

**LOOKING FROM ARABIA TO INDIA: ANALYSIS OF
THE EARLY ROMAN 'INDIA TRADE' IN THE INDIAN
OCEAN DURING THE LATE PRE- ISLAMIC PERIOD
(3rd CENTURY BC - 6th CENTURY AD)**

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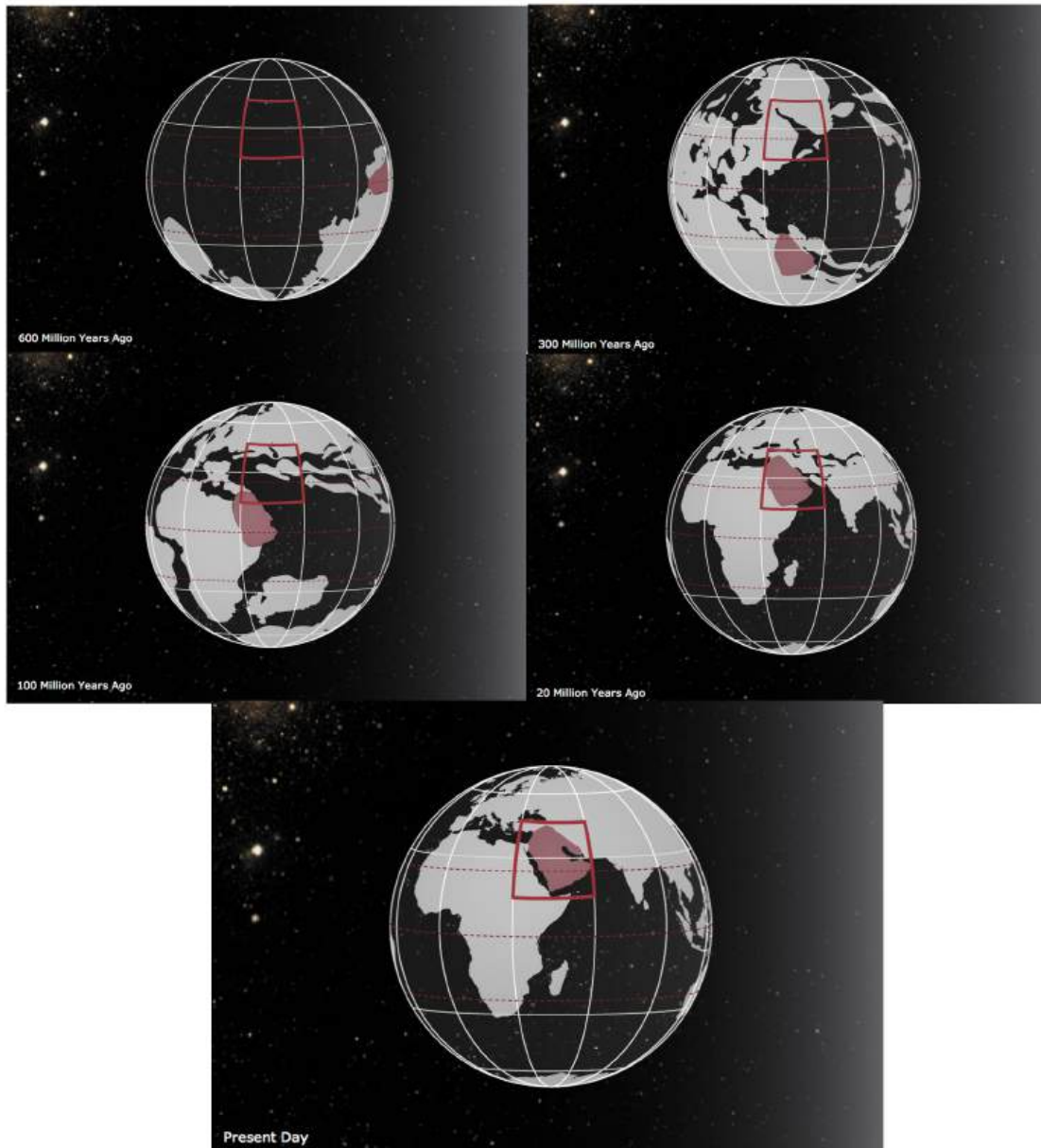
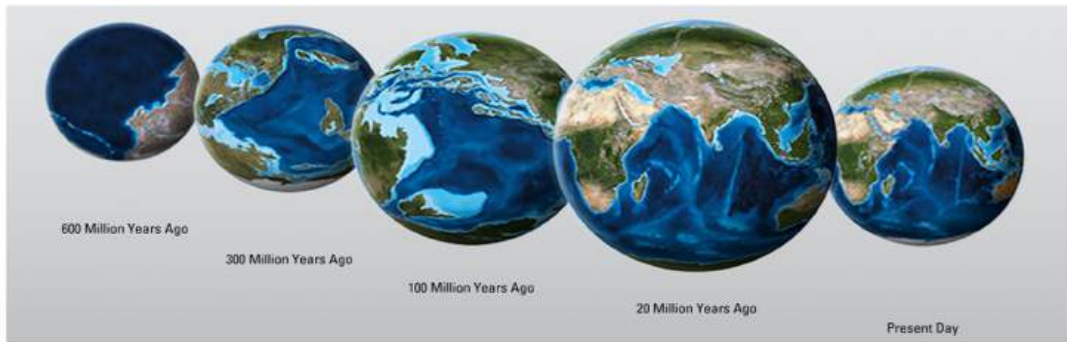


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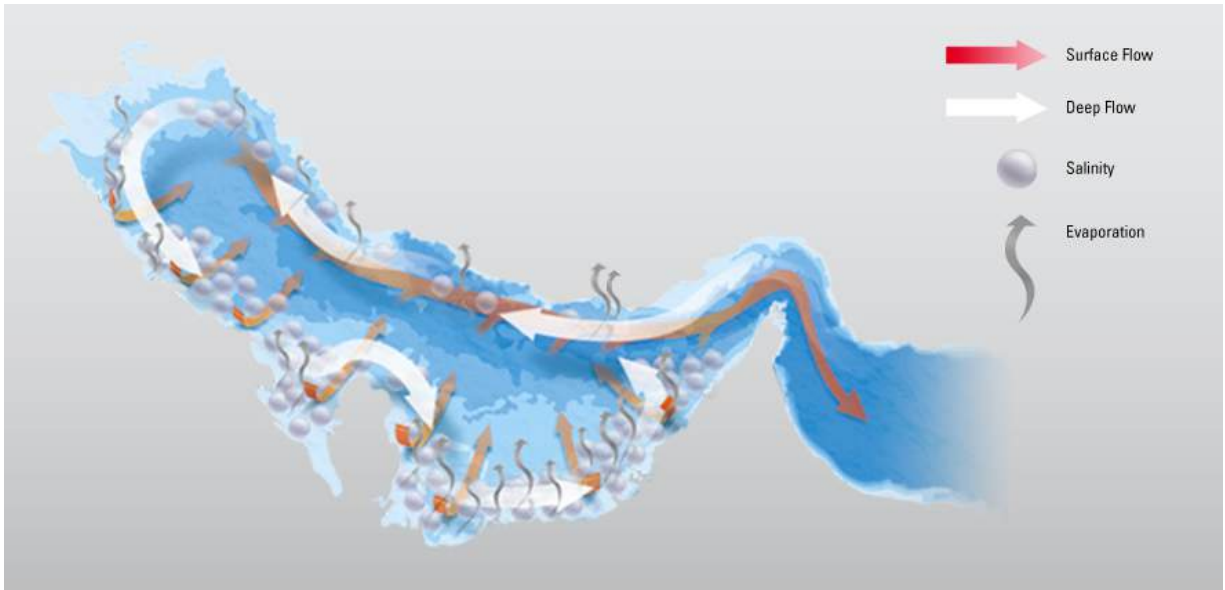


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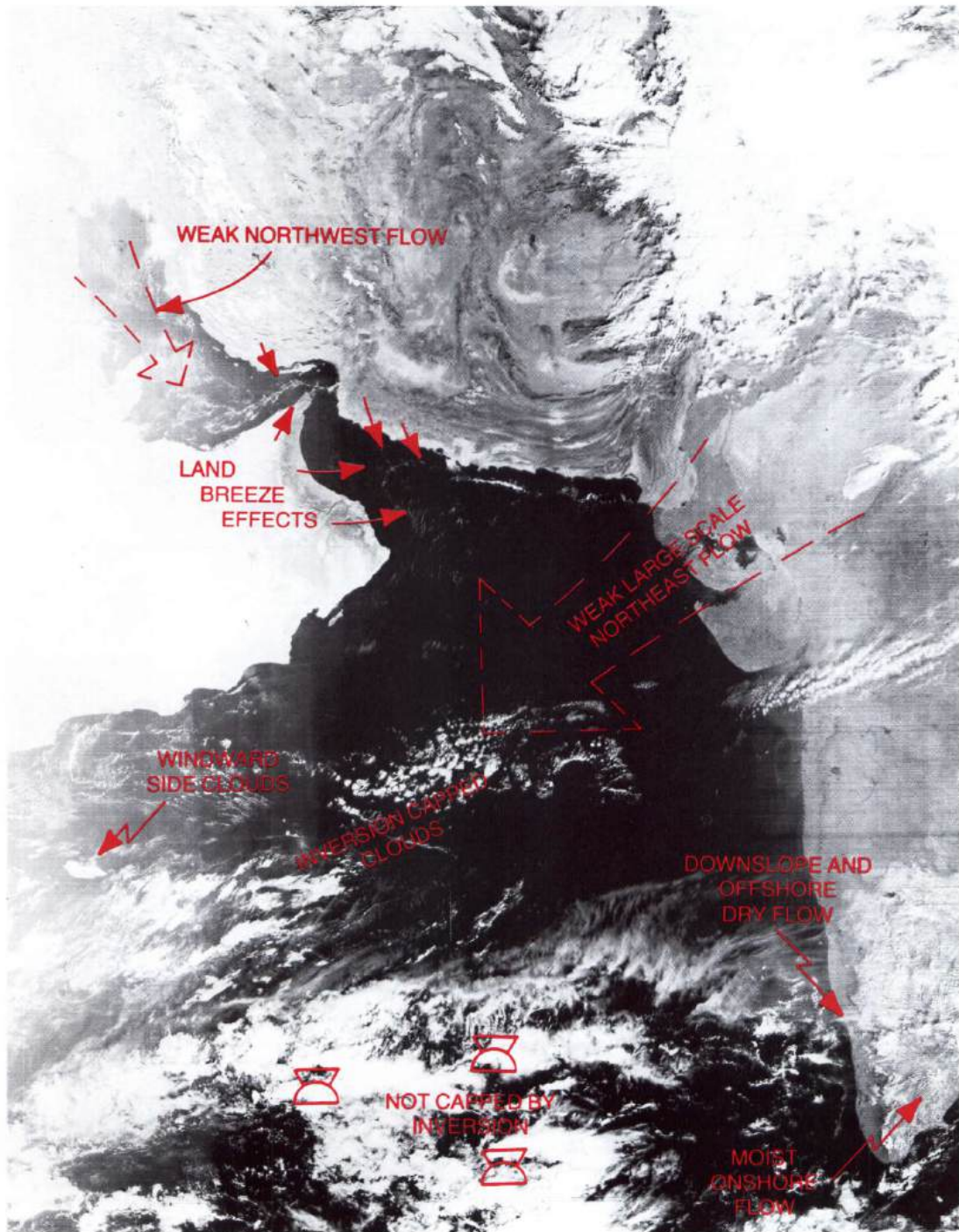


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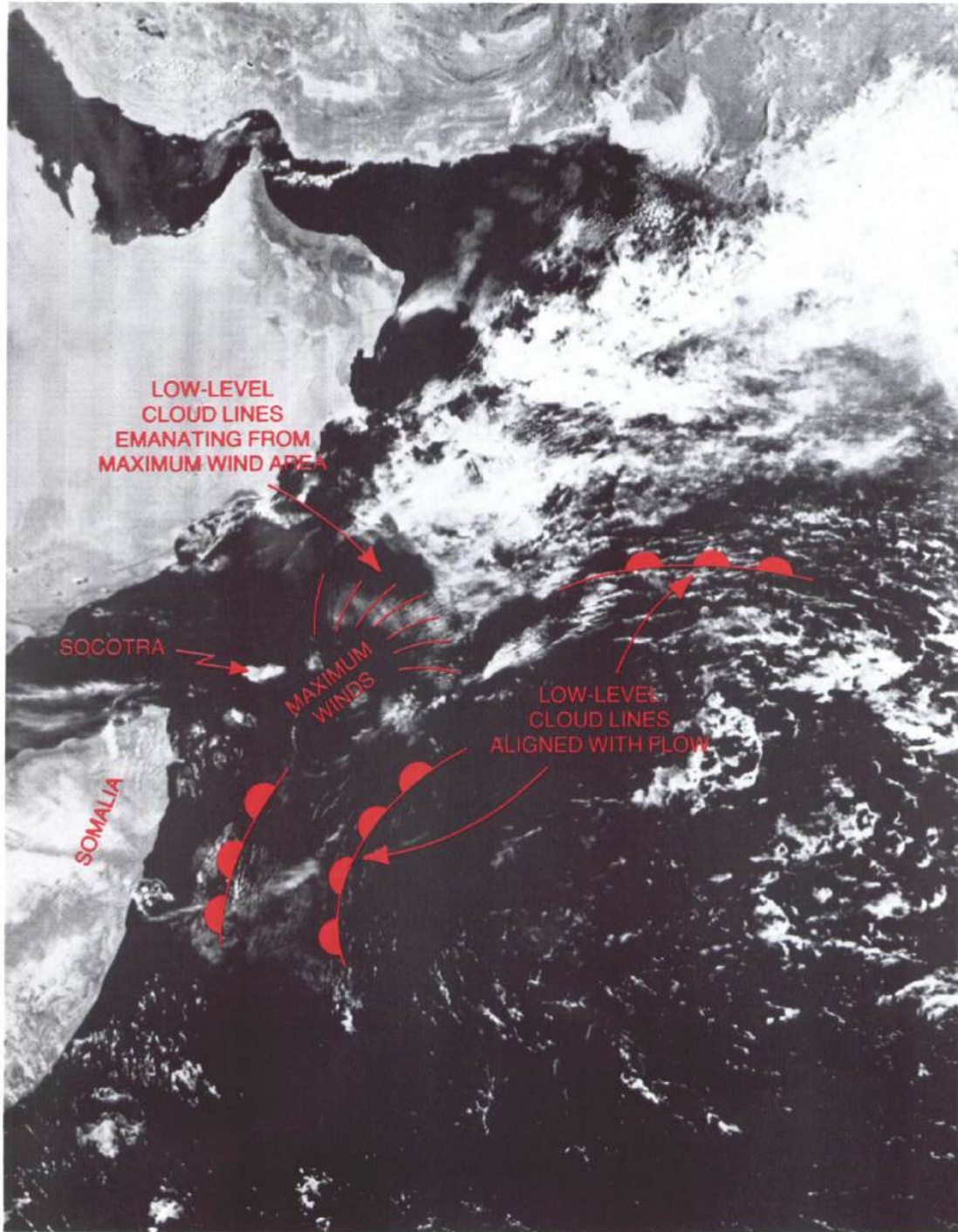


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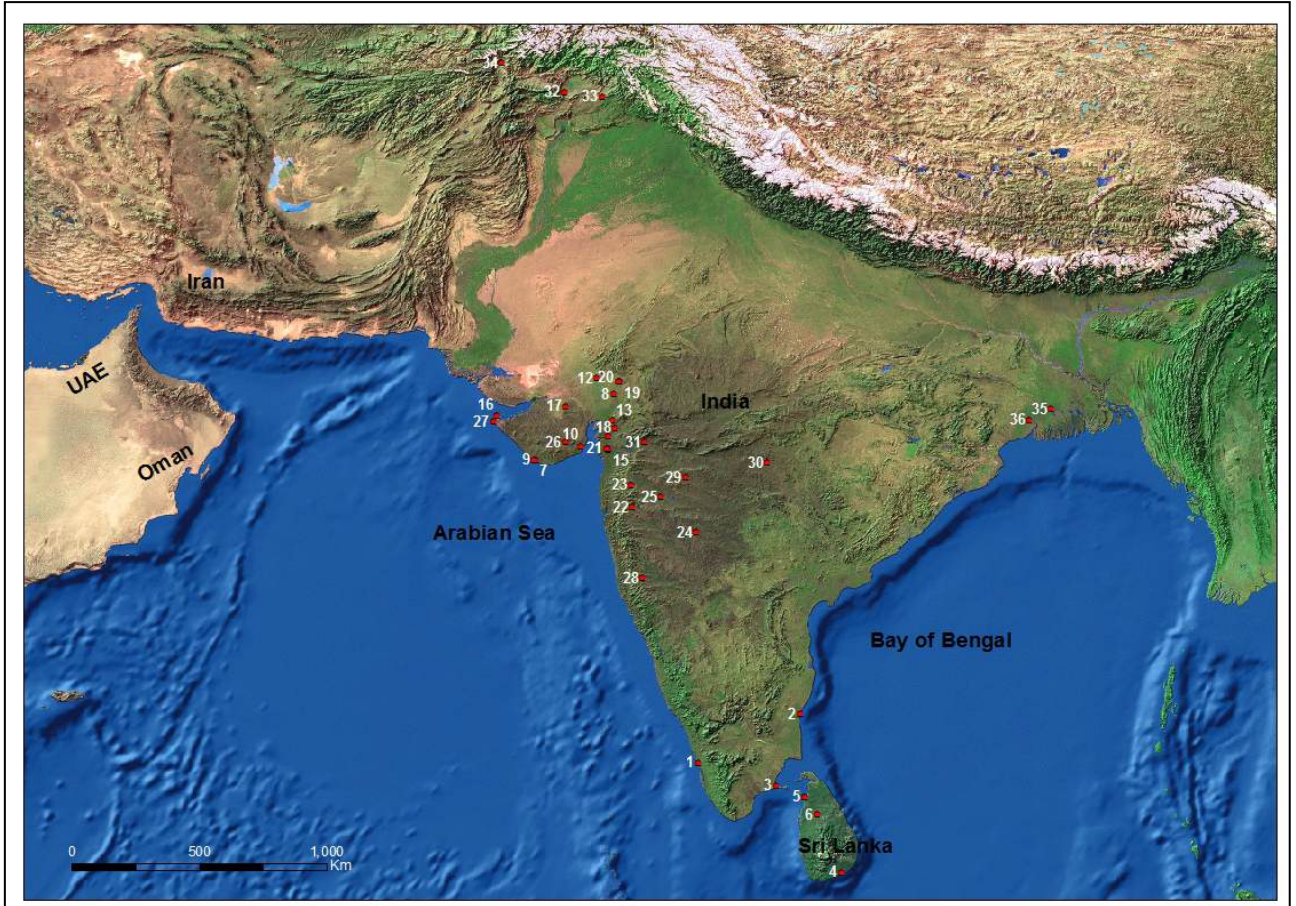
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Figure 7. Location of archaeological sites with Indian pottery assemblages analysed in this study (Red Sea, East Africa and the eastern Arabian seaboard): East Africa (1-5); 1. Ras Hafun, 2. Manda, 3. Kilwa, 4. Pate, 5. Shanga; Egypt (6-7); 6. Berenike, 7. Quseir al Qadim; Eastern Arabian Seaboard (8-14); 8. Khor Rori, 9. Qana, 10. Suhar, 11. Kush, 12. Mleiha, 13. Ed-Dur, 14. Dibba



**Figure 8. Location of archaeological sites mentioned in this study
(Peninsular India)**

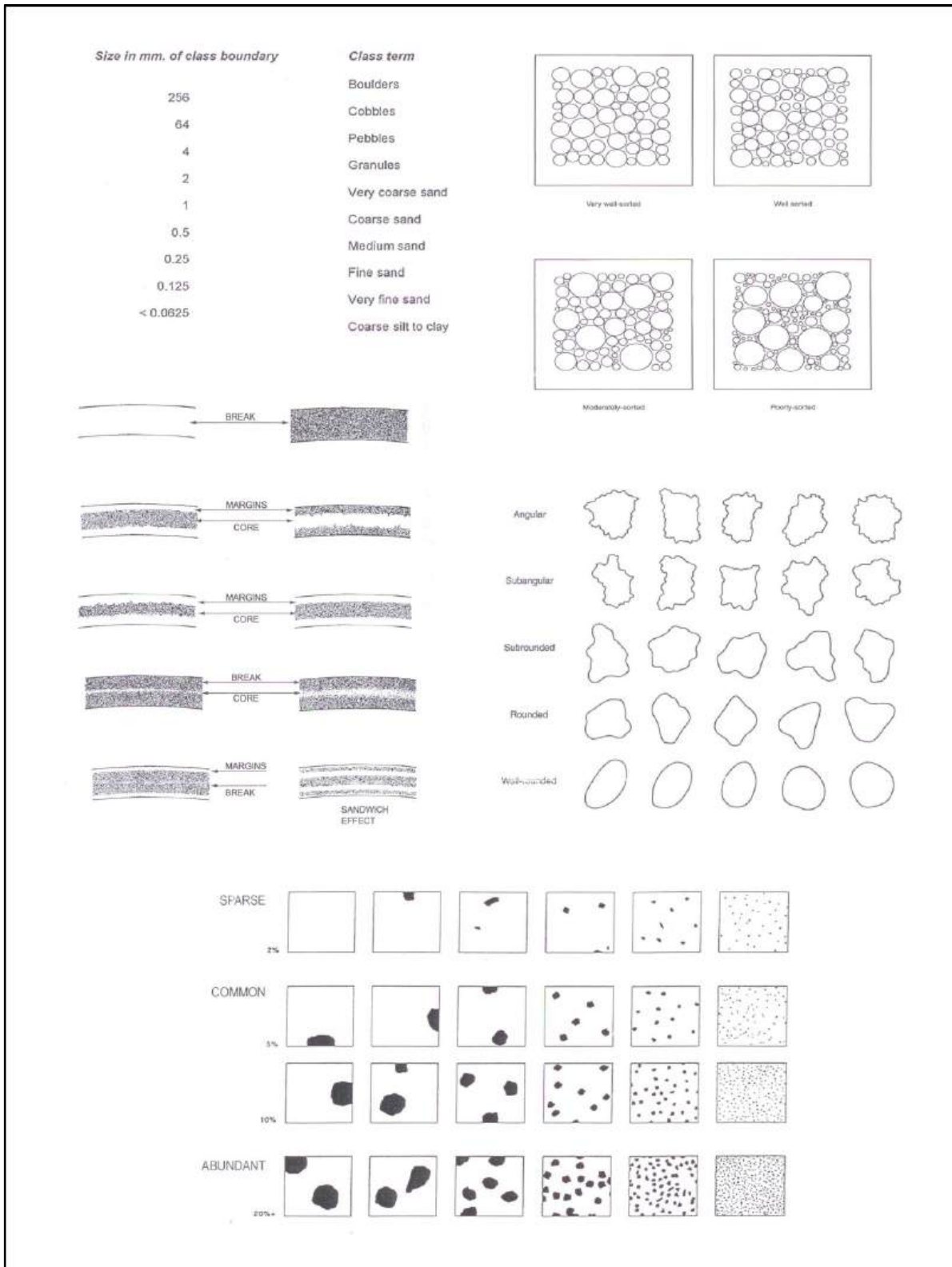


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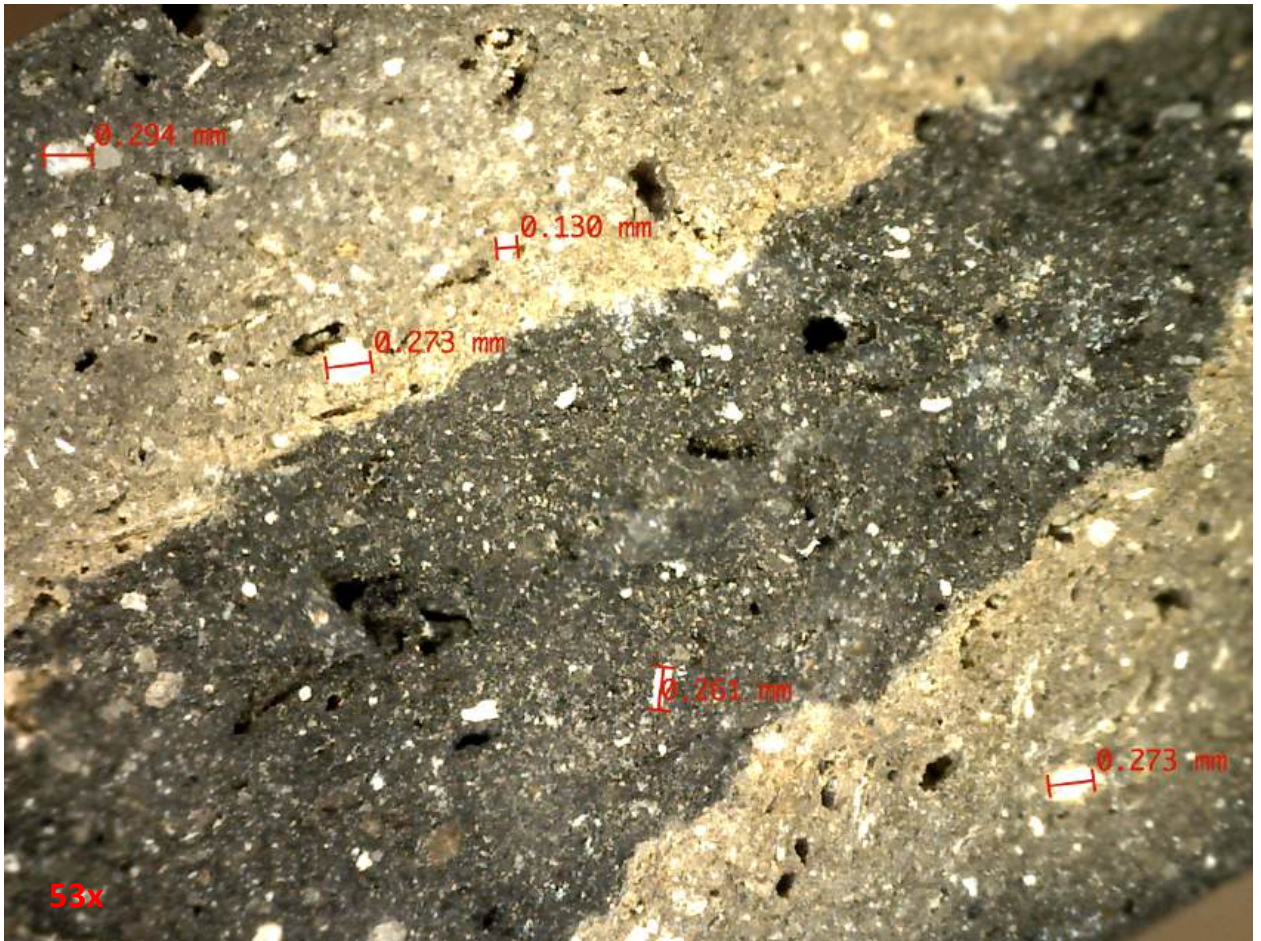


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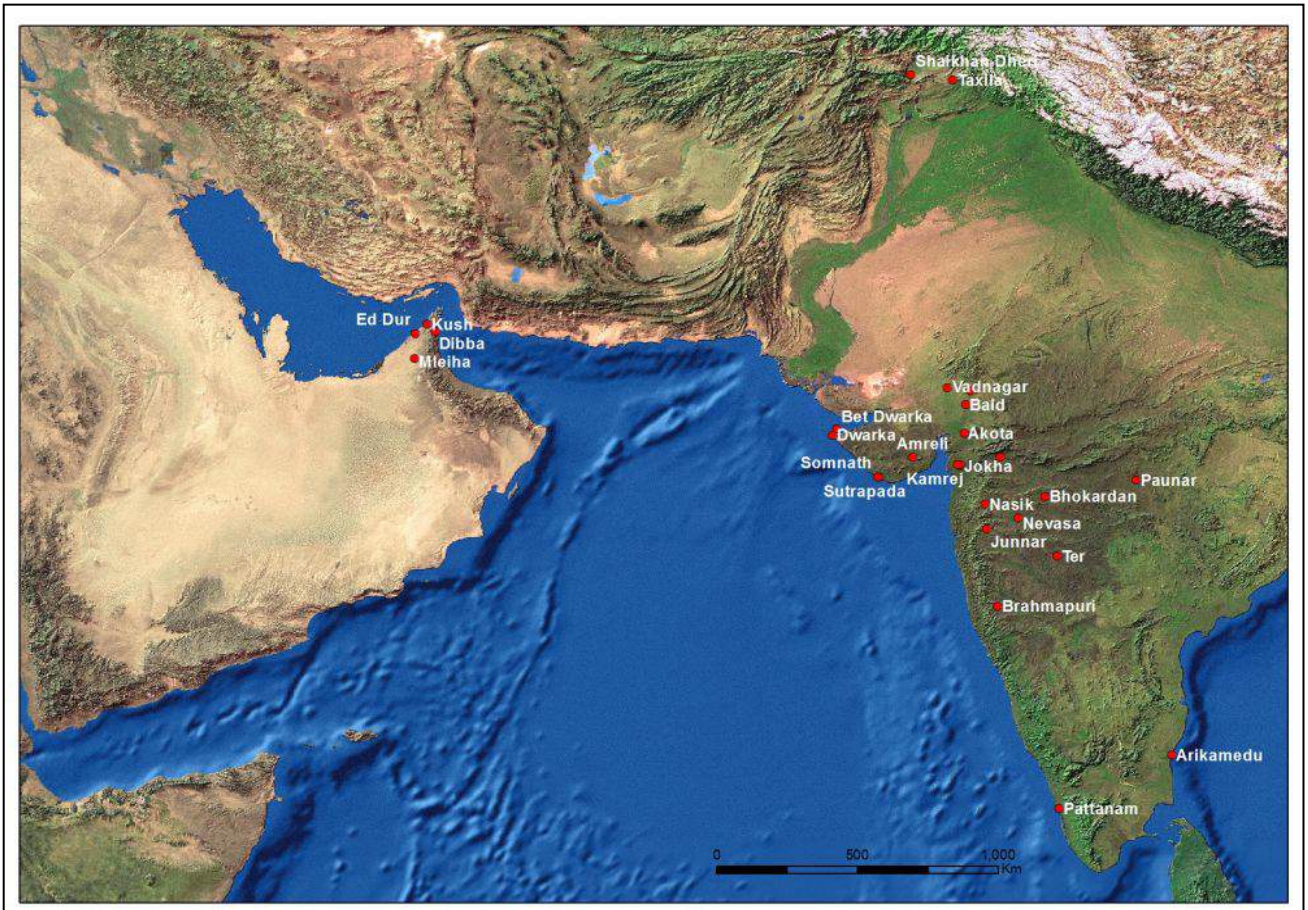


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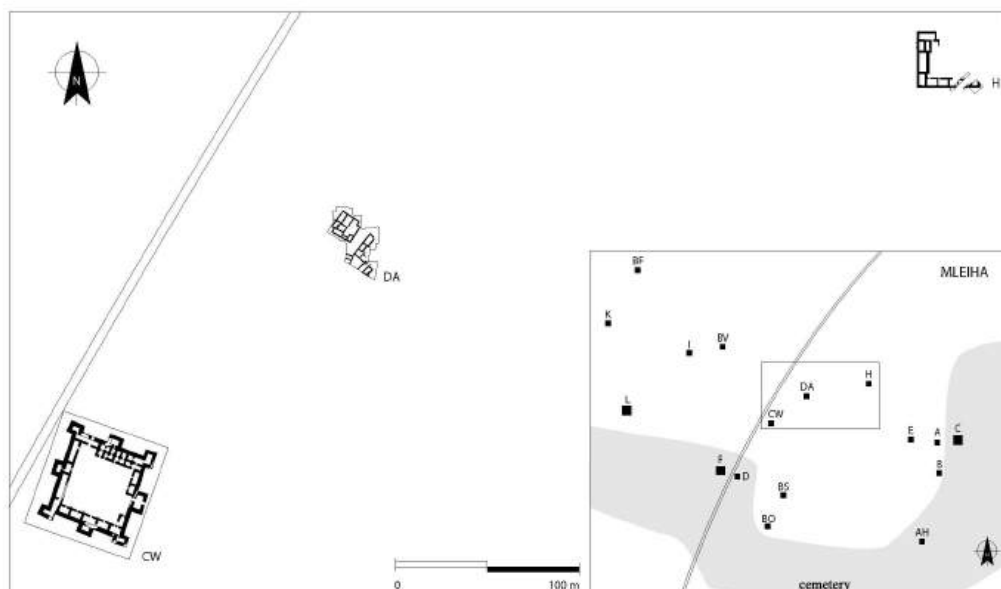


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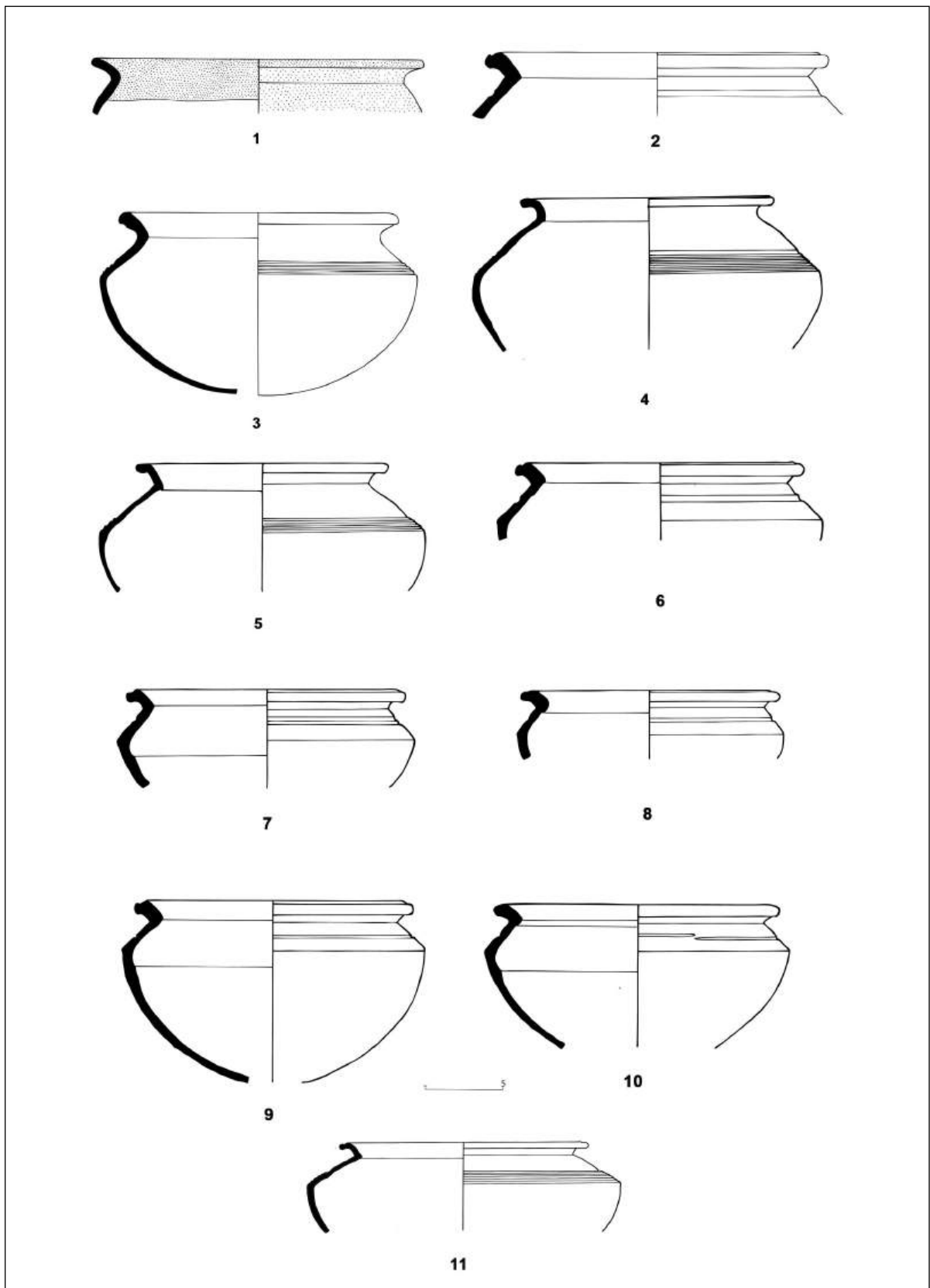


Figure 13. Carinated handi type vessels from Mleiha (pottery drawing - nos. 1-11)



1. ML10014



2. ML10084



3. ML10150



5. ML10152



4. ML10151



6. ML10251

Figure 14. Carinated handi type vessels from Mleiha (pottery photographs - nos. 1-6)



7. ML10253



11. ML10303



8. ML10255



12. ML10250



9. ML10259



13. ML10252



10. ML10260



14. ML10254

Figure 15. Carinated handi type vessels from Mleiha (pottery photographs - nos. 7-14)

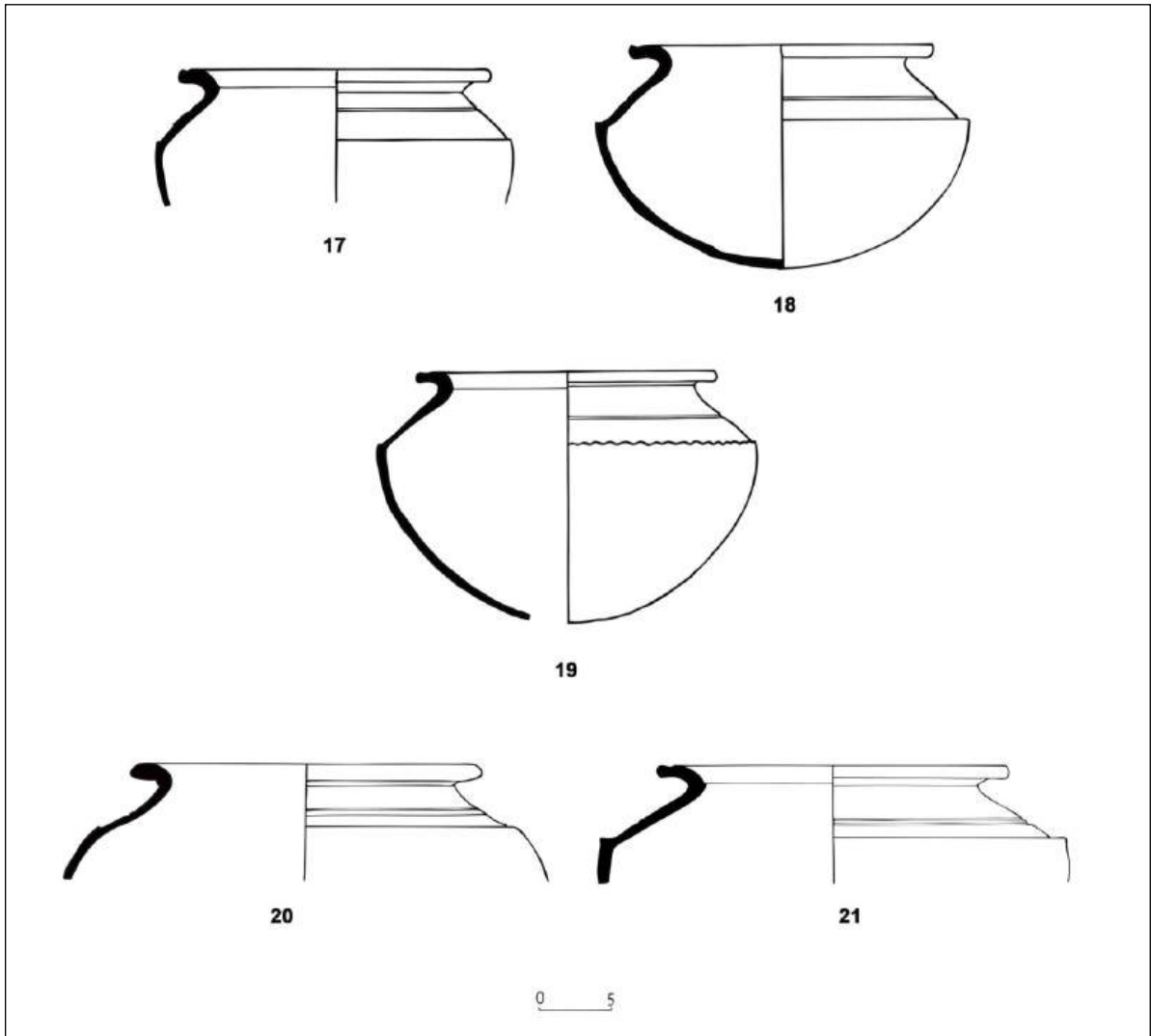


Figure 16. Ridge carinated vessels from Mleiha (pottery drawing - nos. 17-21)



17. ML10153



18. ML10154



19. ML10156



20. ML10034



22. ML10156_4



21. ML10155

Figure 17. Ridge carinated vessels from Mleiha (pottery photographs - nos. 17-21)

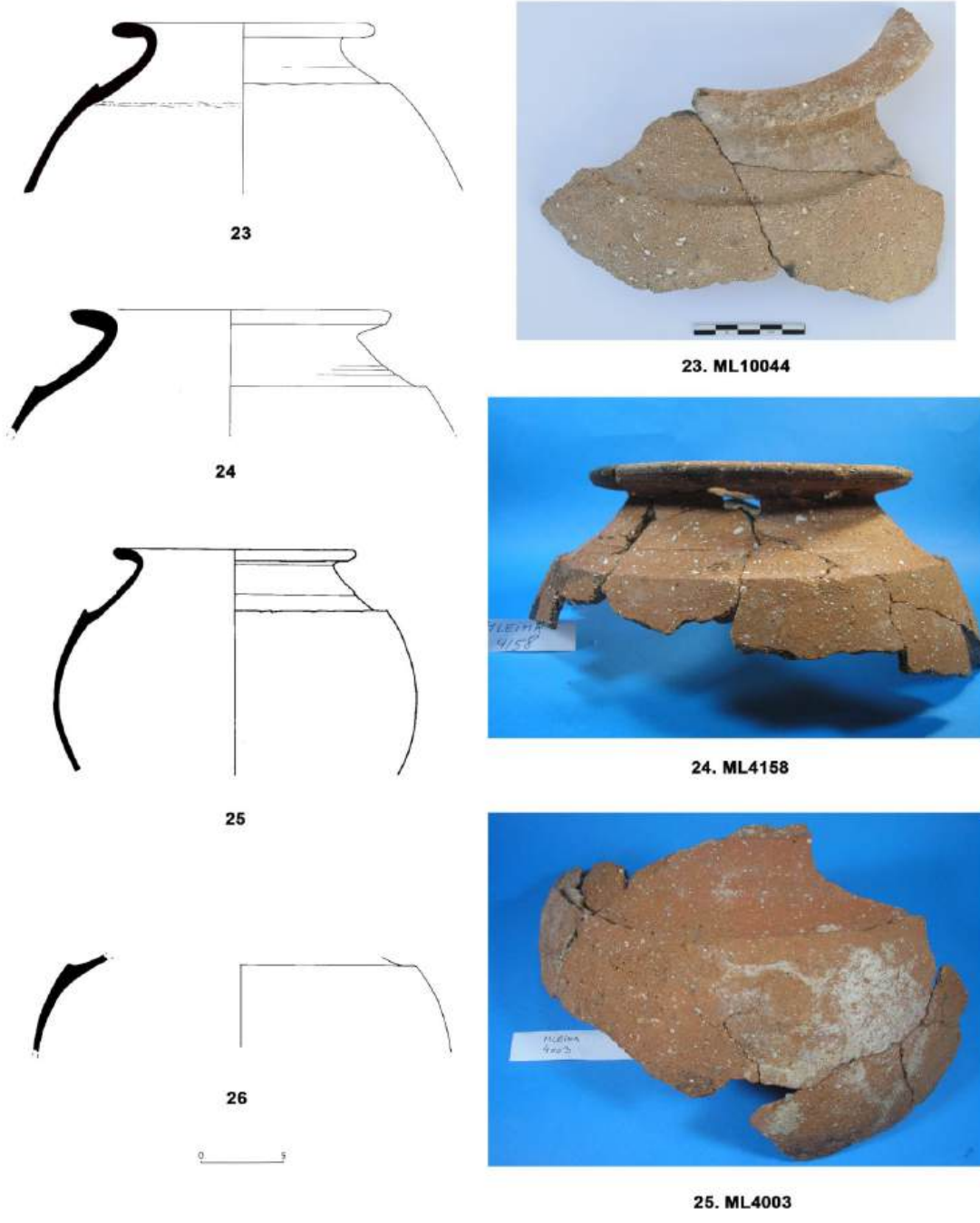


Figure 18. Globular vessels with ridge carination (pottery drawing - nos. 17-21 & photographs nos. 23-25)

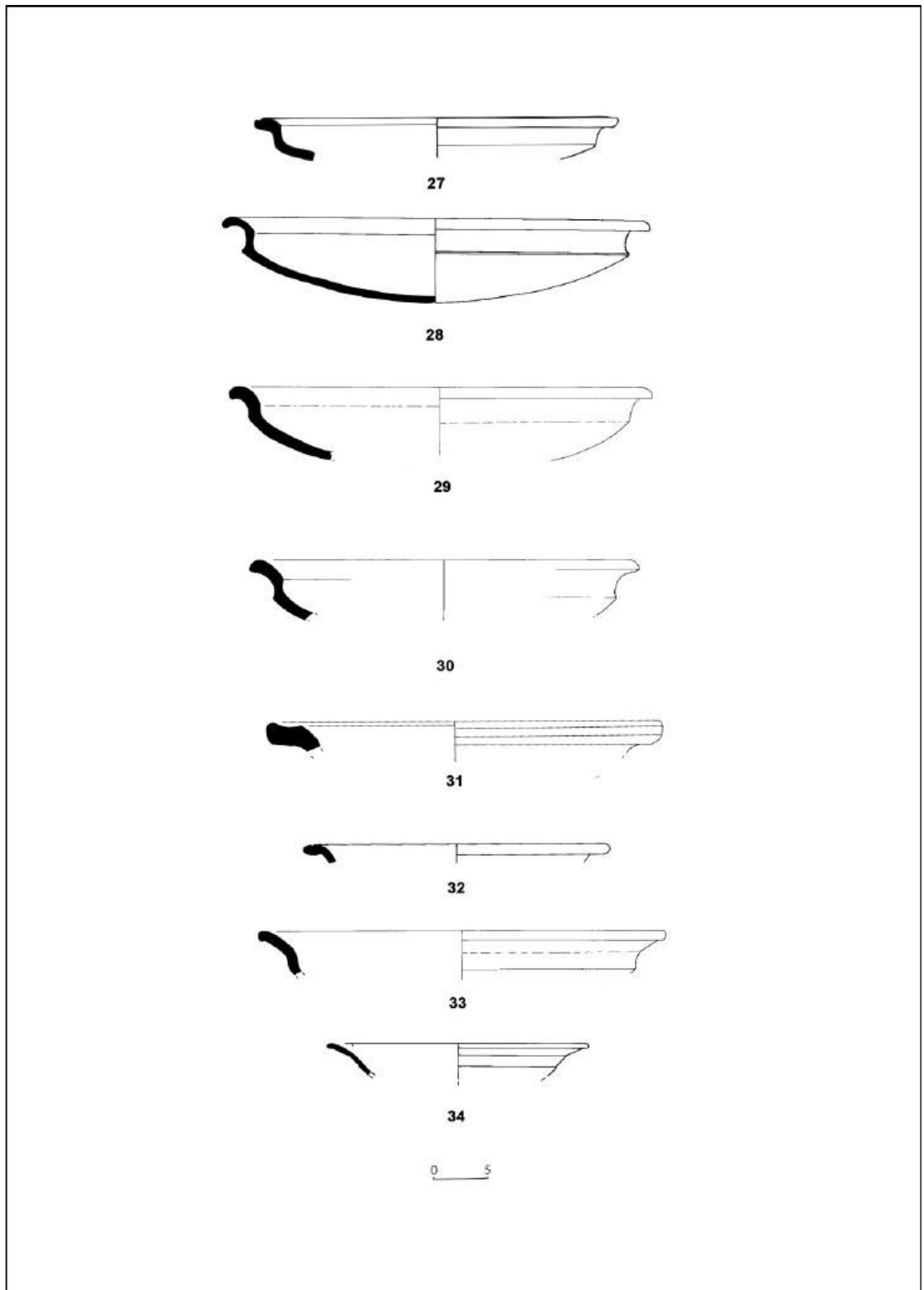


Figure 19. Carinated plates or dishes from Mleiha (pottery drawing - nos. 27-34)



27. ML10035



28. ML3824

Figure 20. Carinated plates or dishes from Mleiha (pottery photographs - nos. 27-28)

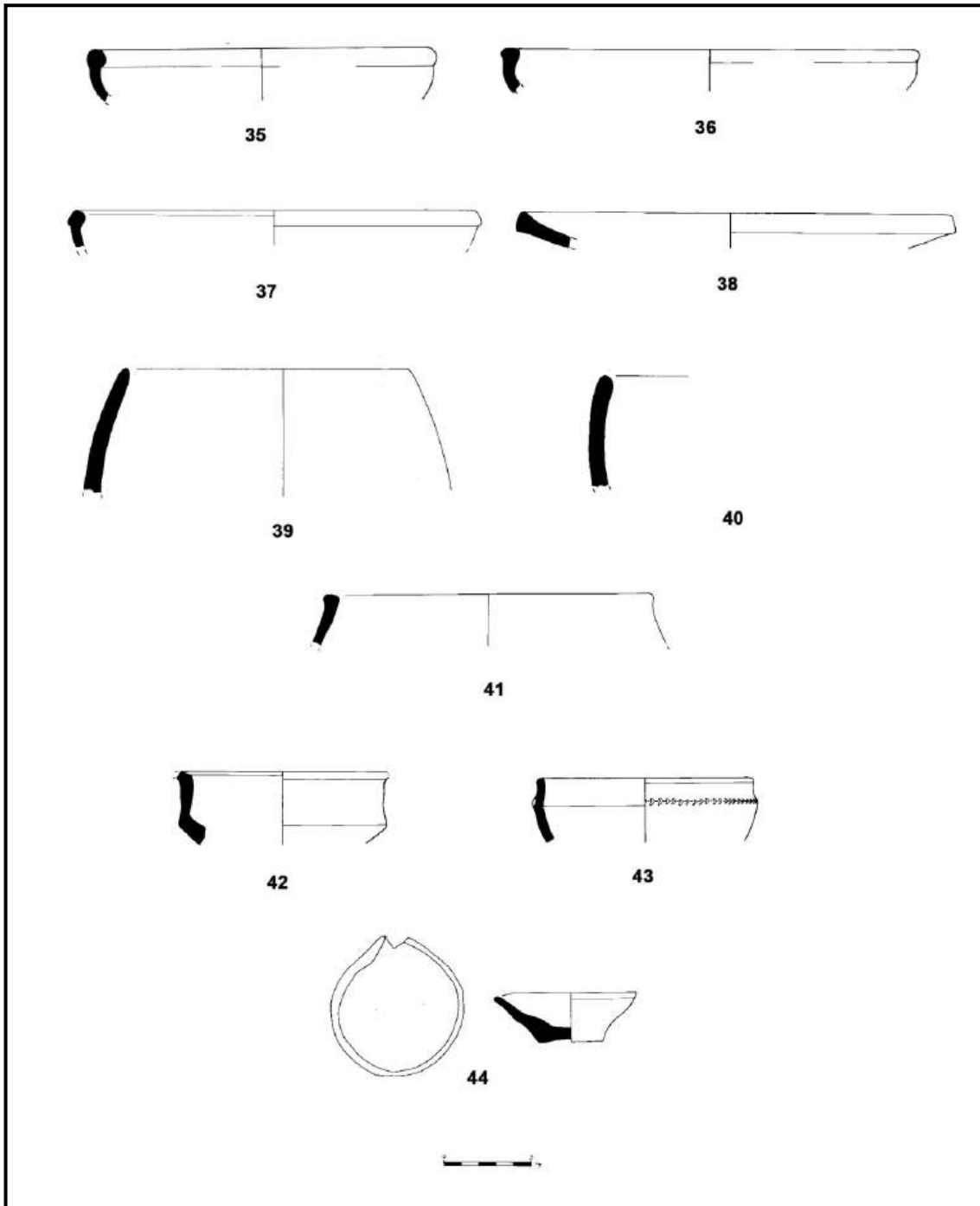


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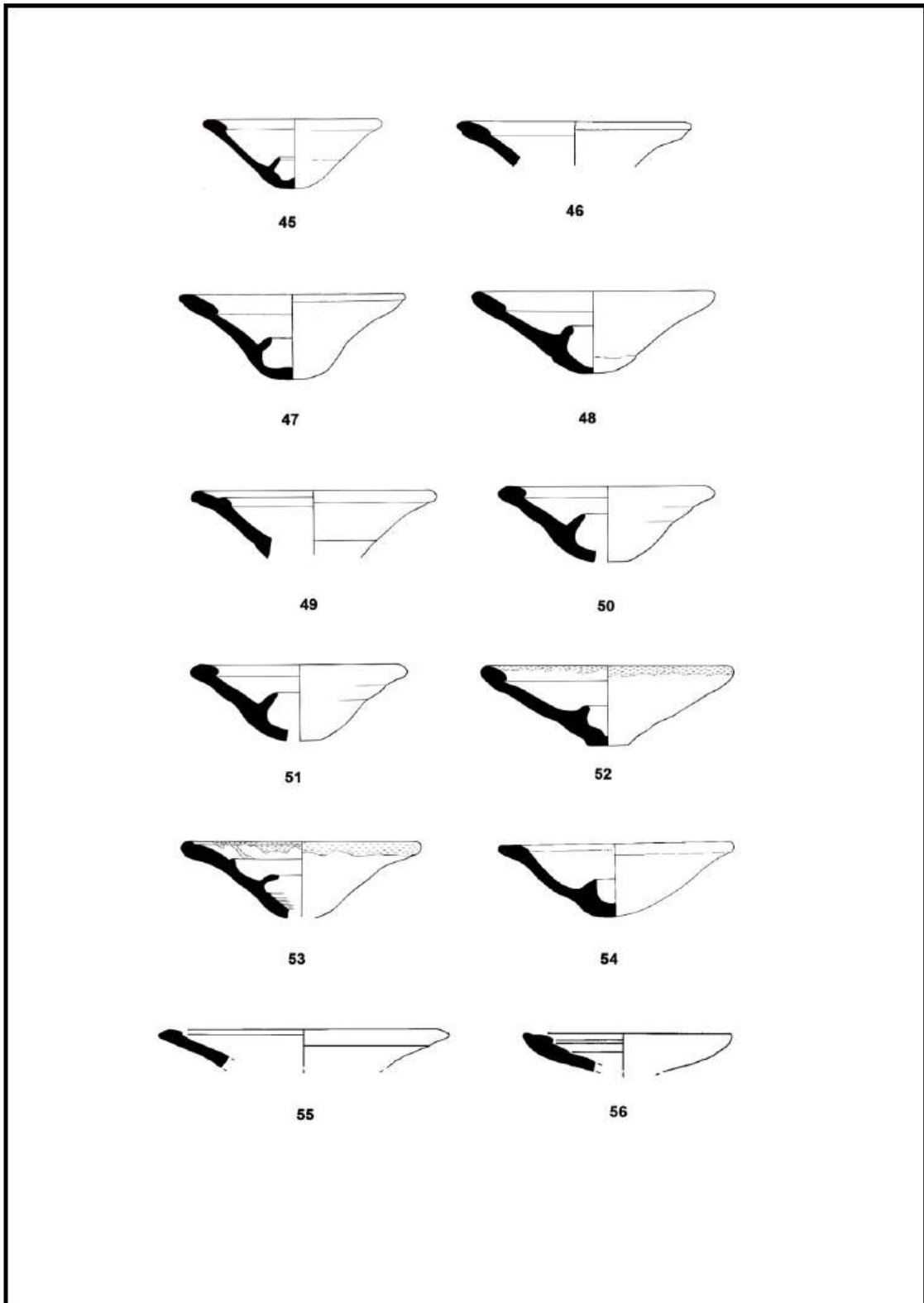


Figure 22. Lids or Lamps type from Mleiha (pottery drawings – nos. 45-56)

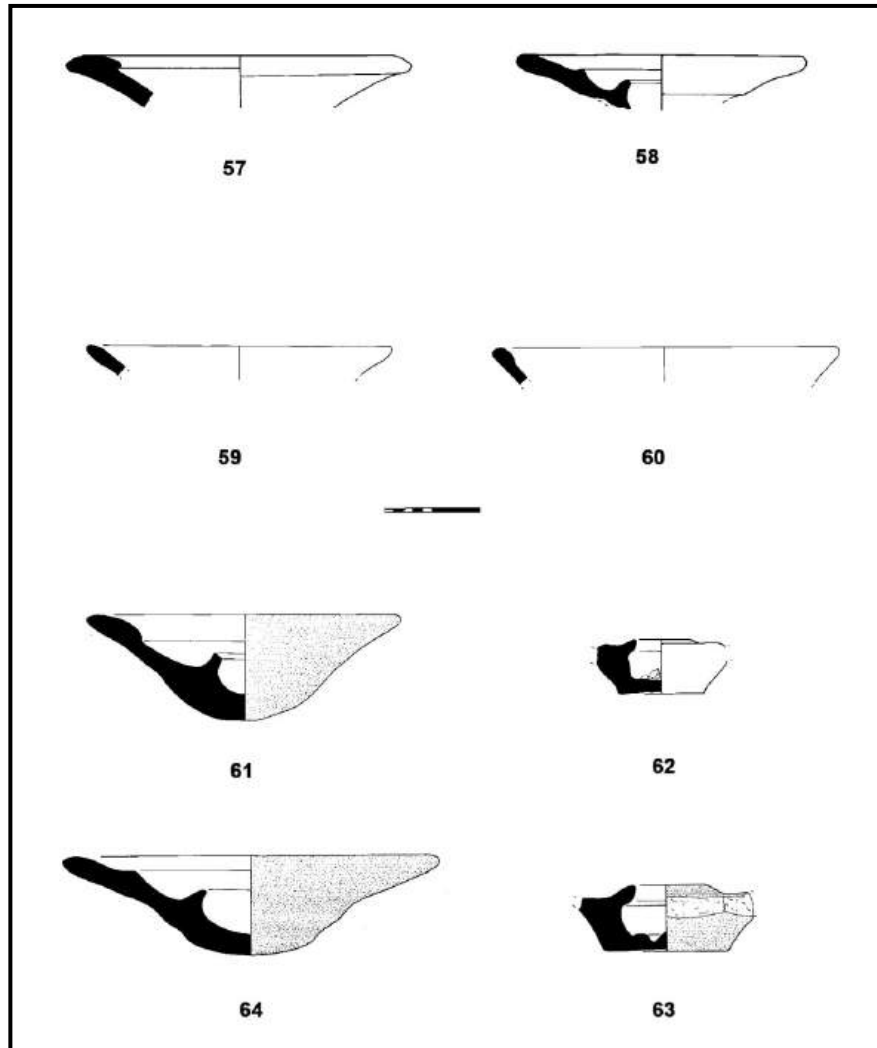


Figure 23. Lids or Lamps type from Mleiha (pottery drawings – nos. 57-63)

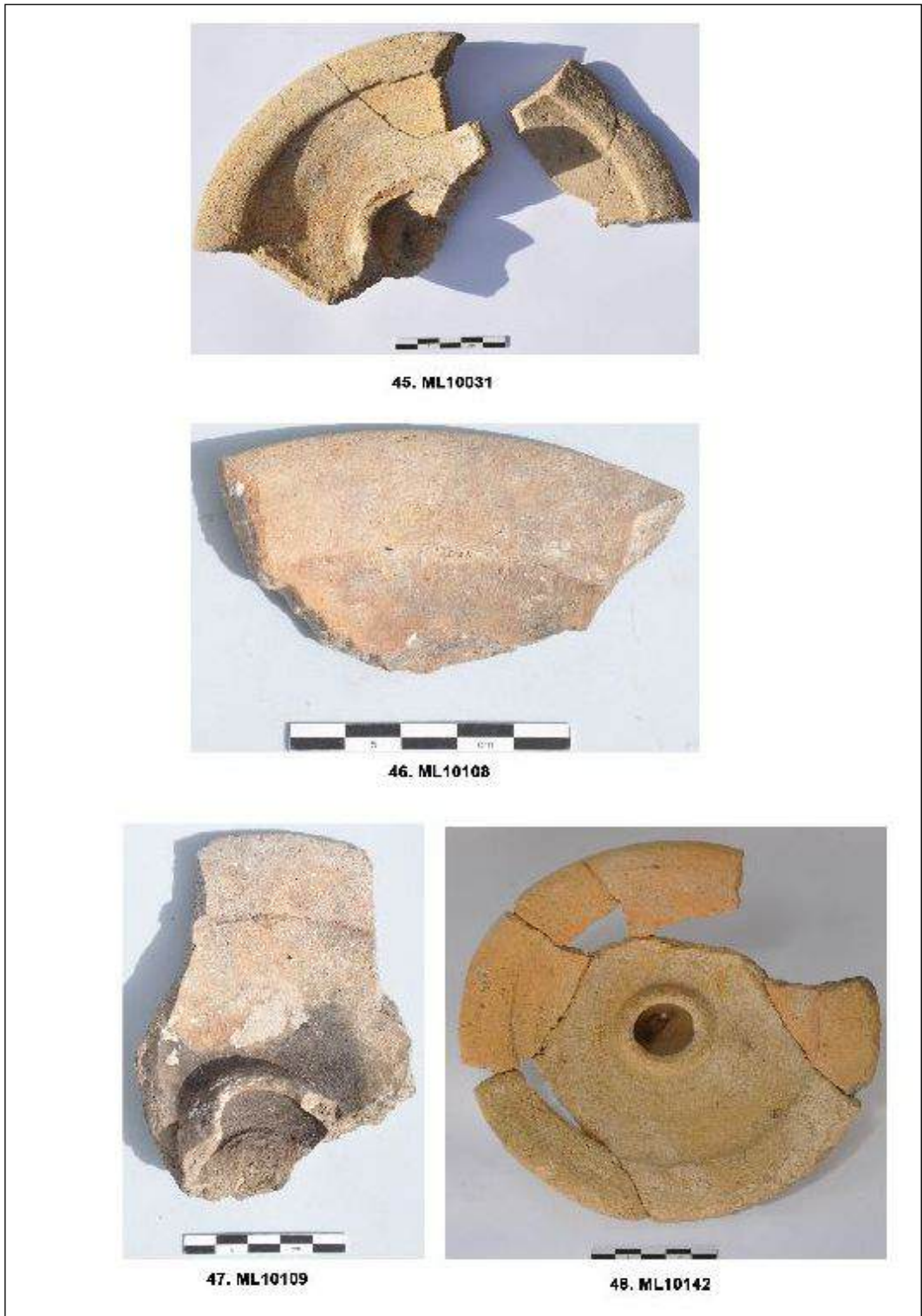


Figure 24. Lids or Lamps type from Mleiha (pottery photographs – nos. 45-48)



49. ML10143



60. ML10144



51. ML10145

Figure 25. Lids or Lamps type from Mleiha (nos. 49-51)



Figure 26. Lids or Lamps type from Mleiha (pottery photographs – nos. 52-53, 64-67)

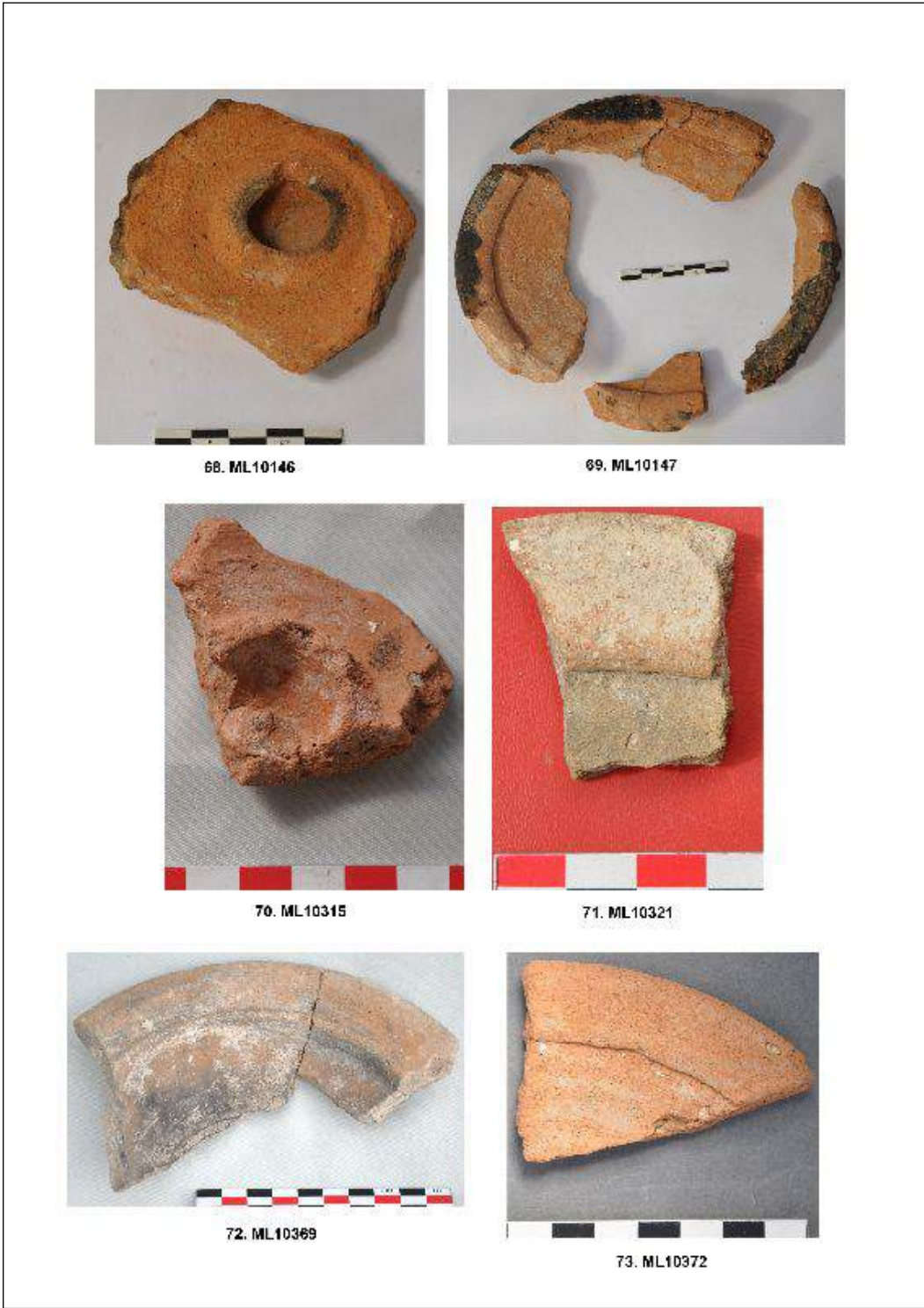


Figure 27. Lids or Lamps type from Mleiha (pottery photographs – nos. 68-73)

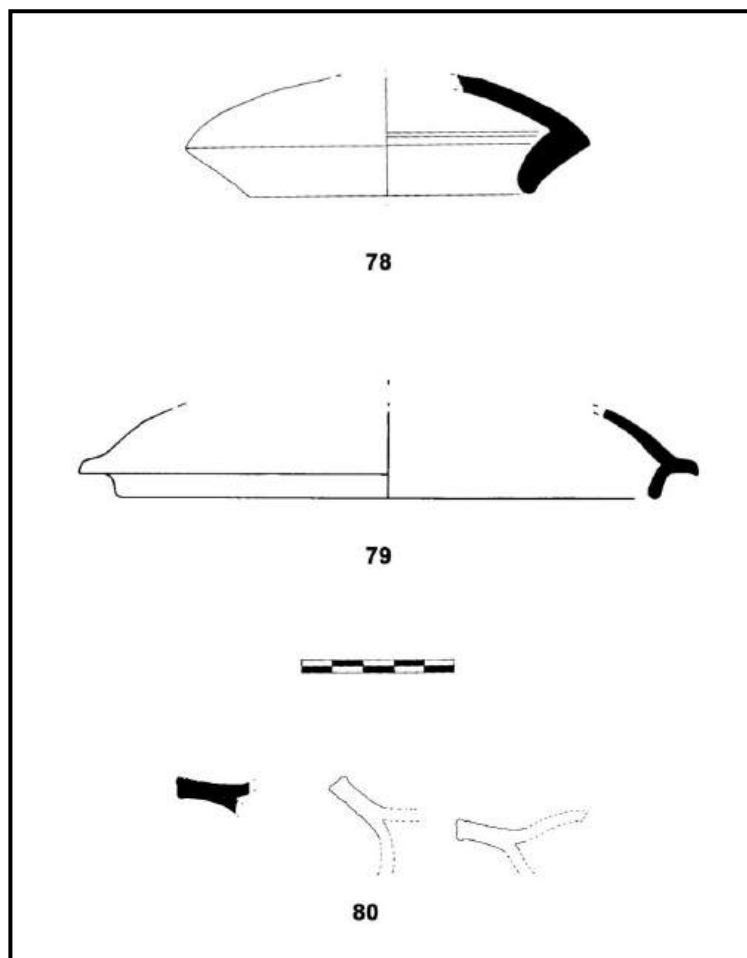


Figure 28. Mleiha Lids (variation) (pottery drawings – nos. 78-80)

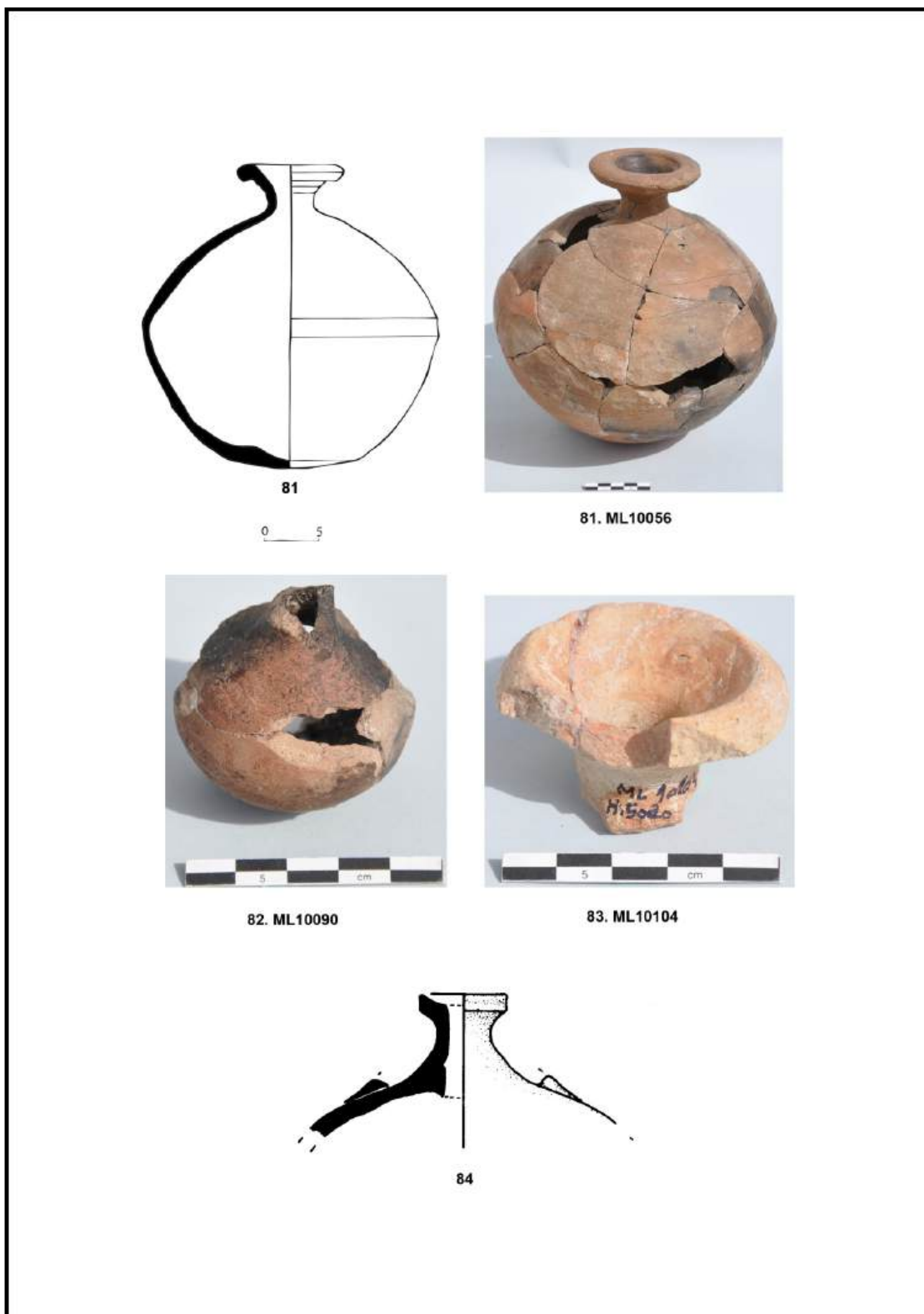


Figure 29. Flasks or funnel mouthed vessels (nos. 81-84)

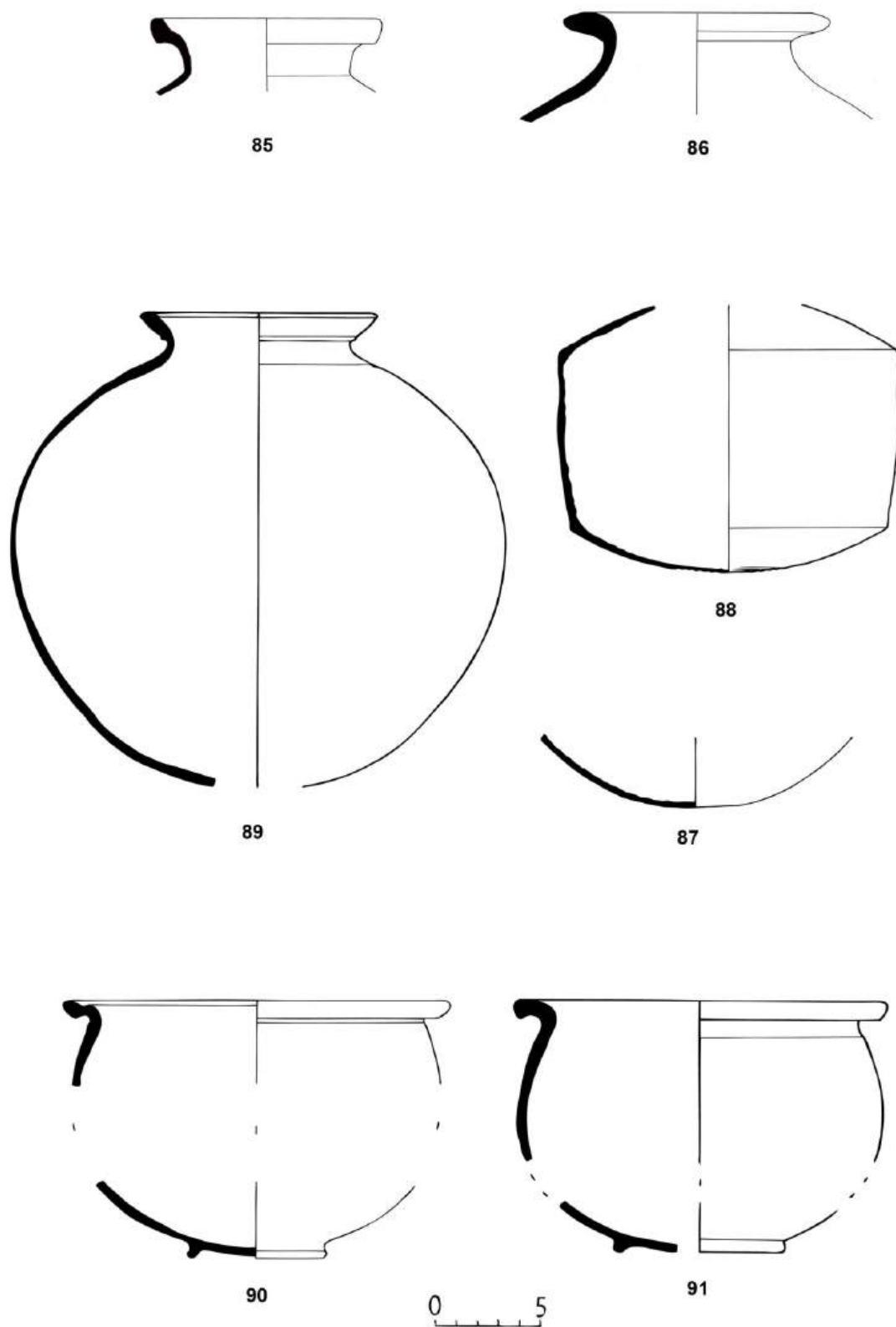


Figure 30. Storage jars and/or cooking pots from Mleiha (pottery drawings – nos. 85-91)



85. ML10013



86. ML10068



87. ML10205



88. ML10209



89. ML10211

Figure 31. Storage jars and/or cooking pots from Mleiha (pottery photographs – nos. 85-89)

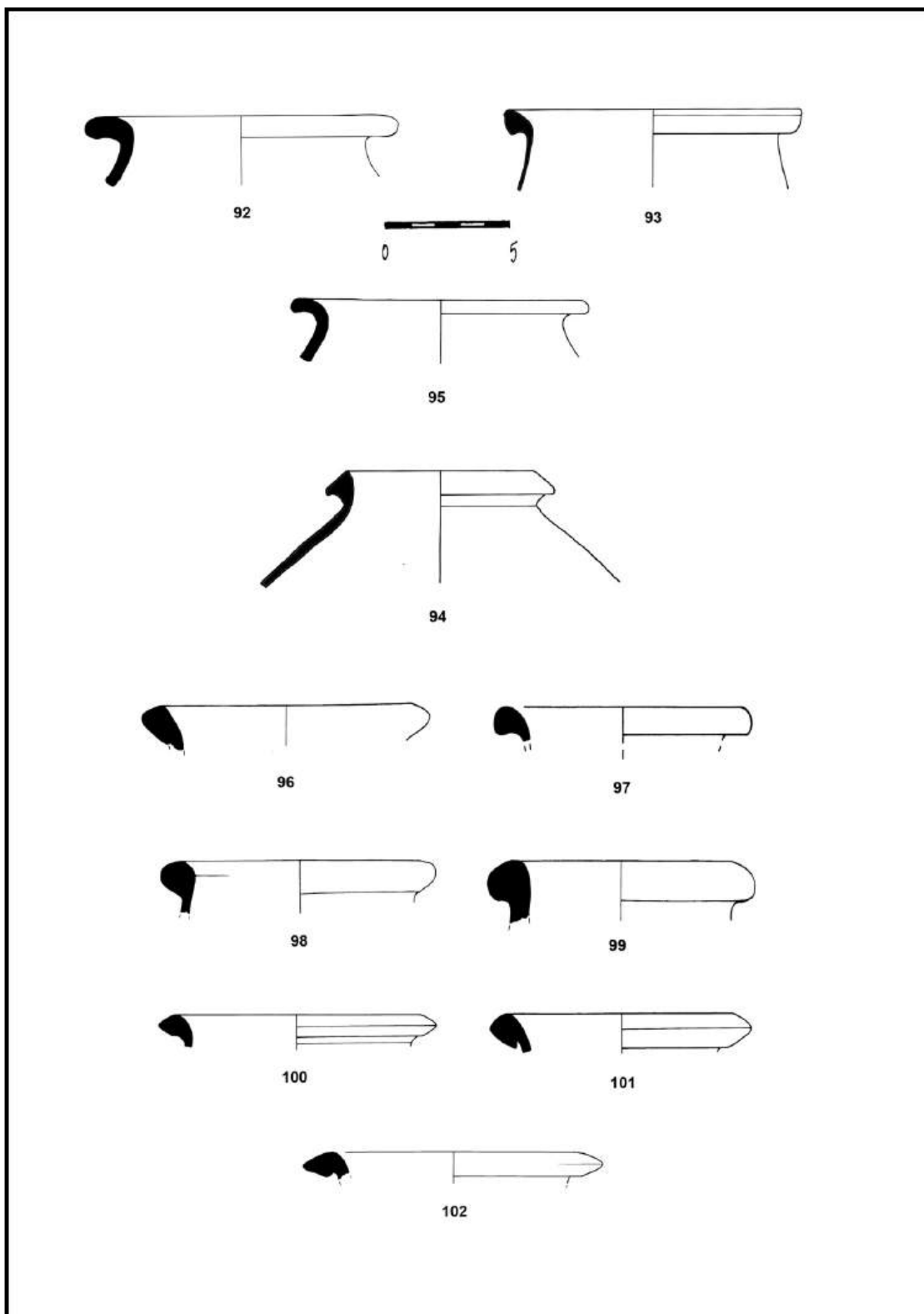


Figure 32. Storage jars and/or cooking pots from Mleiha (pottery drawings – nos. 92-102)



90. ML10242



91. ML10243



92. ML10256



93. ML10312



94. ML10317

Figure 33. Storage jars and/or cooking pots from Mleiha (pottery photographs – nos. 90-94)

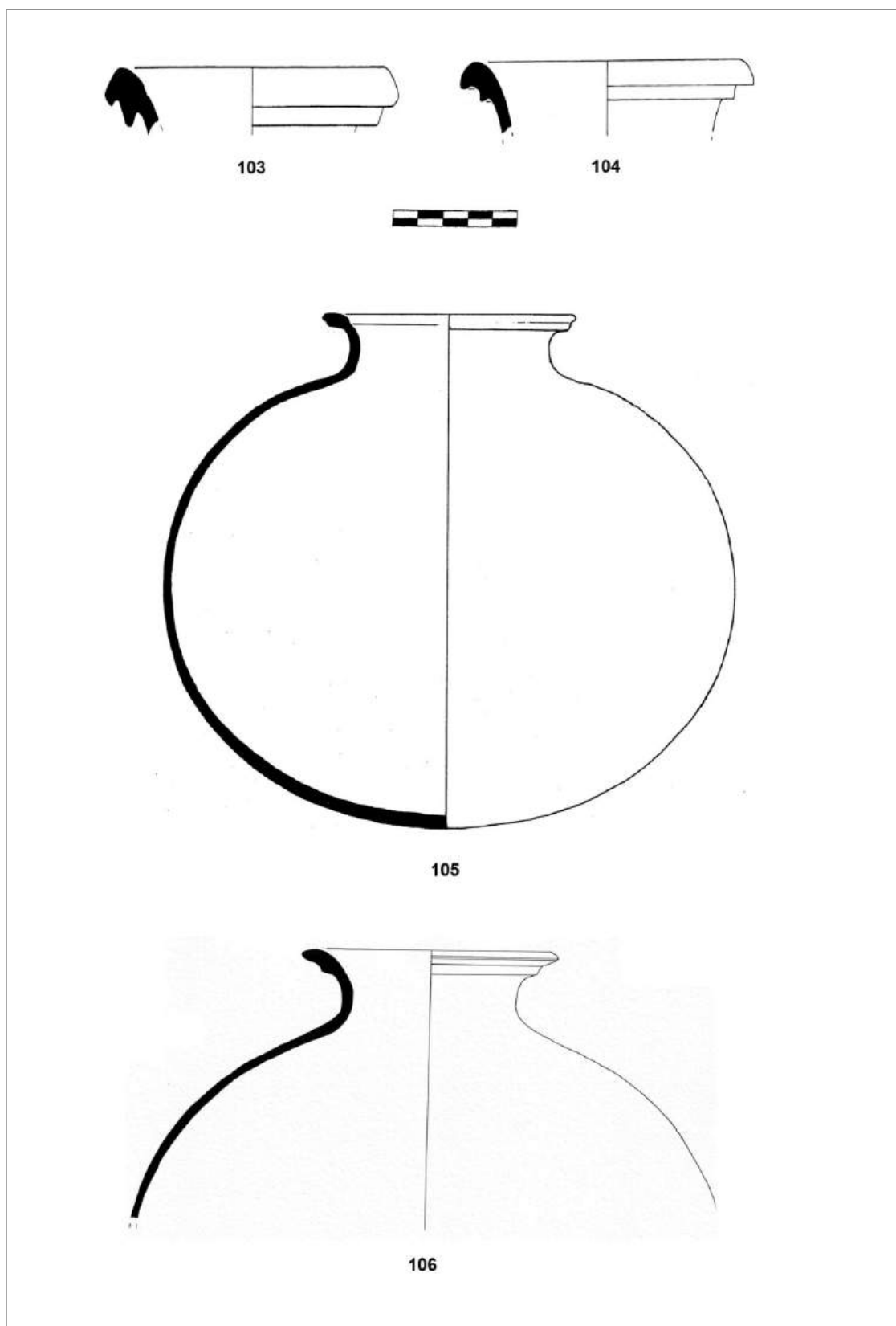


Figure 34. Storage jars and/or cooking pots from Mleiha (pottery drawings – nos. 103-106)

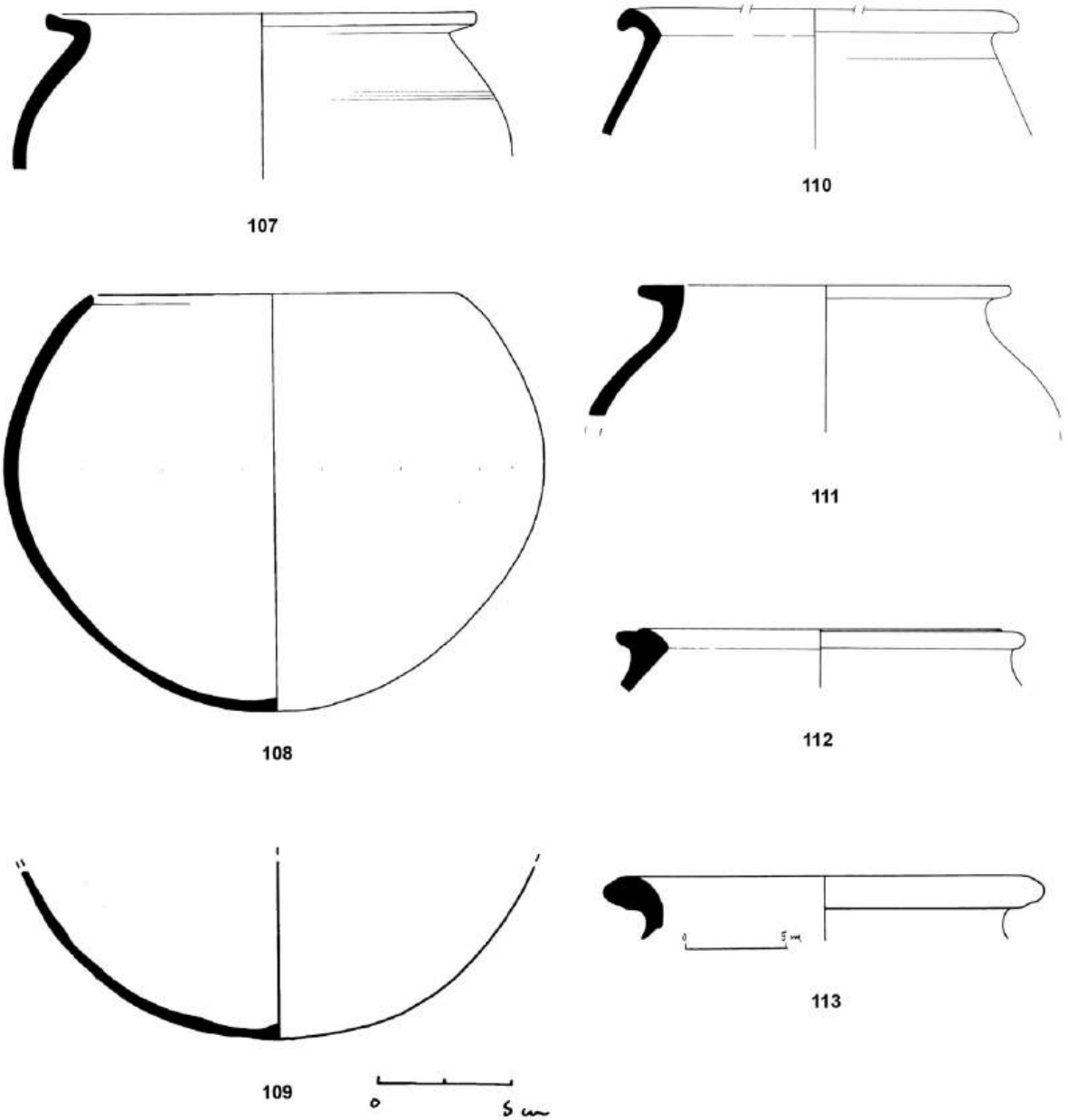


Figure 35. Storage jars and/or cooking pots from Mleiha (pottery drawings – nos. 107-113)

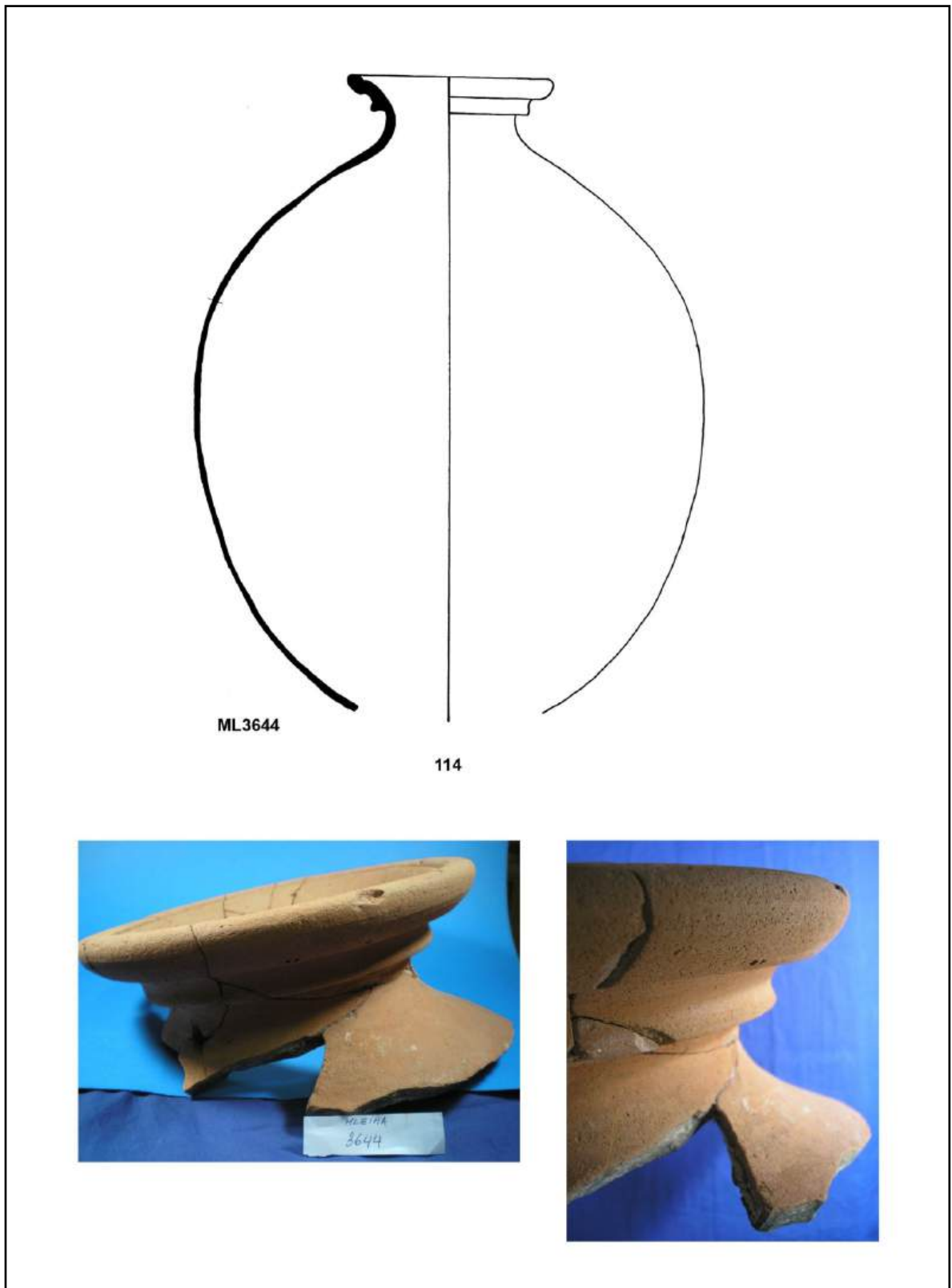


Figure 36. Indian storage jar from Mleiha (ML 3644) (no. 114)



115. ML10015



116. ML10257



117. ML10258



118. ML10309



119. ML10319

Figure 37. Storage jars and/or cooking pots from Mleiha (pottery photographs – nos. 115-119)

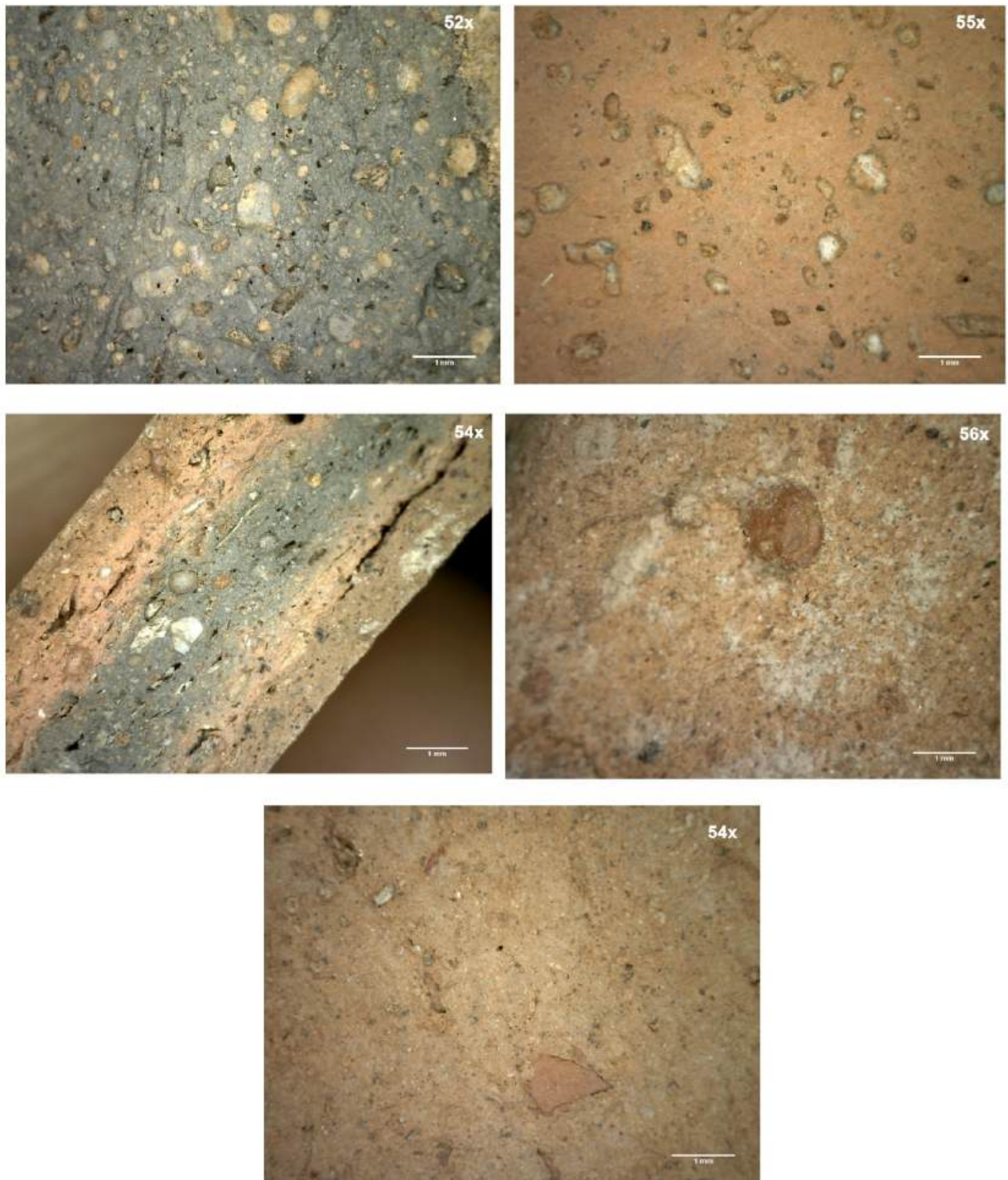


Figure 38. Mleiha Indian Sandy Ware - Fabric 1(A) with large white grits, limestone inclusions and some vegetal temper and occasional red grains (scale = 1mm)

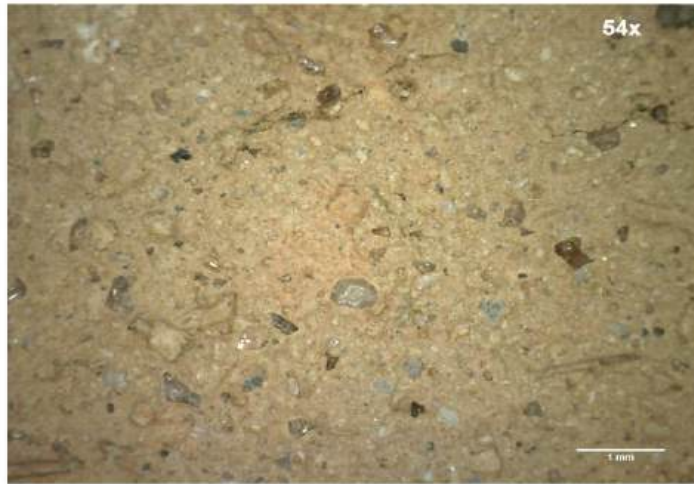


Figure 39. Mleiha Indian Sandy Ware - Fabric 1(B) with translucent white and red quartz/quartzite grains and occasional mica particles, vegetal temper and ferromagnesian minerals (scale = 1mm)

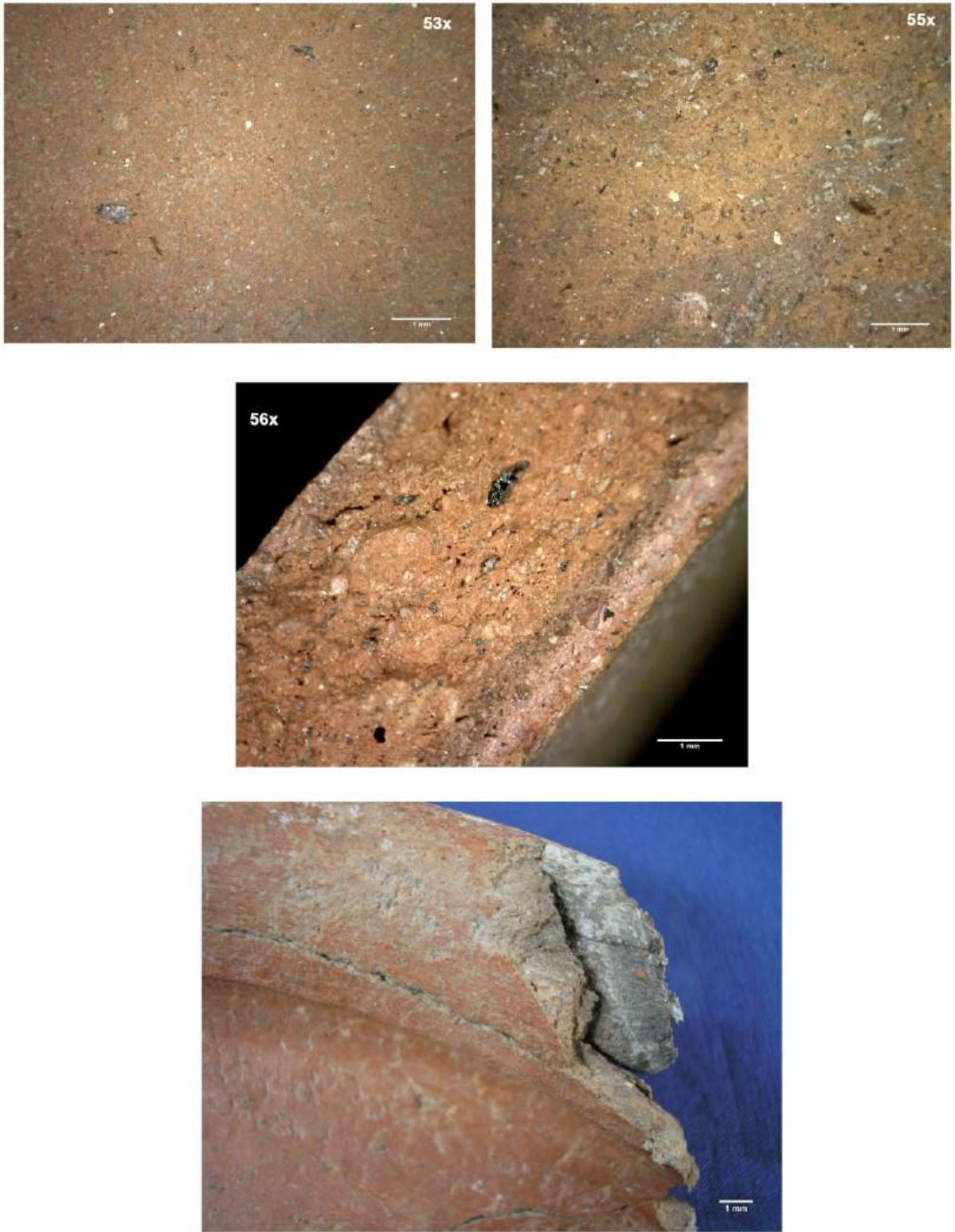


Figure 40. Indian Micaceous Ware - Fabric 2(A) with predominantly mica particles and infrequent inclusions of clay pellets (scale = 1mm)

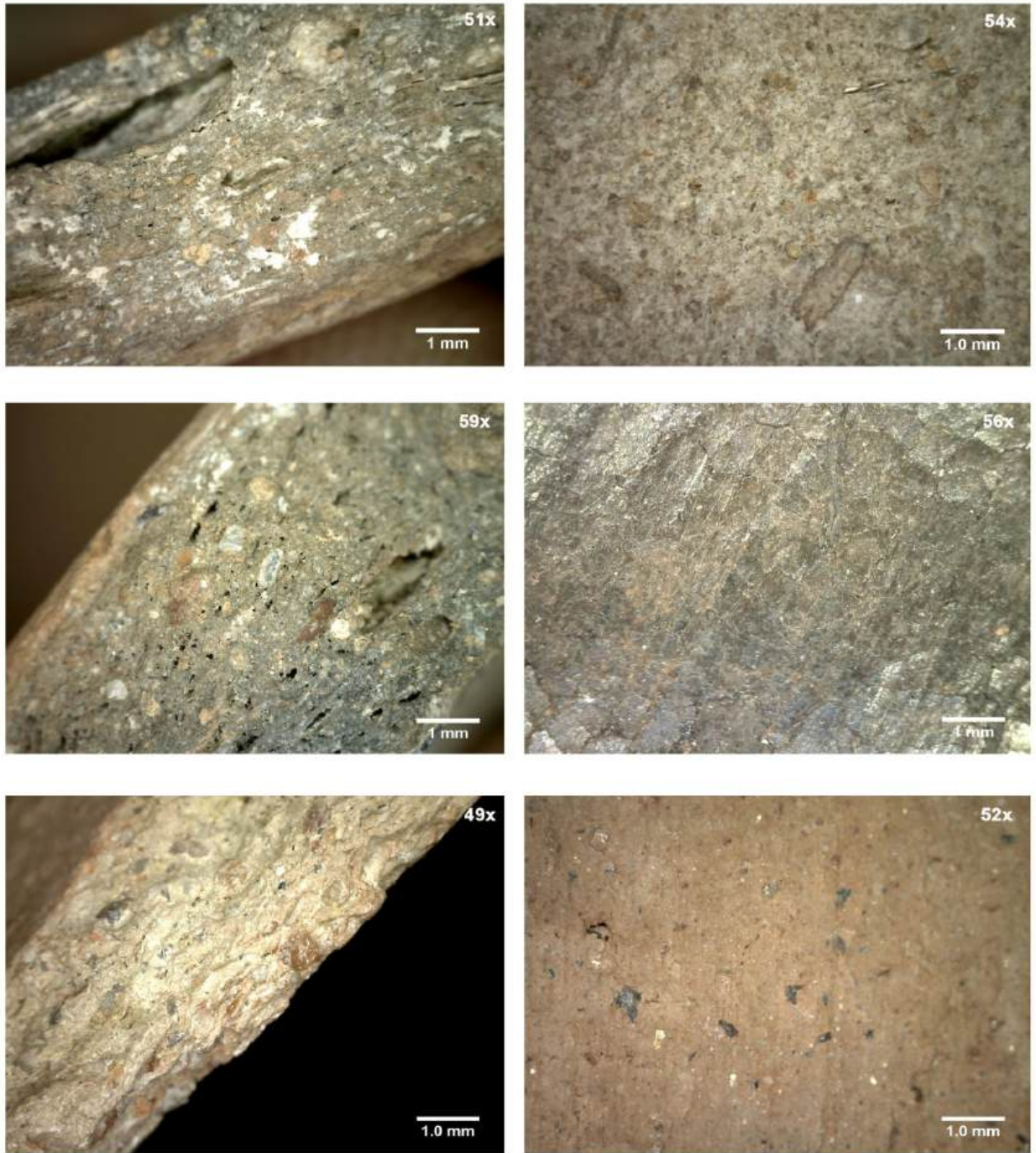


Figure 41. Indian Micaceous Ware - Fabric 2(B) with irregular sized white limestone and quart/quartzite grains with vegetal temper and mica (scale = 1mm)

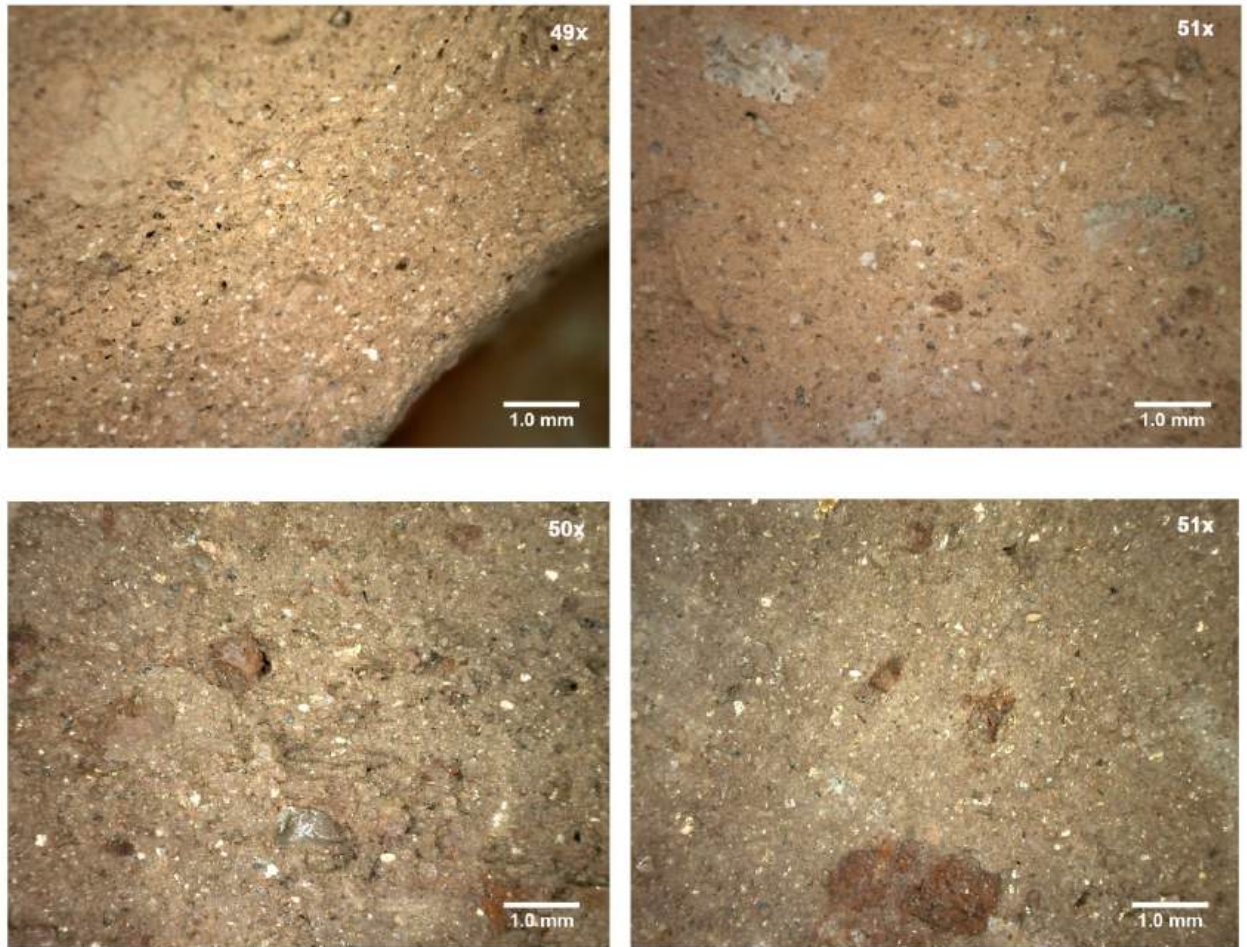


Figure 42. Indian Micaceous Ware - Fabric 2(C) grit or grain-sized white inclusions with mica, red quartz/quartzite grains and iron oxide (scale = 1mm)



Figure 43. Shell Tempered Fabric 3(A) with flat, lamellar plate-like shells (top) & 3(B) consisting powdered or ground shell temper with mineral grits (bottom) (scale = 1mm)



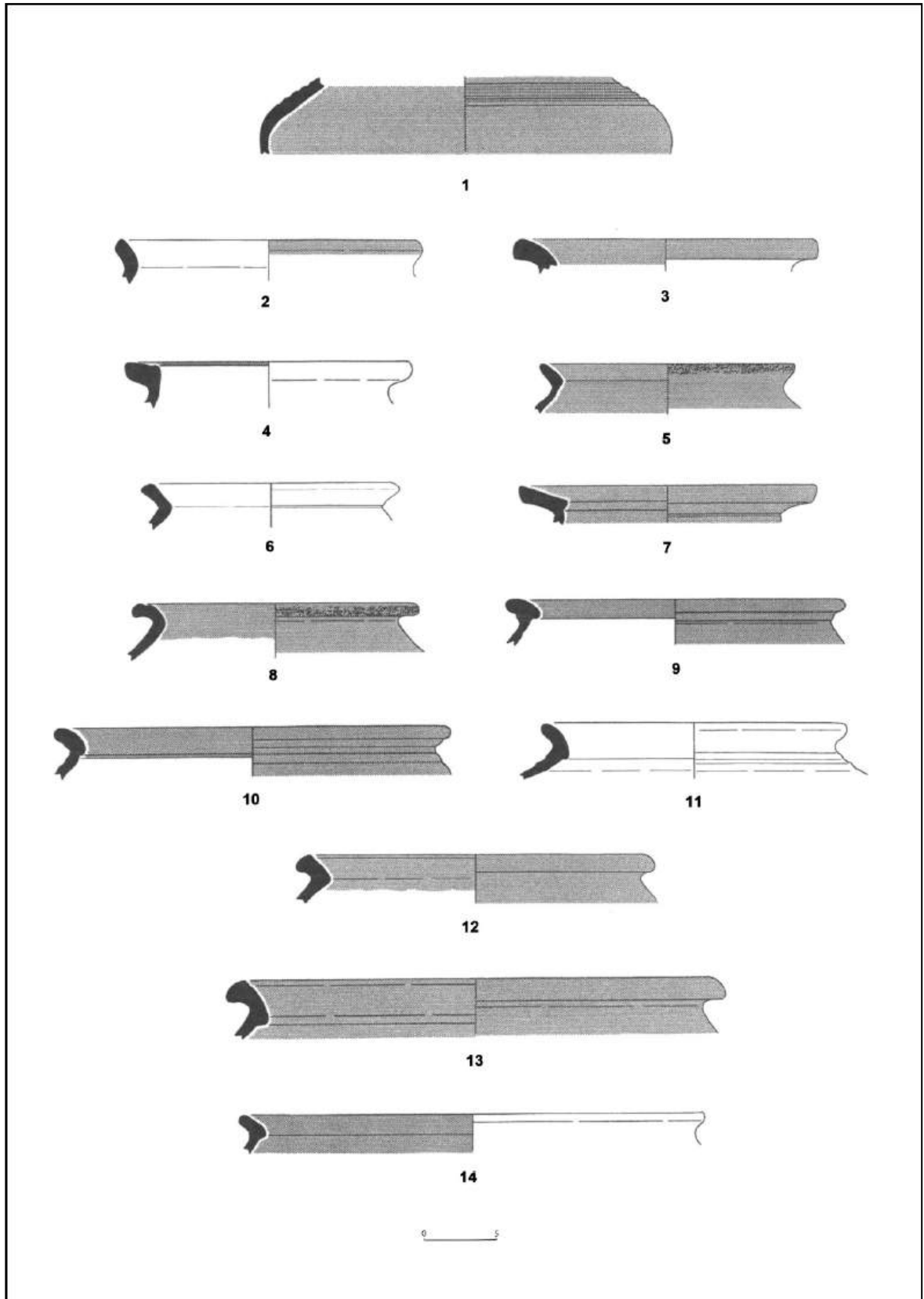
**Figure 44a. Aerial View of site of ed-Dur with indication of several excavated areas.
View towards S (1989) (after Haerinck 2011: Pl. 80)**



**Figure 44b. Aerial View of ed-Dur (view towards SE) (1991)
(after Haerinck 2011: Pl. 93)**



Figure 44c. Aerial View of Ed-Dur (view towards S) (1991) (after Haerinck 2011: Pl. 94)



**Figure 45. Type 1a and 1b - Carinated handi vessels from Ed-Dur (nos. 1-14)
(after Rutten 2006)**

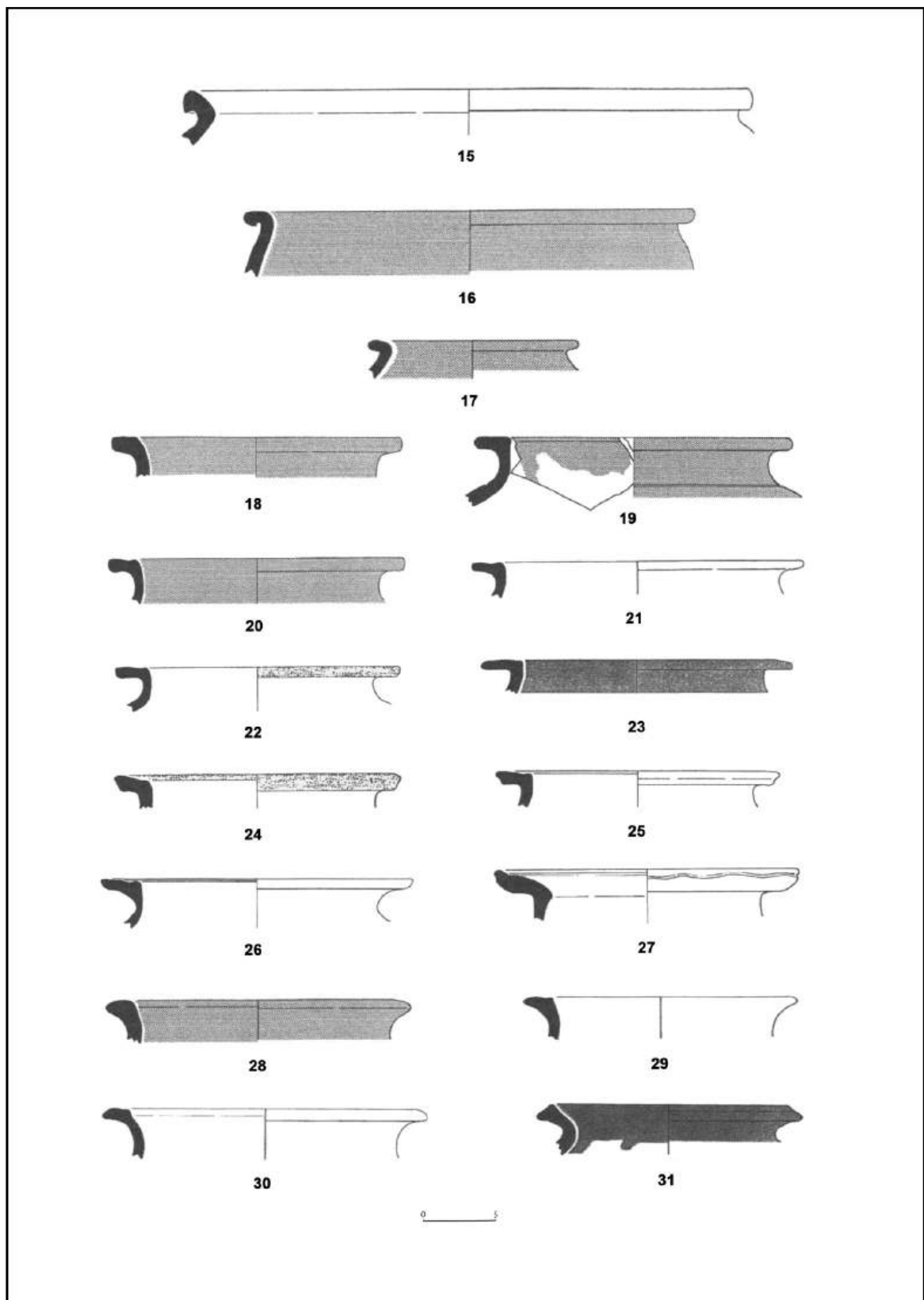


Figure 46. Type 1b - Vessels with short-neck, everted rim and globular body from Ed-Dur (nos. 15-31) (after Rutten 2006)

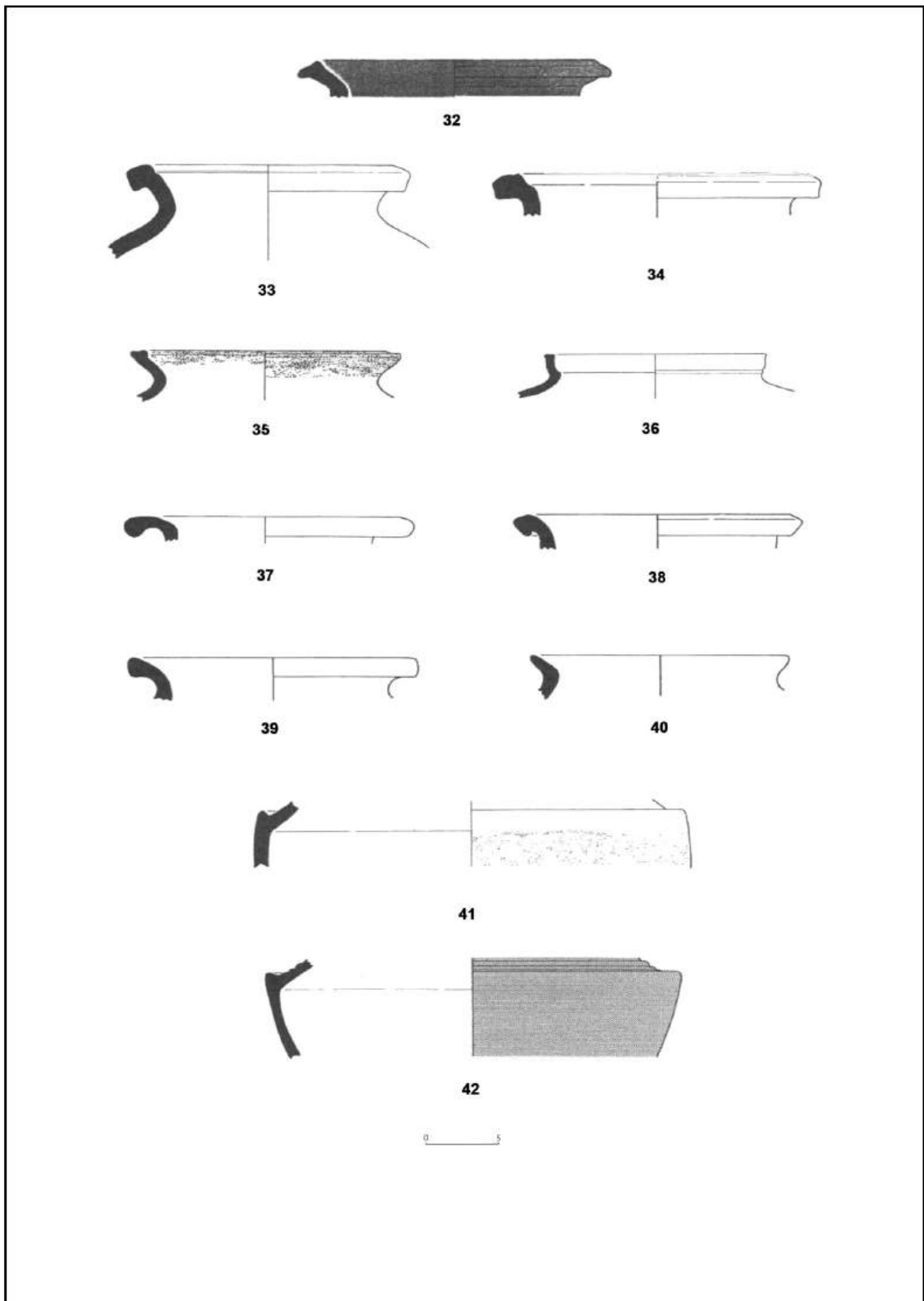


Figure 47. Type 1b - Vessels with short-neck, everted rim and globular body (nos. 32-40) and Type 1c - Ridge carinated vessels (nos. 41-42) (after Rutten 2006)

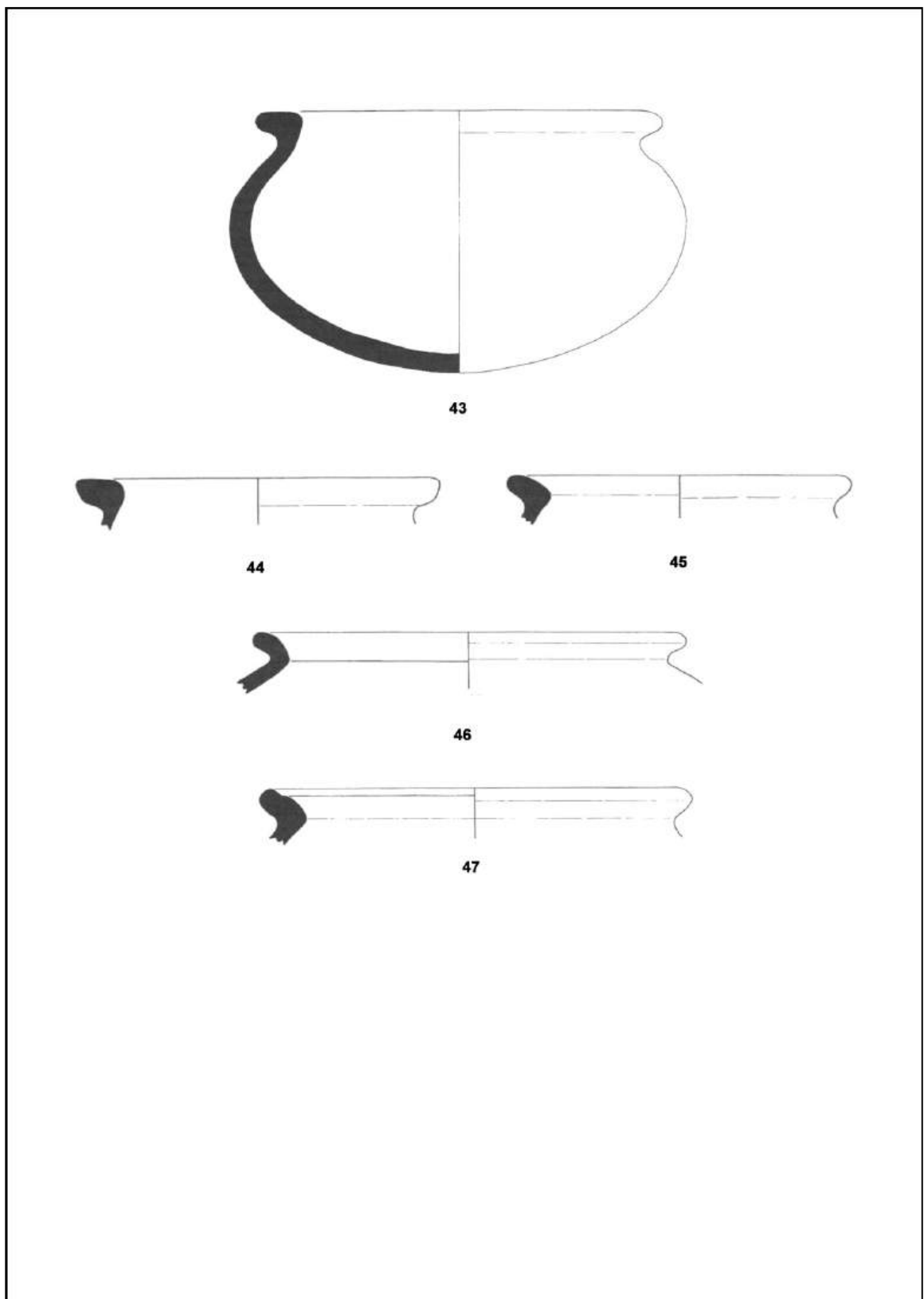


Figure 48. Type 2a - Cooking vessels without carination - with smooth round sides (nos. 43-47) (after Rutten 2006)

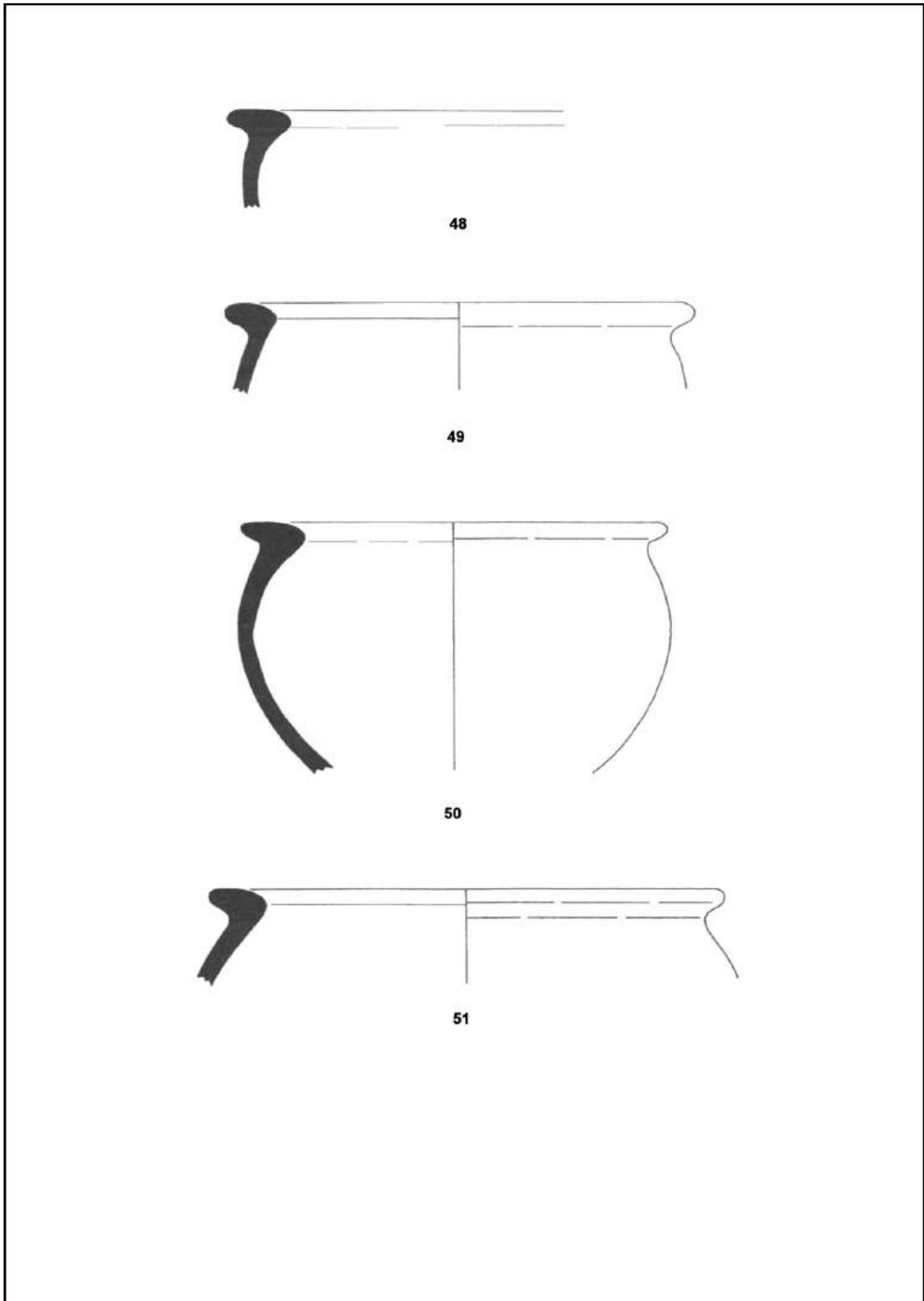


Figure 49. Type 2b - Cooking vessels without carination - with slightly curved or flaring sides (nos. 48-51) (after Rutten 2006)

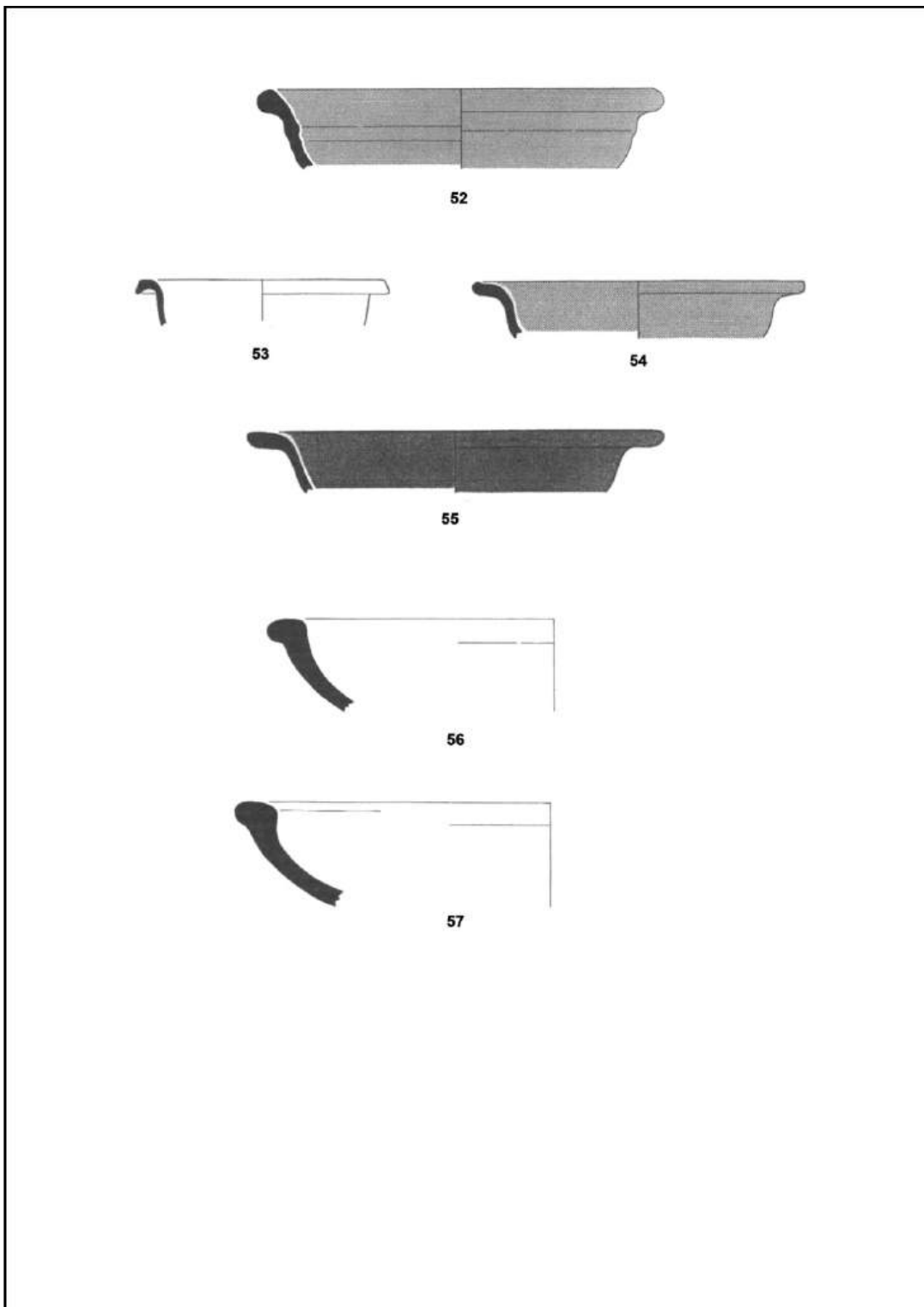


Figure 50. Type 3 - Plates or dishes from Ed-Dur (nos. 52-57) (after Rutten 2006)

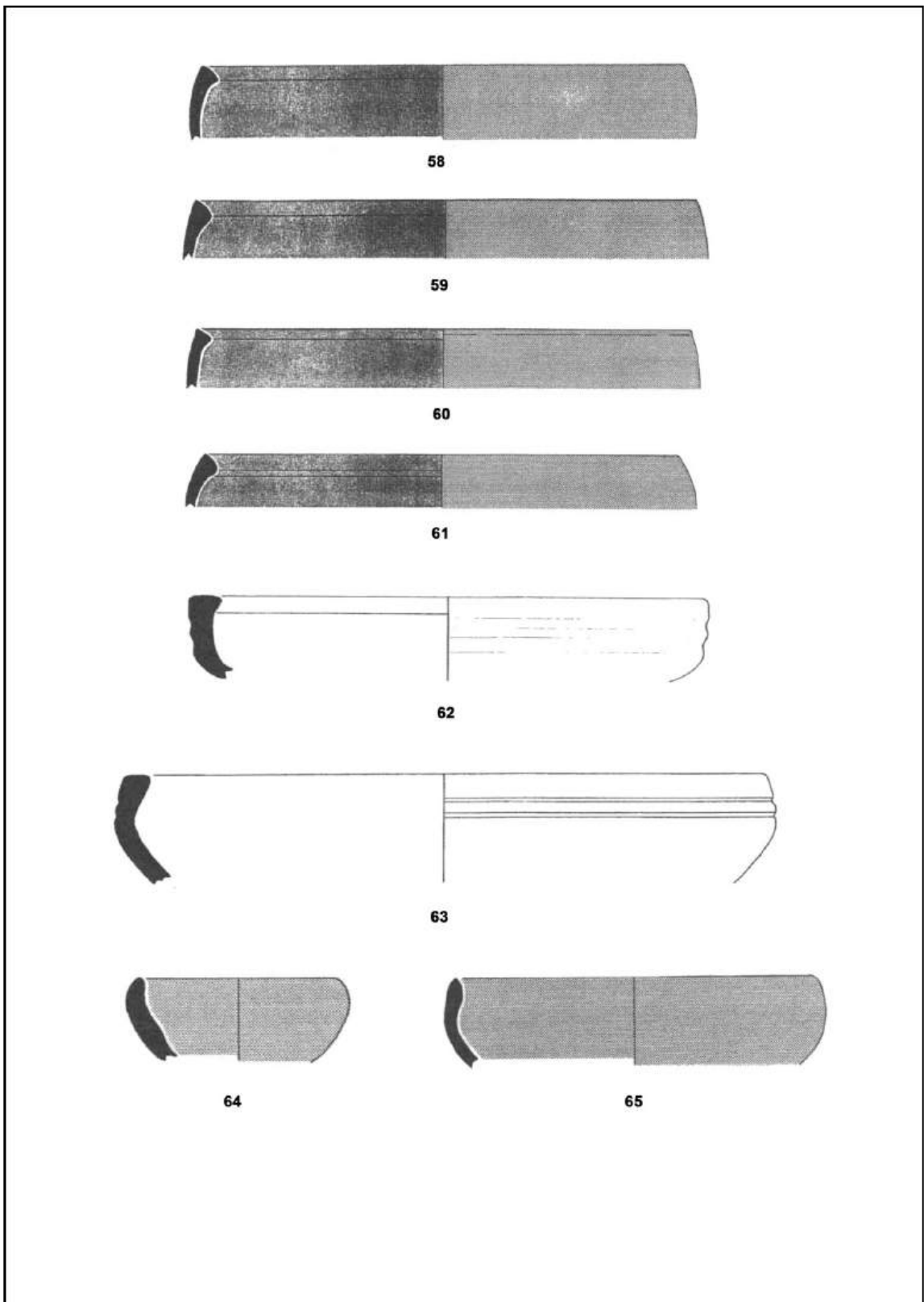


Figure 51. Type 4a-4c - Indian bowls from Ed-Dur (nos. 58-65) (after Rutten 2006)

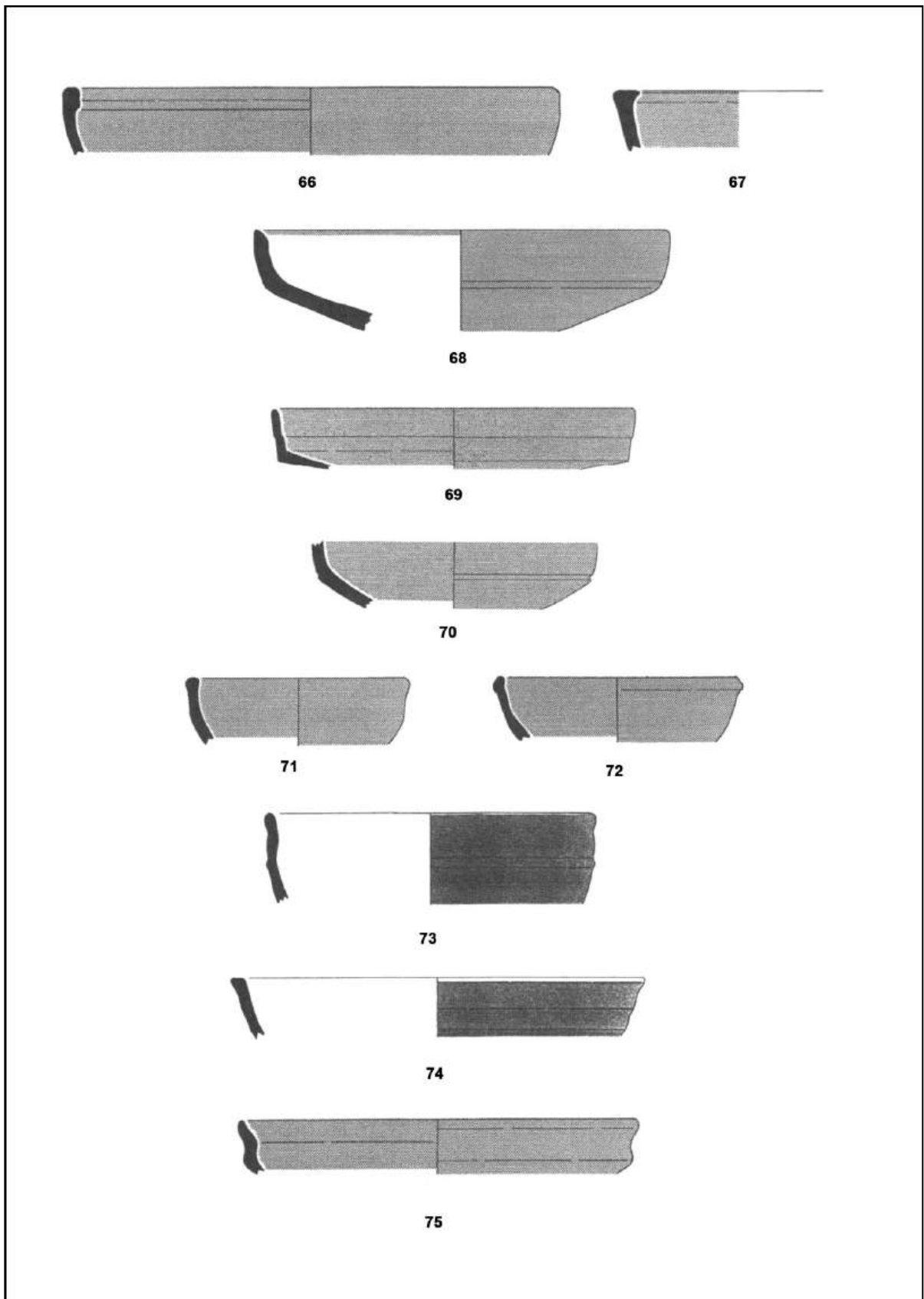


Figure 52. Type 4c & 4d - Indian bowls from Ed-Dur (nos. 66-75) (after Rutten 2006)

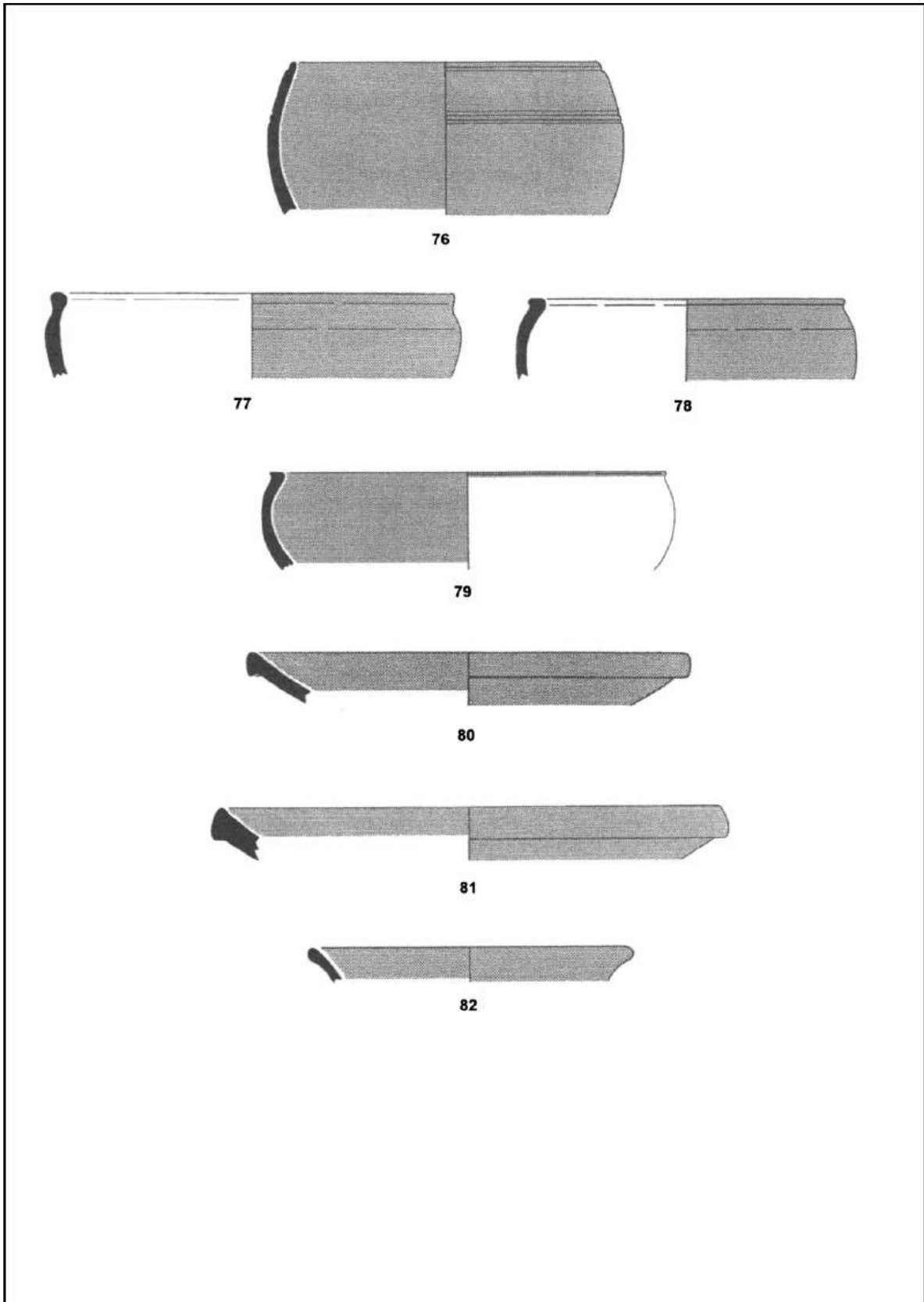
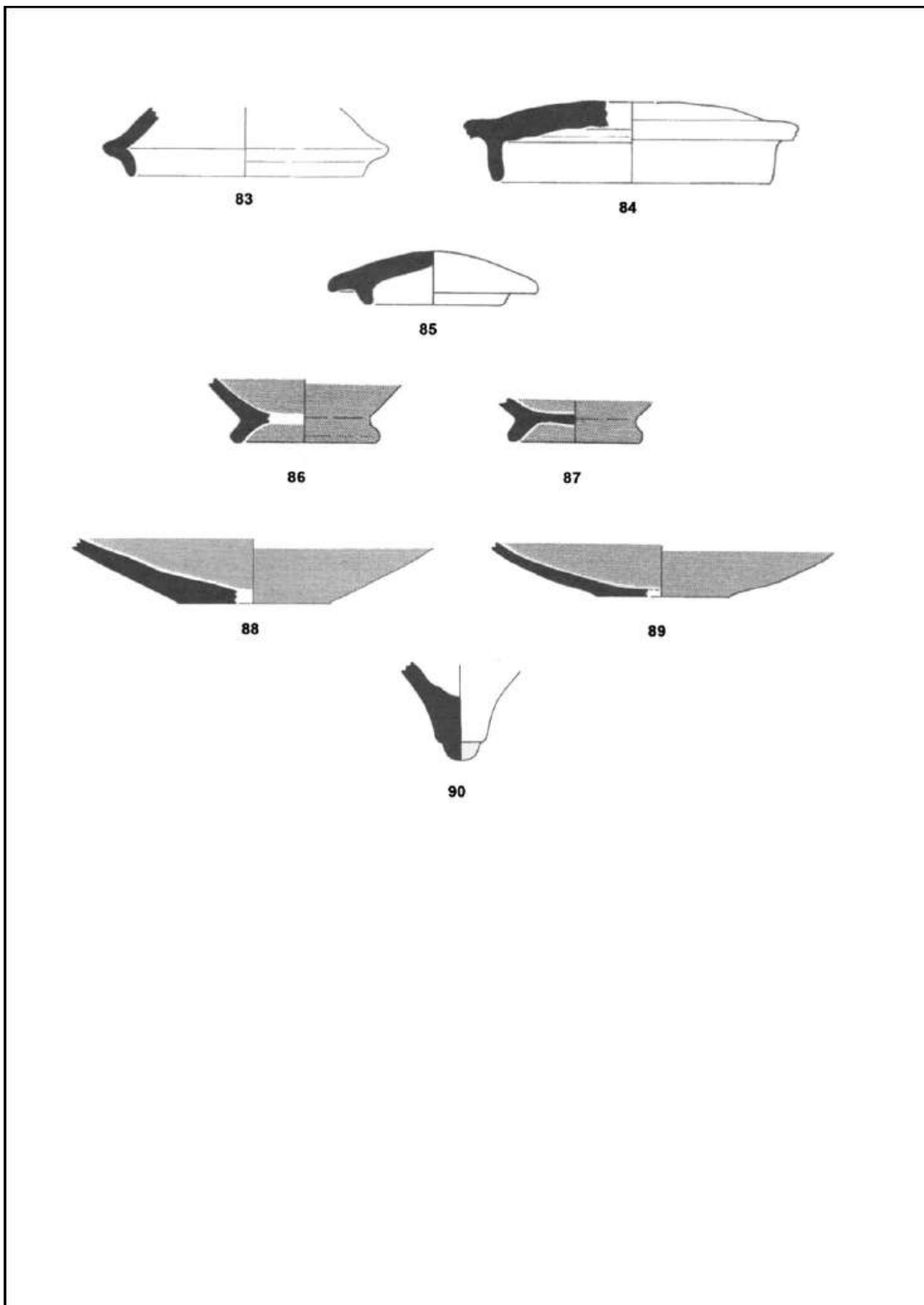
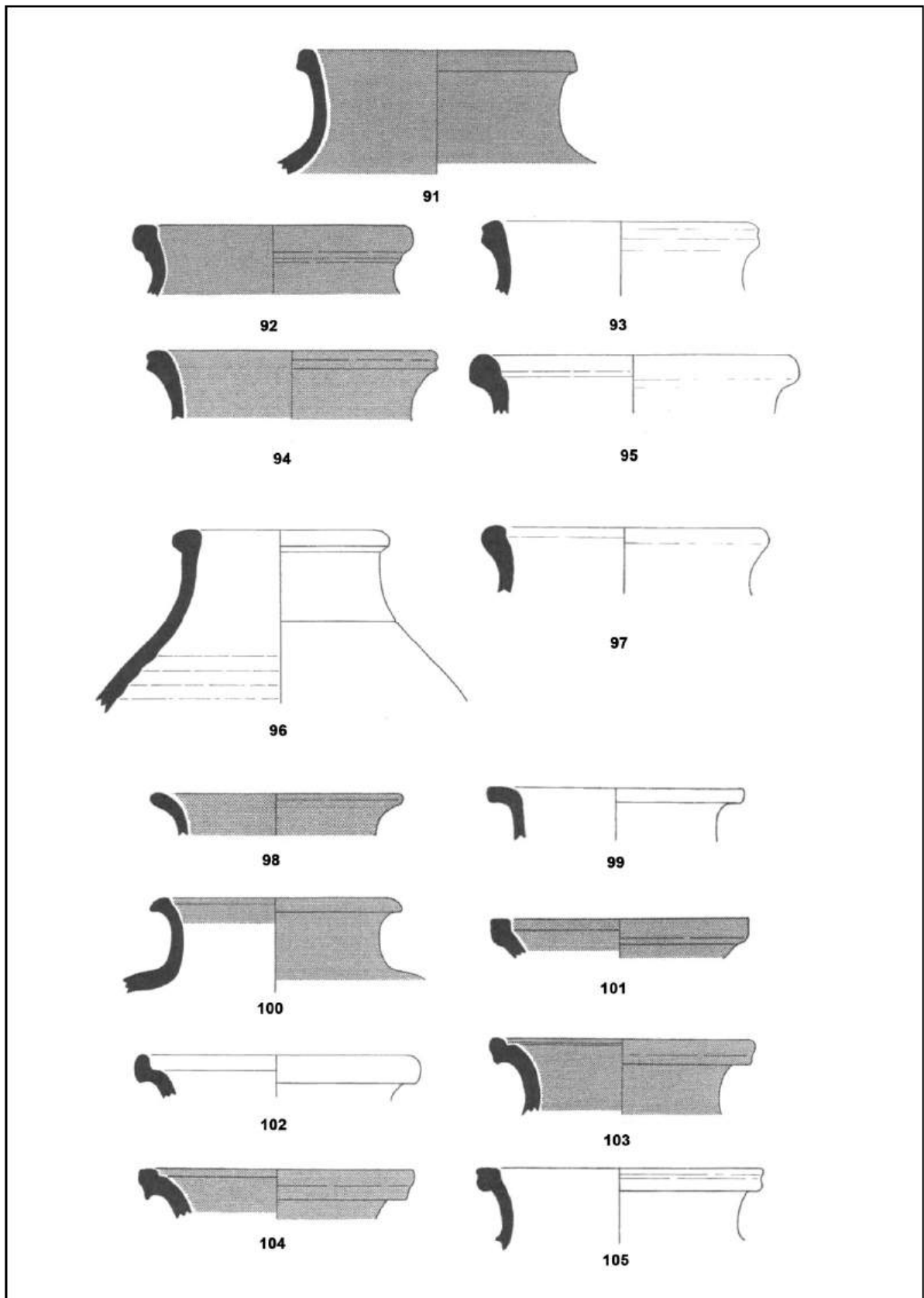


Figure 53. Type 4d & 4e - Indian Bowls from Ed-Dur (nos. 76-82) (after Rutten 2006)



**Figure 54. Type 5 - Indian lids & Type 6 - Bases from Ed-Dur (nos. 83-90)
(after Rutten 2006)**



**Figure 55. Type 7 - High neck vessels with globular body (nos. 91-105)
(after Rutten 2006)**

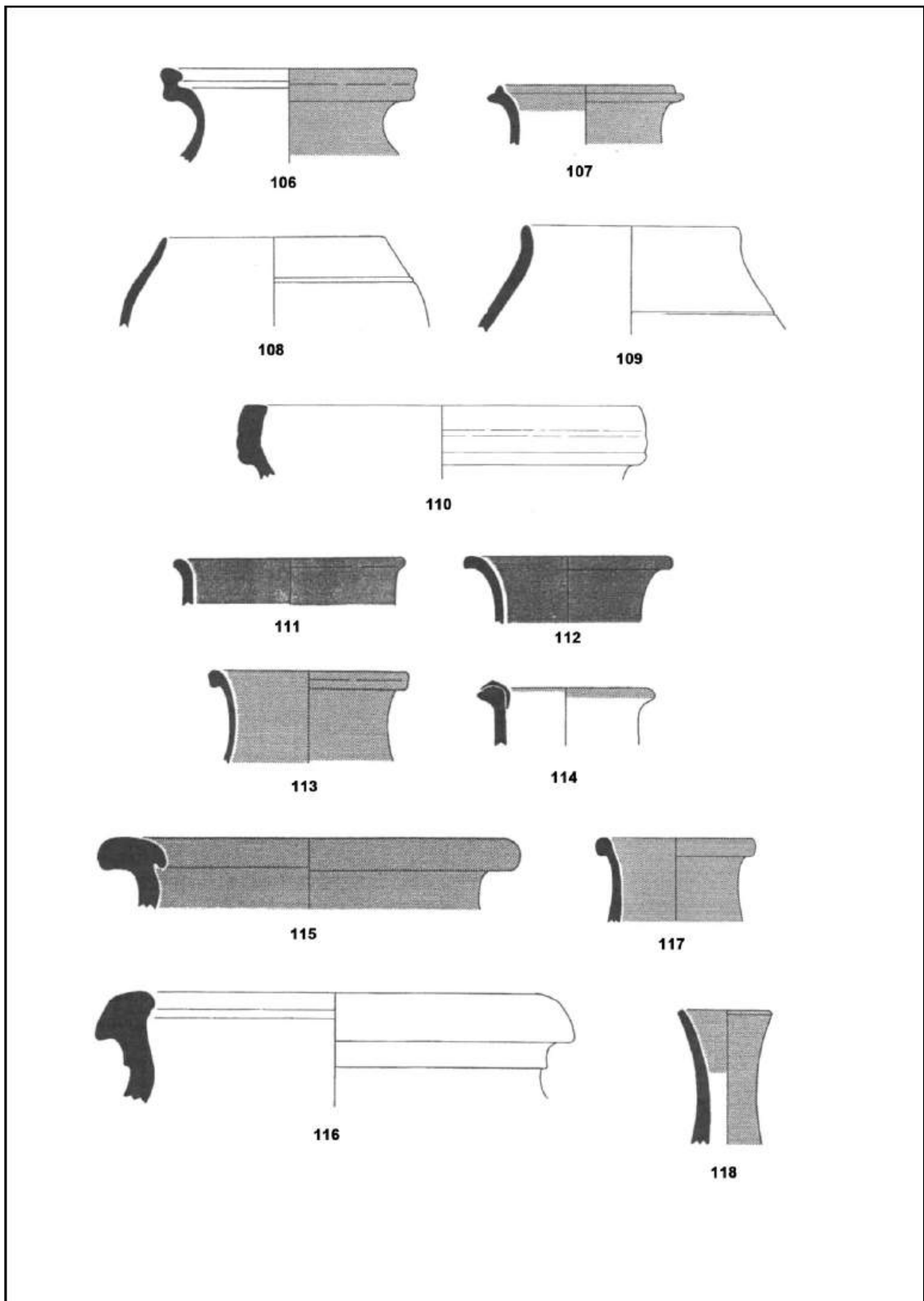


Figure 56. Type 7 - High neck vessels with globular body & Type 8 - Narrow high-neck vessels with spout/sprinkler type (nos. 106-118) (after Rutten 2006)

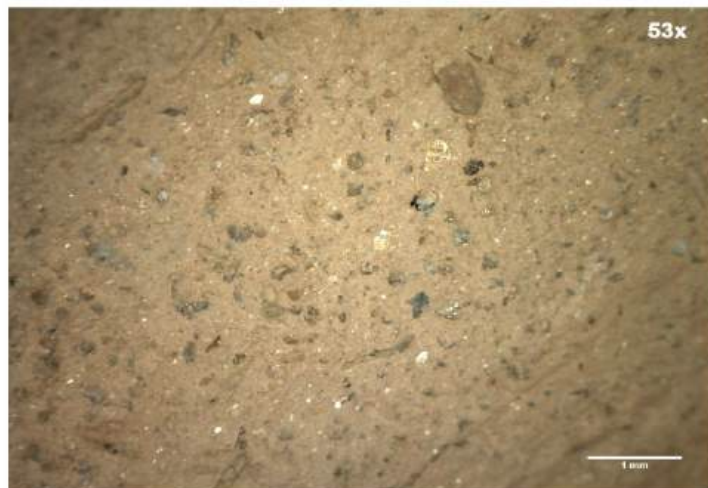


Figure 57. Fine Red Slipped FRS-1 with voids (air holes and vegetal temper), medium sized white and dark mica particles with lime and white quartz grains (scale = 1mm)



Figure 58. Fine Red Slipped FRS -2 with inclusions of black volcanic rock (ferromagnesian minerals), red/pink quartz crystals and abundant mica grains as well as vegetal temper and white quartzite (scale = 1mm)

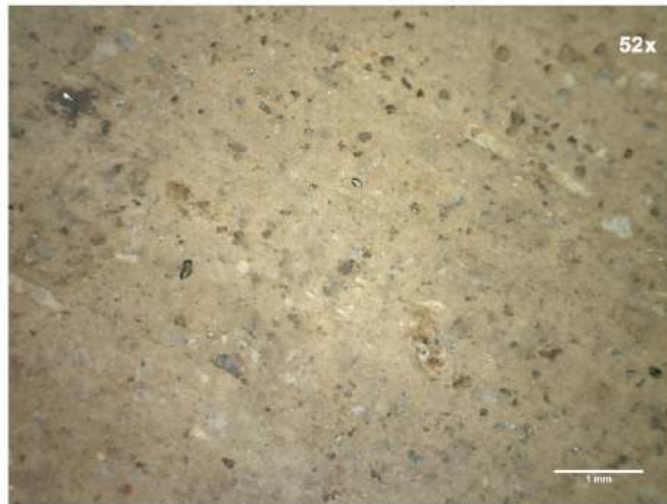
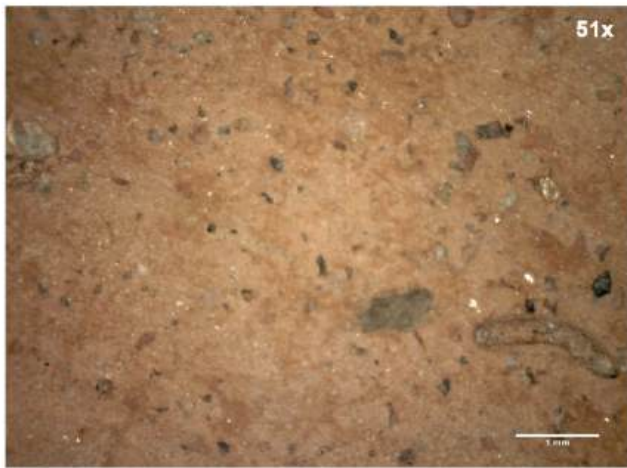


Figure 59. Fine Reddish-Brown and Grey Slipped FGRS-1 with black ferromagnesian grains, red quartz inclusions and large-sized mica (biotite) grains (top row) and FGRS-2 with a smattering of quartz and other white inclusions as well as voids (vegetal temper) (middle and bottom row) (scale = 1mm)

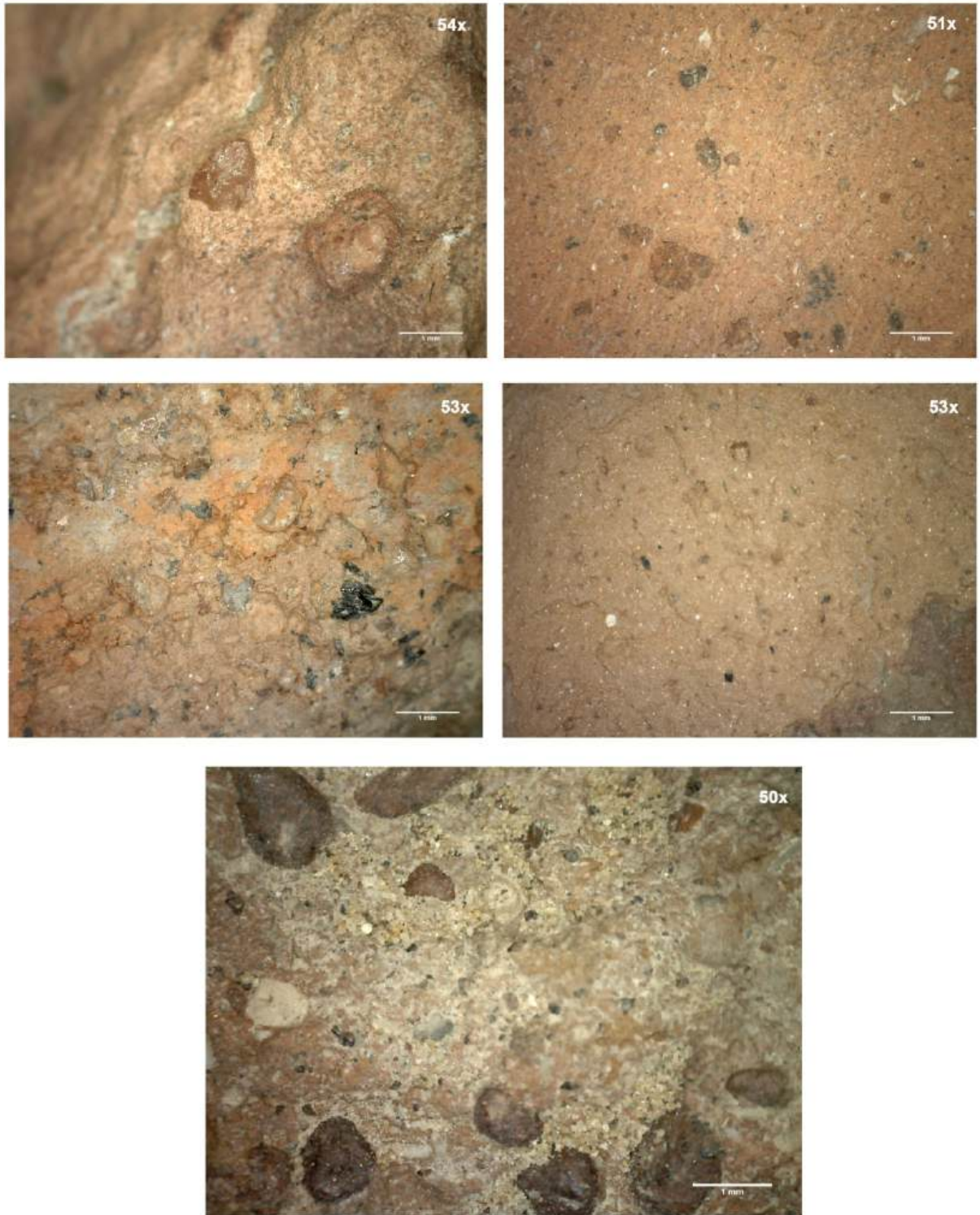


Figure 60. Coarse Red Slipped CRS-1 with translucent quartz and mica particles in a sandy fabric (top row) CRS-1(A) with red and translucent quartz and mica particles and occasional black ferromagnesian minerals (middle row) and CRS-1(B) iron-rich particles or grog and clay pellets (bottom) (scale = 1mm)

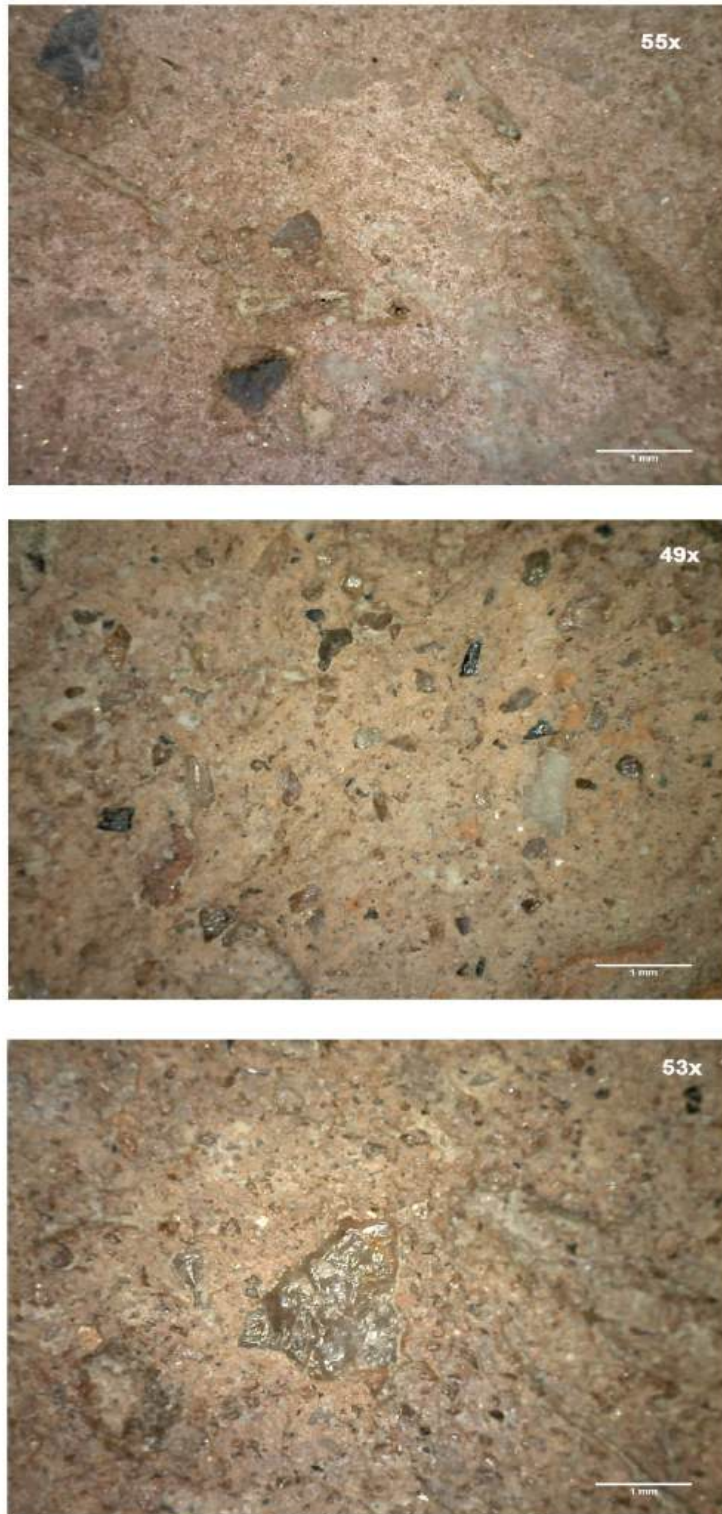


Figure 61. Coarse Red Slipped CRS-2 with a light pink surface and elongated voids (top) CRS-3 with abundant particles of red/pink quartz and black volcanic rock fragments (middle and bottom) (scale = 1mm)

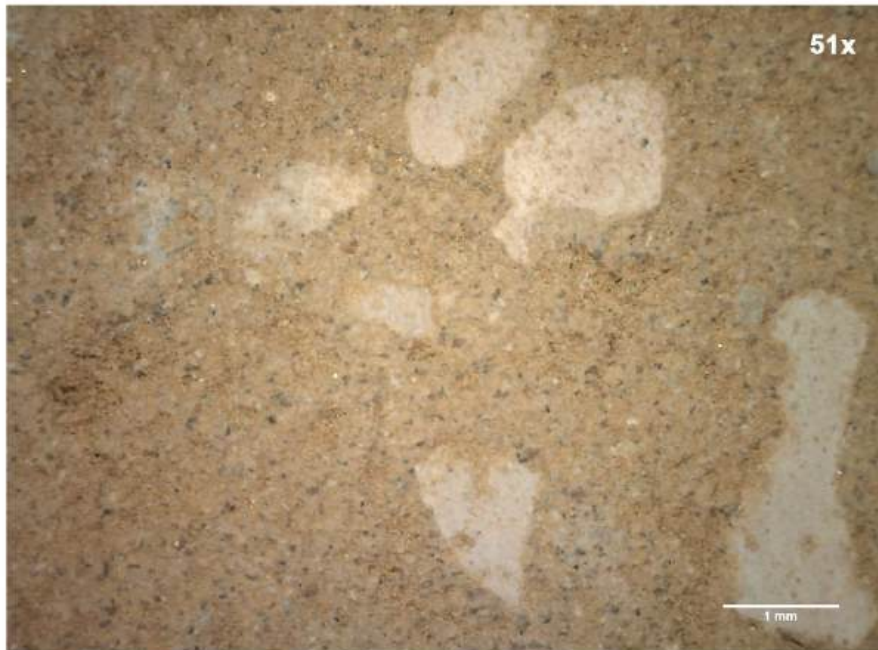


Figure 62. Very Coarse Orangish with white to pink calcite or limestone inclusions (scale = 1mm)

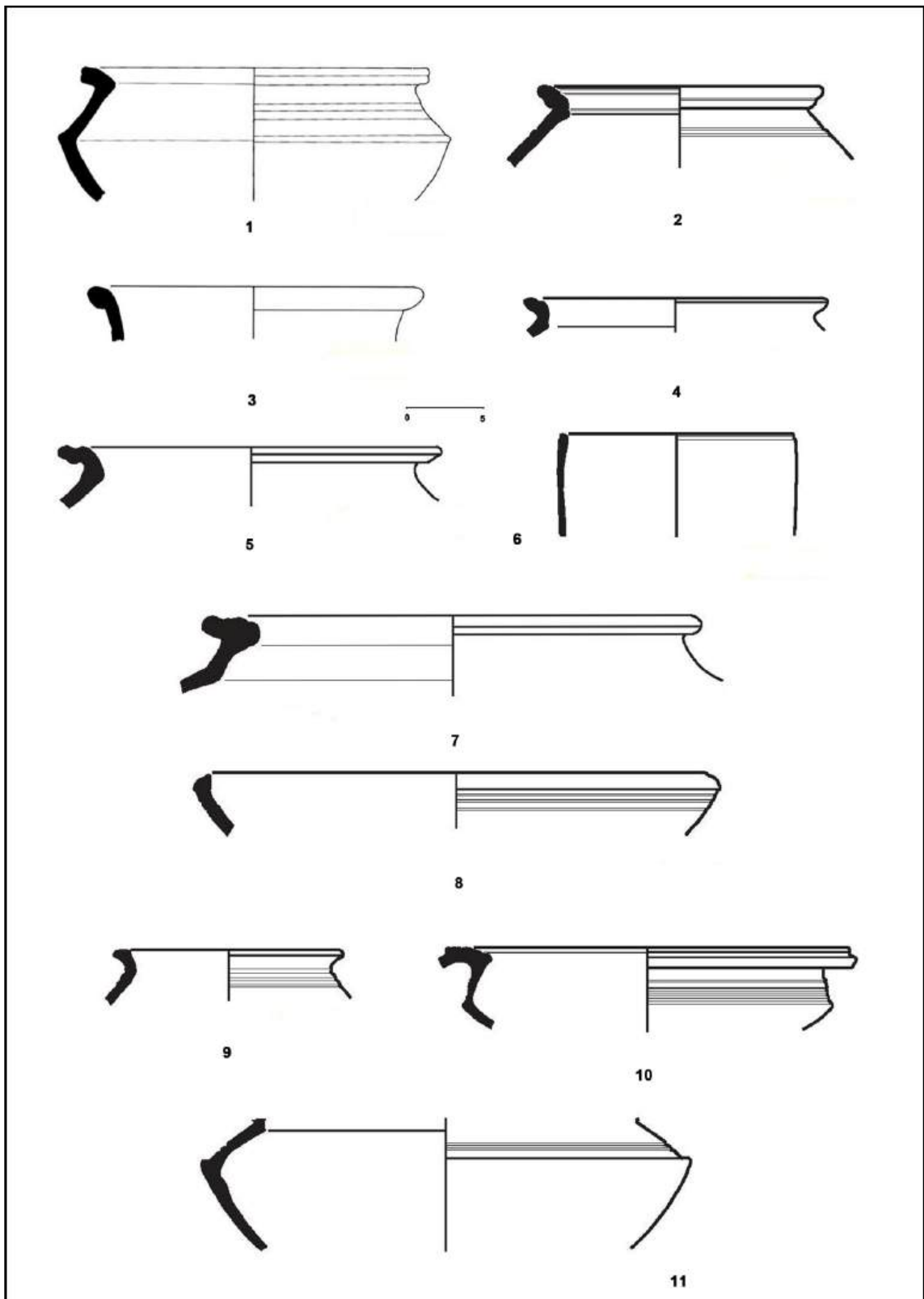


Figure 63. Soft Black Burnished Ware (SBBW) Forms (pottery drawings – nos. 1-11)



1. K417

2. K418



3. K1644

4. K4249



5. K4288

7. K4289

Figure 64. Soft Black Burnished Ware (SBBW) Forms (pottery photographs – nos. 1-7)



9. K6394

10. K6825 + K6827



11. K6784

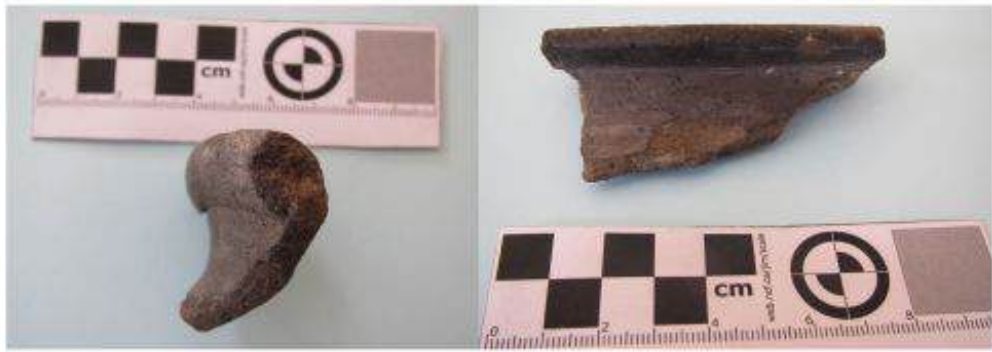
12. K420



13. K441

14. K1525

Figure 65. Soft Black Burnished Ware (SBBW) Forms (pottery photographs – nos. 9-14)



15. K1642

16. K4285



17. K6396

18. K6814



19. No K number.

20. K2151

**Figure 66. Soft Black Burnished Ware (SBBW) Forms
(pottery photographs – nos. 15-20)**

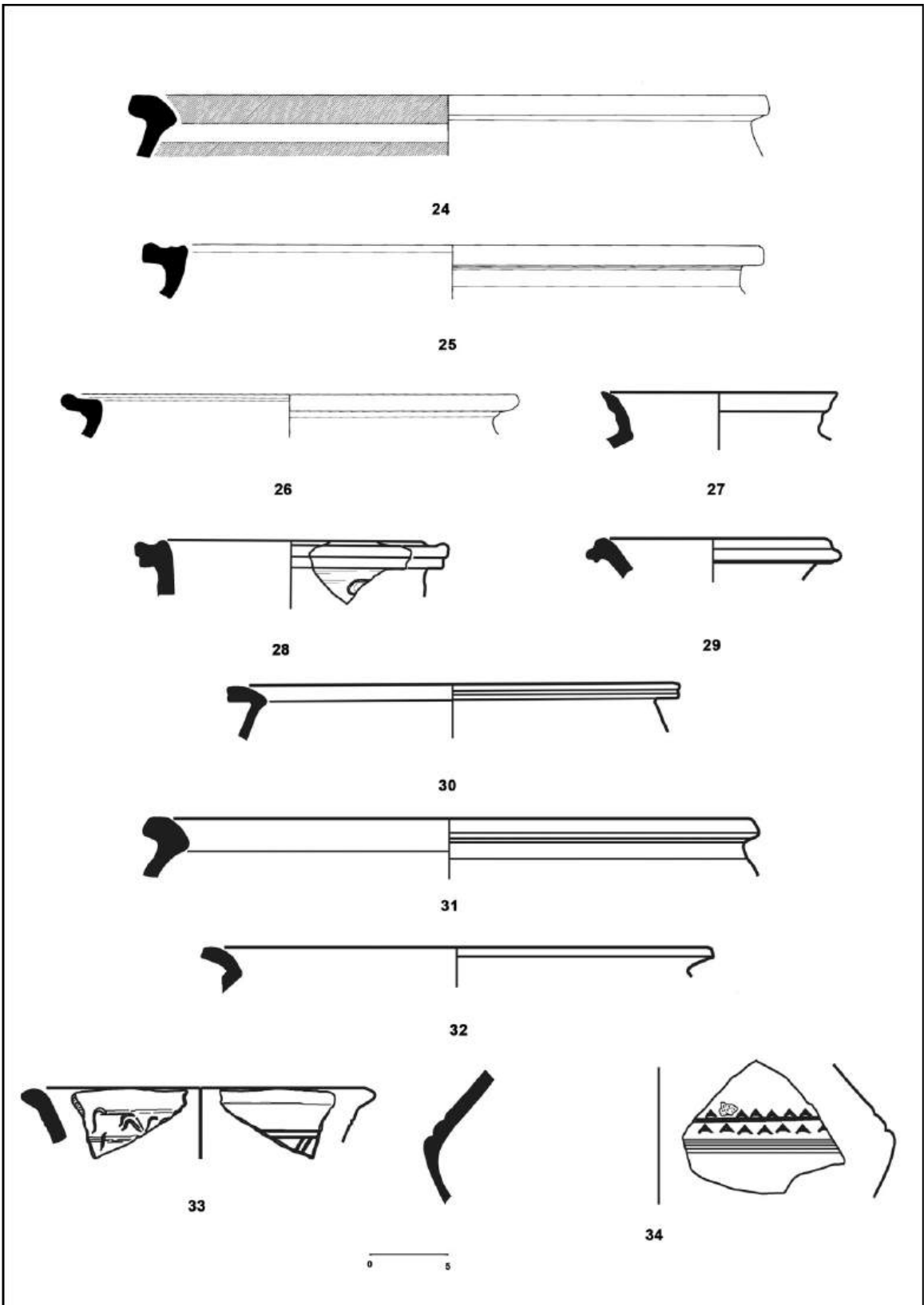
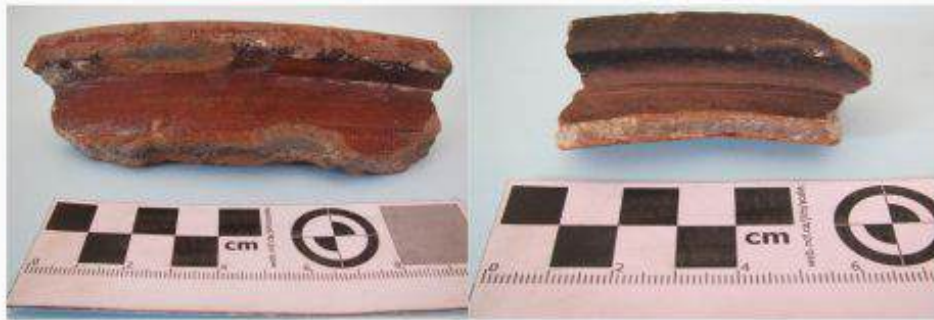


Figure 67. Indian Red and Black Ware (IRAB) Forms (pottery drawings – nos. 24-34)



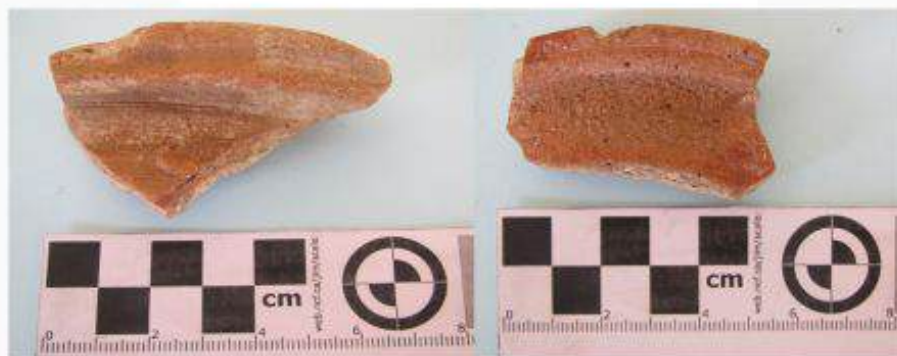
24. K421

25. K423



26. K1670

27. K4299



28. K4300

29. K4301

**Figure 68. Indian Red and Black Ware (IRAB) Forms
(pottery photographs – nos. 24-29)**

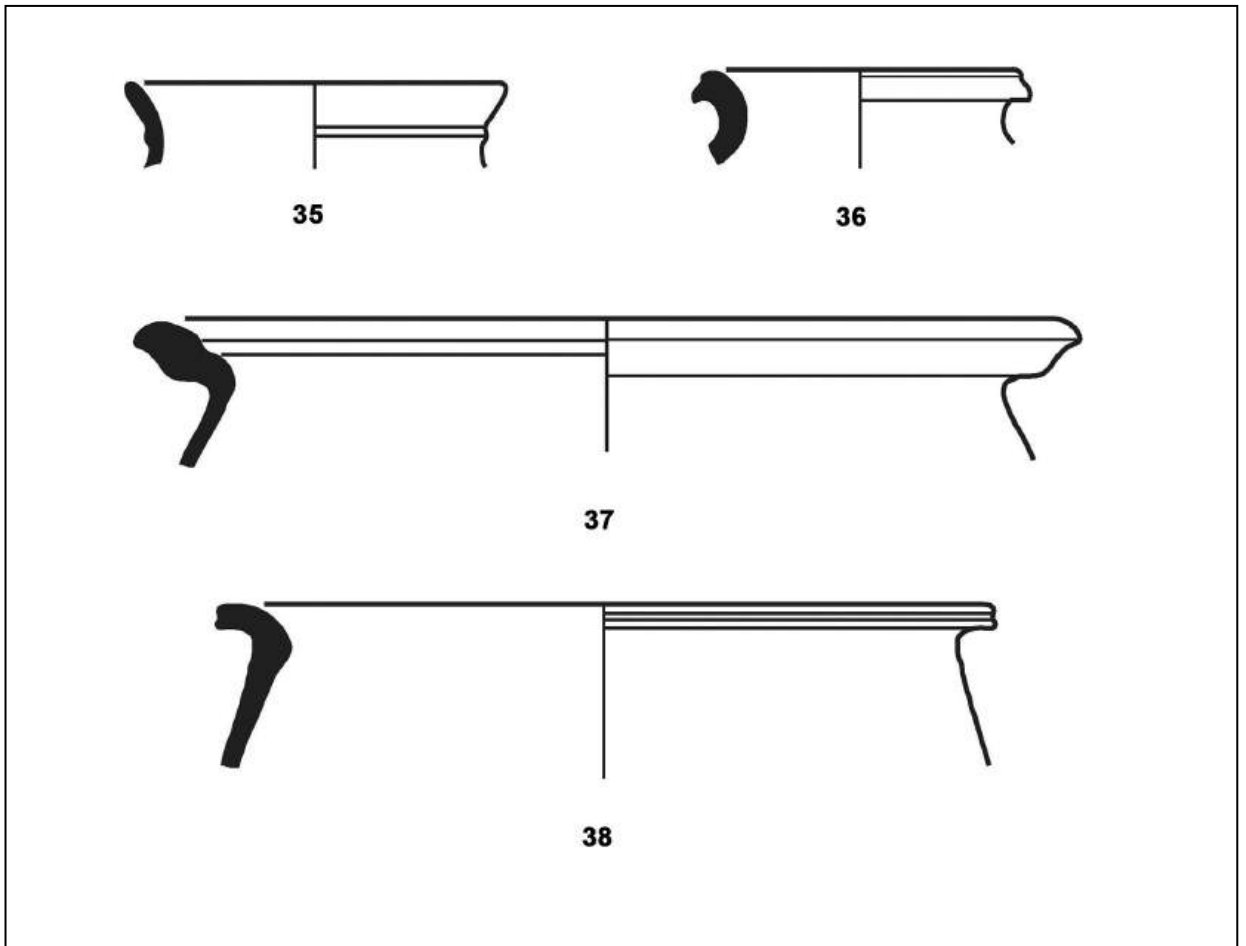


Figure 69. Indian Red and Black Ware (IRAB) Forms (pottery drawings – nos. 35-38)



30. K4401

31. K4402



32. K4403

34. K4423



36. K5028

37. K5041

**Figure 70. Indian Red and Black Ware (IRAB) Forms
(pottery photographs – nos. 30-37)**



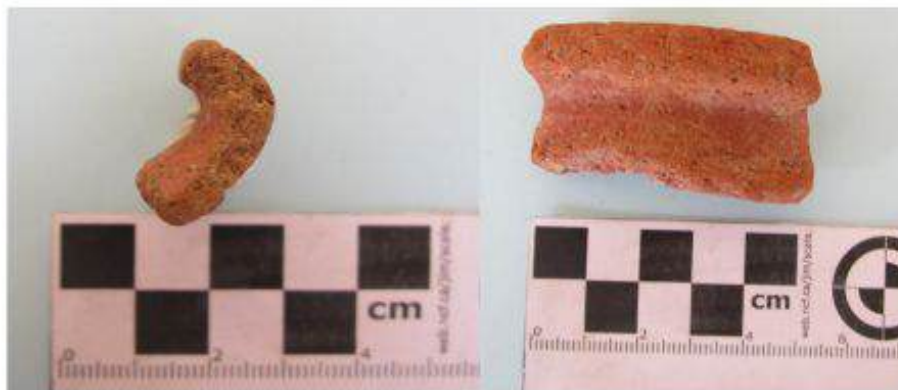
39. K424

40. K1274



41. K4404

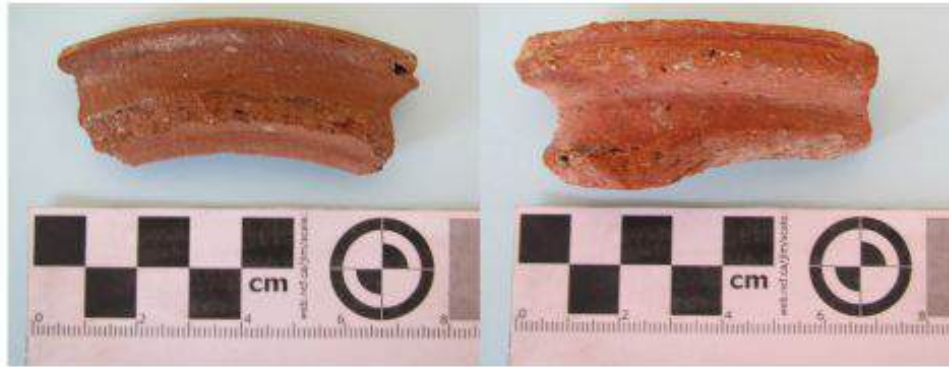
42. K6359



43. K6360

44. K6451

Figure 71. Indian Red and Black Ware (IRAB) Forms (pottery photographs – nos. 39-44)



45. K419

46. K422



47. K425

48. K4406



49. K4410

50. K5044

**Figure 72. Indian Red and Black Ware (IRAB) Forms
(pottery photographs – nos. 45-50)**



51. K4375

52. K2233



53. K2221

54. K4241

Figure 73. Fine Indian Red Ware (FIRE) and Fine Indian Grey Ware (FGRW) Forms (pottery photographs – nos. 51-52 and 53-54 respectively)

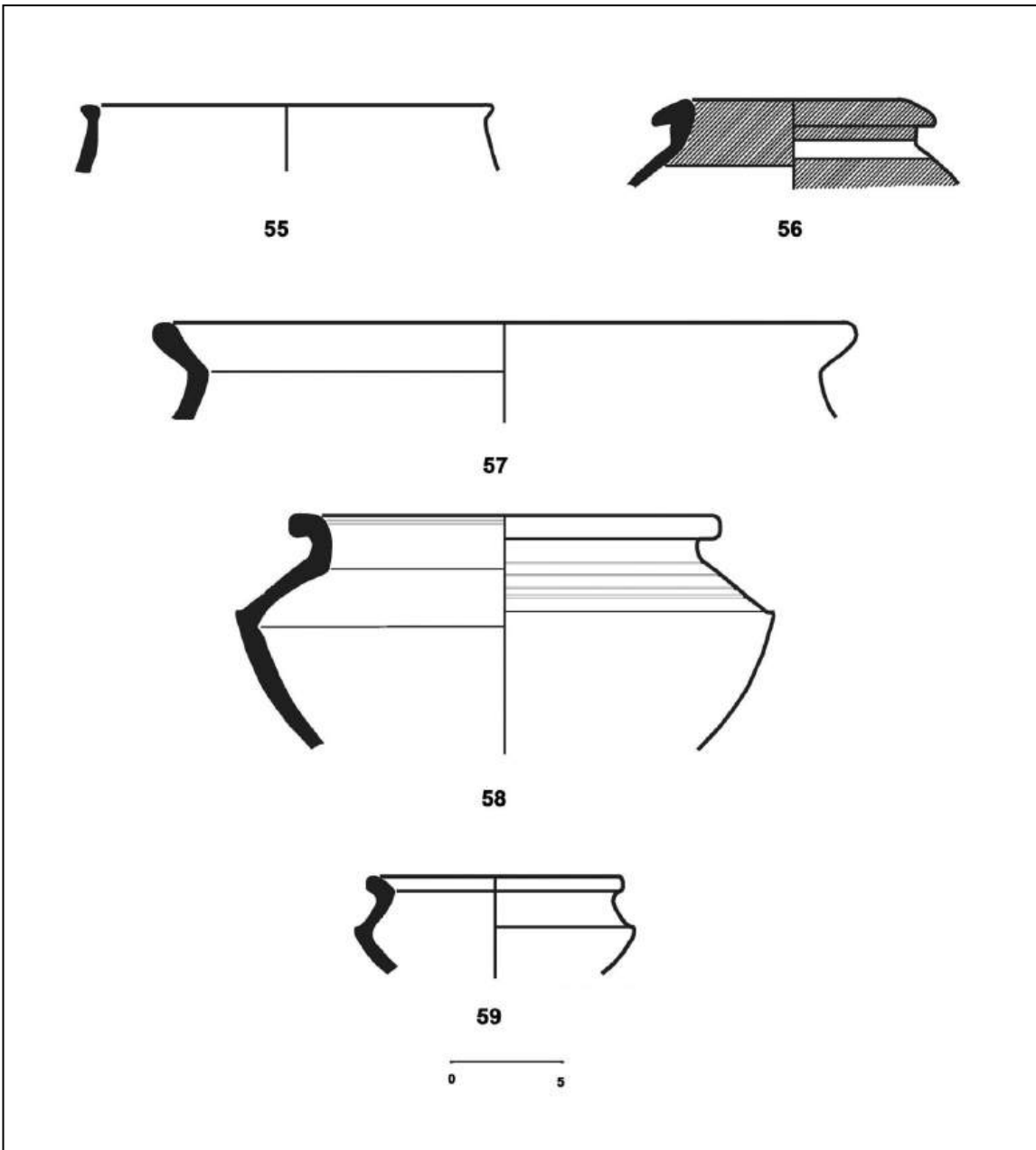


Figure 74. Unclassified Indian Ware (INDIA) Forms (pottery drawings - nos. 55-59)



56. K6385

57. K6395



59. K6397



60. No K number

Figure 75. Unclassified Indian Ware (INDIA) Forms (pottery photographs – nos. 56-60)

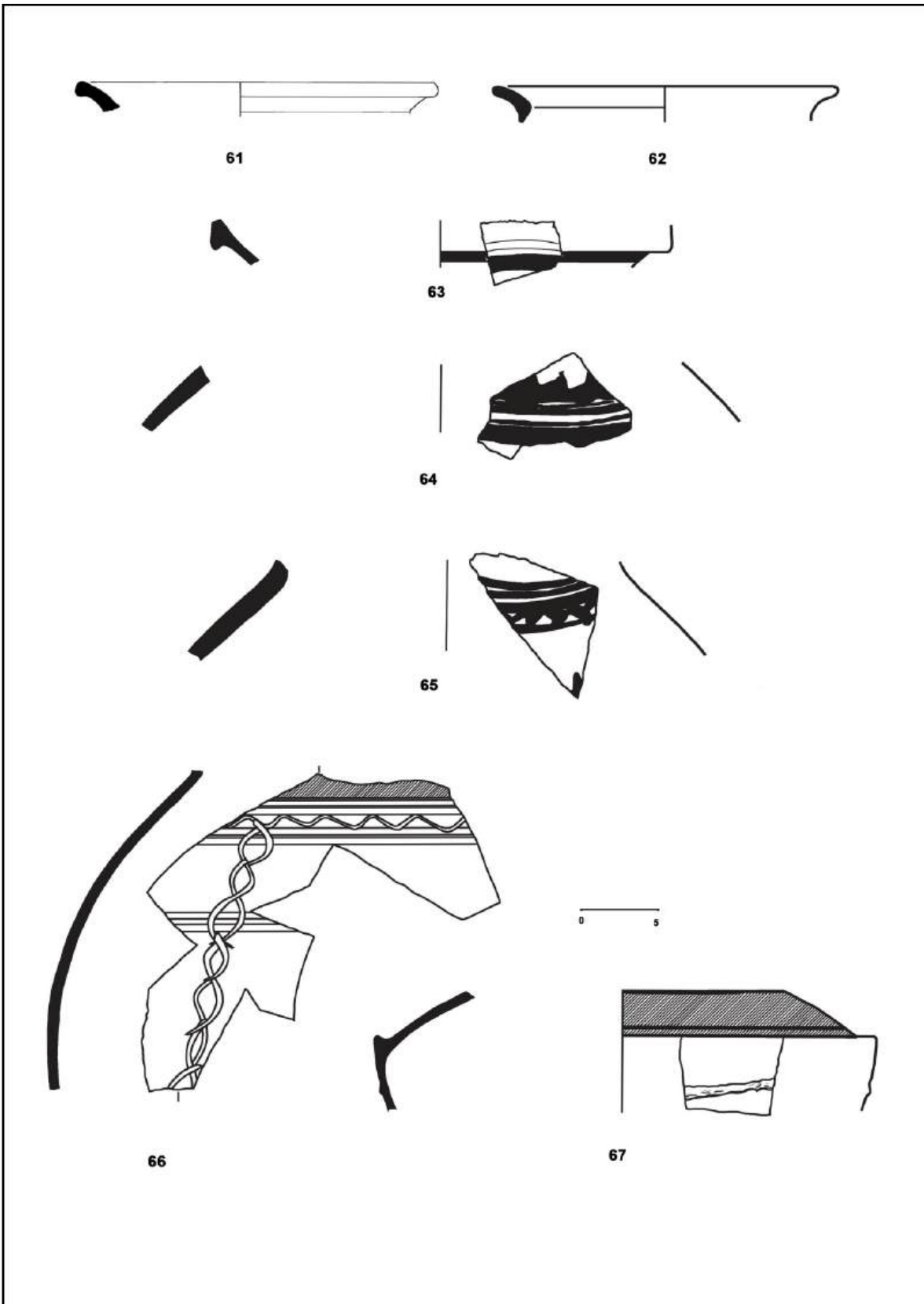
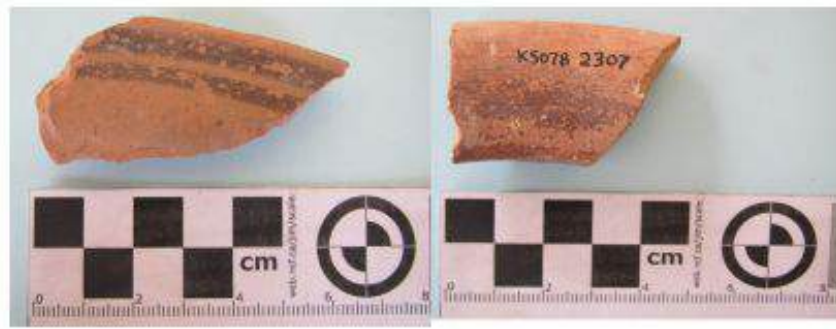
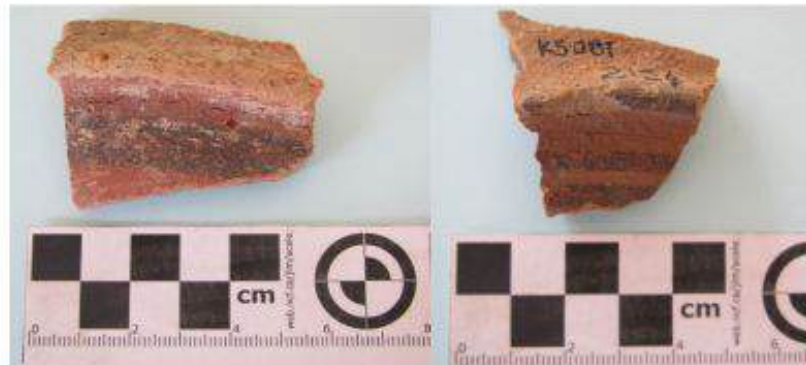


Figure 76. Painted Indian Earthenware (PAINT) Forms (pottery drawings – nos. 61-67)



61. K2218

62. K5078



63. K4306

68. K5081



69. K5083

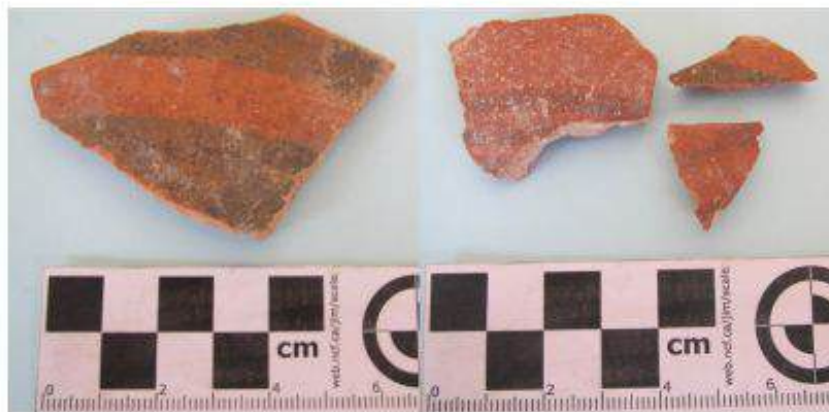
70. K6635

Figure 77. Painted Indian Earthenware (PAINT) Forms (pottery photographs – nos. 61-63, 68-70)



64. K2219

65. K4361



72. K4302

73. K4303+K4305



74. K6637

Figure 78. Painted Indian Earthenware (PAINT) Forms (pottery photographs – nos. 64-65, 72-74)



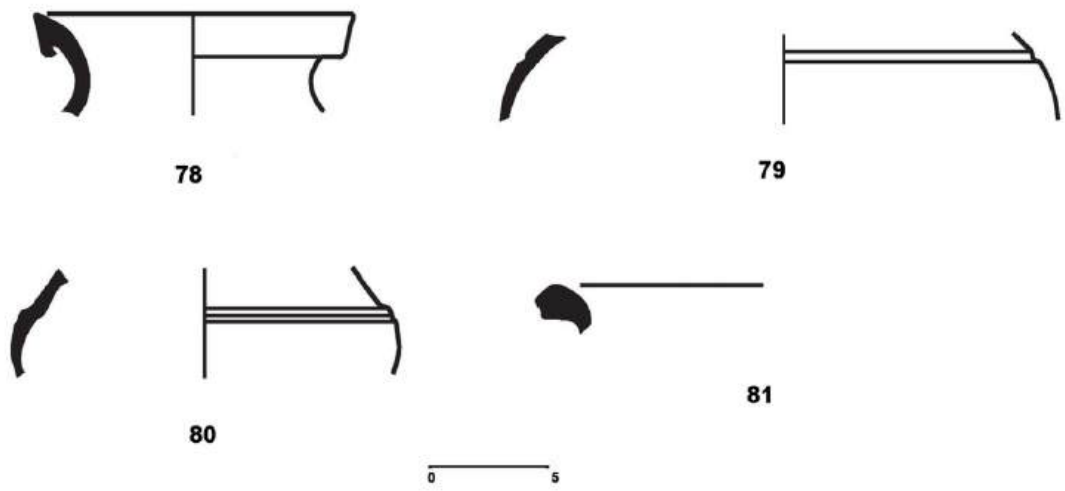
75. K6629



76. K6630

77. K6631

Figure 79. Painted Indian Earthenware (PAINT) Unique Forms from Kush - Astral or flower design (top) and ladder-like hatched design (bottom right) (pottery photographs – nos. 75-77)



78. K3462



80. K5069

81. K5079 Rim

Figure 80. Indian Red Polished Ware (IRPW) Forms (nos. 78-81)

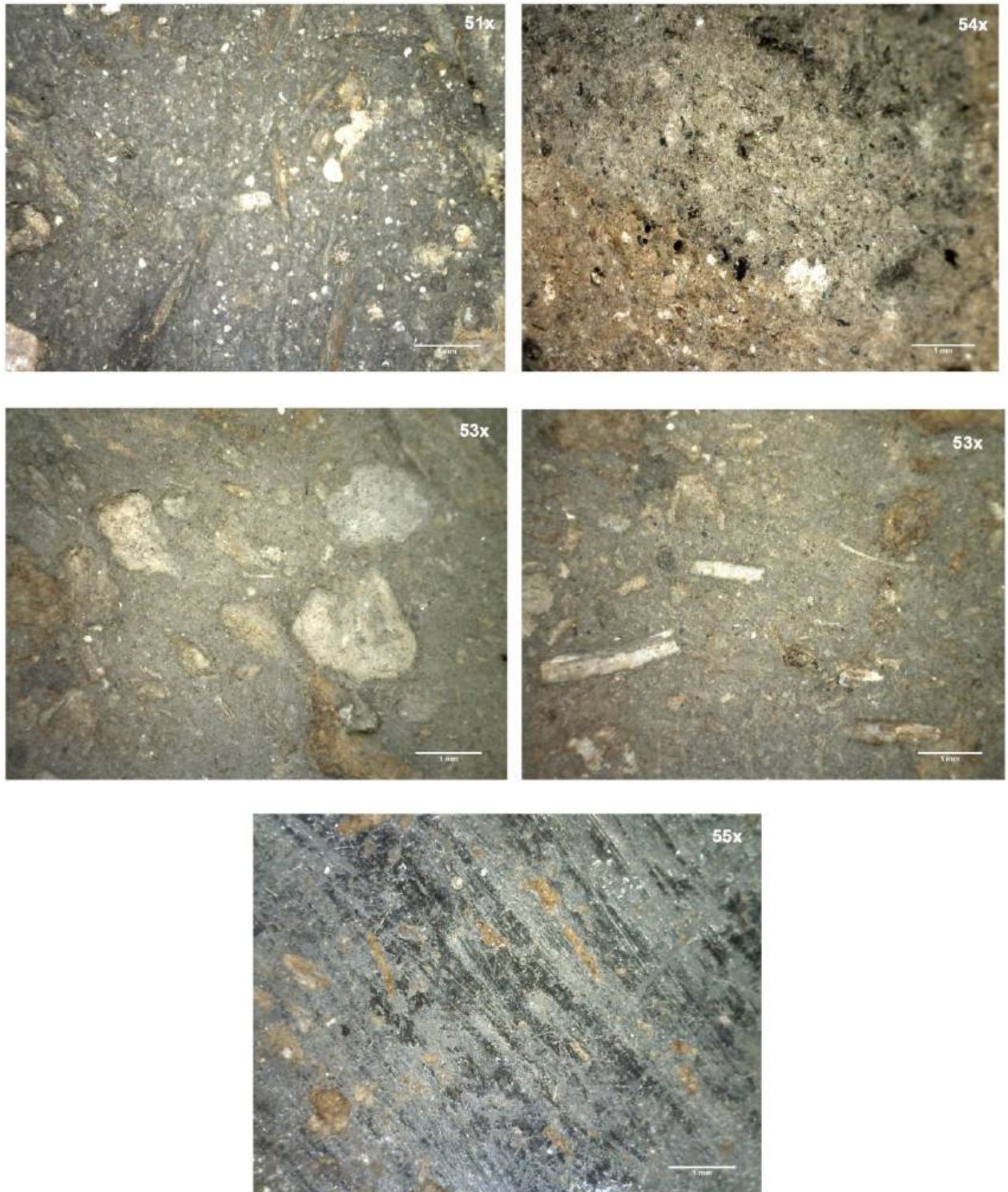


Figure 81. Soft Black Burnished Ware SBBW-1 with a large number of light inclusions and vegetal temper, in addition to carbonaceous material (scale = 1mm)

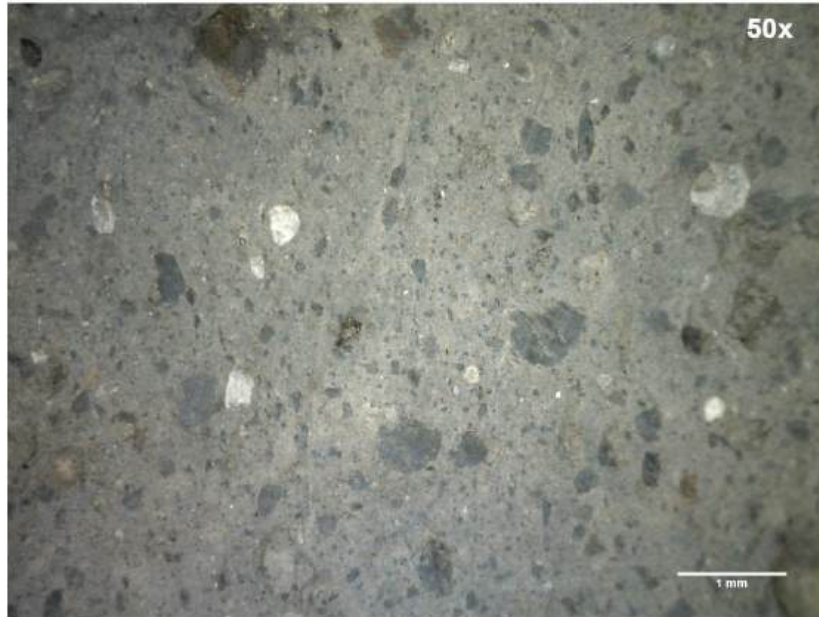


Figure 82. Soft Black Burnished Ware SBBW-2 with dark (dull black) inclusions predominant among the white inclusions (scale = 1mm)

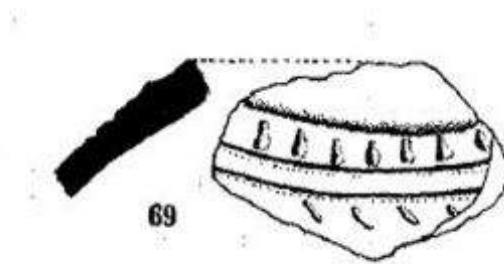


Kamrej

Akota (Baroda)



Akota (Baroda)



Dwarka

Figure 83. Form and design parallels of SBBW from sites in Western India (Gujarat and Maharashtra)

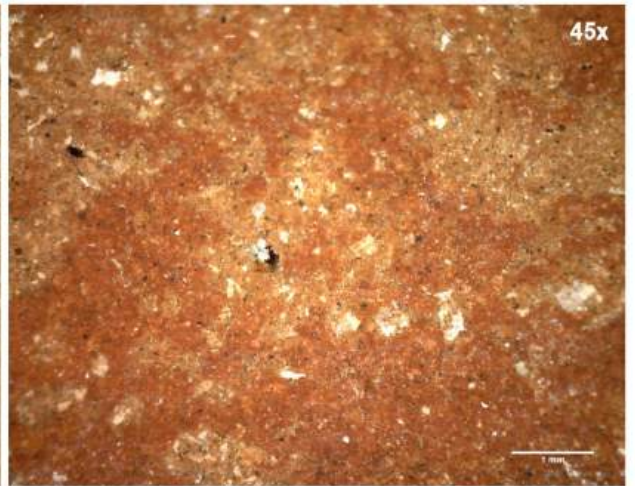
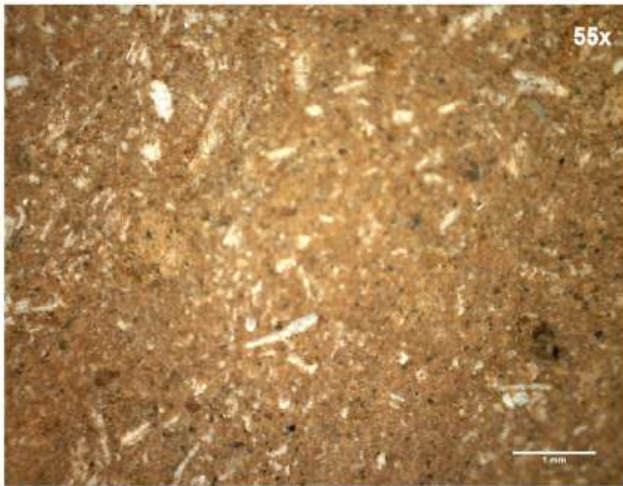
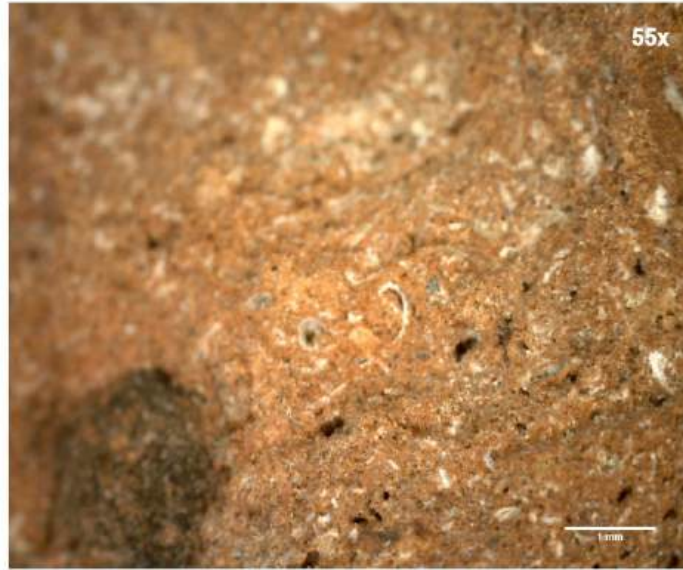
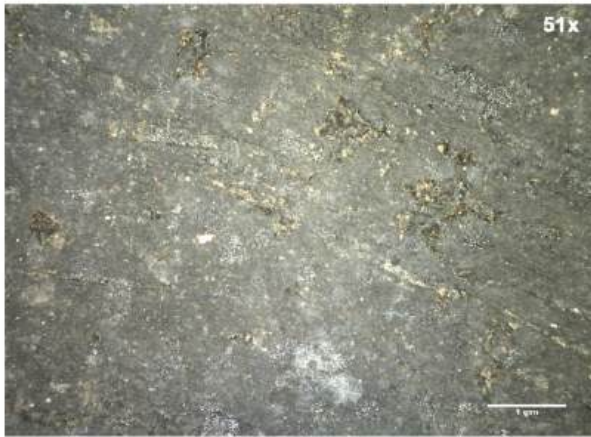


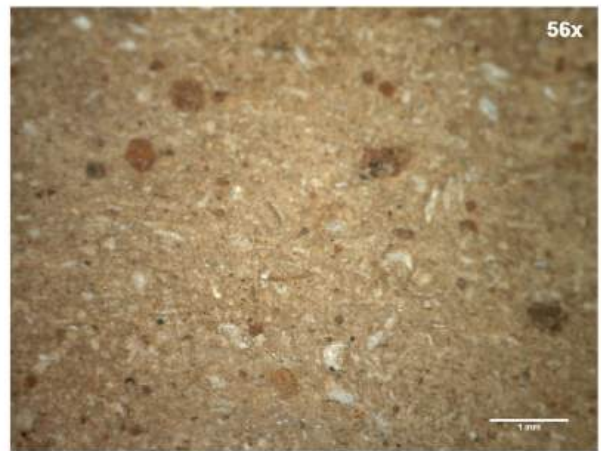
Figure 84. Indian Red and Black Ware IRAB-1 with a large number of white inclusions (either particles of rice or shell) as well as occasional mica and quartz grains (scale = 1mm)



IRAB 2(A)



IRAB 2(B)



IRAB 2(C)

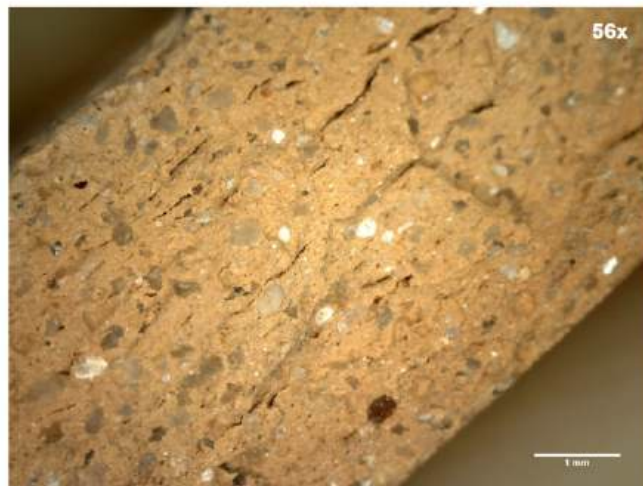


Figure 85. Indian Red and Black Ware IRAB-2(A) with vegetal temper and large grains of mica, IRAB-2(B) with large grains of quartz and less mica, IRAB-2(C) with haematite stained clots, thin flakes of quartz and other white inclusions, IRAB-2(D) with plenty of sub-rounded particles of quartz and limestone and occasional haematite stained clots (scale = 1mm)

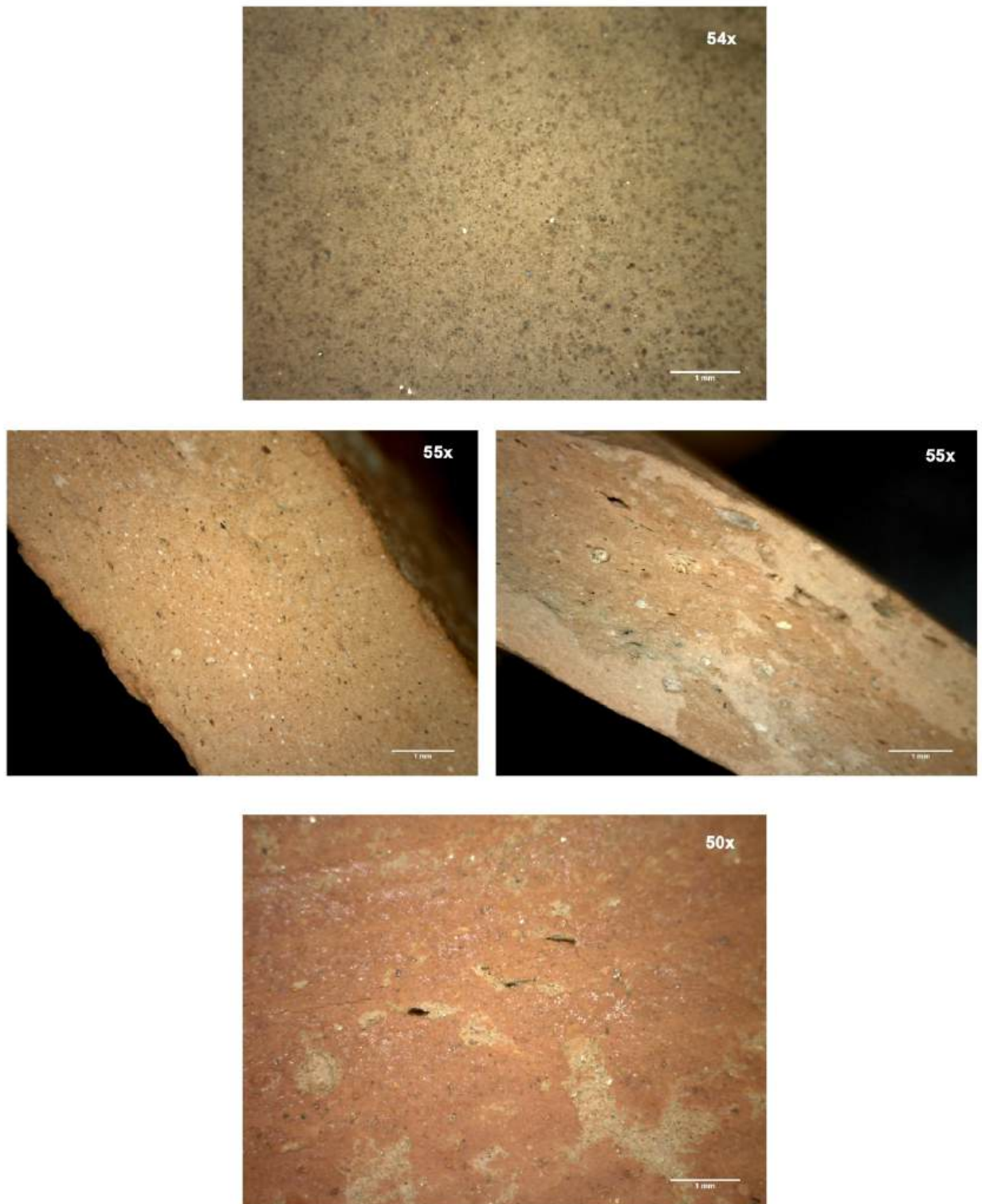


Figure 86. Fine Indian Red Ware FIRE-1 with no mineral inclusions except mica and a sandy temper (top), FIRE-2(A) with small-sized inclusions of white quartz, quartzite and tiny particles red quartz/quartzite and haematite stained clots (centre row left), FIRE-2(B) medium particles of transparent quartz/quartzite and limestone (centre row right) (scale = 1mm)

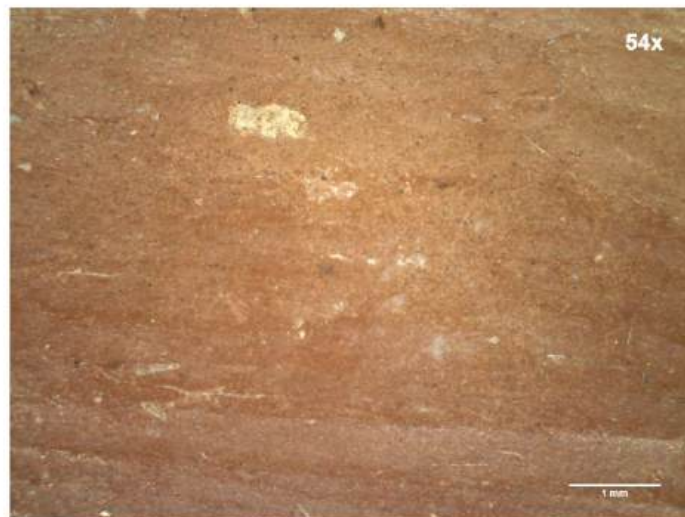
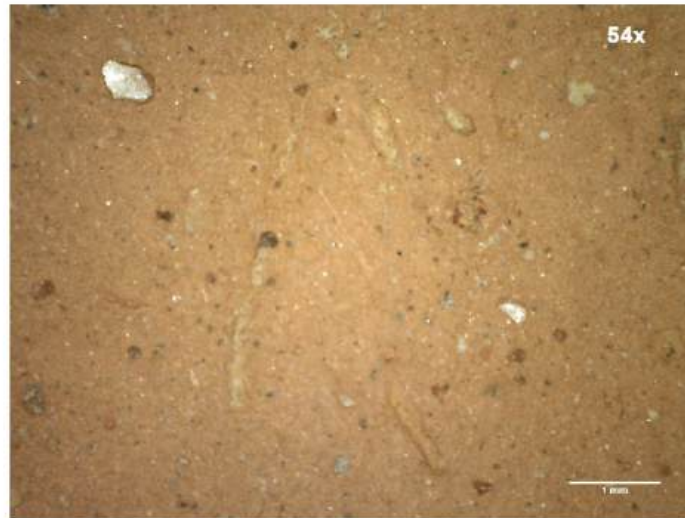
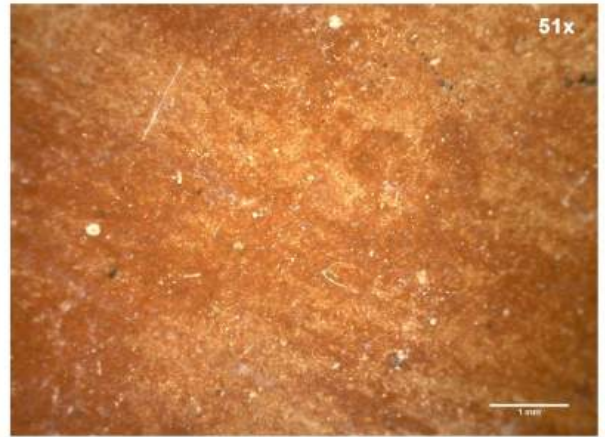
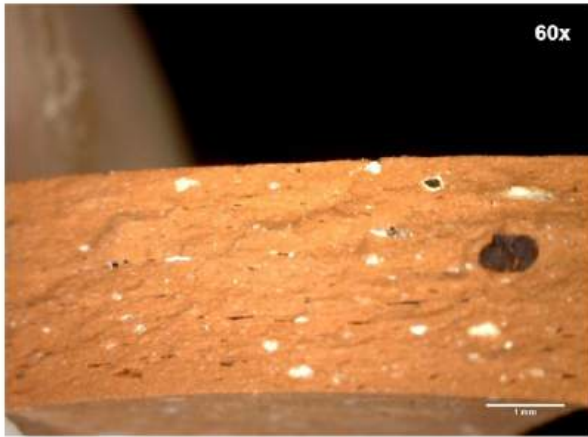
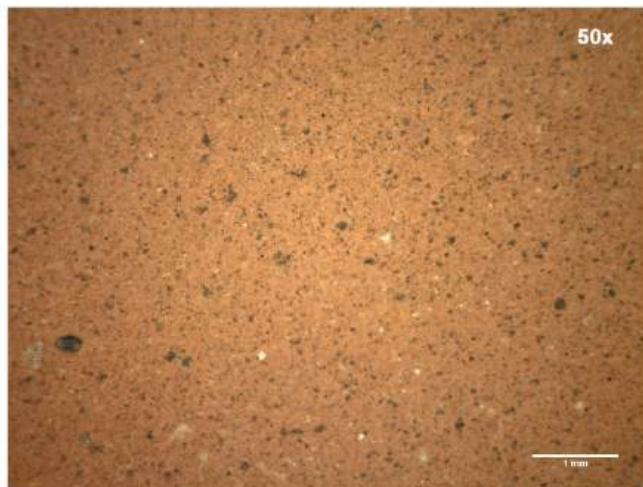


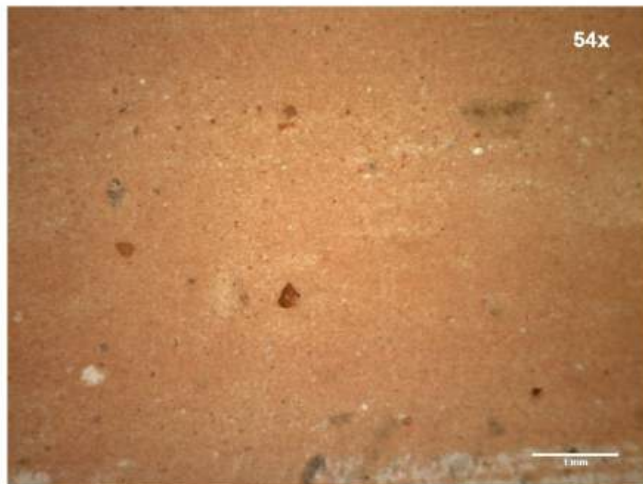
Figure 87. Indian Red Polished Ware IRPW-1 with quartz-like inclusions and abundance of mica, in addition to vegetal/grass inclusions (scale = 1mm)



Padri (Gujarat)



Nevasa (Maharashtra)



Junapadar (Gujarat)

Figure 88. IRPW fabric parallels from sites in Western India (Gujarat and Maharashtra). Note that the sample from Nevasa is similar to Fine Indian Red Ware

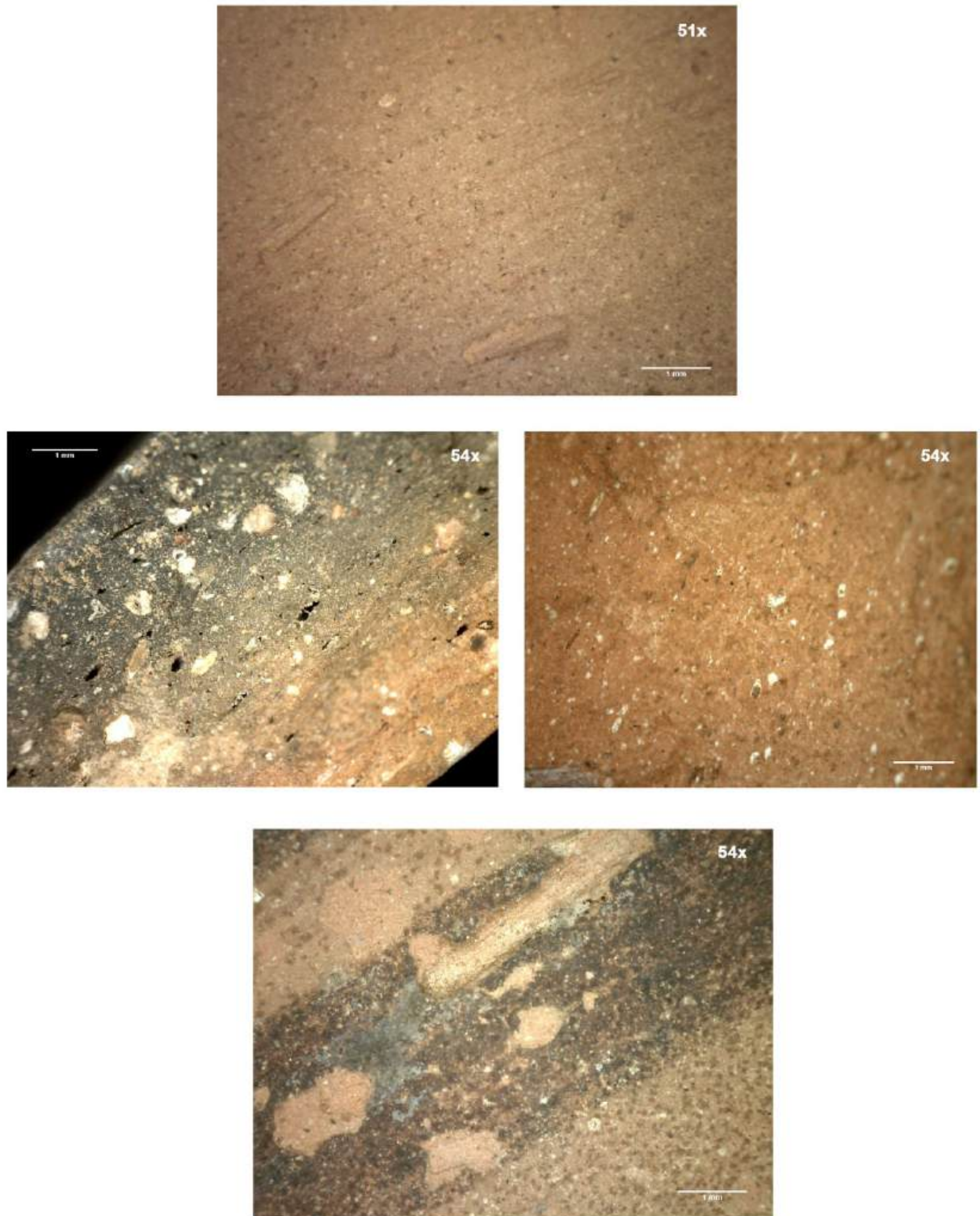
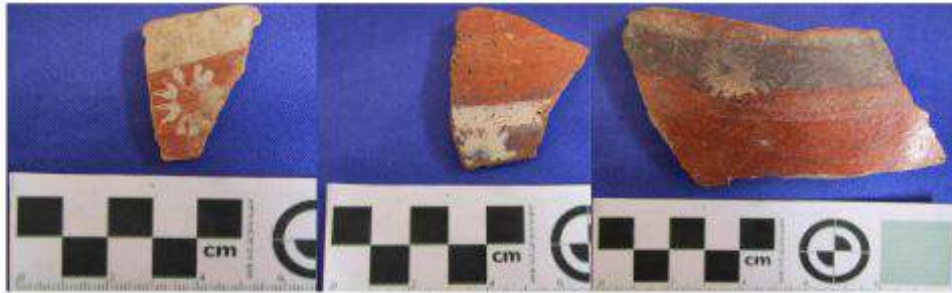


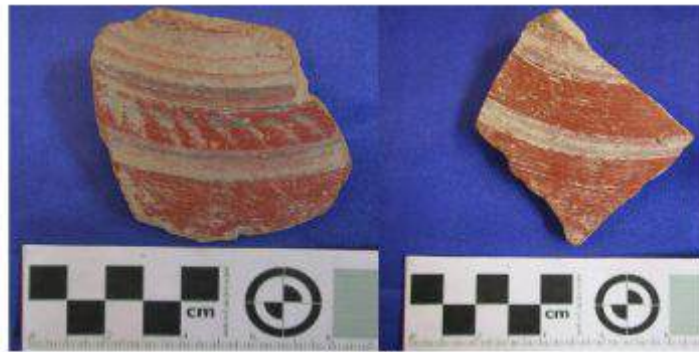
Figure 89. Painted Indian Earthenware PAINT-1 with a small number of white inclusions and elongated voids indicating grass or straw particles (top), PAINT-2(A) with visible air-holes in addition to angular medium-sized particles of quartz/quartzite grains (centre left), PAINT-2(B) abundant small-sized white inclusions (scale = 1mm)



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Shamalaji

Figure 90. Design parallels of PAINT (astral/flower) from sites in Western India (Gujarat and Maharashtra)

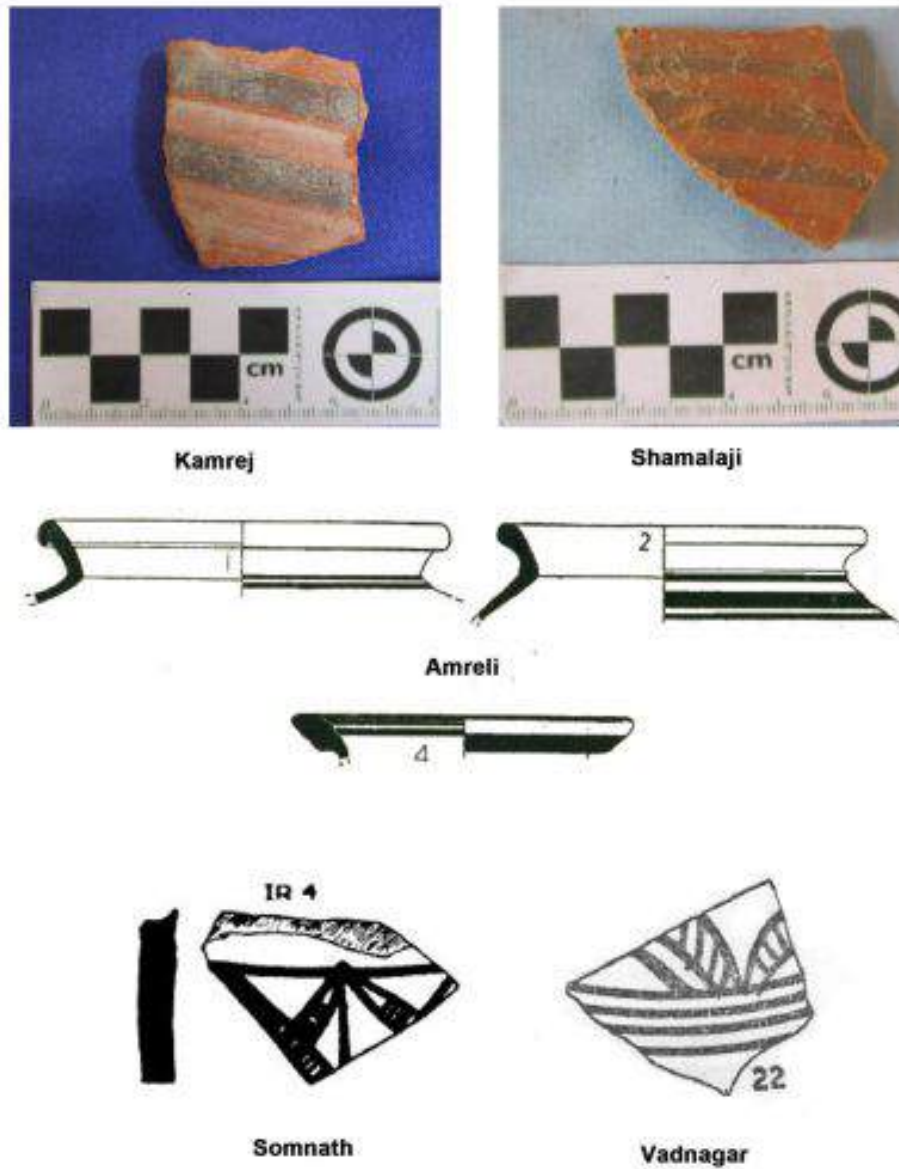
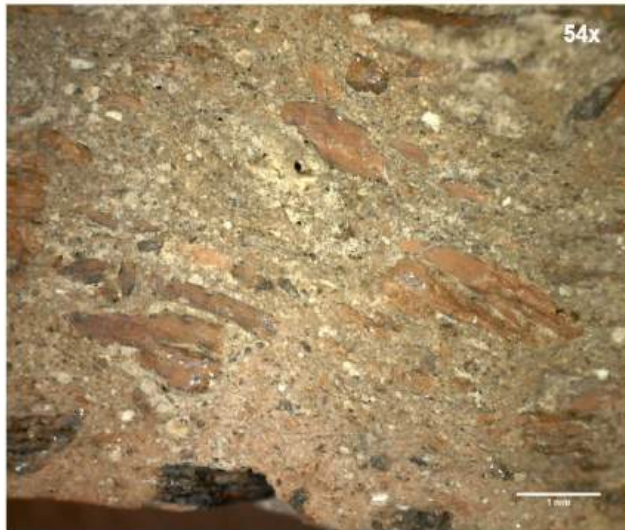
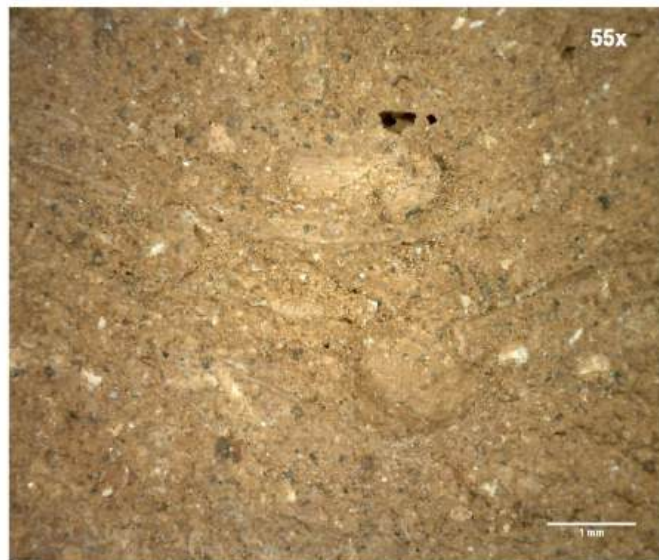


Figure 91. Design parallels of PAINT (black striped lines & hatched ladder) from sites in Western India (Gujarat and Maharashtra)



Fabric INDIA-1



Fabric INDIA-2

Figure 92. Unclassified Indian Ware INDIA-1 comprising several red particles including clay pellets or mudstone in addition to sparse inclusions of white quartzite and mica (top row), INDIA-2 comprising of several white and dull black grains and no slip (bottom) (scale = 1mm)



Figure 93. Fine Grey Ware FGRW-1 denoted by the presence of mica and black grains of charcoal and other organic/carbonaceous material

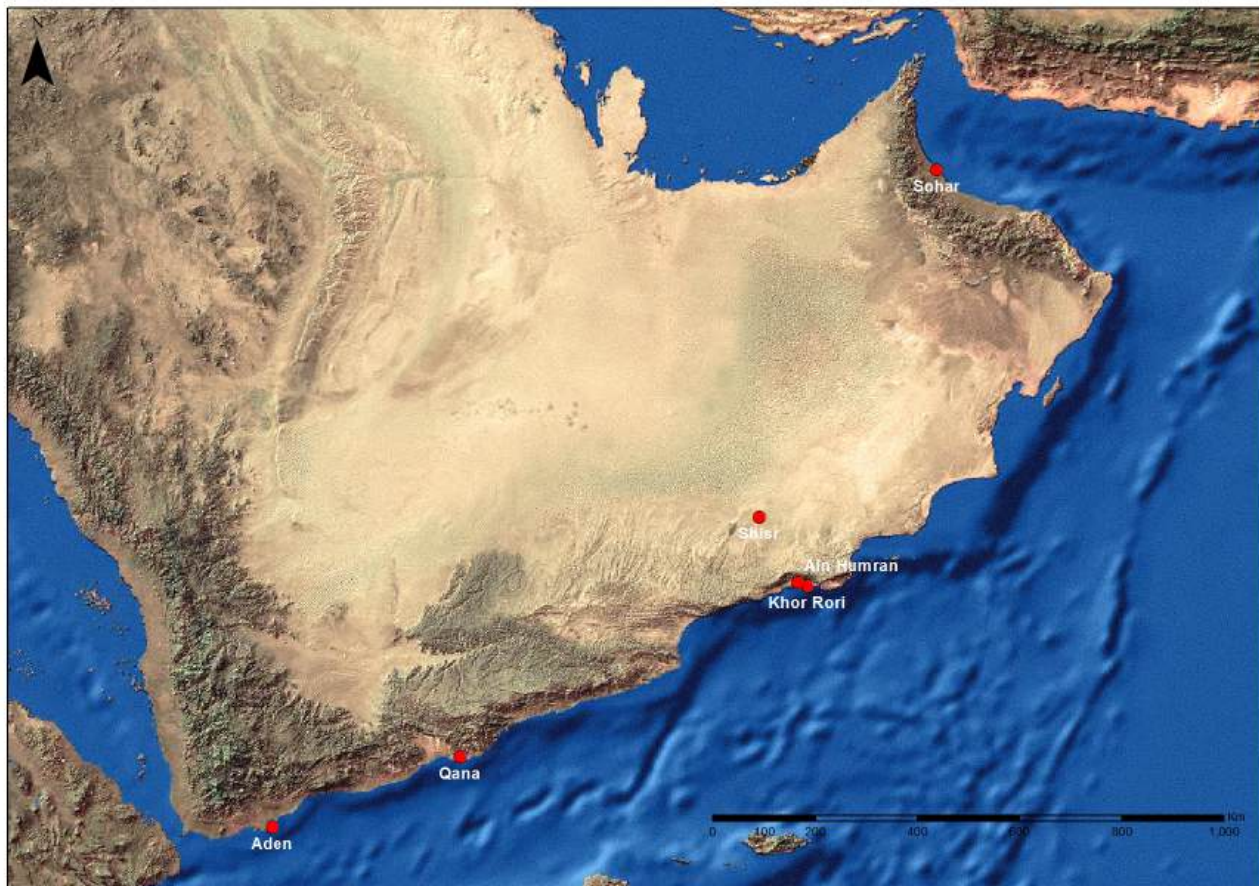


Figure 94. Location of sites in South Arabia and Oman mentioned in chapter 3

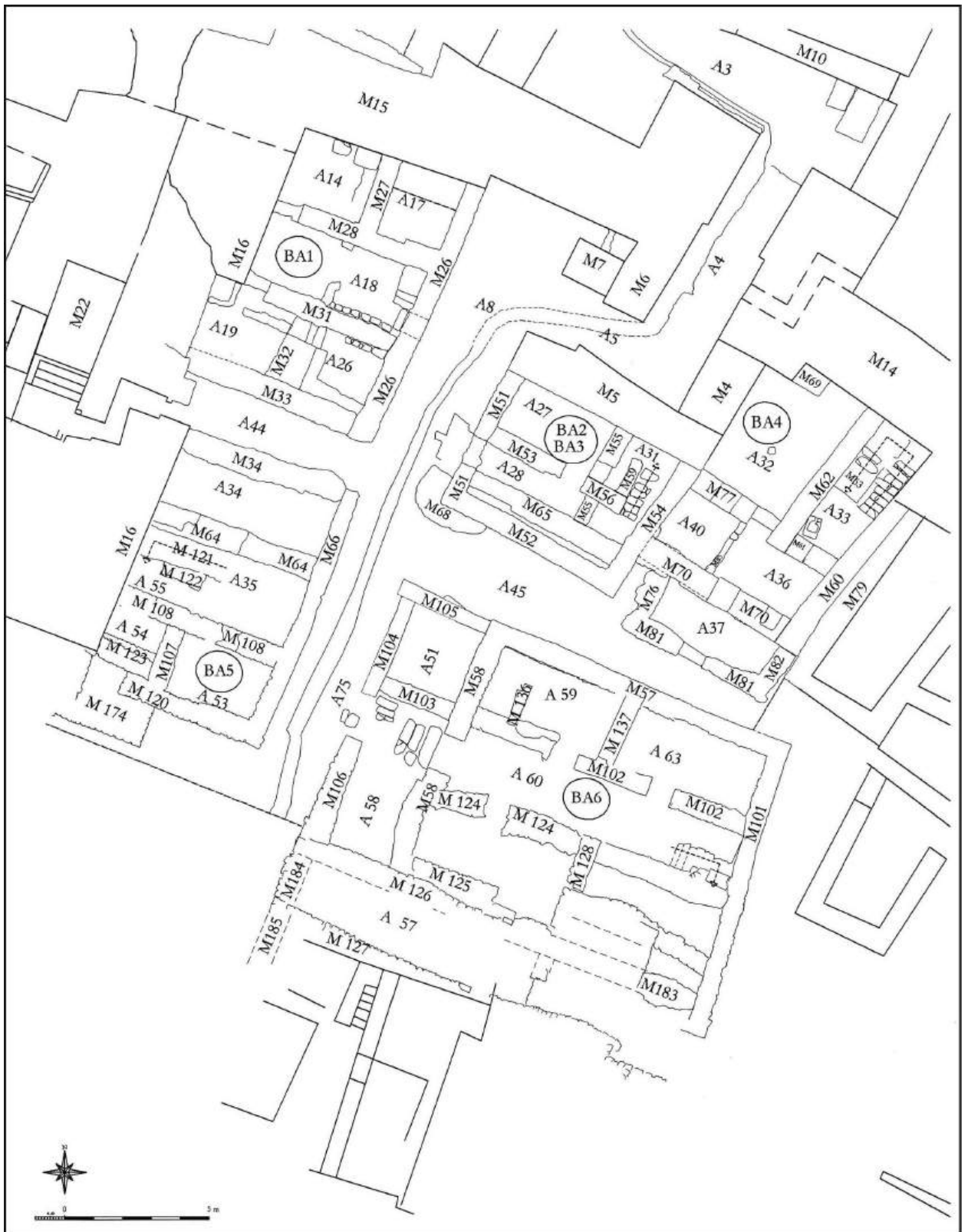


Figure 95. General Plan of Sumhuram Residential Quarter (Area A) with wall markings (after Buffa & Sedov 2008)

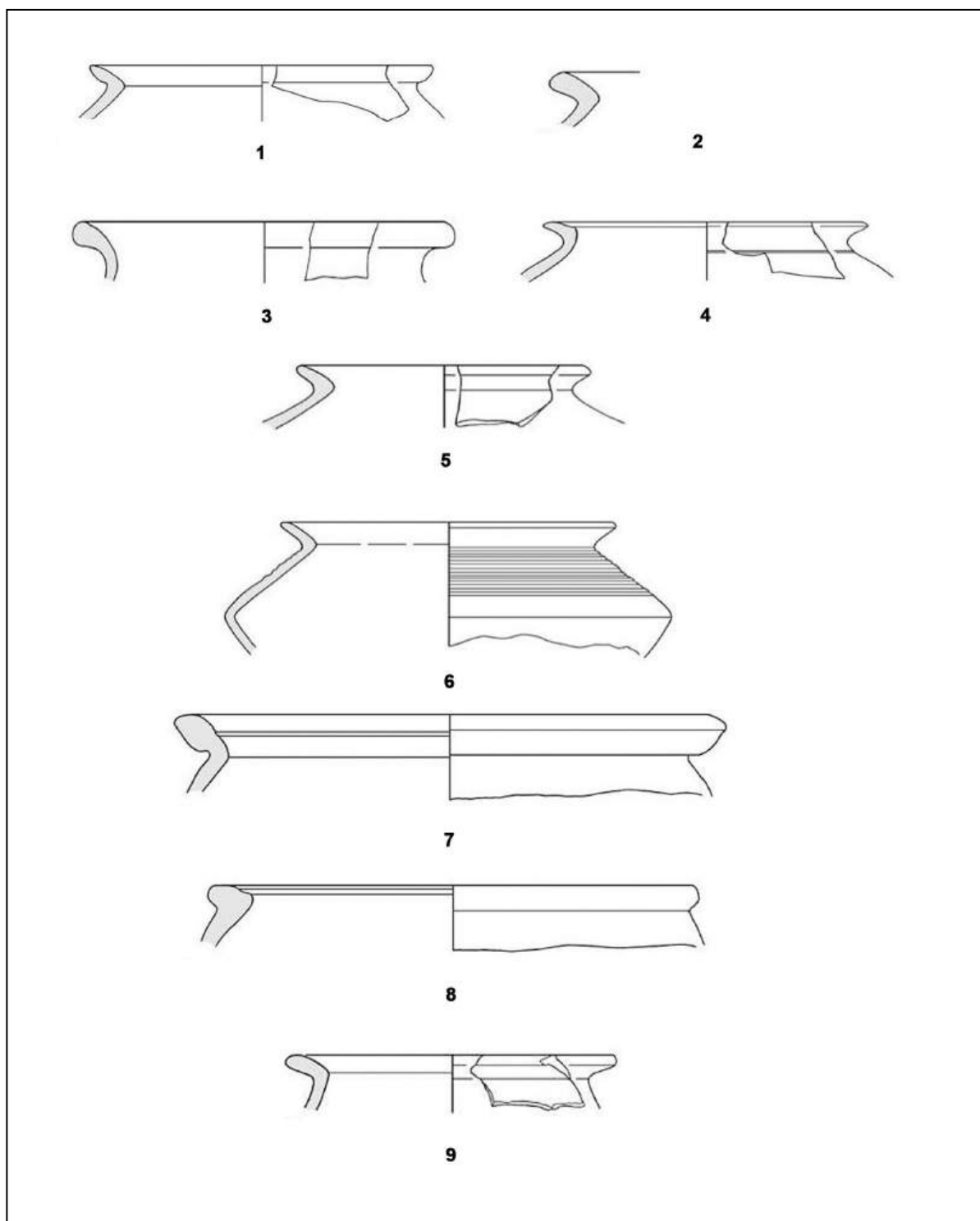


Figure 96. Cooking vessels from Sumhural Area A (Buildings BA2, BA4 & BA5) in the 1st constructional phase. Scale 1:3 (after Sedov 2008a: pl. 2, 4-5)

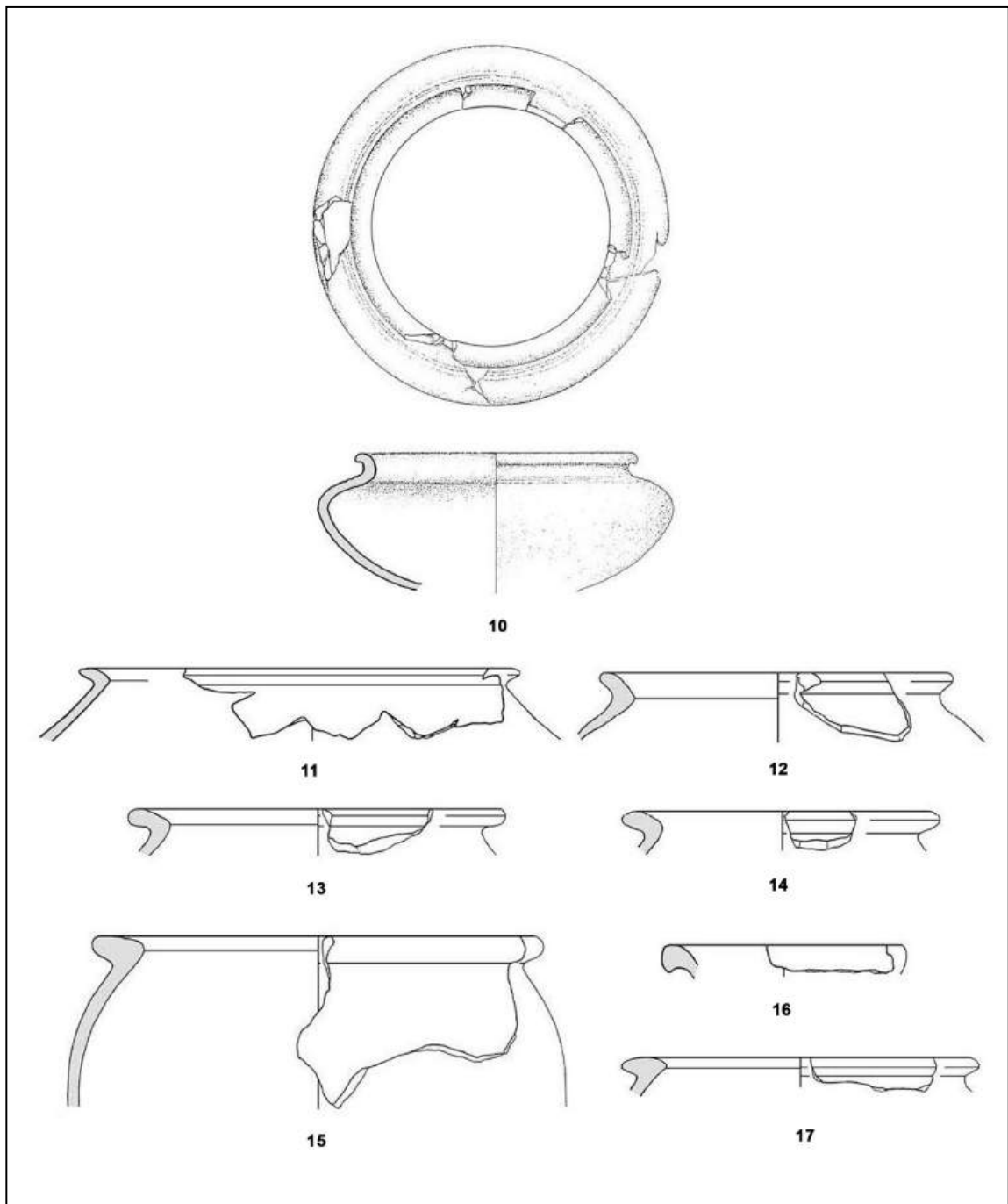


Figure 97. Cooking vessels from Sumhuram Area A (Building BA1) in the 2nd constructional phase. Scale 1:3 (after Sedov 2008a: pl. 9)

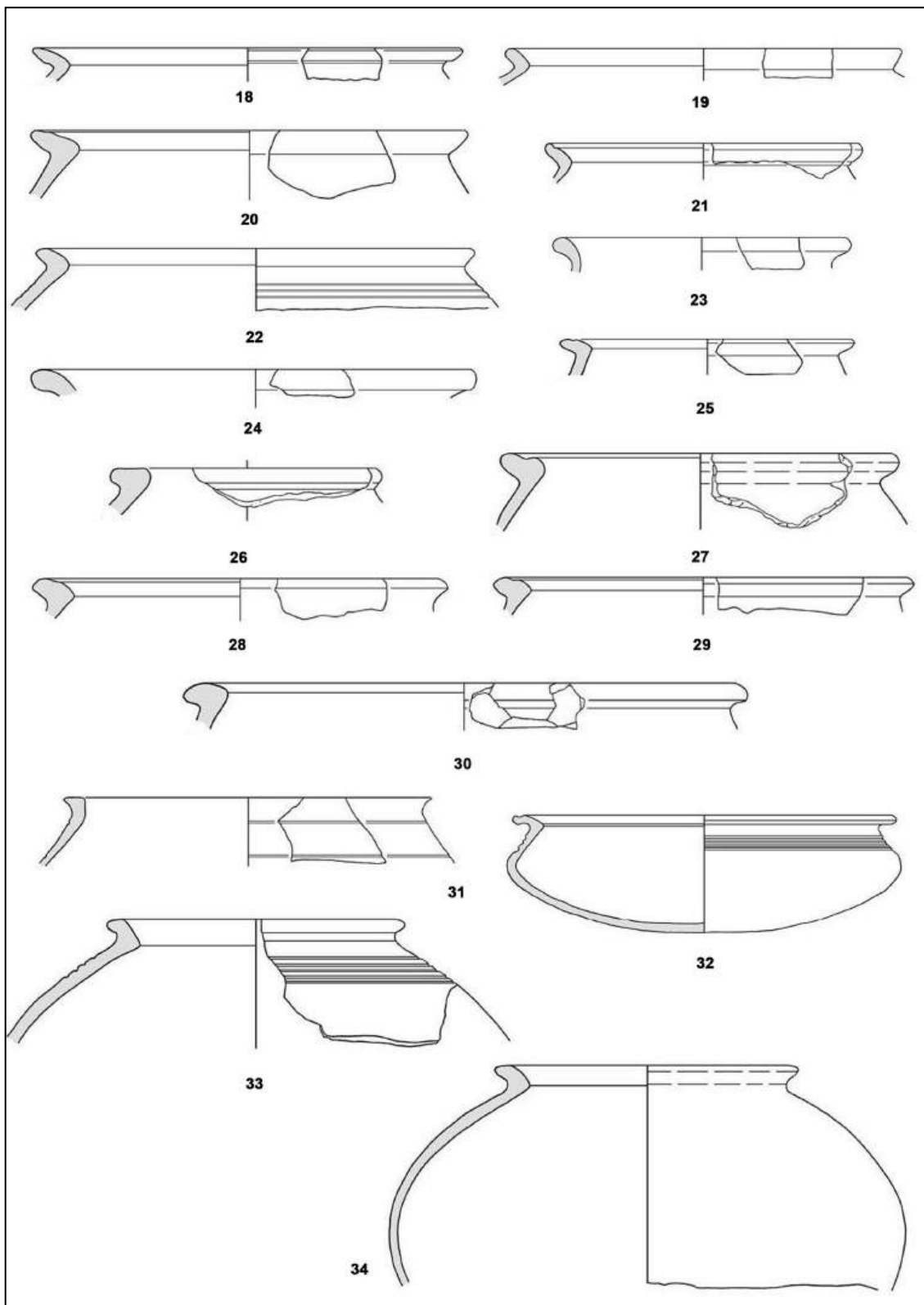


Figure 98. Cooking vessels from Sumhuram Area A (Square A8, streets A44 & 145) in the 3rd and 4th constructional phases. Scale 1:3 (after Sedov 2008a: pl. 17-18, 21).

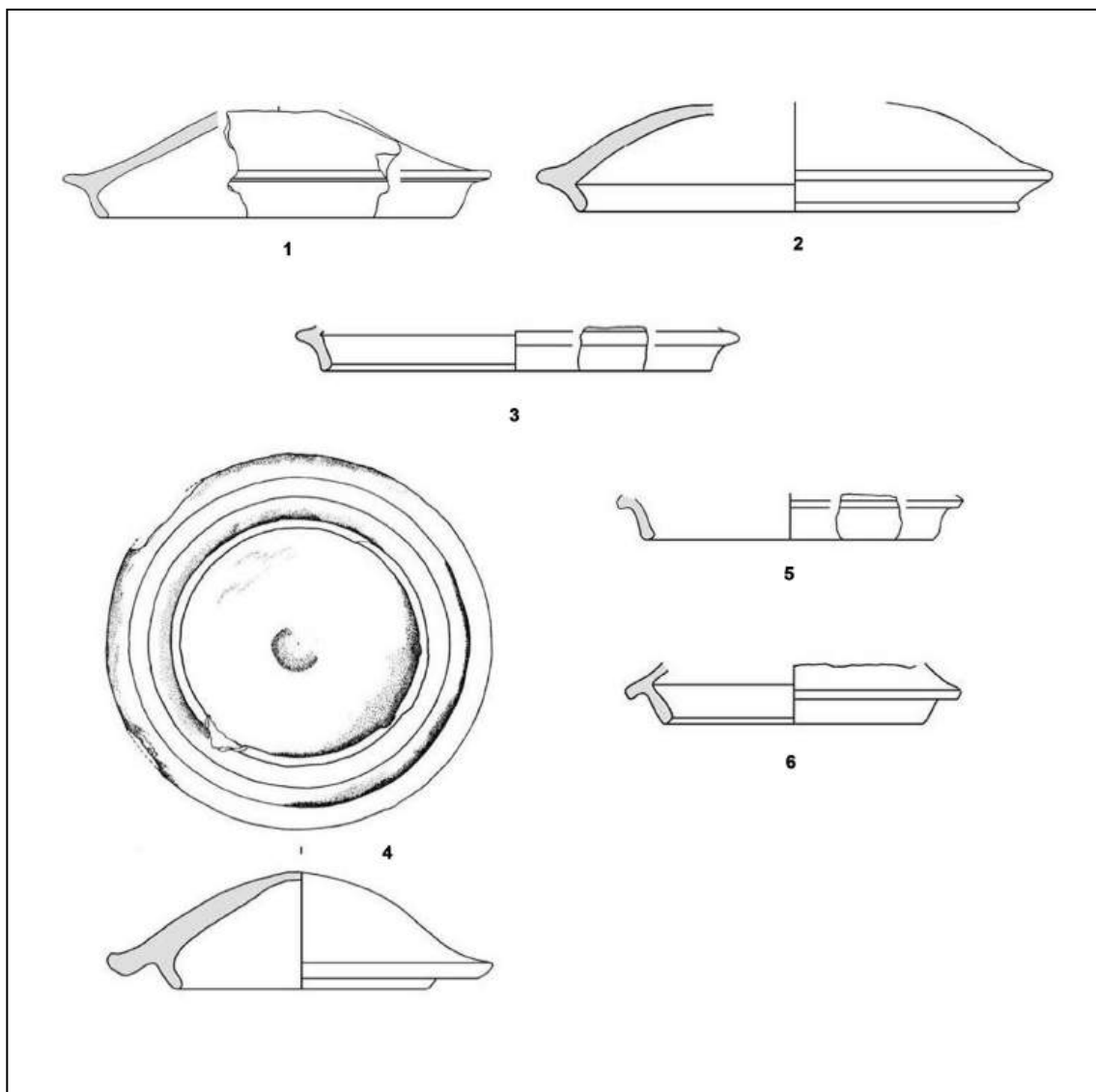


Figure 99. Lids from Sumhuram Area A (Building BA1, BA4 & Square A8, streets A44 & A45) in the 2nd and 4th constructional phases. Scale 1:3 (after Sedov 2008a: pl. 4, 22).

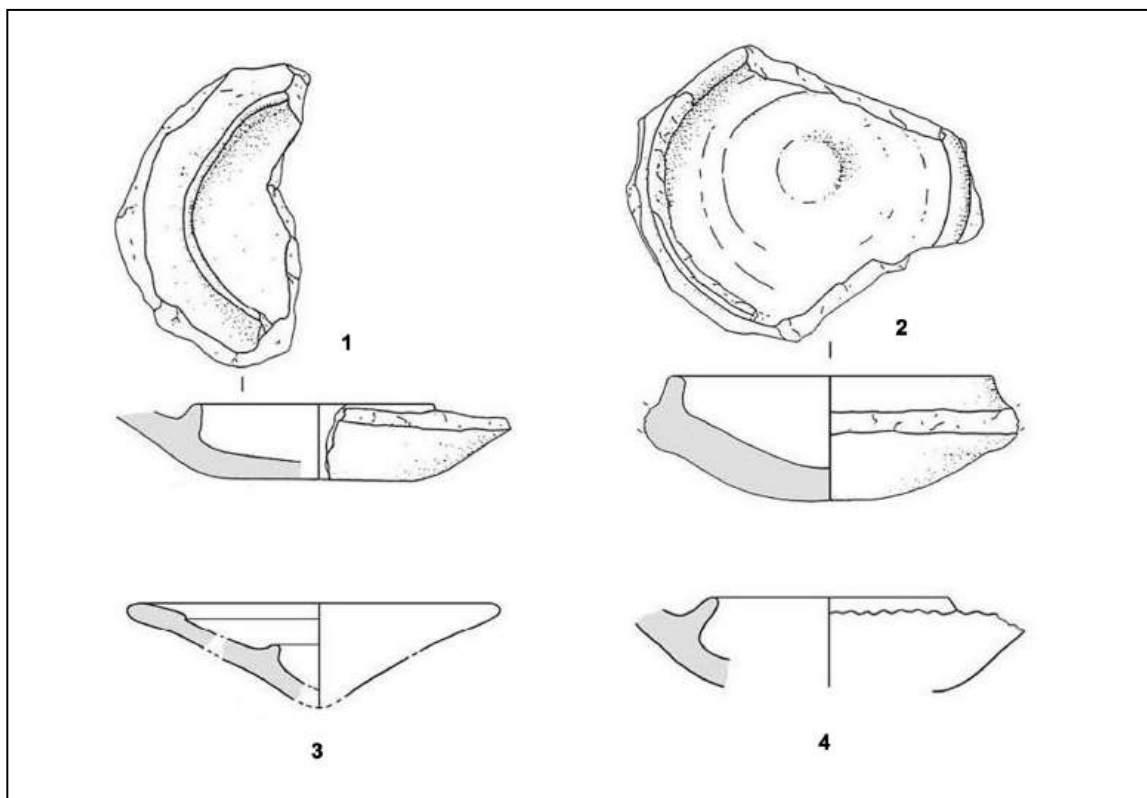


Figure 100. Oil Lamps from Sumhuran Area A (Building BA1 & Square A8, streets A44 & A45) in the 2nd and 3th constructional phases respectively. Scale 1:3 (after Sedov 2008a: pl. 11, 17)

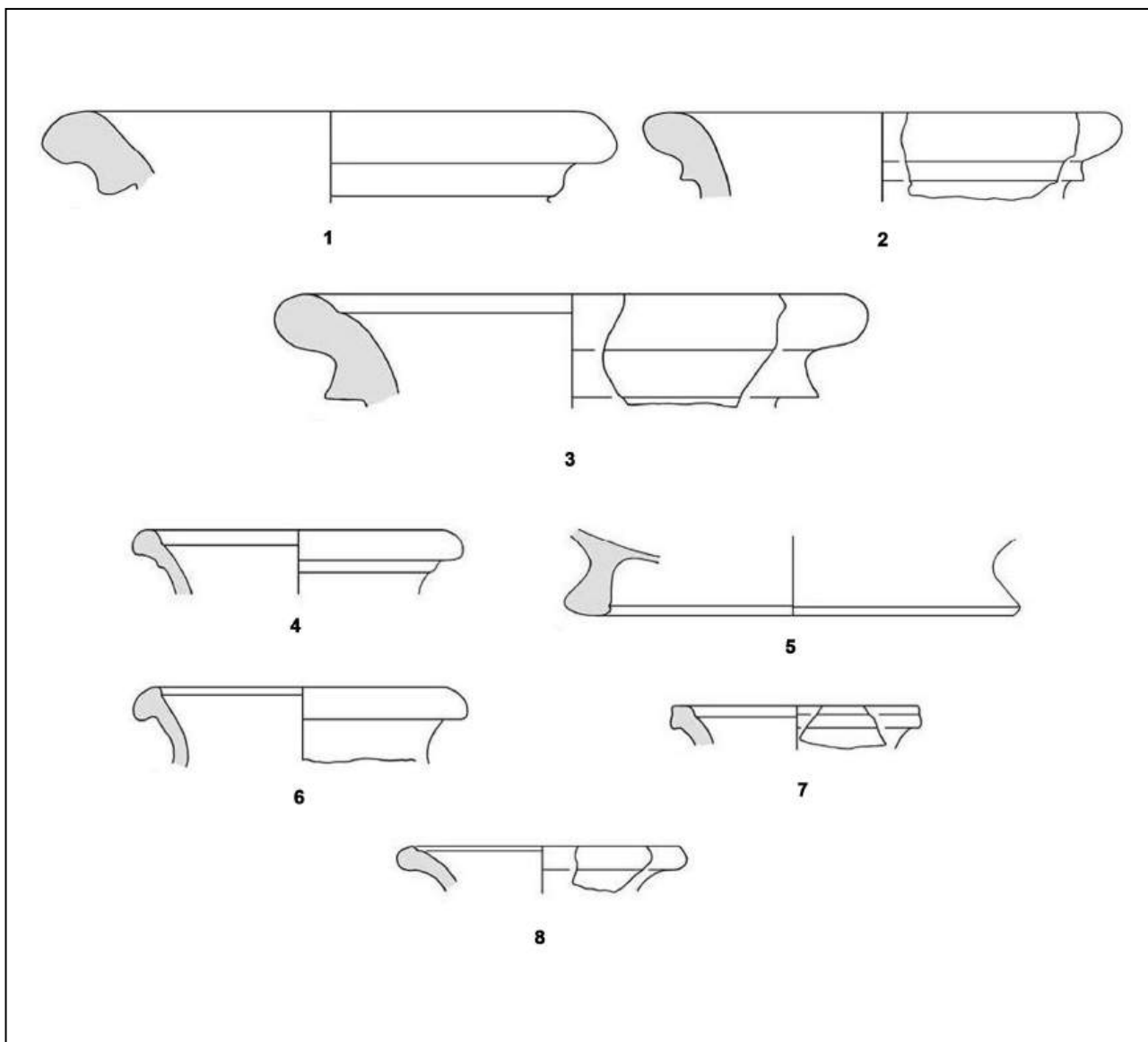


Figure 101. Storage Jars from Sumhuram Area A (Square A8, streets A44 & A45) in the 3th constructional phase and Table Jars from Area A (Buildings BA2, BA4 & BA5) in the 1st constructional phase. Scale 1:3 (after Sedov 2008a: pl. 13, 2, 4-5)

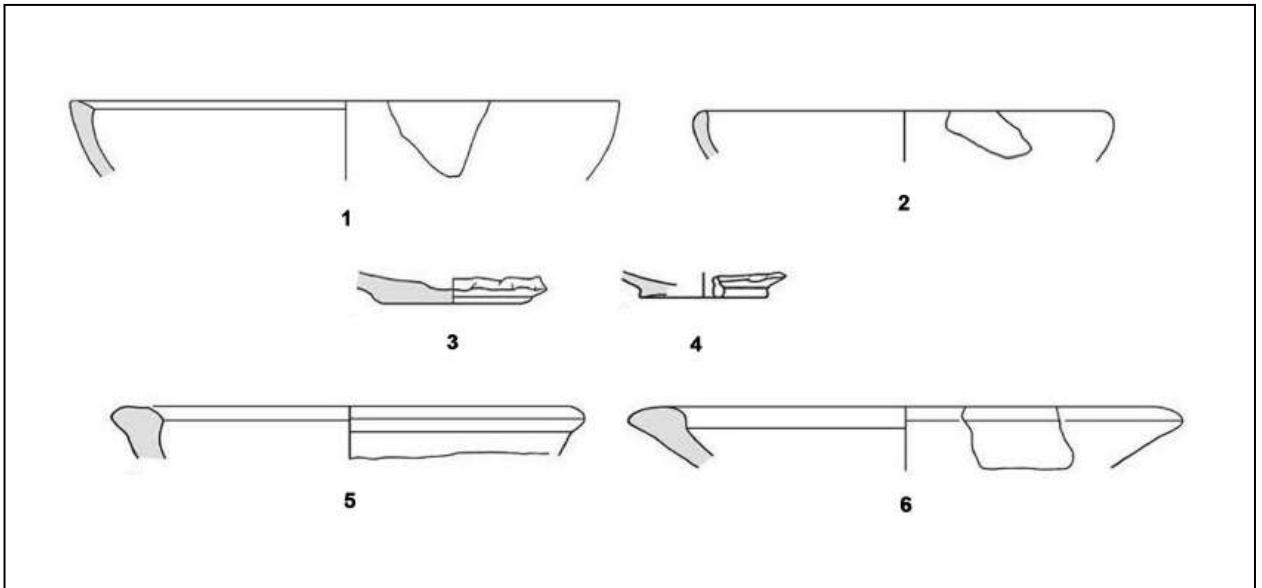


Figure 102. Table Bowls from Sumhuram Area A (Building BA2 & BA44) in the 1st constructional phase and Table Plates from Area A (Buildings BA2, BA4 & Square A8, streets A44 & A45) in the 2nd, 1st and 3rd constructional phases respectively. Scale 1:3 (after Sedov 2008a: pl. 2, 4, 18)

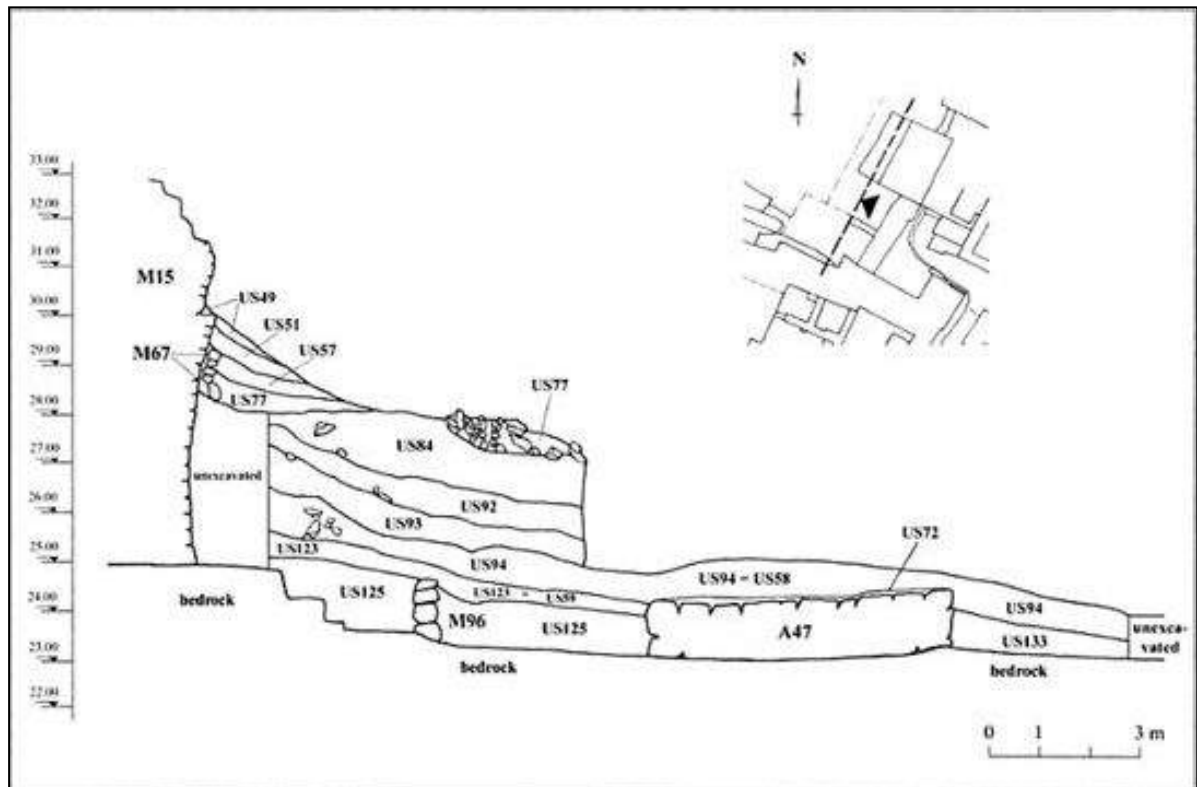
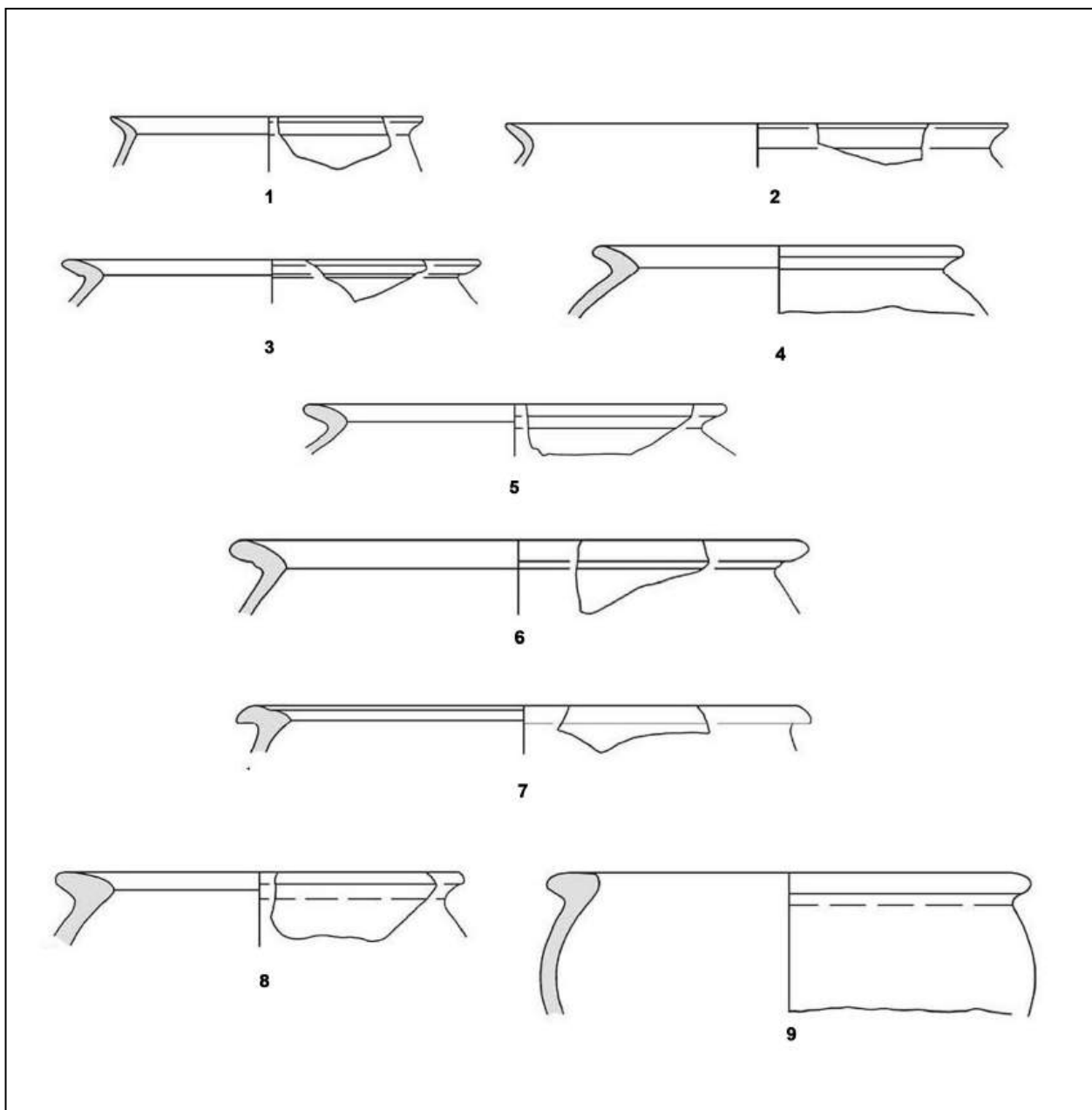


Figure 103. Sumhuram Area A Trench A13 Section Plan (after Sedov 2008b)



**Figure 104. Cooking vessels from Trench A13 (US 125 & US133) from the 1st
constructional phase. Scale 1: 3 (after Sedov 2008b: pl. 4-5)**

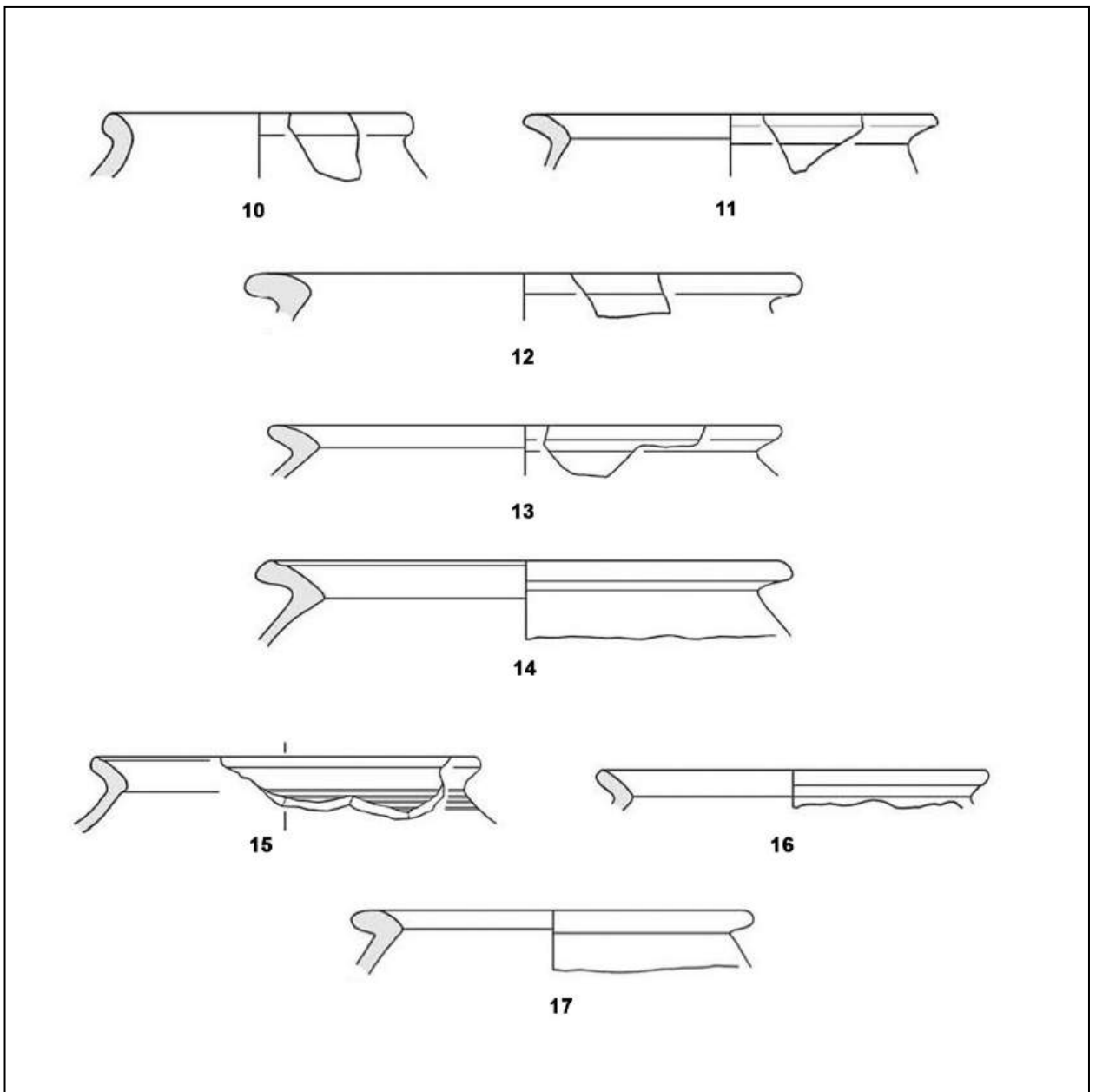


Figure 105. Cooking vessels from Trench A13 (US59=123 & US94=58) from the 2nd and 3rd constructional phases respectively. Scale 1: 3 (after Sedov 2008b: pl. 7, 10)

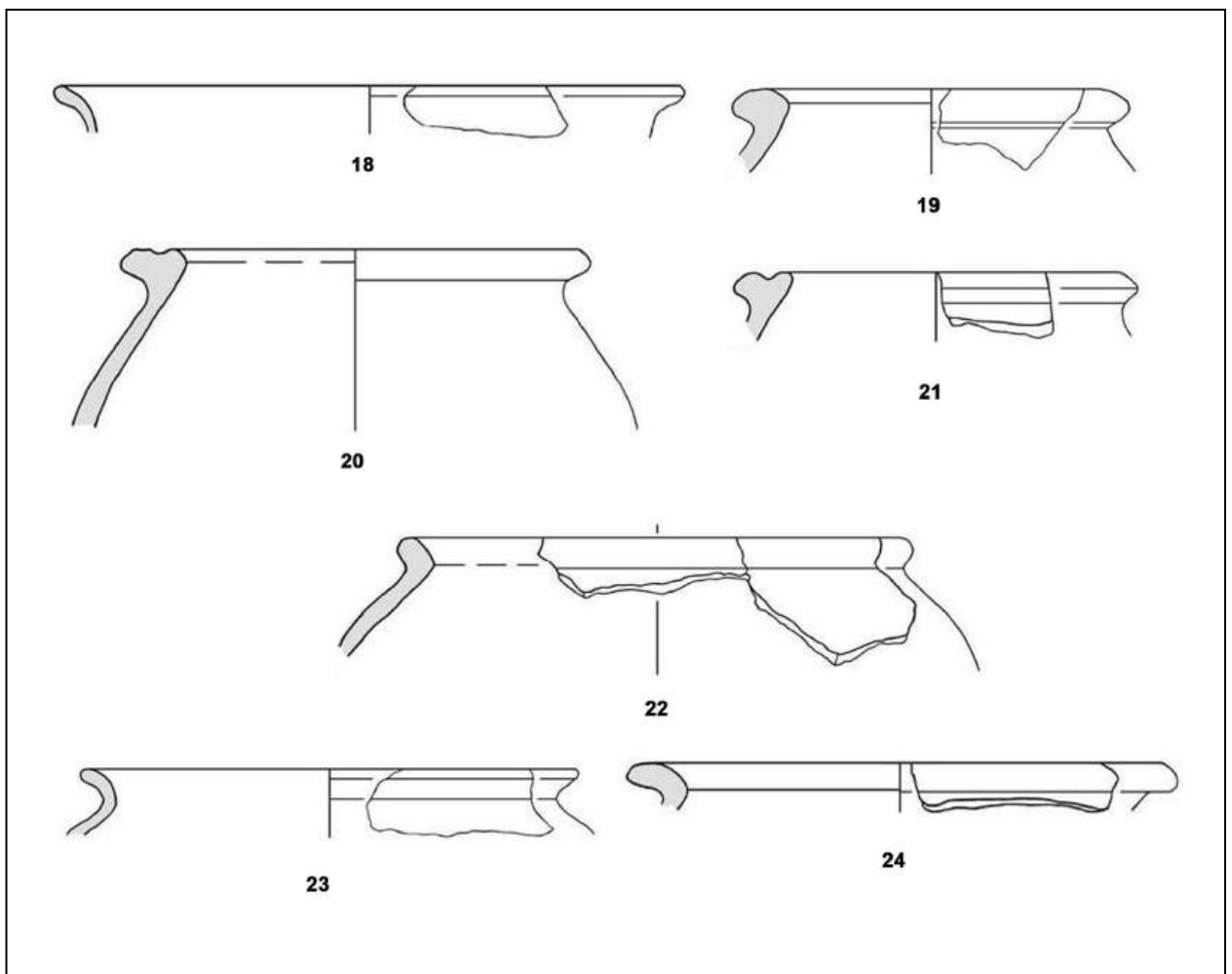
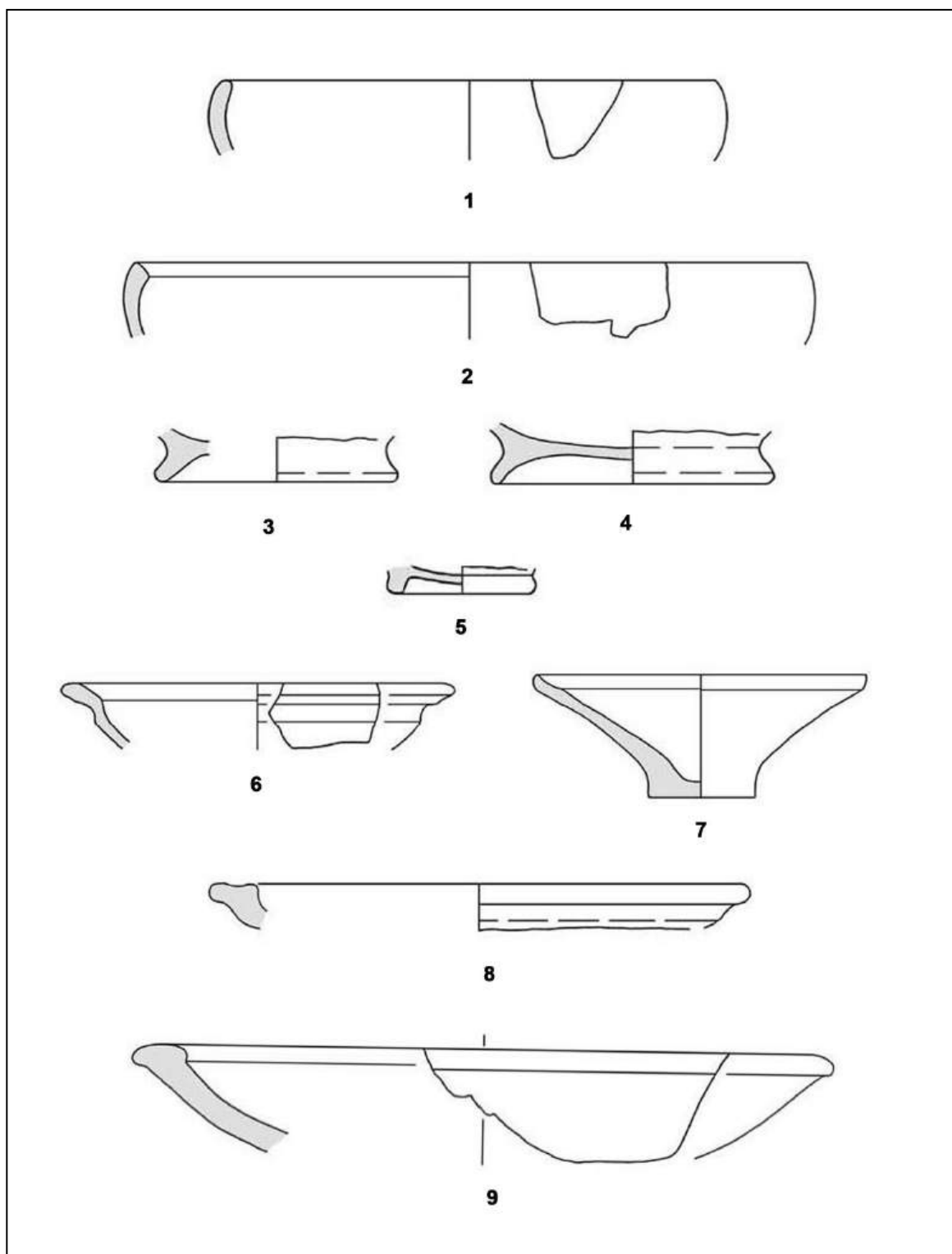


Figure 106. Cooking vessels from Trench A13 (US92 & US84) in the 4th construction phase. Scale 1: 3 (after Sedov 2008b: pl. 16, 19)



**Figure 107. Table Bowls and Table Plates from Trench A13 (US133 & US125) in the 1st constructional phase and Cooking plates from the 3rd constructional phase.
Scale 1: 3 (after Sedov 2008b: pl. 3-4, 10)**

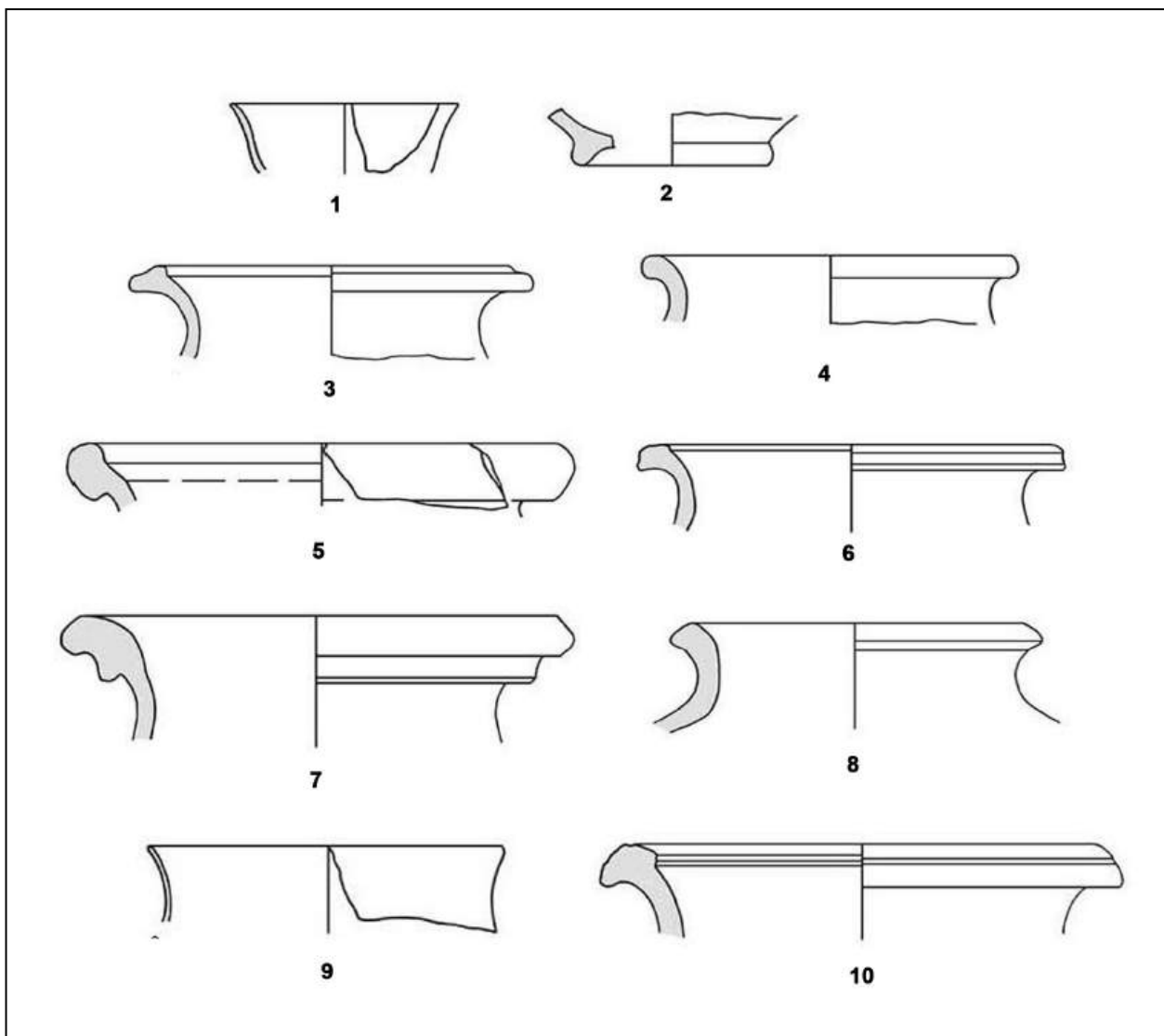


Figure 108. Table Jars from Trench A13 from the 1st, 3rd and 4th constructional phases. Scale 1: 3 (after Sedov 2008b: pl. 4, 9, 13, 18-19)

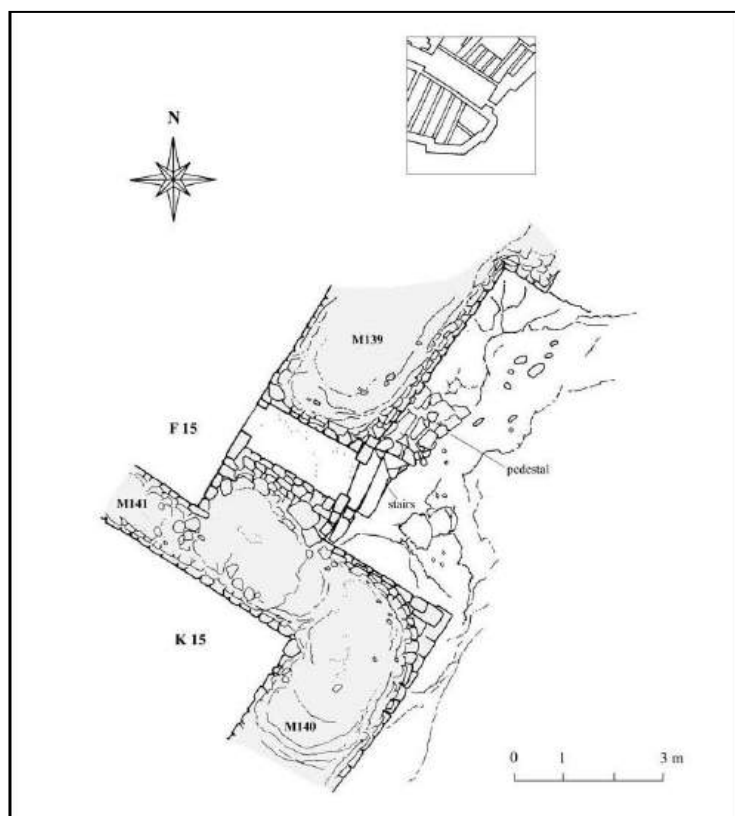


Figure 109. Area B 'Small Gates' Plan (after Sedov 2008c)

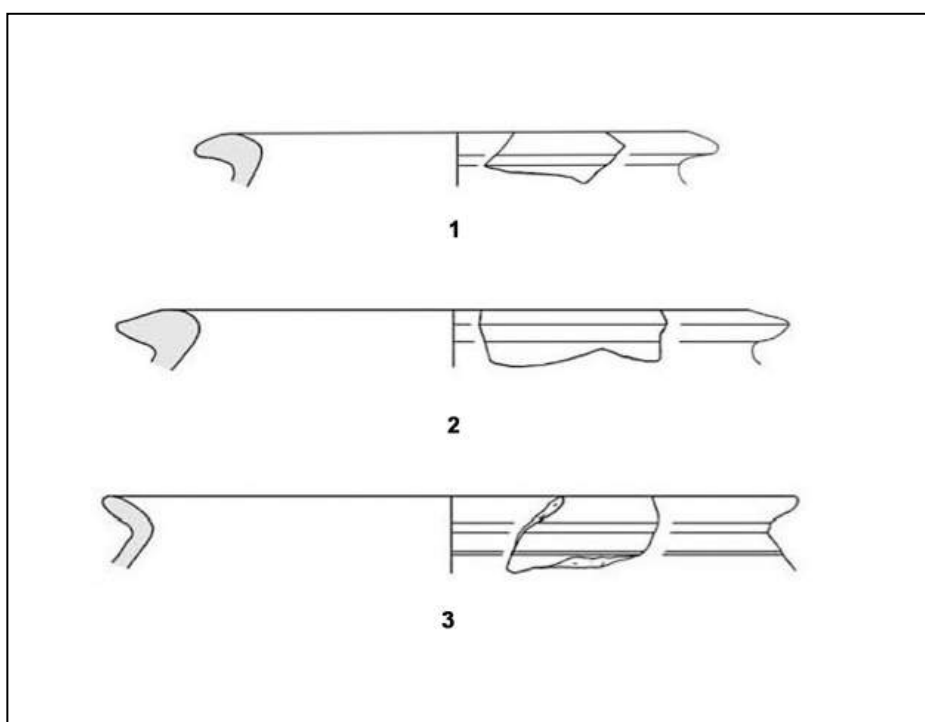


Figure 110. Cooking vessels from Area B (US106). Scale 1: 3 (after Sedov 2008c: pl. 2)

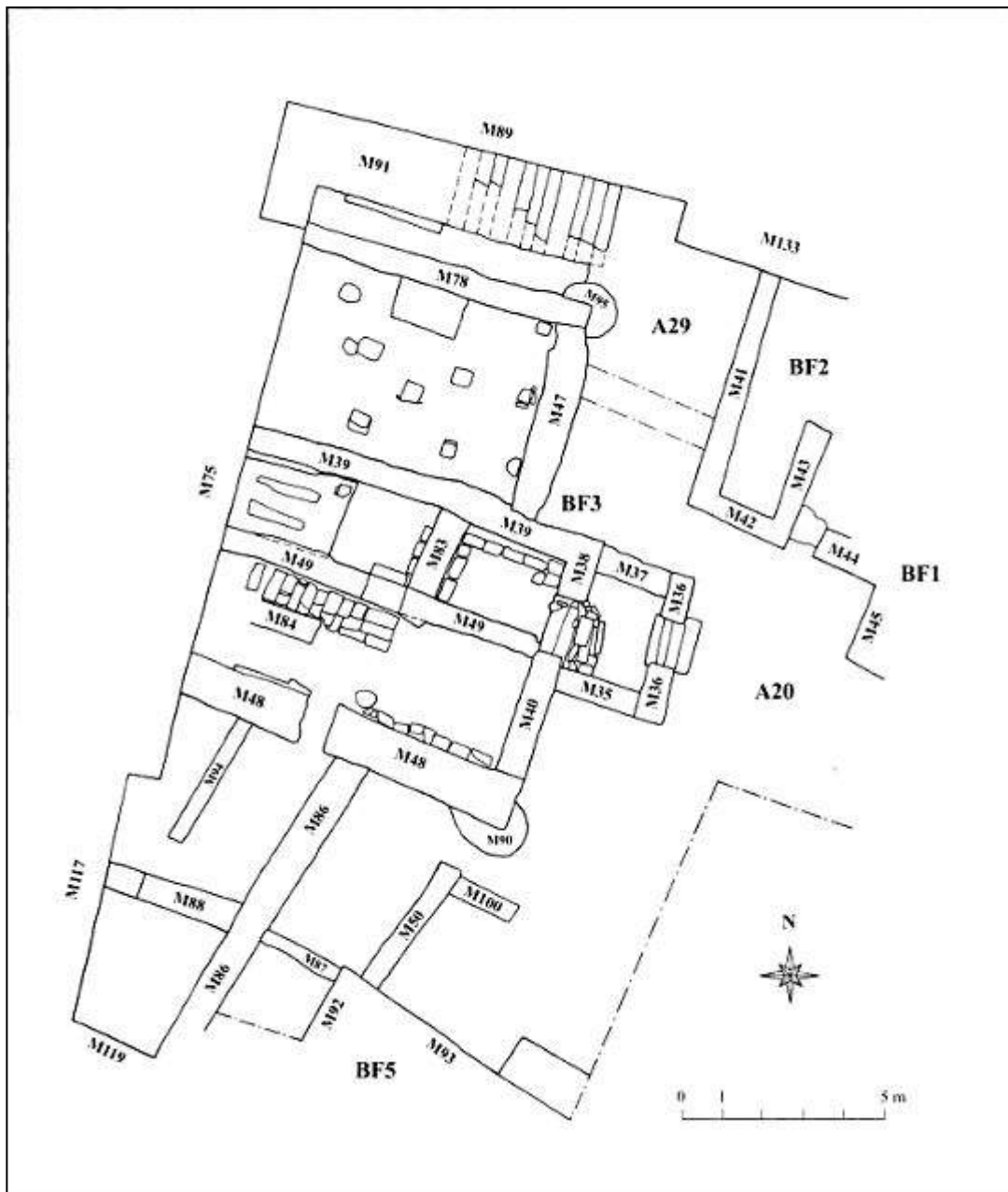
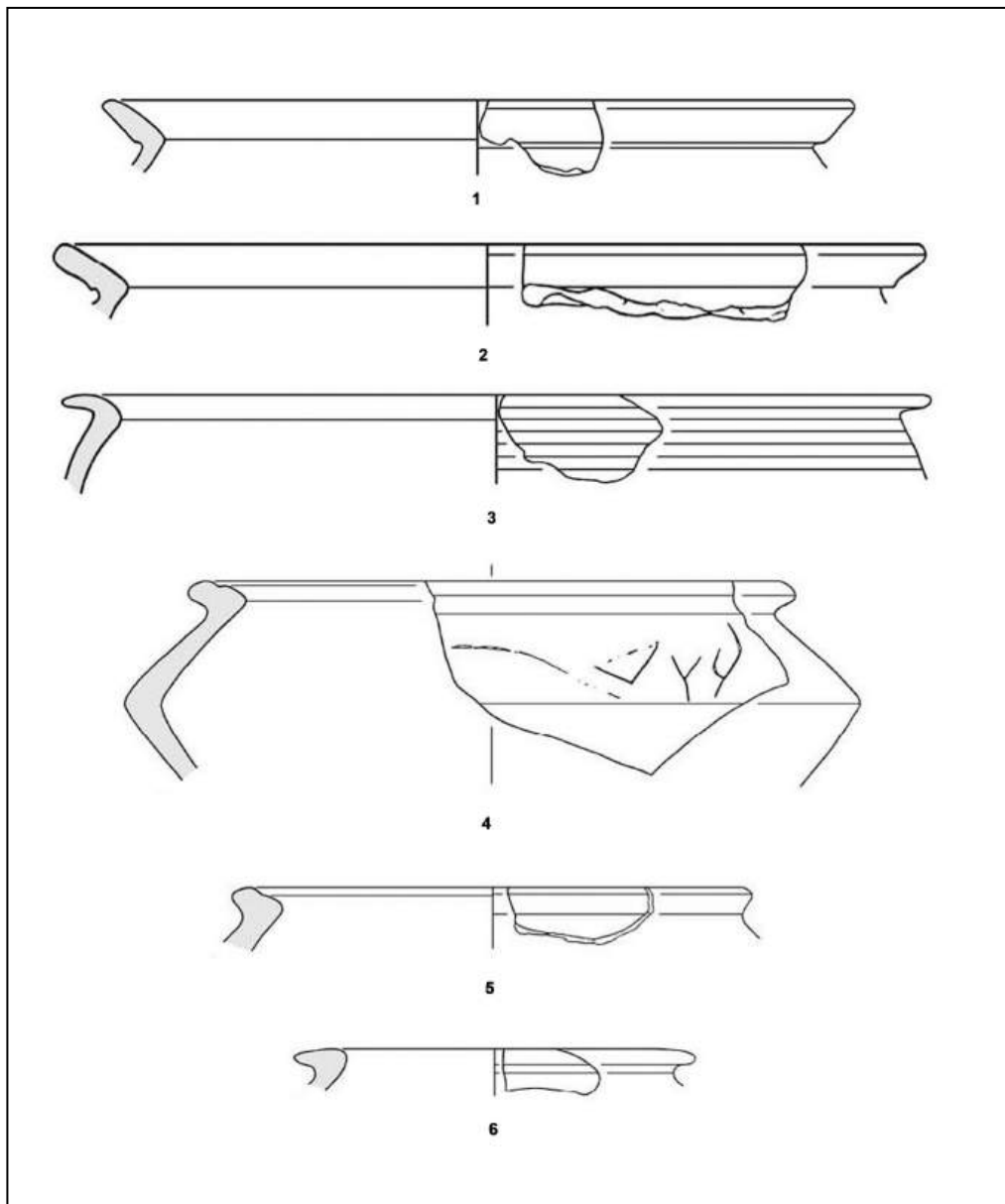
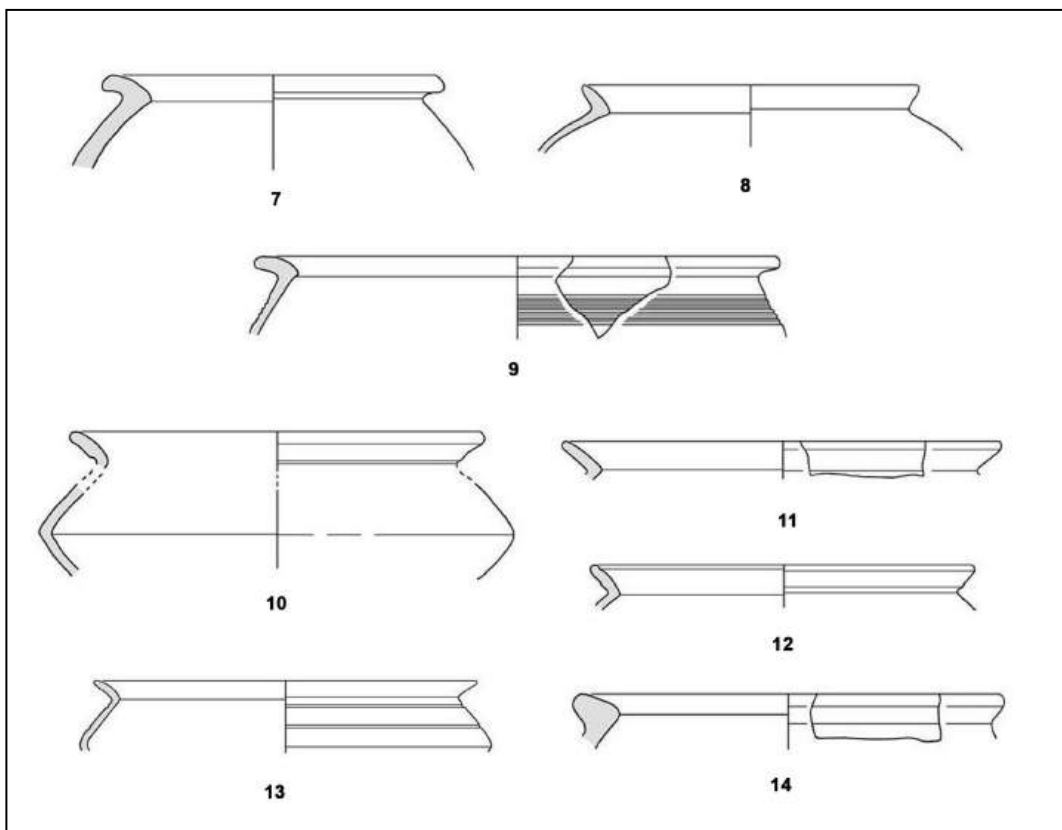


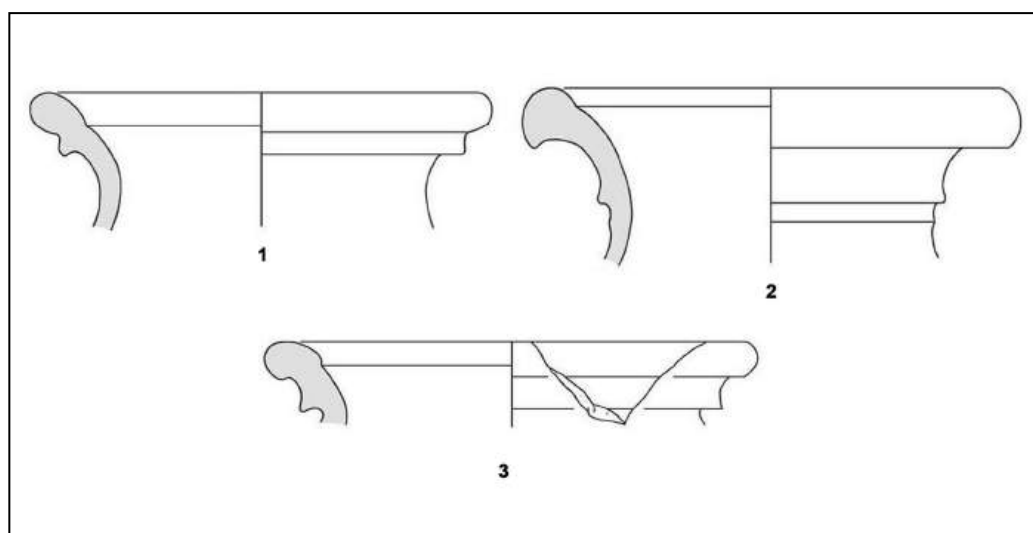
Figure 111. Cultural Quarter (Area F) General Plan with wall numberings (after Sedov 2008d)



**Figure 112. Cooking vessels from Area F (Building BF3 Room A39). Scale 1:3
(after Sedov 2008d: pl. 4)**



**Figure 113. Cooking vessels from Area F (Building BF3 rooms A42, A41b, A41& A25).
Scale 1: 3 (after Sedov 2008d: pl. 8, 18)**



**Figure 114. Storage Jars from Area F (Building BF3 room A41 & A39). Scale 1:3
(after Sedov 2008d: pl. 14)**

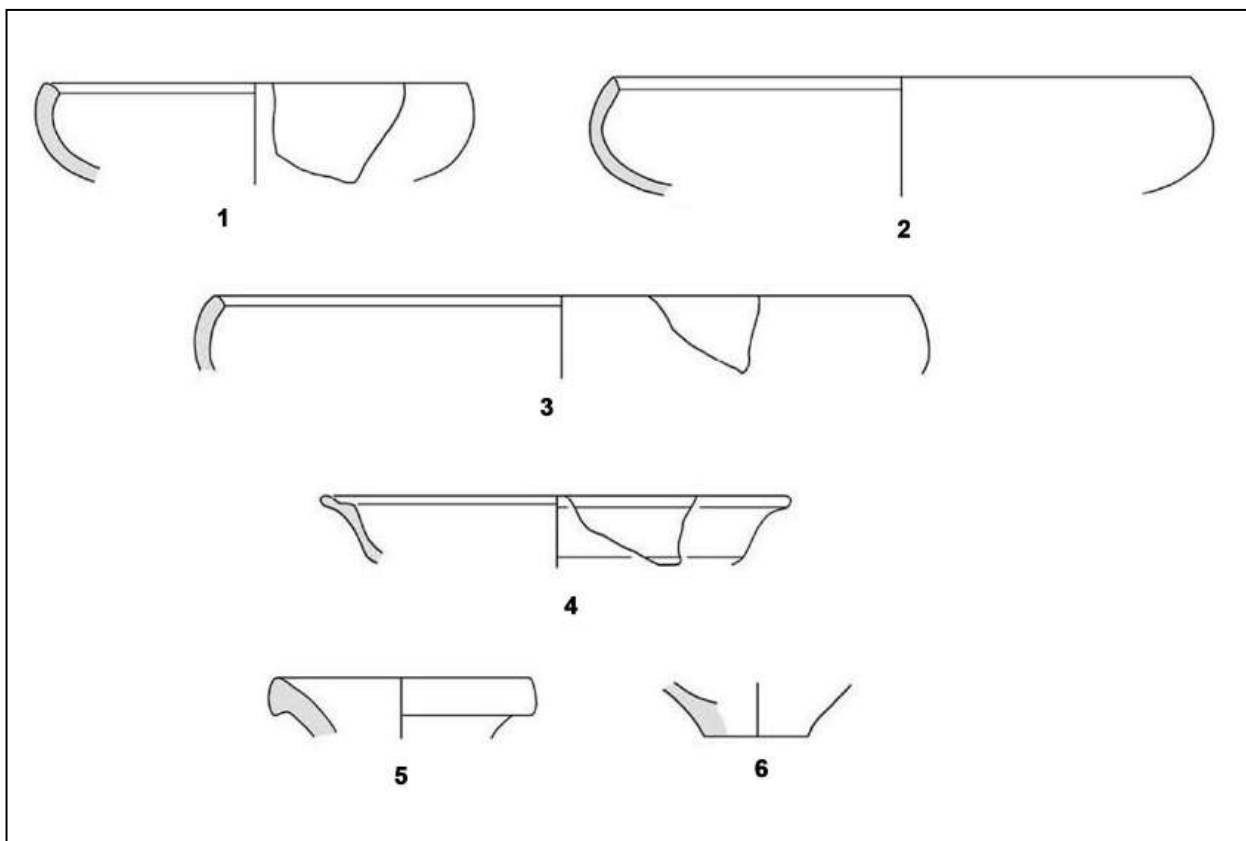


Figure 115. Table vessels (bowls, plate, jars) from Building BF3 (rooms A41b, A42 & A41). Scale 1:3 (after Sedov 2008d: pl. 17, 7)

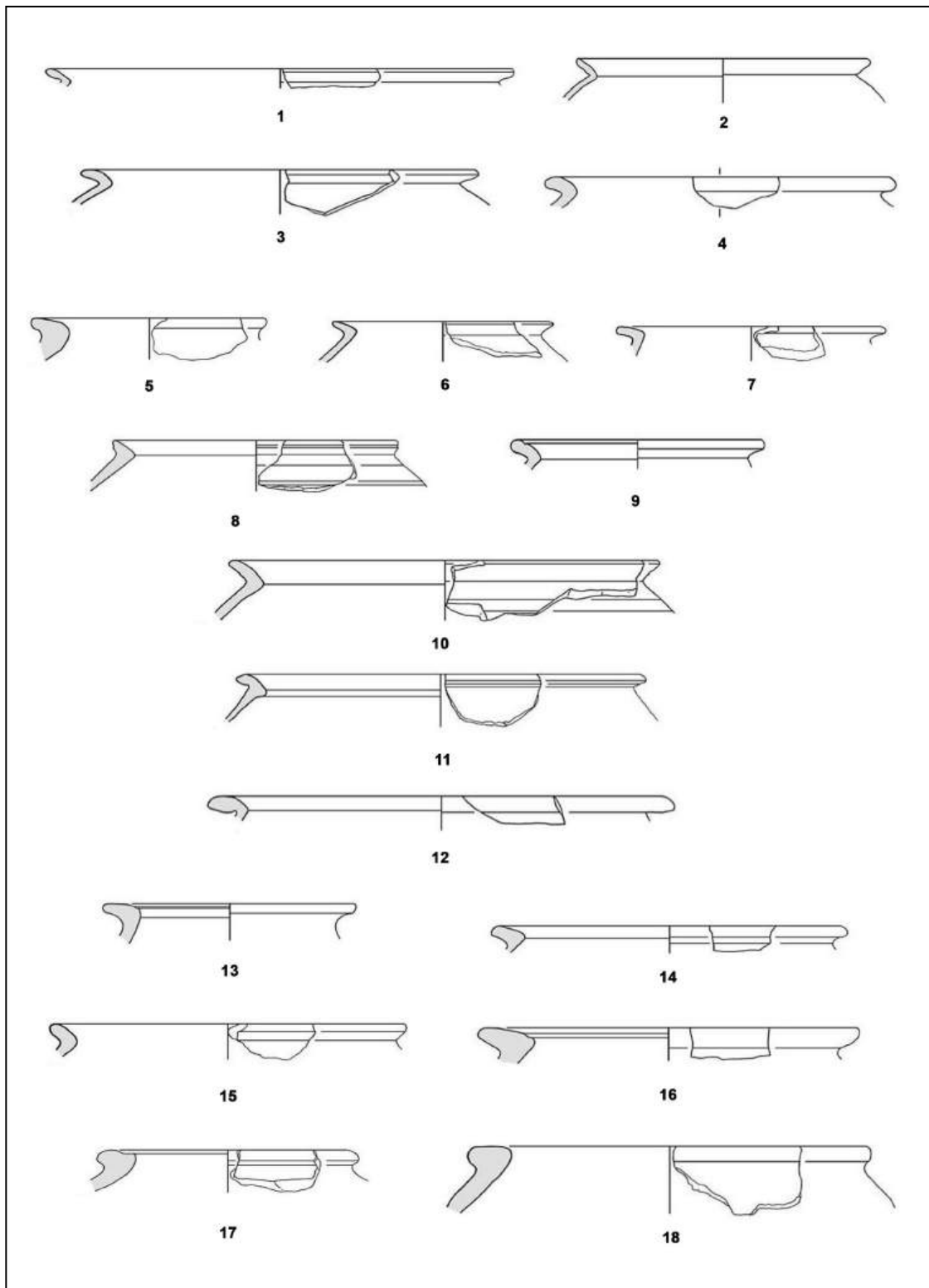


Figure 116. Cooking vessels from Area F (Square A20, streets A29 & A48) from US98, US103 and US54 contexts. Scale 1:3 (after Sedov 2008d: pl. 1, 10, 13)

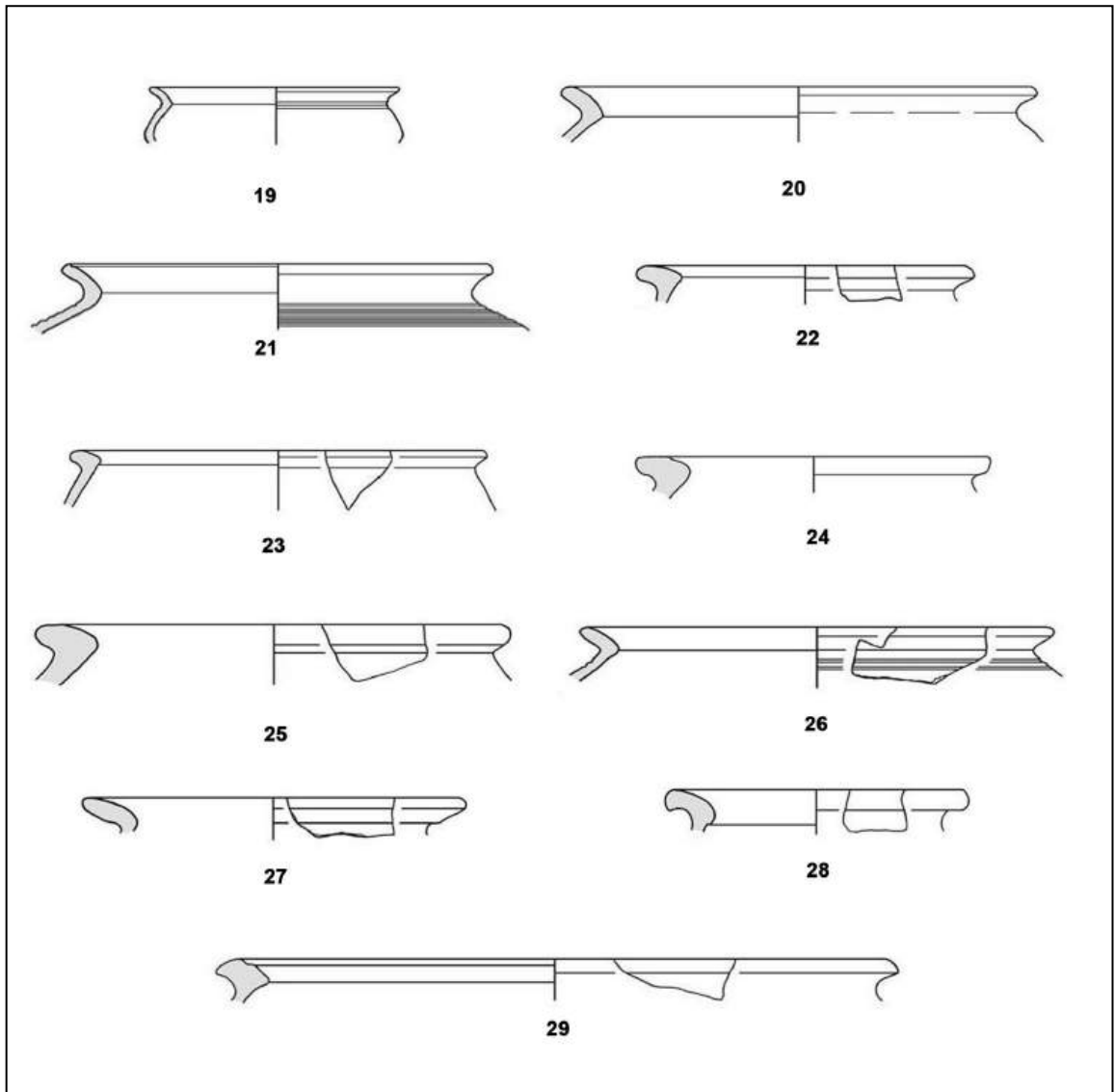


Figure 117. Cooking vessels from Area F (Square A20, streets A29 & A48) from US56 and US80 contexts. Scale 1:3 (after Sedov 2008d: pl. 10, 13, 20, 22)

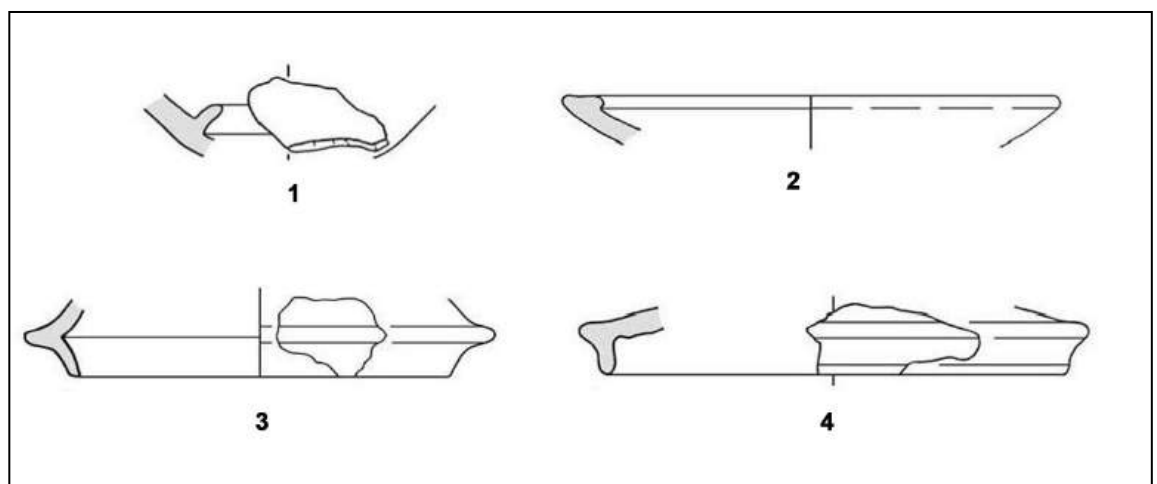


Figure 118. Oil lamps and lids from Area F (Square A20, streets A29 & A48) from US98, US56 & US54 contexts. Scale 1:3 (after Sedov 2008d: pl. 1, 12, 20)

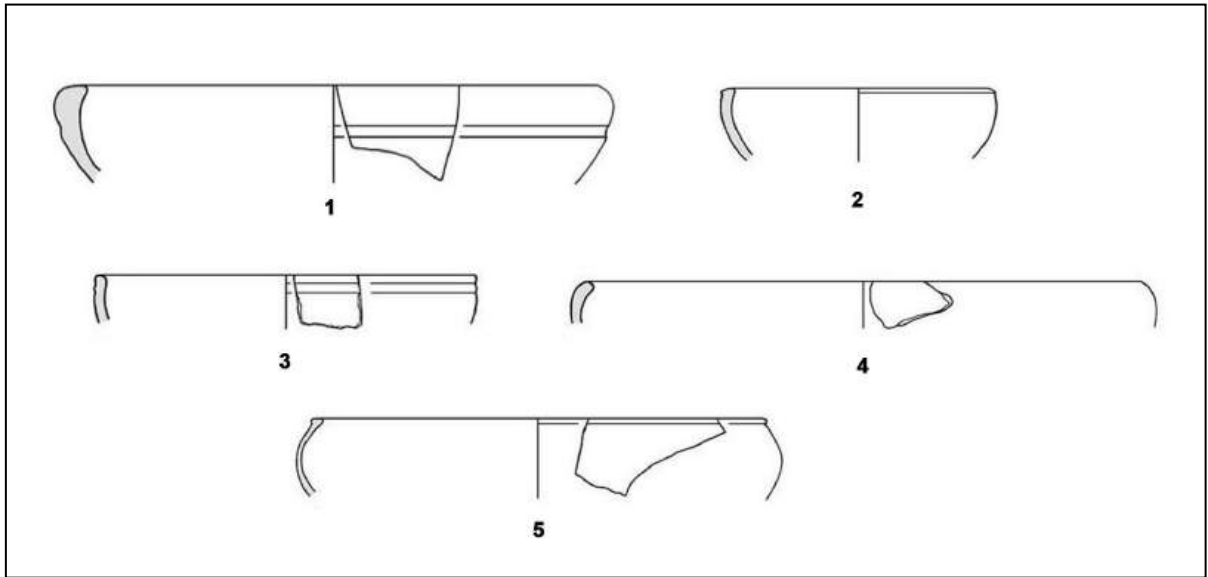


Figure 119. Table Bowls from Area F (Square A20, streets A29 & A48) from US98, US54 & US56 contexts. Scale 1:3 (after Sedov 2008d: pl. 1, 11, 20)

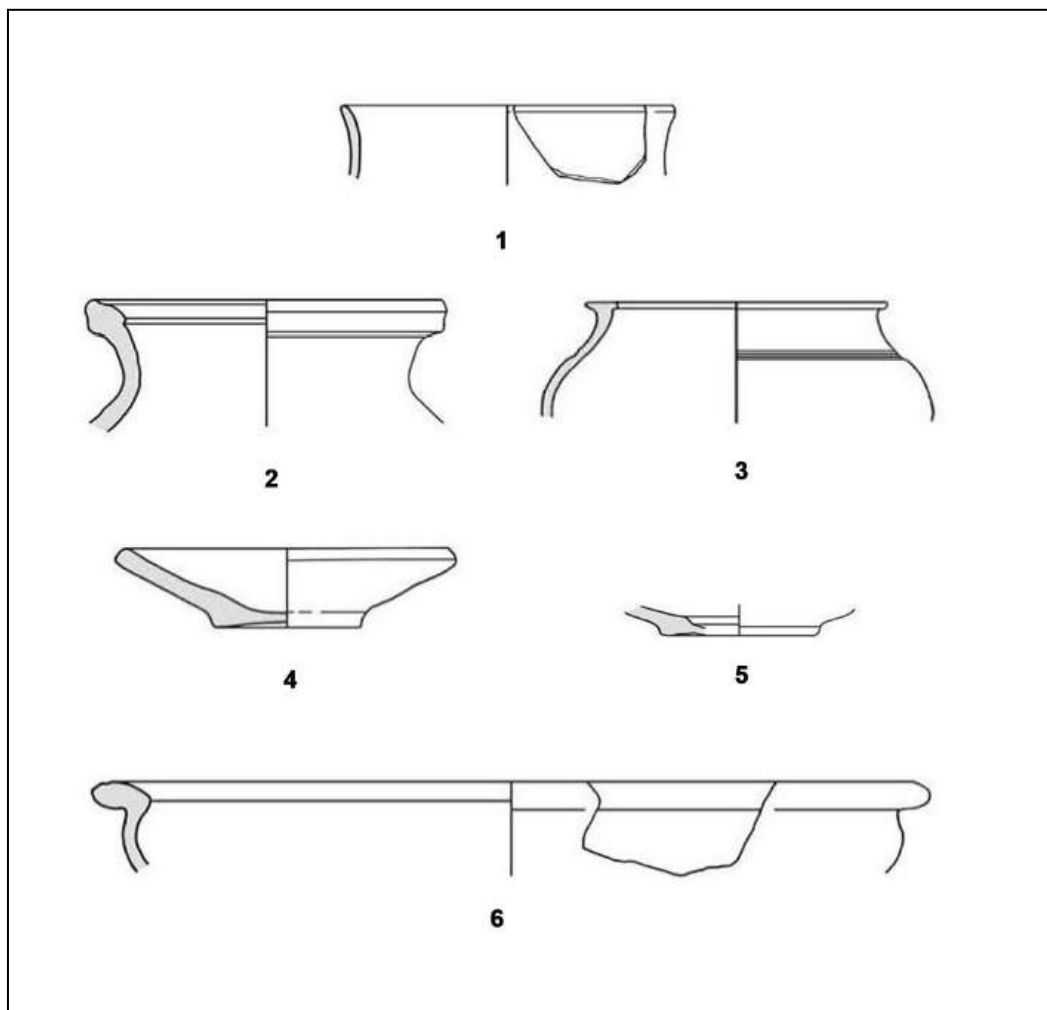


Figure 120. Table Jars from US80 and Table Plates from US54 and US80 from Area F (Square A20, streets A29 & A48). Scale 1:3 (after Sedov 2008d: pl. 11, 12, 22)



Figure 121. Rice Tempered Ware Fabric from Khor Rori (Sumhuram) (scale = 1mm)

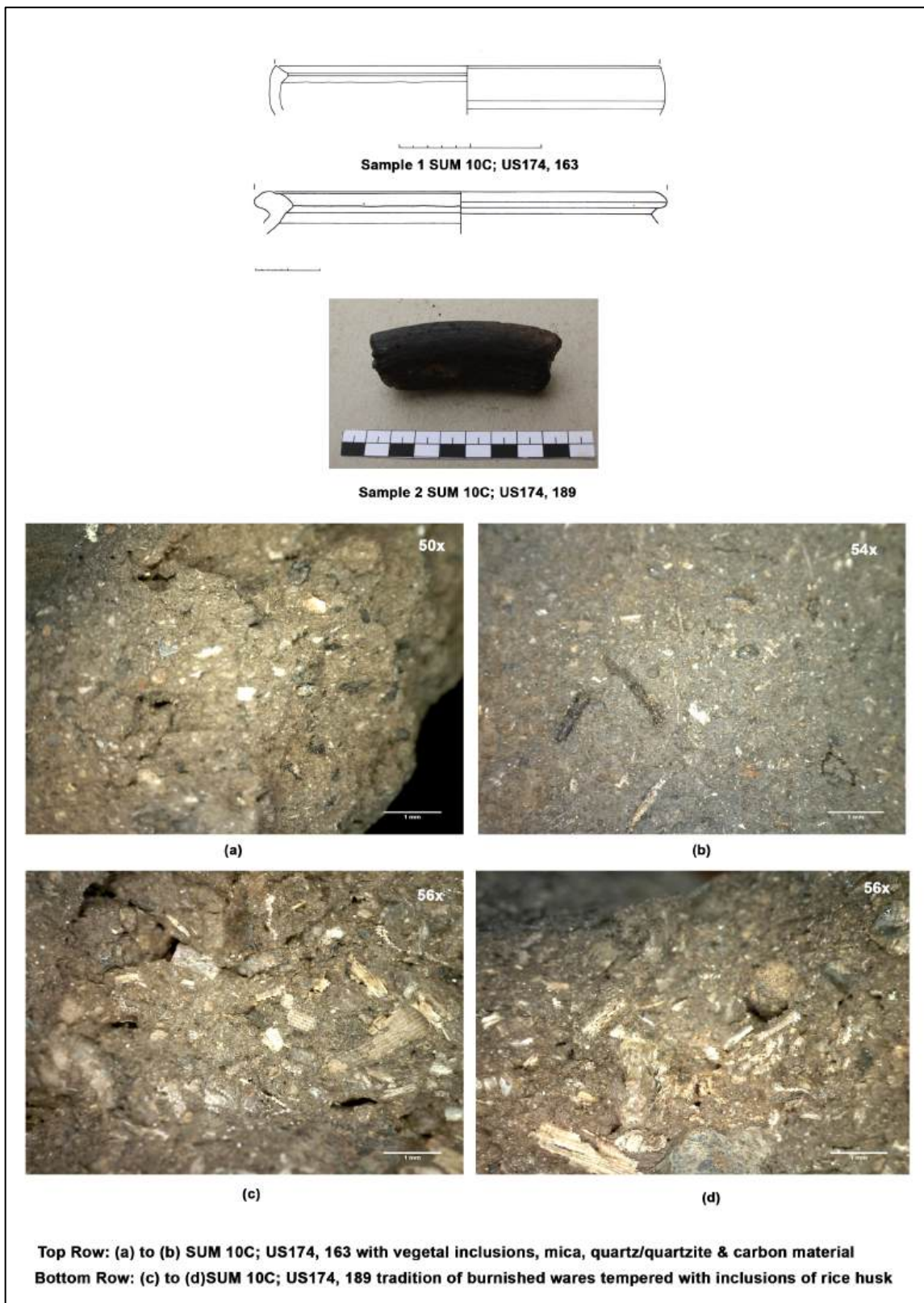


Figure 122. Black Burnished Ware Fabric from Khor Rori (Sumhuram) (scale = 1mm)



Figure 123. Shell tempered Ware Fabric from Khor Rori (Sumhuram) (scale = 1mm)

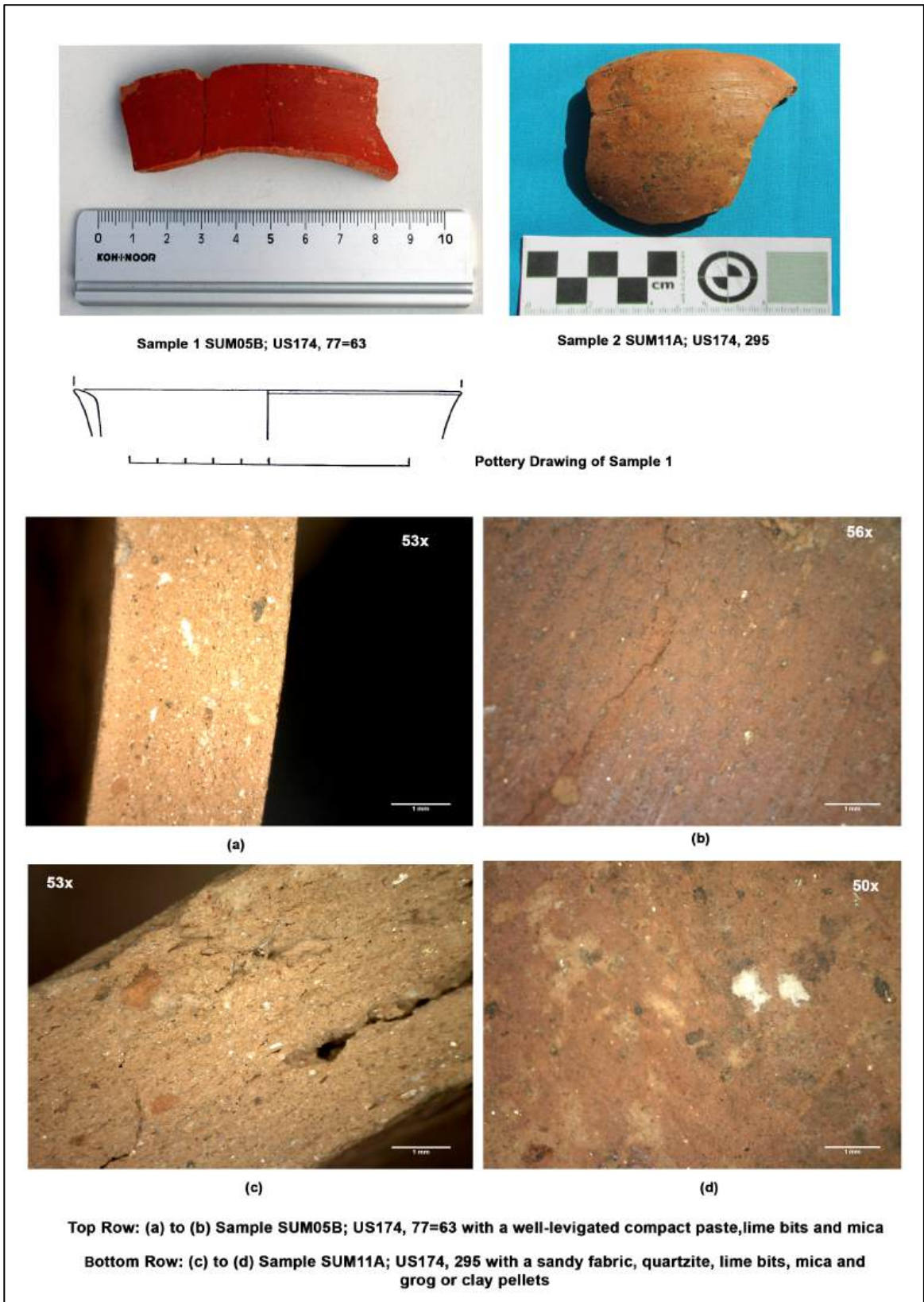
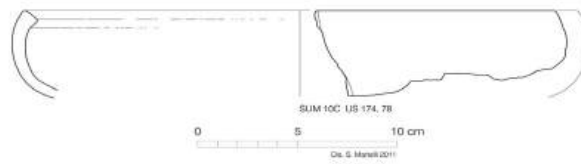
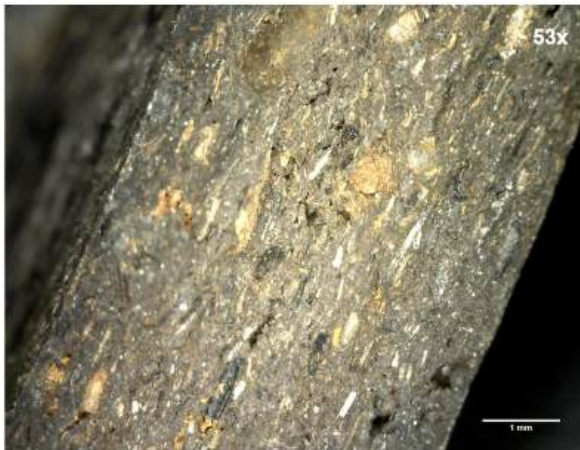


Figure 124. Fine Indian Ware Fabric from Khor Rori (Sumhuram) (scale = 1mm)



Sample SUM10C; US174, 78



**BRW Sample SUM10C; US174, 78 with sand, mica plant/vegetal temper and organic yellow inclusions .
Surface slipped and burnished**

Figure. 125 Black-and-Red Ware Fabric from Khor Rori (Sumhuram) (scale = 1mm)

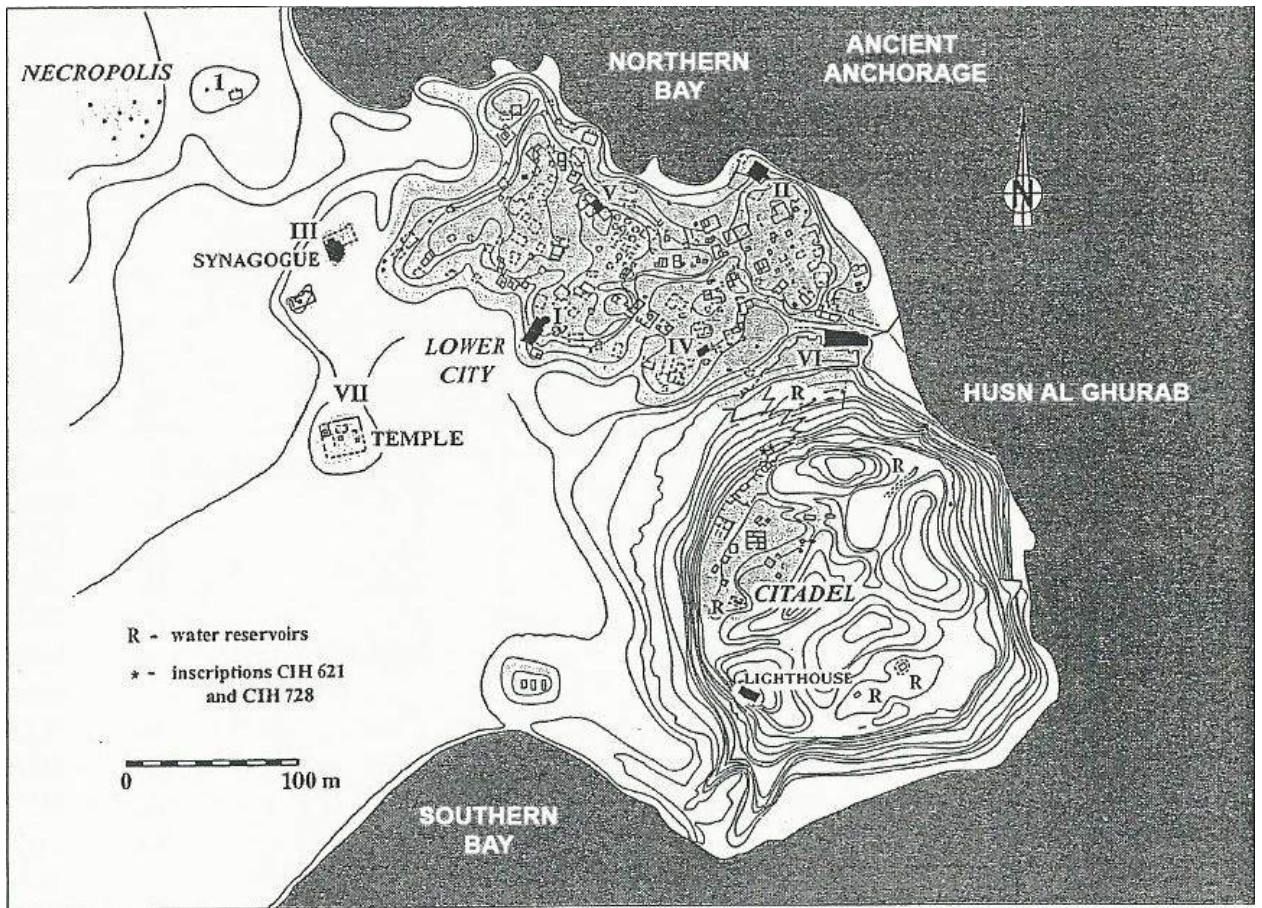


Figure 126. Bi'r Ali Settlement (ancient Qana). Sketch plan: Areas I-VII; I Burial Structure (after Sedov 2007: Fig. 4.2)

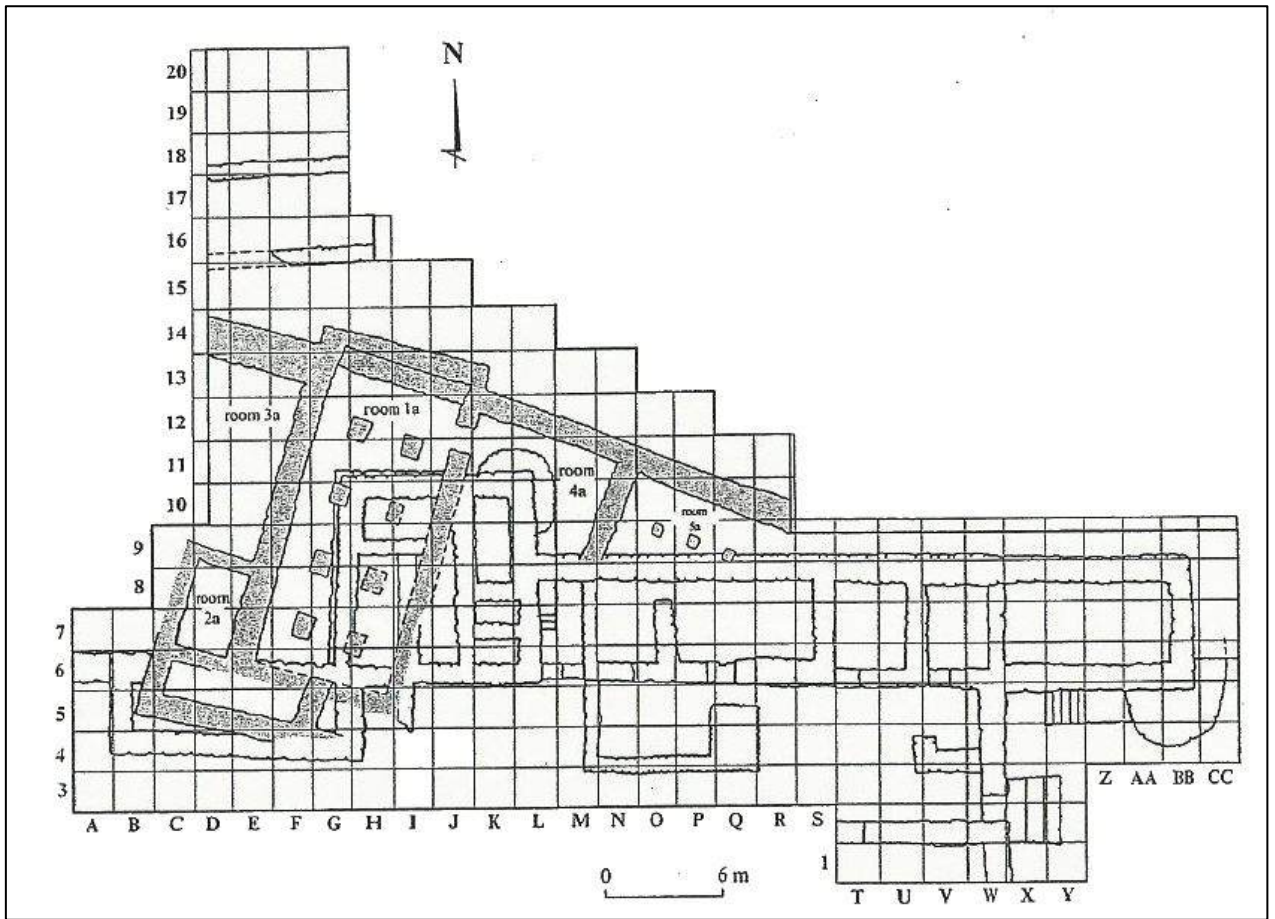


Figure 127.Bi'r Ali Settlement (ancient Qana). Area VI, 'lower' (BA-I) period, plan of excavated structures (context of Indian pottery) (After Sedov 2007: Fig. 4.6)

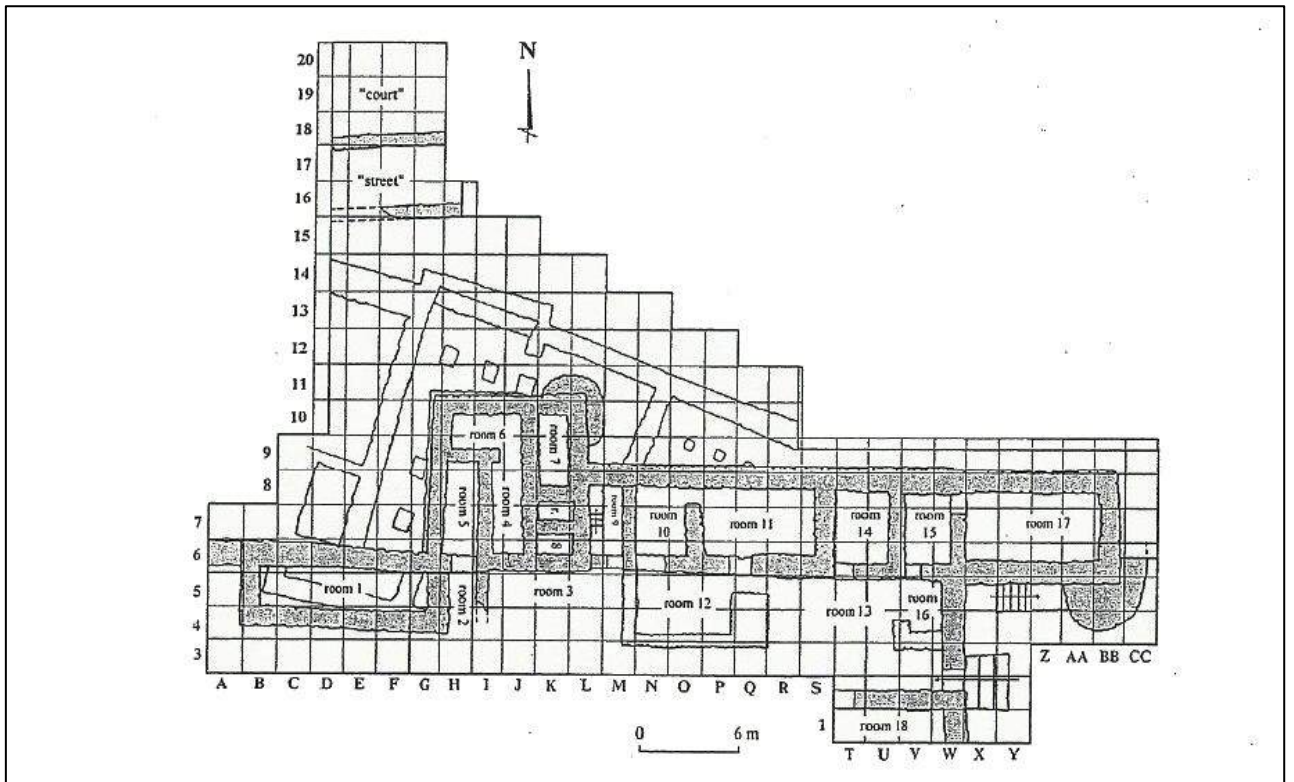


Figure 128. Bi'r Ali Settlement (ancient Qana). Area VI, 'middle' (BA-II) period, plan of excavated structures (context of Indian pottery) (After Sedov 2007: Fig. 4.14)

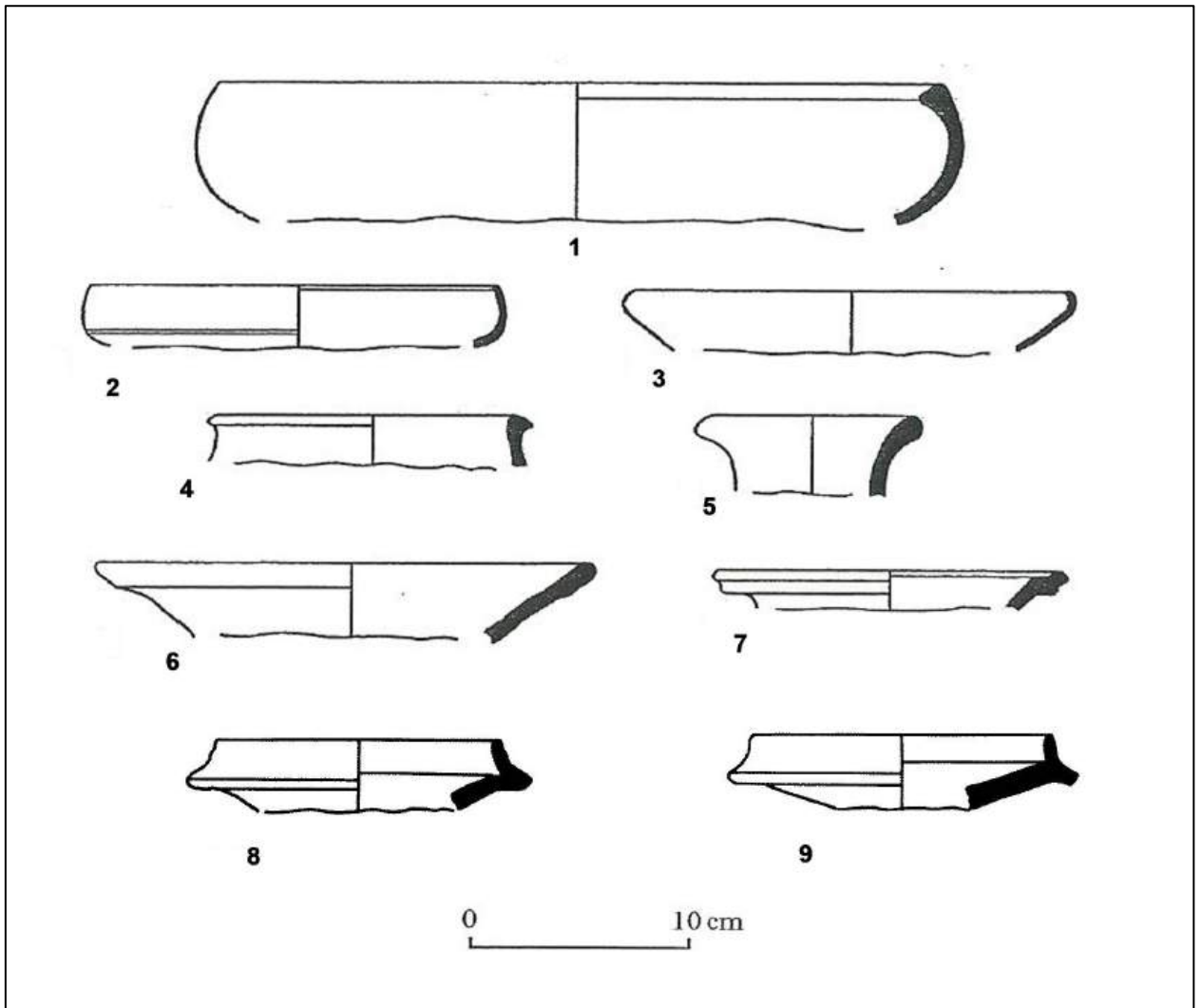
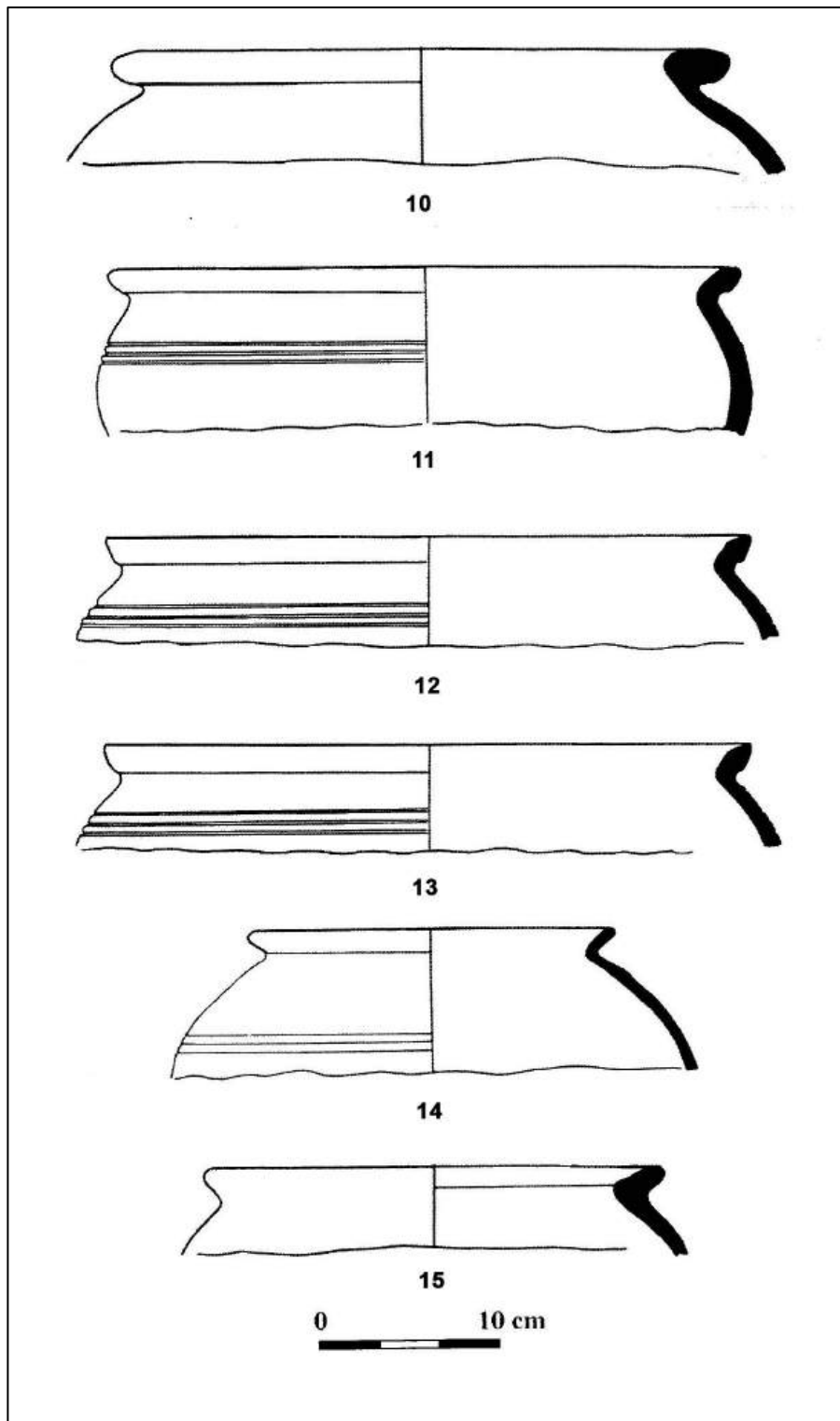


Figure 129. RPW and other fine wares from Qana 'lower' (BA-I) period (after Sedov 1996: Fig. 14, 2007: Fig. 4.11, Salles & Sedov 2010: Fig. 86)



**Figure 130. Cooking vessels from Qana 'lower' (BA-I) period
(after Salles & Sedov 2010: Fig. 92)**

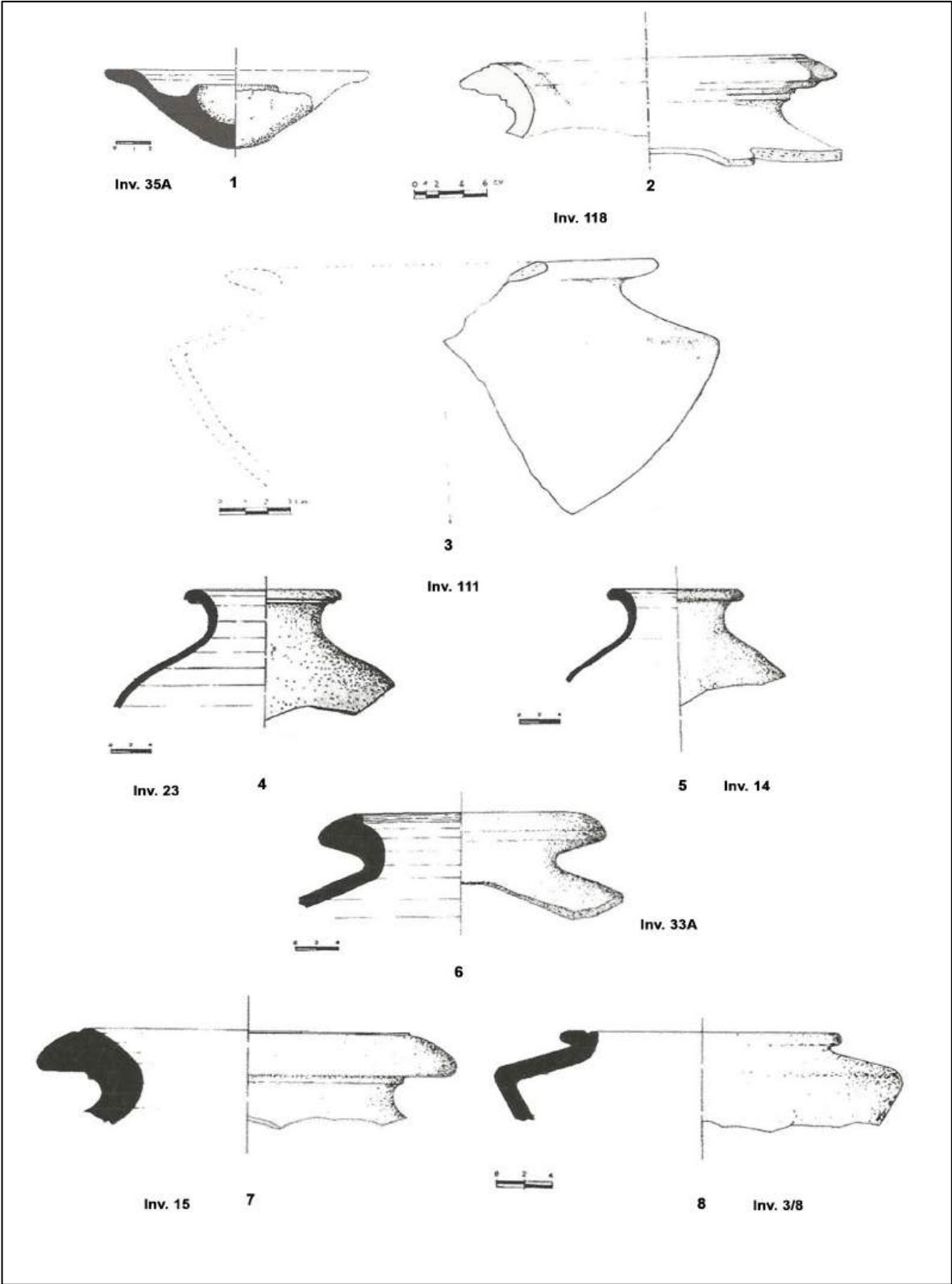
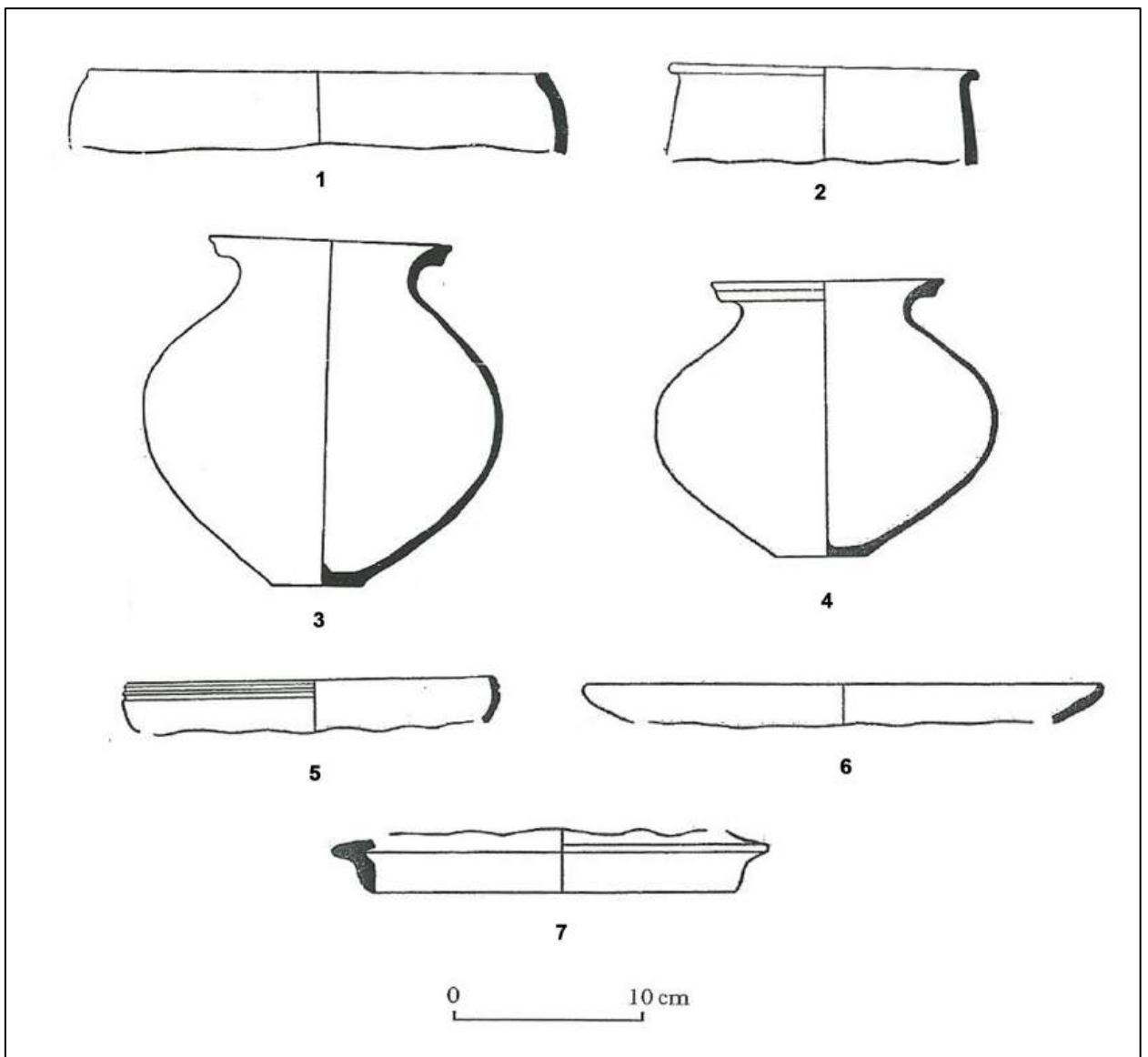


Figure 131. Indian pottery from underwater surveys of Qana (after David & Petriaggi 1998; Davide et. al 2004)



**Figure 132. RPW and other Indian wares from Qana 'middle' (BA-II) period
(after Sedov 1996: Fig. 6, 2007: Fig. 4.18)**

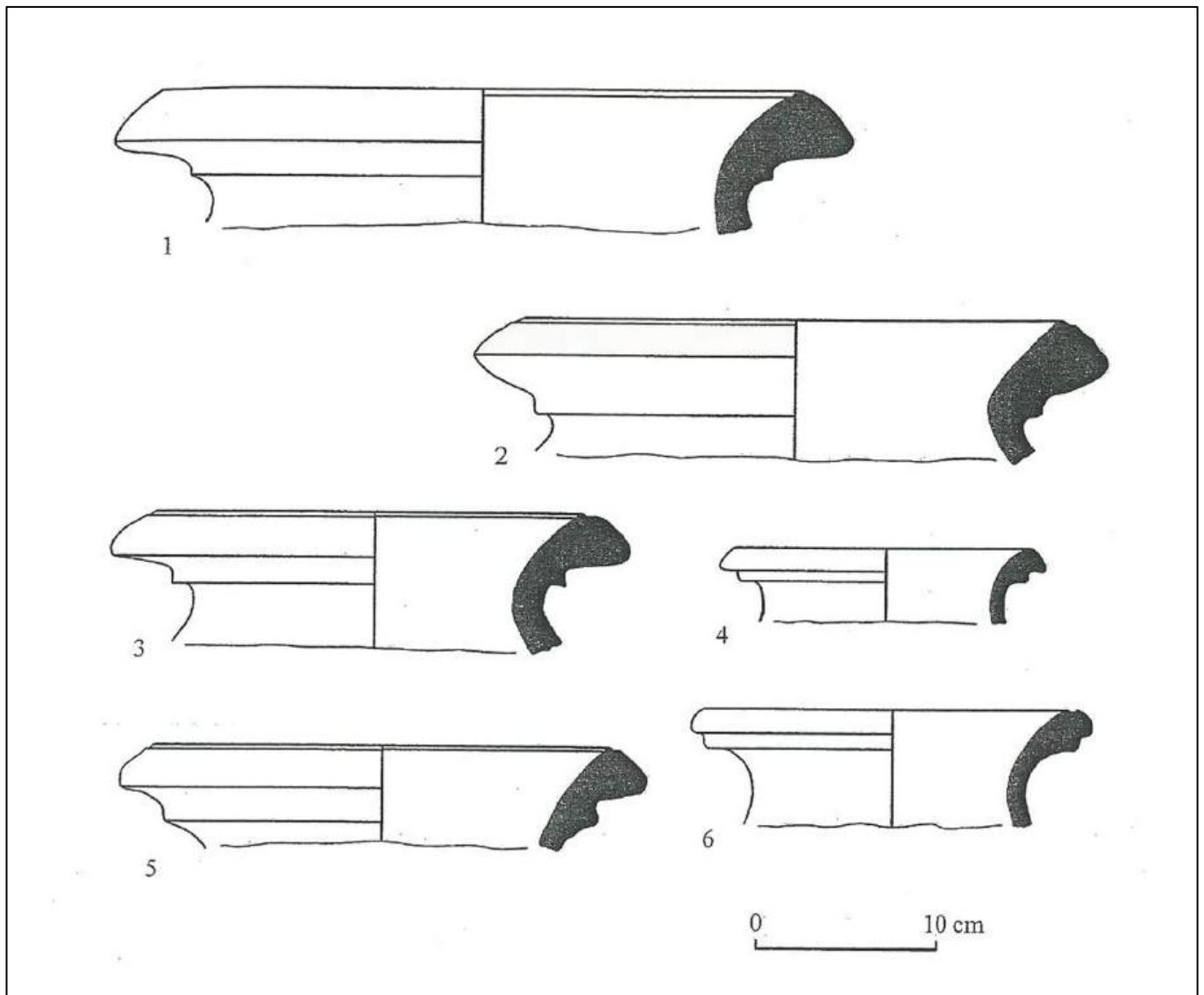
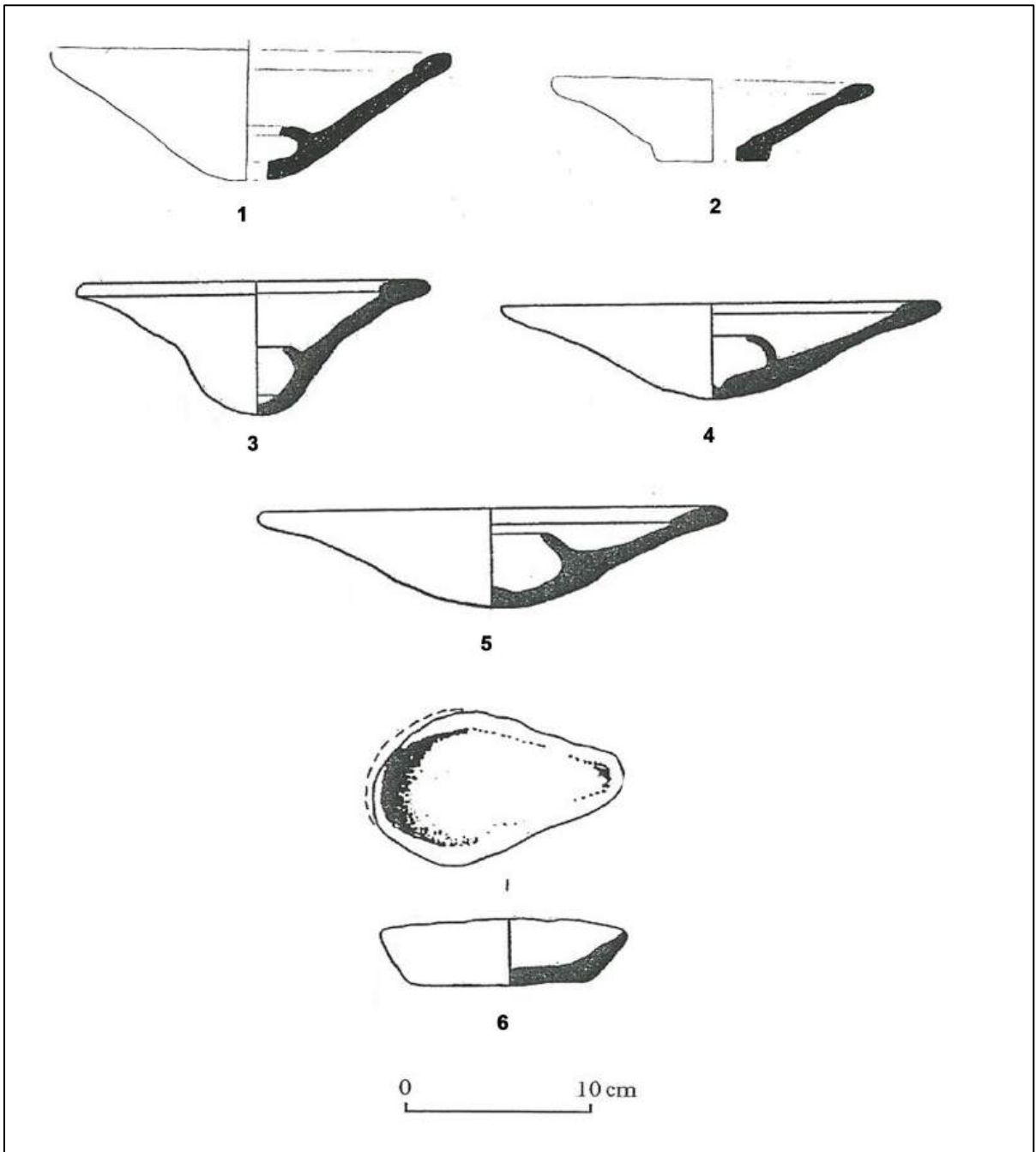


Figure 133. Indian Storage jars (handle-less amphorae) from Qana 'middle' (BA-II) period (after Sedov 1996: Fig. 5)



**Figure 134. Indian oil lamps from Qana 'middle' (BA-II period)
(after Sedov 1996: Fig. 6, 2007: Fig. 4.18)**

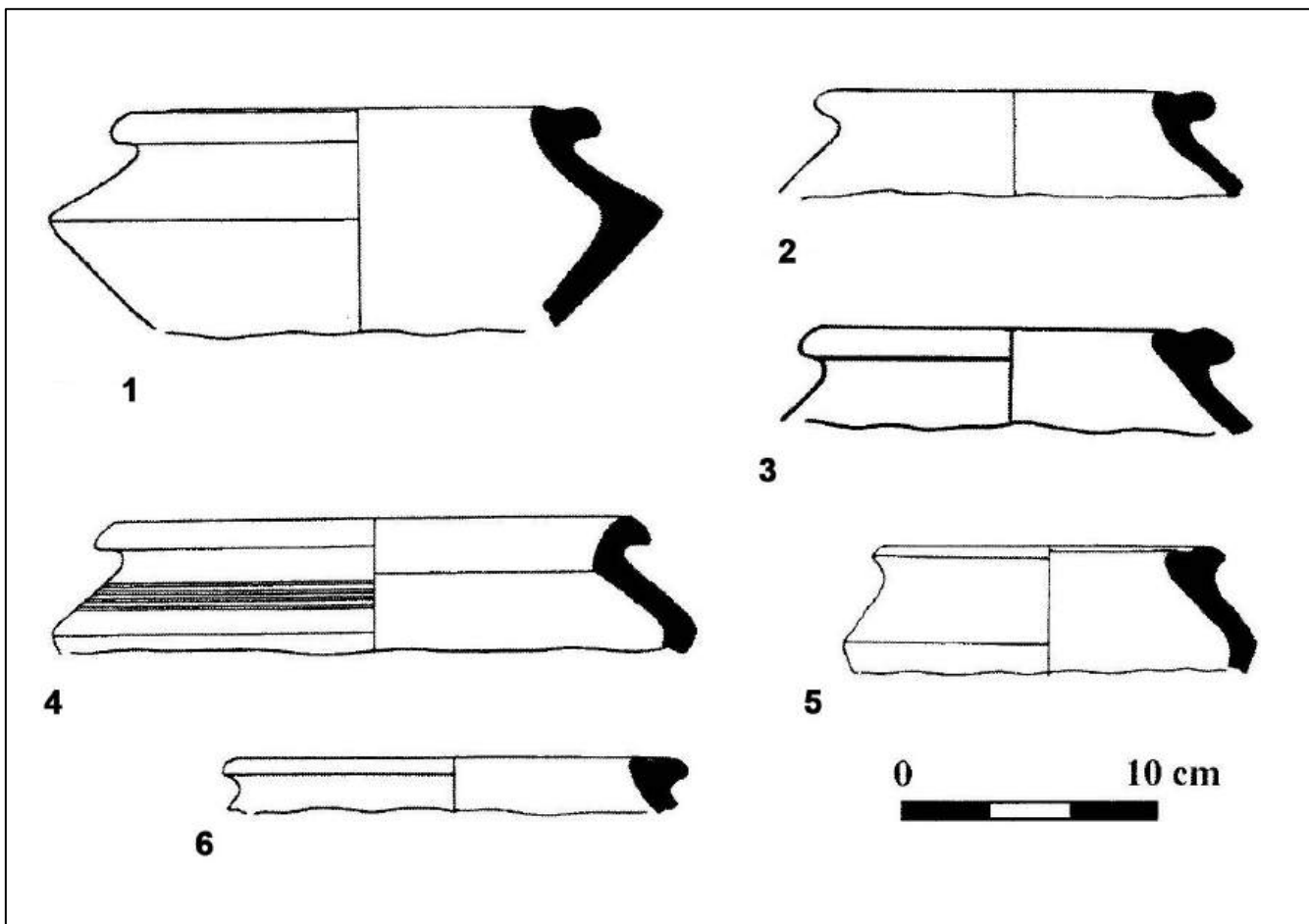


Figure 135. Indian cooking vessels (handi-type) from Qana 'middle' (BA-II) period
(after Salles & Sedov 2010: Fig. 114)

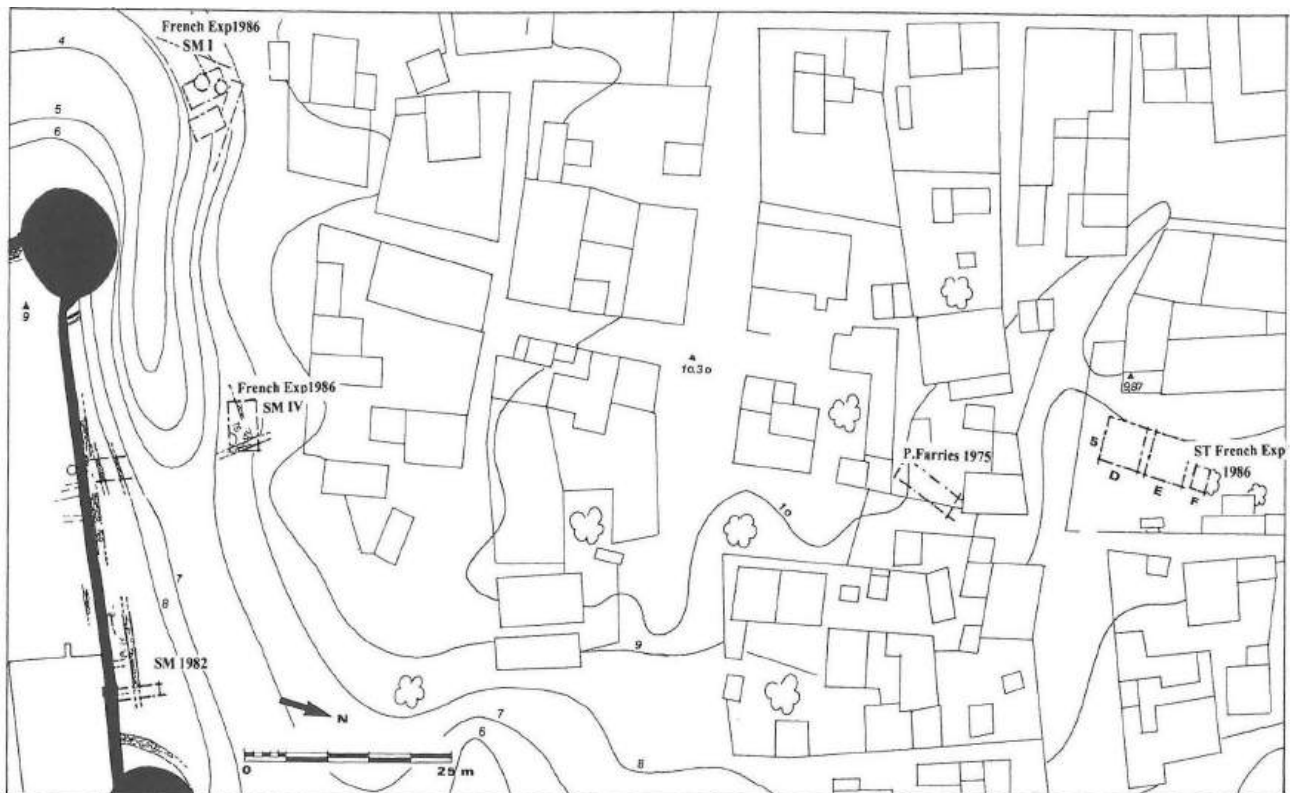
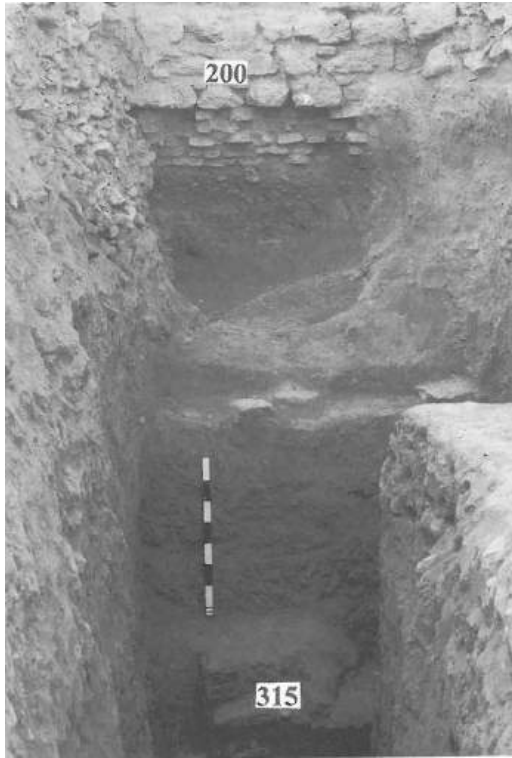


Figure 136. Location of excavations in Suhar Town
 (P. Farries in 1975 and French expedition 1980-1986; Kervran 2004: Fig. 4)



Figure 137. Recent view of the French excavation sondages inside the fort compound in Suhar (Photo courtesy: Dr. Mark Beech)



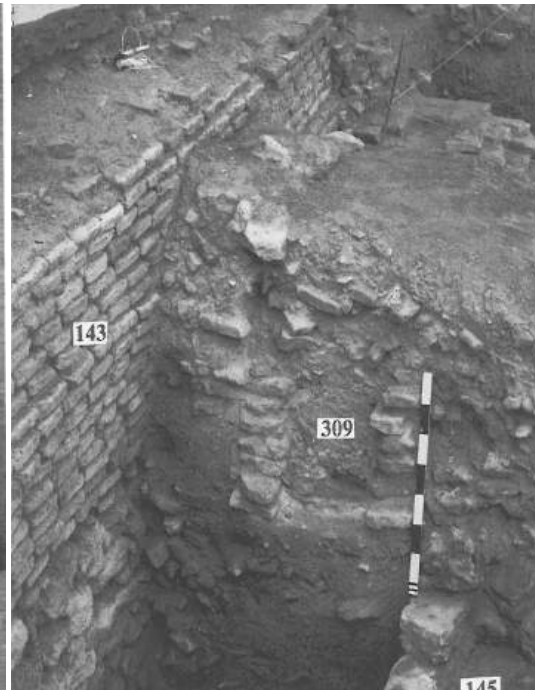
Suhar Moat 1982



Suhar Moat IV with wall 63

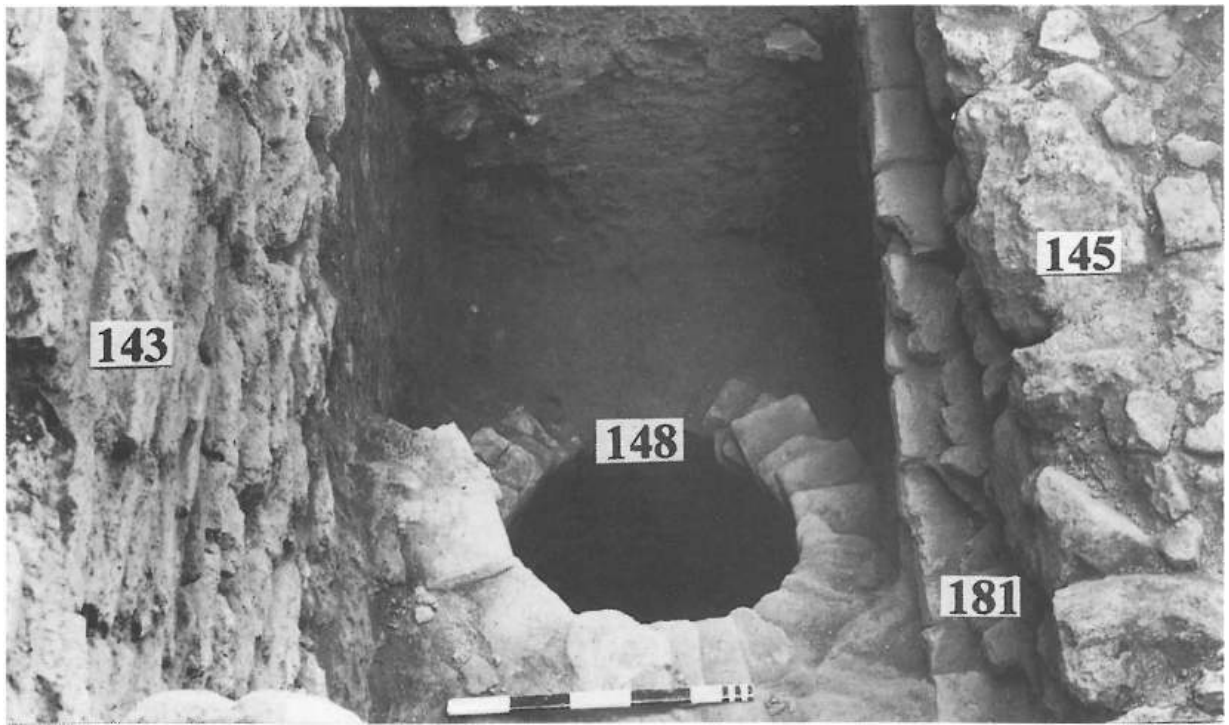


Sondage NW Wall outside fortress



Sondage NW Wall with oven 309

Figure 138. Photographic representation of Suhar Moat 1982, Moat IV and NW Wall sondage (with oven 309) (after Kervran 2004)

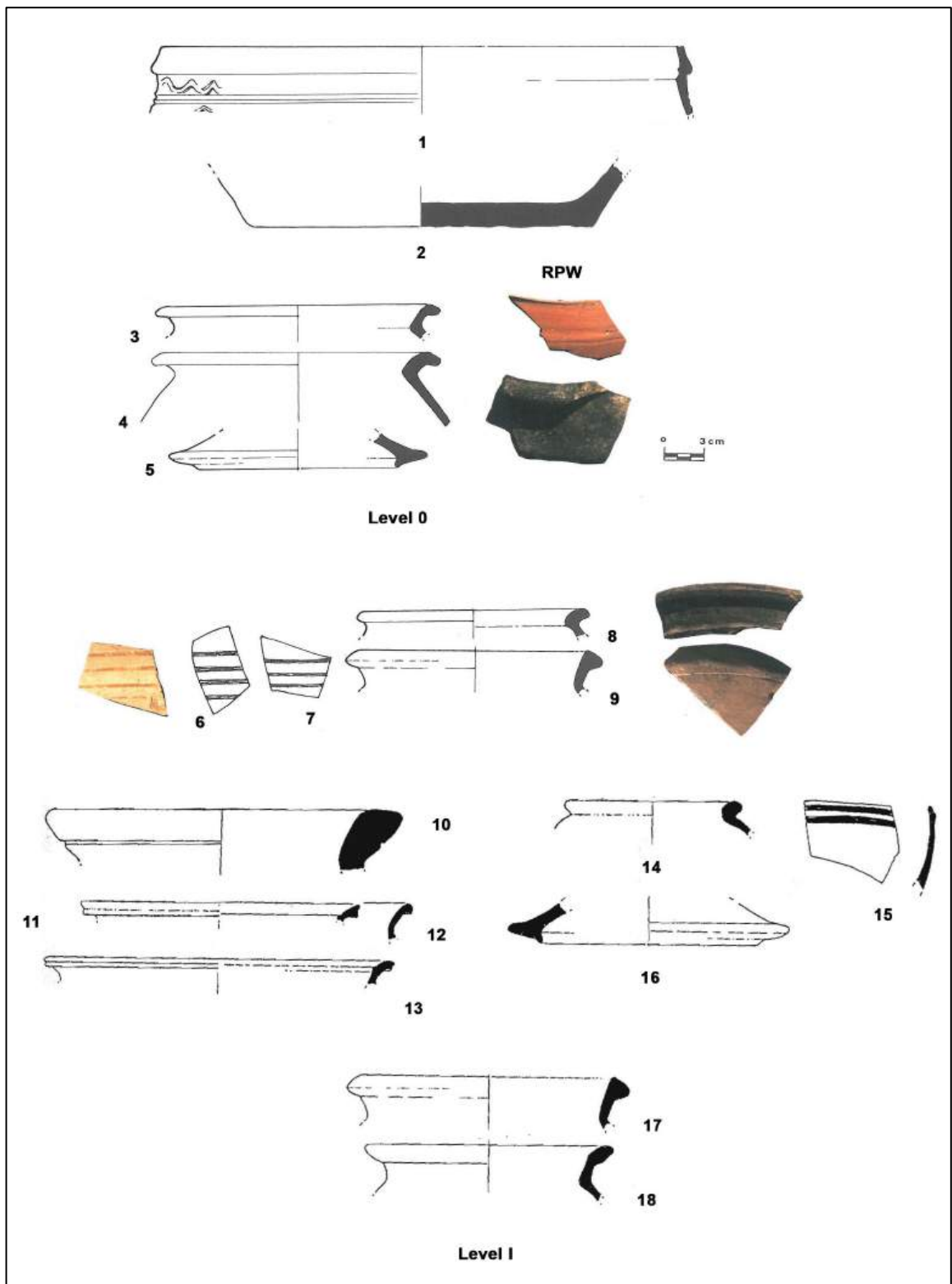


Sondage NW Wall with well 148

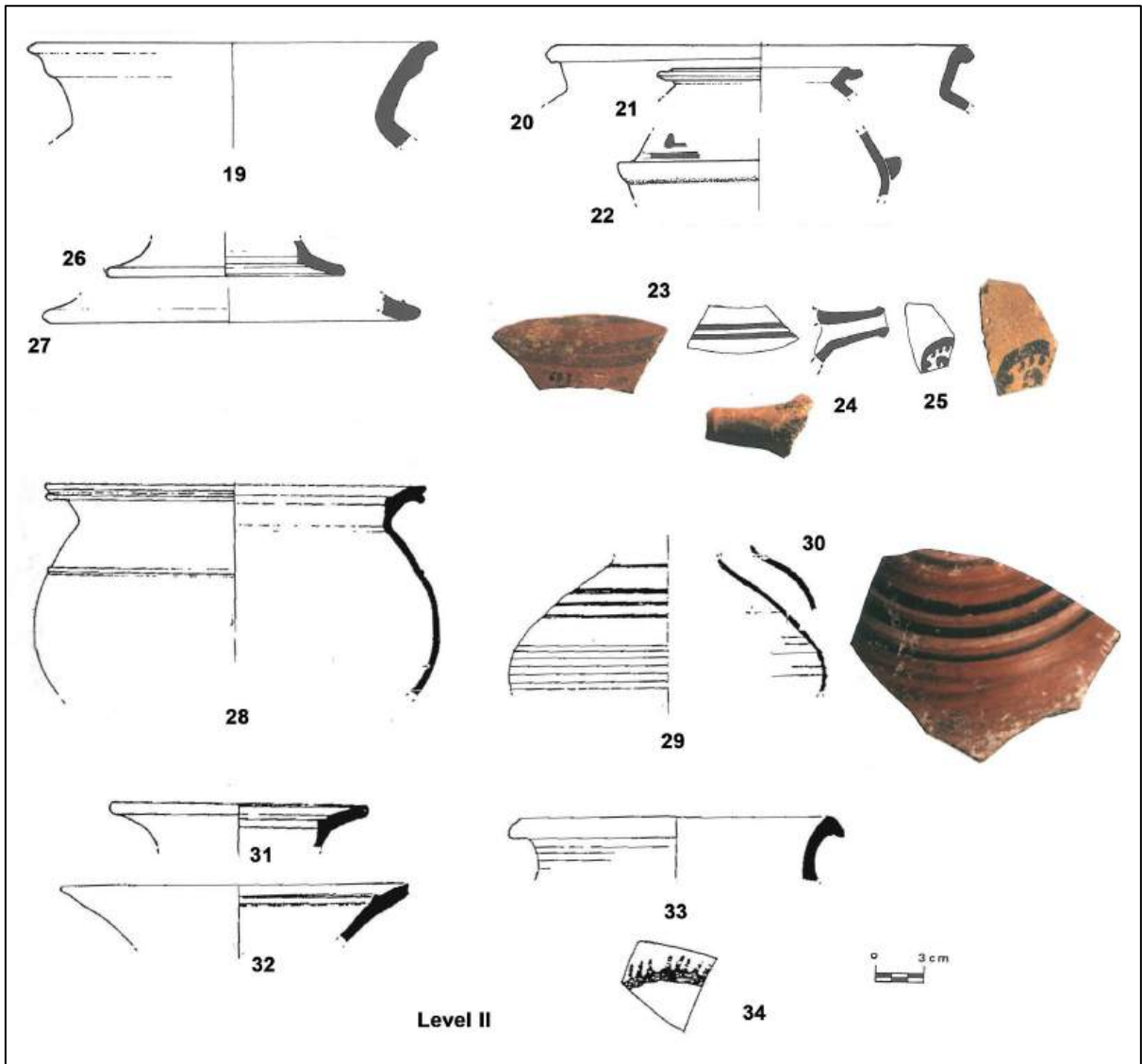


Suhar Town 1986 Level III

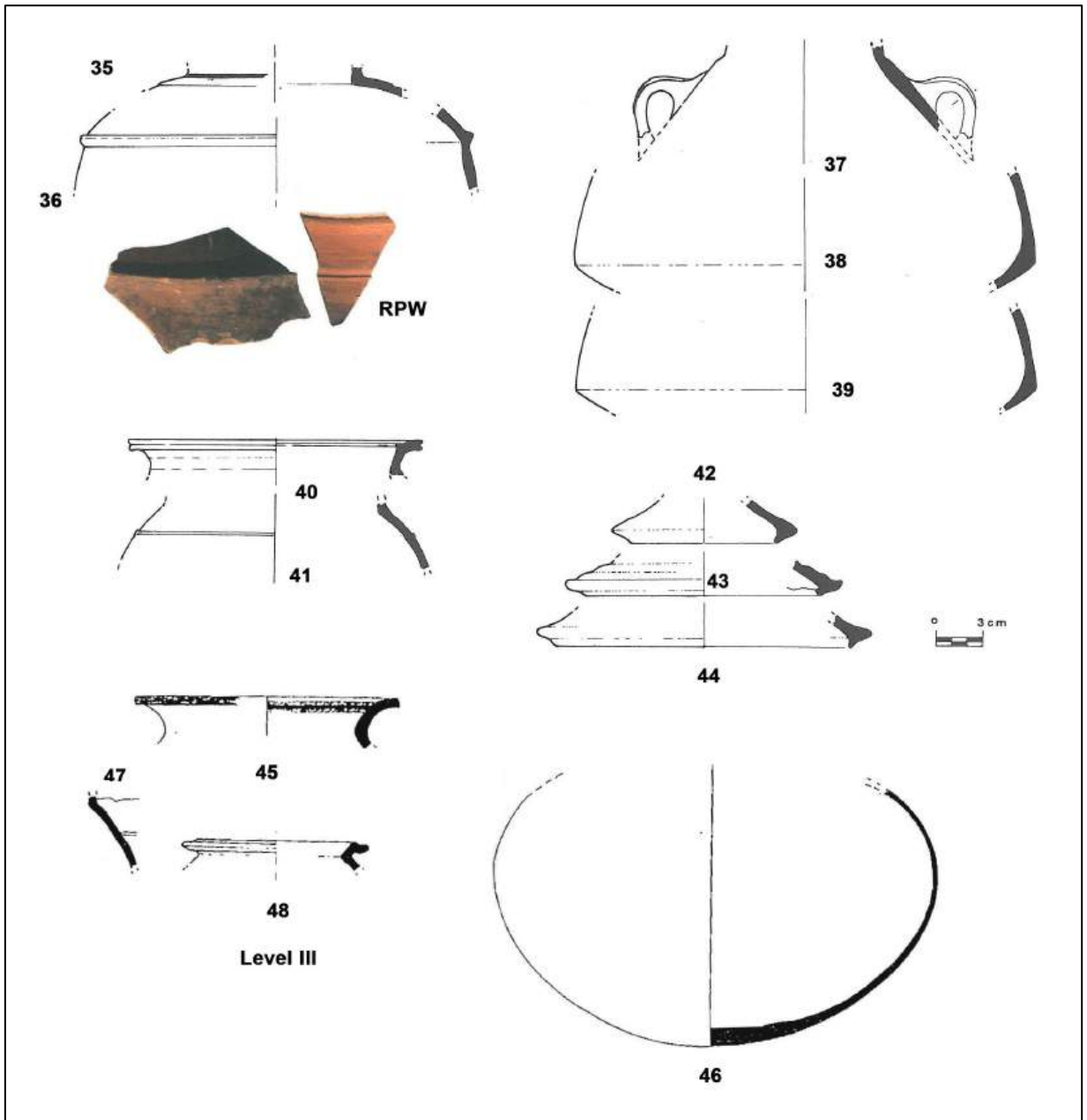
Figure 139. Photographic representation of NW Wall sondage with well 198 and Level III of Suhar Town 1986 sondage (after Kervran 2004)



**Figure 140. Indian pottery from Level 0 and Level I at Suhar
(after Kervran 2004: Fig. 8, 9, pl. 21, 1996: Fig. 3)**



**Figure 141. Indian pottery from Level II at Suhar
(after Kervran 1996: Fig. 3, 2004: Fig. 10)**



**Figure 142. Indian pottery from Suhar Level III sector ED5
(after Kervran 2004: Fig. 12, pl. 21, 1996: Fig. 4)**

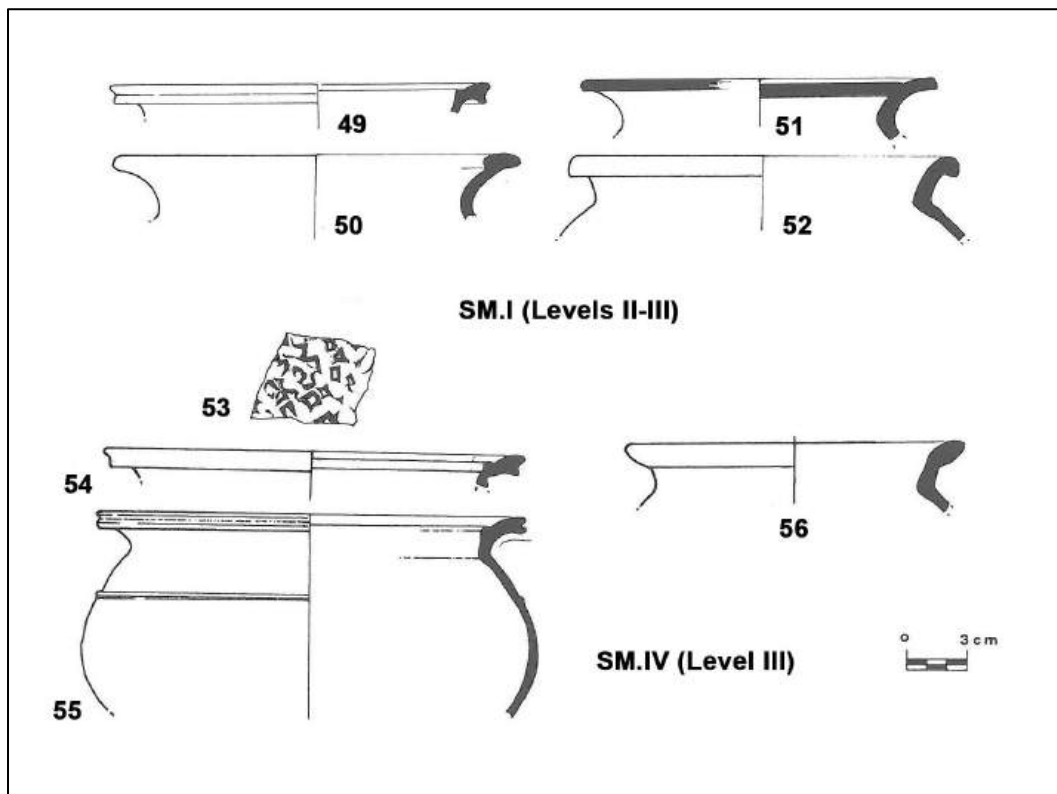


Figure 143. Indian pottery from Suhar Moat I & IV (Level II-III)
(after Kervran 2004: Fig. 17-18)

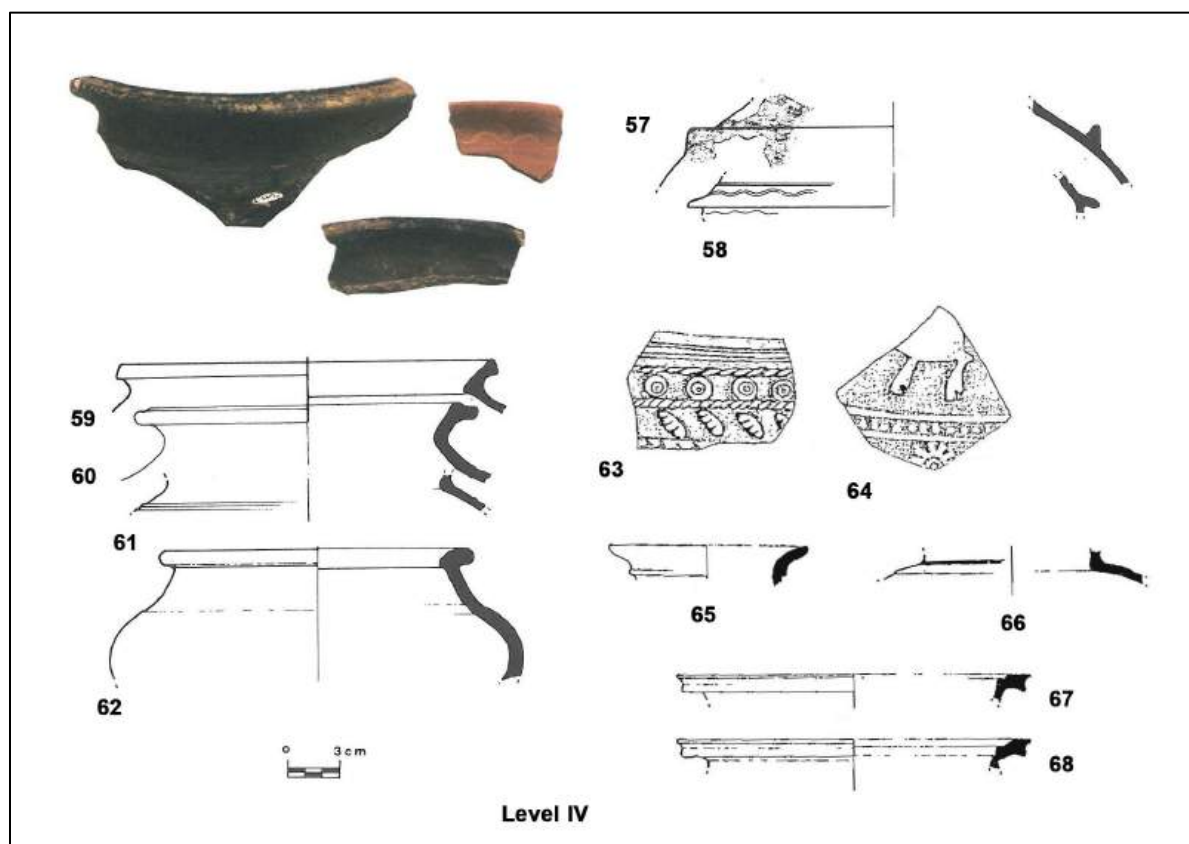
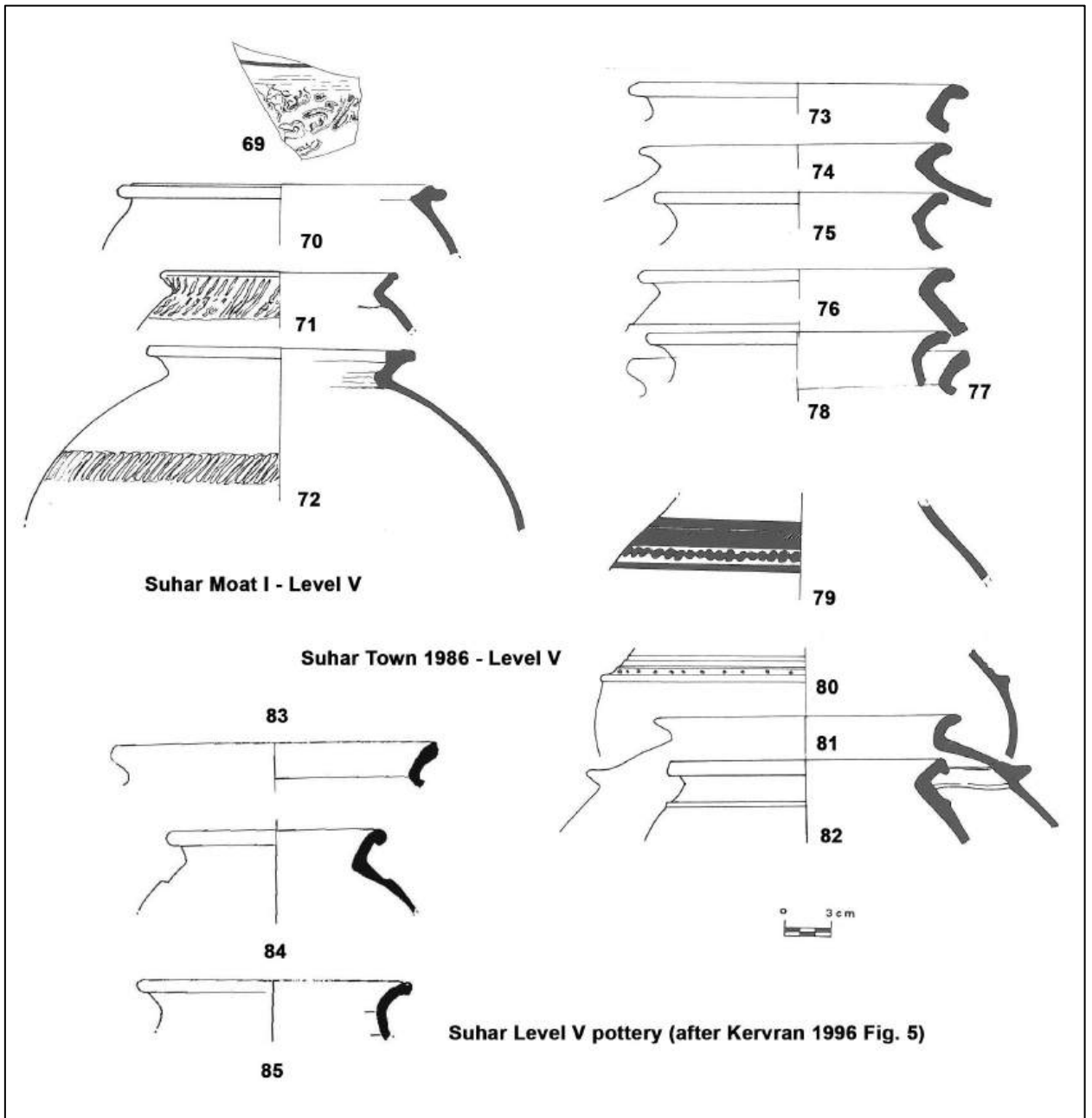


Figure 144. Indian pottery from Suhar Level IV
(after Kervran 2004: Fig. 14, pl. 21, 1996: Fig. 4)



**Figure 145. Indian pottery from Level V at Suhar
(after Kervran 2004: Fig. 21-26, 1996: Fig. 5)**

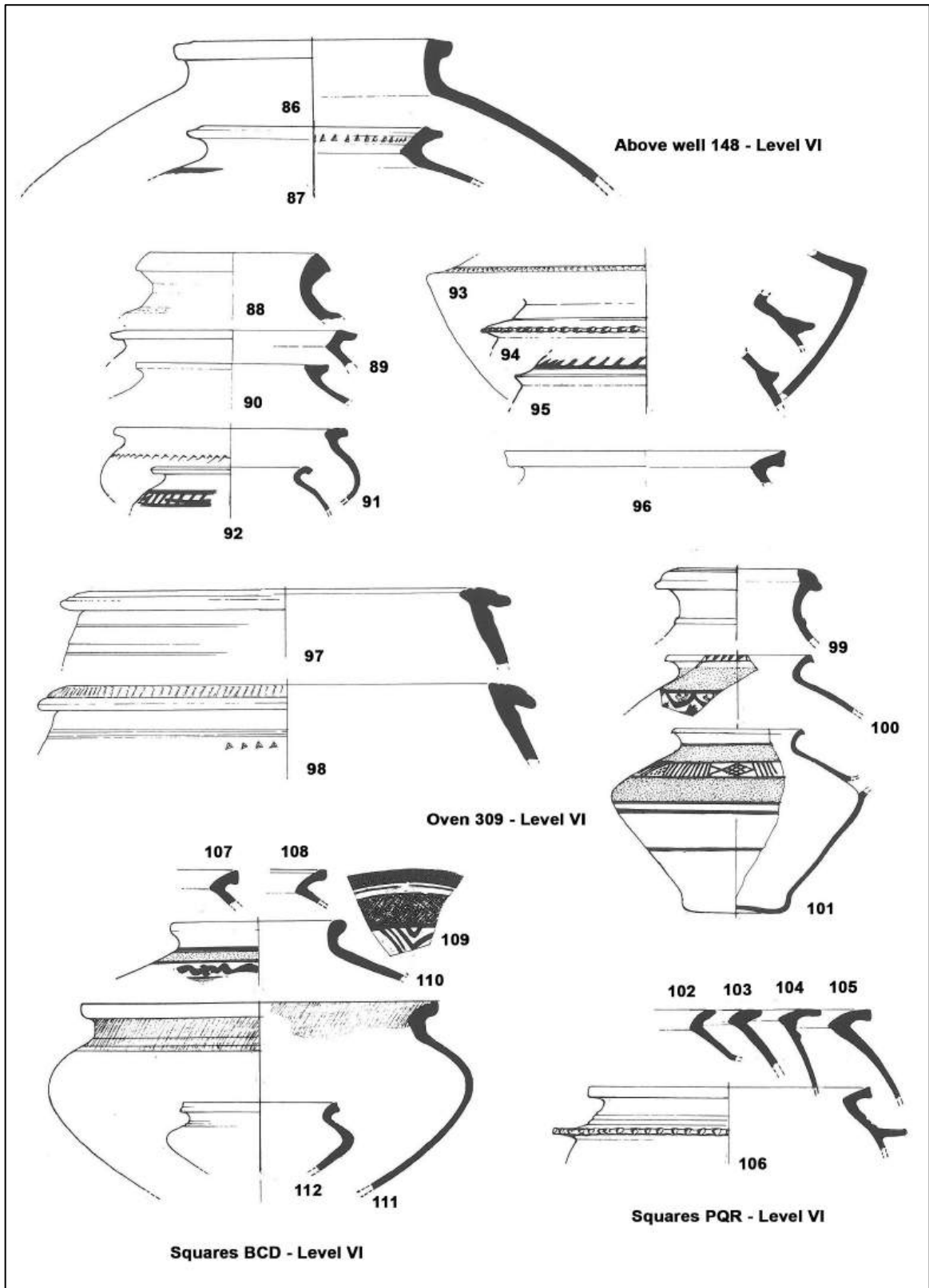


Figure 146a. Indian pottery from Level VI at Suhar (after Kervran 2004: Fig. 29-36)

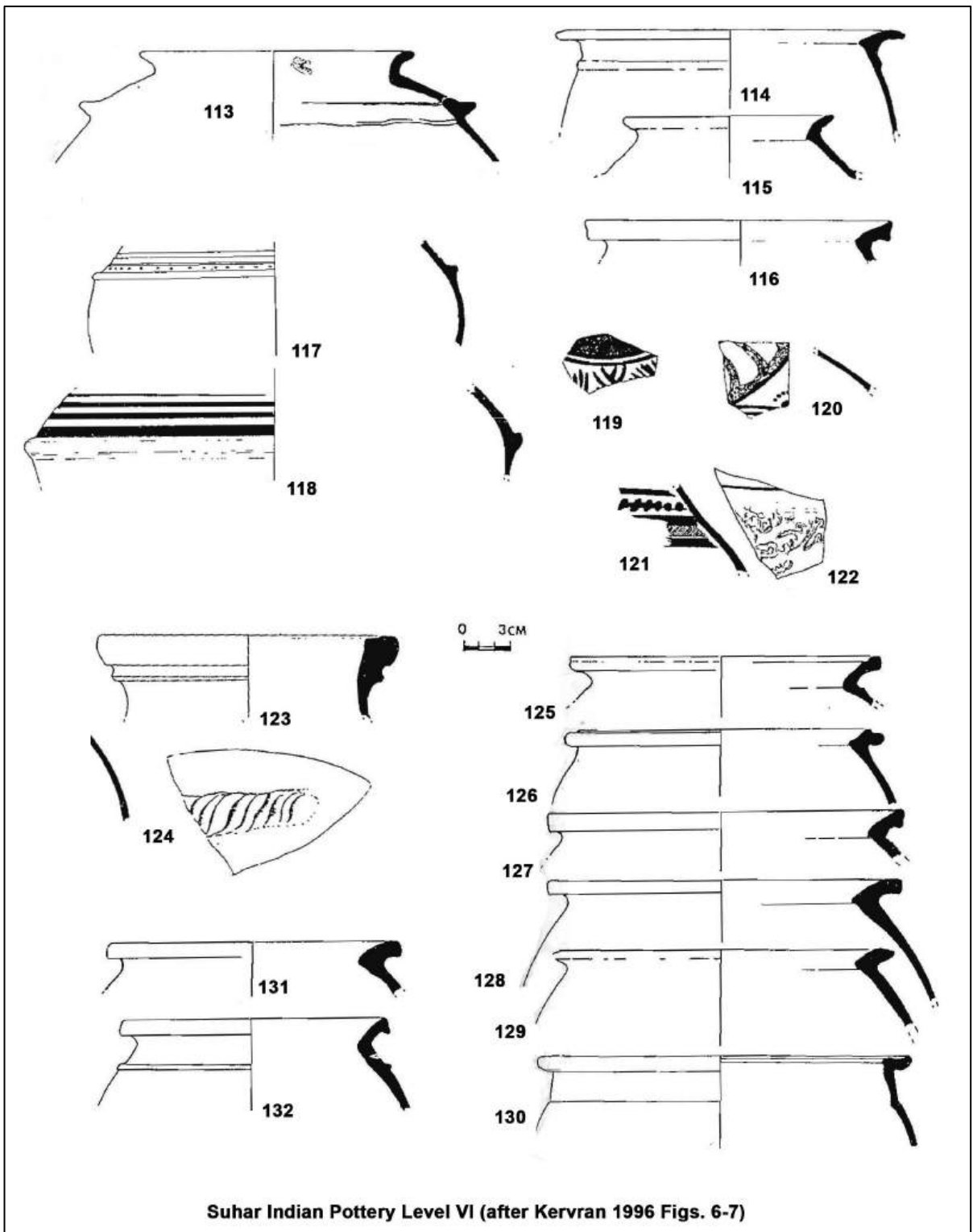


Figure146b. Indian pottery from Level VI at Suhar (after Kervran 1996: Fig. 6-7).

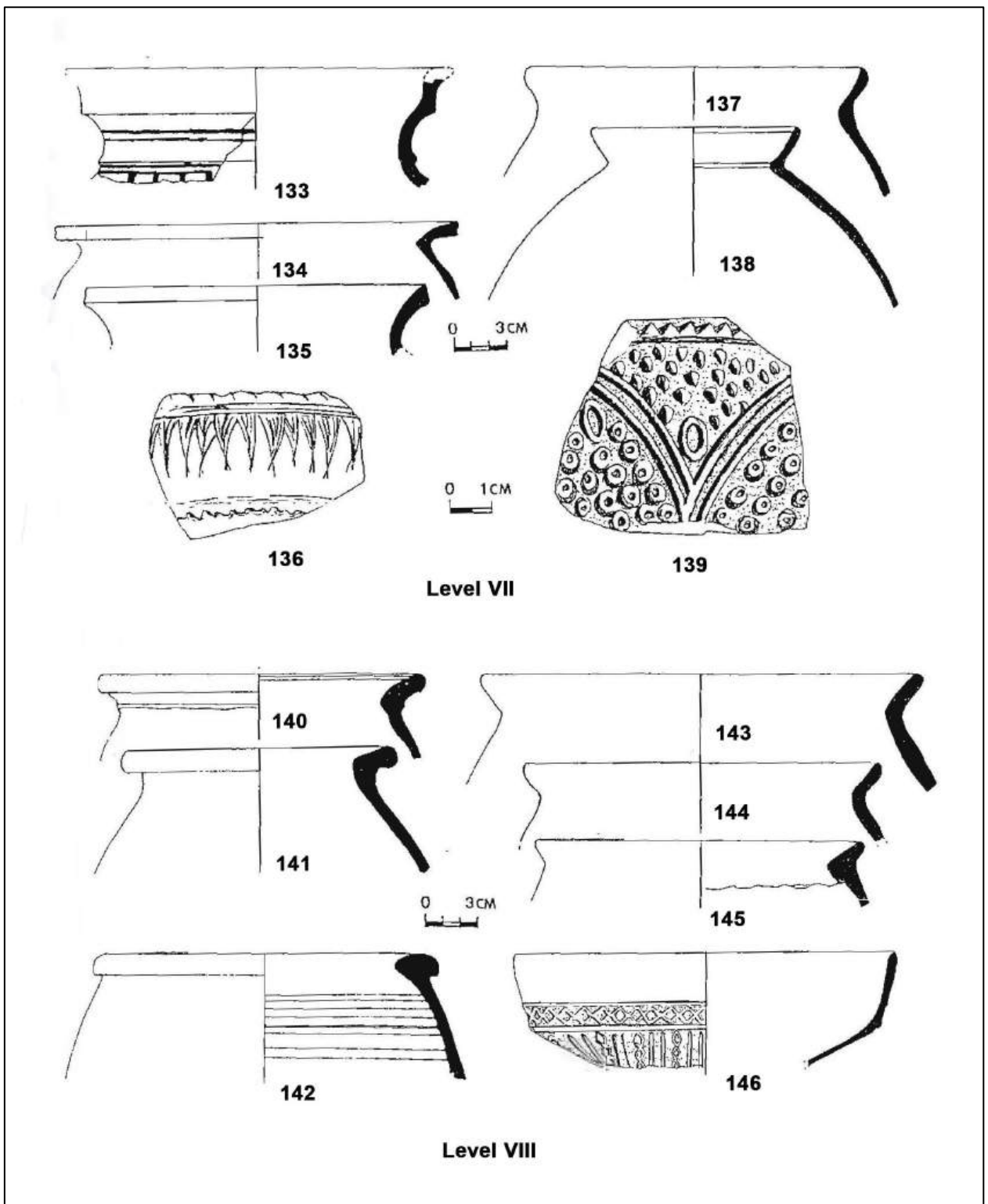


Figure 147. Indian pottery from Levels VII and VIII at Suhar (after Kervran 1996: Fig. 8a)

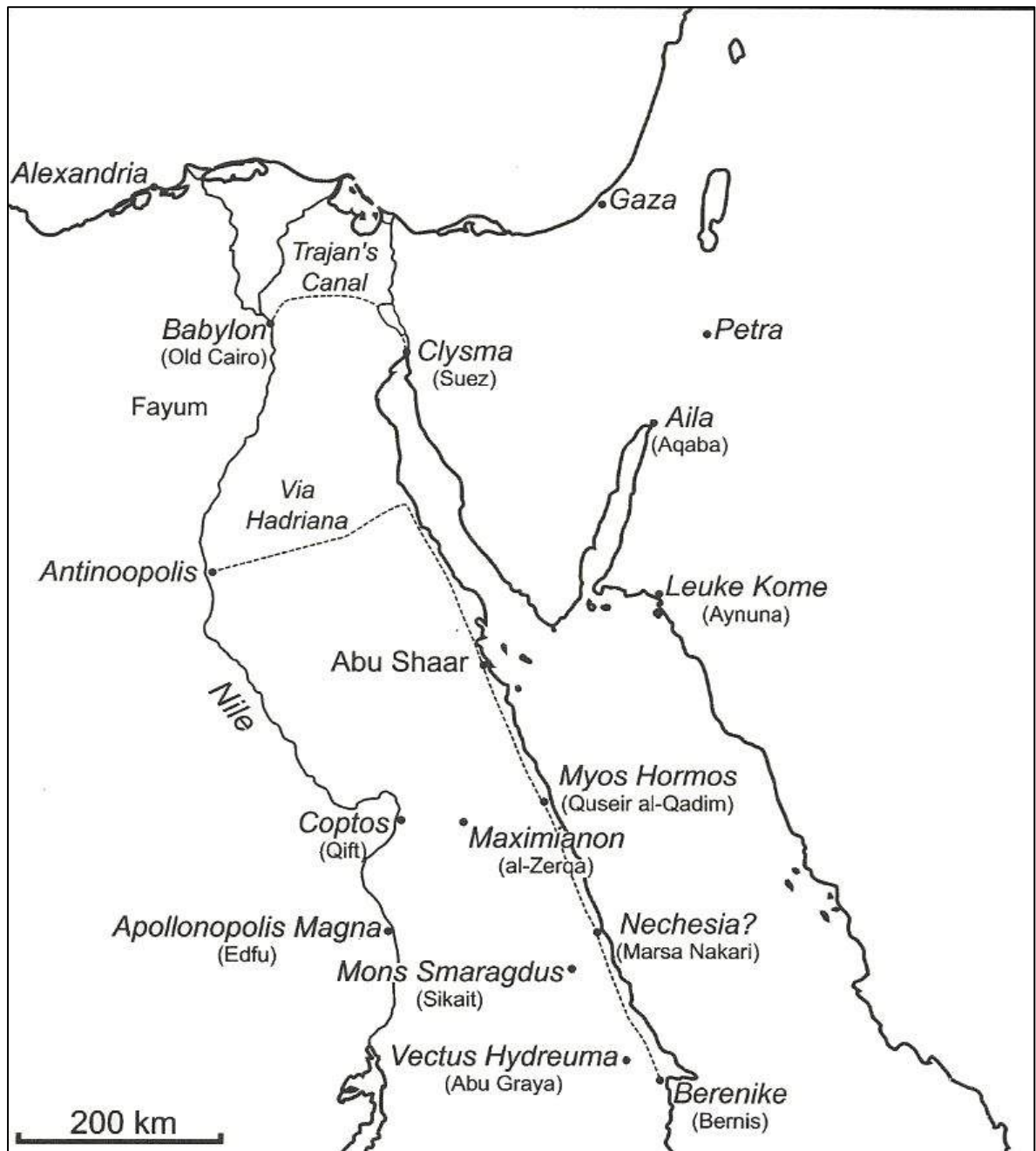


Figure 148. Map of the Roman Red Sea Region (after Tomber 2008: Fig. 12)

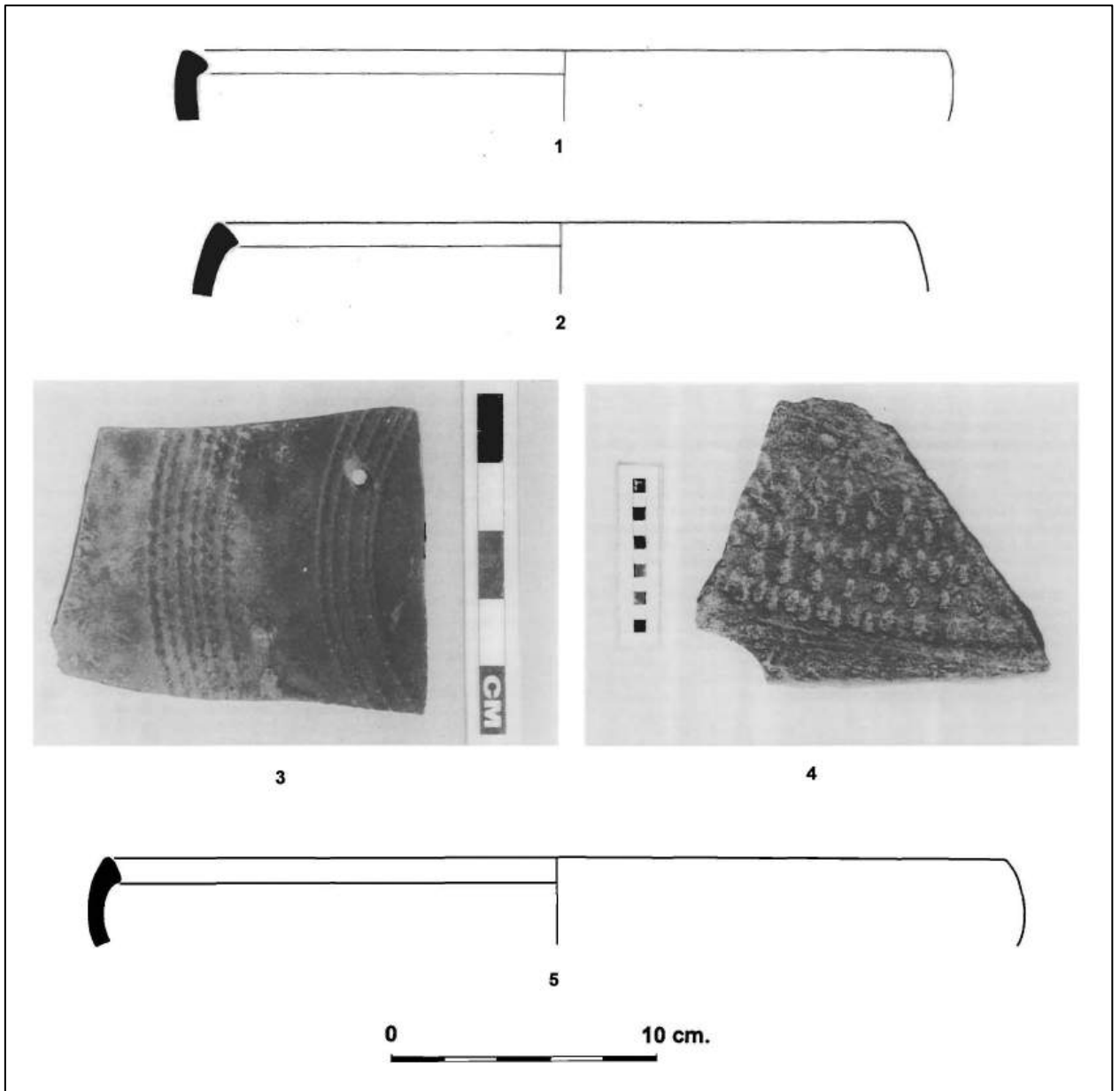


Figure 149. Rouletted Ware (Wheeler Type 1) from Berenike (after Begley & Tomber 1999: 163, Tomber & Begley 2000: Fig. 3-1, pl. 3-2, 3-3)

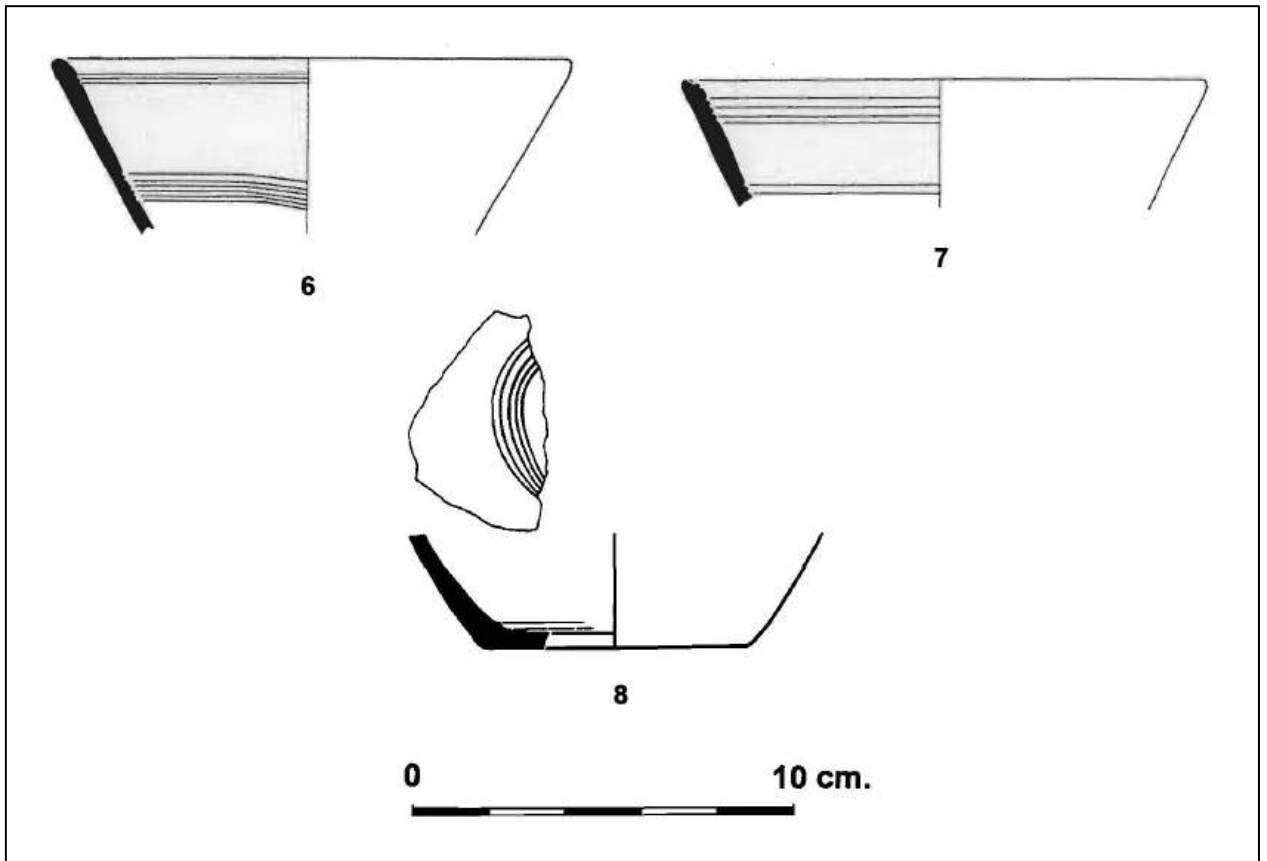


Figure 150. Wheeler Type 10 from Berenike (after Tomber & Begley 2000: Fig. 3-1)

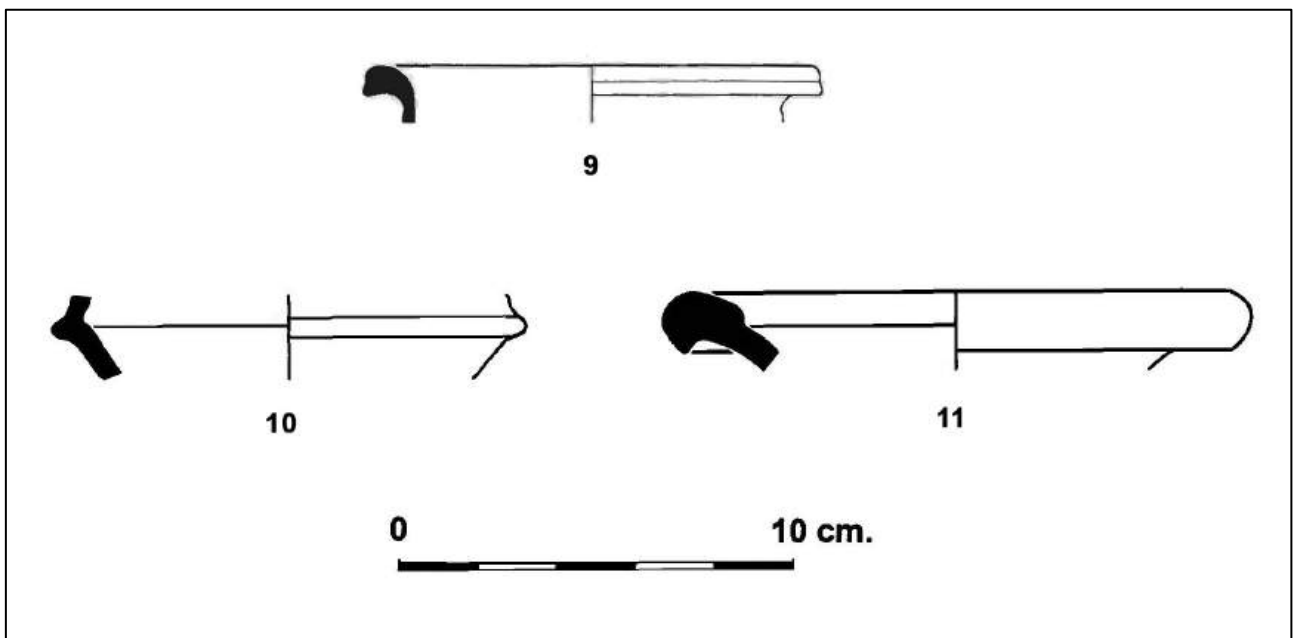
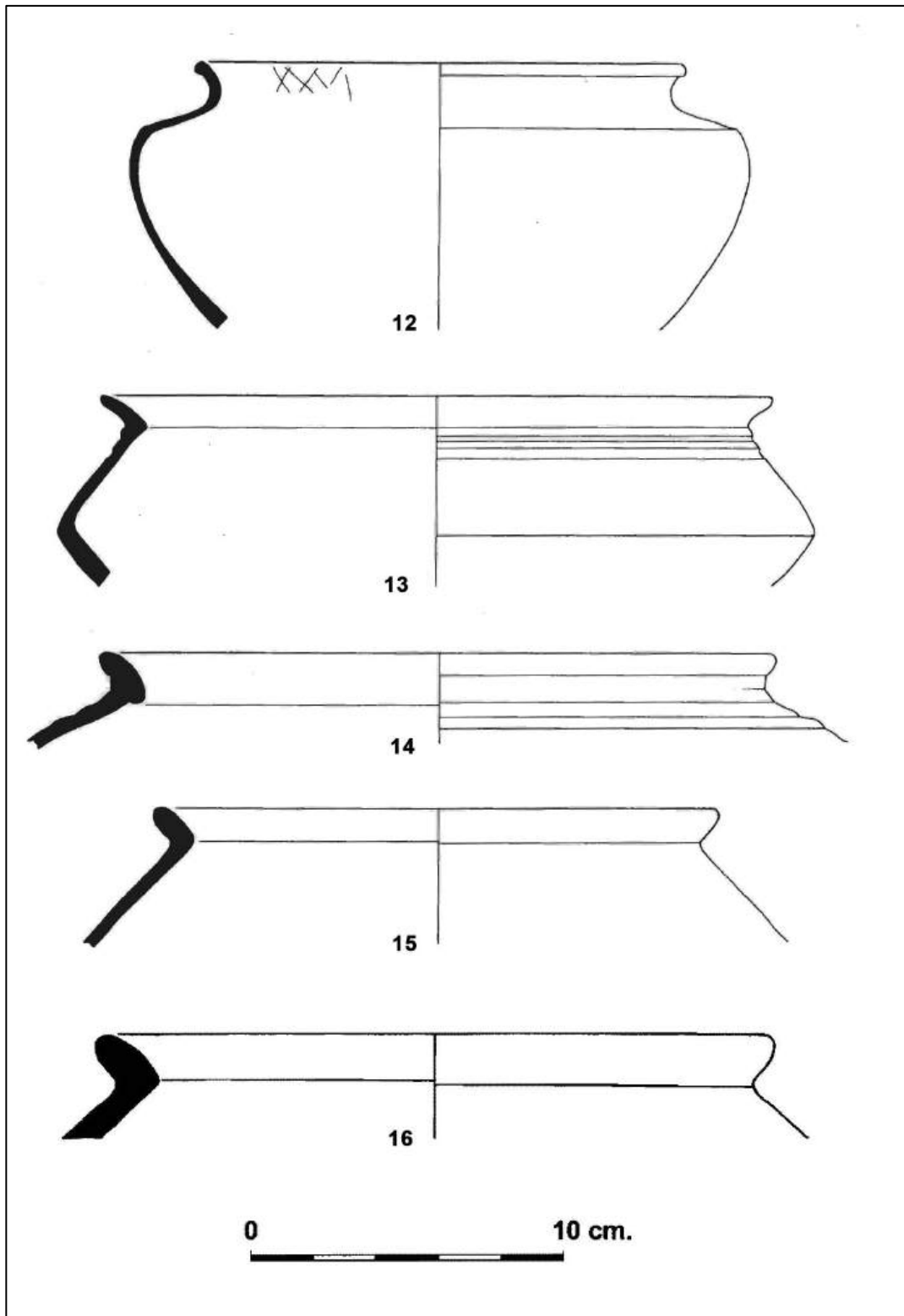


Figure 151. Closed vessels and miscellaneous tablewares from Berenike (after Begley & Tomber 1999: Fig. 6-3, Tomber & Begley 2000: Fig. 3-1)



**Figure 152. Carinated cooking pots (Wheeler Type 24) from Berenike
(after Begley & Tomber 1999)**

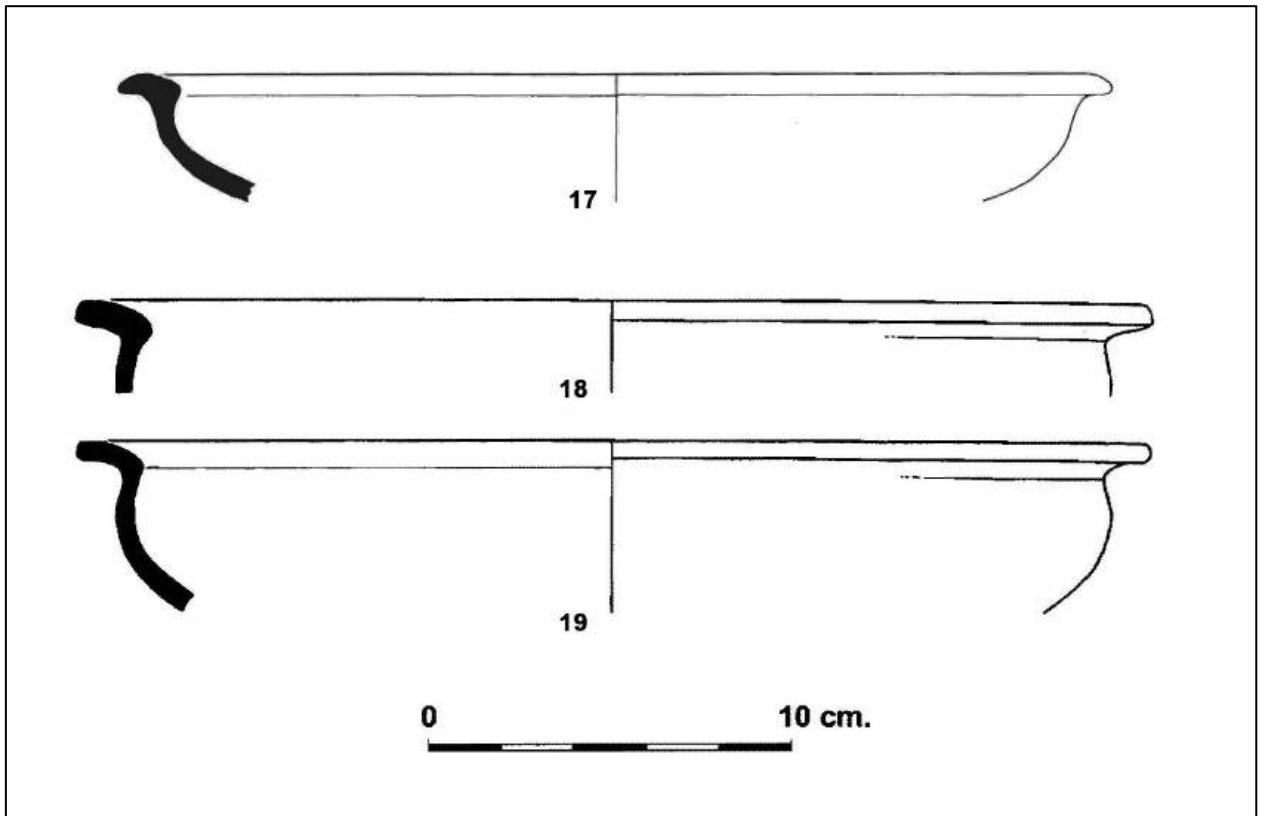


Figure 153. Casseroles with out-turned flat rims (Wheeler Type 25) from Berenike (after Begley & Tomber 1999: Fig. 6-5, Tomber & Begley 2000: Fig. 3-5)

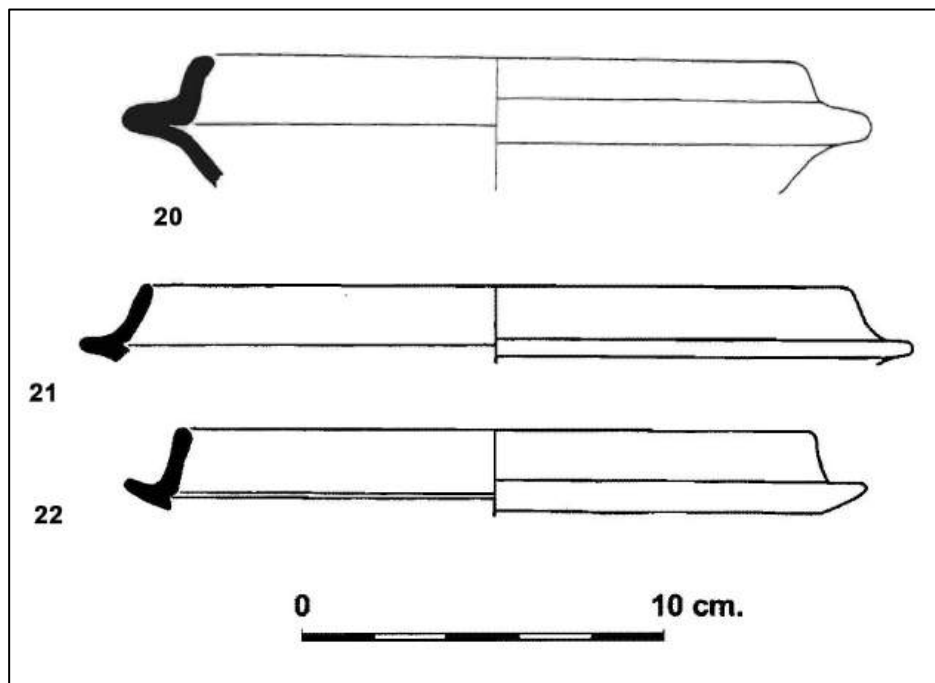


Figure 154. Flanged lids (Wheeler Type 28/29) from Berenike (after Begley & Tomber 1999: Fig. 6-5, Tomber & Begley 2000: Fig. 305)

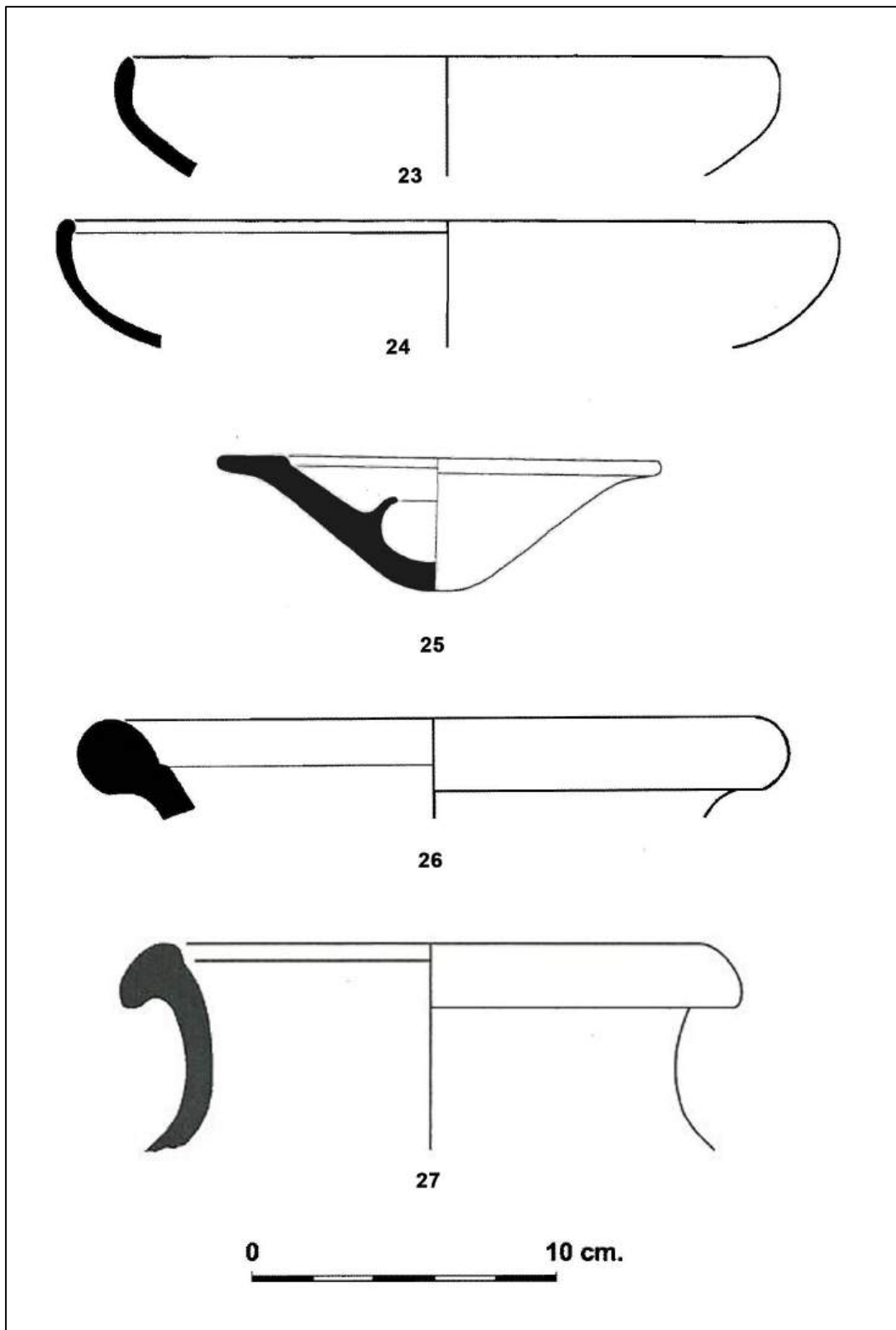


Figure 155. Plain rim casserole (Wheeler Type 2), Cup-and-saucer lid (Wheeler Type 38) & Storage jars from Berenike (after Tomber & Begley 2000: Fig. 3-5)

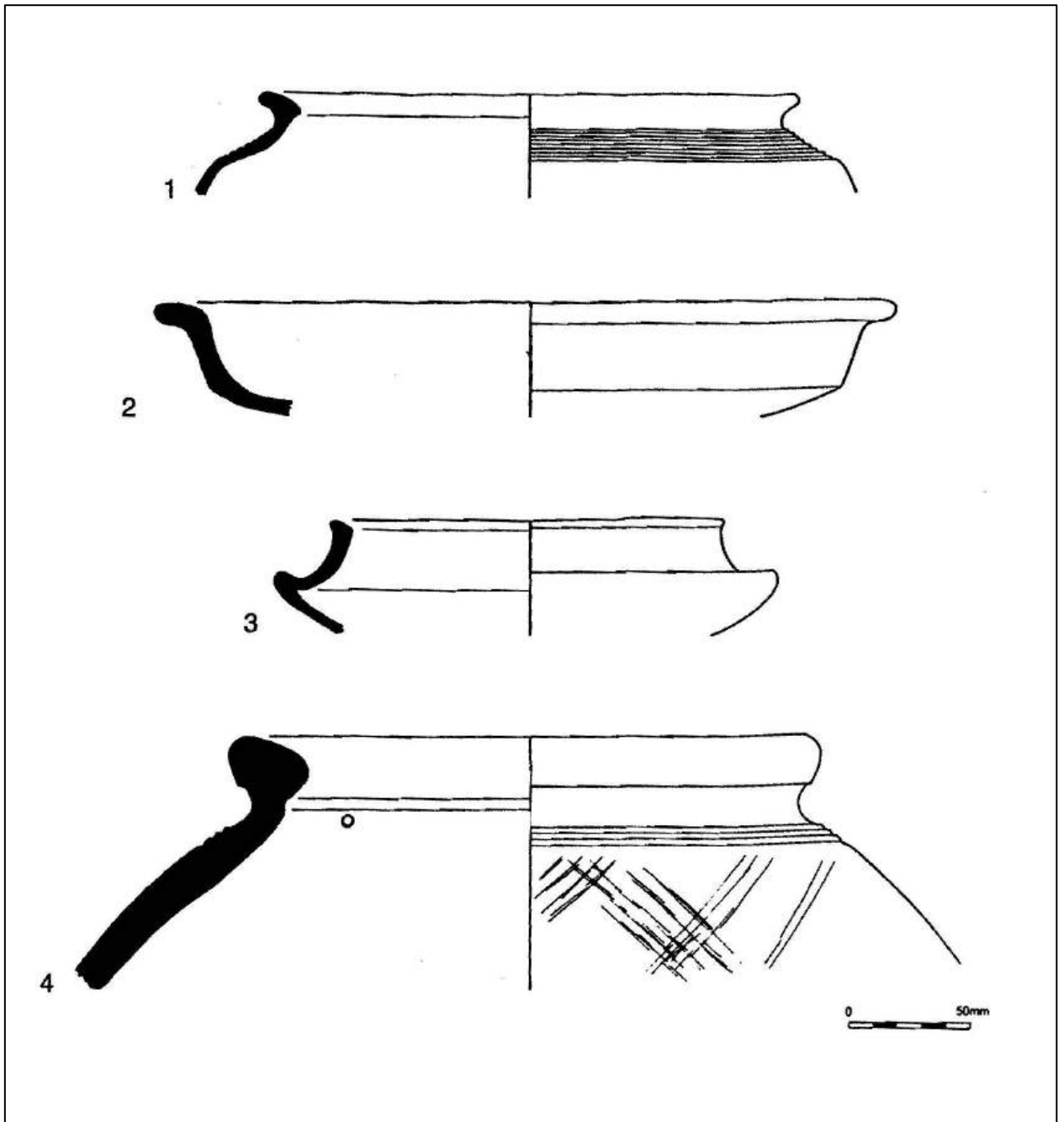


Figure 156. Indian vessel forms from Quseir al-Qadim (Myos Hormos)
(after Tomber 2000a, Tomber & Begley 2000: Fig. 3-12, Tomber 2008: Fig. 7)

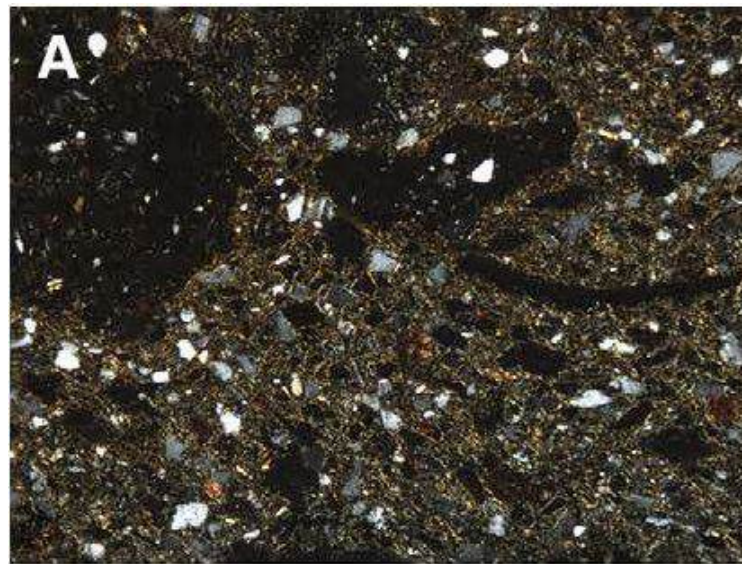
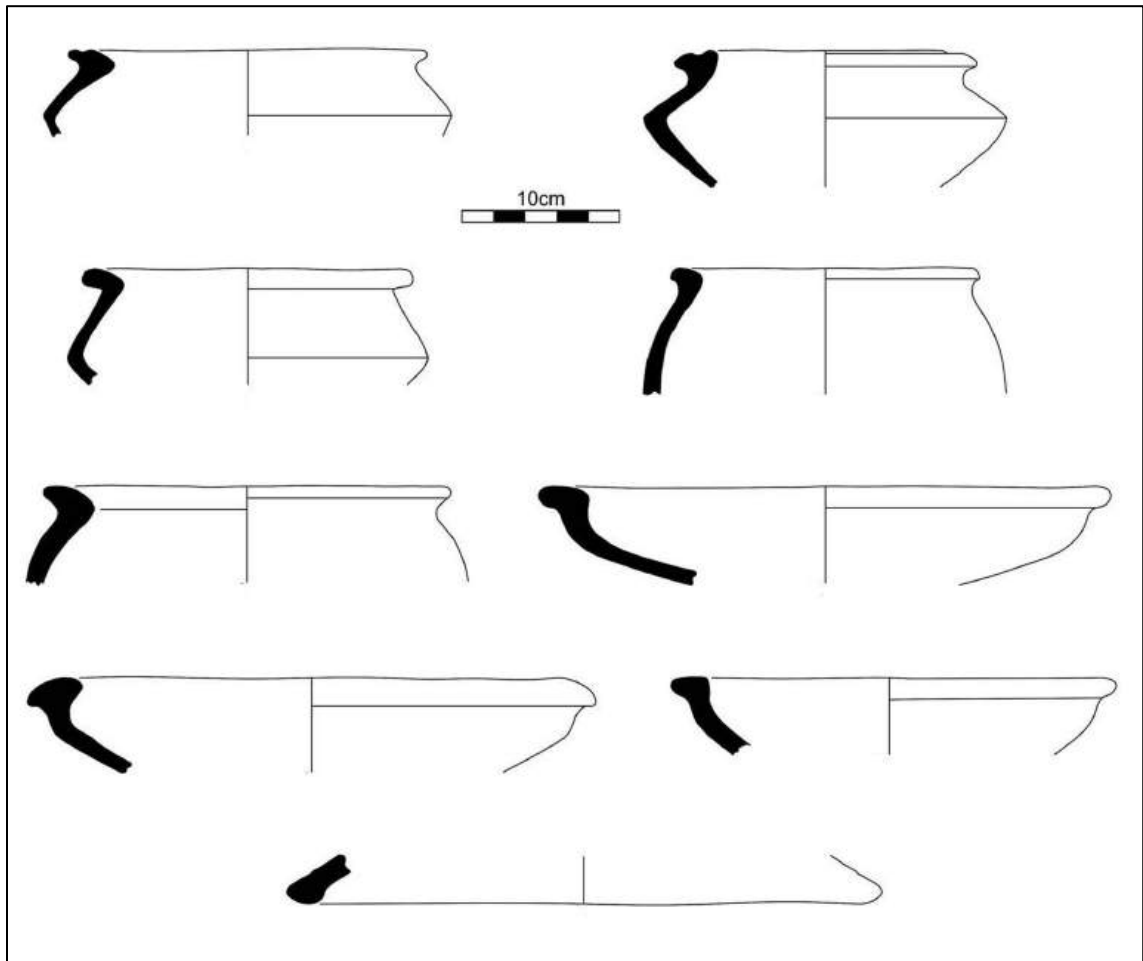


Figure 157. Rice Tempered Ware (Organic black ware) Indian vessel forms from Berenike and Myos Hormos and photomicrograph of organic black ware sample from Berenike (after Tomber et. al 2011a)



(a)



(b)

Figure 158. (a) Paddle-impressed sherds and (b) storage jar with applied, thumbbed or slashed strips from the Red Sea (after Tomber 2000a: Fig. 4-5)

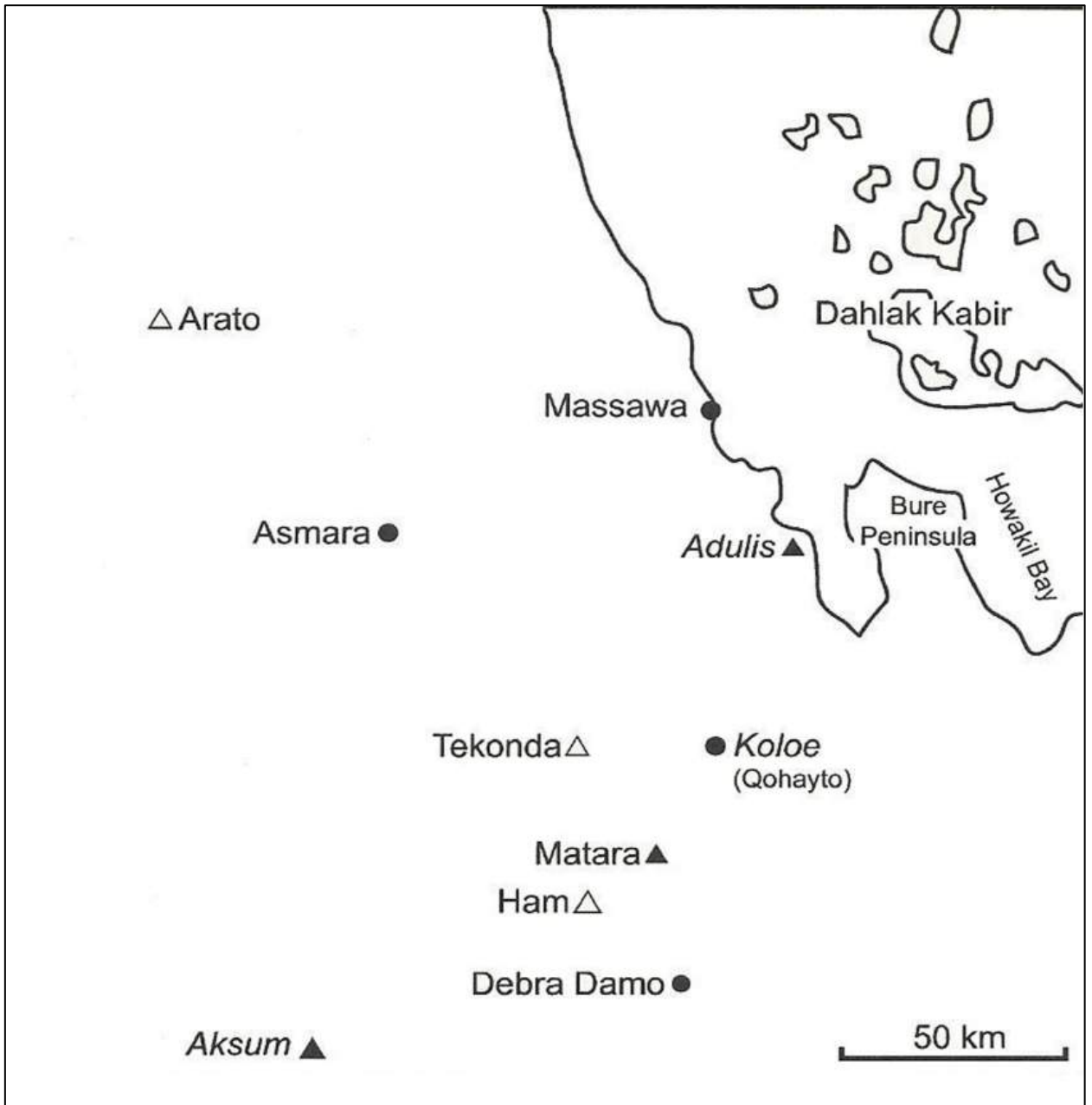


Figure 159. Detailed Map of Adulis and Aksum region (after Tomber 2008: 88)



**Figure 160. Aksumite storage vessel fragment from Kamrej (Gujarat)
(Source: Indian Archaeological Society, New Delhi)**

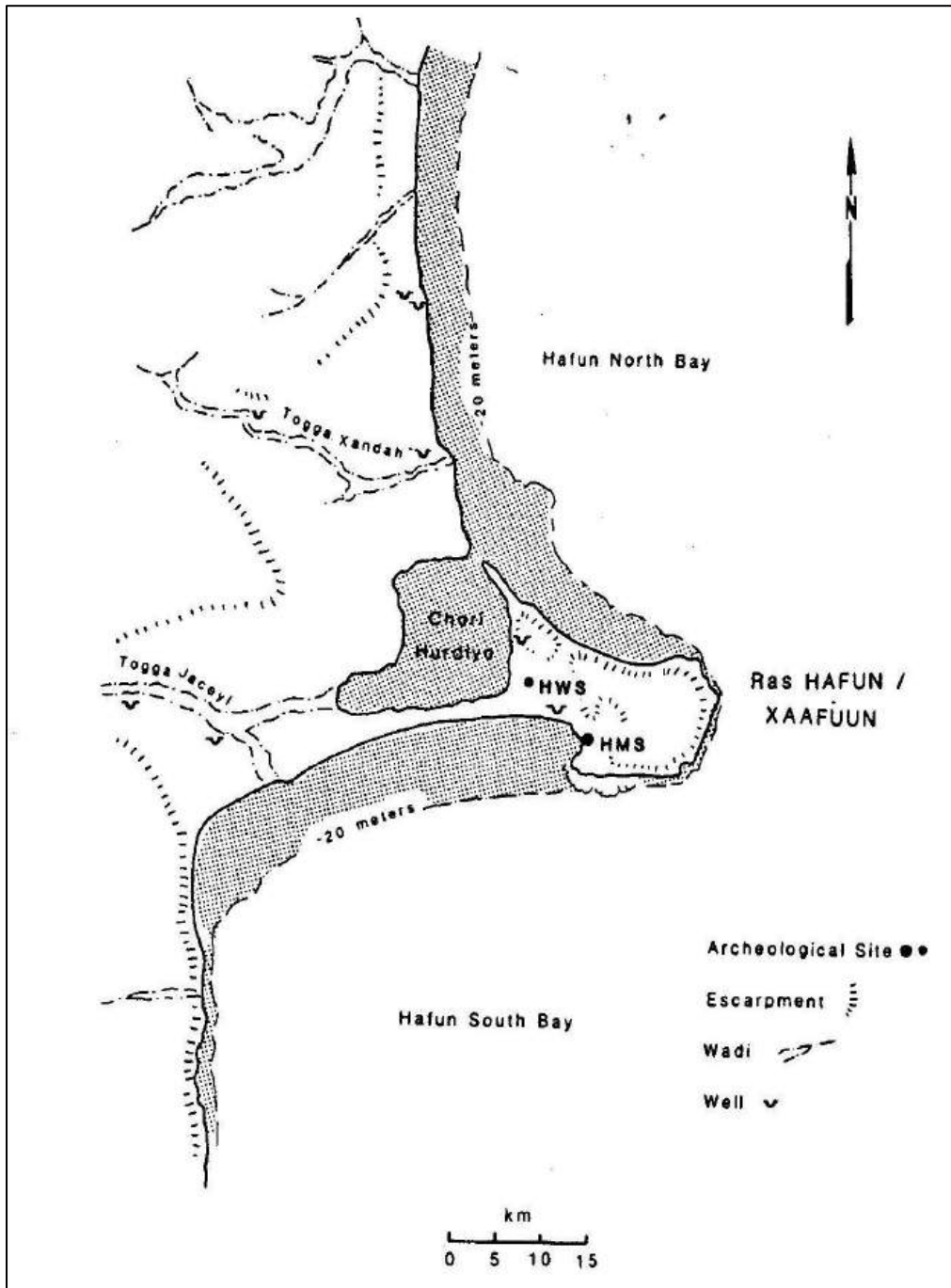
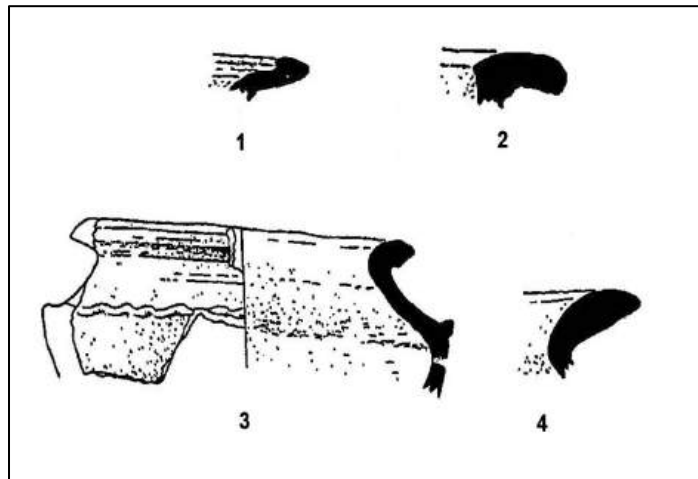
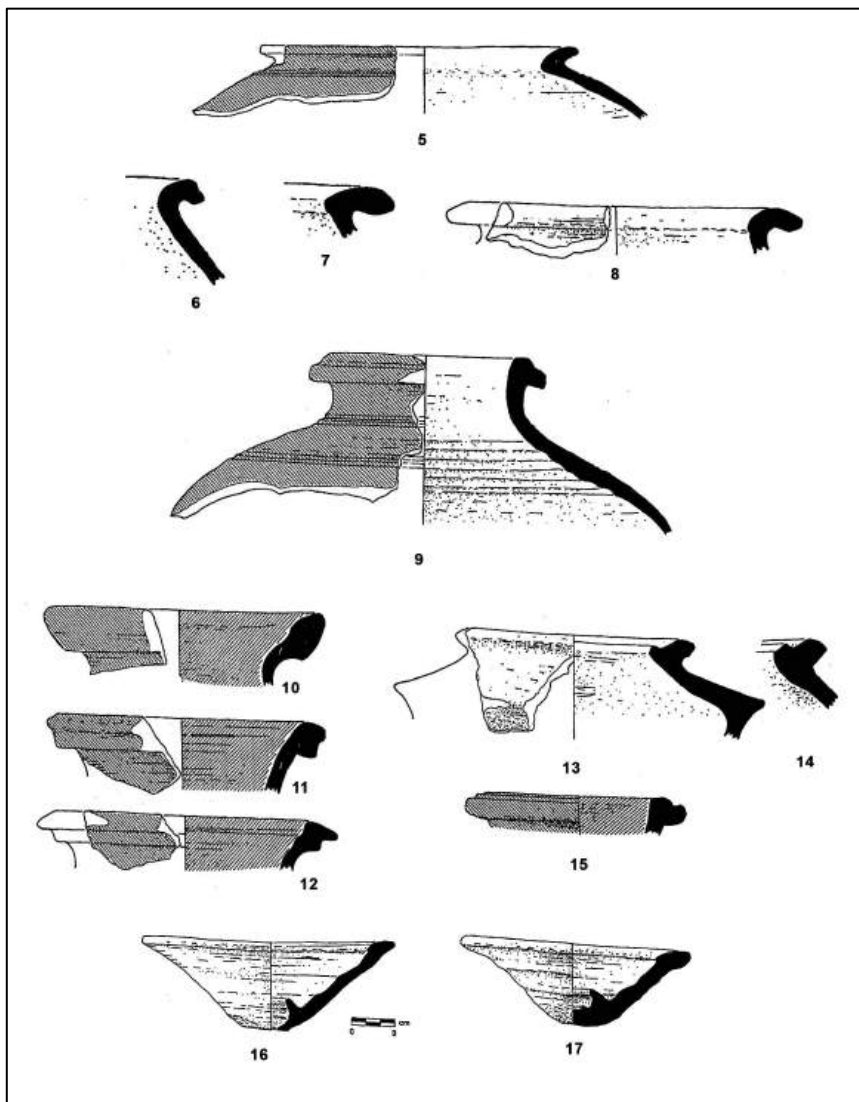


Figure 161. Location of Ras Hafun Main and Ras Hafun West sites (after Smith & Wright 1988: Fig. 2)



**Figure 162. Indian ceramics from Ras Hafun West (1st cent. BC - 1st cent. AD)
(after Smith & Wright: Fig. 4)**



**Figure 163. Indian ceramics from Ras Hafun Main (2nd - 5th cent AD)
(after Smith & Wright 1988: Fig. 6, 8- 9)**

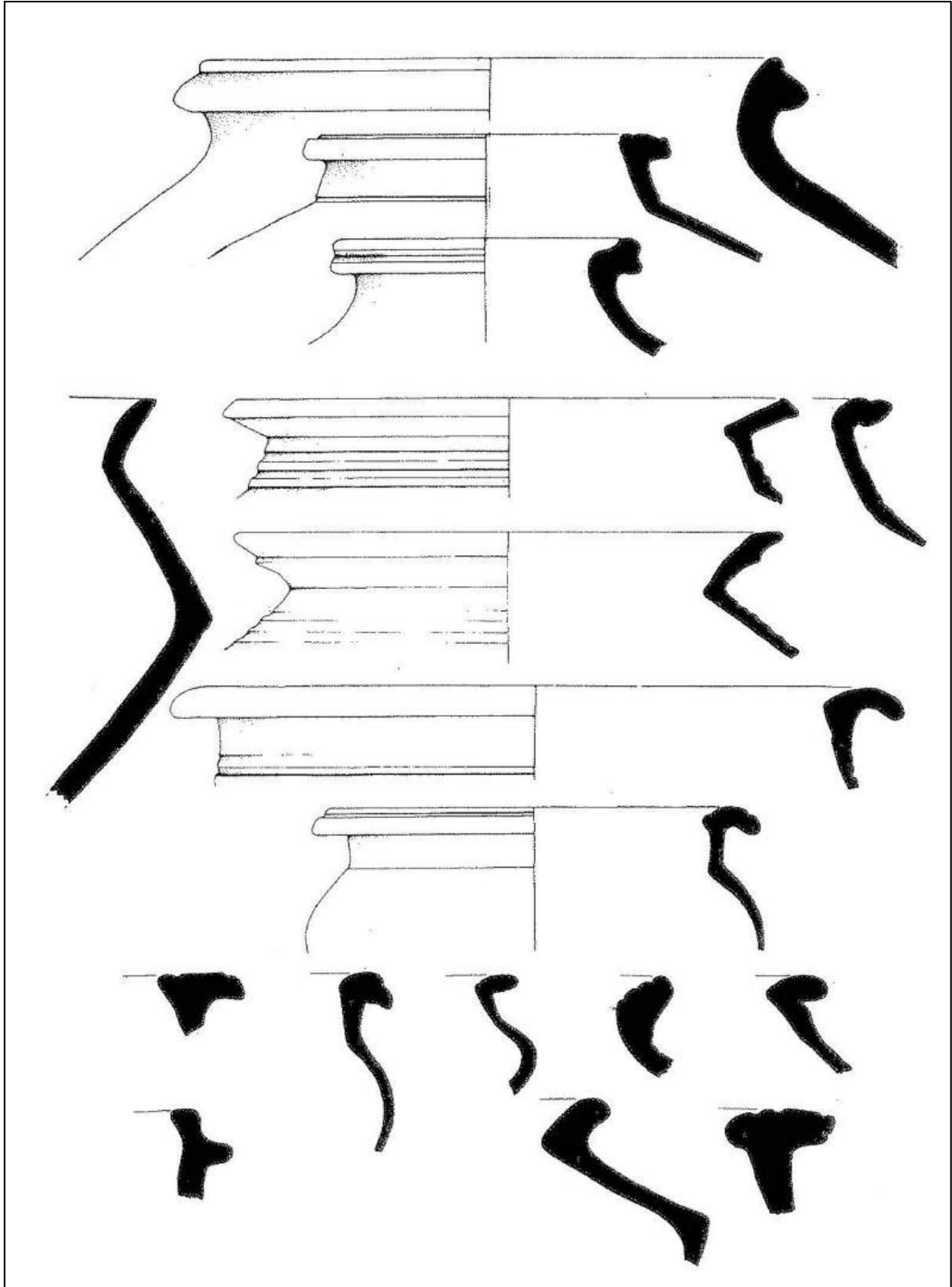


Figure 164. Indian 'chatties' or water-pots from Manda (after Chittick 1984: Fig. 54)

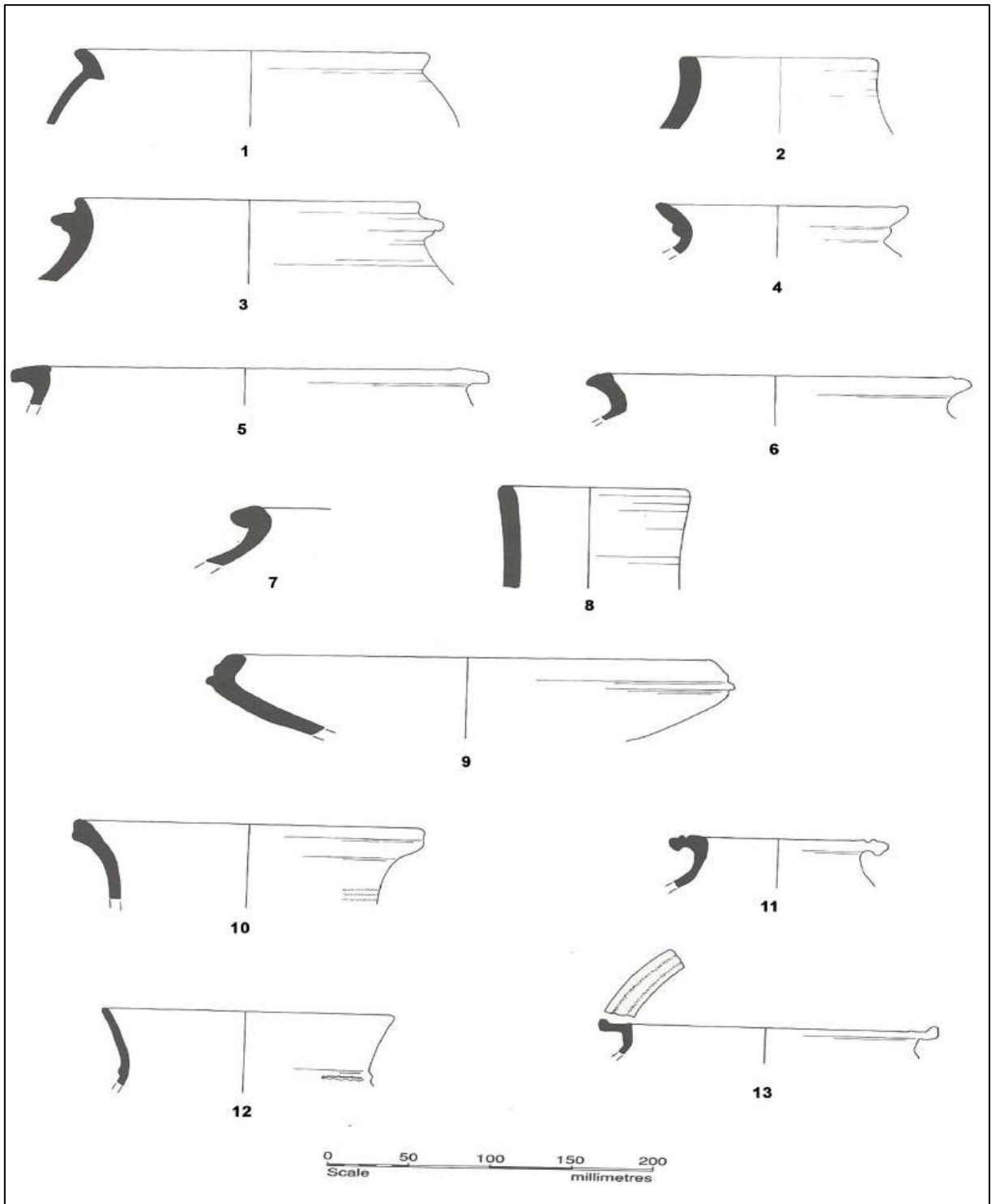
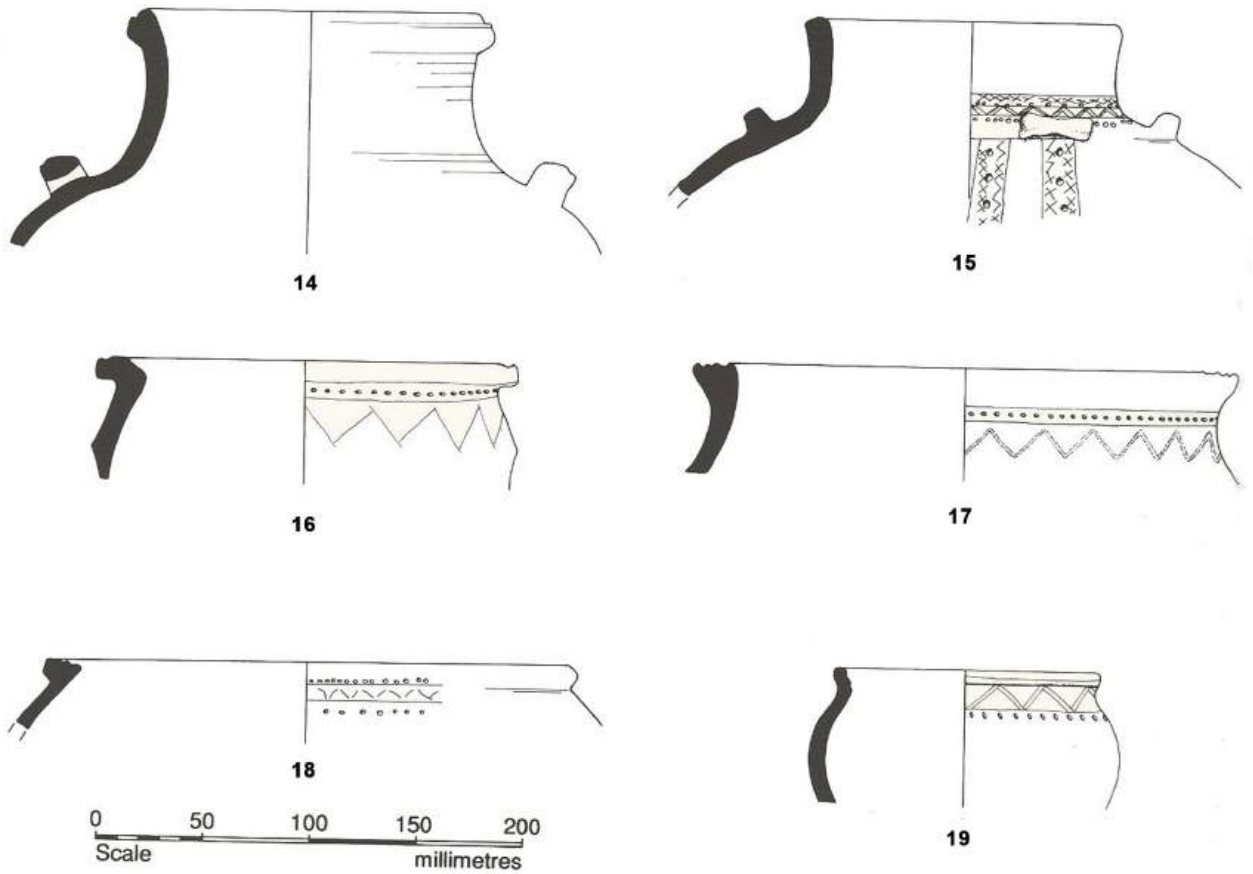


Figure 165. Indian ceramics from Shanga (Grass-tempered grey ware 1-7, Grog-tempered maroon ware 8-9, Red slipped orangeware 10-13) (after Horton 1996: Fig. 224)



**Figure 166. Indian ceramics from Shanga (Decorated Redware)
(after Horton 1996: Fig. 225)**

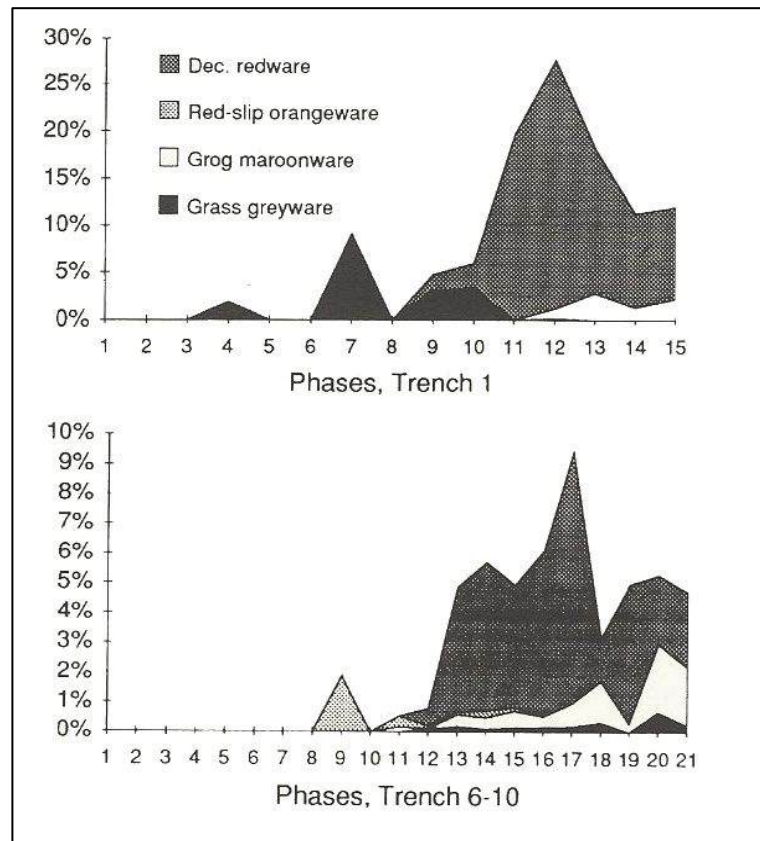


Figure 167. Distribution of Indian wares in Tr 1 and Tr 6-10 at Shanga (Horton 1996: Fig. 226)

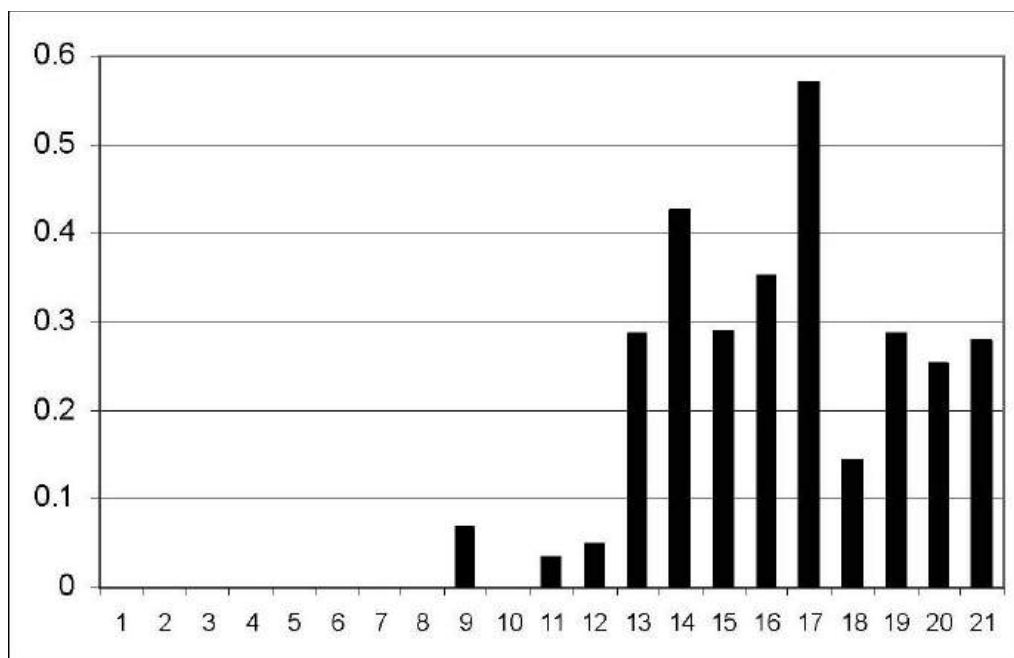


Figure 168. Proportion of Indian sherds through the Shanga Trench 6-10 (% of total assemblage by sherd count) (Kennet 2004: Fig. 44)

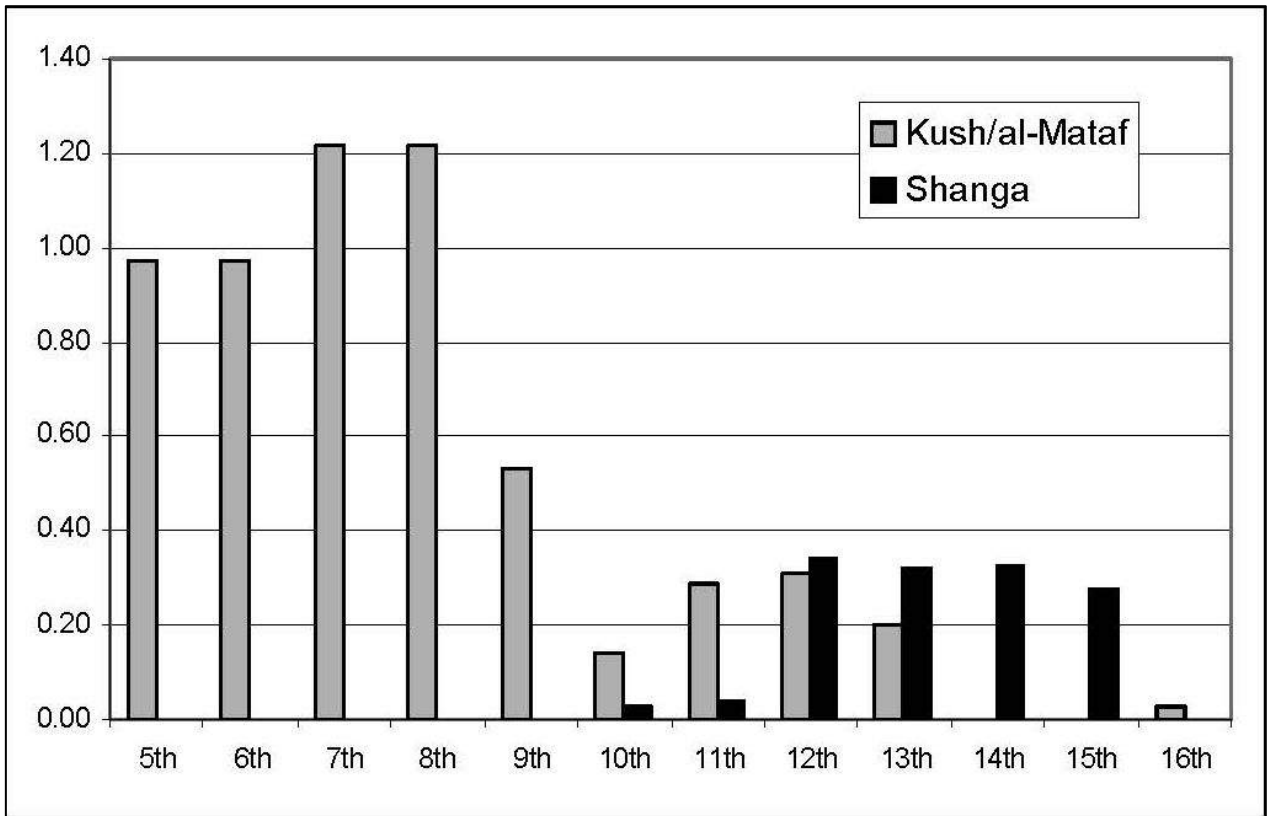


Figure 169. Proportion of Indian pottery through the Kush/al-Mataf and Shanga sequences (Kennet 2004: Fig. 45).

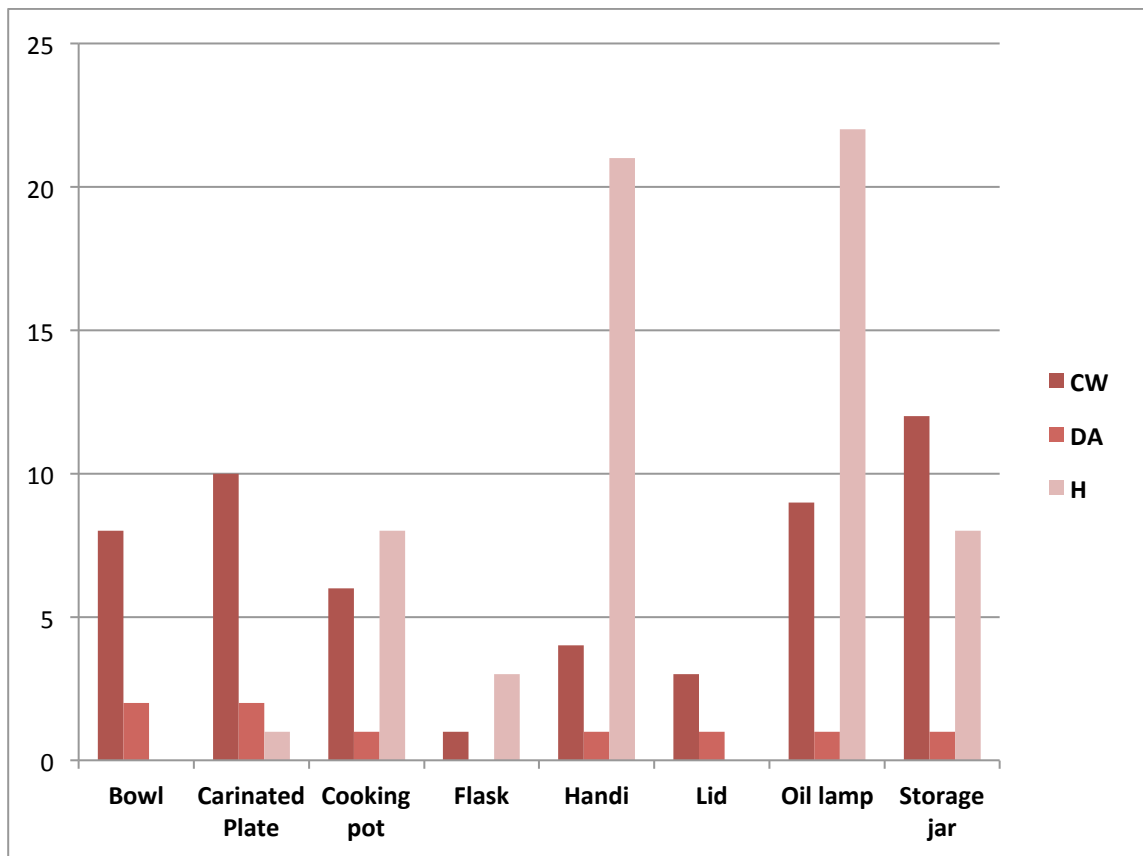


Figure 170. Occurrence of Indian vessel forms in the various sectors/areas (CW, DA, H) from Mleiha (based on MNV count)

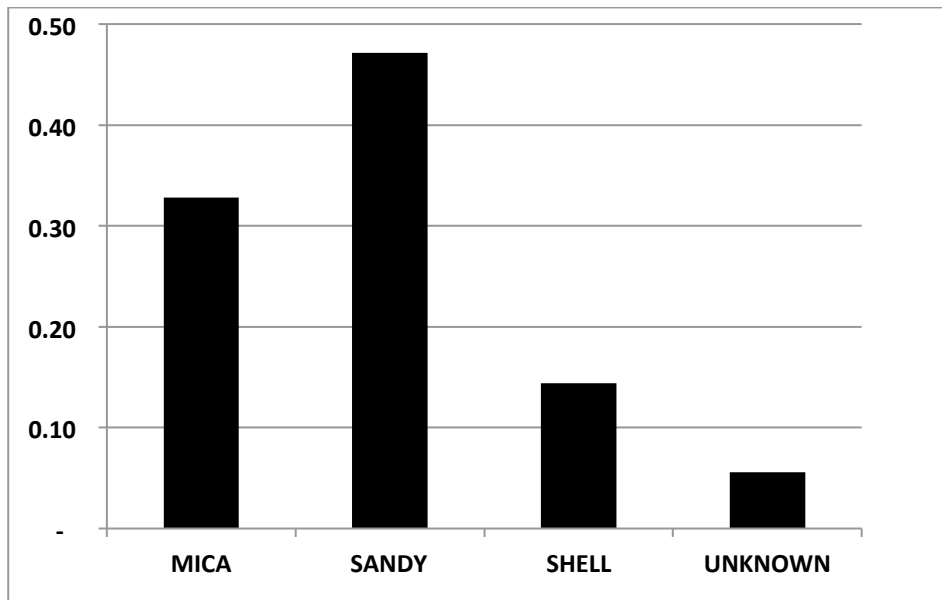


Figure 171. Occurrence of Indian ware groups by percentage from Mleiha (based on MNV count of Indian sherds)

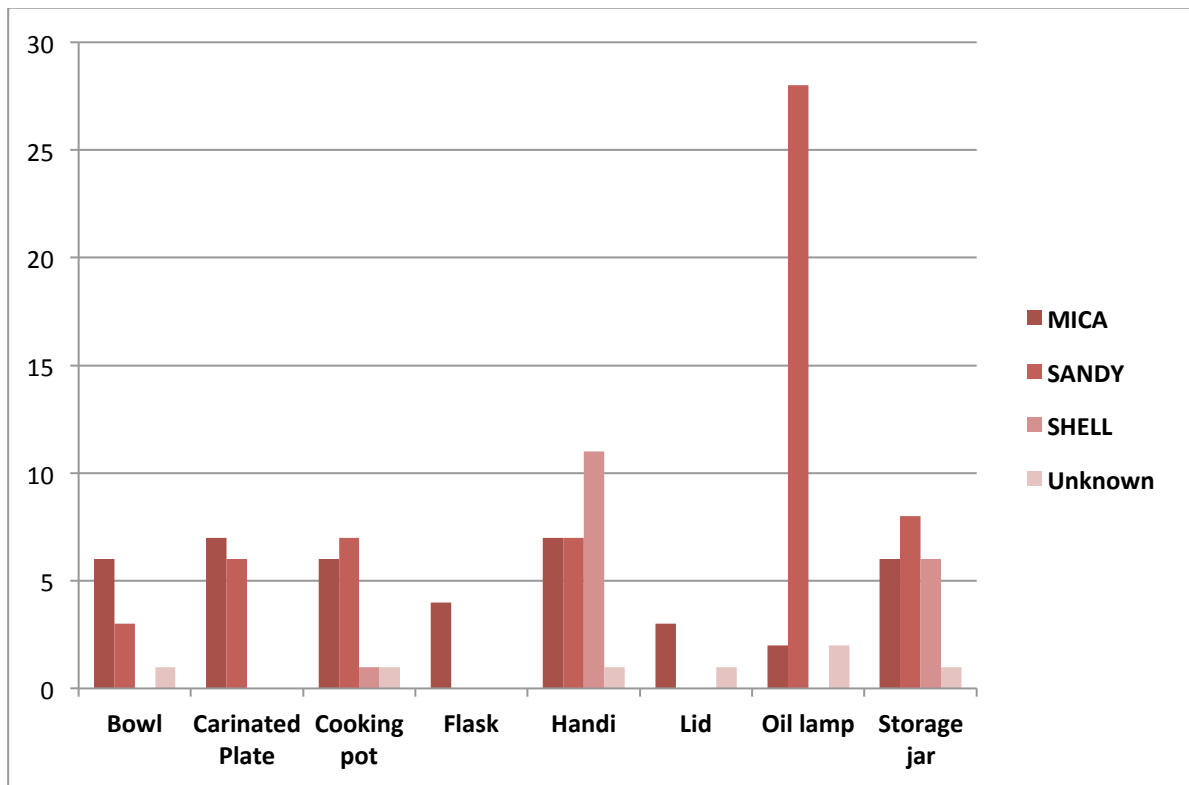


Figure 172. Counts of the Indian vessel forms within the ware groups at Mleiha (based on MNV counts)

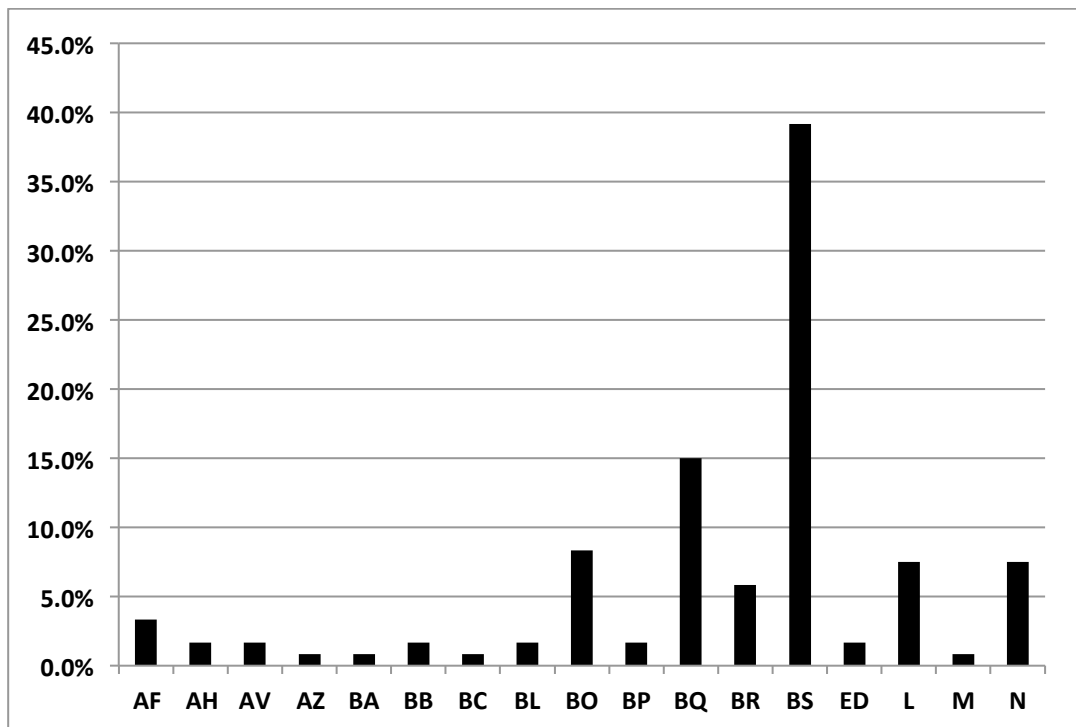


Figure 173. Occurrence of Indian vessels in the various 'areas' at Ed-Dur (in %)

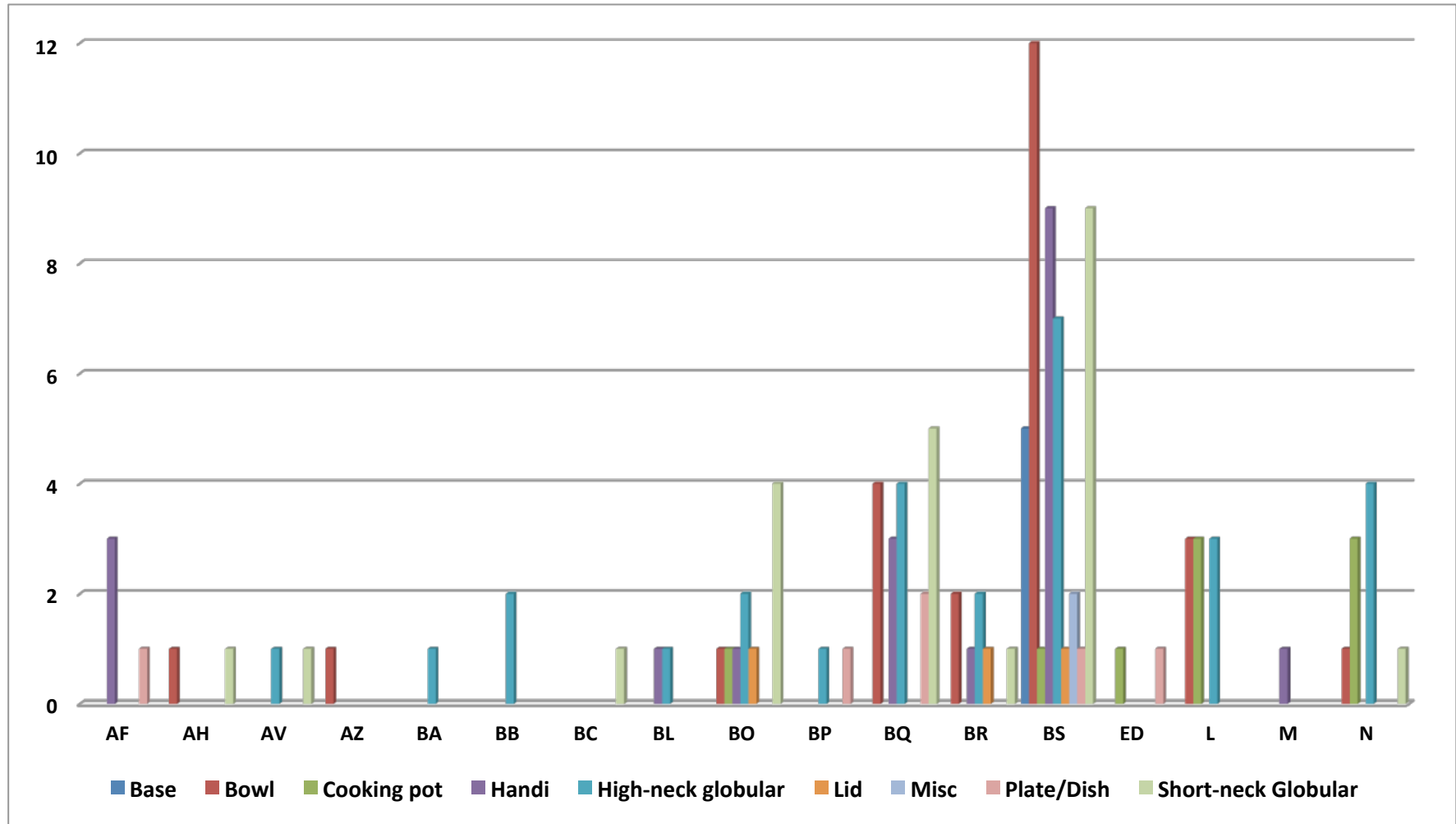


Figure 174. Occurrence of Indian vessel forms within the 17 'areas'/context from Ed-Dur

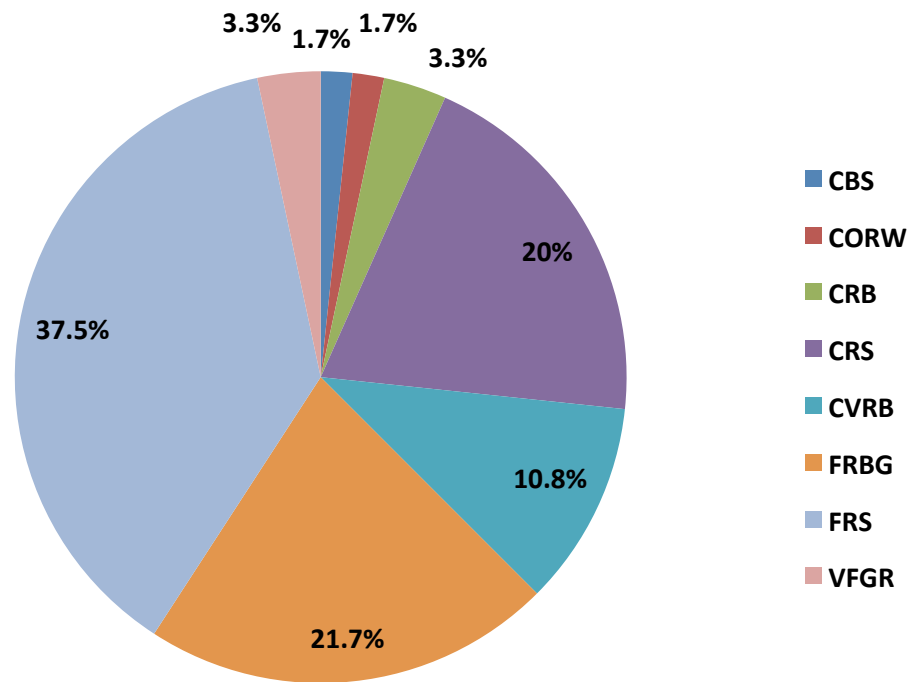


Figure 175. Percentage of Indian fabric classes at Ed-Dur

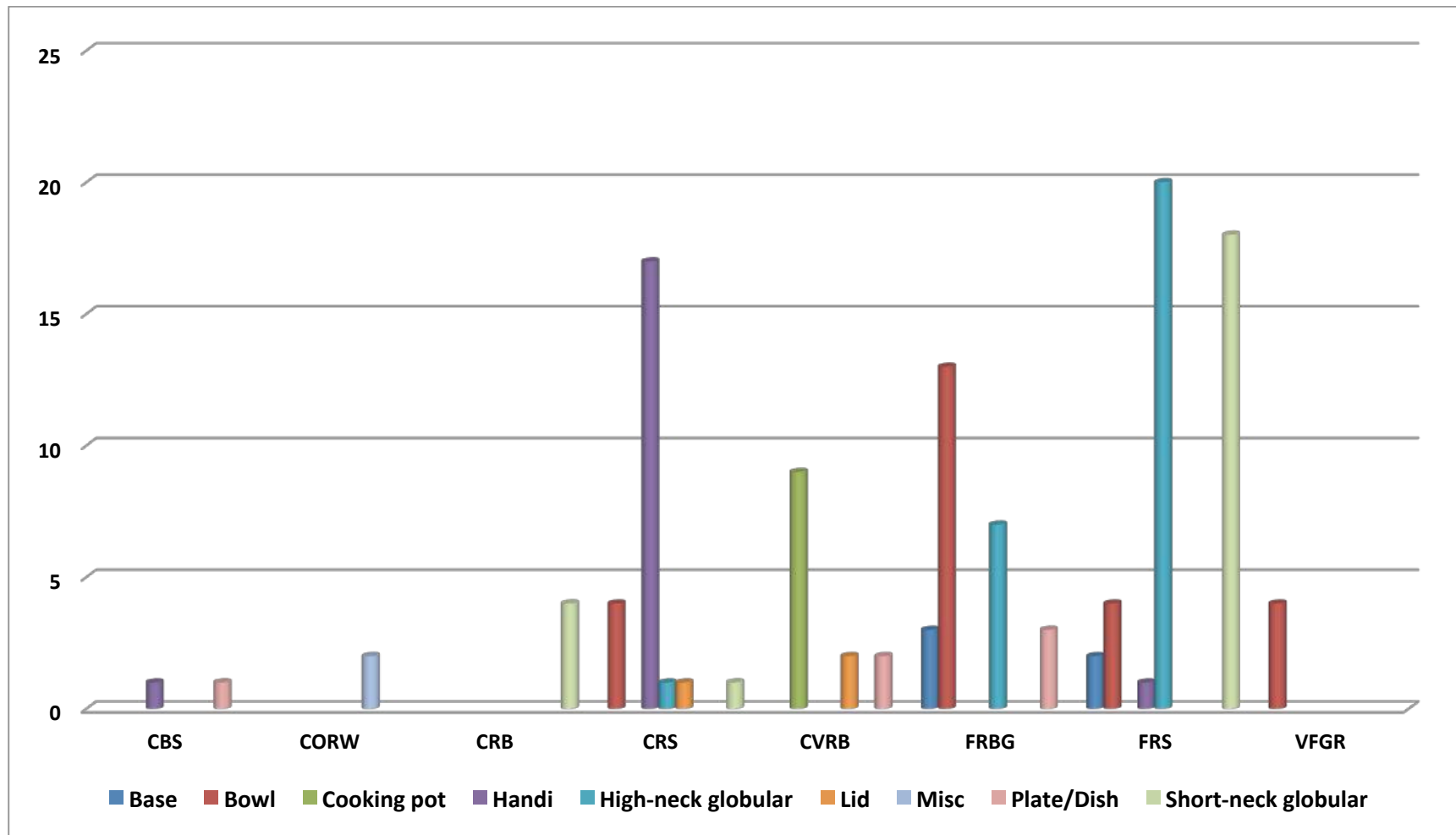


Figure 176. Counts of Indian vessel forms in relation to fabric classes at Ed-Dur (MNV count)

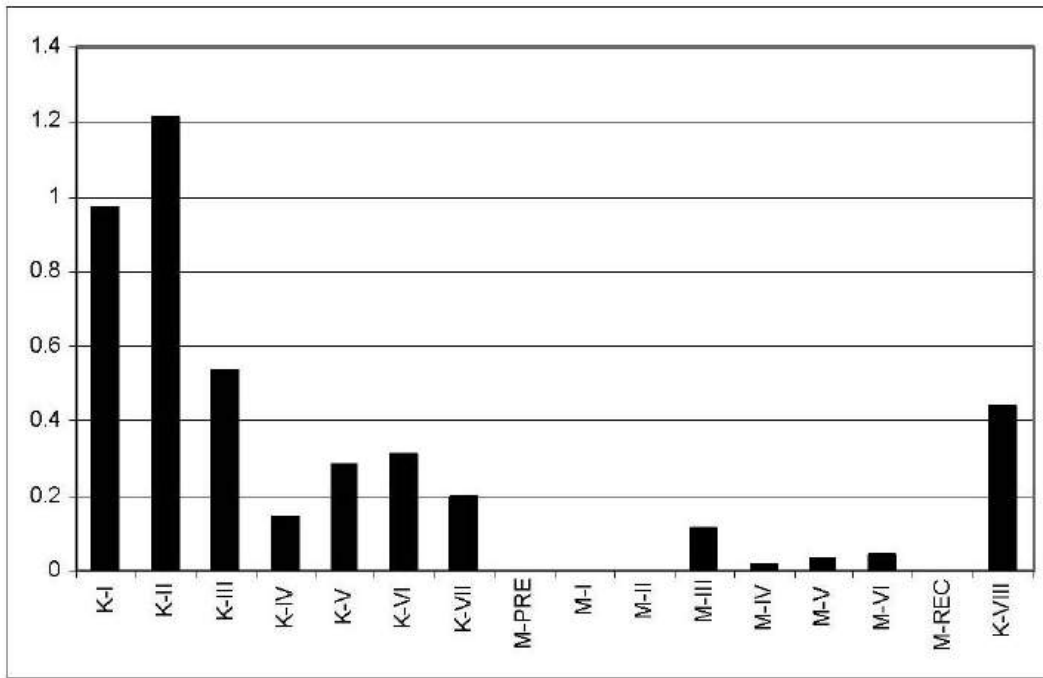


Figure 177. Proportion of Indian sherds through the Kush/al-Mataf sequence (as % of total assemblage by sherd count) (Kennet 2004: Fig. 43)

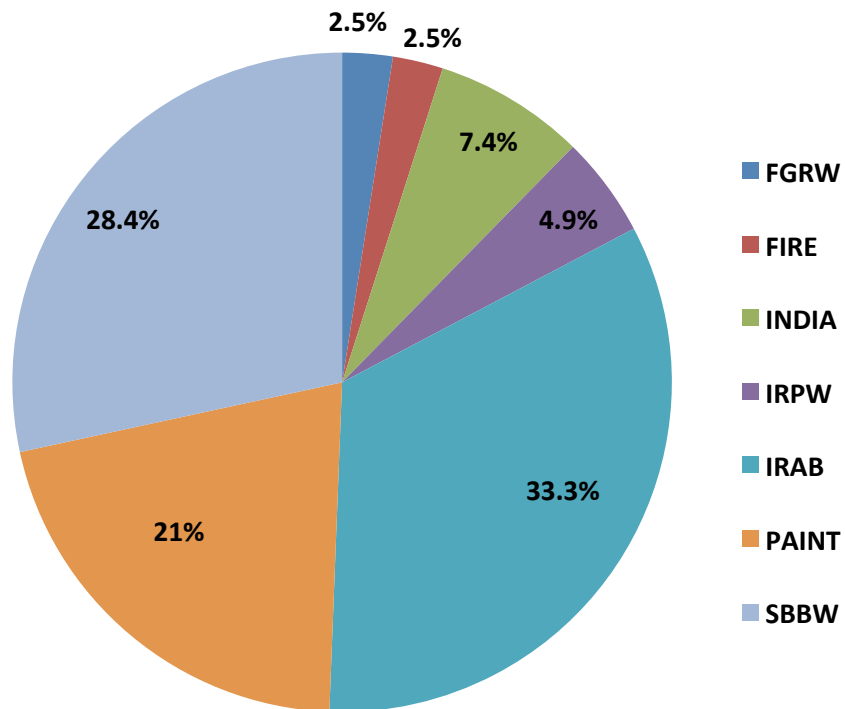
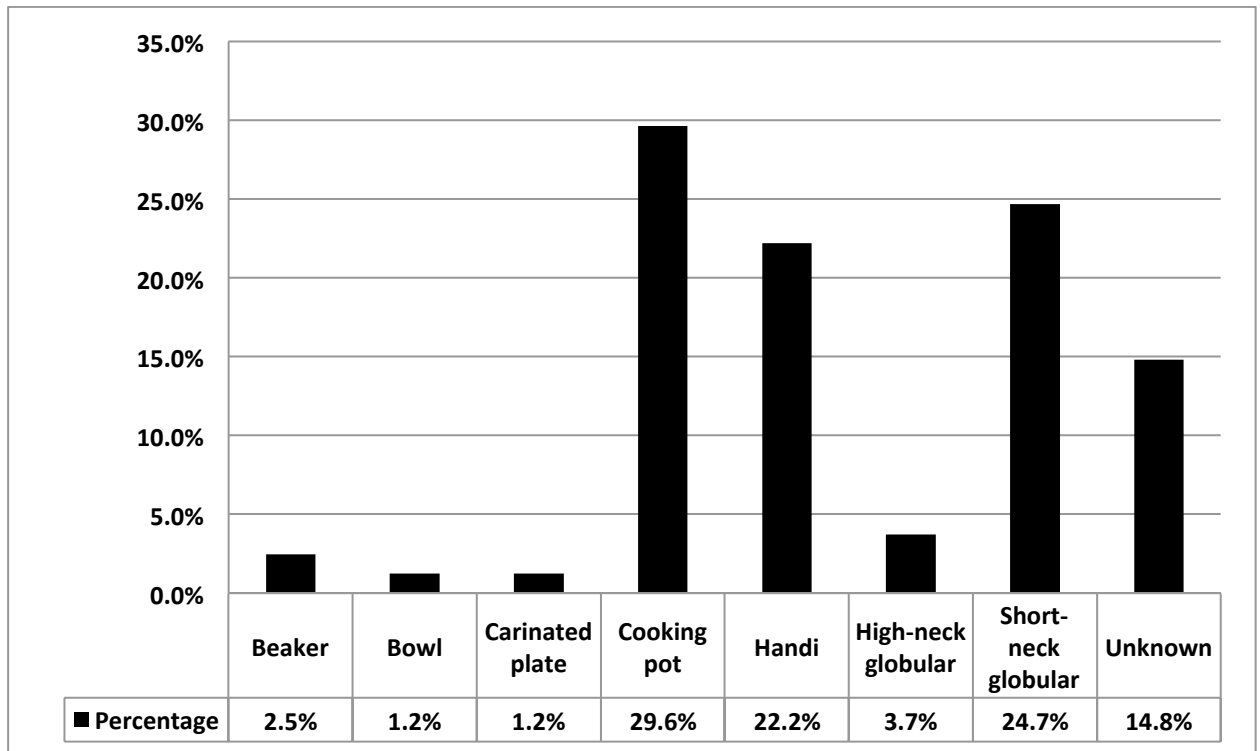


Figure 178. Percentage of Indian fabric classes at Kush (based on MNV counts of Indian pottery)



**Figure 179. Percentage of Indian vessel forms at Kush
(based on MNV counts of Indian pottery)**

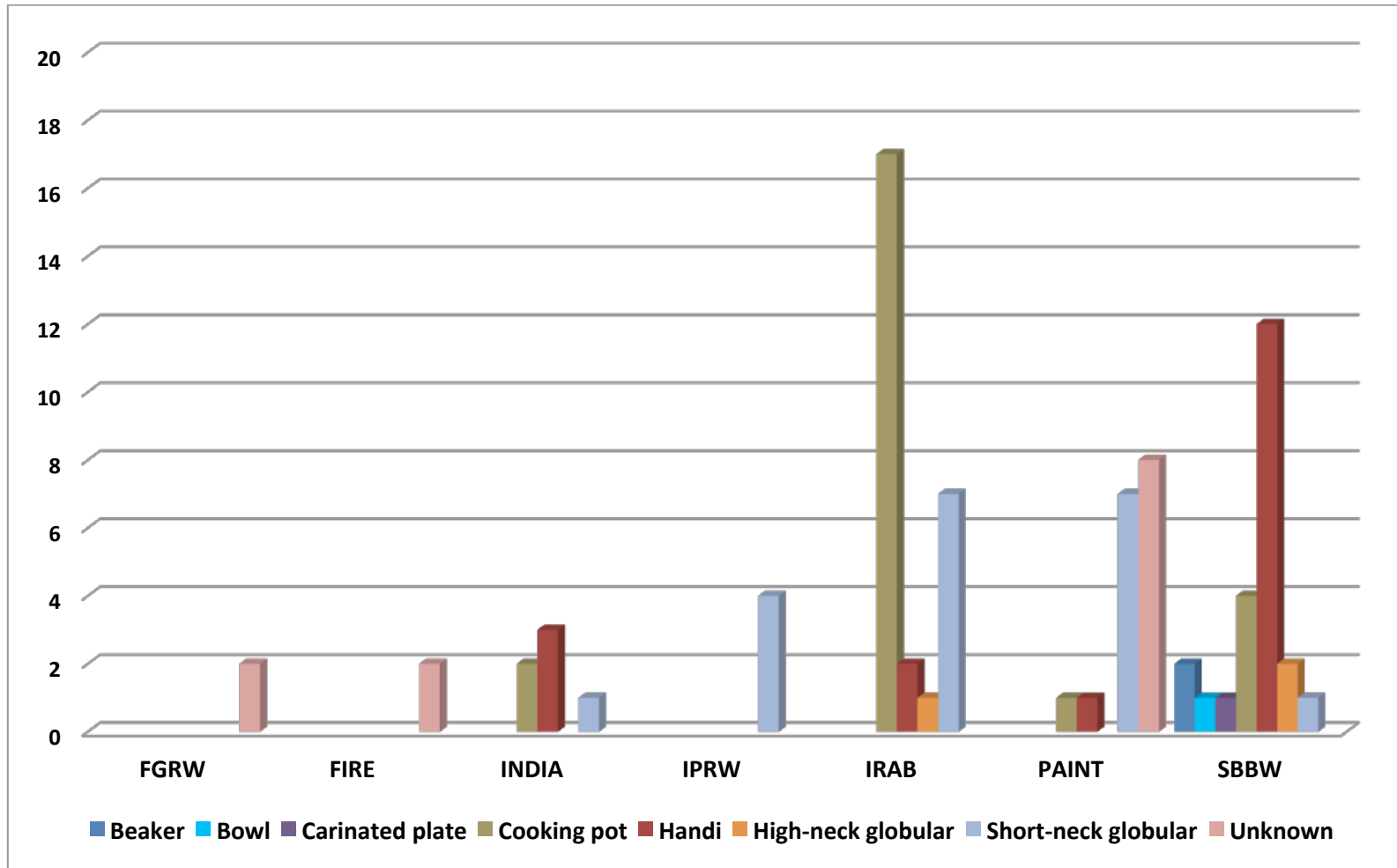


Figure 180. Counts of Indian forms within the fabric classes from Kush (based on MNV count)

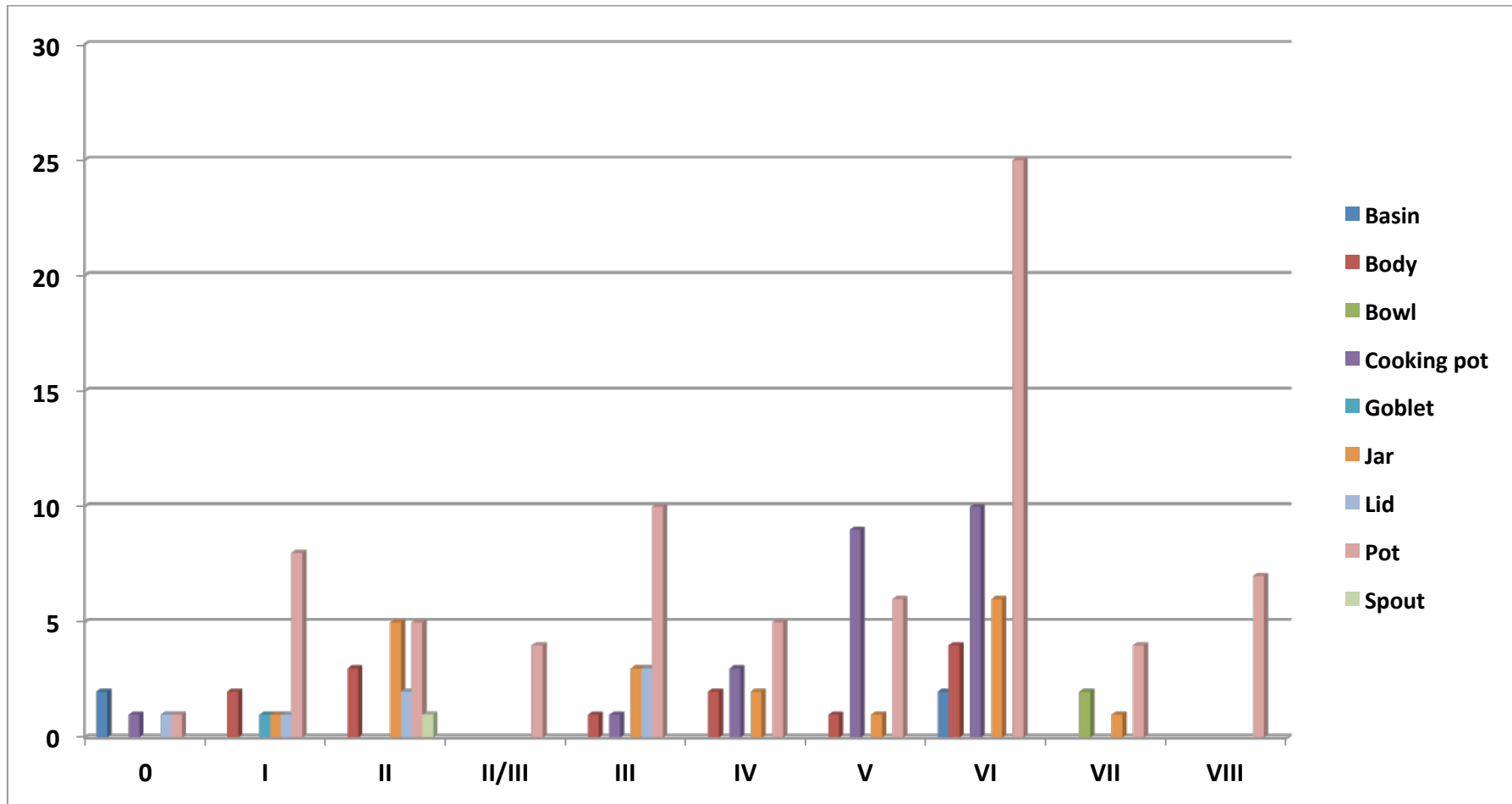


Figure 181. Occurrence of individual Indian vessel forms through the Suhar sequence (Levels 0-VIII)

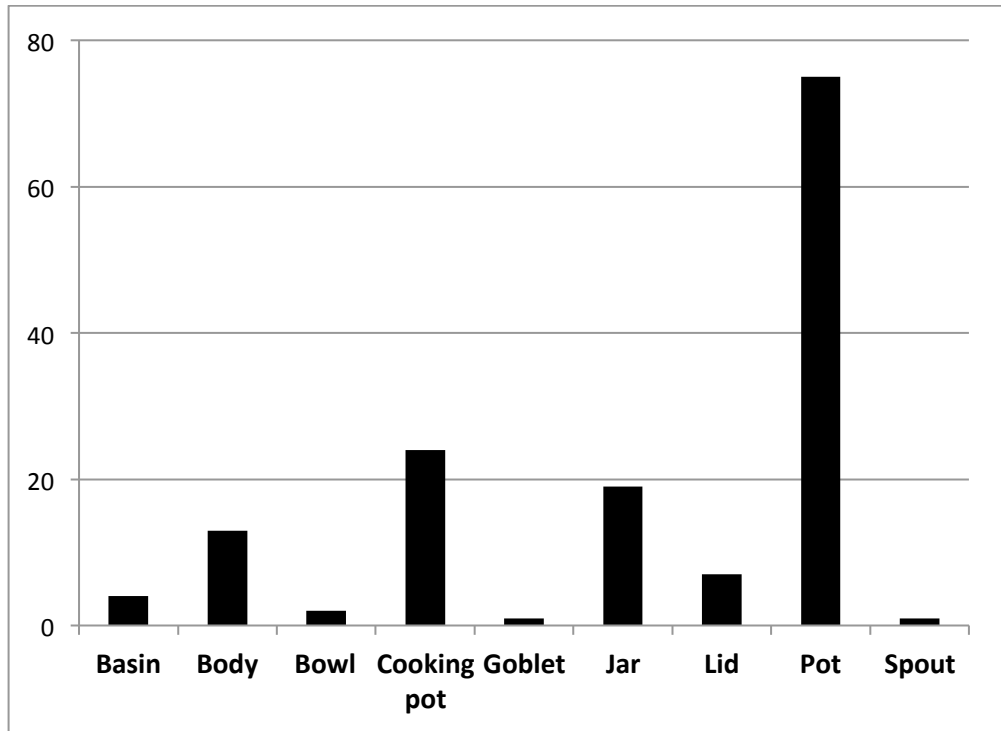


Figure 182. Individual vessel forms in the Suhar Indian assemblage (based on vessel count)

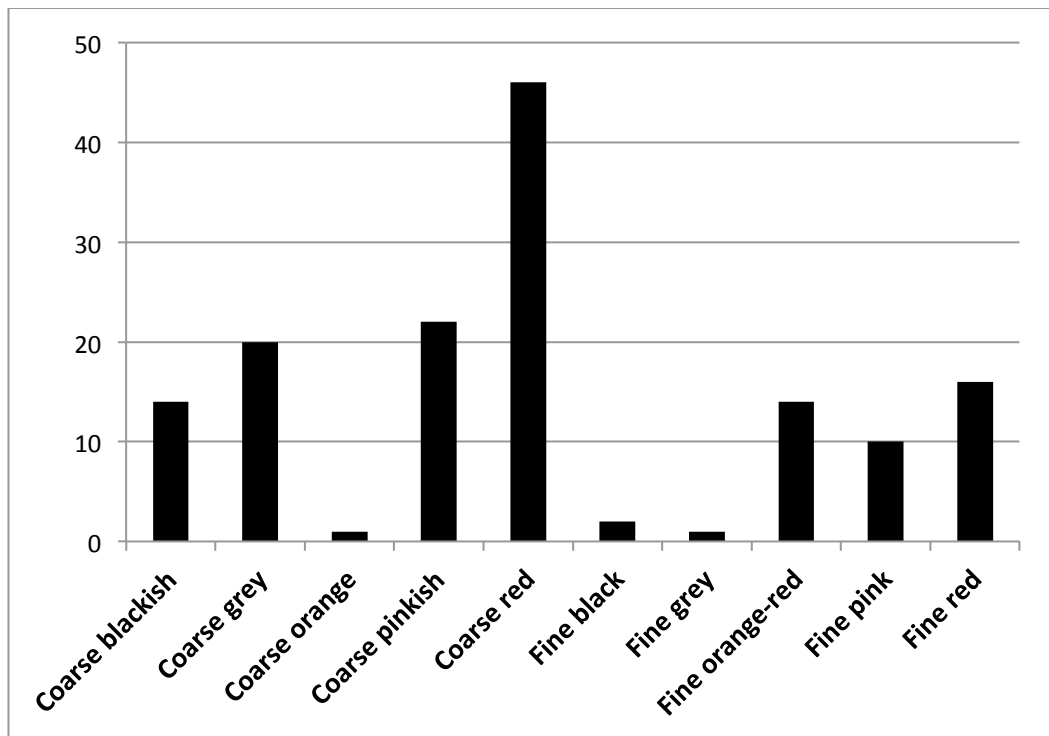


Figure 183. Fabric classes in the Suhar Indian assemblage (based on vessel count)

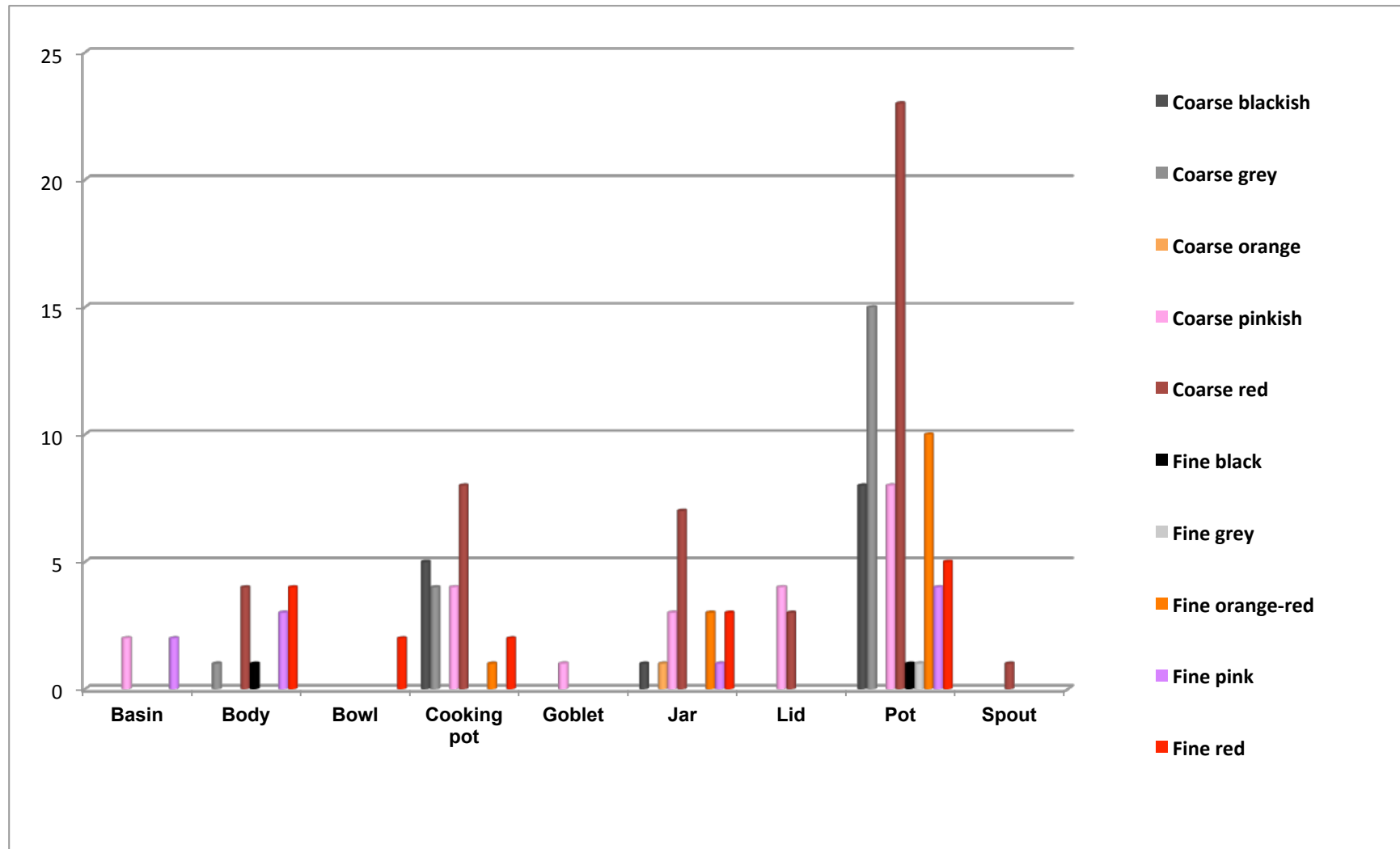


Figure 184. Occurrence of Indian vessel forms in Suhar fabric classes

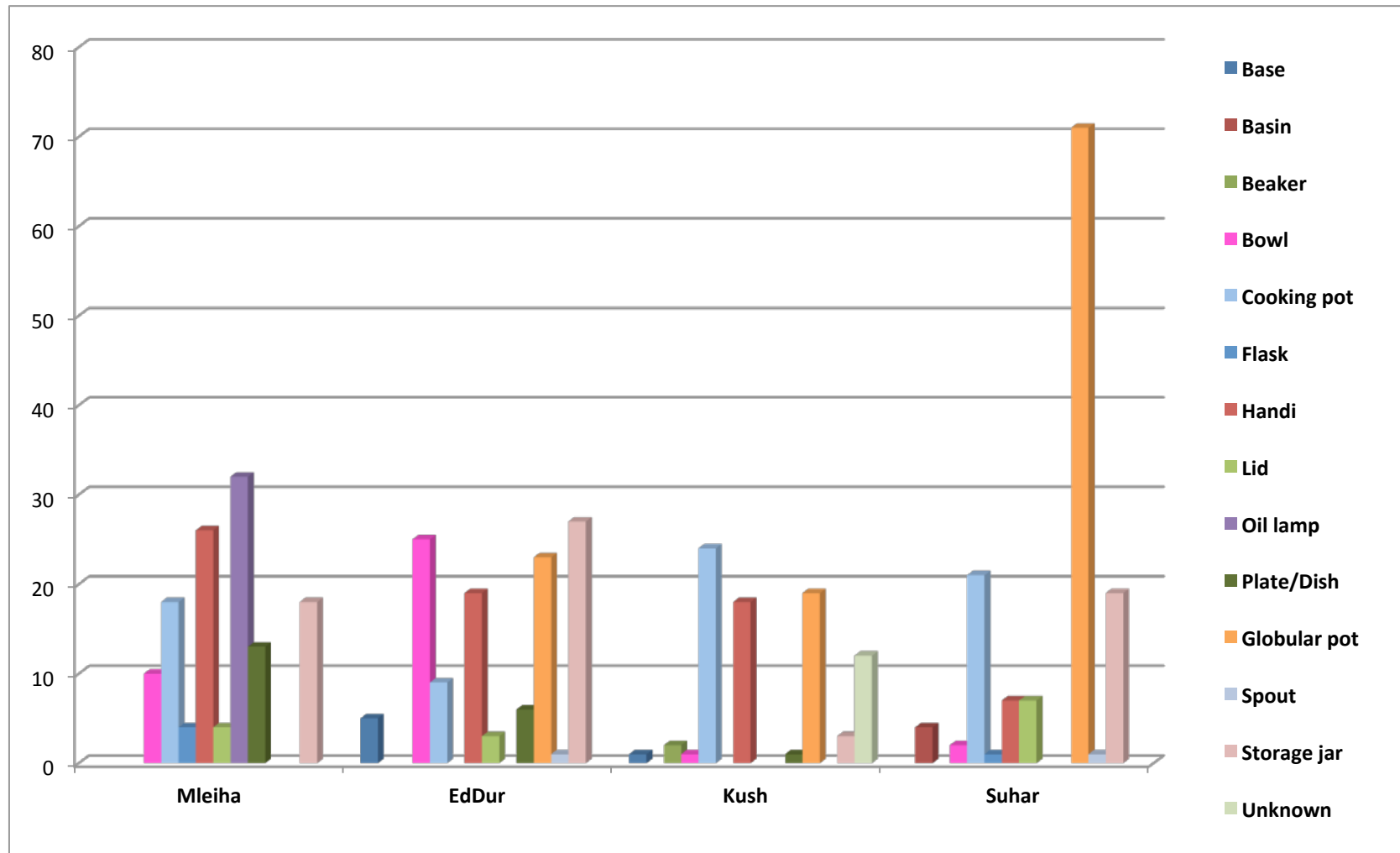


Figure 185. Comparative data of Indian vessels from across the four sites (Mleiha Ed-Dur, Kush and Suhar)

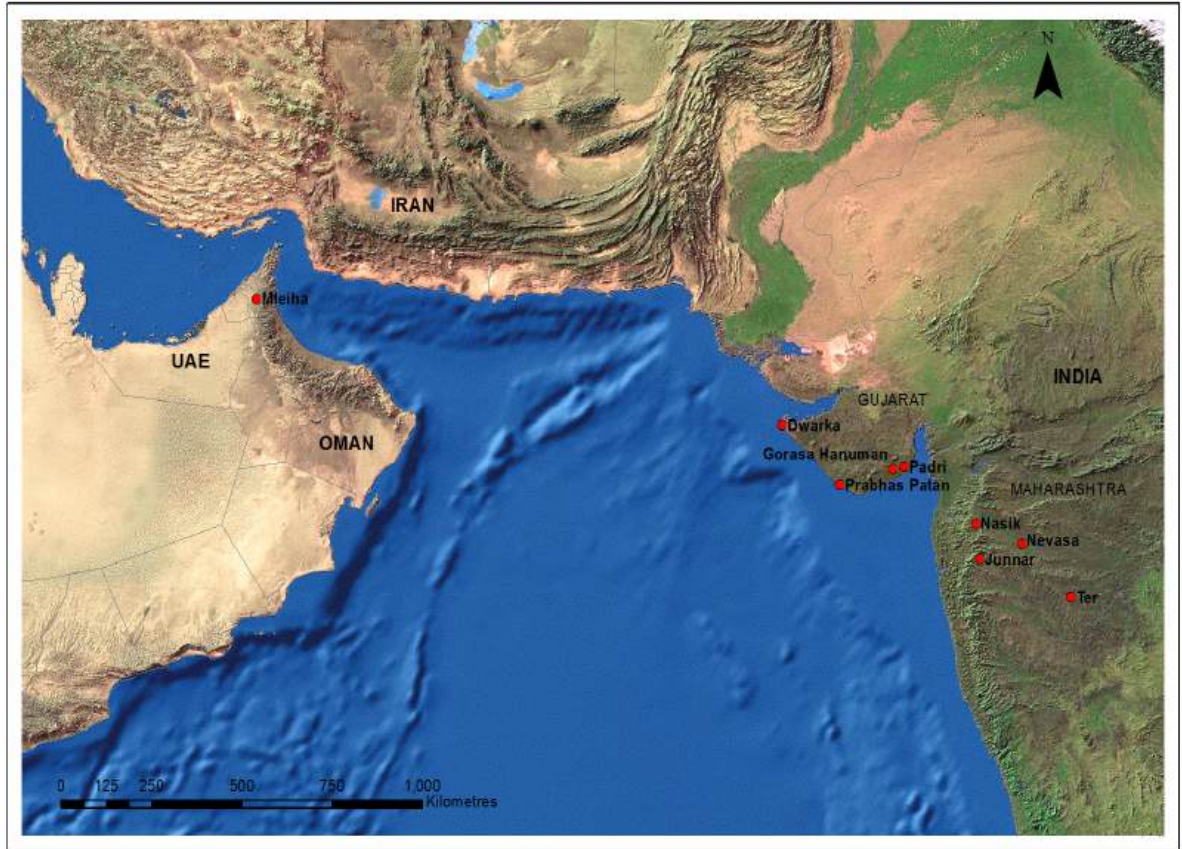


Figure 186. Map showing the location of sites in UAE (Mleiha) and India (within Gujarat and Maharashtra) from where the pottery samples were collected. (Source data: Basemap provided by ESRI World Elevation and Image Data/World Images/2km Cloud Free Image)



Figure 187. Photographs of the Mleiha pottery samples ML H5004 R and ML2280 (from left to right) that showed highest correlation values with the Indian samples based on elemental concentrations

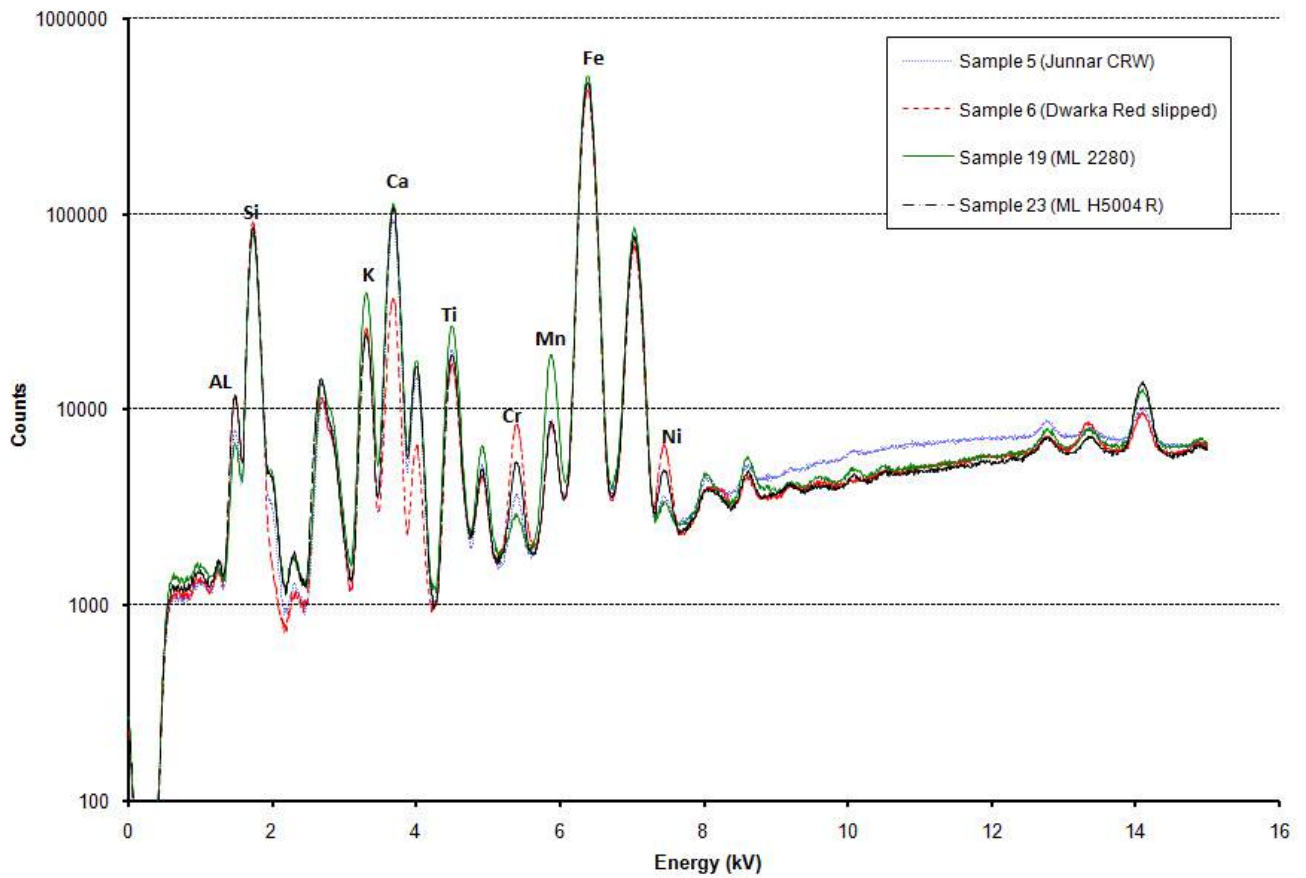


Figure 188. Examples of XRF Spectra plots of photon counts (log) versus photon energy (keV) that show how well Indian pottery samples (5 & 6) correlate with Mleiha pottery samples (19 & 23)

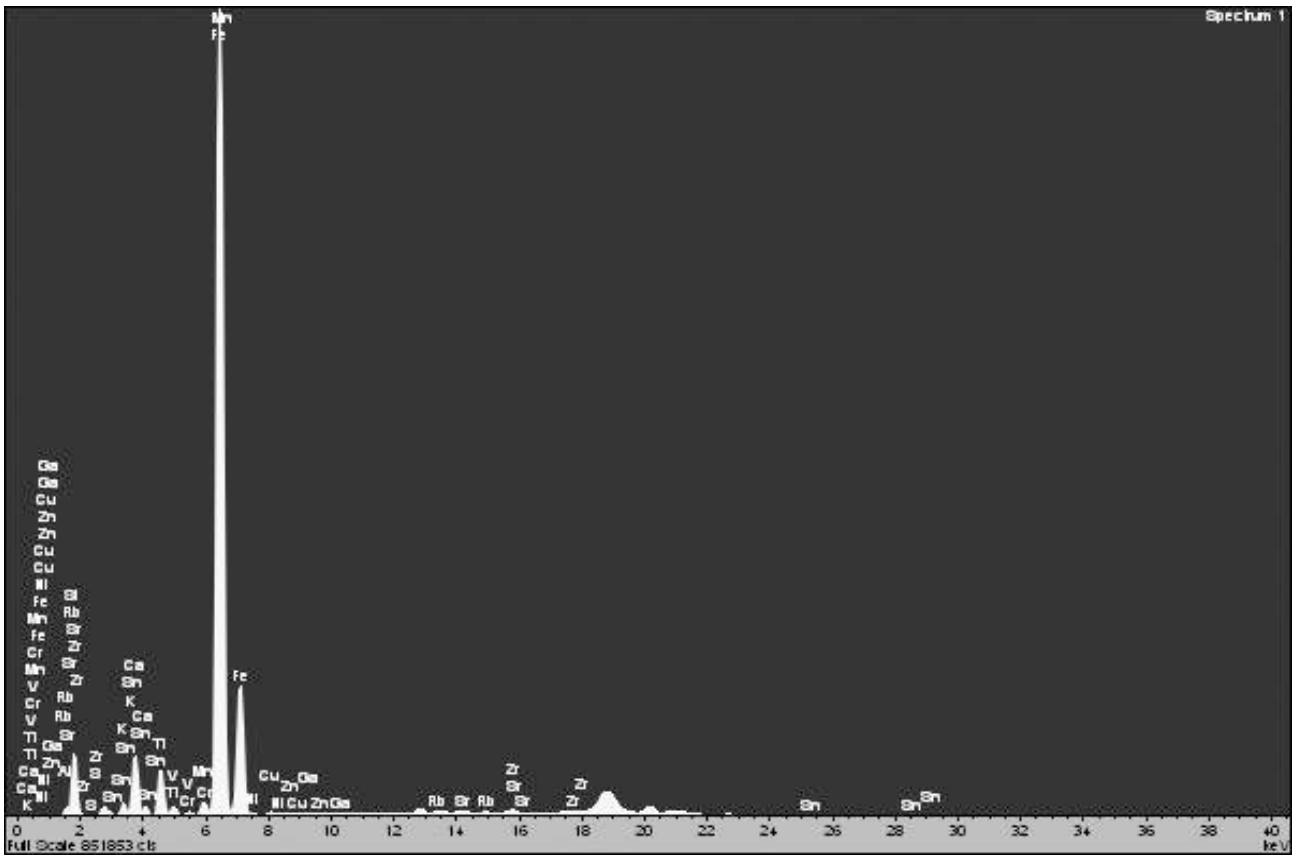


Figure 189(a). Individual spectra graph images of correlating samples from Mleiha and Western India (Note: Large peak in XRF does not mean higher concentration)

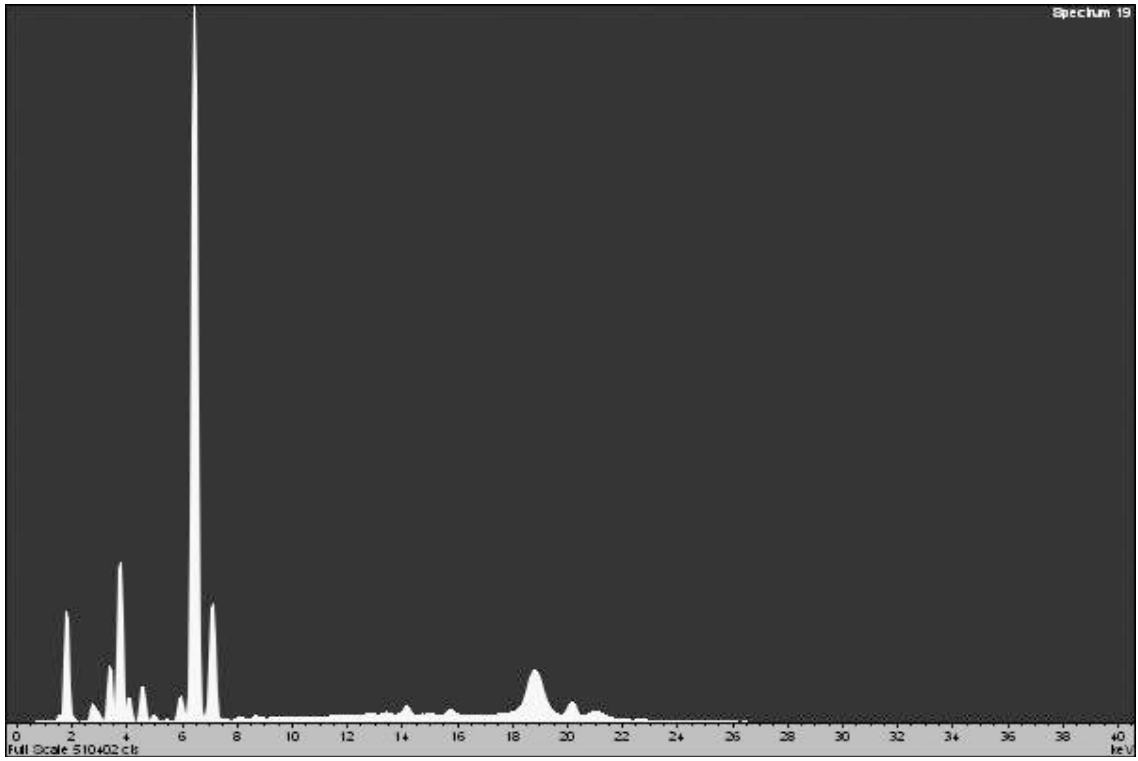


Figure 189(b). Mleiha sample ML 2280 (Spectrum 19)

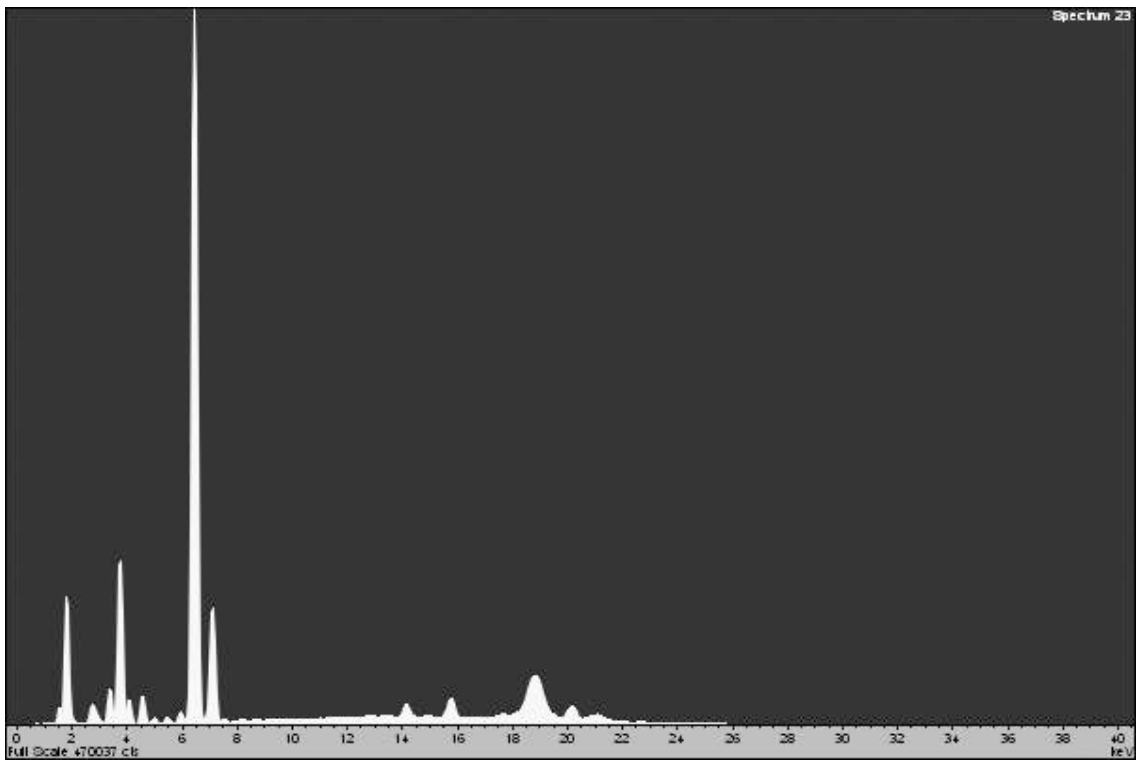


Figure 189(c). Mleiha sample ML H-5004 R (Spectrum 23)

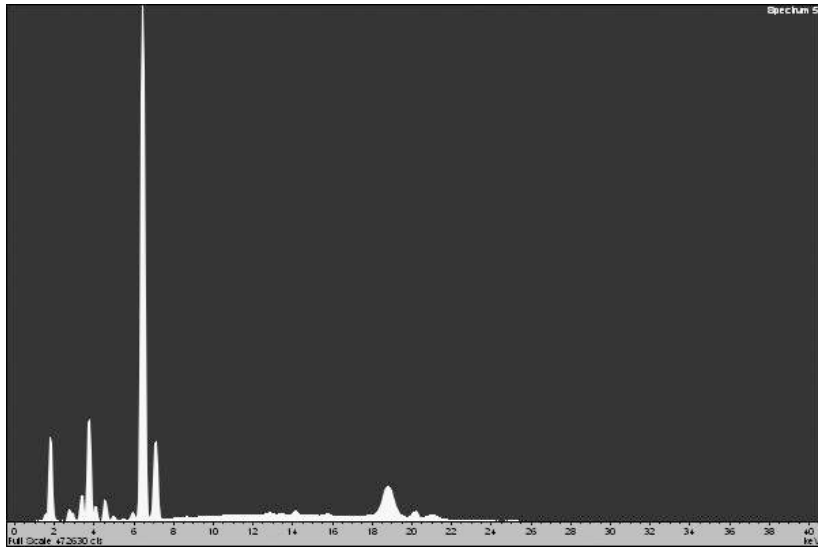


Figure 189(d). Junnar coarse ware sample (Spectrum 5)

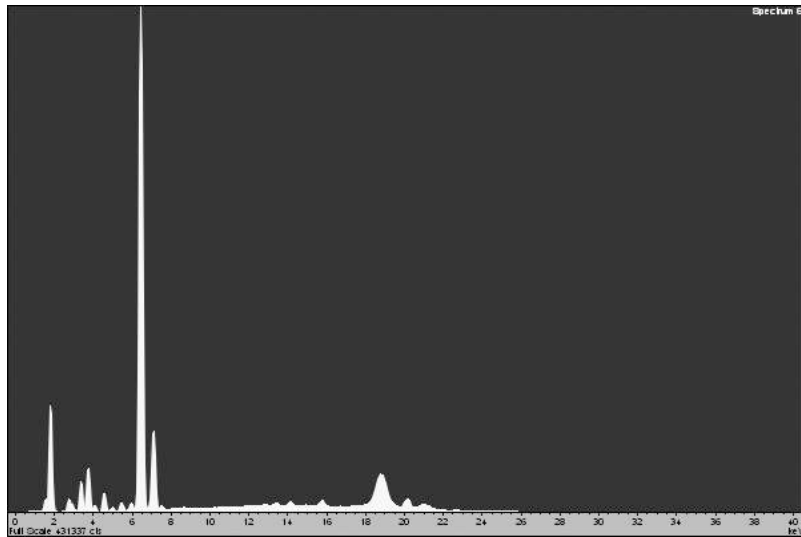


Figure 189(e). Dwarka Red Slipped sample (Spectrum 6)

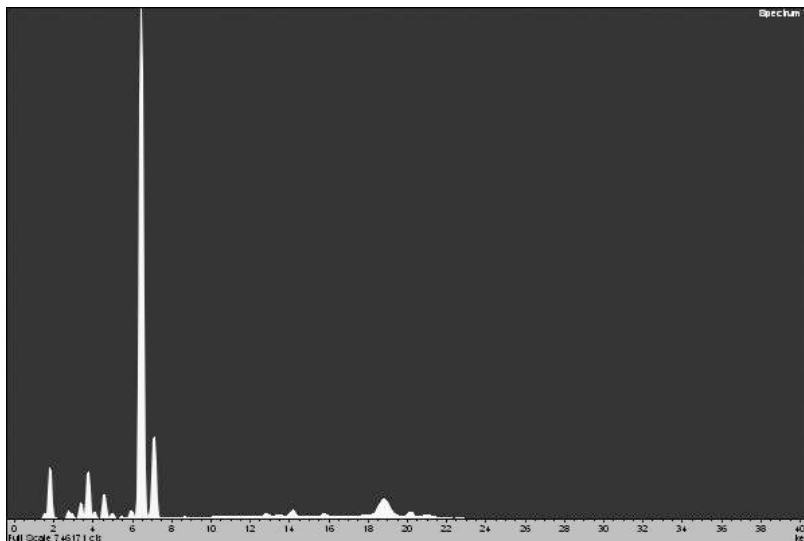


Figure 189(f). Nasik Red Slipped sample (Spectrum 7)

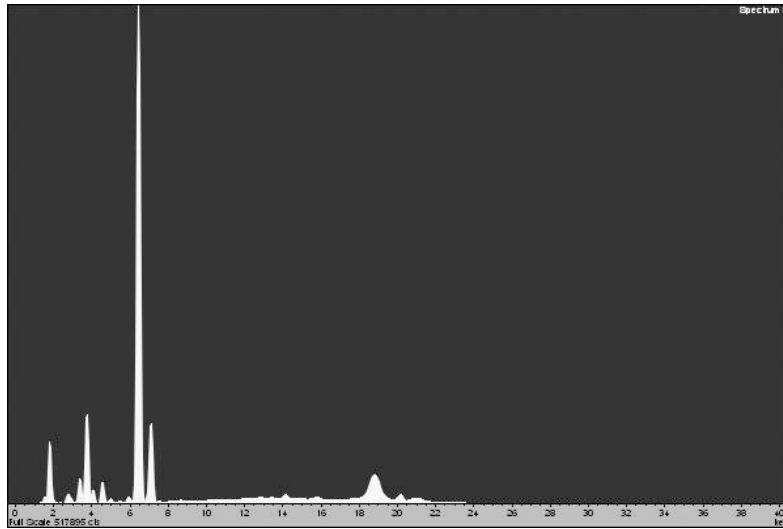


Figure 189(g).Nevasa CRW NV 5 sample (Spectrum 8)

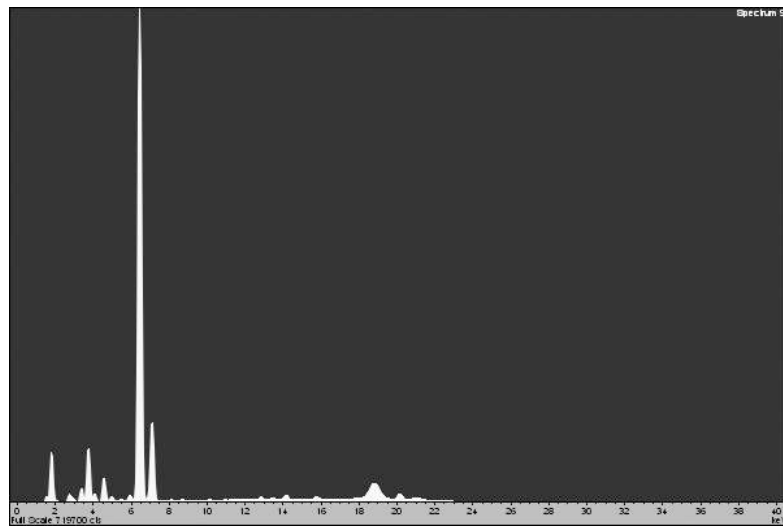


Figure 189(h).Nevasa Black Ware sample (Spectrum 9)

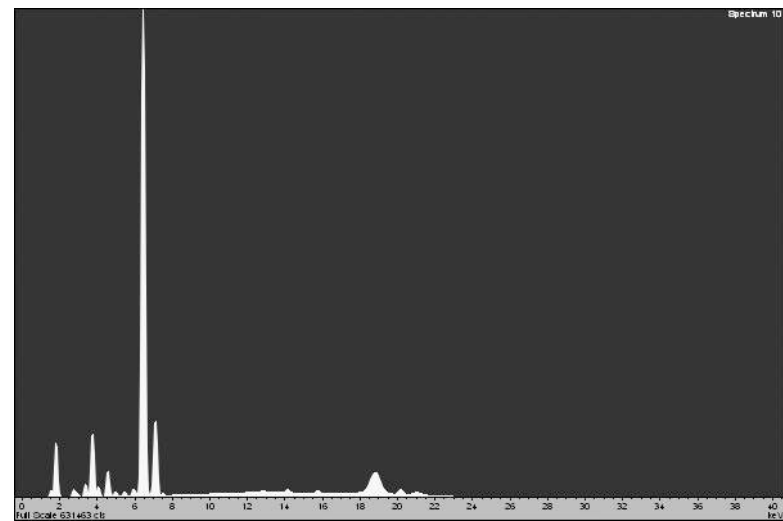


Figure 189(i). Padri Red Slip sample (Spectrum 10)

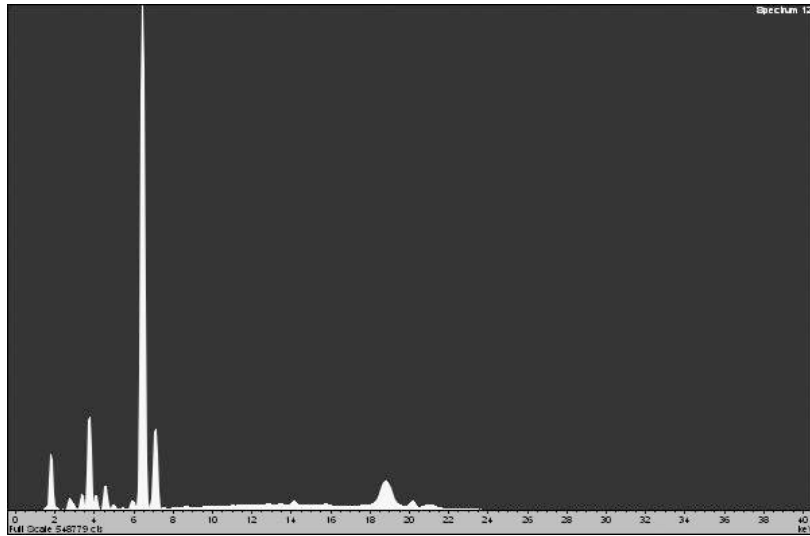


Figure 189(j). SVG-34 sample (Spectrum 12)

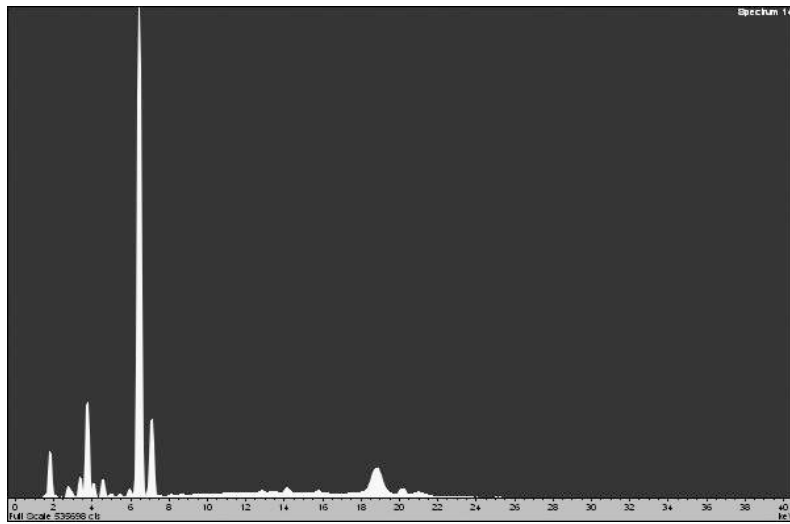


Figure 189(k). Junnar Red Slipped sample (Spectrum 14)

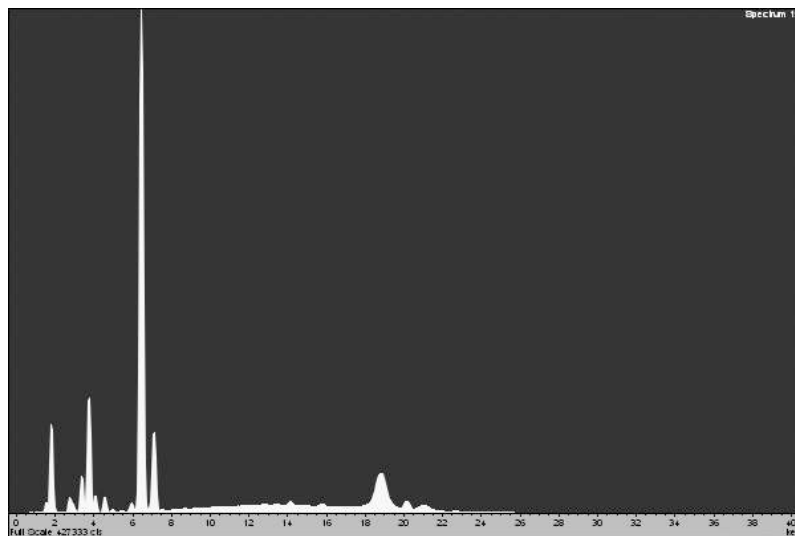


Figure 189(l). Dwarka CRW sample (Spectrum 15)

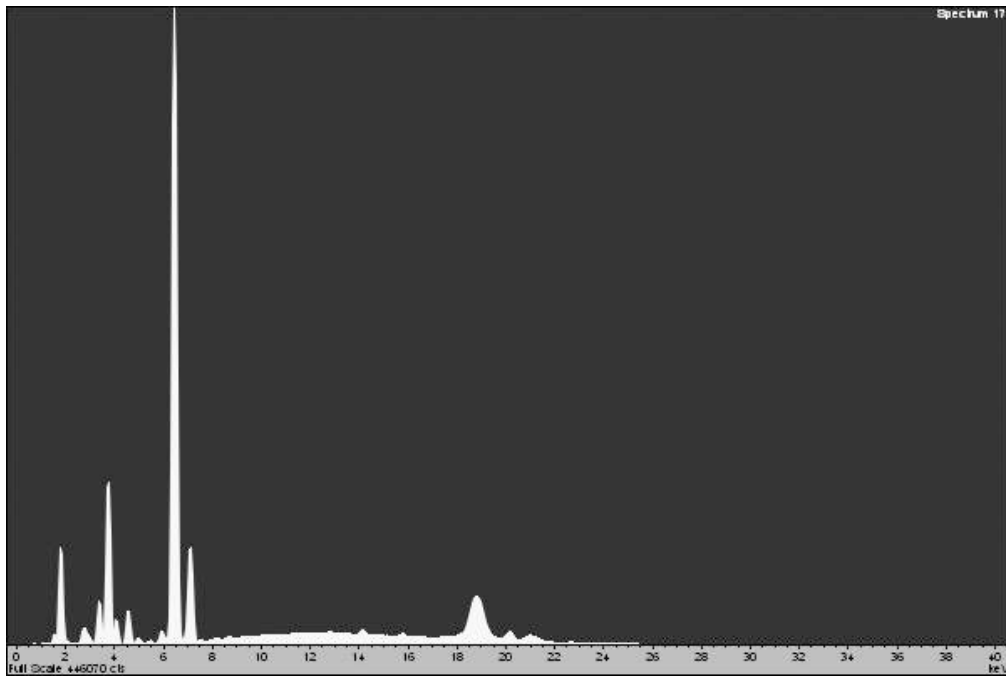


Figure 189(m). Nevasa NVS CRW sample (Spectrum 17)

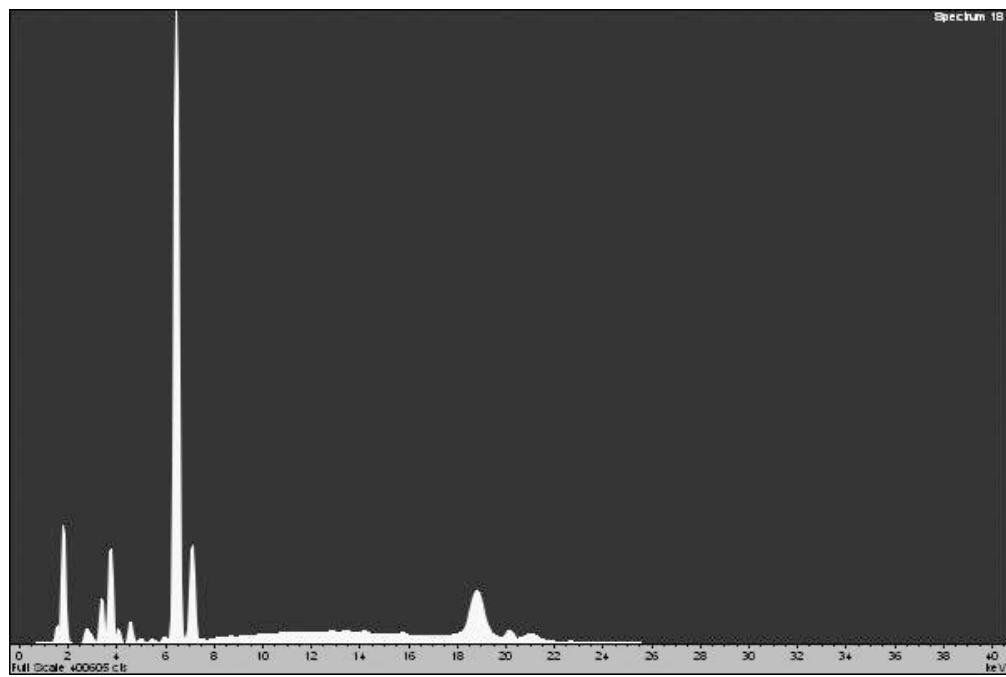


Figure 189(n). Gujarat PrabhasPatan RPW sample (Spectrum 18)

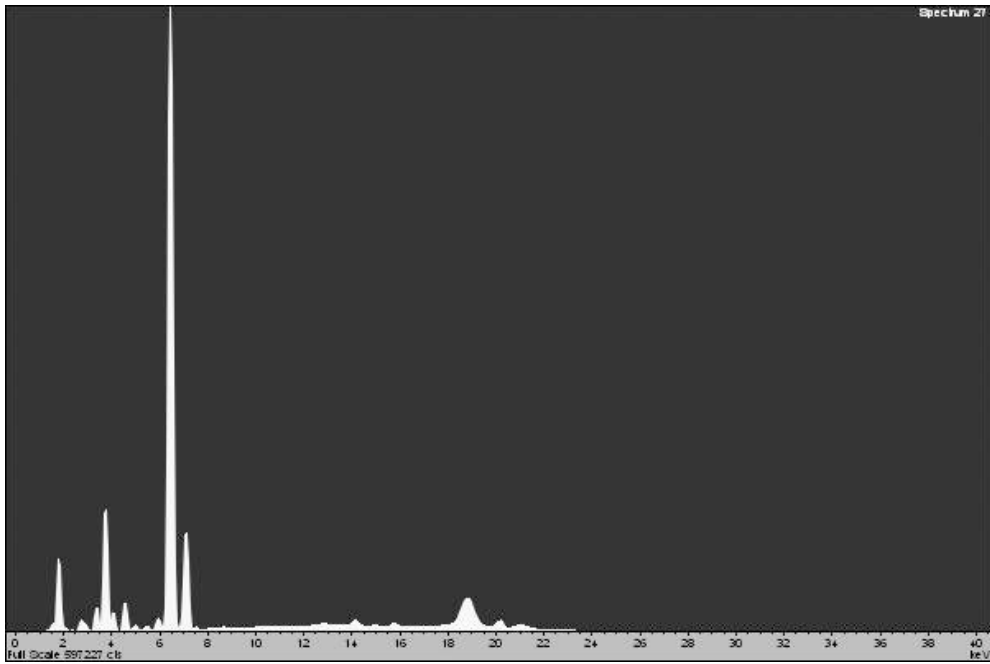


Figure 189(o). Nevasa CRW sample (Spectrum 27)

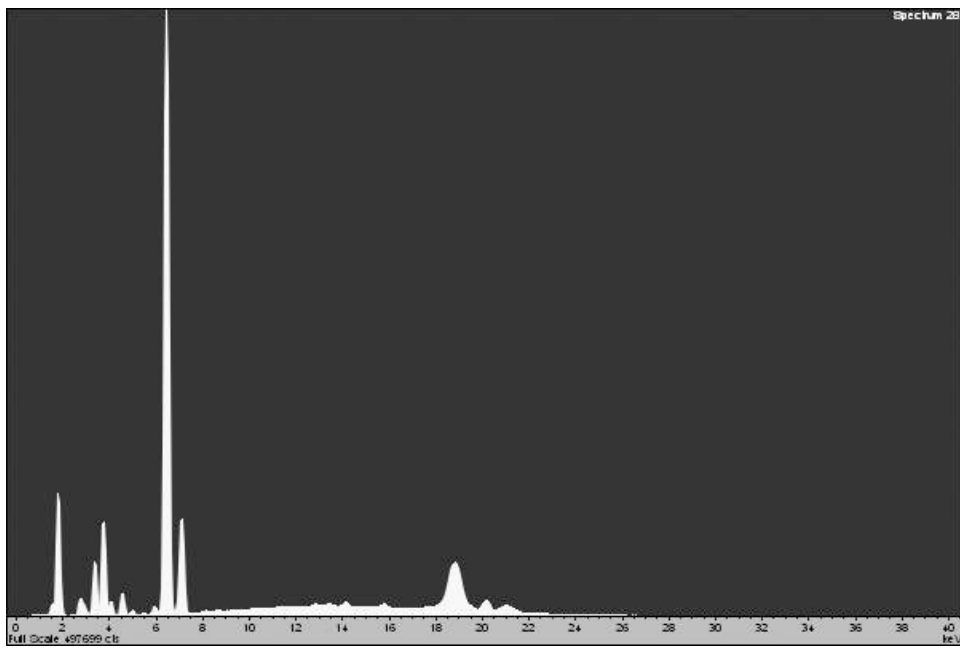


Figure 189(p). Nevasa DPW 1D2 sample (Spectrum 28)

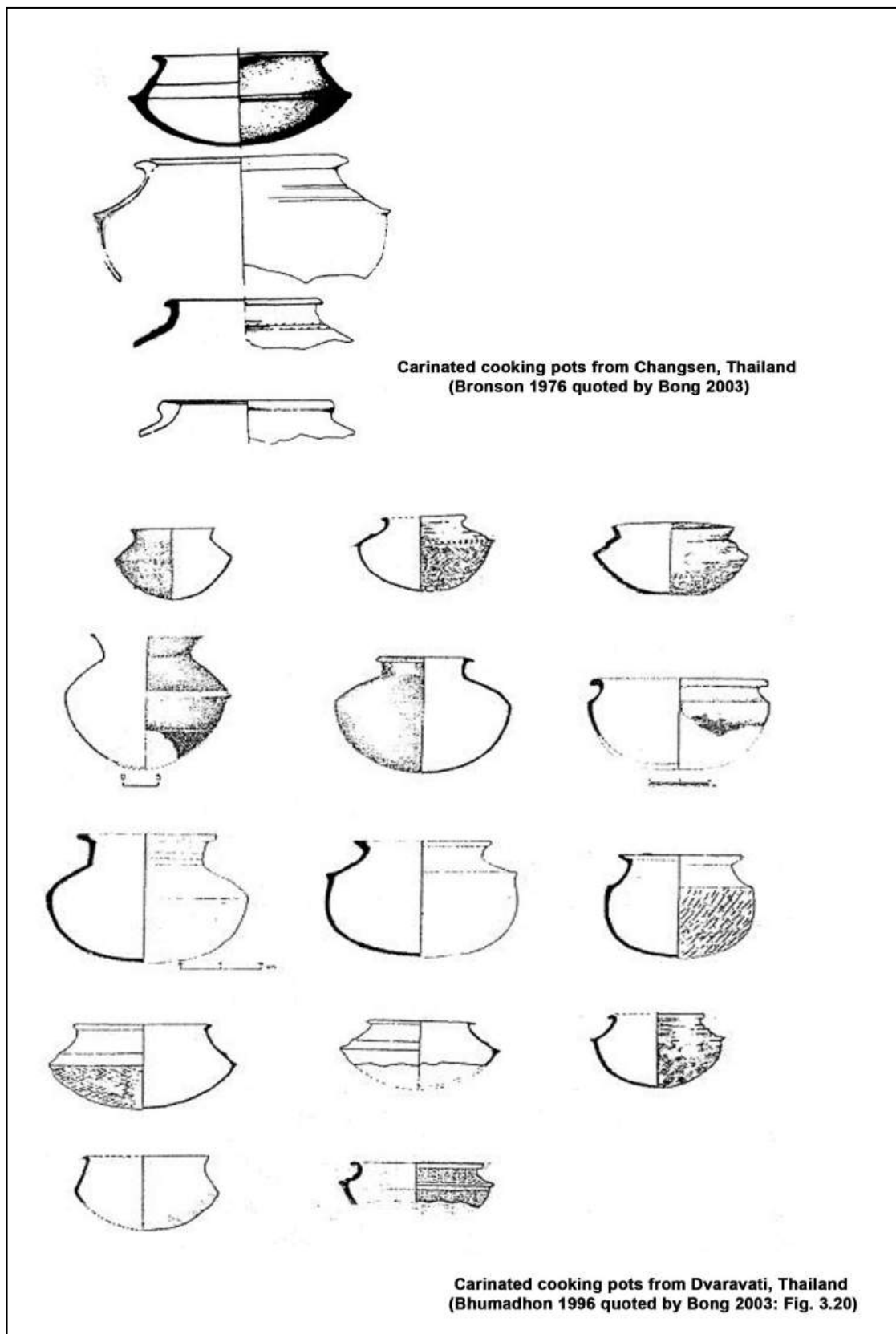


Figure 190. Examples of Indian-inspired carinated cooking pots from Southeast Asia in the Islamic period: Changsen and Dvaravati (Thailand)

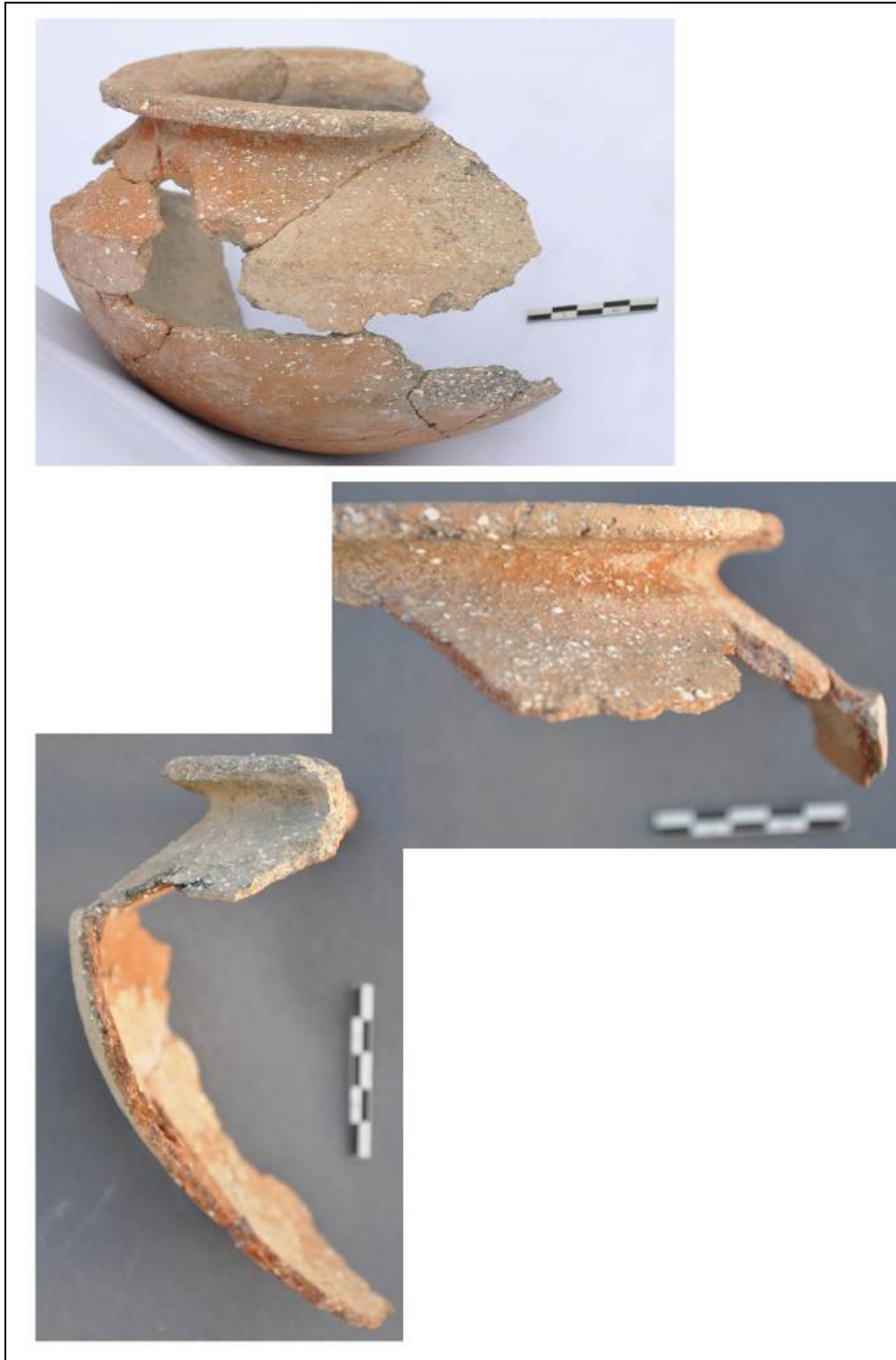
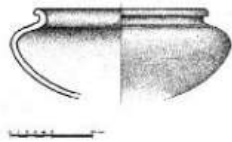
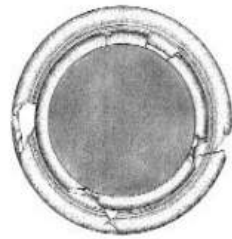
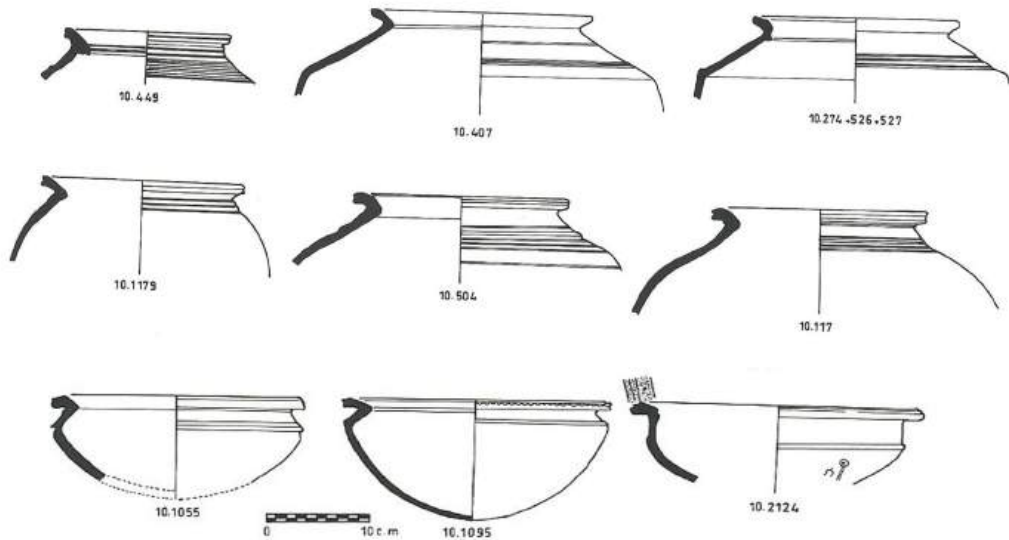


Figure 191. Carinated (handi-type) cooking pots from Mleiha in shell-tempered fabric (Fabric 3)



Indian cooking vessel from Khor Rori (Avanzini 2000: Fig. 31)



Indian cooking pots from Shisr (Zarins 2001: Figs. 42 and 50)

Figure 192. Indian cooking pots from Khor Rori and Shisr (Dhofar, Oman) in fine red ware, erroneously identified as Indian 'RPW' in previous publications

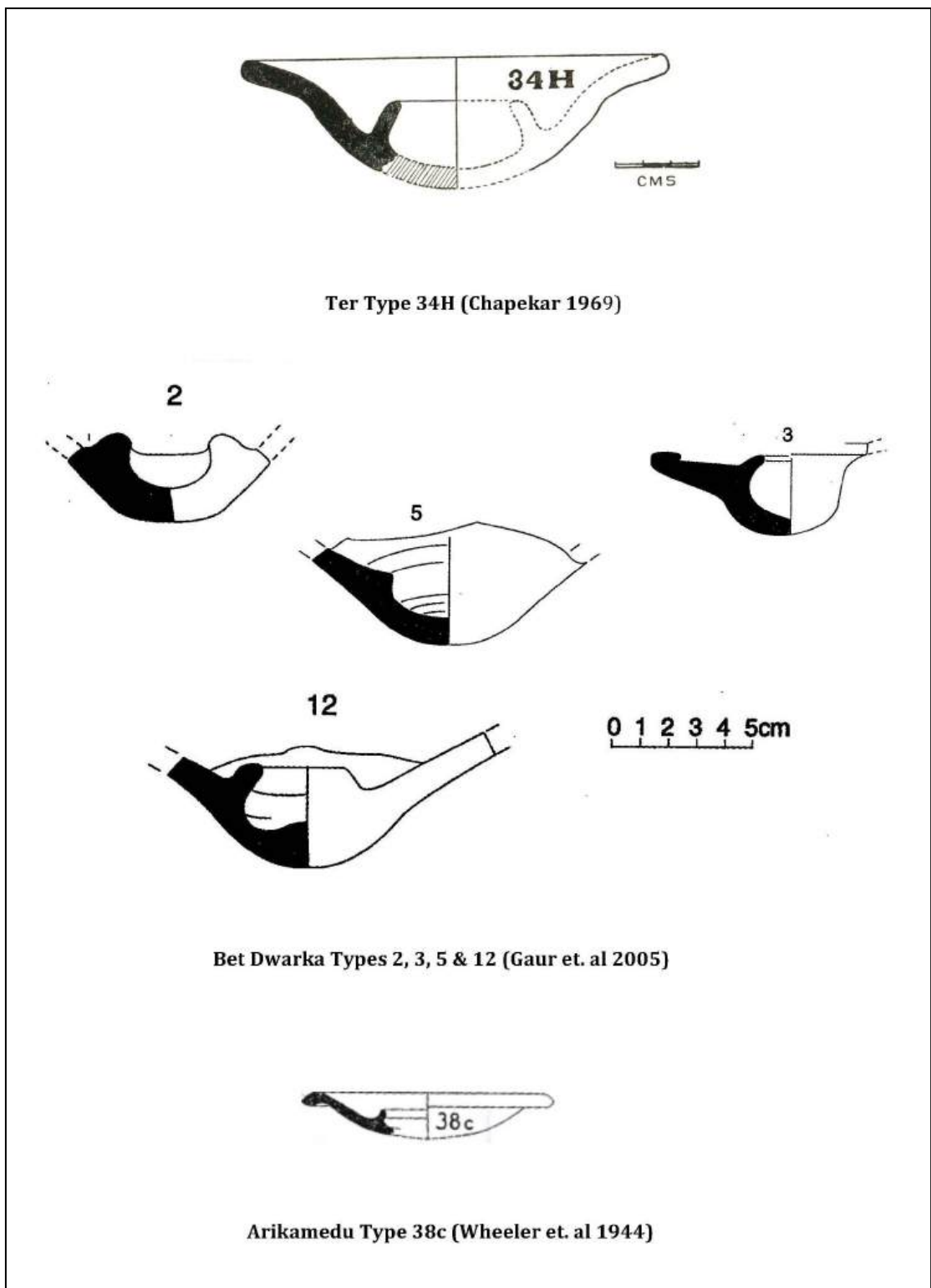


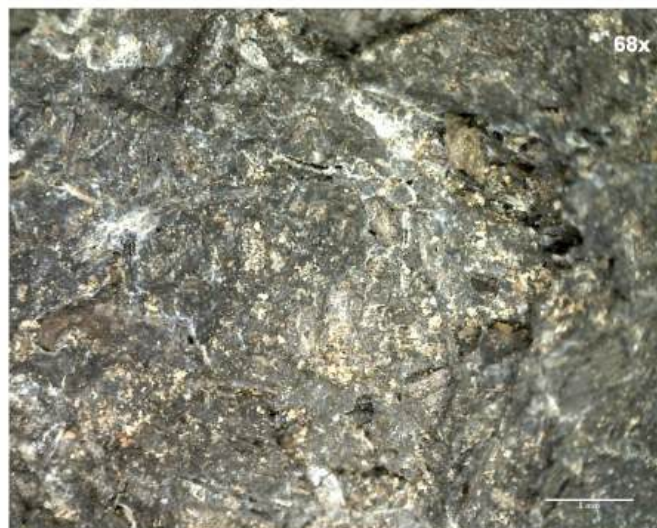
Figure 193. Lamp-lid (oil lamp) parallels from sites in western (Maharashtra & Gujarat) and southern India (Tamil Nadu)



Kamrej lamp-lid 1 and 2 (spongy fabric) (Gupta 2004: Fig. 11 no. X & VIII)



Kamrej Lamp-lid 3 (spongy fabric) (Gupta 2004: Fig. 6 no. XXXV)



Spongy ware or organic black ware sample from Kamrej lamp-lid (68x magnification) with mica, sand vegetal inclusions (rice temper)

Figure 194. Kamrej lamp-lid variety in 'spongy' black or red ware



**Kamrej lamp-lid in Coarse red ware
(Gupta 2004: Fig. 6 no. XXXIV)**



**Coarse red fabric sample from Kamrej lamp-lid (52x magnification)
with white quartzite, limestone, red inclusions, mica and vegetal temper**

Figure 195. Kamrej lamp-lid variety in coarse red ware (scale = 1mm)



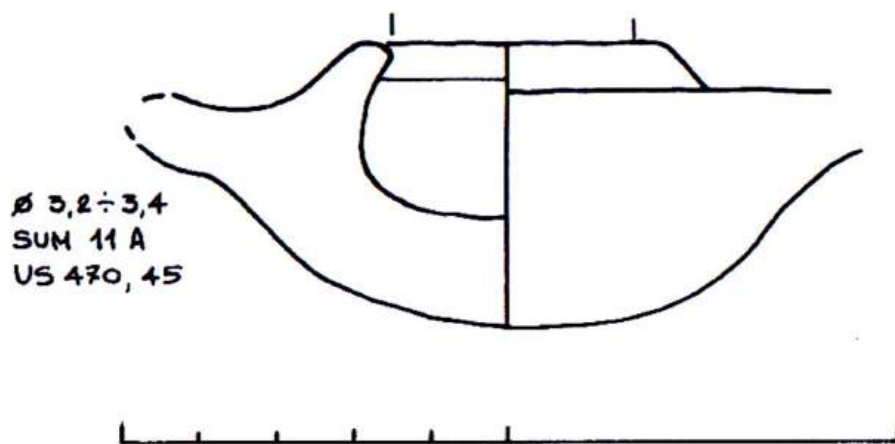
Mleiha sample ML10146



Mleiha sample ML10147

Mleiha Fabric 1 (variant) - coarse reddish-orange ware with occasional chalky inclusions (limestone grits)

**Figure 196. Mleiha lamp-lid (oil lamp) types in coarse reddish-orange ware
(Fabric 1 variant)**



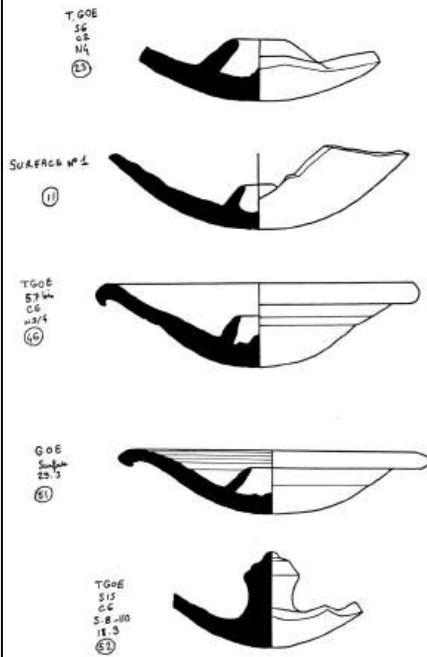
Pottery drawing of sample SUM11 A US470, 45 (oil lamp) from Khor Rori



Fabric sample of SUM11 A US470, 45 (53x magnification)
with quartzite, vegetal temper, limestone and mica

Figure 197. Fabric sample from an oil lamp at Khor Rori (SUM11A US470, 45)
nearly identical to the Kamrej lamp-lid in coarse red ware

Couvercles - Site d'Oc-Eo
Dessins de V. Bernard



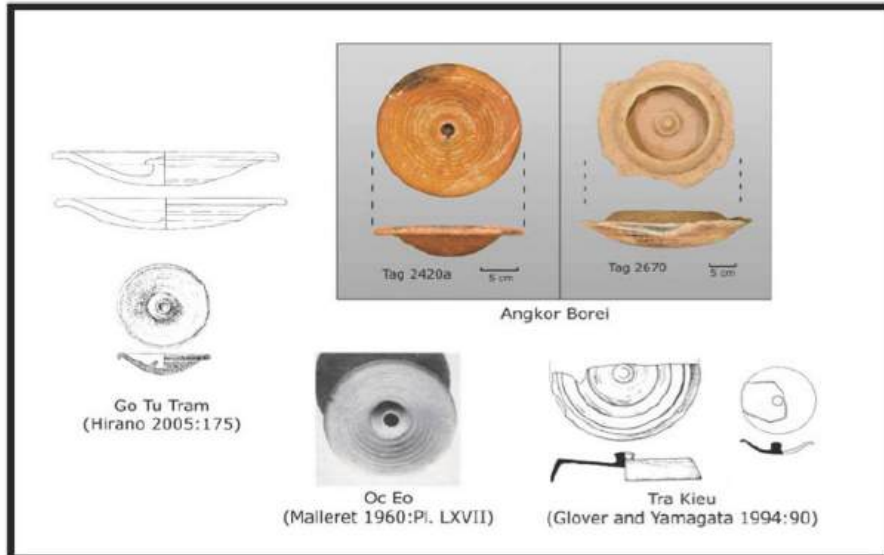
Lids (lamp-lid type) from Oc-Eo (Vietnam)
(Drawing by V. Bernard)

Couvercle provenant du site de Batujaya
Unur Serut ID 2003
Mission Archéologie de Tarumanagara
(Cliché P.-Y. Manguin)

Figure - 8



Lids (lamp-lid type) from Batujaya (Indonesia)
(Manguin 2002)



Lids from Angkor Borei, Go Tu Tram, Oc Eo and Tra Kieu (Fehrenbach 2009: Fig. 6.3)

Figure 198. Lid-types (similar to lamp-lids) from Southeast Asia

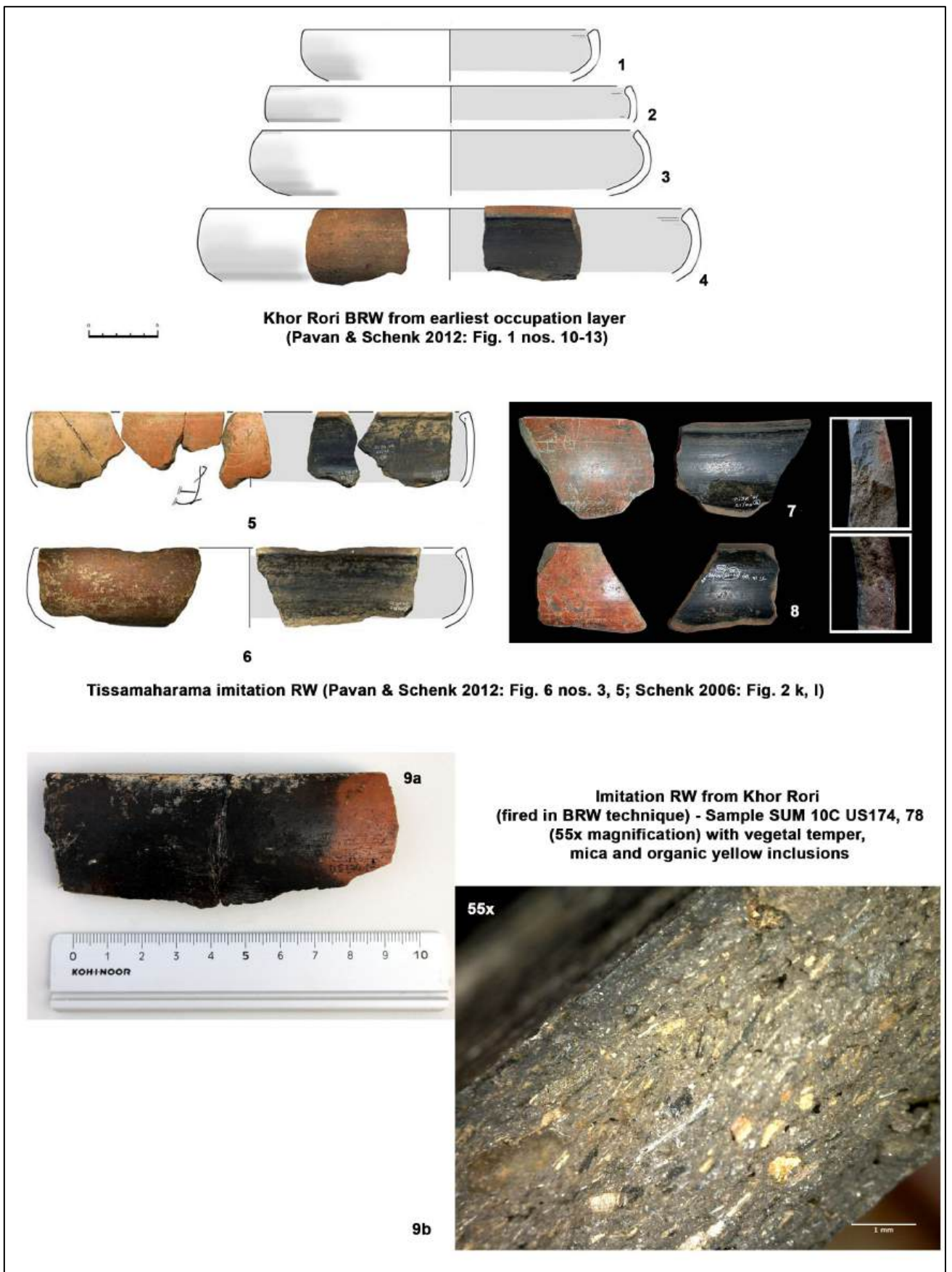
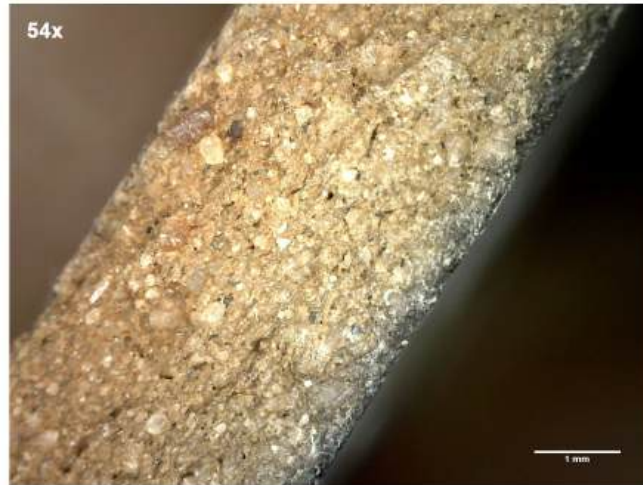


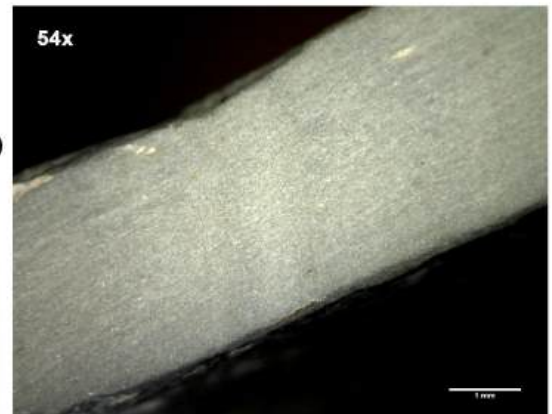
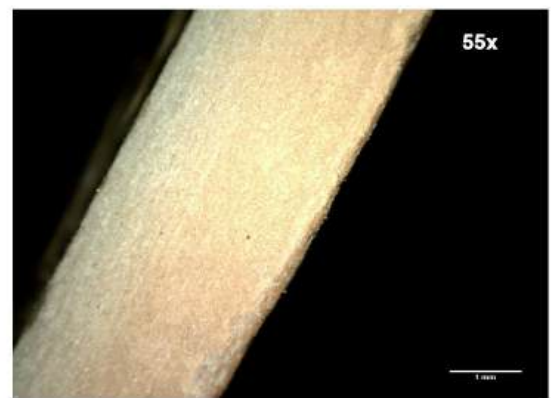
Figure 199. Black and Red ware from Khor Rori and imitation rouletted ware from Tissamaharama and Khor Rori



a. Alagankulam BRW sample (AGM_ 16 No. 87)



b. Alagankulam true RW samples (with chattered decoration) and view of cross-section (554x-55x)



c. Cross section of Alagankulam true RW sample in 'red ware' (50x magnification)

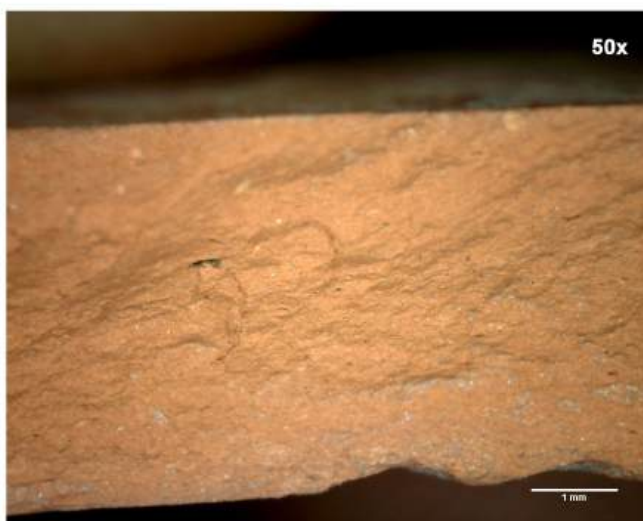
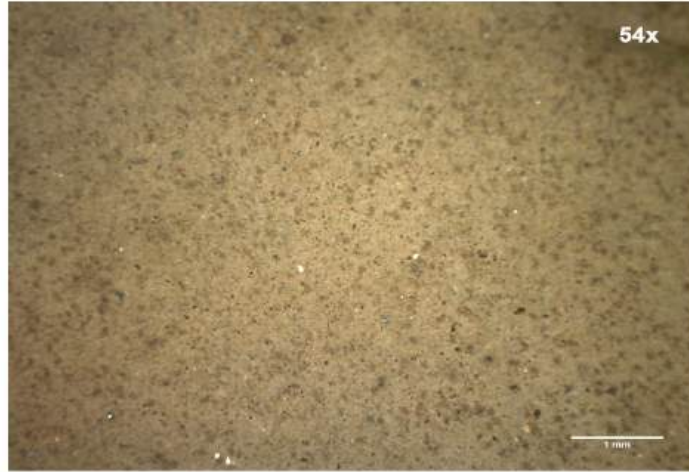


Figure 200. Alangakulam samples: Black and Red ware and 'True' Rouletted ware (scale = 1mm)



**a. Kush FIRE sample 2233 (54x)
- no inclusions except mica (Fabric 1)**

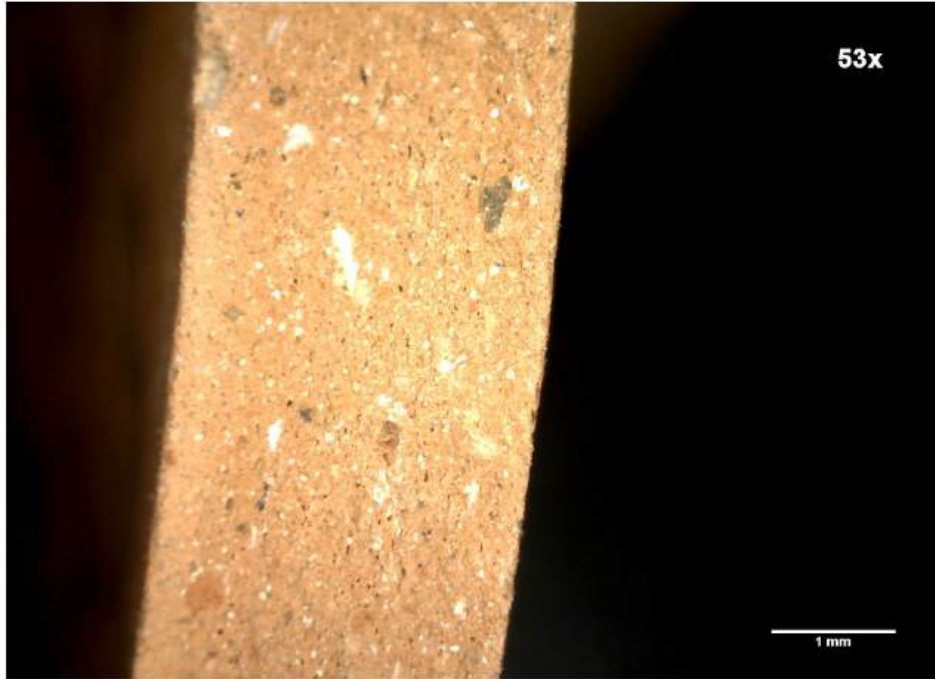


**b. Kush FIRE sample 4375 (55x)
- small sized inclusions of quartz, quartzite, limestone (Fabric 2A)**

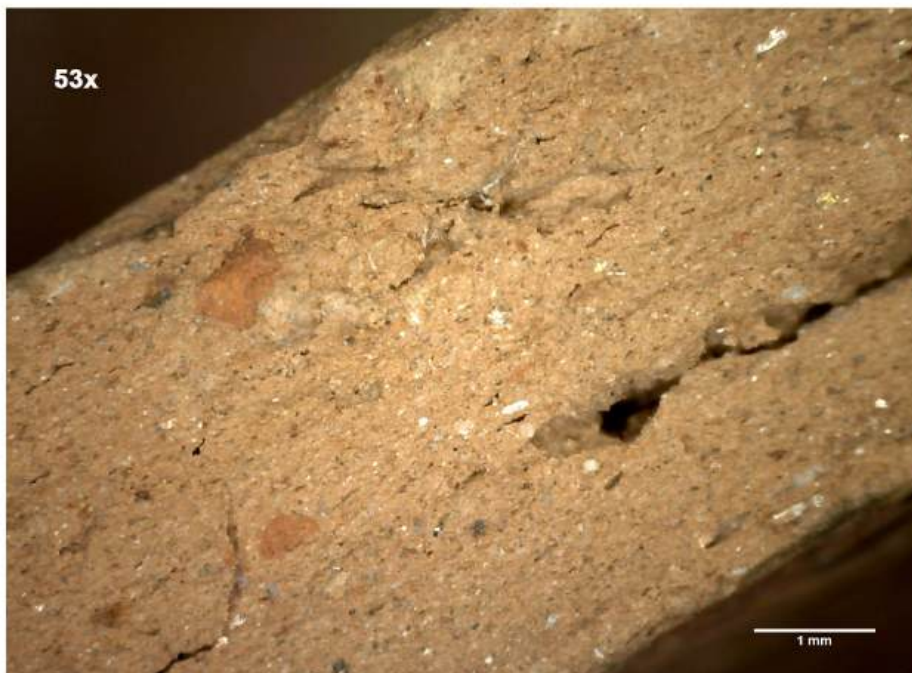


**c. Kush FIRE sample 4944 (55x) -
medium particles of transparent quartz/quartzite and limestone**

Figure 201. Fine Indian Red Ware (FIRE) fabric variations from Kush (scale = 1mm)



**1. Khor Rori FIRE sample (SUM05B US174, 77=63) (53x)
with compact clay and white inclusions and grog/clay pellets**



**2. Khor Rori FIRE sample (SUM11A US174, 295) (53x)
with silty/sandy fabric, mica and grog/clay pellets**

**Figure 202. Fine red (Indian-style table jars) fabric variations from Khor Rori
(scale = 1mm)**

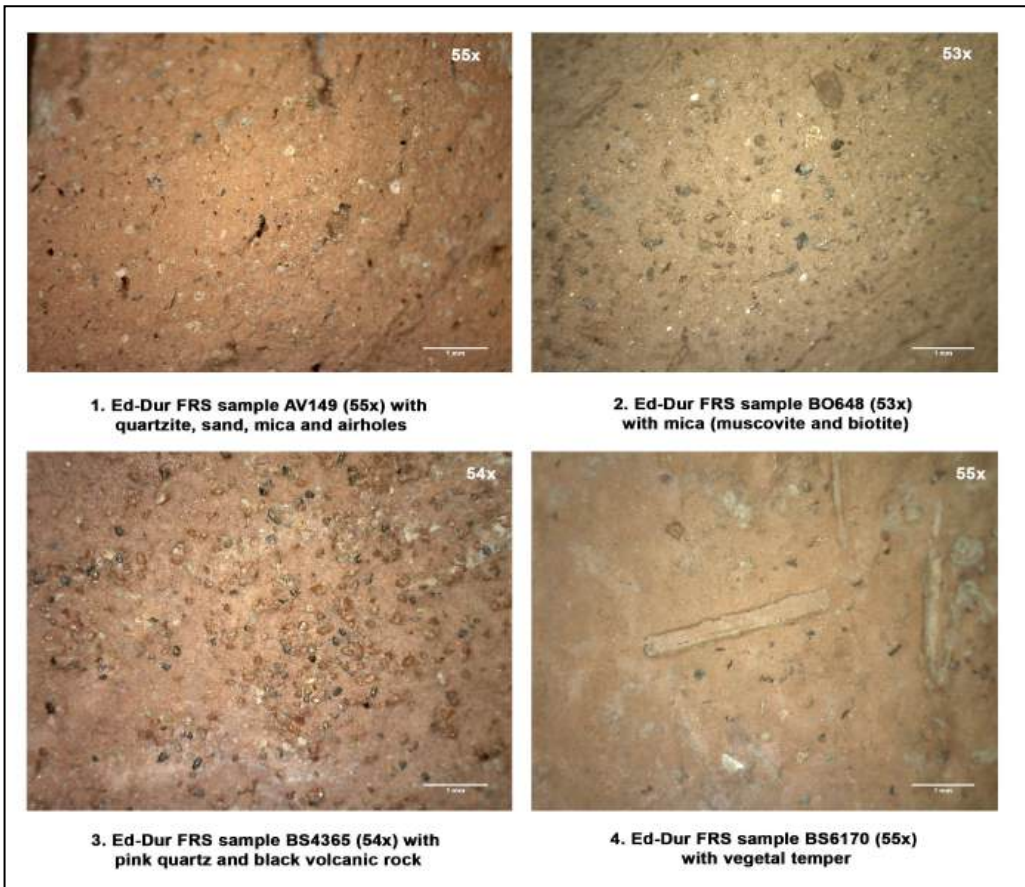


Figure 203a. Ed-Dur Fine red slipped ware fabric with variations

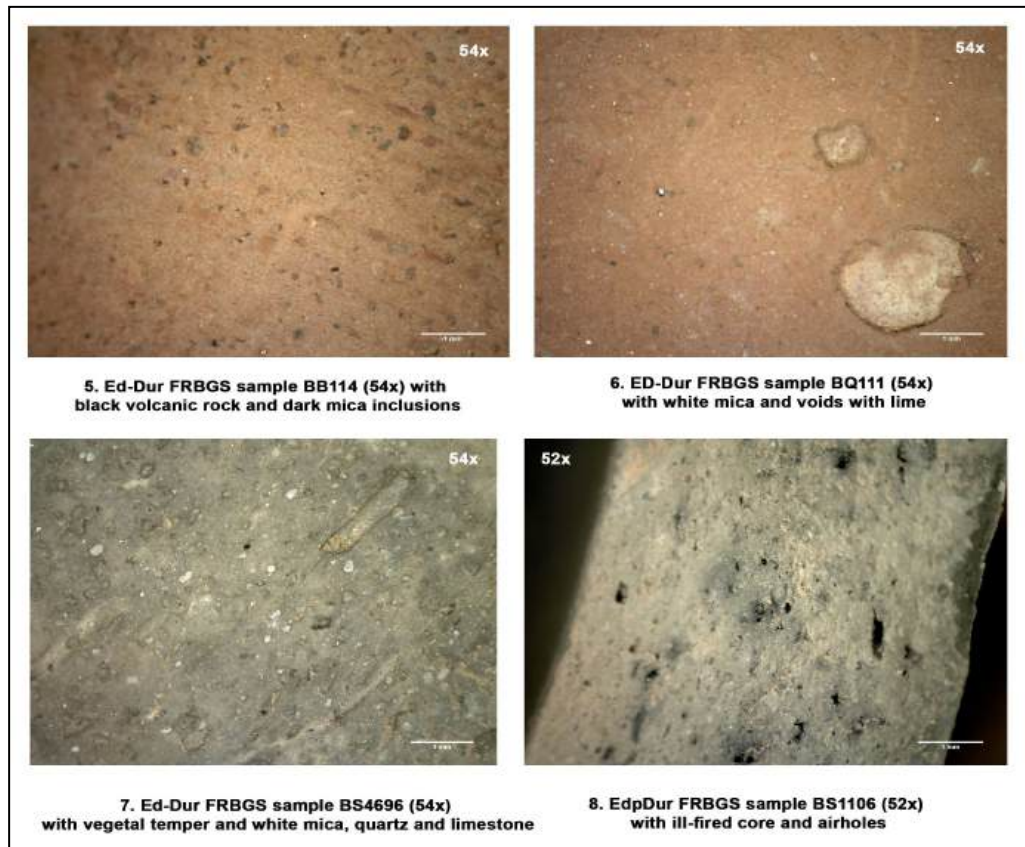


Figure 203b. Ed-Dur Fine reddish-brown and grey slipped ware fabric with variations

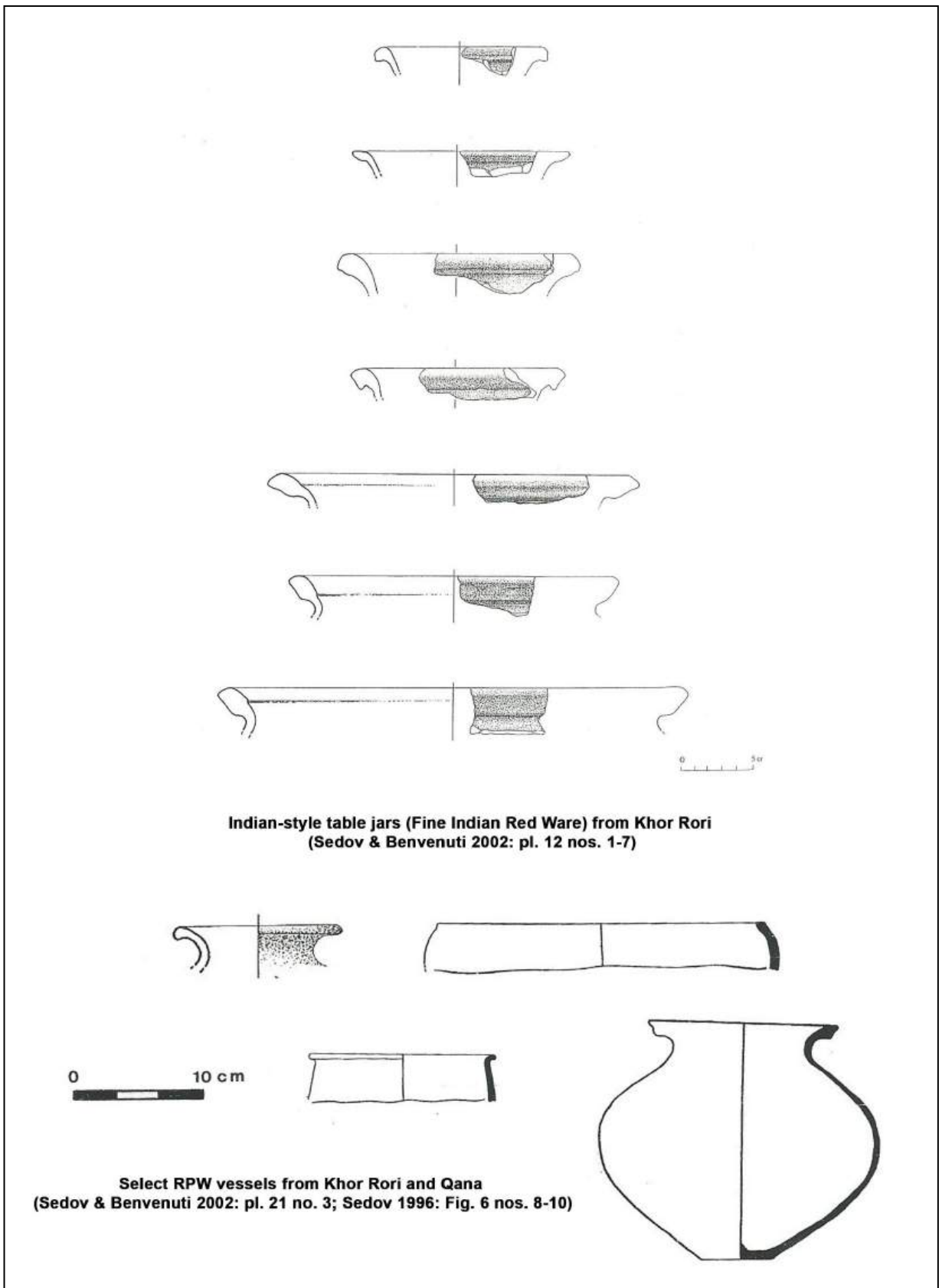


Figure 204. Fine Indian red (Indian-style table jars) and Red Polished Ware shapes from Khor Rori and Qana



Figure 205. Shell-tempered ware fabrics from Mleiha, Khor Rori and Al Balid (scale = 1mm)

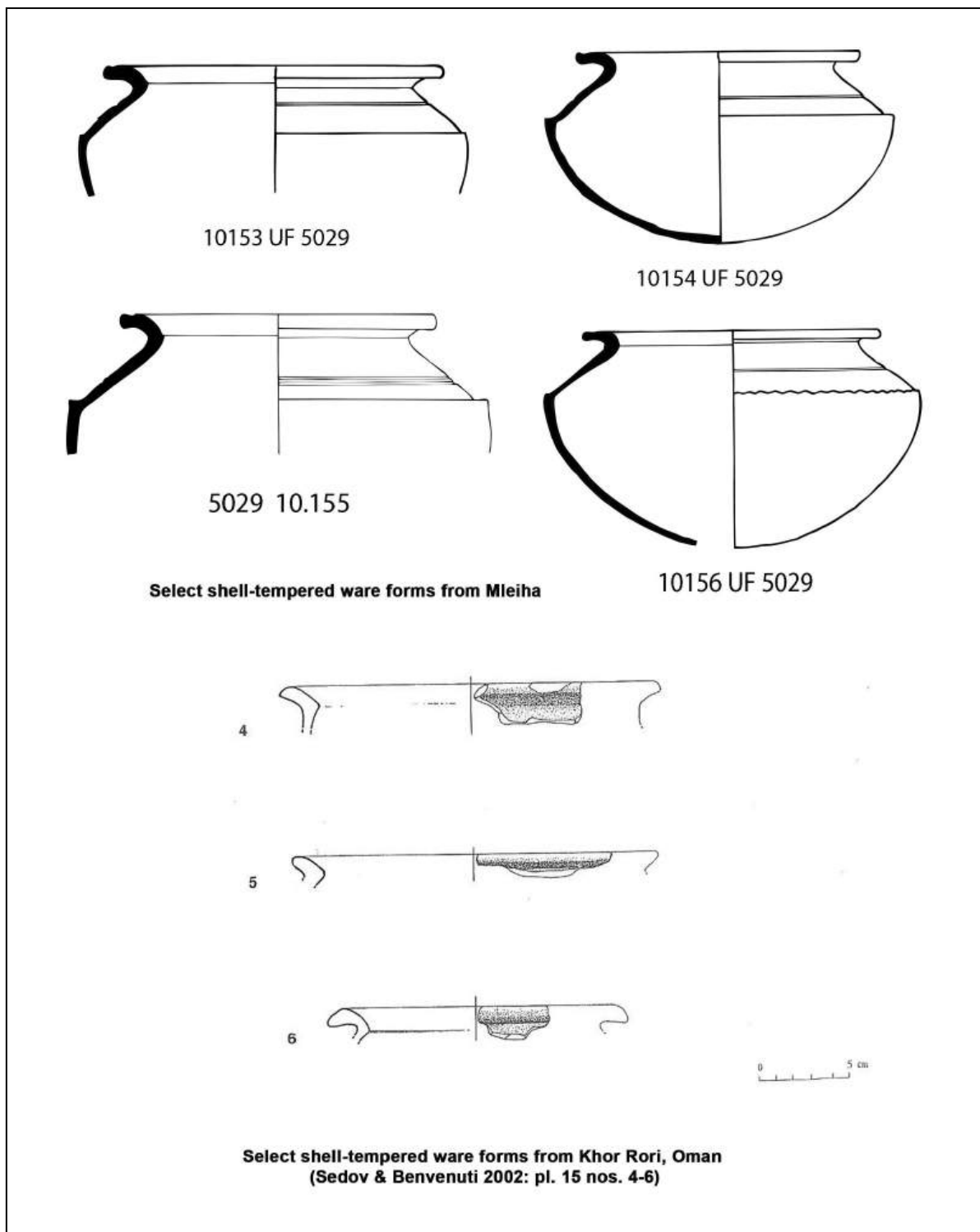


Figure 206. Cooking vessel (handi-type) forms in shell-tempered ware from Mleiha and Khor Rori

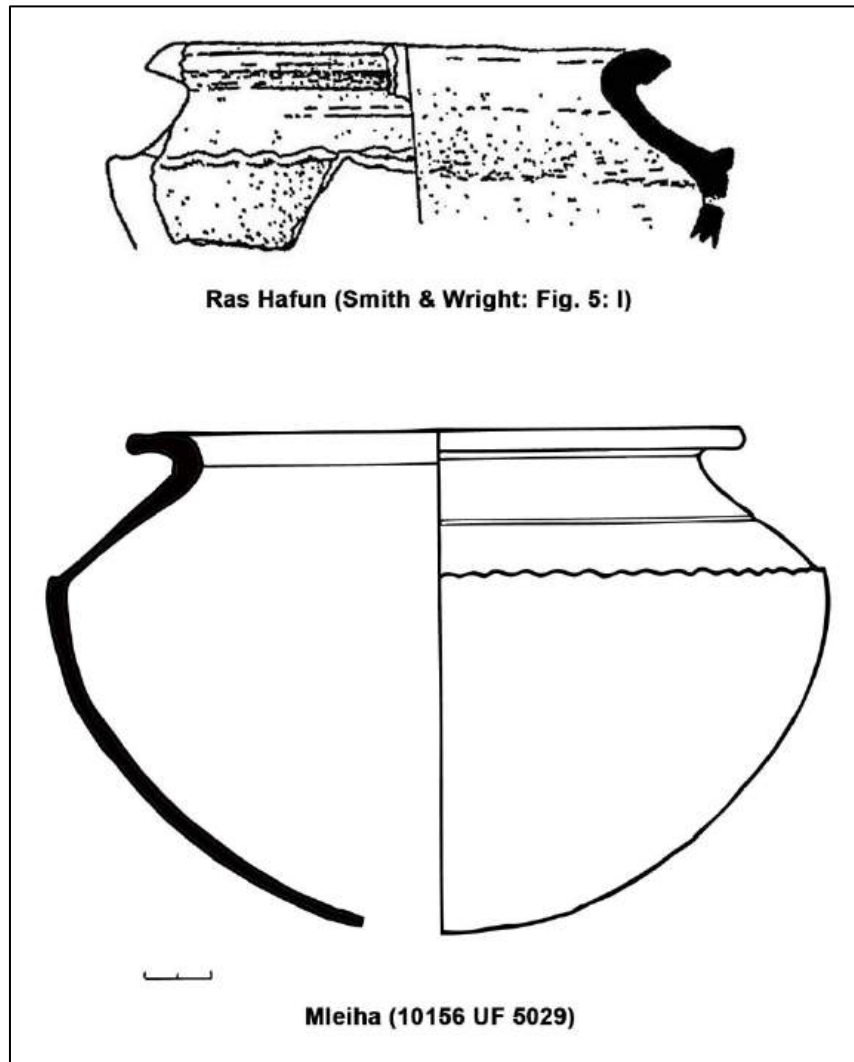
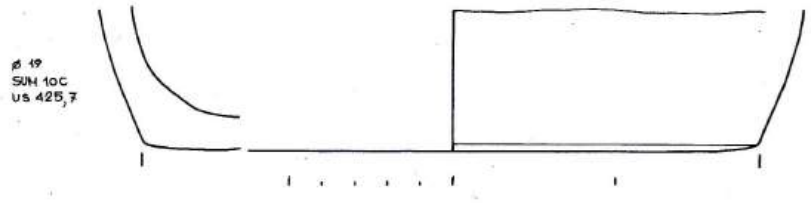


Figure 207. Shell-tempered carinated vessels with scalloped edges from Ras Hafun & Mleiha



Khor Rori Black and grey ware sample (SUM10C US425, 7) (54x) - surface pitted with lime and organic impurities

Figure 208. Black and Grey ware: Fragment of a base (Sherd no. SUM10C US425, 7) from Khor Rori

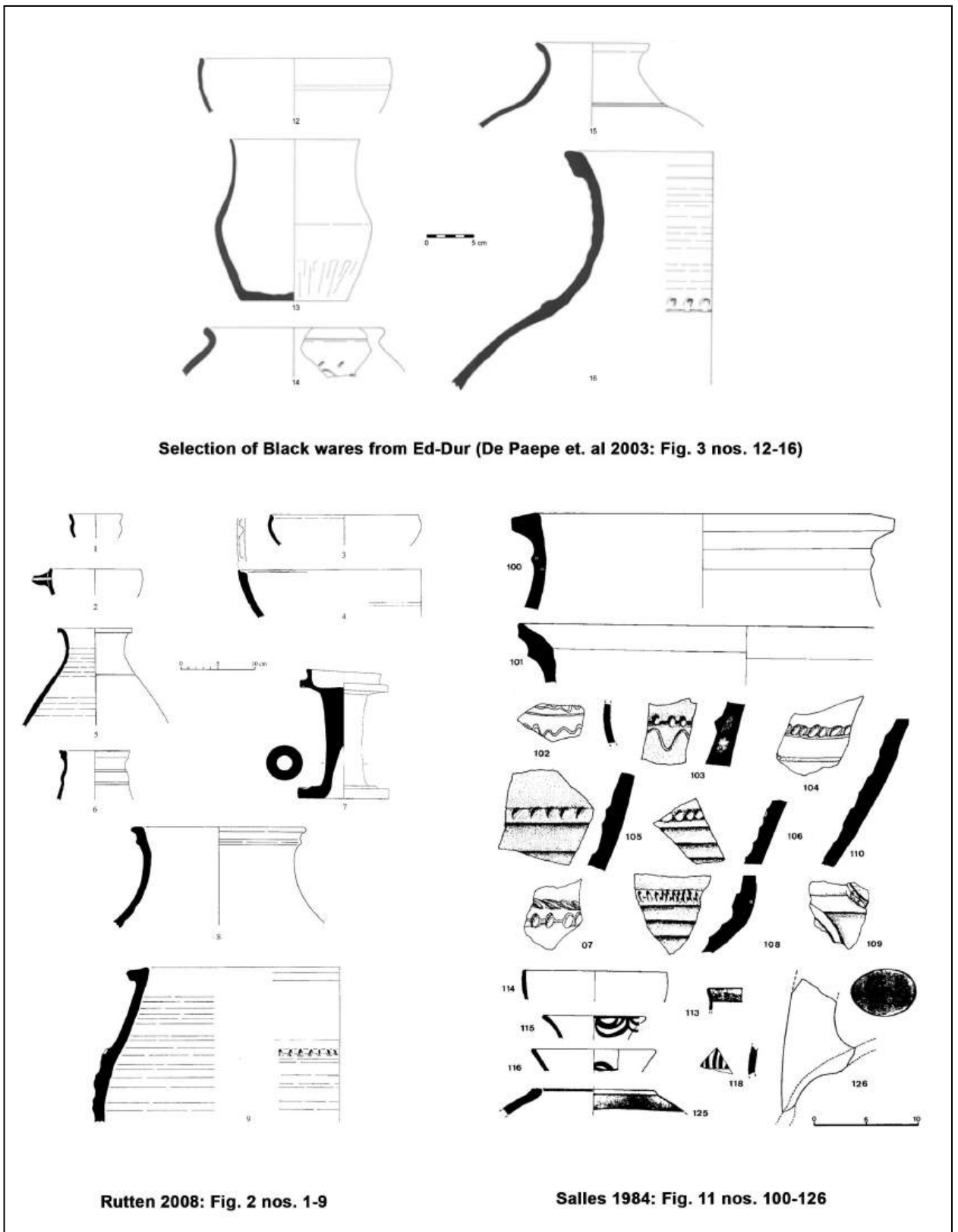
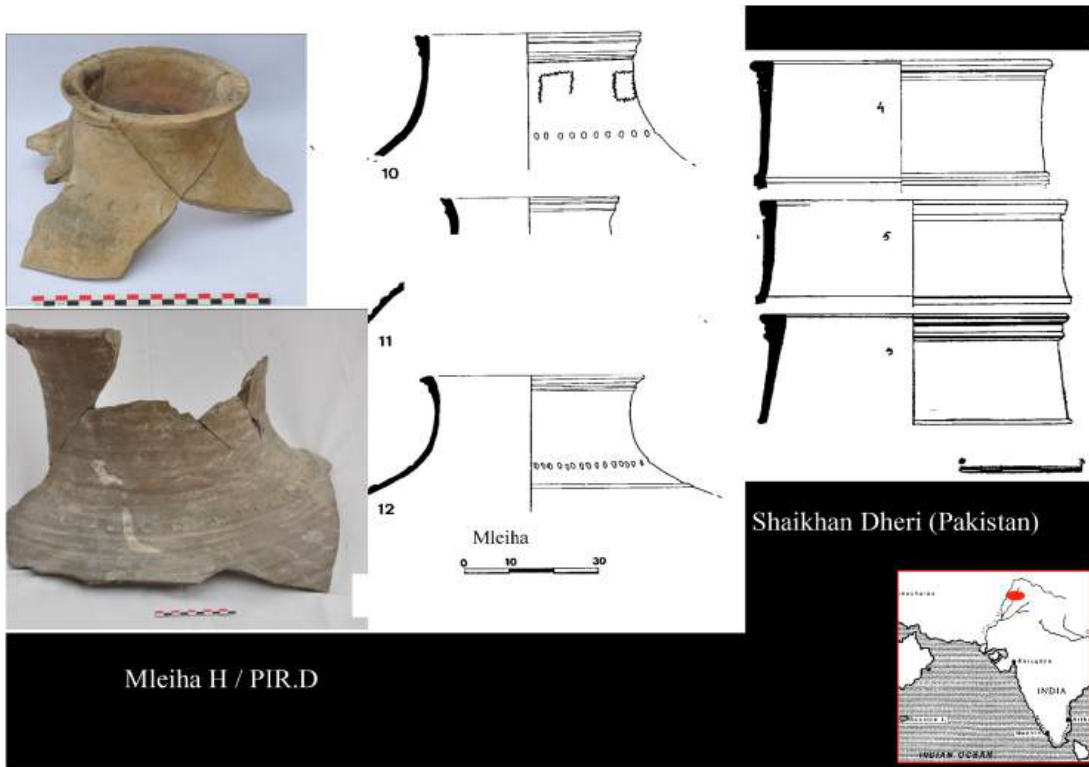


Figure 209. Select black and grey ware shapes from Ed-Dur



Similar black ware fragments from Ed-Dur (left) and Dwarka (right)
(Gupta 2012: Fig. 3)



Mleiha H / PIR.D

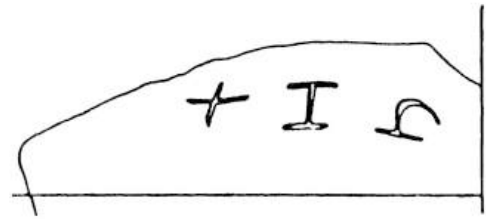
Shaikhan Dheri (Pakistan)

Mleiha black wares and form parallels from Shaikhan Dheri (Pakistan)

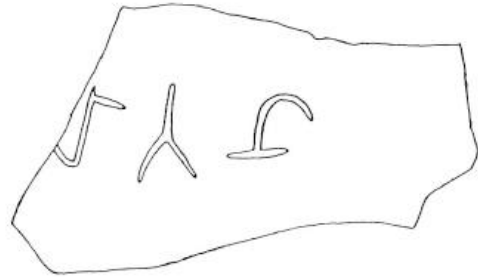
Figure 210. Select parallels in decoration and form between black wares from Ed-Dur and sites in western and north-western India (Dwarka, Gujarat and Shaikhan Dheri, Pakistan)



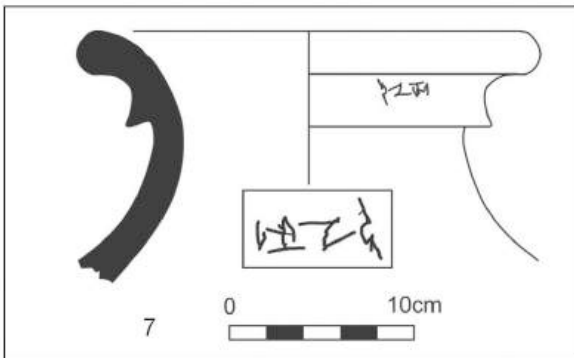
1. Prakrit inscription on an ostracon from Quseir (Saloman 1991 Fig. 1)



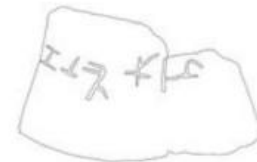
2. Old Tamil inscription from Quseir: kanan (Saloman 1991 Fig. 2)



3. Old Tamil inscription from Quseir: catan or cattan (Saloman 1991 Fig. 3)



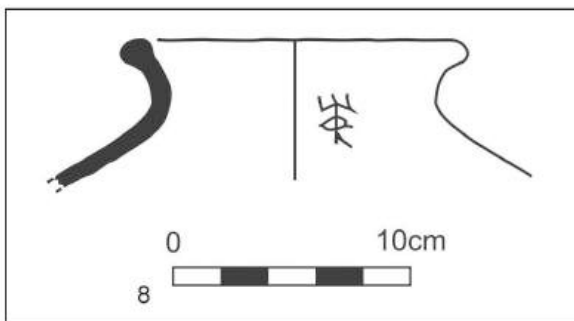
4. Indian storage jar with post-firing Tamil Brahmi graffiti (Tomber et. al 2011b Fig. 2.6)



0 10 CM

na-n-tai-ki-ra-ṅ
 ணந்தை கீரன்

6. Tamil Brahmi ostracon from Khor Rori (Rajan 2012)



5. Indian cooking pot with post-firing South Arabian monogram (Tomber et. al 2011b Fig. 2.7)

Figure 211. Ostraca evidence of 'India trade' from the Red Sea and Arabian contexts.

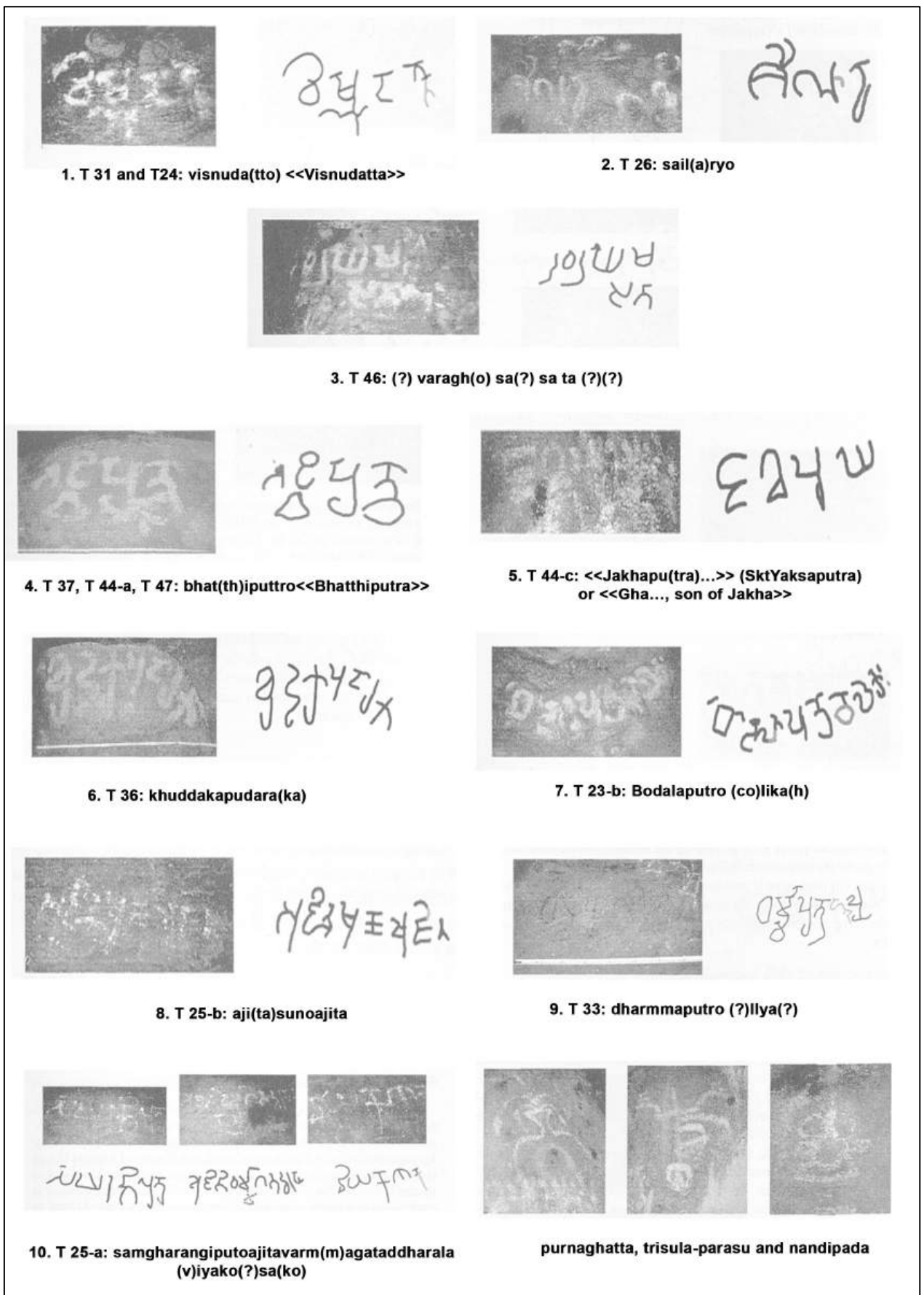
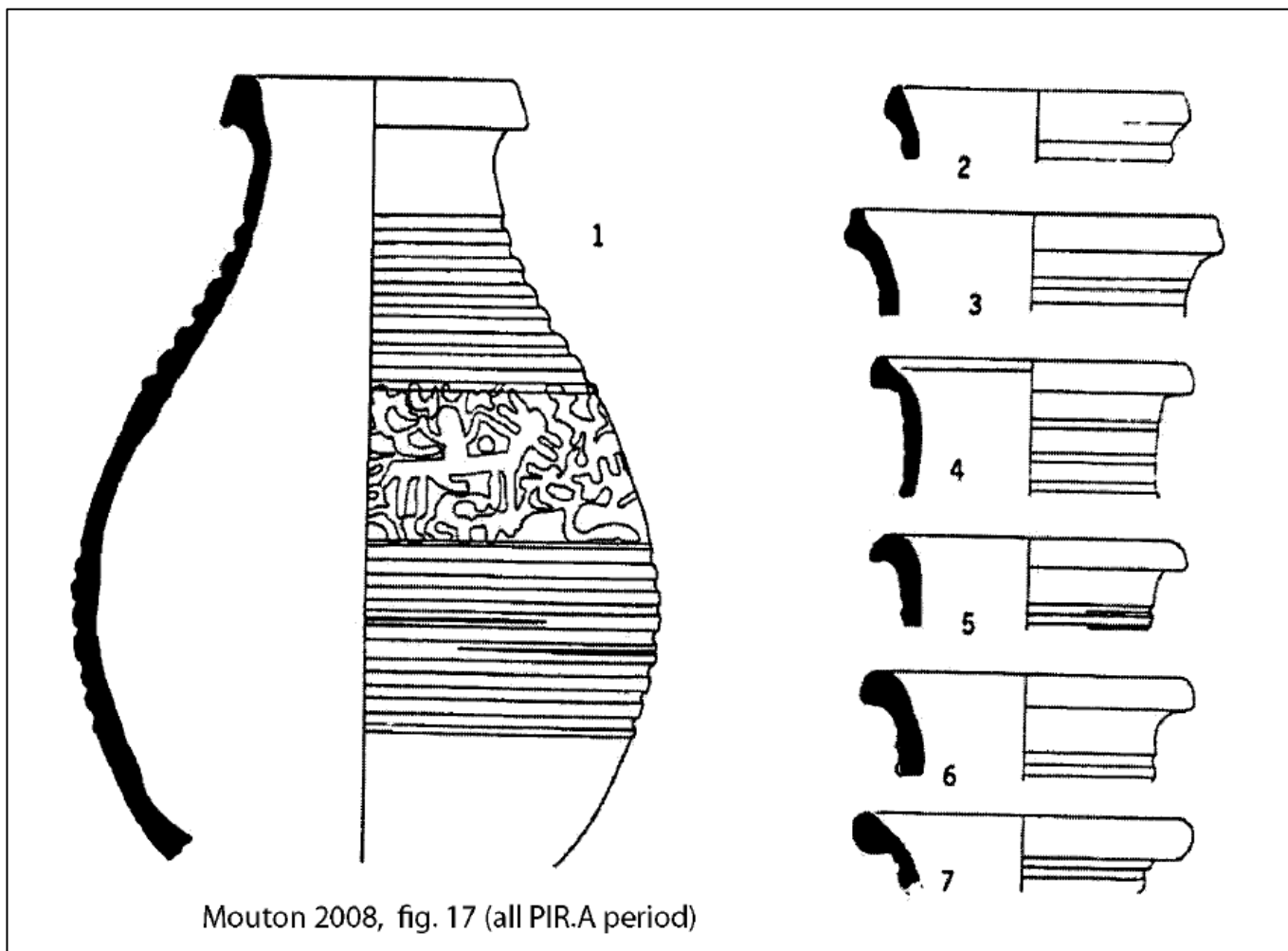


Figure 212. Cave inscription evidence of Arabia-India trade - Hoq cave, Socotra Island (Strauch & Bukharin 2004)



**Figure 213. High-necked vessel forms from Mleiha PIR.A period
(after Mouton 2008: fig. 17)**

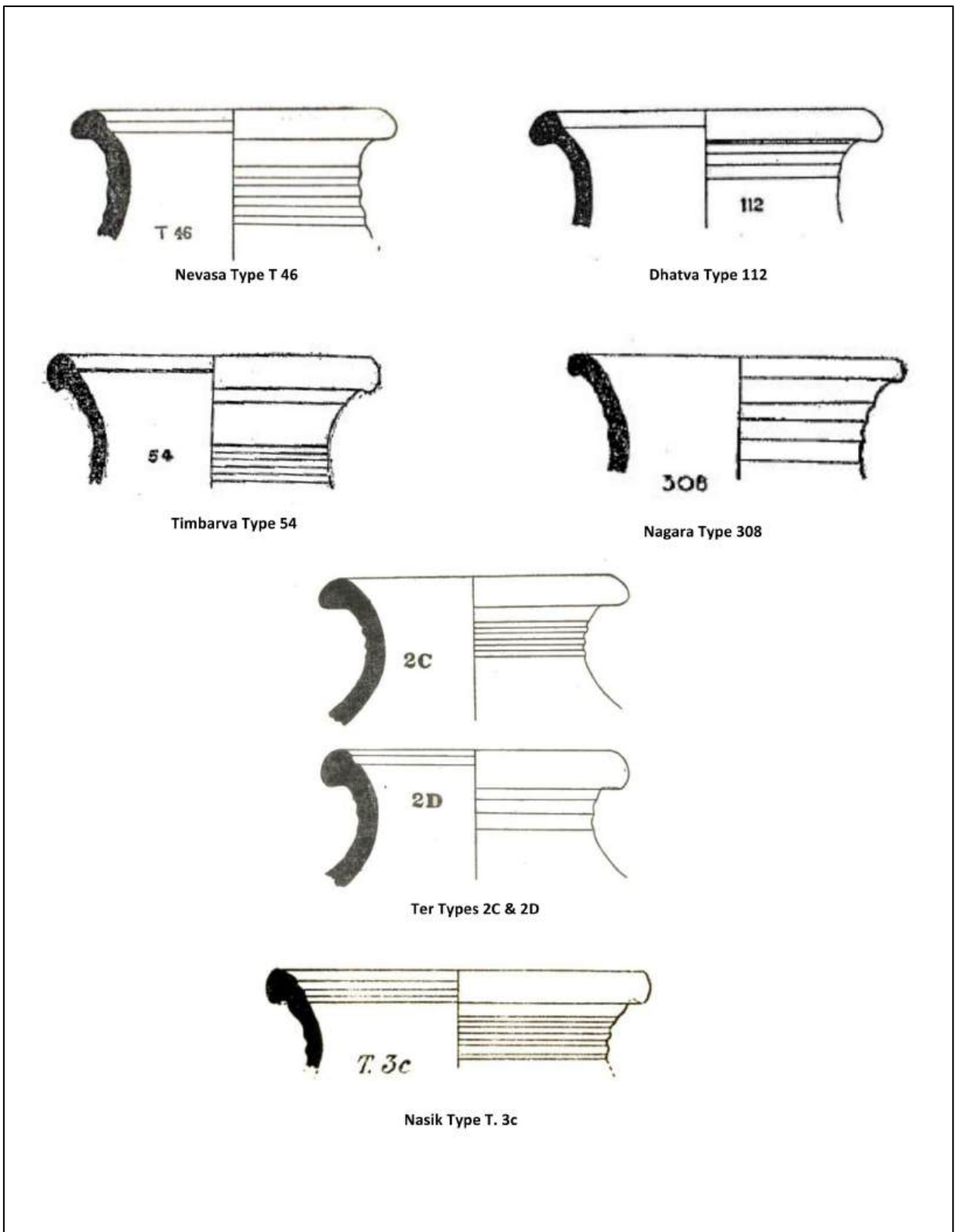


Figure 214. Indian Ceramic Parallels of High-necked vessels from Western India

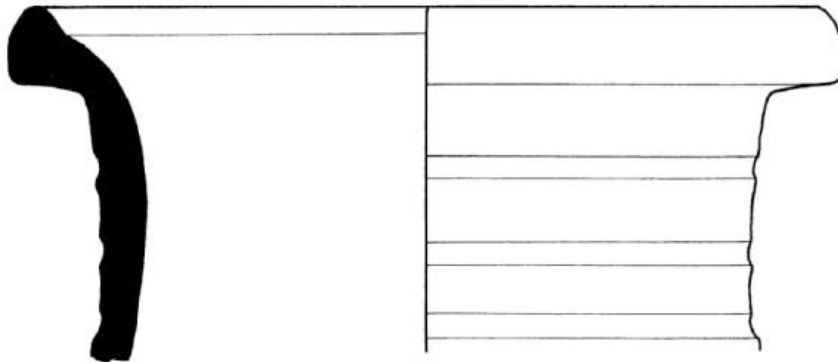


Figure 215. Mleiha High-necked vessel sample ML 2280 - Photograph and Pottery Drawing (Not to scale)

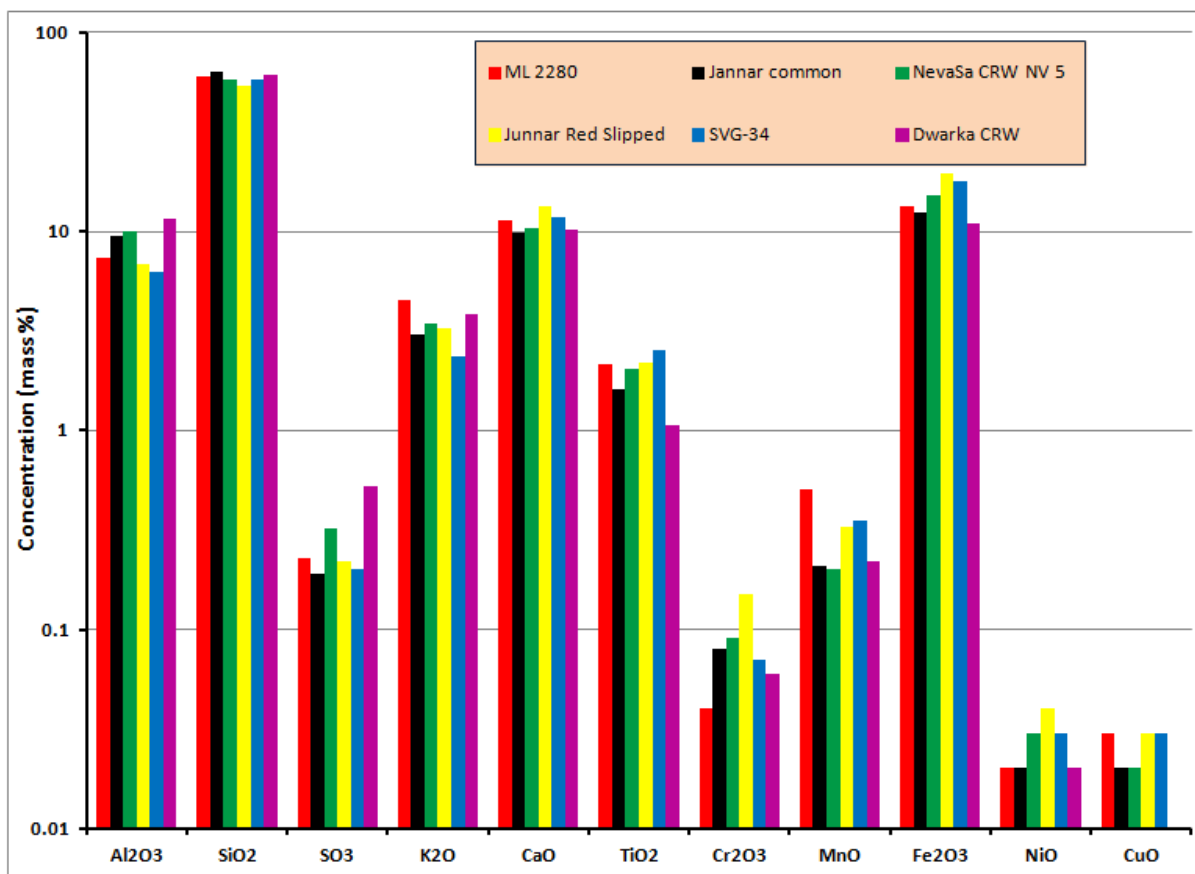
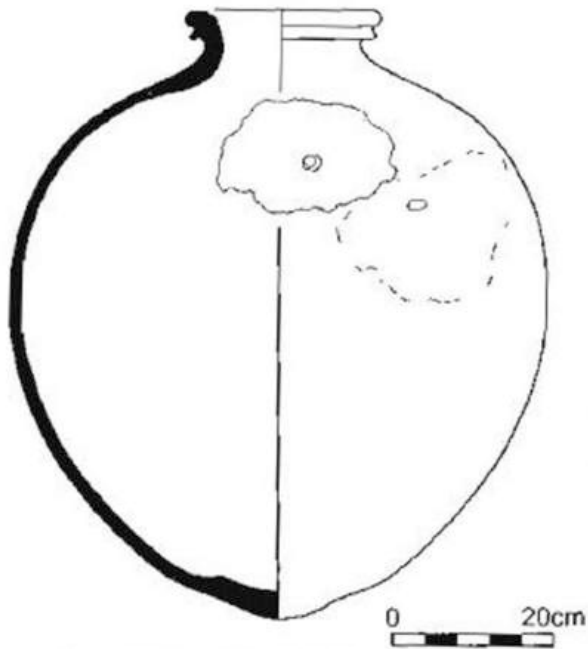


Figure 216. Elemental Compositions and Correlations between Mleiha sample ML 2280 (high-necked vessel) and samples from Western India(Junnar, Nevasa, Ter (SVG) and Dwarka)

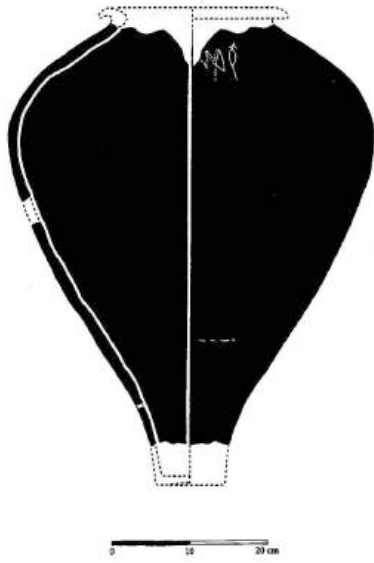


Emptying a dolium filled with 7.5 kg of black pepper at Berenike - *Piper nigrum*
Cappers 2006: Fig. 4.58



Indian storage jar from Berenike that contained 7.5 kg of pepper
(Tomber 2008: Fig. 14)

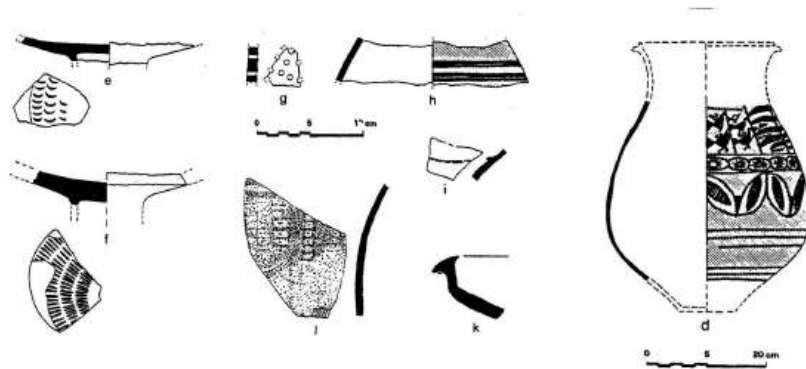
Figure 217. Indian storage jar with 7.5 kg of pepper from Berenike



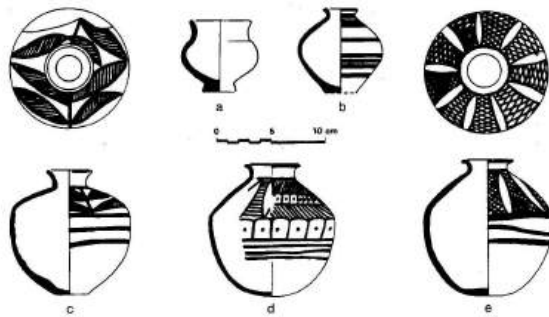
Indus Black Slipped Jars (Mery 1996: Fig 6)



National Museum, New Delhi: Onion shaped jar from Harappa. Common large transport vessel from Indus Civilization (Cleuziou & Tosi 2007: Fig. 207)



Harappan vessels from third millennium settlements in UAE/Oman (Cleuziou & Mery 2002: Fig. 5)



Harappan vessels from Tomb A Hili North (Cleuziou & Mery 2002: Fig. 6)

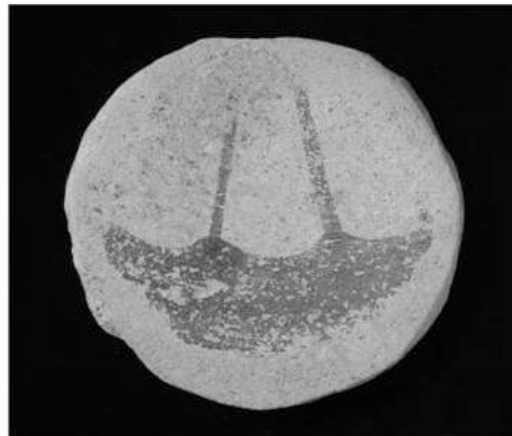
Figure 218. Indus/Harappan vessels types from UAE and Oman



Figure 219. Residue and soot remains inside a large Indian cooking pot from Mleiha



1. Ubaid-period boat model from Site H3, Kuwait (after Carter 2006)



2. Ship depiction on painted disc (after Carter 2012)



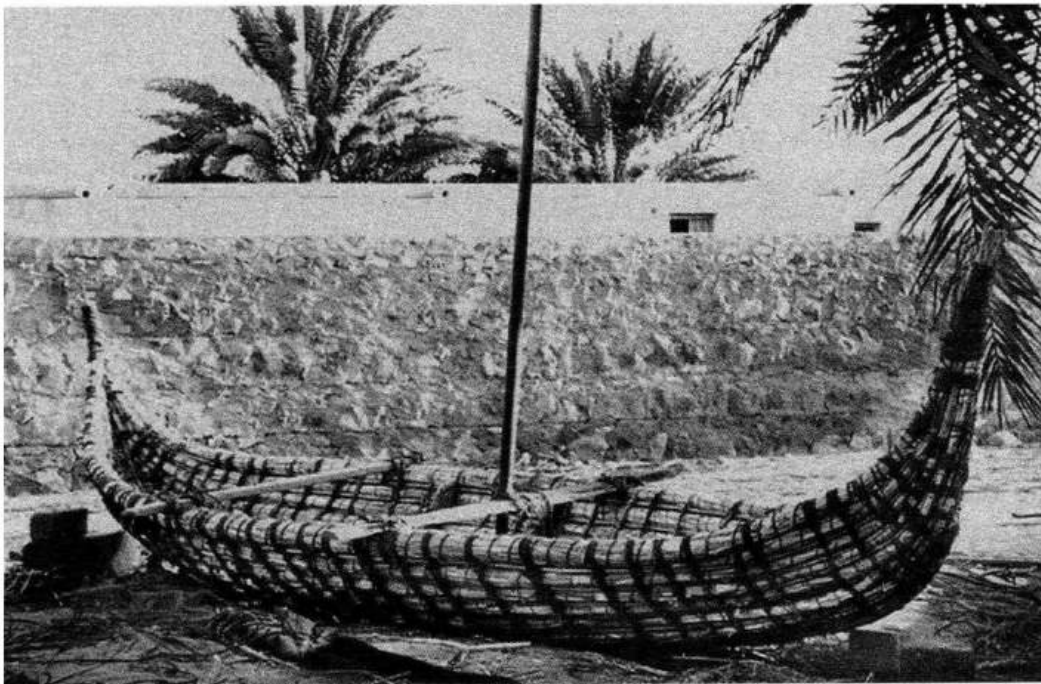
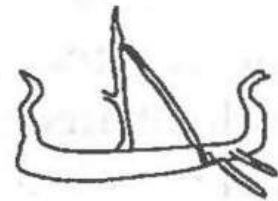
3. Bitumen with reed-impression and barnacle encrustations (after Carter 2012)

Figure 220. Ubaid period/Neolithic evidence of boats from Arabia



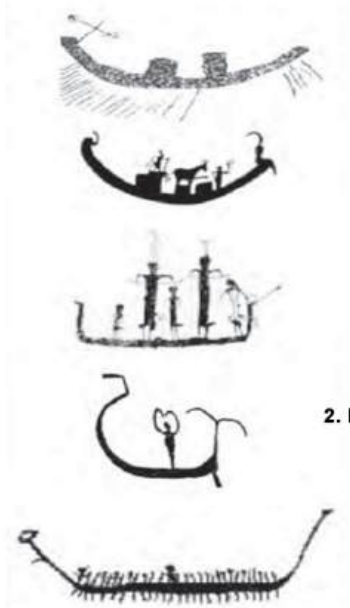
1. Dilmun seals of wooden boats

2. Boat with S-shaped end on seal from Saar (Bahrain)

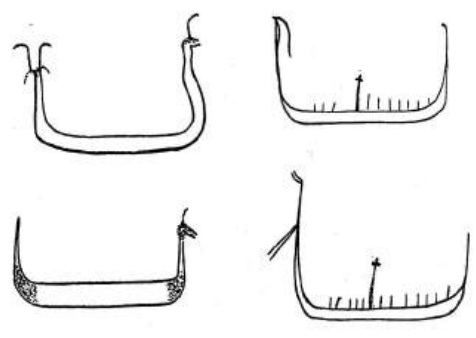


3. Bundle reed Magan boat model (Vosmer 2001)

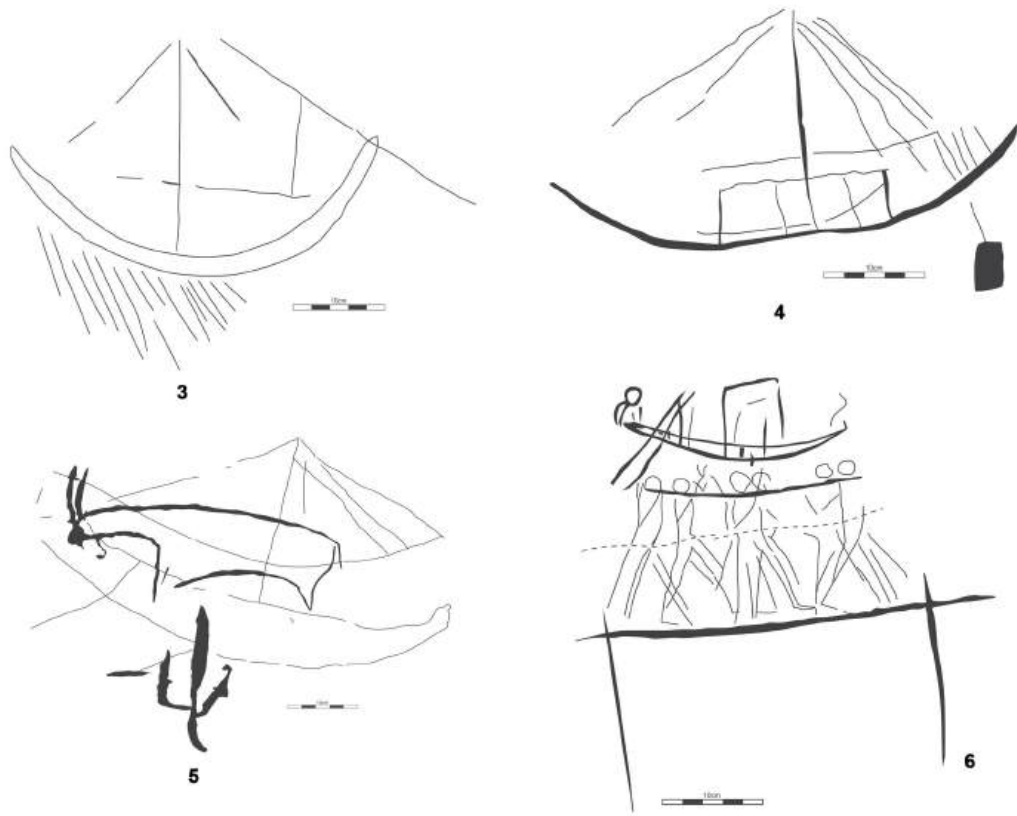
Figure 221. Bronze Age evidence of watercrafts from Arabia



1. Boat petroglyphs - Eastern Desert, Egypt (after Lankester 2012)



2. Foreign boat petroglyphs from Eastern Desert (after Hornell 1941)



3-6 Vessels one to four from rock art site in Wadi Quseir al-Qadim (after Blue et al. 2011)

Figure 222. Bronze Age/ Pre-dynastic boat petroglyphs from the Eastern Desert and Wadi Quseir al-Qadim



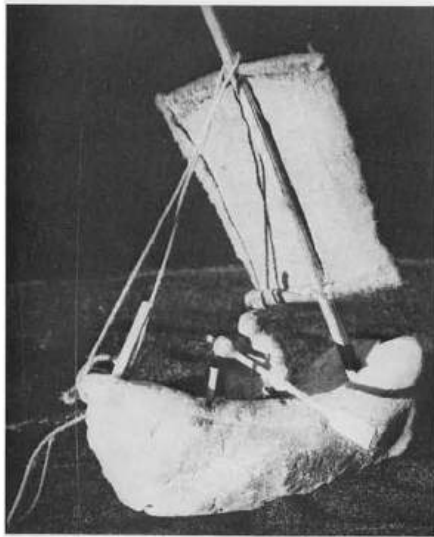
1. Sailing ship graffito, Mohenjodaro (G. Possehl)



2. Boat on steatite seal, Mohenjodaro (G. Possehl)



3. Terracotta amulet from Harappa (G. Possehl)

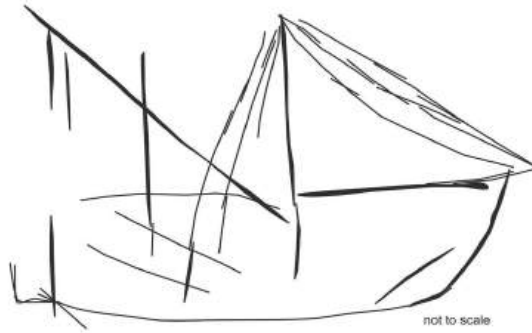


4. Terracotta boat model, Lothal (after Rao 1965)



5. Boat painted on potsherd, Lothal (after Rao 1965)

Figure 223. Bronze Age/Harappan evidence of sailing vessels from Greater Indus and Western India (Gujarat)



1. Vessel 5 from the rock art site in Wadi Quseir al-Qadim (after Blue et al. 2011)



2. Vessel 6 from Wadi Quseir al-Qadim (after Blue et al. 2011)



3. Ship graffito on potsherd from Berenike (after Sidebotham 1996)

Figure 224. Iconography of sailing vessels at WadiQuseir al Qadim and Berenike (Red Sea) in the Roman - Post Medieval periods

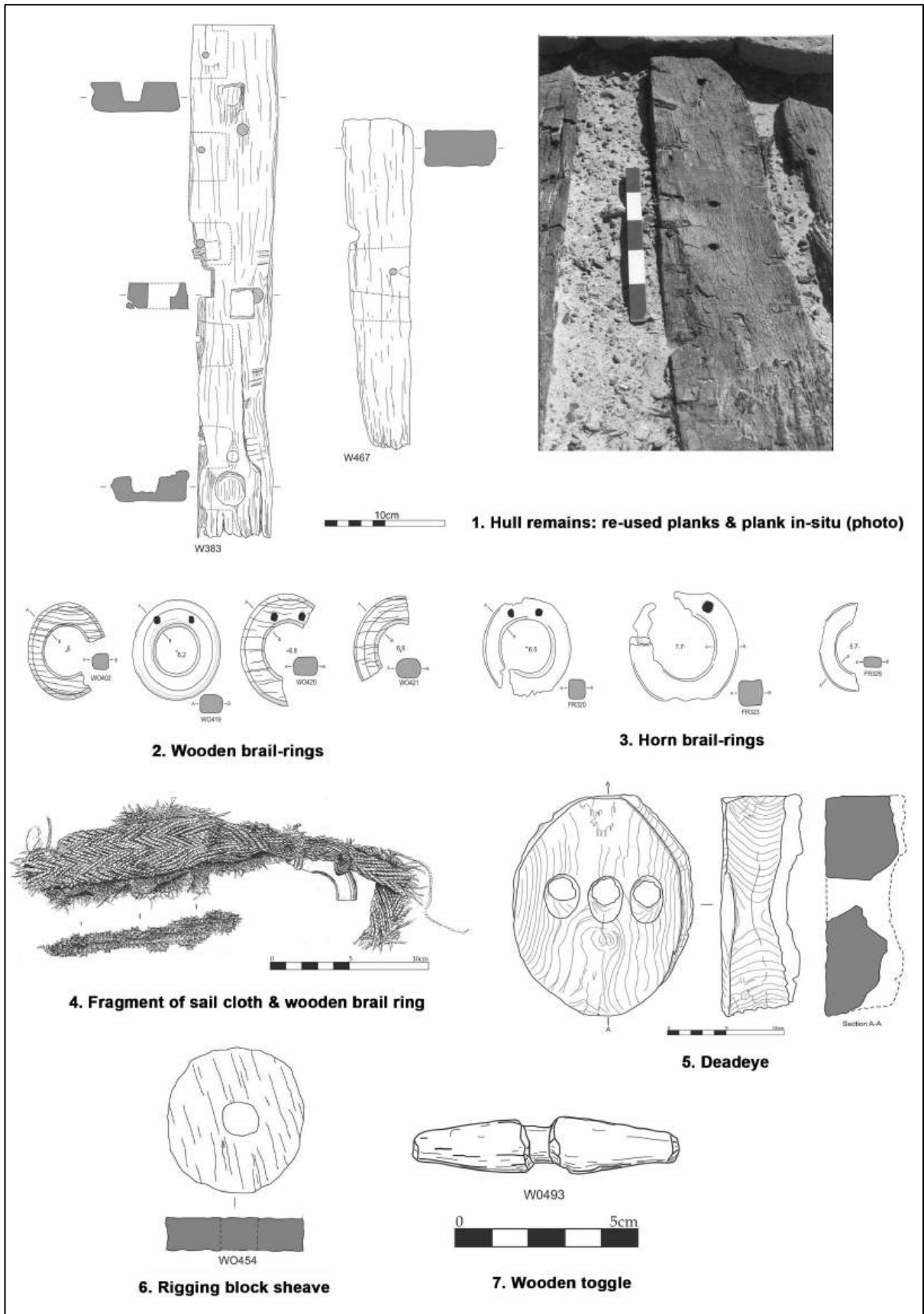


Figure 225. Maritime remains from Quseir al Qadim (after Blue et. al 2011)

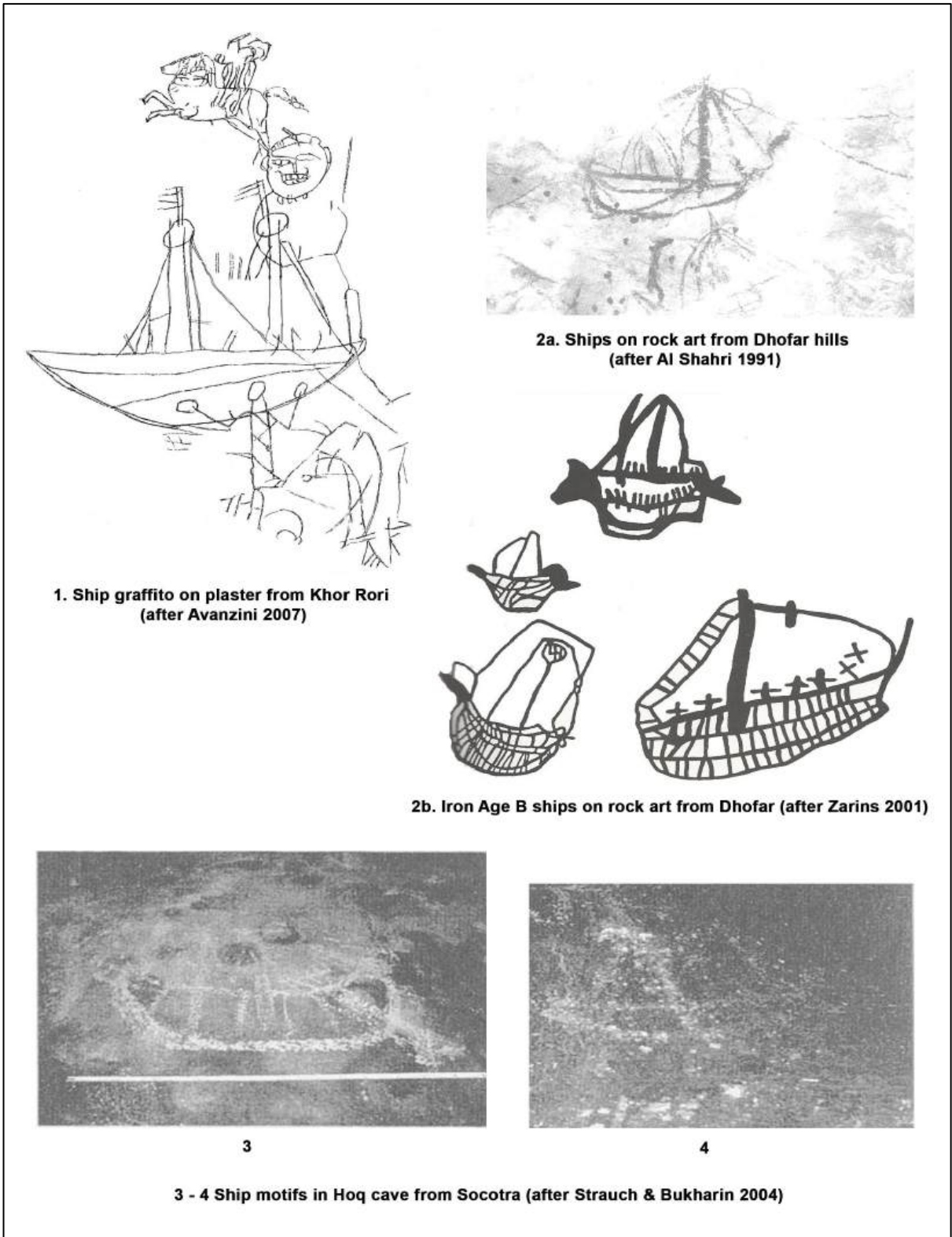


Figure 226. Depictions of sailing vessels from South Arabia in the Late pre-Islamic period



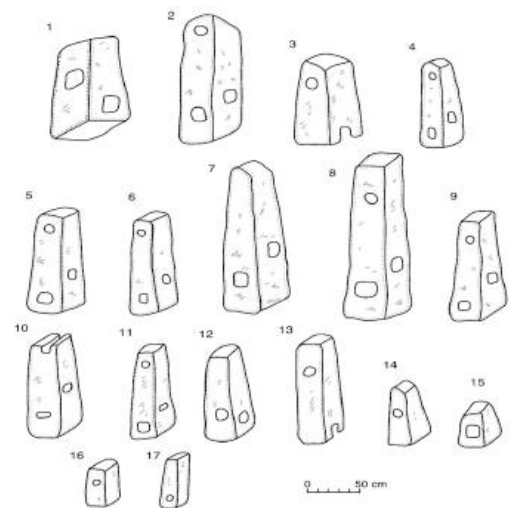
1. Dugout canoe from Pattanam (after Selvakumar 2013)



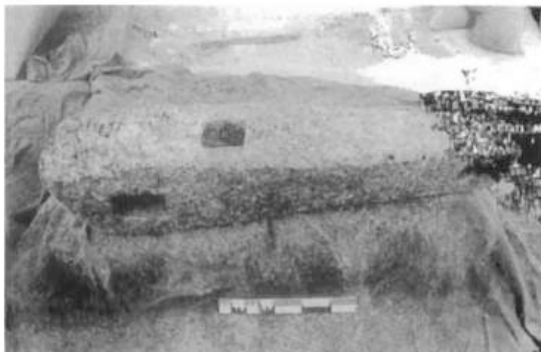
2. Medieval boat, Kaddakkarapally (after Tomalin et. al 2004)



3. Indo-Arabian type stone anchor from Kannur (after Tripathi et. al 2005)



4. Indo-Arabian stone anchors from Bet Dwarka (Gaur et. al 2005)



5. Indo-Arabian stone anchor Type 2, Qalhat - Oman (after Vosmer 1999)



6. Rinstone anchor from Qalhat (after Vosmer 1999)

Figure 227. Archaeological evidence of watercrafts and maritime remains from India with parallels from Arabia

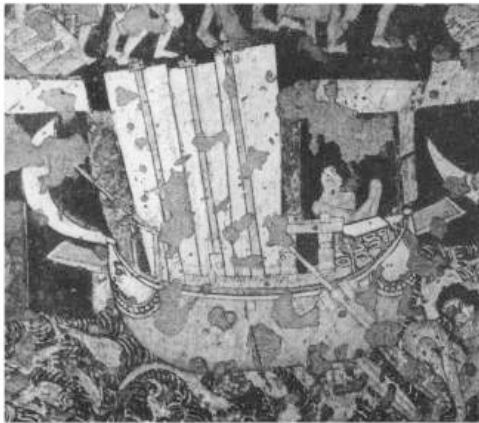


1

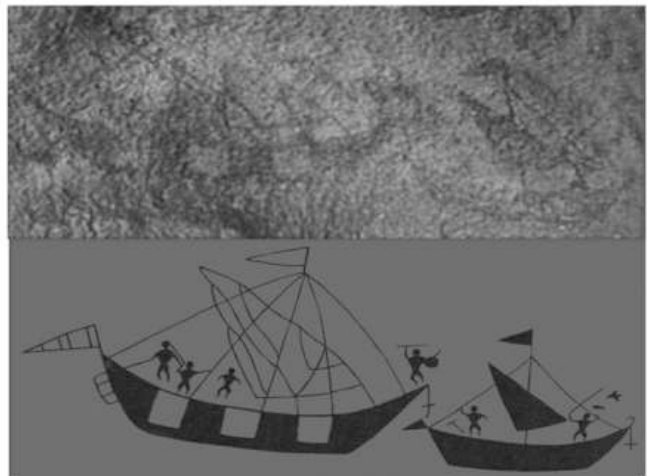


2

1-2 Boats carved on Sanchi stupa. 2 - Royal ship (after Sonawane 2011; Tripathi 2006)



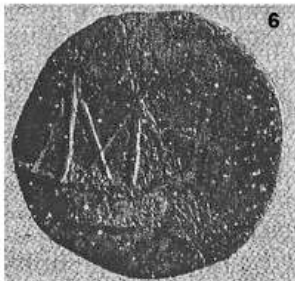
3. Ship motif Ajanta cave no. 2 (after Whitewright 2008)



4. Sailing ships from Chamardi rock shelter (after Sonawane 2011)

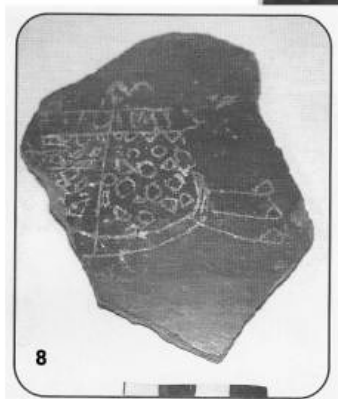


5



6

5 - 6 Satavahana and Pallava coins with ship motifs



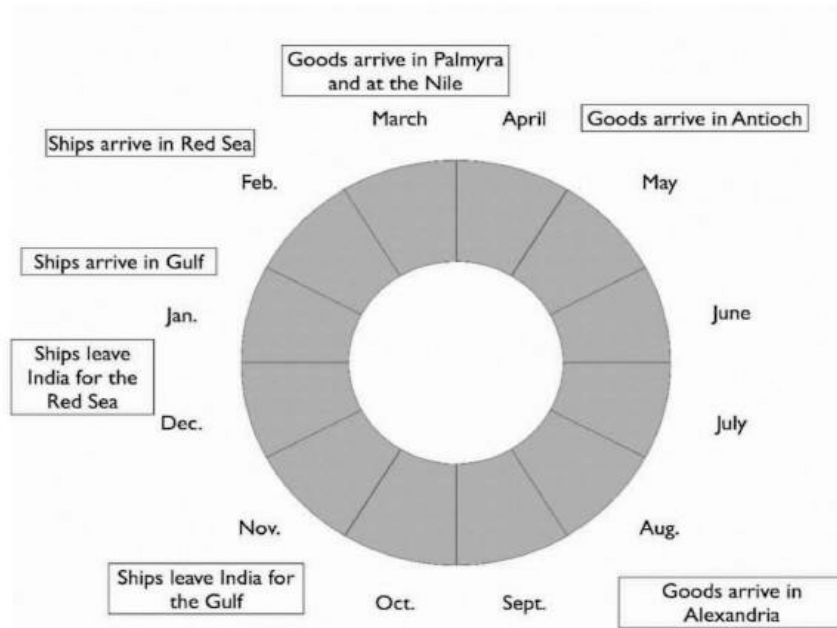
8



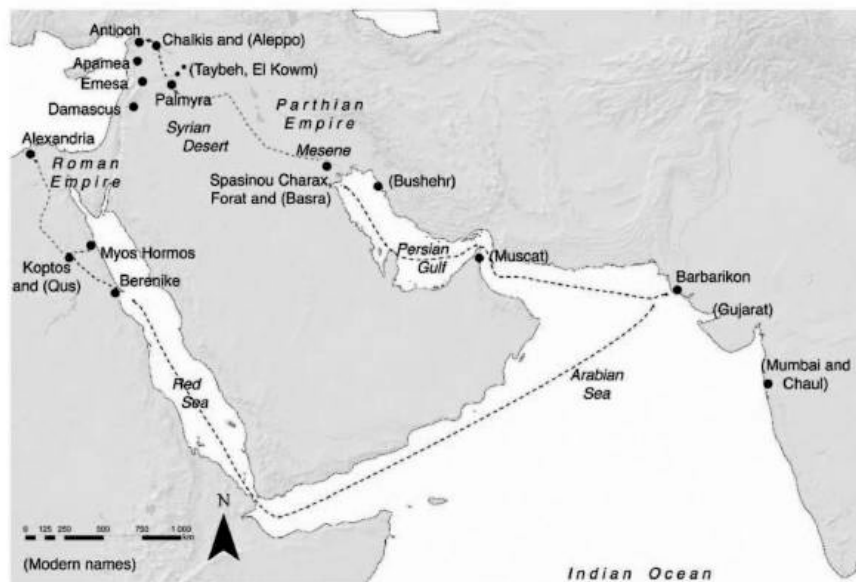
7

7 - 8 Local and Roman sailing ships from Alagankulam (after Sridhar et. al 2005)

Figure 228. Early Historic period watercrafts depicted on various mediums: Indian art, cave paintings, coins and potsherds

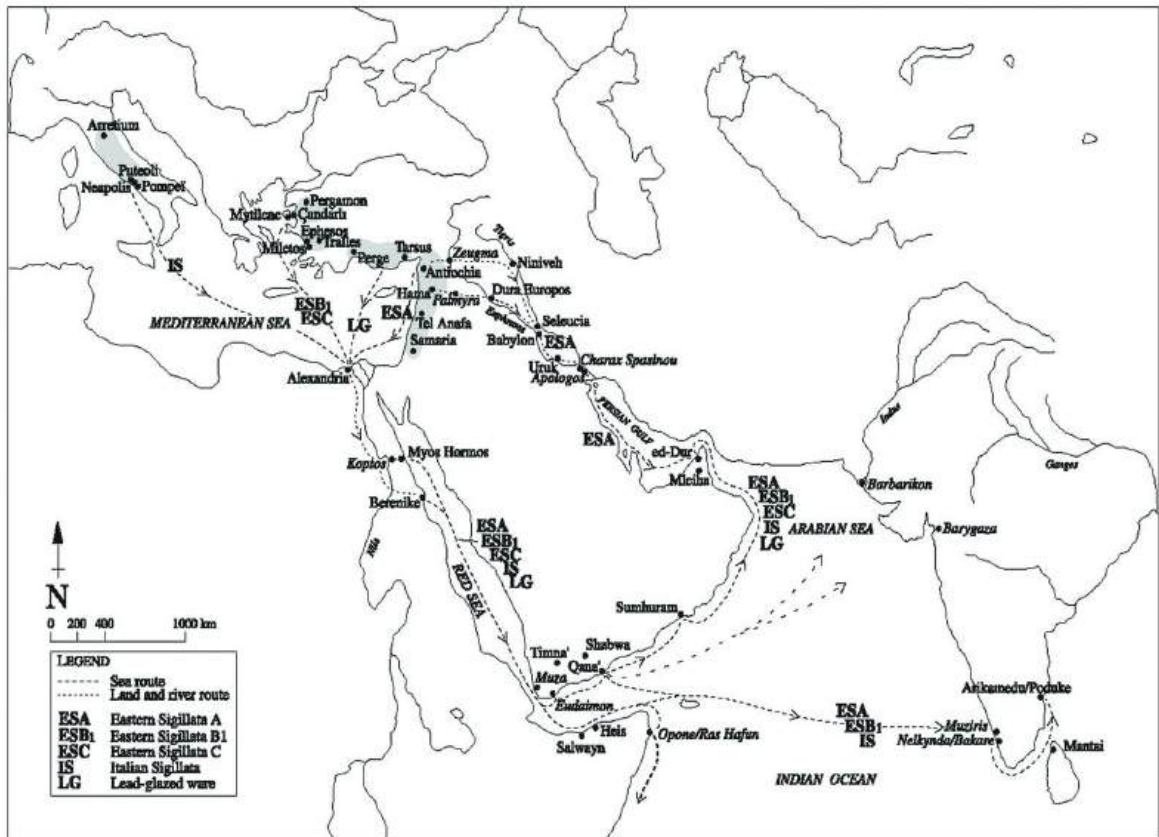


a. Seasonal Departure and Arrival Times for Commodities (after Seland 2011: Fig. 1)



b. Reconstruction of ancient trade routes in the Arabian Gulf and the Red Sea (after Seland 2011: Fig. 1)

Figure 229.a-b Schedule for commodities and reconstruction of ancient trade routes in the Arabian Gulf and Red Sea (after Seland 2011: Fig. 1)



Distribution of Roman Fine Wares from Italy to India (after Rutten 2007: Fig. 5)

Figure 230. Distribution of Roman Fine Wares from Italy to India (after Rutten 2007: Fig. 5)

SITE NAME	LATITUDE/ LONGITUDE	COUNTRY	DATE	MAP CODE	REFERENCE
Ras Hafun	10.42326 N 51.26121 E	Africa	Early - Late Roman (1st cent BC - 5th cent AD)	1	Smith & Wright 1988
Manda	-2.26851 N 40.94846 E	Africa	Islamic (8th/9th cent AD - 11th cent AD; reoccupied 15th cent)	2	Chittick 1984
Kilwa	-9.1487 N 38.98796 E	Africa	Islamic (800 - 1800 AD)	3	Chittick 1974
Pate	-2.10301 N 41.05834 E	Africa	Indian pottery (11th/12th - 19th cent AD)	4	Wilson & Omar 1997
Shanga	-2.13277 N 41.06385 E	East Africa	Indian pottery (10th - 15th cent AD)	5	Horton 1996
Berenike	23.91751 N 35.46687 E	Egypt	Early - Late Roman (3rd cent. BC - early 6th cent AD)	6	Sidebotham 1999
Quseir al Qadim	26.1069 N 34.27449 E	Egypt	Early Roman (c. Late 1st cent BC - Early 3rd cent AD)	7	Peacock & Blue 2006, 2011a
Khor Rori	17.03333 N 54.45000 E	Oman	Late Pre-Islamic (3rd cent. BC - 5th cent. AD)	8	Avanzini ed. 2008
Qana	14.02601 N 48.34734 E	Yemen	Late Pre-Islamic (c. 1st cent BC- AD - c. 4th/6th/7th cent. AD)	9	Sedov 1992, 2007
Suhar	24.34223 N 56.72986 E	Oman	Late Pre-Islamic - Islamic (c. 3rd cent AD - 16th/17th cent AD)*	10	Kervran 1996, 2006
Kush	25.82278 N 56.00714 E	UAE	Sasanian to Early Islamic and Abbasid (c. 4th cent. AD - 13th cent AD)	11	Kennet 2004
Mleiha	24.72058 N 55.60778 E	UAE	Late Pre-Islamic (3rd cent. BC - mid 3rd cent. AD)	12	Mouton 1992, 2008; Mouton & Cuny 2012
Ed Dur	25.52861 N 55.63537 E	UAE	Late Pre-Islamic (1st/2nd cent AD- 4th cent. AD)	13	Haerinck 2001, 2011
Dibba	25.59112 N 56.2594 E	UAE	Late Pre-Islamic (c. 1st cent AD - mid 3rd cent AD)	14	Jasim 2006

Table 1. List of archaeological sites with Indian pottery assemblages analysed in this study (Red Sea, East Africa and the eastern Arabian seaboard)

SITE NAME	LATITUDE/ LONGITUDE	COUNTRY	STATE/ PROVINCE	DATE (circa)	MAP CODE	REFERENCE
Pattanam	10.15435 N 76.20301 E	India	Kerala	1st cent BC - 4th cent AD	1	Shajan et al. 2008; Cherian et al. 2011
Arikamedu	11.89000 N 79.81000 E	India	Tamil Nadu	2nd cent BC - 17th cent AD	2	Wheeler et al.1946
Alagankulam	9.35412 N 78.96426 E	India	Tamil Nadu	3rd cent BC - 12th cent AD (Periods I-IV)	3	Sridhar et al.2005
Tissamaharama	6.28331 N 81.28334 E	Sri Lanka	Southern Province	3rd cent BC - 9th cent AD	4	Schenk 2001
Mantai	8.94996 N 79.96667 E	Sri Lanka	Northern Province	1st cent AD - 10th cent AD	5	Carswell & Prickett 1984
Anuradhapura	8.31477 N 80.41493 E	Sri Lanka	North Central Province	1st Millennium BC - AD 1029	6	Coningham 2006
Sutrapada	20.89240 N 70.46551 E	India	Gujarat	-	7	IAR 1954-55
Baid	23.21670 N 73.21670 E	India	Gujarat	-	8	Subbarao 1953
Somnath	20.88830 N 70.40904 E	India	Gujarat	Historic Periods III (6th cent BC - 0 BC/AD), IV (0 BC/AD - 6th cent AD), V (6th - 10th cent AD)	9	Nanavati et al. 1971
Baroach	21.72460 N 73.00229 E	India	Gujarat	-	10	IAR 1959-60

SITE NAME	LATITUDE/ LONGITUDE	COUNTRY	STATE/ PROVINCE	DATE (circa)	MAP CODE	REFERENCE
Vadnagar	23.78339 N 72.63669 E	India	Gujarat	Early Historic - Early Medieval	11	Subbarao & Mehta 1954
Akota (Baroda)	22.29602 N 73.16889 E	India	Gujarat	Period II (1st/2nd - 6th cent AD), Period III (6th - 10th cent AD)	12	Subbarao 1953
Jokha	21.23333 N 73.03333 E	India	Gujarat	Periods II (6th cent BC - 0 BC) - III (1st cent AD)	13	Mehta & Chowdhary 1971
Dhatva	21.28689 N 73.03352 E	India	Gujarat	Period II (c. 5th/4th cent BC - 3rd/4th cent AD)	14	(Mehta & Chowdhary 1975
Bet Dwarka	22.45759 N 69.10000 E	India	Gujarat	Historical (5th cent BC - 2nd/4th cent AD)	15	Gauret al. 2005
Nagara	22.78283 N 71.52156 E	India	Gujarat	Early Historic Periods II (3rd cent BC - 0 BC/AD), III (0 BC/AD) - 8th/9th cent AD), IV (14th - 18th cent AD)	16	Mehta & Shah 1968
Timbarva	22.01716 N 73.27948 E	India	Gujarat	4th cent BC - 6th cent AD, 6th - 10th/11 cent AD	17	Mehta 1953

SITE NAME	LATITUDE/ LONGITUDE	COUNTRY	STATE/ PROVINCE	DATE (circa)	MAP CODE	REFERENCE
Devnimori	23.68470 N 73.36792 E	India	Gujarat	2nd - 4th cent AD	18	Mehta &Chowdhary 1966
Shamalaji	21.28194 N 72.96694 E	India	Gujarat	Periods I-II (1st cent AD- 4th cent AD), IIA-III (4th cent AD - 18th cent AD)	19	Mehta & Patel 1967
Kamrej	19.20000 N 73.88333 E	India	Gujarat	Phase I-III (1st-2nd cent AD & 3rd-5th cent AD)	20	Gupta 2004
Junnar	20.00000 N 73.85000 E	India	Maharashtra	Satavahana (230 BC-230 AD), Silahara (1000-1200 AD), Bahmani (c.1400-1600 AD)	21	Shinde et al. 2007
Nasik	18.31667 N 76.15000 E	India	Maharashtra	Periods IIA-B (300-200 BC & 200BC - 50 AD), III (200 AD - 50 AD)	22	Sankalia & Deo 1955
Ter	19.56667 N 74.90000 E	India	Maharashtra	Period I (200 BC - end of 1st cent BC), Period II (1st - 3rd cent AD)	23	Chapekar 1969
Nevasa	21.51667 N 71.51667 E	India	Maharashtra	Historic Periods IV (150 BC - 50 BC), V (50 BC - 200 AD), VI (1400 - 1700 AD)	24	Sankalia et al. 1960

SITE NAME	LATITUDE/ LONGITUDE	COUNTRY	STATE/ PROVINCE	DATE (circa)	MAP CODE	REFERENCE
Amreli	22.24112 N 68.96700 E	India	Gujarat	1st cent BC - 8th cent AD	25	Rao 1966
Dwarka	16.70000 N 74.23330 E	India	Gujarat	Periods I-IV (1st-2nd cent BC - 8th/9th cent AD)	26	Ansari & Mate 1963
Brahmapuri	20.25409 N 75.76900 E	India	Maharashtra	Satavahana - Bahmani periods	27	Sankalia & Dikshit 1952
Bhokardan	20.78333 N 78.66667 E	India	Maharashtra	Period I (Early-late Satavahana) Period II (Post Satavahana)	28	Deo & Gupte 1974
Paunar	21.51667 N 74.31667 E	India	Maharashtra	-	29	Deo & Dhavalikar 1968
Prakash	33.90774 N 71.47446 E	India	Maharashtra	Periods II (c. 700 - 100 BC), III (mid 2nd cent BC - 6th cent AD)	30	Thapar 1967
Shaikhan Dheri	33.74749 N 72.81019 E	Pakistan	Khyber Pakhtunkhwa	c. 6th cent BC - 2nd cent AD	31	Dani 1966

SITE NAME	LATITUDE/ LONGITUDE	COUNTRY	STATE/ PROVINCE	DATE (circa)	MAP CODE	REFERENCE
Taxila	22.68457 N 88.68704 E	Pakistan	Punjab	c. 5th cent BC - 4th cent AD	32	Ghosh 1948
Begram	34.9402 N 69.25498 E	Afghanistan	Parwan	1st cent BC/2nd cent AD - 5th cent AD	33	Ghirshman 1943-45
Chandraketugarh	22.29095 N 87.92415 E	India	West Bengal	4th cent BC - 12th cent AD	34	Gogte 1997; 2001, Jahan 2006
Tamluk	22.29095 N 87.92415 E	India	West Bengal		35	Gogte 1997; 2001, Jahan 2006

Table 2. List of archaeological sites mentioned in this study (Peninsular India & Sri Lanka)

CHRONOLOGICAL TERMS	DATE (circa)	EXAMPLES OF SITES
Late Pre-Islamic (PIR A)	3rd - mid 2nd cent BC	Mleiha, Ed-Dur&Dibba
Late Pre-Islamic (PIR B)	Mid 2nd - 1st cent BC	
Late Pre-Islamic (PIR C)	1st - end 2nd cent AD	
Late Pre-Islamic (PIR D)	2nd - mid 3rd cent AD	
Hellenistic	3rd cent BC - 1st cent BC	Mleiha, Ed-Dur, Dibba, Khor Rori, Qana, Suhar, Quseir, Berenike, Ras Hafun
Graeco-Roman period	3rd cent BC - 7th cent AD	
Early Roman	1st cent BC - mid 3rd cent AD	
Late Roman Civilization	4th cent AD - mid 6th/7th cent AD	Kush, Suhar, Berenike, Ras Hafun
Early Byzantine	4th/5th centuries AD	
Long Late Antiquity	c. 300 - 830 AD	
Islamic period	8th cent AD - 16th/17th cent AD onwards	Kush, Suhar, Manda, Kilwa, Pate, Shanga
Early Historic (North India)	5th cent BC - 3rd cent AD	Ter, Nasik, Kamrej, BetDwarka
Early Historic (South India)	terminated in 500 AD	Pattanam, Arikamedu
Early Medieval/Early Islamic	6th/early 7th cent AD	Akota, Vadnagar, Timbarva

Table 3. Chronological terms and tentative periodisation of sites referred to in this study

S.No	Inventory No.	Form	Munsell Colour	Description/Fabric	Fabric Group	Parallels/Source	Reference	Figure
1	Inv.35A	oil lamp	5YR6/6	Sample similar to one from Berenike dated to the 1st-2nd cent AD of possible Indian origin. No petrographic analysis for this sherd from Qana	Nil	Nubian type or India production	Davidde & Petriaggi 1998: 42, fig. 6)	Fig. 131: 1
2	Inv. 104/1	globular amphora bottom	2.5YR4/6	Distinctive fabric. Inclusions of limestone - small pieces of cryptocrystalline limestone. Shell fragments, foraminifera or elongated voids as well as sparse quartz grains	Group 1	Suggested origin in area of sedimentary rocks	Davidde et al. 2004: 97	No fig.
3	Inv. 118	jar lip	2.5YR5/6	Fabric similar to 104/1	Group 1	No specific parallels mentioned	Davidde et al. 2004: fig. 8	Fig. 131: 2
4	Inv. 111	vessel fragment	7.5YR4/3	Fabric similar to 104/1 but slightly coarser. Shape similar to Inv. 3/8	Group 1	Shape cf. Amreli, Gujarat (Rao 1996: fig. 18/8); coarse grey ware	Davidde et al. 2004: fig. 8	Fig.131: 3
5	Inv. 23	amphora neck	5YR6/6	Fabric almost similar to Inv. 104/1 but more quartz grains present	Group 1	Amreli, Gujarat (Rao 1996: fig. 15/1) from middle level of period II.	Davidde et al. 2004: fig. 9	Fig. 131: 4

S.No	Inventory No.	Form	Munsell Colour	Description/Fabric	Fabric Group	Parallels/Source	Reference	Figure
6	Inv. 114	jar lip	5YR4/4	Fabric resembles Inv. 104/1	Group 1	Amreli, Gujarat (Rao 1996: fig. 17/40 and fig. 15/14) from middle level of period II.	Davidde et al. 2004: fig. 9	Fig. 131: 5
7	Inv. 33A	jar fragment	5YR5/6-6/6	Fabric generally similar to Inv. 104/1 but more quartz and slightly larger fragments of limestone	Group 1	No specific parallels mentioned	Davidde et al. 2004: fig. 9	Fig. 131: 6
8	Inv. 15	jar lip	5YR5/6-6/6	Similar fabric to Inv. 104/1	Group 1	No specific parallels mentioned	Davidde et al. 2004: fig. 9	Fig.131: 7
9	Inv.3/8	jar lip	No Munsell colour	Similar shape to Inv. 111. Distinctive fabric - phyloliths, silt-sized quartz grains and flecks of mica	Group 2	Shape cf. Amreli, Gujarat (Rao 1996: fig. 18/8)	Davidde et al. 2004: fig. 9	Fig.131: 8
10	Inv. 1	amphora neck	5YR5/6	Well-rounded cryptocrystalline limestone, some forminifera, a little shell, calcite, a few grains of clinopyroxene and a fragment of volcanic rock	Group 2	Amreli, Gujarat (Rao 1996: fig. 15/1) from middle level of period II.	Davidde et al. 2004: fig. 9	No fig.
11	Inv. 26	amphora neck	5YR6/6	Clean matrix with quartz, cryptocrystalline limestone or voids, small grains of clinopyroxene and serpentine	Group 2	No specific parallels mentioned	Davidde et al. 2004: 97	No fig.
12	Inv. 32A	jar fragment	5YR6/4	Clean matrix with round fossiliferous limestone, quartz and volcanic material	Group 2	No specific parallels mentioned	Davidde et al. 2004: 97	No fig.

Table 4. List of Indian vessels (BA-I period) recorded from the underwater surveys of Qana (after Davidde et al. 2004)

No.	Trench	Locus	Locus Date	ID	Form	Fabric	Surface Treatment	Munsell Colour	Fig
1	BE97-13 PB 23	002	mid 1st c. AD	5258-G	Wheeler 1	Fine micaceous fabric abundant silver mica	lustrous slip	Fabric gray-brown (10R 5/6) to black (3/0). external surface brown-red (10R 5/6-4/6); internal, black (2.5/0)	Fig.149: 1
2	BE97-5 PB 354	132	late 1st c. BC - 1st c. AD	5171-G	Wheeler 1 with thickened oblique lip	Arikamedu Fine Ware 1. Similar to catalogue 1	lustrous slip	Fabric gray (5/0) to dull orange (2.5YR 6/6); Internal surface black (3/0); external surface orange-red (10R 5/8)	Fig. 149: 2
3	BE97-5 PB 345	126	late 1st c. BC - early 1st c. AD	5175-G	Wheeler 1 flake of rim fragment	Very fine micaceous clay	Exterior burnished	External surface Dark gray (4/0) with orange (2.5YR 6/6)	No fig.
4	BE97-5 PB 393	152	late 1st c. BC - early 1st c. AD	5174-G	Wheeler 1	Fine micaceous fabric with one limestone impurity (<1.0mm)	two bands of dot-like indentation; Surfaces slipped and burnt	Surfaces Medium gray (5/0) with black (4/0-3/0)	Fig. 149: 3
5	BE96-9 PB 92	030	5th century AD		Wheeler 1	Fine clay abundant silver mica	middle or upper band of dot-like indentations	Surfaces Dark gray (4/0) with black (3/0)	Fig. 149: 4
6	BE97-5 PB 393	152	late 1st c. BC - early 1st c. AD	5174-G	Wheeler 10	Fine micaceous fabric abundant silver mica, round organic impurity (1.0mm) and smaller limestone fragments	Internal surface glossy & lustrous; exterior not as glossy but good quality	Fabric Medium gray (5/0); internal surface black (2.5/0); external brown-gray (2.5YR 5/1)	Fig. 150: 6

No.	Trench	Locus	Locus Date	ID	Form	Fabric	Surface Treatment	Munsell Colour	Fig
7	BE96-7	Balk trim	undated	5172-G	Wheeler 10	Fine micaceous fabric. Similar to catalogue 6 but no visible impurities	Slip on interior. Two sets of grooves on the interior. Stamped motif missing	Fabric Medium gray (5/0); dull even gray (4/0) slip on the interior; exterior mottled brown-gray (2.5YR 5/1-5/2) to red (10R 5/6).	Fig. 150: 7
8	BE97-13 PB 16	002	mid 1st c. AD		Closed vessel	Very dense fabric with silver mica and rare limestone impurities	Smooth black surfaces but not slipped	Fabric medium gray (3/0)	Fig. 151: 9
9	BE97-5 PB 354	132	late 1st c. BC - early 1st c. AD	5171-G		Fine fabric with abundant silver mica	Exterior covered in good quality slip	Fabric medium gray (4/0)	No fig
Nil	BE97-13	002	Mid 1st c. AD	1405-G	Closed vessel	Arikamedu Fine Ware 1			No fig
Nil	BE97-13	002	Mid 1st c. AD	366-G		Arikamedu Fine Ware 1			No fig
Nil	BE96-8 PB 15	009	5th c. AD	5620-G		Arikamedu Fine Ware 1			No fig

Table 5. Catalogue of Indian fine wares from Berenike (1997 season) (after Begley & Tomber 1999)

No.	Trench	Locus	Locus Date	ID	Form	Fabric	Surface Treatment	Munsell Colour	Fig
1	BE98-12	295	Mid-late 1st c. AD	4565-G, 4570-G	Wheeler 1 two rims with internal beak	Well-sorted inclusions of abundant sand-sized quartz with black ferromagnesian minerals and possibly some mica	Good quality slipped, burnished surfaces	The inside surface is own (5YR 4/3), outside and rim top mottled to red-orange (2.5YR 5/8; 10R 5/8)	Fig. 149: 5
2	BE98-12	Baulk trim	Undated	4566-G	Wheeler 1 flat base	Fine fabric with silt-sized quartz and probably some mica and/or black ferromagnesian minerals	Three extant rows of rouletting enclosed by two shallow grooved concentric circles. Black glossy slipped surfaces	No Munsell colour available	No fig
3	BE98-16	156	Early Roman	7574-G	Wheeler 1 splintered fragment of flat base	Micaceous fabric without inclusions	10 extant rows of rouletting	Pale grey (6/0) with darker grey (4/0-3/0) slipped inside	No fig
4	BE98-12	307	Early 1st c.AD	4571-G	Wheeler 10 flat base	Fine, slightly silty fabric,	two unevenly executed incised concentric grooves on the inside, at the junction of the wall and base. Surfaces poorly finished	External surface brown-grey (7.5YR 4/1) to slightly orange (2.5YR 6/6-5/6) on the underside of base	Fig. 150: 8

No.	Trench	Locus	Locus Date	ID	Form	Fabric	Surface Treatment	Munsell Colour	Fig
5	BE98-19	132	Mid-late 1st c. AD	4553-G	Wheeler 10 four body sherds same vessel	Fine, intensely micaceous fabric, no visible impurities	Two with double parallel incised lines, two undecorated flakes. Good quality black slip on surfaces	Grey-green (near 10YR 5/2) fabric	No fig
8	BE98-19	9	Mid-late 1st c. AD	4563-G	Misc. table ware - body sherd from cup or bow with stubby flange	Sandy fabric with common well-sorted quartz and small (<0.3 mm) black ferromagnesian minerals. Similar to Arikamedu CW 1B & catalogue 1. Rare large white inclusions (1.0 mm)	Thick red slip	Fabric orange-brown (2.5YR 6/6) to brown (2.5YR 4/4), red slip (near 10R 4/6)	Fig. 151:10
9	BE98-17	101	Mid-late 1st c. AD	4556-G	Misc. table ware - bowl or jar with thickened everted rim and well-defined internal groove	Very soft and powdery with a slightly micaceous silty matrix, common ill-sorted limestone (<0.5 mm), rare shell & sandstone or quartz-rich pellets to ca. 4.0 mm	Poor quality bright red slip	Matrix red-brown (2.5YR 5/6) with bright red slip (10R 5/6)	Fig. 151:11

Table 6. Catalogue of Indian fine wares from Berenike (1998 season) (after Tomber & Begley 2000)

No.	Trench	Locus	Locus Date	Form	Fabric	Surface Treatment	Munsell Colour	Fig
10	BE95/96/97-5	128	1st or 2nd c. AD	Wheeler 38 complete vessel	Heavy organic fabric, ill-sorted quartz (0.5mm), red-brown iron-rich inclusions (1.0mm), rare limestone inclusions (2.0 mm)	Some internal sooting	Fabric frayed (10YR 4/1) with pale/dull brown (7.5YR 6/3-6/4) surfaces	No Fig.
11	BE95/96-7	053	2nd or 3rd c. AD	Wheeler 28/29	Abundant well-sorted sand-sized inclusions	Brushed internally; sooted internally & externally	Gray-brown fabric (7.5YR 5/2) with surfaces mottled gray to black (7.5YR 4/0-3/0) to tan (7.5YR 5/4)	Fig. 154: 20
12	BE97-17 PB 116	057	1st-2nd c. AD	Wheeler 24 with carinated shoulder and everted, lipped rim	Quartz-rich fabric with common ill-sorted quartz usually (0.5 mm - 1.0 mm. Visible Sparse red clay pellets 1.0 mm	An irregular graffito is scratched on the inside of the rim. Sooted on the rim lip and heavily below the carination	Light-colored gray-buff fabric (5YR 6/2) with duller (5YR 7/2) surfaces. Some vestiges of red (10R 5/6-5/8) slip are visible rim and above carination	Fig. 152: 12
13	BE97-17	057 or 058	1st-2nd c. AD	Wheeler 24 with carinated shoulder, neck cordons and sharply everted rim	Fabric with a fine silt matrix and sparse coarse sand	Rare brush strokes are visible internally. Surfaces are slipped and burnished externally and internally on the rim	Fabric brown (2.5YR 4/3) to orange-brown (2.5YR 4/6); Slip 10R 4/6-4/4	Fig. 152: 13
14	BE96-7	088	Mid 1st c. AD	Wheeler 24 with sharply everted rim, lipped internally, and neck cordons	Sandy fabric	Brush marks visible internally. Slipped externally and in patches internally	Fabric pale brown (7.5YR 6/3) to orange-brown (2.5YR 5/8) slip	Fig. 152: 14

No.	Trench	Locus	Locus Date	Form	Fabric	Surface Treatment	Munsell Colour	Fig
15	BE95/96/97-5	133	Late 1st c.BC - early 1st c. AD	Wheeler 24 with sharply everted rim	Silty matrix, slightly micaceous, with sparse quartz and unmixed clay pellets <0.5 mm. exterior smooth with inclusions protruding the surface, iron ore to 3.0 mm	The interior shows faint wiping marks	Red-brown fabric (10R 4/8) with gray (4/0) core. External surface (10R 5/6-5/8); the internal body surfaces somewhat darker (10R 4/3).	Fig. 152: 15
16	BE95/96-7	024	1st or 2nd c. AD	Wheeler 25	Sandy fabric with rare quartz to 1.0 mm		Thick black (7.5YR 2/0) carbon-rich core with slipped and wiped red-brown (10R 4/6-4/8) surfaces	Fig. 153: 17
17	BE95/96/97-5	133	Late 1st c.BC - early 1st c. AD	Body sherd	No fabric description available.	Dull red with slightly whitened patches from salt leaching	No Munsell colour available	No Fig.
18	BE95/96/97-5	133	Late 1st c.BC - early 1st c. AD	Body sherd	Coarse fabric with abundant densely-packed sand	Heavily abraded and laminated.	Brown-orange fabric (5YR 4/4)	No Fig.

Table 7. Catalogue of Indian coarse wares from Berenike (1997 season) (after Begley & Tomber 1999)

No.	Trench	Locus	Locus Date	Form	Fabric	Surface Treatment	Munsell Colour	Fig
10	BE98-12	296	mid-late 1st c. AD	Body sherd	Fabric similar to catalogue number 11	Internal wiping marks	Buff (near 5YR 7/3) with rich black core, remnants of red to orange (10R 5/6-5/8) slip outside	No Fig.
11	BE98-17	NBT	Undated	Wheeler Type 24 rounded, out-turned rim with thick walls	Sandy fabric with occasional large fragments of iron ore, one measuring 5.0 mm on the surface, and others as voids in the break	Three deeply impressed markings on inside wall	Black core, bleeding to pale-brown or buff (7.5YR 7/2)	Fig. 152: 16
12	BE98-19	008	mid-late 1st c. AD	Wheeler Type 25 casserole with slightly squared-off rim profile	Fine, silty matrix with well-sorted common to abundant coarse quartz to ca. 0.5 mm	Slip all over; outside wall abraded	Medium grey (2.5YR 4/1) with light brown (5YR 5/4) margins. Red (10R 4/4-4/6) to brown slip (2.5YR 3/3)	Fig. 153: 18
13	BE98-19	008	mid-late 1st c. AD	Wheeler Type 25 same as catalogue 12	Common well-sorted coarse quartz <0.5 mm, to 1.0 mm	Black surfaces resulting from soot	No Munsell colour available	Fig. 153: 19
14	BE98-19	008	mid-late 1st c. AD	Wheeler Types 28-29 (5 rims) lid or casserole with slender rim and near-level flange	Fairly well-sorted coarse quartz «0.5 mm)	Slipped burnished on outside rim and upper flange; slipped inside but not burnished. Sooted under the flange.	Fabric grey (3/0) core with orange-brown (2.5YR 5/6) margins	Fig. 154: 21
15	BE98-12	295	mid-late 1st c. AD	Wheeler Types 28-29 lid or casserole with rim slightly beaded internally and up-turned flange	Fabric similar to catalogue 11	No slip	Pale grey-tan (7.5YR 7/2-6/2) with pale orange (5YR 6/6) margins and buff (near 5YR 7/3) surfaces	Fig. 154: 22

No.	Trench	Locus	Locus Date	Form	Fabric	Surface Treatment	MunsellColour	Fig
16	BE98-19	008	mid-late 1st c. AD	Wheeler Type 2 dish or casserole with plain rim	Fabric with abundant coarse quartz, to 1.0 mm, and rare limestone impurities	Slipped and burnished surfaces, mostly abraded on the outside	Black with brown (5YR 4/4) margins	No Fig.
17	BE98-17	094	1st c. AD	Wheeler Type 2 with internally beaded rim	Fine black fabric with silt to fine quartz, no visible inclusions, similar to catalogue 2	Burnished, and probably slipped, black surfaces	Mottled to brown (near 7.5YR 3/2) on inside surface and margin	No Fig.
18	BE98-17	082	mid 2nd c. AD	Storage jar body sherd	Coarse fabric with fairly well-sorted inclusions (0.5-1.0 mm) including common dark rock fragments and small (<0.5 mm) black ferromagnesian minerals and some gold mica	With applied thumb strip	Red-brown (near IOR 5/6) mottled to grey (IOR 4/1)	No Fig.
19	BE9S-21	295	mid 5th c. AD or later	Storage jar body sherd	Very dense fabric with common quartz inclusions and limestone impurities	With applied thumb strip	Inside margin orange (10R 5/8); outside margin brown (2.5YR 4/3)	No Fig.
20	BE98-19	021	mid-late 1st c. AD	Storage jar two body sherd	Fabric with abundant coarse sand or unmixed clay pellets, <1.0 mm	with slashed applied strip	dark-grey to black (2.5/0) fabric with red-brown (IOR 4/8) outside margin and brown-red (2.5YR 4/6) inside margin. Internal surface brown (2.5YR 4/4)	No Fig.

No.	Trench	Locus	Locus Date	Form	Fabric	Surface Treatment	Munsell Colour	Fig
21	BE97-5	133	late 1st c. BC - early 1st c. AD	Same as catalogue 17 from 1997 season (Begley & Tomber 1999)	No fabric description	dull red with slightly whitened surfaces in part, probably from salt leaching.	No Munsell colour	No Fig.
22	BE98-12	295		Four out of 18 paddle impressed sherds	Silty matrix with abundant quartz, rounded red clay pellets & small black ferromagnesian minerals & rare mica. Inclusions 0.5 mm to 1.5 mm	Outside is covered with thin slip	dull red (10R 4/6) slip	No Fig.

Table 8. Catalogue of Indian coarse wares from Berenike (1998 season) (after Tomber & Begley 2000)

No.	Sample No.	Form	Fabric	Surface Treatment	Munsell Colour	Fig.
1	DN 134	Wheeler 24 with out-turned rim, carinated shoulder and gooved neck	Coarse sandy matrix with red pellets (1.0 mm)	Deep organic wiping marks. Burnished red slip outside and on the rim top	Fabric brown (5YR 3/3) with thin, lighter (5YR 4/6). External red slip (10R 4/6); interior orange (10R 5/6)	Fig. 156: 1
2	DN 140	Wheeler 25 with out-turned rim, carinated towards base	Burnt sandy fabric	Knifed on the underside. Burnishing obscured by burning	Black all over, apart from some red (10R 4/4) patches on the underside	Fig. 156: 2
3	DN 156	Wheeler 28/29 flanged casserole with lipped rim.	coarse sandy fabric with red pellets to c. 1.0 mm	Originally slipped all over outside and inside from the rim to the flange. Visible sooting on the underside and flange	Mostly black or discoloured to grey, although pale tan (5YR 7/3) or pale orange (10R 6/4; 5YR 7/6) in part	Fig. 156: 3
4	DN 110	Large storage jar with grooved shoulder	Slightly sandy fabric common, large circular brown-red inclusions to c. 1.0-2. mm	Grooved paddle impressions visible on the upper wall. Outside surfaces are slipped, inside unslipped	Slip red-brown (10R 4/6), interior brown (2.5YR 4/4), core dark grey (3/0)	Fig. 156: 4
8	Nil	Jar with over-turned rim and slight indentation inside	Fine matrix with occasional clay pellets (1.5 mm)	With South Arabian Graffiti mark. Finger wiping visible on inside of body wall. External rim heavily sooted over slip. Internal surface brown with residue	Fabric brown with a black core. No Munsell colour	No Fig.
7	Nil	Narrow neck storage jar with everted rim and sharp neck cordon, comprising two rims	No fabric description available	With graffiti in Tamil Brahmi. Thick black break and red-brown surface, probably slipped.	No Munsell colour available	No Fig.

Table 9. Catalogue of Indian coarse wares from Quseir-al Qadim (after Tomber 2000b & Tomber et al. 2011b)

No.	Sounding	Date	Form	Diam/ Thick	Fabric	Surface	Munsell Colour	Parallels	Fig
1	VII (1) HW	1st c. BC - 1st c. AD	Jar rim	D 17	Coarse Sandy Red fabric (CSyR) Medium sand limestone and mica		Red (2.5YR 5/6)	Quseir (Whitcomb & Johnson 1979: pl. 25b; Coptos (Herbert et. al 1988: Fig. Y e,j	Fig. 162: 1
2	VI (3) HW	1st c. BC - 1st c. AD	Ledge rim	D 17, T .72	CSyR 25% grog, black sand and limestone		Red (2.5YR 5/7)	Quseir (Whitcomb & Johnson 1979: pl. 26 m,n; Arikamedu (Wheeler 1946: Type 93 g-j)	Fig. 162: 2
3	III (3) HW	1st c. BC - 1st c.AD	Hand-made jar with scalloped carination	D 14, T .51	Shell-tempered dark grey fabric (ShDG) 25% coarse crushed shell	Carbonised cooking debris on exterior	Very dark grey (10YR3/1)	Nevasa (Sankalia et. al 1960: fig.140, T.107); Maheshwar - only form/design (Sankalia et. al 1958, Fig. 82, T.135a)	Fig. 162: 3
4	VII (4) HW	1st c. BC - 1st c. AD	Everted jar rim	D 19, T .52	ShDG 35% coarse crushed shell	Surfaces damaged	Reddish brown (5YR 4/4)	Nevasa (Sankalia et. al 1960: fig.140, T.104a)	Fig. 162: 4
5	VI (8) HM	2nd-5th c. AD	Everted jar rim	D 16, T .62	CSyR 20% coarse sand an mica	Carbonised cooking debris on exterior	Fabric yellowish red (5YR 5/6), slip reddish brown (5YR 4/4) burnished	No parallels cited	Fig. 163: 5
6	VI (8) HM	2nd-5th c. AD	Very everted jar rim	D 20, T .59	CSyR 25% limestone	Red wash on exterior	Light brown (7.5YR 6/4), exterior red (2.5YR 5/5) wash.	No parallels cited	Fig. 163: 6

No.	Sounding	Date	Form	Diam/Thick	Fabric	Surface	Munsell Colour	Parallels	Fig
7	V1 (6) HM	2nd-5th c. AD	Very everted jar rim	D 20, T .73	CSyR 30% coarse sand and limestone	Carbonised cooking debris on exterior	Reddish yellow (5YR 6/6)	No parallels cited	Fig. 163: 7
8	V1 (8) HM	2nd-5th c. AD	Very everted jar rim	D 20, T .75	CSyR 25% coarse sand, limestone and plant fragments	Carbonised cooking debris on exterior	Brown (7.5YR 5/4)	No parallels cited	Fig. 163: 8
9	V (5a) HM	2nd-5th c. AD	Ledge rim jar	D 13, T .65	Sandy Red-slipped fabric (SylsRS) 15% fine sand and limestone	Slip, burning on the lip	Fabric yellowish red (5YR 4/6), burnished exterior red (10R 4/6) slip	Suhar (Kevran & Hiebert 1988: Fig. 5 no. 16); Arikamedu (Wheeler 1946: Fig. 24 no.47, Fig.28 no. 69); Chandravali (Wheeler 1948: Fig. 49 A74); Nevasa (Sankalia et. al 1960: Fig. 131, T77); Brahmapuri (Sankalia and Dikshit 1952: Fig. 20 no. 79)	Fig. 163: 9

No.	Sounding	Date	Form	Diam/Thick	Fabric	Surface	Munsell Colour	Parallels	Fig
10	VI (6) HM	2nd-5th c. AD	Thickened band lip jar rim	D 17, T .83	Sandy Light Brown Burnished fabric (SylBBR) 10% plant fragments and limestone fragments	Slip	Reddish-yellow (2.5YR 5/5), red (2.5YR 6/6) slip	Arikamedu (Wheeler 1946: Fig. 25 no. 53a, 53c); Chandravali (Wheeler 1948: Fig.49 no. A73, A61); Brahmagiri (Wheeler 1948: Fig. 244, Fig. 30, T196, T198); Nevasa (Sankalia et. al 1960: Fig. 134, T83)	Fig. 163: 10
11	VI (7) HM	2nd-5th c. AD	Grooved band lip jar rim	D 17, T .75	SylBBR 15% limestone and plant fragments	Slip	Reddish-yellow (5YR 7/6), red (2.5YR 6/6) slip	Quseir (Whitcomb & Johnson 1979: Fig.31g); Suhar (Kevran&Hibert 1988: Fig.4 nos.16-19)	Fig. 163: 11
12	VI (8) HM	2nd-5th c. AD	Grooved ledge rim jar rim	D 18, T .83	SylBBR 20% limestone and medium sand	Slip	Red (2.5YR 5/6), light reddish brown (2.5YR 6/4) slip	Quseir (Whitcomb & Johnson 1979: Pl.13e); Suhar (Kevran&Hibert 1988: Fig.4 nos.17-18)	Fig. 163: 12
13	VI (6) HM	2nd-5th c. AD	Carinated ledge rim jar	D 15, T 1.03	Vegetal-tempered Dark Brown Burnished Ware (VgDBBr) 20% limestone and plant fragments	Burnished upper exterior	Reddish-brown (5YR 4/5) with dark core	No parallels cited	Fig. 163: 13

No.	Sounding	Date	Form	Diam/Thick	Fabric	Surface	Munsell Colour	Parallels	Fig
14	VI (8) HM	2nd-5th c. AD	Carinated ledge rim jar	D 22, T .93	VgDBr 25% limestone and plant fragments	Burnished exterior	Reddish brown (5YR 5/5) with dark core	No parallels cited	Fig. 163: 14
16	VI (6), (7)	2nd-5th c. AD	Wheeler Type 38 Top	D18.5, T .73	Limestone and Vegetal-tempered Red fabric (LsVgR) 15% medium sand, limestone and grog	Hole broke through string cut base, interior lip burnt, exterior rim abrasion, bitumen splattered on exterior	Reddish yellow (5YR 7/6)	No parallels cited	Fig. 163: 16
17	VI (4)	2nd-5th c. AD	Wheeler Type 38 Top	D 16, T .89	LsVgR 35% grog, limestone and plant fragments	String cut base, grey sludge on interior, interior rim abrasion	Reddish yellow (7YR 7/5)	No parallels cited	Fig. 163: 17
15	VI (8) HM	2nd-5th c. AD	Heavy ledge rim jar rim	D 12, T .84	VgDBr 20% limestone and plant fragments	Burnished slip	Red fabric (2.5YR4/6), burnished red (10R 4/7) slip	Nevasa (Sankalia et. al 1960: fig.132, T.80b); Maheshwar (Sankalia et. al 1958, Fig. 81, T.132b)	Fig. 163: 15

Table 10. Catalogue of Indian ceramics from Ras Hafun (after Smith and Wright 1988)

FORM	SECTOR			Total
	CW	DA	H	
Bowl	8	2	0	10
Carinated Plate	10	2	1	13
Cooking pot	6	1	8	15
Flask	1	0	3	4
Handi	4	1	21	26
Lid	3	1	0	4
Oil lamp	9	1	22	32
Storage jar	12	1	8	21
Total	53	9	63	125
Total %	42.4	7.2	50.4	

Table 11. Occurrence of Indian vessel forms in the various sectors/areas (CW, DA, H) from Mleiha (based on MNV count)

Fabric	%
MICA	32.8
SANDY	47.2
SHELL	14.4
UNKNOWN	5.6

Table 12. Occurrence of Indian ware groups by percentage from Mleiha

FORM	FABRIC				Total	%
	MICA	SANDY	SHELL	Unknown		
Bowl	6	3		1	10	8.0
Carinated Plate	7	6	0	0	13	10.4
Cooking pot	6	7	1	1	15	12.0
Flask	4	0	0	0	4	3.2
Handi	7	7	11	1	26	20.8
Lid	3	0	0	1	4	3.2
Oil lamp	2	28	0	2	32	25.6
Storage jar	6	8	6	1	21	16.8
Total	41	59	18	7	125	

Table 13. Proportion of the Indian vessel forms within the ware groups at Mleiha (based on % and MNV count)

FORM	AF	AH	AV	AZ	BA	BB	BC	BL	BO	BP	BQ	BR	BS	ED	L	M	N	Total	%
Base													5					5	4.2
Bowl		1		1					1		4	2	12		3		1	25	20.8
Cooking pot									1					1	3		3	9	7.5
Handi	3							1	1		3	1	9			1		19	15.8
High-neck globular			1		1	2		1	2	1	4	2	7		3		4	28	23.3
Lid									1			1	1					3	2.5
Misc													2					2	1.7
Plate/Dish	1									1	2		1	1				6	5.0
Short-neck Globular		1	1				1		4		5	1	9				1	23	19.2
Total	4	2	2	1	1	2	1	2	10	2	18	7	47	2	9	1	9	120	

Table 14. Occurrence of Indian vessel forms within the 17 'areas'/context from Ed-Dur

FABRIC	Base	Bowl	Cooking pot	Handi	High-neck globular	Lid	Misc	Plate/Dish	Short-neck globular	Total
CBS				1				1		2
CORW							2			2
CRB									4	4
CRS		4		17	1	1			1	24
CVRB			9			2		2		13
FRBG	3	13			7			3		26
FRS	2	4		1	20				18	45
VFGR		4								4
Total	5	25	9	19	28	3	2	6	23	120

Table 15. Proportion of Indian vessel forms in relation to fabric classes at Ed-Dur (MNV count)

SITE	PHASE/PERIOD	DATE
al-Mataf	K-VIII	16th/17th century
	M-Rec	16th/17th century
	M-VI	late 16th century
	M-V	16th century
	M-IV	16th century
	M-III	late 15th/16th century
	M-II	14th/15th century
	M-I	late 14th century
	M-Pre	early/mid 14th century
Kush	K-VII	13th century
	K-VI	12th century
	K-V	late 11th/12th century
	K-IV	9th/11th century
	K-III	8th/9th century
	K-II	7th/8th century
	K-I	5th/6th century

Table 16. Kush Periods and al-Mataf Phases showing proposed dates (after Kennet 2004: Table 28)

FORM	FABRIC							Total
	FGRW	FIRE	INDIA	IPRW	IRAB	PAINT	SBBW	
Beaker							2	2
Bowl							1	1
Carinated plate							1	1
Cooking pot			2		17	1	4	24
Handi			3		2	1	12	18
High-neck globular					1		2	3
Short-neck globular			1	4	7	7	1	20
Unknown	2	2				8		12

Table 17. Proportion of Indian forms within the fabric classes from Kush

Level	Date (incorporating Mouton 1992: 181)	No. of Indian vessels illustrated (Kervran 1996)
VIII	17th - 18th	14
VII	mid 13th - 16th	13
VI	8th - mid 13th	27
V	7th/8th	11
IV	5th - 7th	8 or 9
III	4th/5th	12 or 13
II	late 3rd	7
I	early 3rd	6

Table 18. Number of Indian vessels illustrated from Kervrans's Suhar sequence based on an earlier dating sequence by Mouton (1992) (after Kennet 2004: Table 30)

Level	No. of Indian vessels illustrated (Kervran 1996)	No. of Indian vessels illustrated (Kervran 2004)	No. of Indian vessels illustrated (in the present thesis)
VIII	7	0	7
VII	7	0	7
VI	40	30	47
V	11	15	17
IV	9	6	12
III	13	18	18
II/III	0	4	4
II	9	8	16
I	9	4	13
0	0	5	5

Table 19. Number of Indian vessels illustrated from Kervran's Suhar publications (Kervran 1996: figs. 3-8 and 2004: figs. 8-36. Note: the discrepancies in number of illustrated vessels from the previous table is shaded in grey)

FORM	LEVEL										Total
	0	I	II	II/III	III	IV	V	VI	VII	VIII	
Basin	2							2			4
Body		2	3		1	2	1	4			13
Bowl									2		2
Cooking pot	1				1	3	9	10			24
Goblet		1									1
Jar		1	5		3	2	1	6	1		19
Lid	1	1	2		3						7
Pot	1	8	5	4	10	5	6	25	4	7	75
Spout			1								1
Total	5	13	16	4	18	12	17	47	7	7	146

Table 20. Occurrence of Indian vessel forms through the Suhar sequence (Levels 0-VIII)

Form	Quantity	%
Basin	4	2.7
Body	13	8.9
Bowl	2	1.3
Cooking pot	24	16.4
Goblet	1	0.68
Jar	19	13.01
Lid	7	4.7
Pot	75	51.3
Spout	1	0.68

Table 21. Proportion of individual vessel forms in the Suhar Indian assemblage

Fabric	Quantity	%
Coarse blackish	14	9.5
Coarse grey	20	13.7
Coarse orange	1	0.68
Coarse pinkish	22	15.07
Coarse red	46	31.5
Fine black	2	1.3
Fine grey	1	0.68
Fine orange-red	14	9.5
Fine pink	10	6.8
Fine red	16	10.9

Table 22. Proportion of fabric classes in the Suhar Indian assemblage

FABRIC											
Form	Coarse blackish	Coarse grey	Coarse orange	Coarse pinkish	Coarse red	Fine black	Fine grey	Fine orange-red	Fine pink	Fine red	Total
Basin				2					2		4
Body		1			4	1			3	4	13
Bowl										2	2
Cooking pot	5	4		4	8			1		2	24
Goblet				1							1
Jar	1		1	3	7			3	1	3	19
Lid				4	3						7
Pot	8	15		8	23	1	1	10	4	5	75
Spout					1						1
Total	14	20	1	22	46	2	1	14	10	16	146

Table 23. Occurrence of Indian vessel forms in Suhar fabric classes

Form	Mleiha (2nd-mid 3rd c. AD)	EdDur (1st-2nd c. AD)	Kush (5th-16th c. AD)	Suhar (Level 0- VIII)	Total	%
Base		5	1		6	1.2
Basin				4	4	0.85
Beaker			2		2	
Bowl	10	25	1	2	38	8.05
Cooking pot	18	9	24	21	72	15.2
Flask	4			1	5	1.06
Handi	26	19	18	7	70	14.8
Lid	4	3		7	14	2.9
Oil lamp	32				32	6.7
Plate/Dish	13	6	1		20	4.2
Globular pot		23	19	71	113	23.9
Spout		1		1	2	
Storage jar	18	27	3	19	67	14.1
Unknown			12		12	2.5
Total	125	120	81	146	472	
%	26.4	25.4	17.1	30.9		

Table 24. Comparative data of Indian vessels from across the four sites (Mleiha Ed-Dur, Kush and Suhar

Sample	Al ₂ O ₃	SiO ₂	SO ₃	K ₂ O	CaO	TiO ₂	Cr ₂ O ₃	MnO	Fe ₂ O ₃	NiO	CuO	ZnO
ML H5004 R	12.45	62.01	0.29	2.6	9.98	1.37	0.14	0.18	10.77	0.05	0.01	0.02
Junnar common CRW	9.43	63.08	0.19	3.01	9.83	1.61	0.08	0.21	12.44	0.02	0.02	0.02
Dwarka Red Slipped	12.68	69.21	0.17	3.23	3.61	1.14	0.24	0.16	9.38	0.08	0.01	0.01
Nevasa CRW NVS	10.03	58.11	0.32	3.42	10.35	2.03	0.09	0.2	15.26	0.03	0.02	0.03
Padri Red Slip	11.2	59.08	0.1	1.94	8.18	2.53	0.22	0.27	16.27	0.07	0.01	0.01
Dwarka CRW 2	11.6	61.28	0.52	3.84	10.24	1.07	0.06	0.22	11.04	0.02	0.01	0.02
Nevasa NVS Sa 341 RCW	9.85	57.75	0.41	3.77	12.53	2.17	0.09	0.28	13.01	0.02	0.02	0.02
Gujarat Prabhas Patan RPW	14.61	63.75	0.03	3.75	6.51	1.08	0.07	0.09	10.03	0.02	0.01	0.01
Nevasa CRW	9.73	56.45	0.32	2.63	11.64	2.22	0.18	0.35	16.25	0.06	0.02	0.03
Nevasa RPW I D2	10.43	66.02	0.29	4.65	6.86	1.21	0.04	0.16	10.22	0.02	0.01	0.01
Nasik Red Slipped	11.04	59.46	0.11	2.64	6.39	2.47	0.09	0.28	17.33	0.03	0.02	0.02
Nevasa Black Ware	11.11	58.55	0.18	2.27	7.3	2.53	0.12	0.25	17.49	0.03	0.03	0.02

Anal. A.G. Attalmanan. Element data in weight-percent

Table 25. Percentage Elemental compositions of Meiha sample ML H5004 R and Western Indian samples. Other trace elements also present in but not shown here Rb₂O, SrO, ZrO₂, and SnO₂

Sample	Al ₂ O ₃	SiO ₂	SO ₃	K ₂ O	CaO	TiO ₂	Cr ₂ O ₃	MnO	Fe ₂ O ₃	NiO	CuO	ZnO
ML 2280	7.36	60.36	0.23	4.53	11.36	2.15	0.04	0.51	13.26	0.02	0.03	0.03
Junnar common CRW	9.43	63.08	0.19	3.01	9.83	1.61	0.08	0.21	12.44	0.02	0.02	0.02
Nevasa CRW NVS	10.03	58.11	0.32	3.42	10.35	2.03	0.09	0.2	15.26	0.03	0.02	0.03
Ter SVG-34	6.26	58.3	0.2	2.34	11.85	2.53	0.07	0.35	17.88	0.03	0.03	0.04
Junnar Red Slipped	6.88	53.88	0.22	3.28	13.36	2.17	0.15	0.33	19.48	0.04	0.03	0.04
Dwarka CRW 2	11.6	61.28	0.52	3.84	10.24	1.07	0.06	0.22	11.04	0.02	0.01	0.02
Nevasa NVS Sa 341 RCW	9.85	57.75	0.41	3.77	12.53	2.17	0.09	0.28	13.01	0.02	0.02	0.02
Nevasa CRW	9.73	56.45	0.32	2.63	11.64	2.22	0.18	0.35	16.25	0.06	0.02	0.03
Nasik Red Slipped	11.04	59.46	0.11	2.64	6.39	2.47	0.09	0.28	17.33	0.03	0.02	0.02
Nevasa Black Ware	11.11	58.55	0.18	2.27	7.3	2.53	0.12	0.25	17.49	0.03	0.03	0.02
Padri Red Slip	11.2	59.08	0.1	1.94	8.18	2.53	0.22	0.27	16.27	0.07	0.01	0.01
Nevasa RPW I D2	10.43	66.02	0.29	4.65	6.86	1.21	0.04	0.16	10.22	0.02	0.01	0.01

Anal. A.G. Attaielmaan. Element data in weight-percent

Table 26. Percentage Elemental compositions of Mleiha sample ML 2280 and Western Indian samples. Other trace elements also present in but not shown here Rb₂O, SrO, ZrO₂, and SnO₂

Sample	Correlation Value	Correlating Indian Sample
ML 2280	1.0	Junnar Common (CRW)
	1.0	Nevasa CRW NVS
	1.0	Ter SVG-34
	1.0	Dwarka CRW 2
	1.0	Nevasa NVS Sa 341 RCW
	1.0	Nevasa CRW
	0.99	Junnar Red Slipped
	0.97	Nasik Red Slipped
	0.97	Nevasa Black Ware
	0.97	Padri Red Slip
	0.96	Nevasa RPW I D2
ML H-5004 R	1.0	Junnar common
	1.0	Nevasa CRW NVS
	1.0	Dwarka CRW 2
	1.0	Nevasa NVS Sa 341 RCW
	1.0	Gujarat Prabhas Patan RPW
	1.0	Nevasa CRW
	1.0	Nevasa RPW I D2
	0.99	Dwarka Red Slipped
	0.99	Padri Red Slip
	0.97	Nasik Red Slipped
	0.97	Nevasa Black Ware

Table 27. Correlation values between the Mleiha and Western Indian samples (1.0 = 100%)

Samples	ML H 5004	ML-2280	ML-10014	ML H-5002	ML-10043	ML H-5008
ML H-5004						
ML-2280	0.99					
ML-10014	0.40	0				
ML H-5002	0	0	1			
ML-10043	0	0	0	0		
MLH-5008	0.42	0.28	0	0	0.95	
ML-10068	0	0.01	0	0	0.96	0.92

Table 28. Correlation between the samples collected at Mleiha building H.