thickness 4.8 mm. Inside 2.5 YR 5/4, burnished. Outside 10 R 4/3, burnished, red slip. Decoration incised, punctuated with round point, triangular tool (direction unknown). Rim diameter 11 cm. (18 %). Break 5 YR 5/6, fabric unclassified. Form and lay-out H 1, D 8 (lines).

EDW 179 Wadi Qitna, WQ 129 – P 1195 (burial mound). Weight 9 g. Thickness 4.6 mm. Inside 7.5 YR 4/3, wiped. Outside 7.5 YR 4/3, burnished. Decoration impressed, incised with triangular tool (direction unknown). Rim diameter 10 cm. (9 %). Break 7.5 YR 6/1, fabric unclassified. Form and lay-out H 1, D 7 (triangles, waves).

EDW 180 Wadi Qitna, WQ 132 – P 1197 (burial mound). Weight 59 g. Thickness 4.0 mm. Inside 5 YR 5/4, smoothed. Outside 5 YR 5/4, burnished, red slip. Decoration incised with chisel and colored (direction unknown). Rim diameter 8.5 cm. (45 %). Break 5 YR 6/4, fabric EDW-1. Form and lay-out H 1, D 3 (lines, waves).

EDW 181 Wadi Qitna, WQ 138 – P 1202

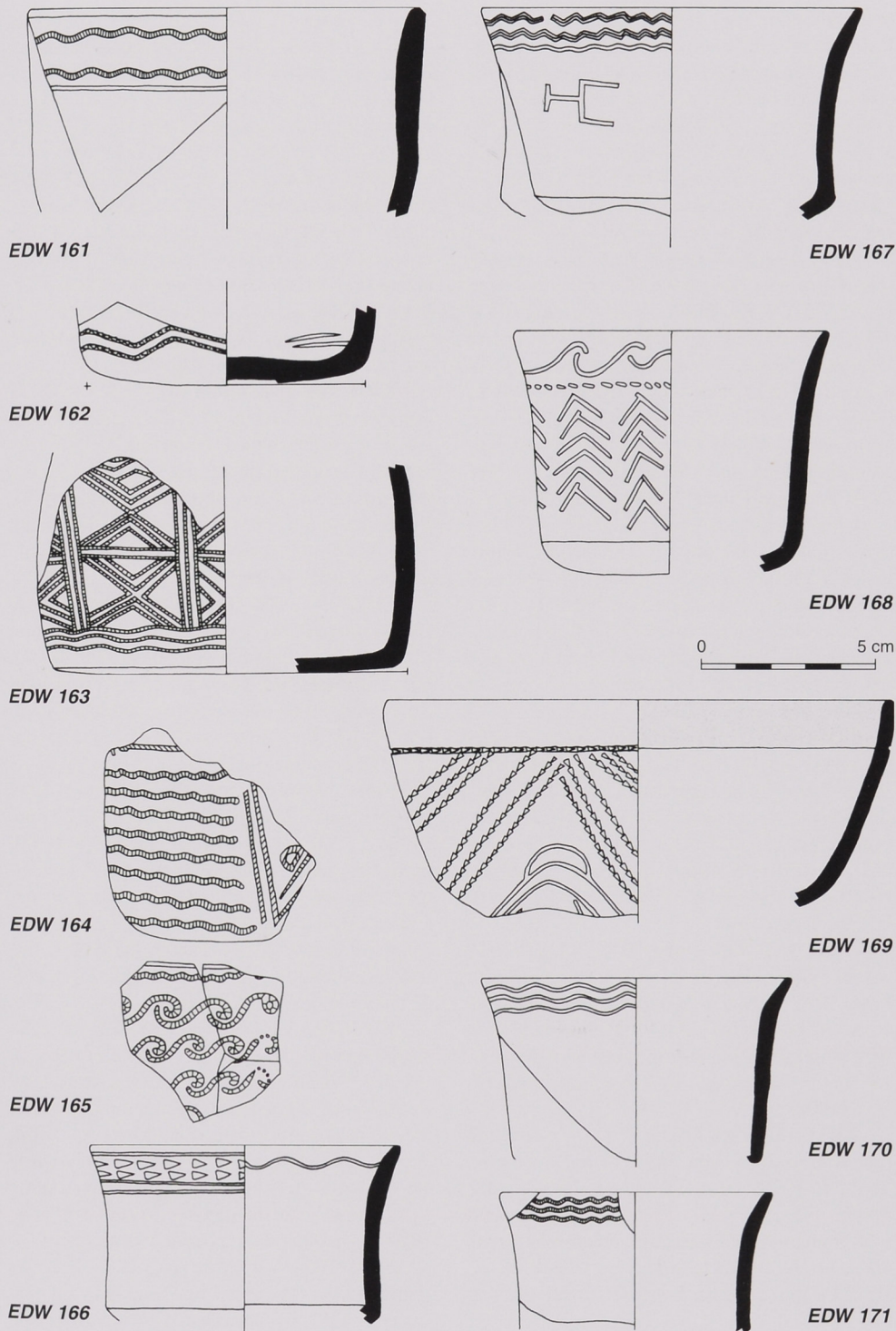


Fig. 2. Eastern Desert Ware 161-171.

(burial mound). Weight 67 g. Thickness 4.8 mm. Inside 5 YR 5/6, smoothed. Outside 5 YR 5/6, burnished, red slip. Decoration impressed, incised, punctuated with round point, triangular tool and colored (direction unknown). Rim diameter 15 cm. (25 %). Break 5 YR 5/1, fabric unclassified. Form and lay-out H 1b, D 7 (triangles, waves). See Strouhal 1984, Fig. 128 for another drawing of the same vessel.

EDW 182 Wadi Qitna, WQ 168 – P 1215 (burial mound). Weight 9 g. Thickness 3.4 mm. Inside 7.5 YR 5/6, burnished. Outside 7.5 YR 4/4, burnished, red slip. Decoration plastic and incised, impressed punctuated with round point (direction unknown). Rim diameter 9 cm. (27 %). Break 7.5 YR 6/4, fabric unclassified. Form and lay-out H 1, D 3 (lines, waves). Remarkable thick and shiny red slip (cf. EDW 187). Note 'pearl chain' line (cf. EDW 209).

EDW 183 Wadi Qitna, WQ 160 – P 1216 (burial mound). Weight 5 g. Thickness 3.9 mm. Inside 5 YR 5/6, wiped. Outside 10 R 4/6, burnished, red slip. Decoration incised with chisel (direction unknown). Break 7.5 YR 4/1, fabric unclassified. Form and lay-out H 0, D 0 (X-motif). Body sherd, too little remains for certain classification.

EDW 184 Wadi Qitna, WQ 160 – P 1218 (burial mound). Weight 19 g. Thickness 5.8 mm. Inside 7.5 YR 3/4, compacted, smoothed. Outside 10 YR 4/4, compacted, smoothed. Decoration impressed, incised with chisel (direction unknown). Rim diameter 19 cm. (6 %). Break 10 YR 5/1, fabric EDW-1. Form and lay-out H 2, D 2 (running dog).

EDW 185 Wadi Qitna, WQ 163 – P 1221 (burial mound). Weight 64 g. Thickness 6.7 mm. Inside 2.5 YR 4/4, compacted, smoothed. Outside 10 R 4/6, burnished, red slip. Decoration incised with chisel (working left to right). Rim diameter 15 cm. (15 %). Break 7.5 YR 6/8, fabric unclassified. Form and lay-out H 2, D 2 (waves).

EDW 186 Wadi Qitna, WQ 163 – P 1222 (burial mound). Weight 30 g. Thickness 4.6 mm. Inside 10 R 3/1, burnt, smoothed. Outside 10 R 4/8, burnished, red slip. Decoration punctuated with triangular tool (direction unknown). Break 10 R 5/6, fabric unclassified. Form and lay-out H 0, D 0 (lines). Large body sherd with the scar of a handle.

EDW 187 Wadi Qitna, WQ 163 – P 1223 (burial mound). Weight 8 g. Thickness 4.7 mm. Inside 7.5 YR 3/1, burnt, compacted. Outside 7.5 R 4/8, burnished, red slip. Decoration plastic and

incised, punctuated with triangular tool (direction unknown). Break 7.5 YR 6/1, fabric unclassified. Form and lay-out H 0, D 0 (triangles). Body sherd, too little remains for certain classification. Remarkable thick and shiny red slip, cf. EDW 182 (slip), EDW 198 and 224 (decoration).

EDW 188 Wadi Qitna, WQ 163 – P 1224 (burial mound). Weight 64 g. Thickness 5.1 mm. Inside 5 YR 5/4, smoothed. Outside 5 YR 5/4, burnished. Decoration incised with chisel (direction unknown). Rim diameter 14 cm. (9 %). Break 2.5 YR 6/3, fabric EDW-1. Form and lay-out H 1b, D 7 (triangles, waves). Two, non-joining sherds (rim and base) of the same carinated cup.

EDW 189 Wadi Qitna, WQ 163 – P 1225a (burial mound). Weight 17 g. Thickness 3.8 mm. Inside 5 YR 5/6, wiped. Outside 5 YR 4/6, burnished. Decoration impressed with chisel (direction unknown). Rim diameter 9 cm. (8 %). Break 5 YR 6/4, fabric unclassified. Form and lay-out H 1b, D 2 (waves). Note extremely flaring rim (cf. EDW 204).

EDW 190 Wadi Qitna, WQ 163 – 1225b/c (burial mound). Weight 9 g. Thickness 4.1 mm. Inside 5 YR 4/1, burnt, smoothed. Outside 2.5 YR 5/8, burnished. Decoration impressed with chisel (direction unknown). Rim diameter 8 cm. (20 %). Break 10 YR 6/1, silt. Form and lay-out H 1, D 3 (running dog, waves).

EDW 191 Wadi Qitna, WQ 170b – P 1232 (burial mound). Weight 29 g. Thickness 5.2 mm. Inside 2.5 YR 4/4, burnished. Outside 10 R 4/3, burnished, mottled. Decoration incised, punctuated with chisel, hollow probe (direction unknown). Rim diameter 20 cm. (1 %). Break 10 R 3/1, fabric EDW-2. Form and lay-out H 2, D 3 (circles, running dog). Three non-joining sherds of the same bowl.

EDW 192 Wadi Qitna, WQ 173 – P 1237 (burial mound). Weight 43 g. Thickness 4.2 mm. Inside 2.5 YR 4/6, burnished, mottled. Outside 10 R 4/6, burnished, mottled. Decoration impressed, incised with chisel (direction unknown). Break 2.5 YR 6/4, fabric EDW-1. Form and lay-out H 10, D 6 (circles, running dog). Remarkable square bowl with spout, see Strouhal 1984, Fig. 132 for another drawing of the same vessel.

EDW 193 Wadi Qitna, WQ 173 – P 1238a (burial mound). Weight 11 g. Thickness 4.3 mm. Inside 5 YR 5/6, burnished. Outside 10 R 4/6, burnished, red slip. Decoration punctuated with chisel, triangular tool (direction unknown). Rim diameter 8 cm. (16 %). Break 5 YR 3/1, fabric EDW-2. Form and lay-out H 1, D 10 (lines). Red

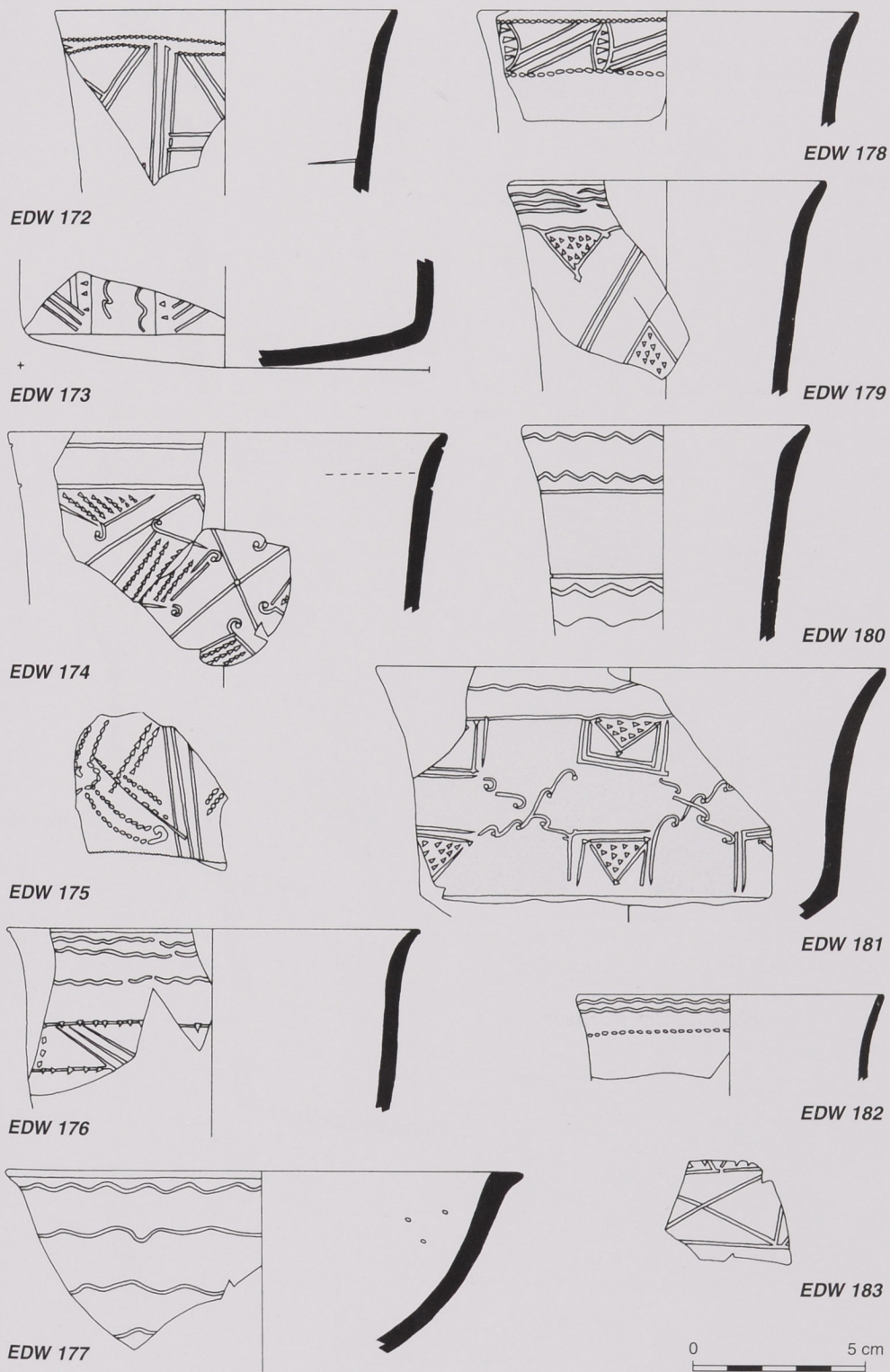
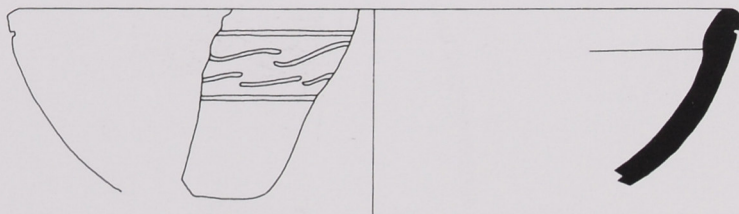
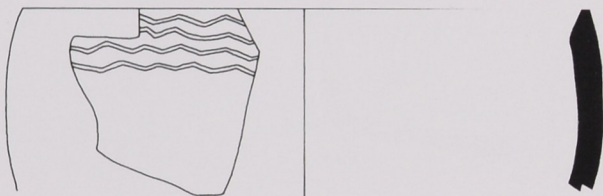


Fig. 3. Eastern Desert Ware 172–1783.

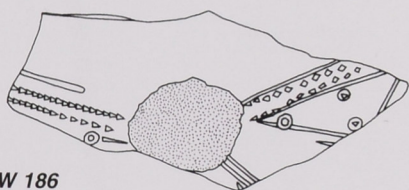
EDW 184



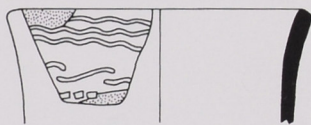
EDW 185



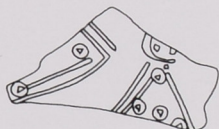
EDW 186



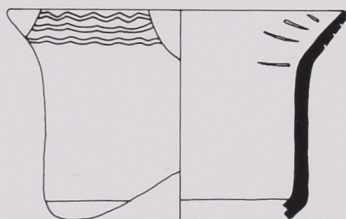
EDW 189



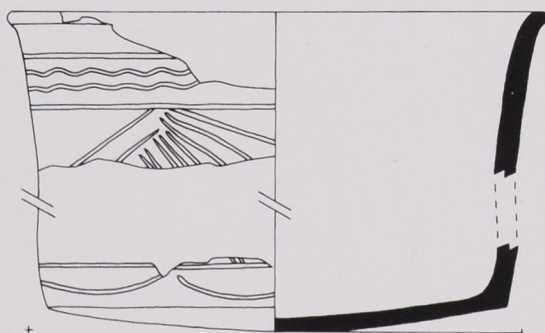
EDW 187



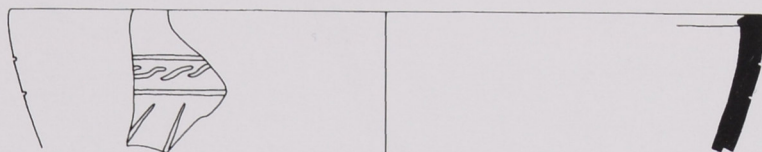
EDW 190



EDW 188



EDW 191



0 5 cm

Fig. 4. Eastern Desert Ware 184–191.

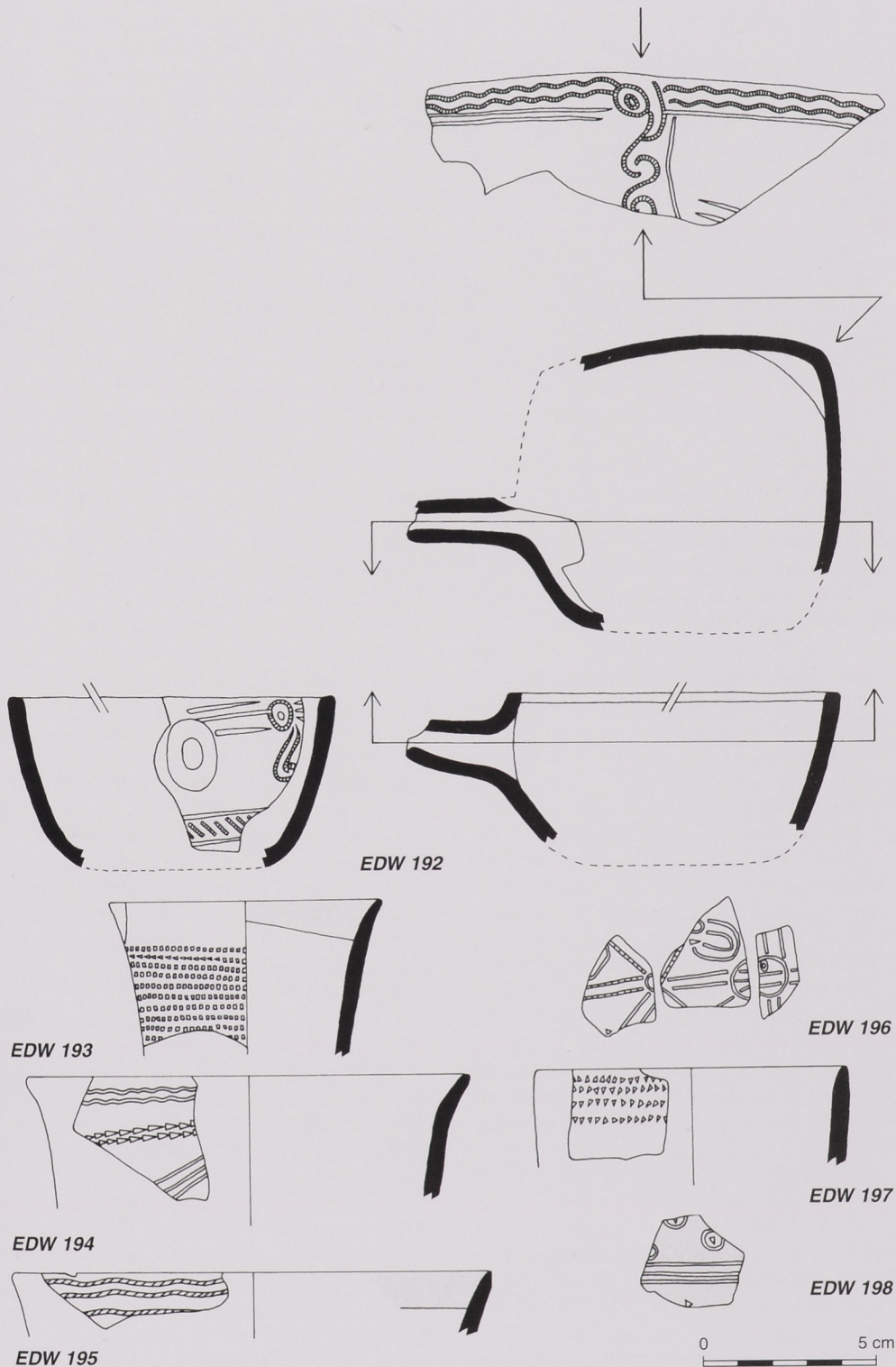


Fig. 5. Eastern Desert Ware 192–198.

slip spills over on inside rim. One of three rim sherds from the same context, but from different vessels (cf. EDW 194 and 195).

EDW 194 Wadi Qitna, WQ 173 – P 1238b (burial mound). Weight 9 g. Thickness 4.2 mm. Inside 5 YR 5/6, smoothed. Outside 10 R 5/6, burnished. Decoration impressed, incised with chisel, triangular tool (direction unknown). Rim diameter 13 cm. (6 %). Break 2.5 YR 6/6, fabric EDW-1. Form and lay-out H 1, D 0 (lines, waves). One of three rim sherds from the same context, but from different vessels (cf. EDW 193 and 195).

EDW 195 Wadi Qitna, WQ 173 – P 1238c (burial mound). Weight 4 g. Thickness 4.9 mm. Inside 10 R 4/4, smoothed. Outside 7.5 R 4/3, burnished, red slip. Decoration impressed, incised with triangular tool (direction unknown). Rim diameter 14 cm. (12 %). Break 2.5 YR 5/6, fabric unclassified. Form and lay-out H 2, D 2 (waves). Red slip spills over on inside time. One of three rim sherds from the same context, but from different vessels (cf. EDW 193 and 194).

EDW 196 Wadi Qitna, WQ 179 – P 1239 (burial mound). Weight 9 g. Thickness 4.5 mm. Inside 2.5 YR 4/4, wiped. Outside 10 R 4/4, burnished. Decoration impressed, incised with triangular tool (direction unknown). Break 5 YR 5/8, fabric unclassified. Form and lay-out H 1, D 0 (sun-motif, X-motif). Five non-joining body sherds of the same cup.

EDW 197 Wadi Qitna, WQ 173 – P 1240a (burial mound). Weight 5 g. Thickness 5.0 mm. Inside 7.5 YR 3/3, smoothed. Outside 7.5 YR 4/3, smoothed. Decoration punctuated with triangular tool (direction unknown). Rim diameter 9 cm. (6 %). Break 7.5 YR 4/1, fabric unclassified. Form and lay-out H 1, D 2 (lines).

EDW 198 Wadi Qitna, WQ 173 – P 1240b (burial mound). Weight 4 g. Thickness 3.9 mm. Inside 7.5 YR 4/4, wiped. Outside 5 YR 4/4, smoothed, red slip. Decoration incised, punctuated with triangular tool (direction unknown). Break 5 YR 6/6, fabric EDW-1. Form and lay-out H 0, D 0 (circles, lines).

EDW 199 Wadi Qitna, WQ 199 – P 1245 (burial mound). Weight 66 g. Thickness 5.7 mm. Inside 5 YR 4/6, smoothed. Outside 5 YR 4/6, burnished, red slip. Decoration incised, punctuated with triangular tool and colored (direction unknown). Rim diameter 14 cm. (9 %). Break 5 YR 4/1, fabric unclassified. Form and lay-out H 1, D 3 (triangles, waves). Other sherds from the same context are presumably also from this vessel.

EDW 200 Wadi Qitna, WQ 205 – P 1258a (burial mound). Weight 25 g. Thickness 4.3 mm. Inside 2.5 YR 4/6, smoothed. Outside 10 R 4/6, burnished, mottled, red slip. Decoration plastic and impressed, incised with triangular tool and colored (direction unknown). Break 5 YR 5/6, fabric EDW-1. Form and lay-out H 1c, D 7 (sun-motif). Base of a cylindrical cup (diameter 11 cm.). One of three different vessels from the same context (cf. EDW 201 and 202).

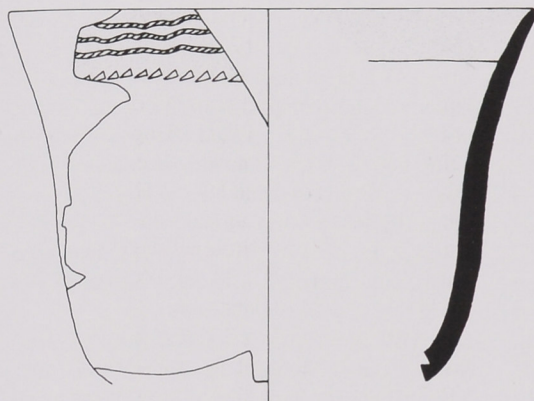
EDW 201 Wadi Qitna, WQ 205 – P 1258b (burial mound). Weight 5 g. Thickness 4.3 mm. Inside 7.5 YR 3/2, burnt, smoothed. Outside 2.5 YR 5/6, red slip, smoothed. Decoration incised, punctuated with triangular tool and colored (direction unknown). Rim diameter 9 cm. (13 %). Break 7.5 YR 4/1, fabric unclassified. Form and lay-out H 1, D 3 (lines, round brackets). One of three different vessels from the same context (cf. EDW 200 and 202).

EDW 202 Wadi Qitna, WQ 205 – P 1258c (burial mound). Weight 11 g. Thickness 4.8 mm. Inside 5 YR 5/6, smoothed. Outside 7.5 YR 5/4, burnished, red slip. Decoration incised with chisel and colored (direction unknown). Rim diameter 8 cm. (10 %). Break 7.5 YR 6/2, fabric unclassified. Form and lay-out H 1, D 2 (running dog). One of three different vessels from the same context (cf. EDW 200 and 201).

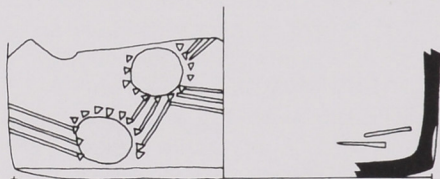
EDW 203 Wadi Qitna, WQ 220 – P 1274 (burial mound). Weight 87 g. Thickness 4.9 mm. Inside 5 YR 5/4, smoothed. Outside 2.5 YR 4/3, burnished, red slip. Decoration incised, punctuated with triangular tool and colored (direction unknown). Rim diameter 12 cm. (18 %). Break 5 YR 5/6, fabric EDW-1. Form and lay-out H 1b, D 4 (triangles, waves).

EDW 204 Wadi Qitna, WQ 220 – P 1276 (burial mound). Weight 28 g. Thickness 4.1 mm. Inside 2.5 YR 4/6, smoothed. Outside 7.5 YR 4/6, burnished, red slip. Decoration plastic and impressed, incised, punctuated with hollow probe and triangular tool (direction unknown). Rim diameter 7.5 cm. (34 %). Break 10 R 4/1, fabric EDW-1. Form and lay-out H 1, D 3 (running dog, triangles, X-motif). Note extremely flaring rim (cf. EDW 189).

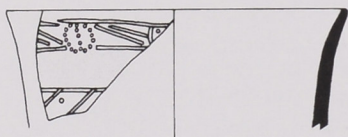
EDW 205 Wadi Qitna, WQ 220 – P 1277 (burial mound). Weight 32 g. Thickness 4.2 mm. Inside 5 YR 5/6, wiped. Outside 5 YR 5/6, burnished, red slip. Decoration impressed, incised with triangular tool and colored (direction unknown). Rim diameter 7.5 cm. (40 %). Break 5



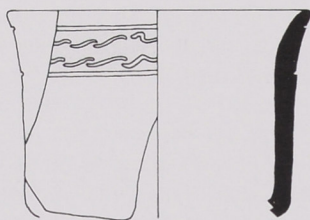
EDW 199



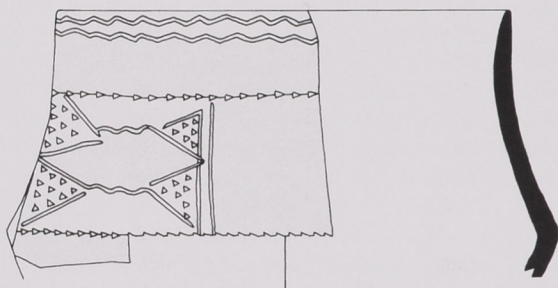
EDW 200



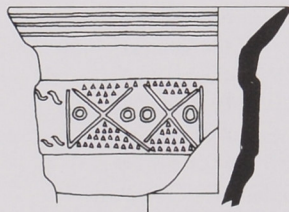
EDW 201



EDW 202



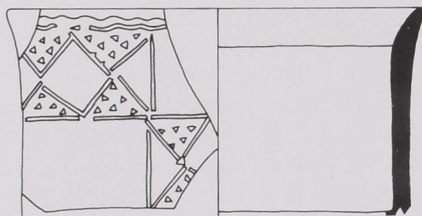
EDW 203



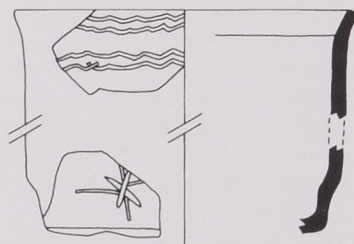
EDW 204



EDW 205



EDW 206



EDW 207

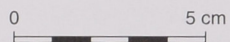


Fig. 6. Eastern Desert Ware 199–207.

YR 4/1, fabric unclassified. Form and lay-out H 1, D 6 (circles, triangles). See Strouhal 1984, Fig. 125 for another drawing of the same vessel.

EDW 206 Wadi Qitna, WQ 220 – P 1278 (burial mound). Weight 35 g. Thickness 4.8 mm. Inside 2.5 YR 4/6, smoothed, red slip. Outside 2.5 YR 4/6, burnished, red slip. Decoration incised, punctuated with triangular tool and colored (direction unknown). Rim diameter 11 cm. (14 %). Break 2.5 YR 6/3, fabric EDW-1. Form and lay-out H 1, D 6 (triangles, waves, X-motif). Red slip spills over on inside rim. See Strouhal 1984, Fig. 128 for another drawing of the same vessel.

EDW 207 Wadi Qitna, WQ 220 – P 1279 (burial mound). Weight 22 g. Thickness 3.8 mm. Inside 2.5 YR 5/6, wiped. Outside 10 R 4/8, burnished, red slip. Decoration incised with chisel (direction unknown). Rim diameter 9 cm. (20 %). Break 5 YR 3/1, silt. Form and lay-out H 1, D 3 (waves). Two non-joining sherds (rim and base) of the same cup. Has a remarkable decoration, probably incised after the vessel was fired, next to the rather common wavy lines below the rim (cf. EDW 207).

EDW 208 Wadi Qitna, WQ 263 – P 1298 (burial mound). Weight 224 g. Thickness 6.9 mm. Inside 7.5 YR 4/4, compacted, smoothed. Outside 5 YR 4/4, compacted, smoothed. Decoration incised, punctuated with chisel (direction unknown). Rim diameter 23 cm. (4 %). Break 5 YR 4/1, fabric EDW-2. Form and lay-out H 2, D 0 (lines). Note carefully squared rim.

EDW 209 Wadi Qitna, WQ 269 – P 1301 (burial mound). Weight 16 g. Thickness 4.4 mm. Inside 5 YR 5/6, burnt, wiped. Outside 2.5 YR 4/6, red slip, wiped. Decoration plastic and punctuated with round point and colored (direction unknown). Rim diameter 8.5 cm. (25 %). Break 5 YR 2.5/1, fabric EDW-2. Form and lay-out H 1, D 3 (lines). Note 'pearl chain' line (cf. EDW 182).

EDW 210 Wadi Qitna, WQ 287 – P 1304 (burial mound). Weight 19 g. Thickness 4.4 mm. Inside 7.5 YR 5/4, wiped. Outside 5 YR 4/4, smoothed. Decoration incised with chisel (direction unknown). Rim diameter 19 cm. (2 %). Break 10 R 2.5/1, fabric unclassified. Form and lay-out H 1, D 3 (waves).

EDW 211 Wadi Qitna, WQ 327 – P 1309 (burial mound). Weight 14 g. Thickness 3.9 mm. Inside 5 YR 5/6, smoothed. Outside 10 R 5/4, burnished, red slip. Decoration impressed, incised with chisel (direction unknown). Rim diameter 10 cm. (15 %). Break 2.5 YR 5/6, fabric

unclassified. Form and lay-out H 1, D 3 (running dog). Red slip spills over on inside rim.

EDW 212 Wadi Qitna, WQ 327 – P 1310 (burial mound). Weight 44 g. Thickness 5.4 mm. Inside 2.5 YR 4/6, smoothed. Outside 7.5 R 3/6, burnished, red slip. Decoration incised with chisel (direction unknown). Break 2.5 YR 5/8, fabric EDW-1. Form and lay-out H 1b, D 3 (zigzag). Base of carrinated cup (diameter 7.5 cm.). Semi-quantitative trace element analysis of the fabric available (sheet 49).

EDW 213 Wadi Qitna, WQ 388 – P 1328 (burial mound). Weight 20 g. Thickness 4.7 mm. Inside 10 YR 4/2, wiped. Outside 7.5 YR 4/4, burnished. Decoration incised with chisel (direction unknown). Rim diameter 10 cm. (25 %). Break 10 YR 4/2, fabric unclassified. Form and lay-out H 2, D 2 (lines, waves). Note beveled rim.

EDW 214 Wadi Qitna, WQ 416 – P 1332 (burial mound). Weight 39 g. Thickness 5.1 mm. Inside 2.5 YR 5/6, wiped. Outside 5 YR 5/6, burnished, red slip. Decoration impressed, incised with triangular tool and colored (working left to right). Break 5 YR 5/1, fabric EDW-3. Form and lay-out H 1, D 3 (lines, triangles). Two non-joining sherds of the base of the same cup (diameter 8 cm.).

Kalabsha South

EDW 215 Kalabsha South K 4 – P 1337 (burial mound). Weight 11 g. Thickness 3.5 mm. Inside 5 YR 4/4, smoothed. Outside 5 YR 4/4, burnished, red slip. Decoration impressed, incised with chisel and colored, filled in (direction unknown). Rim diameter 8 cm. (10 %). Break 5 YR 4/1, fabric unclassified. Form and lay-out H 1, D 3 (running dog, waves).

EDW 216 Kalabsha South K 4 – P 1338 (burial mound). Weight 25 g. Thickness 3.3 mm. Inside 5 YR 4/6, smoothed. Outside 10 R 4/6, burnished, red slip. Decoration incised with round point (direction unknown). Rim diameter 8 cm. (26 %). Break 2.5 YR 6/6, fabric EDW-1. Form and lay-out H 1c, D 3 (lines).

EDW 217 Kalabsha South K 20/72 – P 1391 (burial mound). Weight 33 g. Thickness 3.6 mm. Inside 7.5 YR 5/4, smoothed. Outside 2.5 YR 5/6, burnished, red slip. Decoration impressed, incised with chisel and colored, filled in (direction unknown). Rim diameter 9 cm. (50 %). Break 2.5 YR 5/8, fabric EDW-1. Form and lay-out H 1, D 8 (sun-motif, waves). See Strouhal 1984, Fig. 128 for another drawing of the same vessel.

EDW 218 Kalabsha South K 20/72 – P 1392 (burial mound). Weight 41 g. Thickness 4.2 mm.

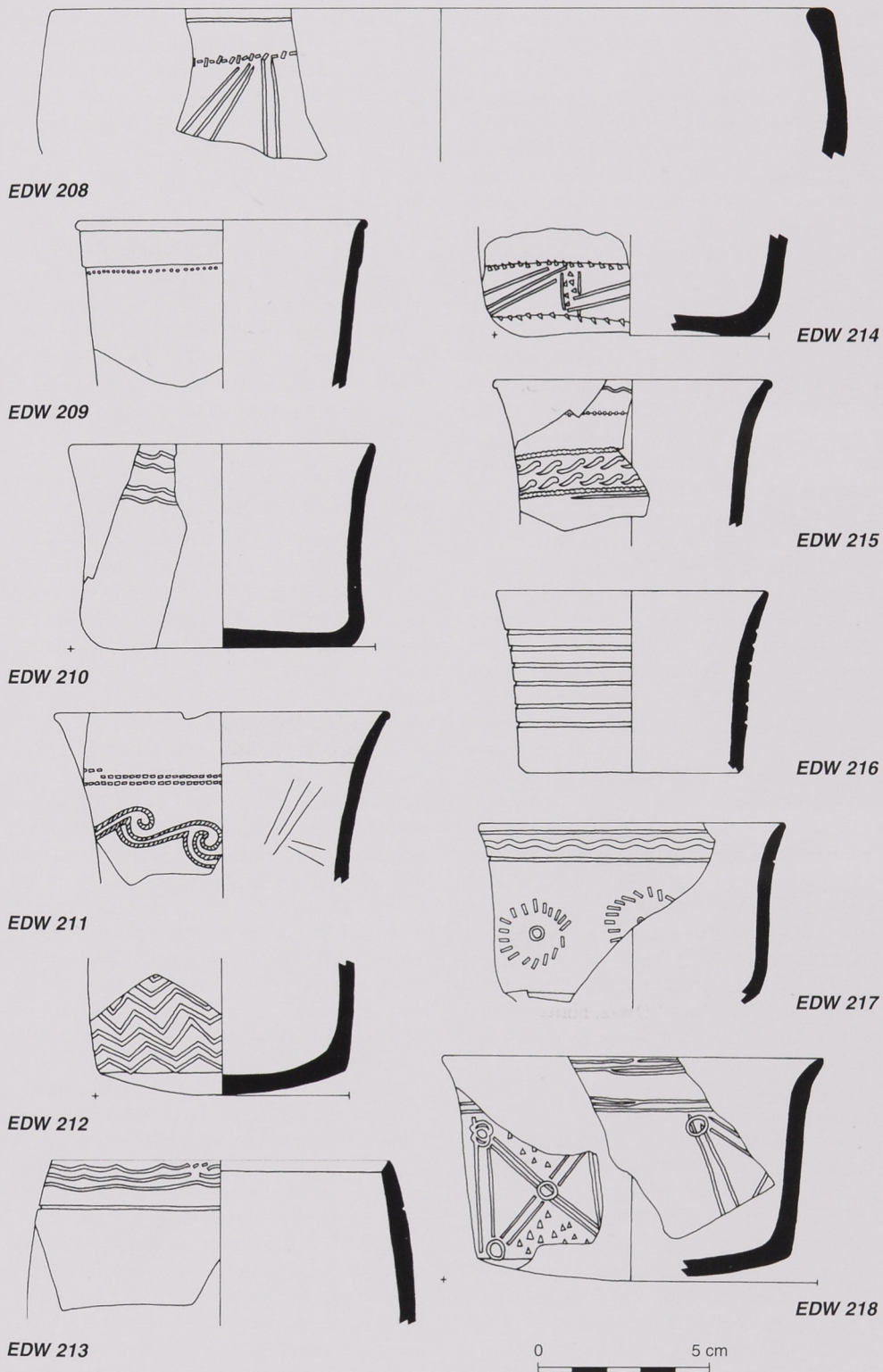


Fig. 7. Eastern Desert Ware 208–218.

Inside 2.5 YR 3/2, burnt, wiped. Outside 10 R 4/4, burnished, mottled. Decoration impressed, incised, punctuated with hollow probe, triangular tool (direction unknown), Rim diameter 11 cm. (9 %). Break 5 YR 6/8, fabric unclassified. Form and lay-out H 1, D 4 (triangles, X-motif). Two non-joining sherds (rim and base) of the same cup. Note the double punctuation of one of the circles.

EDW 219 Kalabsha South K 20/72 – P 1393a (burial mound). Weight 9 g. Thickness 3.6 mm. Inside 7.5 YR 4/4, smoothed. Outside 2.5 YR 5/6, burnished, red slip. Decoration incised, punctuated with chisel, hollow probe and colored (direction unknown). Rim diameter 10 cm. (15 %). Break 5 YR 6/6, fabric EDW-1. Form and lay-out H 1, D 3 (circles, round brackets). One of five rim sherds from the same context, but from different vessels (cf. EDW 220, 221, 222 and 223).

EDW 220 Kalabsha South K 20/72 – P 1393b (burial mound). Weight 6 g. Thickness 3.3 mm. Inside 10 YR 4/3, smoothed. Outside 10 R 4/6, burnished, red slip. Decoration incised, punctuated with chisel, hollow probe (working left to right). Rim diameter 11 cm. (16 %). Break 5 YR 5/1, fabric unclassified. Form and lay-out H 1, D 3 (circles, running dog). One of five rim sherds from the same context, but from different vessels (cf. EDW 219, 221, 222 and 223).

EDW 221 Kalabsha South K 20/72 – P 1393c (burial mound). Weight 8 g. Thickness 4.5 mm. Inside 5 YR 4/3, smoothed. Outside 5 YR 5/6, burnished, red slip. Decoration incised with chisel and colored, filled in (direction unknown). Rim diameter 9 cm. (10 %). Break 5 YR 4/1, fabric unclassified. Form and lay-out H 1, D 2 (lines). One of five rim sherds from the same context, but from different vessels (cf. EDW 219, 220, 222 and 223).

EDW 222 Kalabsha South K 20/72 – P 1393d (burial mound). Weight 5 g. Thickness 4.0 mm. Inside 5 YR 5/6, smoothed. Outside 5 YR 5/6, burnished, red slip. Decoration incised with chisel (direction unknown). Rim diameter 9 cm. (11 %). Break 2.5 YR 4/6, fabric EDW-1. Form and lay-out H 1, D 6 (lines, waves). Surfaces very worn, treatment and original color uncertain. One of five rim sherds from the same context, but from different vessels (cf. EDW 219, 220, 221 and 223).

EDW 223 Kalabsha South K 20/72 – P 1393e (burial mound). Weight 6 g. Thickness

3.6 mm. Inside 2.5 YR 4/4, burnished. Outside 7.5 R 3/6, burnished, red slip. Decoration incised, punctuated with chisel, hollow probe (direction unknown). Rim diameter 8 cm. (20 %). Break 2.5 YR 5/6, fabric EDW-1. Form and lay-out H 1, D 8 (circles, lines). Two non-joining sherds of the same cup (cf. EDW 219, 220, 221 and 223).

EDW 224 Kalabsha South K 20/73 – P 1399 (burial mound). Weight 20 g. Thickness 5.5 mm. Inside 2.5 YR 4/6, wiped. Outside 2.5 YR 5/6, burnished, red slip. Decoration incised, punctuated with hollow probe, triangular tool (direction unknown). Break 2.5 YR 4/8, fabric EDW-1. Form and lay-out H 3, D 8 (circles, lines). Body sherd, too little remains for certain classification.

Sherds from other sites (not in the collection of the Náprstkovo Muzeum)

EDW 225 Gebel Zabara (in the Mons Smaragdus area), surface find. Weight 47 g. Thickness 8.2 mm. Inside 7.5 R 3/3, smoothed. Outside 7.5 R 4/4, burnished. Decoration impressed, incised with chisel, triangular tool (direction unknown). Rim diameter 20 cm. (7 %). Break 7.5 R 5/1, fabric unclassified. Form and lay-out H 2a, D 6 (waves).

EDW 226 Kurgus (Sudanese Nile Valley, between 4th and 5th cataract), KRG 2/29 KG 60. Weight 44 g. Thickness 7.8 mm. Inside 10 R 5/6, smoothed. Outside 10 R 5/6, smoothed. Decoration impressed, incised with triangular tool (direction unknown). Rim diameter 17 cm. (10 %). Break 5 YR 2.5/1, fabric unclassified. Form and lay-out H 2b, D7 (waves, zigzag). This sherd is currently kept in the Egypt and Sudan Department of the British Museum in London. All information courtesy of the British Museum and the Society for Archaeological Research in Sudan.

EDW 227 Kurgus (Sudanese Nile Valley, between 4th and 5th cataract), KRG 2/29 K 65. Weight 18 g. Thickness 8.0 mm. Inside 2.5 YR 3/2, smoothed. Outside 2.5 YR 4/4, burnished, red slip. Decoration incised with chisel (direction unknown). Rim diameter 17 cm. (6 %). Break 5 YR 2.5/1, fabric unclassified. Form and lay-out H 3, D 3 (waves). Red slip spills over on inside rim. This sherd is currently kept in the Egypt and Sudan Department of the British Museum in London. All information courtesy of the British Museum and the Society for Archaeological Research in Sudan.

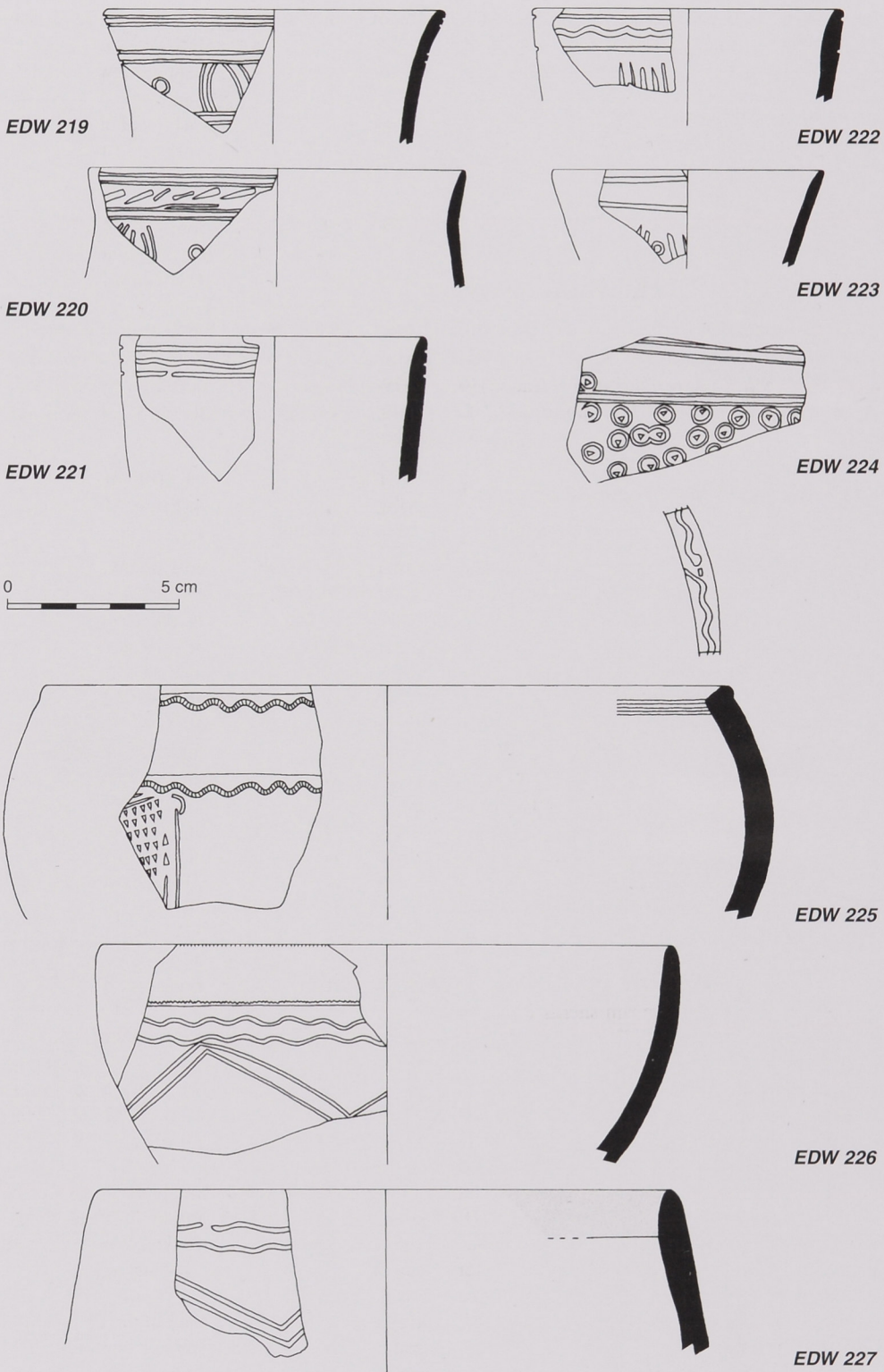


Fig. 8. Eastern Desert Ware 208-218.

Tab. 3: Inventory of some of the Eastern Desert Ware sherds from Wadi Qitna and Kalabsha South, listed by fabric.

EDW-1				EDW-2	EDW-3	Silt
EDW 161	EDW 165	EDW 180	EDW 184	EDW 173	EDW 214	EDW 190
EDW 188	EDW 192	EDW 194	EDW 198	EDW 191		EDW 207
EDW 200	EDW 203	EDW 204	EDW 206	EDW 193		
EDW 212	EDW 216	EDW 217	EDW 219	EDW 208		
EDW 222	EDW 223	EDW 224		EDW 209		

Appendix II – Chemical Analysis

Semi-quantitative chemical analysis of 61 Eastern Desert Ware sherds in the Náprstek Museum (by J. Čejka, E. Kaprálová and Z. Urbanec), compared with the quantitative analysis of six Eastern Desert Ware sherds from Berenike and six from Tabot (by S. Sakai, H. Neff and H. Barnard) as well as with six sherds of Nile silt and four of Egyptian marl (after Mallory-Greenough and Greenough 1998).

Key semi-quantitative chemical analysis:

semi-quantitative	parts per million
0	0
1	1–10
2	10–100
3	100–900
4	900–1000
5	1000–9000
6	7500–12500
7	10000–50000
8	25000–75000
9	>75000

Tab. 4. Semi-quantitative chemical analysis of six EDW sherds from Kalabsha South.

	Li-7	Be-9	B-11	Na-23	Mg-24	Al-27	Si-29	P-31	K-39	Ca-40	Sc-45	Ti-48	V-51	Cr-52	Mn-55	Fe-56	Ni-59	Co-59	Cu-64	Zn-65	Ga-70	As-75	Rb-85	Sr-88	Y-89	Zr-91	Nb-93
P 817K	3	1	1	6	8	9	9	5	0	6	0	5	3	3	5	8	5	1	3	0	1	2		0	0	3	0
P 873K	3	3	1	5	8	9	9	5		6	0	7	2	5	5	8	3	1	5	0	2	3		0	0	1	0
P 1337K	3	3	1	7	8	9	9	5	5	6	0	7	2	1	6	8	1	1	5	0	3	3		3	0	1	0
P 1342K	1	1	0	3	8	9	9	0	0	5	0	7	0	1	6	7	0	0	1	0	1	1		0	0	3	0
P 1364K	3	1	1	5	8	9	9	5	5	6	0	7	2	3	6	8	1	1	5	0	1	3		0	0	1	0
P 1399K	1	1	1	5	8	9	9	5	5	6	0	7	2	3	6	8	1	1	5	0	1	3		0	0	3	0

	Mo-96	Sn-119	Sb-121	Cs-133	Ba-137	La-139	Ce-140	Pr-141	Nd-144	Sm-150	Eu-152	Gd-157	Tb-159	Dy-163	Ho-165	Er-167	Tm-169	Yb-173	Lu-175	Hf-178	Ta-181	W-184	Tl-204	Pb-207	Bi-209	Th-232	U-238
P 817K	0	1	0		5	0	0											0						0	0	0	
P 873K	0	0	0		5	0	0											0						0	0	0	
P 1337K	0	0	0		5	0	0											0						0	0	0	
P 1342K	0	0	0		5	0	0											0						0	0	0	
P 1364K	1	0	0		3	0	0											0						0	0	0	
P 1399K	1	0	0		0	0	0											0						5	3	0	0

Tab. 5. Semi-quantitative chemical analysis (ppm) of six EDW sherds from Berenike (see page 48 and note 2).

	Li-7	Be-9	B-11	Na-23	Mg-24	Al-27	Si-29	P-31
EDW 1				8252.740	13850.964	87725.856	298362.546	
EDW 2				15720.679	8631.874	76615.616	324380.524	
EDW 17				14960.773	14130.476	72415.175	330494.491	
EDW 27				15017.634	7984.719	71866.183	327214.785	
EDW 32				10303.571	11974.771	81957.222	292566.475	
EDW 53				20244.925	6810.339	96125.109	302763.343	

	K-39	Ca-40	Sc-45	Ti- 8	V-51	Cr-52	Mn-55	Fe-56
EDW 1	14434.221	17480.172	26.625	5012.036	156.130	123.608	1213.048	74935.563
EDW 2	20075.959	8828.373	16.350	5122.108	135.859	81.916	1064.207	53535.529
EDW 17	9425.043	13090.325	28.643	3190.206	128.303	90.789	3087.820	49559.344
EDW 27	5100.033	27528.323	20.622	2974.691	159.826	83.242	851.134	54234.618
EDW 32	9824.186	34360.799	23.433	7818.901	183.576	104.456	1242.925	75256.481
EDW 53	27785.942	12349.661	17.780	2646.588	36.958	16.115	556.748	50169.772

	Ni-59	Co-59	Cu-64	Zn-65	Ga-70	As-75	Rb-85	Sr-88
EDW 1	80.454	32.393	86.070	250.624		6.829	54.139	190.719
EDW 2	51.840	20.915	148.600	231.710		6.774	76.469	169.594
EDW 17	34.456	30.647	40.967	161.572		19.400	36.240	278.860
EDW 27	46.347	19.900	39.421	121.405		3.490	15.277	338.719
EDW 32	97.695	40.466	100.295	196.667		3.393	49.560	366.639
EDW 53	14.559	9.836	75.460	190.080		10.519	77.571	466.267

	Y-89	Zr-91	Nb-93	Mo-96	Sn-119	Sb-121	Cs-133	Ba-137
EDW 1		158.582			3.306	0.439	2.017	295.326
EDW 2		97.111			4.647	0.491	1.596	282.897
EDW 17		86.854			2.125	0.833	1.090	132.473
EDW 27		131.373			2.031	0.405	0.632	211.237
EDW 32		175.826			3.309	0.254	1.283	319.915
EDW 53		36.437			5.031	0.943	0.927	1815.919

	La-139	Ce-140	Pr-141	Nd-144	Sm-150	Eu-152	Gd-157	Tb-159
EDW 1	25.129	50.676	5.895	26.132	6.127	1.493	5.675	0.871
EDW 2	30.344	62.131	6.917	29.163	6.508	1.281	5.724	0.926
EDW 17	18.847	47.426	4.563	19.632	4.431	1.332	4.232	0.645
EDW 27	10.833	19.584	3.049	14.388	3.517	1.046	3.423	0.556
EDW 32	28.267	54.199	6.841	29.645	6.623	1.795	6.162	0.971
EDW 53	66.364	67.586	17.033	77.502	16.384	6.147	13.376	1.868

	Dy-163	Ho-165	Er-167	Tm-169	Yb-173	Lu-175	Hf-178	Ta-181
EDW 1	5.459	1.143	3.007	0.463	3.075	0.464	4.142	0.677
EDW 2	5.407	1.046	2.814	0.398	2.731	0.417	2.772	0.963
EDW 17	3.773	0.743	1.856	0.256	1.589	0.218	1.795	0.158
EDW 27	3.451	0.713	2.050	0.317	2.232	0.358	4.299	0.210
EDW 32	5.725	1.150	3.100	0.446	3.062	0.443	4.168	0.946
EDW 53	9.956	1.828	4.446	0.580	3.603	0.534	1.363	0.845

	W-184	Tl-204	Pb-207	Bi-209	Th-232	U-238		
EDW 1			42.660		4.814	1.290		
EDW 2			61.862		6.031	1.606		
EDW 17			56.611		1.358	0.482		
EDW 27			19.453		1.998	0.956		
EDW 32			180.804		4.392	1.007		
EDW 53			184.533		3.022	1.660		

Tab. 6. Semi-quantitative chemical analysis of 55 EDW sherds from Wadi Qitna (see page 48 and note 2).

	Li-7	Be-9	B-11	Na-23	Mg-24	Al-27	Si-29	P-31	K-39	Ca-40	Sc-45	Ti-48	V-51	Cr-52	Mn-55	Fe-56	Ni-59	Co-59	Cu-64	Zn-65	Ga-70	As-75	Rb-85	Sr-88	Y-89	Zr-91	Nb-93
P 791	3	1	1	6	8	9	9	5	5	6	0	5	3	5	5	8	5	3	3	1	5	3	1	0	3	0	
P 792	3	1	1	6	8	9	9	5	5	6	0	5	3	5	5	8	5	3	3	0	3	3	1	0	3	0	
P 794	3	1	1	6	8	9	9	5	5	6	0	5	3	5	5	8	5	3	3	0	3	3	0	0	3	0	
P 795	3	1	1	6	8	9	9	5	0	6	0	5	3	5	5	8	5	3	3	0	3	3	1	0	1	0	
P 797	1	0	1	5	8	9	9	5	0	6	0	5	1	3	4	7	3	1	2	0	2	5	1	0	1	0	
P 798	3	0	1	6	8	9	9	5	0	6	0	5	3	3	5	8	3	3	3	0	3	3	0	0	1	0	
P 803	1	1	0	5	8	9	9	5	0	6	0	5	1	3	4	7	3	1	0	1	2	0	0	0	1	0	
P 805	1	0	1	6	8	9	9	5	0	6	0	5	1	5	4	8	3	3	3	0	3	3	1	0	1	0	
P 812	3	0	1	6	8	9	9	5	0	6	0	5	3	5	5	8	3	3	3	0	3	3	1	0	1	0	
P 813	3	1	1	6	8	9	9	5	5	6	0	5	1	3	5	8	3	1	3	0	3	3	1	0	3	0	
P 815	3	1	1	6	8	9	9	5	5	6	0	5	3	5	5	8	3	3	5	3	3	4	1	0	1	0	
P 819	3	1	1	6	8	9	9	5	0	6	0	5	1	3	5	8	5	3	3	0	1	3	1	0	1	0	
P 824	1	1	1	6	8	9	9	5	0	6	0	5	1	5	5	8	5	1	3	1	3	3	1	0	1	0	
P 825	3	1	1	6	8	9	9	5	0	6	0	5	3	3	5	8	3	1	3	0	3	3	0	0	1	0	
P 826	3	1	1	6	8	9	9	5	0	6	0	5	3	3	5	8	5	1	3	0	3	3	1	0	1	0	
P 827	3	1	1	6	8	9	9	5	5	6	0	5	1	3	5	8	3	3	3	0	3	3	0	0	1	0	
P 828	3	1	0	6	8	9	9	5	0	6	0	5	1	3	5	8	5	1	3	0	1	2	0	0	1	0	
P 830	3	1	1	5	8	9	9	5	6	0	7	2	3	5	8	3	1	5	0	1	3	0	0	0	3	0	
P 831	3	3	1	5	8	9	9	5	6	0	7	2	3	5	8	3	1	5	0	2	3	0	0	2	0	0	
P 845	3	3	1	5	8	9	9	5	5	0	7	2	3	5	8	3	1	5	0	2	3	0	0	2	0	0	
P 857	1	1	1	5	8	9	9	5	6	0	7	2	5	5	8	1	1	5	0	2	3	0	0	3	0	0	
P 859	1	1	1	5	8	9	9	5	6	0	7	2	5	5	8	1	1	5	0	2	3	0	0	2	0	0	
P 865	1	1	1	5	8	9	9	5	6	0	7	1	3	5	8	1	1	5	0	1	1	0	0	0	1	0	
P 869	3	3	1	5	8	9	9	0	5	0	7	2	5	5	8	3	1	5	0	3	3	0	0	2	0	0	
P 871	1	3	1	5	8	9	9	5	6	0	7	2	5	5	8	3	1	5	0	2	3	0	0	1	0	0	
P 874	1	3	1	5	8	9	9	5	6	0	7	2	5	5	7	3	1	5	0	3	3	0	0	3	0	0	
P 879	1	3	1	5	8	9	9	5	6	0	7	2	5	5	7	2	1	5	0	3	2	0	0	1	0	0	
P 889	0	1	1	5	8	9	9	5	6	0	7	2	5	5	7	2	1	5	0	3	2	0	0	1	0	0	
P 896	3	3	1	5	8	9	9	5	6	0	7	2	3	5	7	3	1	5	0	1	2	0	0	1	0	0	
P 897	3	3	1	5	8	9	9	5	6	0	7	2	3	5	7	2	1	5	0	1	1	0	0	3	0	0	
P 899	3	3	1	5	8	9	9	5	6	0	7	2	3	5	7	2	1	5	0	1	3	0	0	1	0	0	
P 952	3	3	1	5	8	9	9	5	6	0	7	2	3	5	7	2	3	5	0	3	3	0	0	1	0	0	
P 1106a	3	3	1	5	8	9	9	5	6	0	7	1	3	5	7	2	1	5	0	1	3	0	0	0	0	0	
P 1163	3	3	1	5	7	9	9	5	6	0	7	1	3	5	7	2	1	5	0	1	3	0	0	3	0	0	
P 1206	3	3	1	5	8	9	9	5	5	6	0	7	2	3	5	8	3	1	5	1	2	3	0	0	3	0	
P 1210	3	3	1	5	8	9	9	5	5	6	0	7	2	2	5	8	3	1	5	0	1	1	1	0	3	0	
P 1218	3	0	1	5	8	9	9	5	0	6	0	7	2	2	5	8	3	1	5	0	1	3	1	0	3	0	
P 1232a	1	3	1	5	8	9	9	5	5	6	0	7	2	2	5	8	2	1	5	1	2	3	0	0	3	0	
P 1243a	1	3	1	5	8	9	9	5	5	6	0	7	2	2	5	8	2	1	5	0	2	3	0	0	3	0	
P 1245d	1	3	1	5	8	9	9	5	6	0	7	2	2	2	5	8	2	1	5	1	1	3	0	0	3	0	
P 1300b	0	3	1	5	8	9	9	5	5	6	0	7	2	2	5	8	2	1	5	1	2	3	0	0	3	0	
P 1301	0	3	1	5	8	9	9	5	5	6	0	7	2	2	5	8	2	1	5	1	2	3	0	0	3	0	
P 1303b	1	3	1	5	8	9	9	5	5	6	0	7	2	3	5	8	2	1	5	0	1	3	0	0	3	0	
P 1304a	3	3	1	5	8	9	9	5	6	0	7	2	3	5	8	3	1	5	1	2	3	1	0	3	0	0	
P 1306c	3	3	1	5	8	9	9	5	6	0	7	2	3	5	8	3	1	5	1	2	3	1	0	3	0	0	
P 1308	3	3	1	5	8	9	9	5	6	0	7	2	3	5	8	3	1	5	0	3	1	1	0	3	0	0	
P 1310	3	3	1	5	8	9	9	5	6	0	7	2	3	5	8	3	1	5	1	1	1	1	0	0	1	0	
P 1312b	0	3	1	5	8	9	9	5	6	0	7	2	3	5	8	1	1	5	3	2	3	0	0	1	0	0	
P 1319	3	3	1	5	8	9	9	5	6	0	7	2	3	5	8	3	1	5	1	1	1	1	0	0	1	0	
P 1320	3	3	1	5	8	9	9	5	6	0	7	2	3	5	8	3	1	5	3	2	1	1	0	1	0	0	
P 1324	3	3	1	5	8	9	9	5	6	0	7	2	5	5	8	1	1	5	1	1	1	1	0	0	1	0	
P 1326c	3	3	1	5	8	9	9	5	6	0	7	2	3	5	8	3	1	5	0	1	0	0	0	0	1	0	
P 1327	3	1	1	5	8	9	9	5	5	6	0	7	2	3	6	8	3	1	5	0	1	3	3	0	1	0	
P 1329	3	3	1	7	8	9	9	5	5	6	0	7	2	3	6	8	3	1	5	0	3	3	3	0	3	0	
P 1331	3	1	1	7	8	9	9	5	5	6	0	7	2	3	6	8	3	1	5	0	1	1	0	0	3	0	

	Mo-96	Sn-119	Sb-121	Cs-133	Ba-137	La-139	Ce-140	Pr-141	Nd-144	Sm-150	Eu-152	Gd-157	Tb-159	Dy-163	Ho-165	Er-167	Tm-169	Yb-173	Lu-175	Hf-178	Ta-181	W-184	Tl-204	Pb-207	Bi-209	Th-232	U-238
P 791	1	1	0		4	0	0											0			3	3		0	0	0	
P 792	1	1	0		3	0	0											0			3	3		0	0	0	
P 794	0	1	0		3	0	0											0			3	0		0	0	0	
P 795	0	1	0		3	0	0											0			3	0		0	0	0	
P 797	0	1	0		3	0	0											0			3	0		0	0	0	
P 798	0	1	0		2	0	0											0			3	0		0	0	0	
P 803	0	0	0		3	0	0											0			1	0		0	0	0	
P 805	0	0	0		3	0	0											0			3	3		0	0	0	
P 812	0	0	0		3	0	0											0			3	0		0	0	0	
P 813	0	0	0		5	0	0											0			3	3		0	0	0	
P 815	0	1	0		5	0	0											0			3	5		0	0	0	
P 819	0	0	0		5	0	0											0			1	3		0	0	0	
P 824	0	1	0		5	0	0											0			3	1		0	0	0	
P 825	0	0	0		5	0	0											0			3	3		0	0	0	
P 826	0	1	0		5	0	0											0			1	3		0	0	0	
P 827	0	0	0		5	0	0											0			1	3		0	0	0	
P 828	0	0	0		5	0	0											0			1	3		0	0	0	
P 830	1	1	0		5	0	0											0			3	2		0	0	0	
P 831	1	0	0		5	0	0											0			3	0		0	0	0	
P 845	0	0	0		5	0	0											0			3	3		0	0	0	
P 857	0	0	0		3	0	0											0			3	5		0	0	0	
P 859	0	0	0		3	0	0											0			3	2		0	0	0	
P 865	0	1	0		5	0	0											0			1	2		0	0	0	
P 869	1	0	0		3	0	0											0			1	3		0	0	0	
P 871	0	0	0		5	0	0											0			1	3		0	0	0	
P 874	1	1	0		5	0	0											0			3	1		0	0	0	
P 879	0	1	0		3	0	0											0			2	3		0	0	0	
P 889	1	0	0		3	0	0											0			2	3		0	0	0	
P 896	1	1	0		5	0	0											0			2	1		0	0	0	
P 897	0	1	0		5	0	0											0			2	1		0	0	0	
P 899	0	1	0		5	0	0											0			3	0		0	0	0	
P 952	0	1	0		5	0	0											0			3	0		0	0	0	
P 1106a	0	1	0		5	0	0											0			2	0		0	0	0	
P 1163	0	1	0		3	0	0											0			3	1		0	0	0	
P 1206	1	0	0		5	0	0											0			3	1		0	1	0	
P 1210	0	1	0		5	0	0											0			0	0		0	1	0	
P 1218	0	1	0		3	0	0											0			0	0		0	0	0	
P 1232a	0	1	0		5	0	0											0			3	1		0	0	0	
P 1243a	0	0	0		5	0	0											0			3	0		0	0	0	
P 1245d	0	0	0		5	0	0											0			3	0		0	0	0	
P 1300b	0	1	0		3	0	0											0			3	0		0	0	0	
P 1301	0	0	0		3	0	0											0			3	0		0	0	0	
P 1303b	0	0	0		3	0	0											0			3	0		0	0	0	
P 1304a	1	1	1		5	0	0											0			3	1		0	0	0	
P 1306c	0	0	1		3	0	0											0			3	0		0	0	0	
P 1308	1	0	0		3	0	0											0			3	1		0	0	0	
P 1310	1	0	1		5	0	0											0			3	3		0	0	0	
P 1312b	3	0	1		3	0	0											0			3	0		0	0	0	
P 1319	0	1	0		5	0	0											0			1	0		0	0	0	
P 1320	1	0	1		5	0	0											0			3	1		0	0	0	
P 1324	0	0	1		5	0	0											0			3	1		0	0	0	
P 1326c	0	0	1		3	0	0											0			3	1		0	0	0	
P 1327	1	1	0		5	0	0											0			5	3		0	0	0	
P 1329	1	0	0		3	0	0											0			0	1		0	0	0	
P 1331	1	1	0		5	0	0											0			0	1		0	0	0	

Tab. 7. Semi-quantitative chemical analysis (ppm) of six EDW sherds from Tabot (see page 48 and note 2).

	Li-7	Be-9	B-11	Na-23	Mg-24	Al-27	Si-29	P-31
EDW 125				13819.554	10363.198	85880.199	279170.200	
EDW 127				15008.269	14739.999	92372.066	263178.942	
EDW 128				11964.962	6139.895	59083.774	351445.292	
EDW 129				44181.769	1432.306	82362.784	336992.935	
EDW 136				22573.927	12065.997	109107.878	269041.083	
EDW 138				11666.832	10947.517	94273.018	288734.561	

	K-39	Ca-40	Sc-45	Ti- 8	V-51	Cr-52	Mn-55	Fe-56
EDW 125	16955.989	42923.349	30.999	5803.113	191.040	101.609	1007.411	75014.061
EDW 127	22088.509	33534.688	39.761	5817.342	238.051	108.042	1034.874	90922.262
EDW 128	4792.775	12235.099	18.928	2852.937	86.018	43.857	974.225	55294.689
EDW 129	5654.325	23633.308	5.290	695.476	17.800	8.959	178.840	12901.933
EDW 136	19394.510	20361.030	20.017	6359.884	148.839	95.812	1096.540	70721.845
EDW 138	10551.488	33843.180	26.594	4825.293	171.665	80.370	796.571	68757.773

	Ni-59	Co-59	Cu-64	Zn-65	Ga-70	As-75	Rb-85	Sr-88
EDW 125	57.223	31.478	93.393	211.378		10.983	50.517	468.088
EDW 127	80.526	41.749	67.542	176.277		6.282	47.222	342.963
EDW 128	45.745	31.498	84.773	142.167		0.672	32.023	208.178
EDW 129	9.093	4.691	34.017	51.902		1.073	17.177	459.334
EDW 136	67.657	28.848	38.904	134.671		0.000	50.190	316.551
EDW 138	49.302	24.312	68.952	157.774		0.000	44.019	331.110

	Y-89	Zr-91	Nb-93	Mo-96	Sn-119	Sb-121	Cs-133	Ba-137
EDW 125		133.285			3.594	0.596	2.388	2823.958
EDW 127		258.007			4.019	0.445	2.073	254.822
EDW 128		51.218			32.144	0.176	1.137	210.178
EDW 129		10.960			2.878	0.029	0.263	300.400
EDW 136		170.345			5.427	0.224	1.969	428.173
EDW 138		197.401			2.788	0.302	1.924	358.307

	La-139	Ce-140	Pr-141	Nd-144	Sm-150	Eu-152	Gd-157	Tb-159
EDW 125	28.955	59.273	7.526	35.218	7.969	2.263	7.326	1.155
EDW 127	26.349	67.751	7.450	33.928	8.600	1.927	7.929	1.327
EDW 128	19.591	43.541	4.982	18.119	5.198	1.252	5.122	0.837
EDW 129	7.237	11.727	1.625	7.058	1.554	2.895	1.452	0.229
EDW 136	22.515	39.996	5.624	24.847	5.556	1.351	5.419	0.859
EDW 138	21.409	38.324	5.356	25.013	5.662	1.441	5.469	0.911

	Dy-163	Ho-165	Er-167	Tm-169	Yb-173	Lu-175	Hf-178	Ta-181
EDW 125	6.870	1.340	3.607	0.504	3.549	0.521	3.853	0.633
EDW 127	7.783	1.587	4.254	0.627	4.453	0.644	5.738	0.613
EDW 128	5.058	1.037	2.829	0.406	2.711	0.414	1.370	0.262
EDW 129	1.358	0.276	0.711	0.105	0.699	0.104	0.232	0.050
EDW 136	5.379	1.151	3.155	0.433	3.192	0.466	4.170	0.630
EDW 138	5.575	1.138	3.205	0.461	3.329	0.487	5.008	0.485

	W-184	Tl-204	Pb-207	Bi-209	Th-232	U-238		
EDW 125			12.680		4.331	1.256		
EDW 127			13.684		4.626	1.351		
EDW 128			5.954		2.367	0.968		
EDW 129			4.307		0.405	0.165		
EDW 136			9.633		5.027	1.099		
EDW 138			8.717		4.442	1.666		

Tab. 8. Semi-quantitative chemical analysis (ppm) of six EDW sherds from Nile silt (see page 48 and note 2).

	Li-7	Be-9	B-11	Na-23	Mg-24	Al-27	Si-29	P-31
Silt 1	17.500							
Silt 2	17.000							
Silt 3	13.700							
Silt 4	12.500							
Silt 5	11.300							
Silt 6	11.400							

	K-39	Ca-40	Sc-45	Ti- 8	V-51	Cr-52	Mn-55	Fe-56
Silt 1								
Silt 2								
Silt 3								
Silt 4								
Silt 5								
Silt 6								

	Ni-59	Co-59	Cu-64	Zn-65	Ga-70	As-75	Rb-85	Sr-88
Silt 1							46.400	293.000
Silt 2							43.600	303.000
Silt 3							48.100	295.000
Silt 4							48.600	317.000
Silt 5							47.700	290.000
Silt 6							42.400	288.000

	Y-89	Zr-91	Nb-93	Mo-96	Sn-119	Sb-121	Cs-133	Ba-137
Silt 1	27.800	146.000	26.300	0.740			1.490	492.000
Silt 2	27.000	142.000	22.600	1.010			1.240	485.000
Silt 3	25.900	135.000	22.200	1.450			1.400	484.000
Silt 4	30.300	167.000	26.600	1.210			1.370	458.000
Silt 5	27.200	146.000	20.500	1.280			1.330	454.000
Silt 6	27.100	141.000	23.900	0.875			1.130	454.000

	La-139	Ce-140	Pr-141	Nd-144	Sm-150	Eu-152	Gd-157	Tb-159
Silt 1	32.900	71.700	8.680	34.700	7.490	2.040	6.960	1.020
Silt 2	28.500	62.200	7.640	31.100	6.860	1.890	6.370	0.973
Silt 3	29.400	63.800	7.700	30.900	6.680	1.810	6.270	0.936
Silt 4	31.200	67.600	8.170	32.700	7.040	1.960	6.510	0.997
Silt 5	29.800	65.000	7.860	31.700	6.670	1.880	6.240	0.940
Silt 6	29.000	62.300	7.610	31.200	6.670	1.880	6.160	0.936

	Dy-163	Ho-165	Er-167	Tm-169	Yb-173	Lu-175	Hf-178	Ta-181
Silt 1	5.920	1.130	3.110	0.430	2.630	0.376	4.040	1.560
Silt 2	5.730	1.090	2.980	0.412	2.500	0.365	3.910	1.400
Silt 3	5.480	1.600	2.910	0.404	2.480	0.364	3.800	1.360
Silt 4	5.960	1.180	3.280	0.450	2.870	0.422	4.570	1.500
Silt 5	5.490	1.090	2.940	0.418	2.500	0.378	3.940	1.030
Silt 6	5.610	1.090	2.960	0.412	2.580	0.372	3.960	1.480

	W-184	Tl-204	Pb-207	Bi-209	Th-232	U-238	
Silt 1		0.197	12.600	0.032	6.940	1.660	
Silt 2		0.158	13.800	0.096	5.340	1.210	
Silt 3		0.145	13.000	0.105	5.870	1.290	
Silt 4		0.178	9.840	0.100	6.560	1.530	
Silt 5		0.219	8.780	0.083	5.970	1.360	
Silt 6		0.193	9.150	0.093	5.690	1.270	

Tab. 9. Semi-quantitative chemical analysis (ppm) of four EDW sherds from Egyptian marl (see page 48 and note 2).

	Li-7	Be-9	B-11	Na-23	Mg-24	Al-27	Si-29	P-31
Marl 1	26.600							
Marl 2	21.100							
Marl 3	20.800							
Marl 4	37.700							

	K-39	Ca-40	Sc-45	Ti- 8	V-51	Cr-52	Mn-55	Fe-56
Marl 1								
Marl 2								
Marl 3								
Marl 4								

	Ni-59	Co-59	Cu-64	Zn-65	Ga-70	As-75	Rb-85	Sr-88
Marl 1							40.700	764.000
Marl 2							50.700	476.000
Marl 3							39.700	503.000
Marl 4							45.300	492.000

	Y-89	Zr-91	Nb-93	Mo-96	Sn-119	Sb-121	Cs-133	Ba-137
Marl 1	17.700	77.700	16.600	1.650			1.910	273.000
Marl 2	22.000	109.000	4.540	1.390			1.670	433.000
Marl 3	17.500	82.000	6.810	0.751			1.520	454.000
Marl 4	18.600	83.100	18.700	1.510			2.330	453.000

	La-139	Ce-140	Pr-141	Nd-144	Sm-150	Eu-152	Gd-157	Tb-159
Marl 1	27.300	54.400	6.500	25.000	4.930	1.220	4.330	0.817
Marl 2	26.900	57.000	6.760	26.500	5.630	1.500	5.050	0.739
Marl 3	24.200	49.500	5.960	23.600	4.820	1.260	4.370	0.612
Marl 4	29.400	62.200	7.100	27.000	5.390	1.280	4.650	0.661

	Dy-163	Ho-165	Er-167	Tm-169	Yb-173	Lu-175	Hf-178	Ta-181
Marl 1	3.530	0.688	1.960	0.264	1.620	0.245	2.320	1.020
Marl 2	4.440	0.871	2.400	0.334	2.050	0.301	2.800	0.093
Marl 3	3.610	0.696	1.880	0.255	1.570	0.234	2.250	0.170
Marl 4	3.820	0.730	2.030	0.275	1.710	0.246	2.420	1.160

	W-184	Tl-204	Pb-207	Bi-209	Th-232	U-238		
Marl 1		0.229	9.960	0.104	6.550	2.570		
Marl 2		0.214	38.900	0.102	5.690	2.540		
Marl 3		0.112	20.500	0.093	5.180	2.590		
Marl 4		0.245	15.600	0.123	7.440	2.620		

References

- Barnard, H.: "Eastern Desert Ware, a first introduction," *Sudan&Nubia* 6, 2002, 53–57.
- Barnard, H. – Magid, A. A.: "Eastern Desert Ware from Tabot (Sudan), more links to the north," *Archéologie du Nil Moyen* 10, in press.
- Barnard, H. – Rose, P. J.: "Eastern Desert Ware from Berenike and Kab Marfu'a," in S.E. Sidebotham and W.Z. Wendrich (eds.), *Berenike 1999–2000, Report of the 1999 and 2000 excavations in Berenike, Siket and Wadi Kalalat and the survey of the Egyptian Eastern Desert, including Sikait (Mons Smaragdus)*. Los Angeles, Costen Institute of Archaeology, in press.
- Bedawi, F. A.: *Die Römische Gräberfelder von Sayala-Nubien*. Vienna, Österreichische Akademie der Wissenschaften, 1976.
- Charters, S. – Evershed, R. P. – Blinkhorn, P. R. – Denham, V.: "Evidence for the mixing of fats and waxes in archaeological ceramics," *Archaeometry* 37,1, 1995, 113–127.
- Eide, T. – Hägg, T. – Pierce, R.H. – Török, L.: *Fontes Historiae Nubiorum. Textual sources of the history of the Middle Nile region between the eighth century BC and the sixth century AD. Volume III*. Bergen, Bergen University Press, 1998.
- Emery, W. B. – Kirwan, L. P.: *The excavations and survey between Wadi es-Sebua and Adindan 1929–31*. Cairo, Government Press, 1935.
- Glowacki, D. M. – Neff, H. (eds.): *Ceramic production and circulation in the Greater Southwest. Source determination by INAA and complementary mineralogical investigations*. Los Angeles, Costen Institute of Archaeology, 2002.
- Kromer, K.: *Römische Weinstuben in Sayala (Unternubien)*. Vienna, Österreichische Akademie der Wissenschaften, 1967.
- Magid, A. A. – Pierce, R.H. – Krzywinski, K.: "Test excavation in the southern Red Sea Hills (Sudan): cultural linkages to the north," *Archéologie du Nil Moyen* 7, 1995, 165–170.
- Magid, A. A.: "Ancient way stations in the southern Red Sea Hills: a new discovery," *Sudan Notes and Records* 2 (new series), 1998, 1–12.
- Malainey, M. E. – Przybylski, R. – Sherriff, B. L.: "Identifying the former contents of Late Precontact Period pottery vessels from western Canada using gas chromatography," *Journal of Archaeological Science* 26, 1999, 425–438.
- Mallory-Greenough, L. M. – Greenough, J.D.: 'New data for old pots: trace-element characterization of ancient Egyptian pottery using ICP-MS,' *Journal of Archaeological Science* 25, 1998, 85–97.
- Ricke, H.: *Ausgrabungen van Khor-Dehmit bis Bet el-Wali*. Chicago, Chicago University, 1967.
- Rose, P. J.: *The aftermath of the Roman frontier in Lower Nubia*. University of Cambridge, unpublished PhD-thesis, 1992.
- Rose, P. J.: "Report on the handmade sherds," in S.E. Sidebotham and W.Z. Wendrich (eds.), *Berenike 1994. Preliminary report of the 1994 excavations at Berenike (Egyptian Red Sea coast) and the survey of the Eastern Desert*. Leiden, Research School CNWS, 1995.
- Sidebotham, S. E. – Wendrich, W. Z.: "Berenike, Roms Tor am Roten Meer nach Arabien und Indien," *Antike Welt* 32,3, 2001, 256–257.
- Strouhal, E.: *Wadi Qitna and Kalabsha-South, Late Roman – Early Byzantine tumuli cemeteries in Egyptian Nubia. Volume 1: Archaeology*. Prague, Charles University Press, 1984.
- Strouhal, E.: Further analysis of the fine hand-made pottery of Egyptian Nubia in 3rd–5th cent. A. D. *Coptic and Nubian Pottery, Occasional Paper no. 2, part II*, National Museum in Warsaw, 1991, 3–9.