Figure 1. Early historic sites in the state of Orissa (M. Speidel).

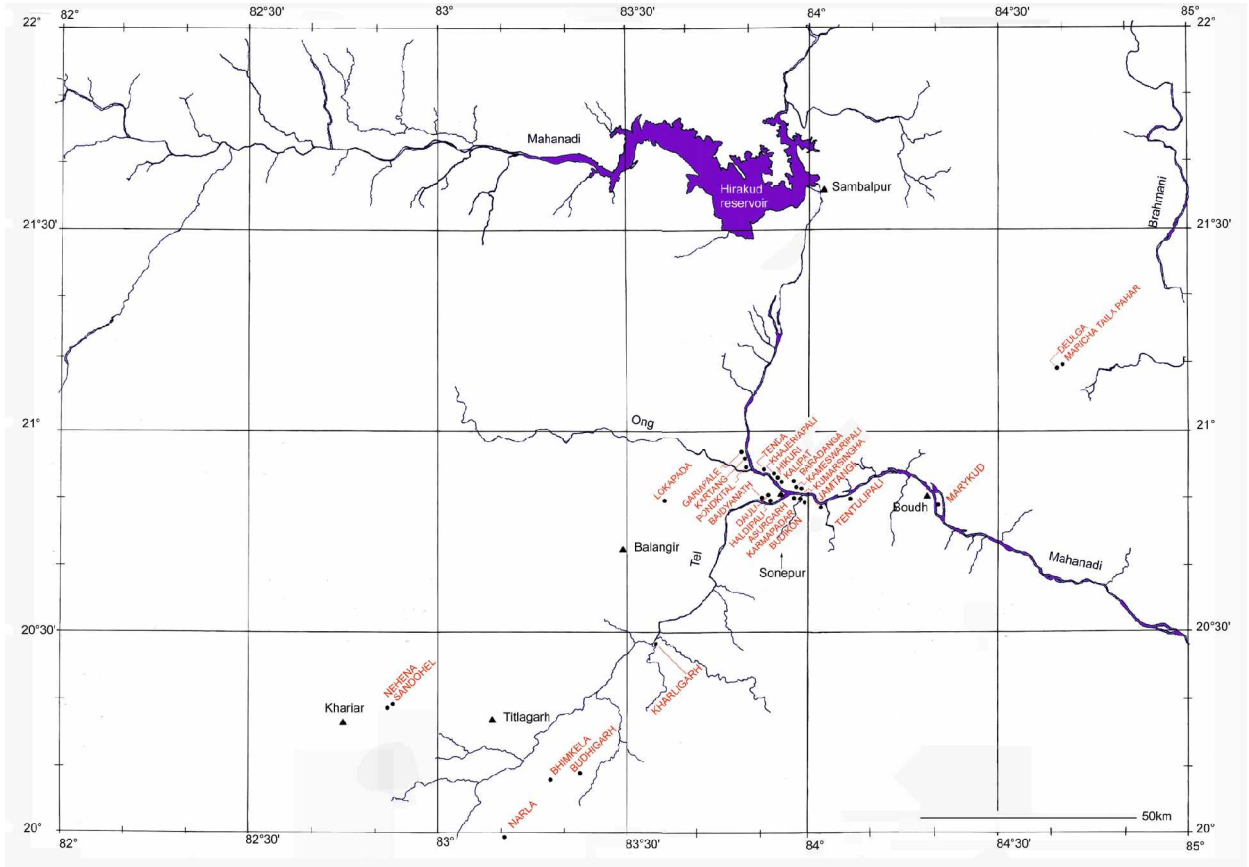


Figure 2. Middle Mahanadi valley based on the sheet ONC TPC sheet J-9a and J-9b.

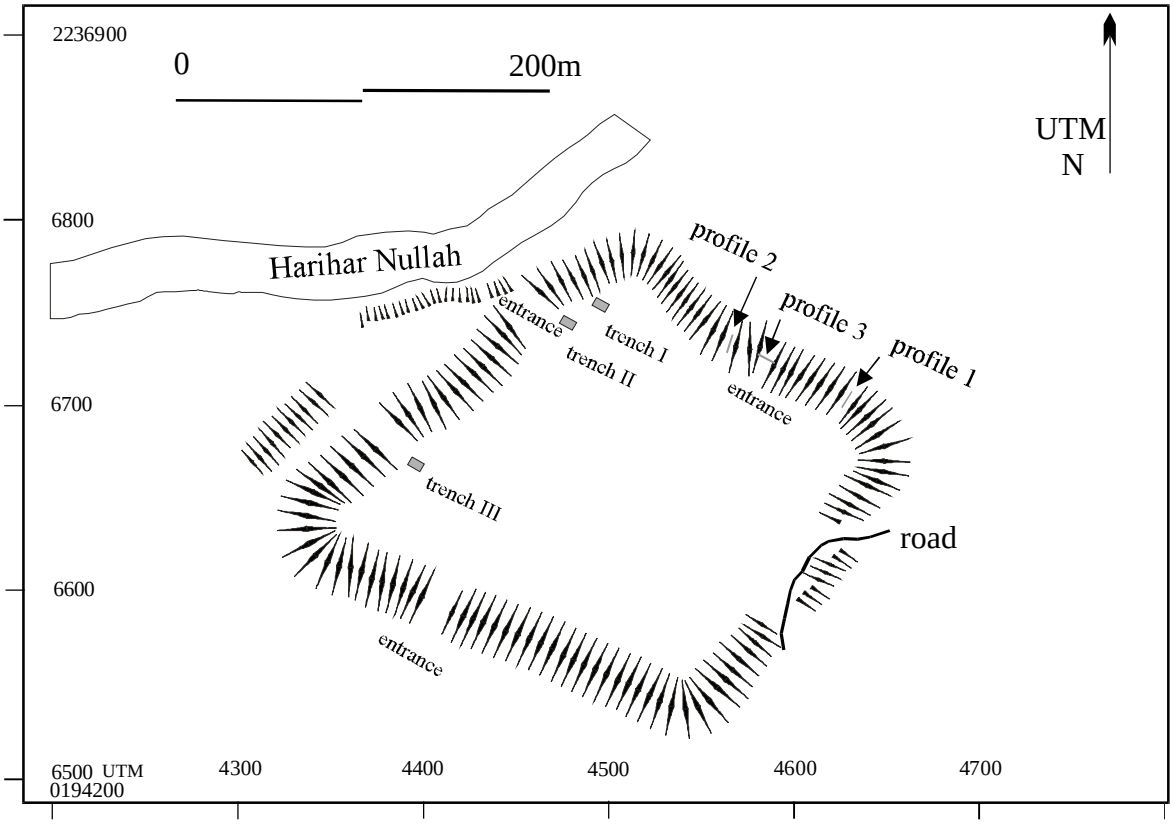


Figure 3. Badmalgarh, gps-assisted sketch plan of the early historic ruined glacis 30.11.2002 (P. Behera, M. Blumenroth, D. Modarressi, T. Rosarius, P. Yule).

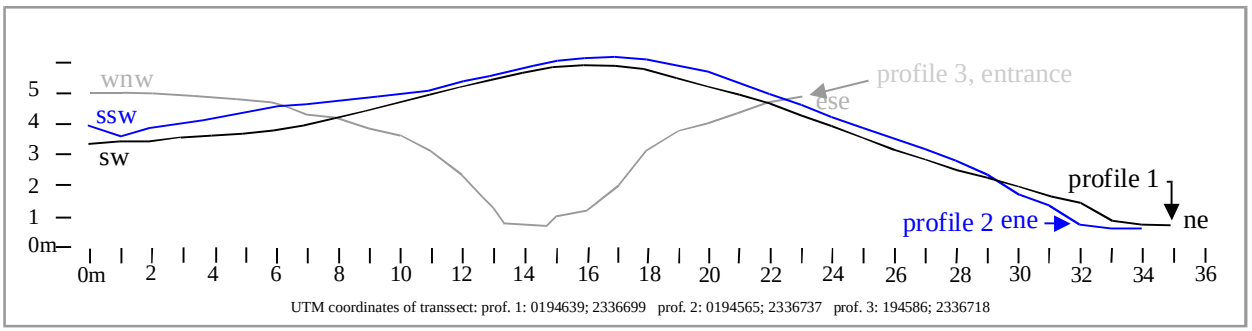


Figure 4. Badmalgarh, sections of the glacis. To the right in the profiles 1 and 2 lies the exterior of the glacis, to the left the interior.

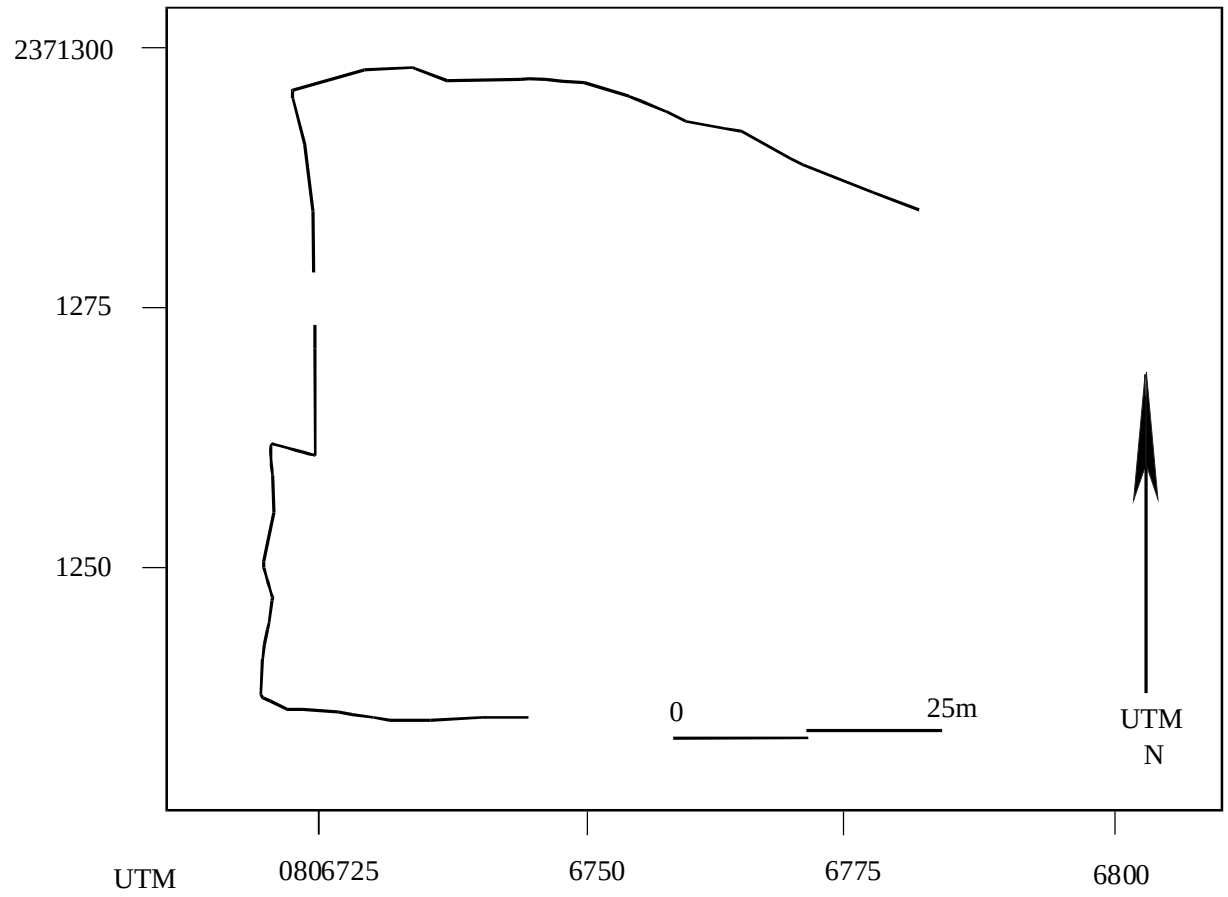


Figure 5. Berhampur, gps-assisted sketch plan of the stone enclosure, 19.11.2002.

Figure 6. Bhairapadia near Junagarh, the "iron age tomb".

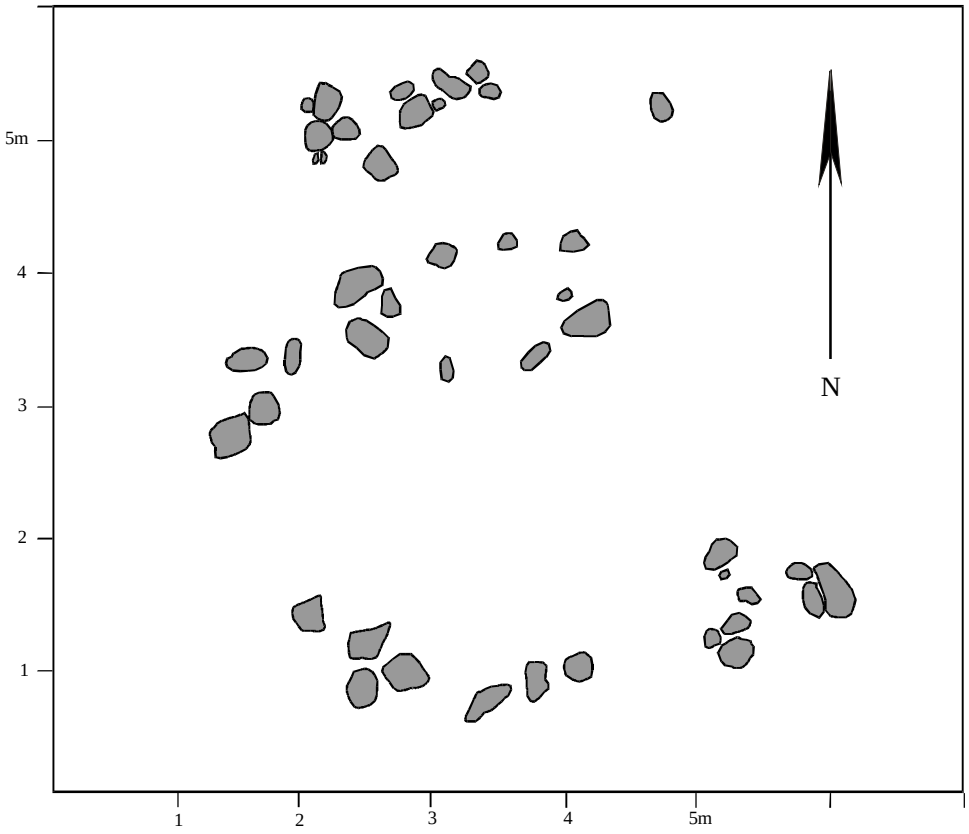


Figure 7. Bhairapadia near Junagarh, plan of the "iron age tomb", 14.11.2002.

Figure 8. Budikon near Puramunda, eroded landscape and ruined tombs.

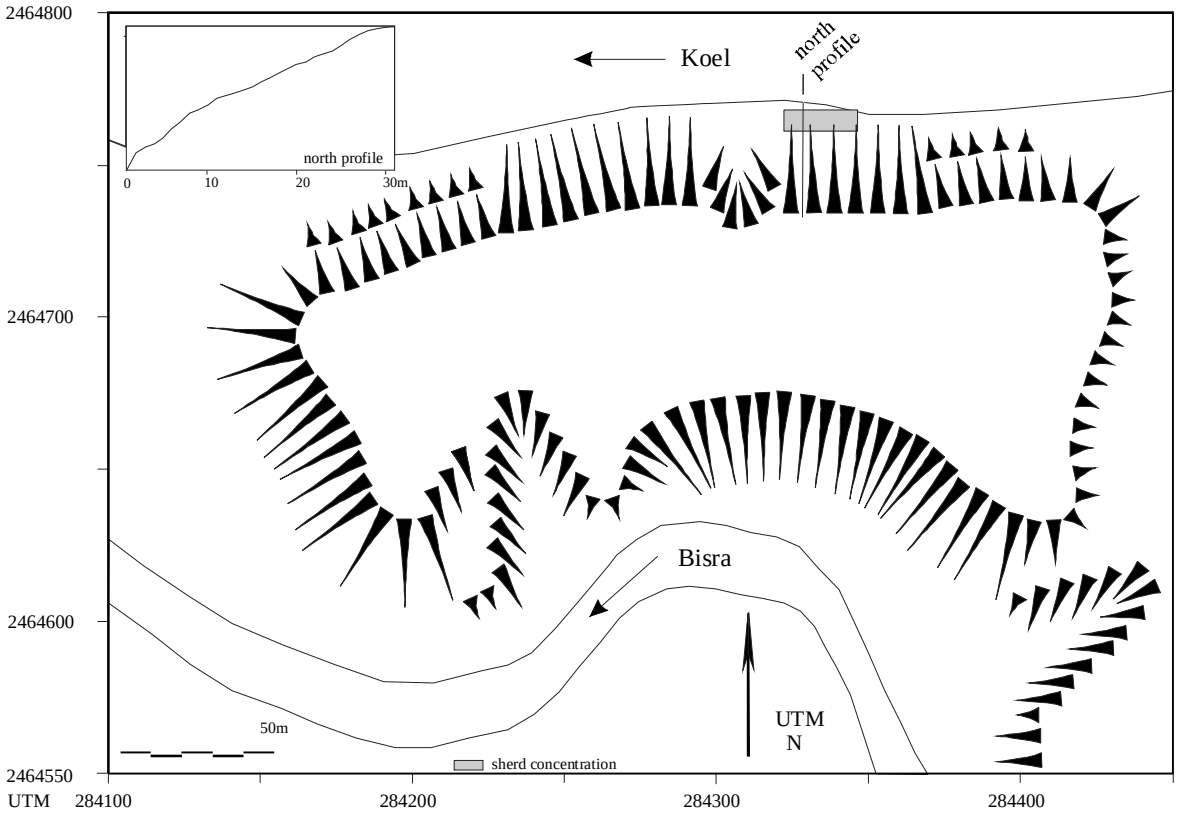
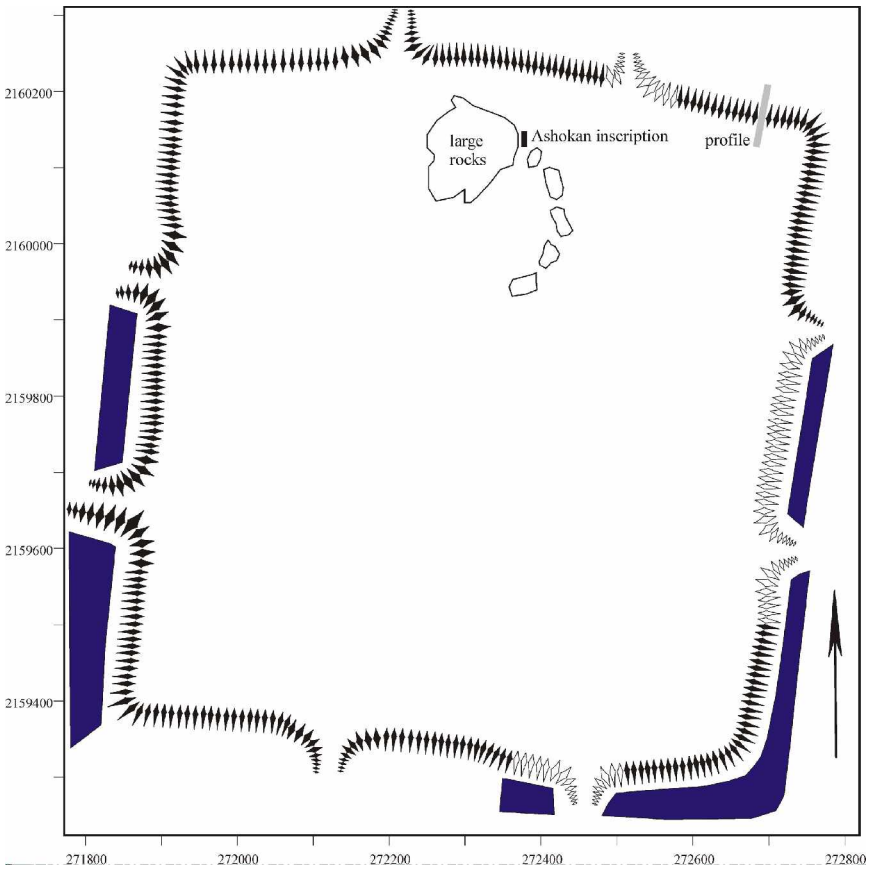


Figure 9. Jamsaragarh, gps-assisted sketch plan of the early historic ruined fort, 14.11.2003 (M. Blumenroth, D. Modarressi, T. Rosarius, P. Yule 2002).



10. Figure . Jaugada/Samapa, gps-assisted plan of the early historic ruined fortress, 2002, 20.11.2003.

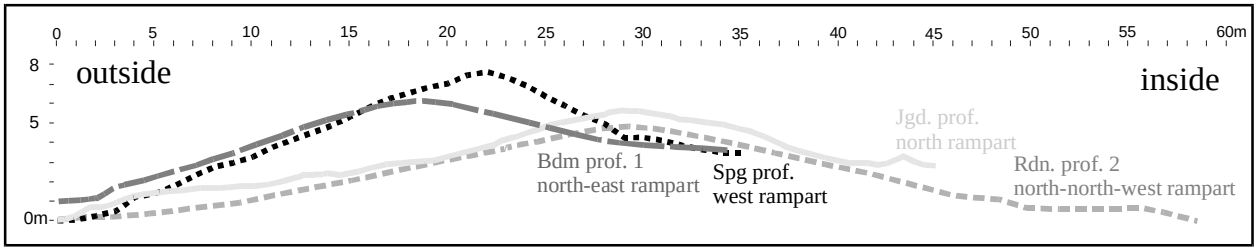


Figure 11. Profile view of the Jaugada and Radhanagarh (northern glacis) compared with those of Badmal (north-eastern glacis), Sisupalgarh (western glacis).

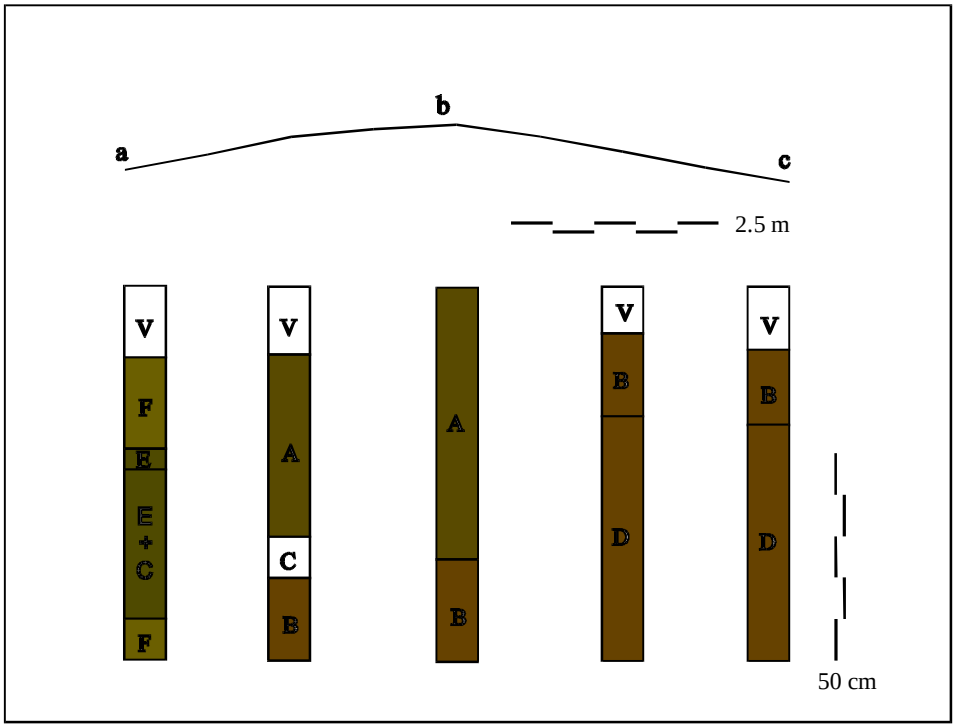


Figure 12. Jaugada/Samapa, bore core profile from the northern glacis, 20.11.2003 (T. Rosarius).
A = loamy, light amount of fine sand, greyish brown (Munsell Soil Color Chart 2.5YR 4/2=dark greyish brown), occasional small stones (max. diam. 0.5 cm).
B = loamy heavy amount of fine sandy temper with small stones (max. diam. 0.7cm) greyish brown (2.5YR 4/3=olive brown), manganese inclusions, small amount of carbon.
C = crumbly, mixed with small stones (max 1 cm) white with brown inclusions of clay (perhaps mortar) (5Y 8/1=white).
D = dense loam, light amount of fine sandy temper, scattered terra cotta specks, manganese specks, reddish beige to middle brownish grey (2.5Y 4/3=olive brown), scattered carbon specks and small stones (max. diam. 0.4cm).
E = loamy, fine sandy temper, with scattered small stones (max. diam. 0.7cm), greyish brown (2.5Y 4/4=olive brown), manganese inclusions, small amount of scattered carbon bits, small stones (max. 1.1cm) scattered amounts of carbon fragments, manganese inclusions.
F = loamy, middle amount of sand with scattered small stones (max. diam. 1.6cm), brownish grey (2.5Y 4/3=olive brown)
V = empty spaces

Figure 13. Sandohel near Khariar, iron age tombs toward the north.

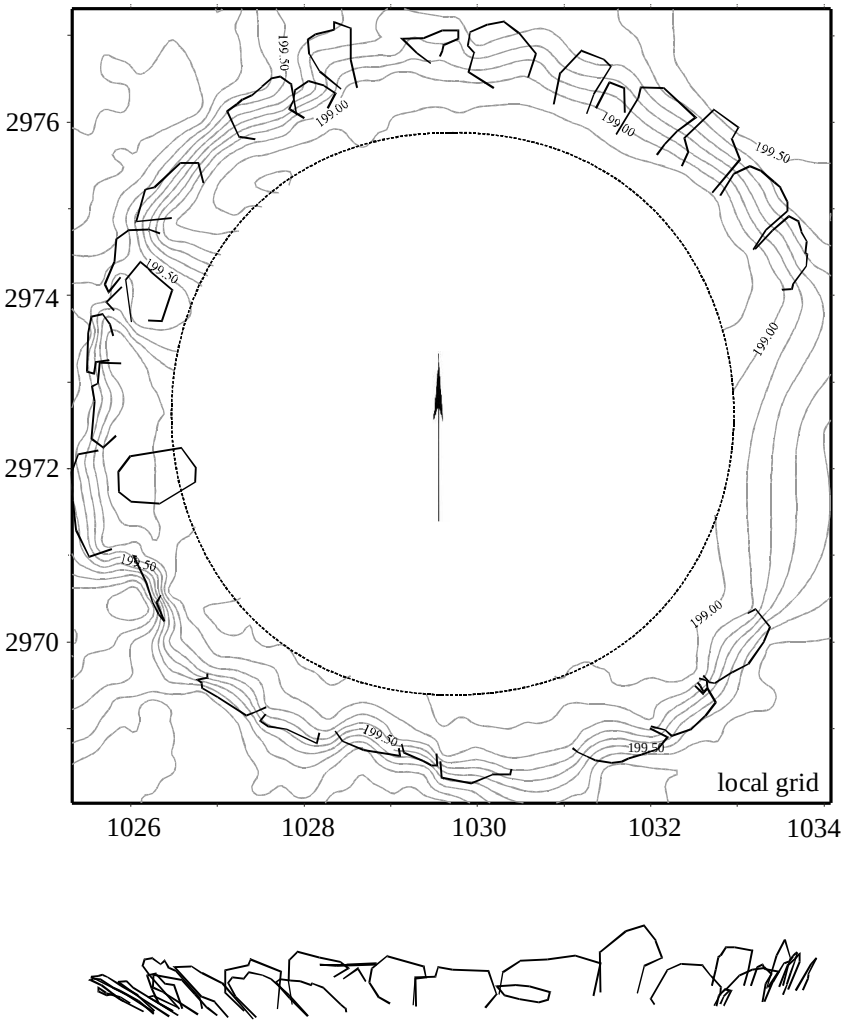


Figure 14. Sandohel near Khariar, plan and profile of iron age tomb 1, 03.12.2001 (data: P. Pahlen, M. Brandtner, drawing: P. Yule).

Figure 15. Sibedi mountain near Khariar, stone enclosure.

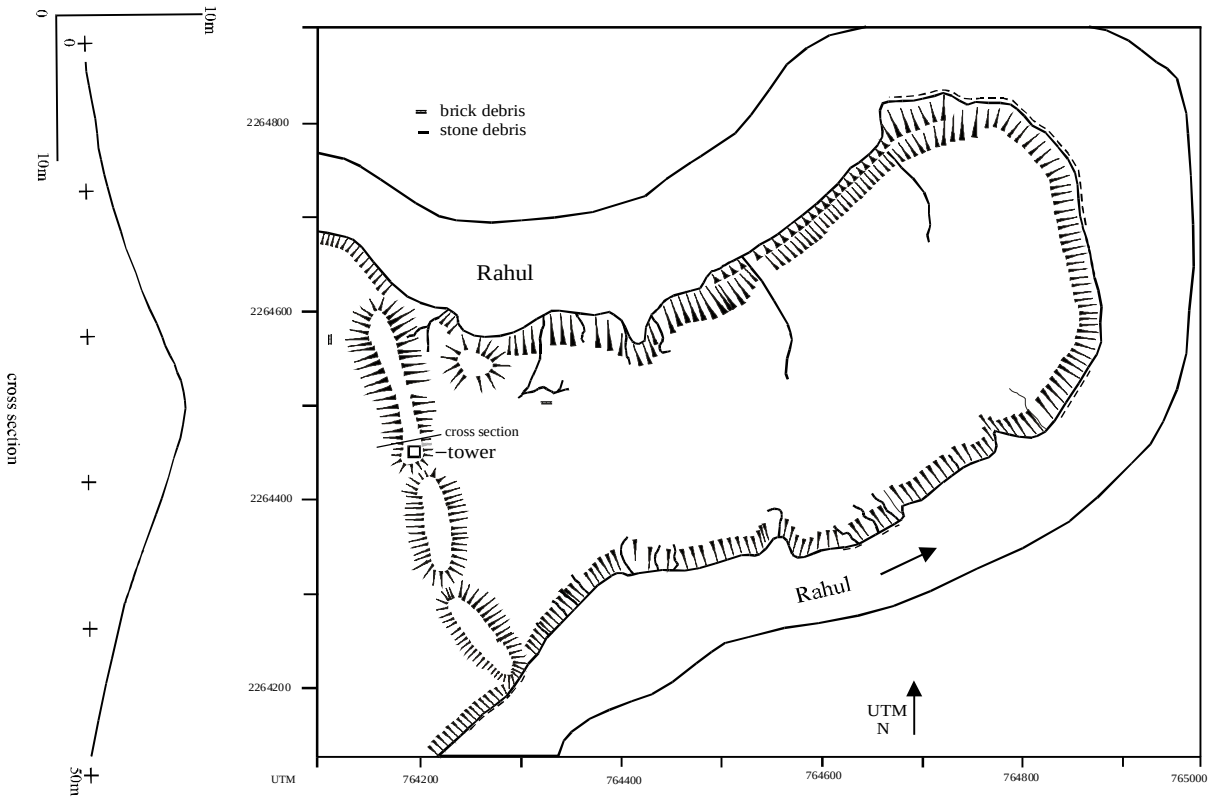


Figure 16. Kharligarh, gps-assisted plan and profile of glacis, 21.11.2001.

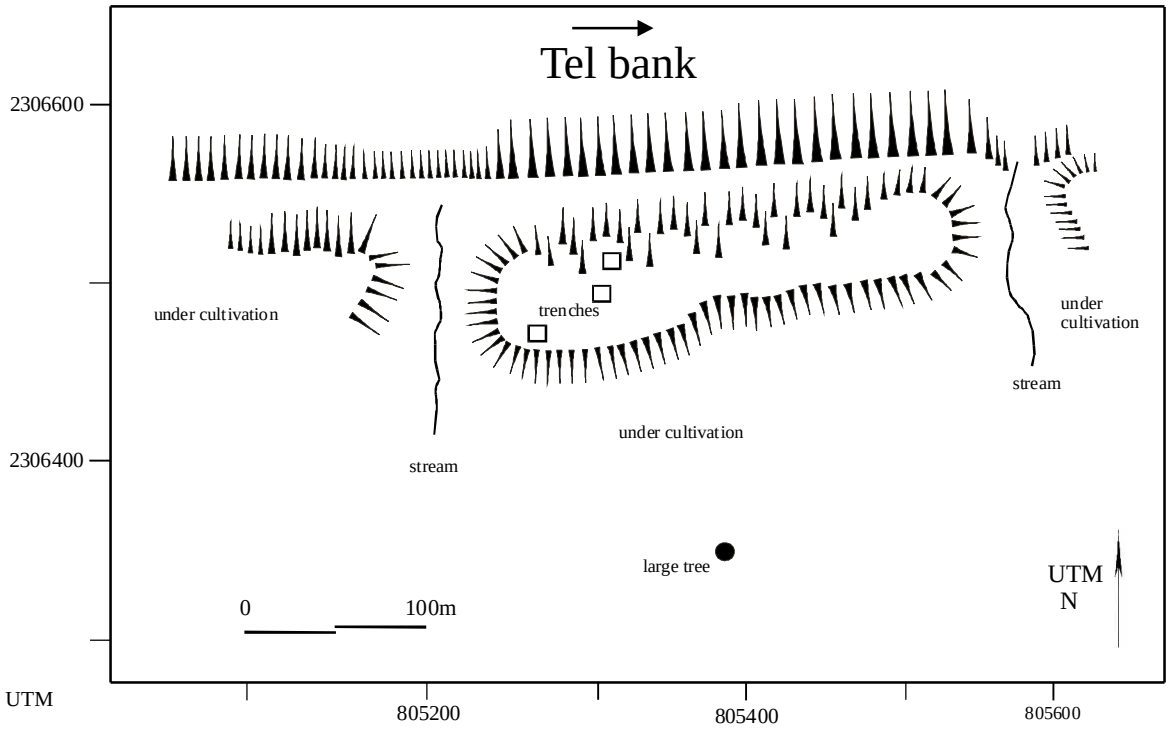


Figure 17. Asurgarh near Manamunda, gps-assisted site plan, 17.12.2000.

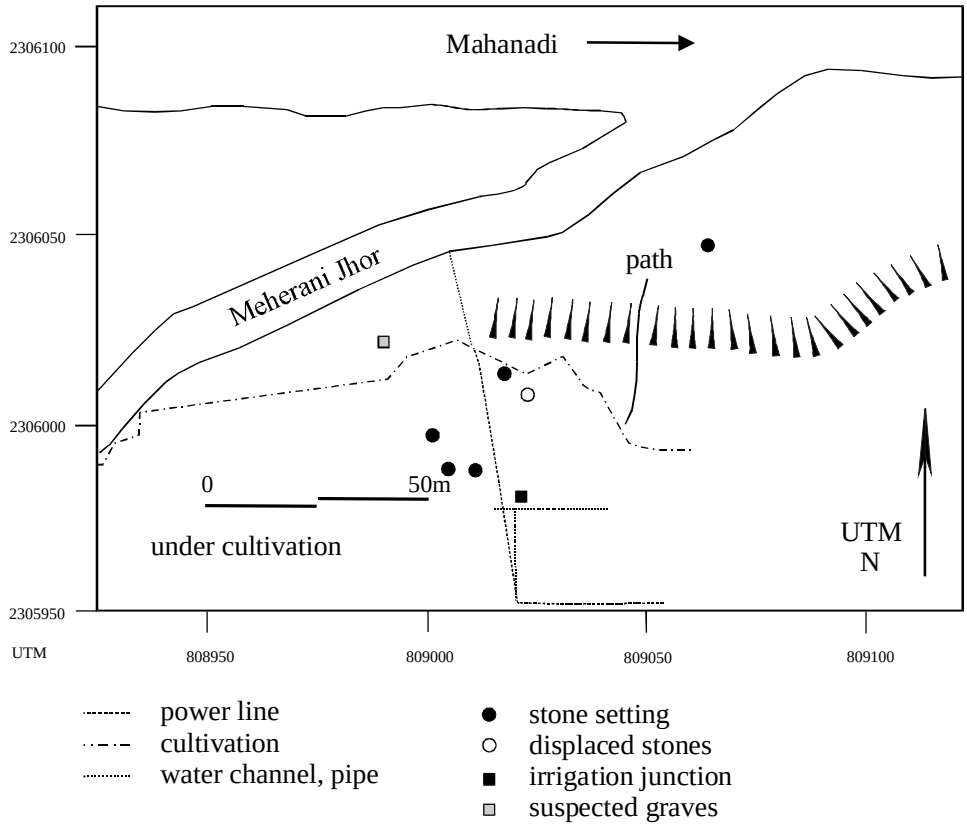


Figure 18. Karmapadar near Manamunda, gps-assisted sketch site plan.

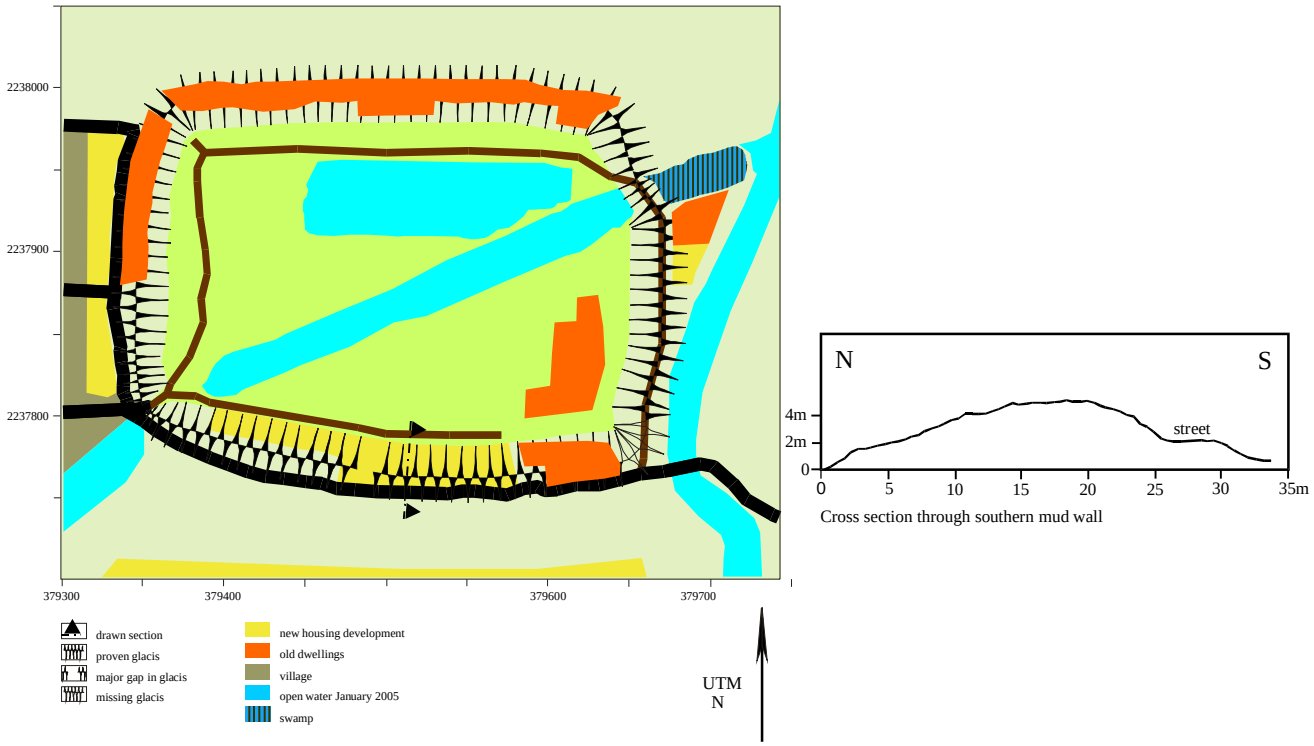


Figure 19. Mohabhoi Sasan near Bhubaneshwar, gps-assisted site plan 28.01.2005 (C. Borchert).

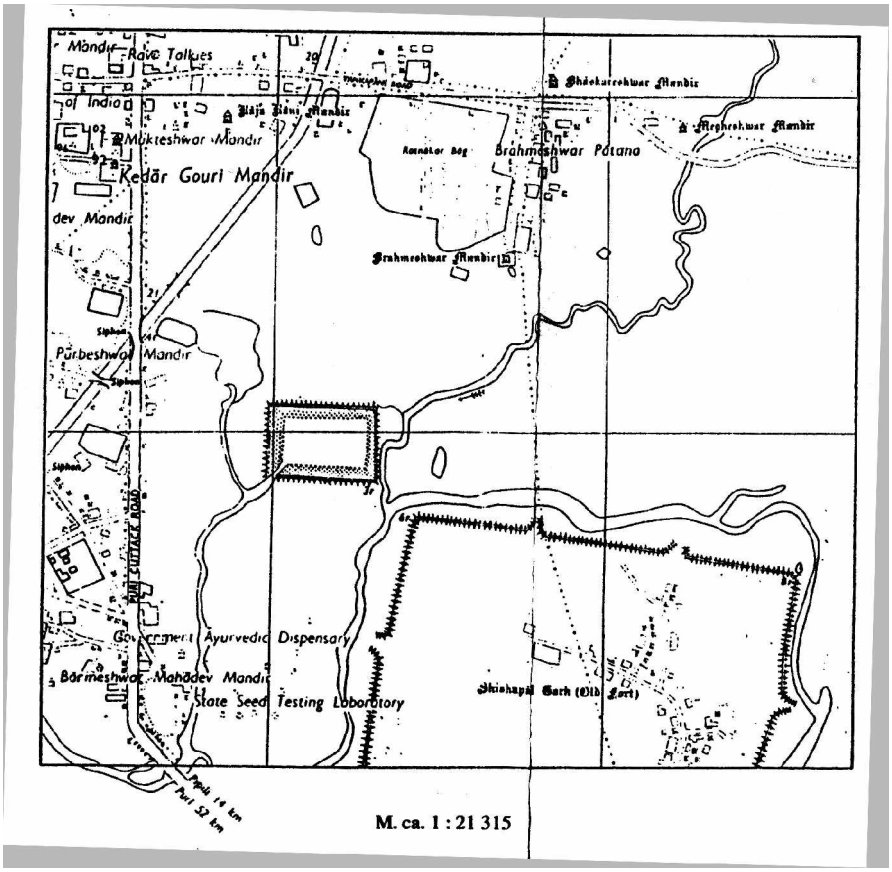


Figure 20. Municipal map of Bhubaneshwar showing Sisupalgarh and Mohabhoi Sasan just to its upper left.

Figure 21. Mohabhoi Sasan, new building on the southern face, 2005.

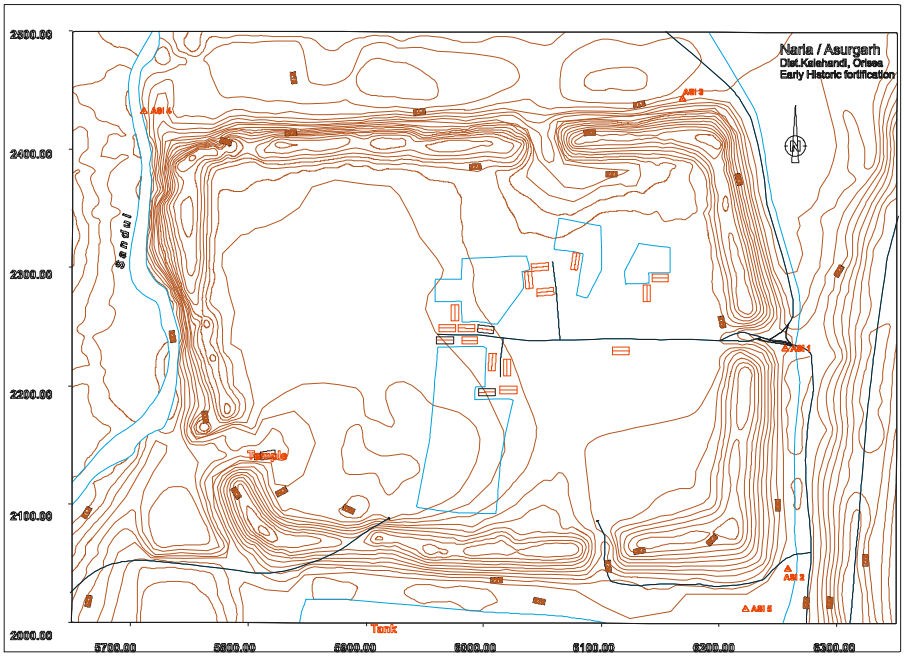


Figure 22. Asurgarh near Narla, profile and plan of south wall. 2001, (data: P. Pahlen, drawing: P. Yule, T. Kühnel).

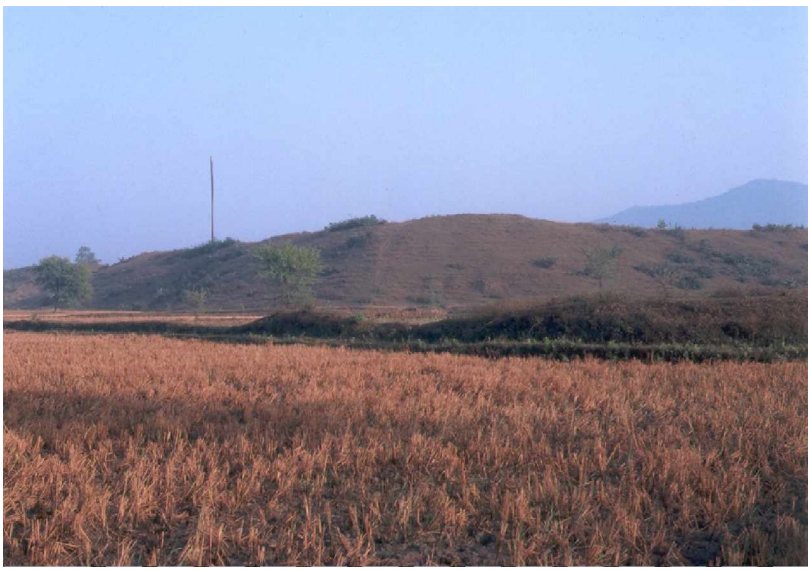


Figure 23. Asurgarh near Narla, south-west corner.

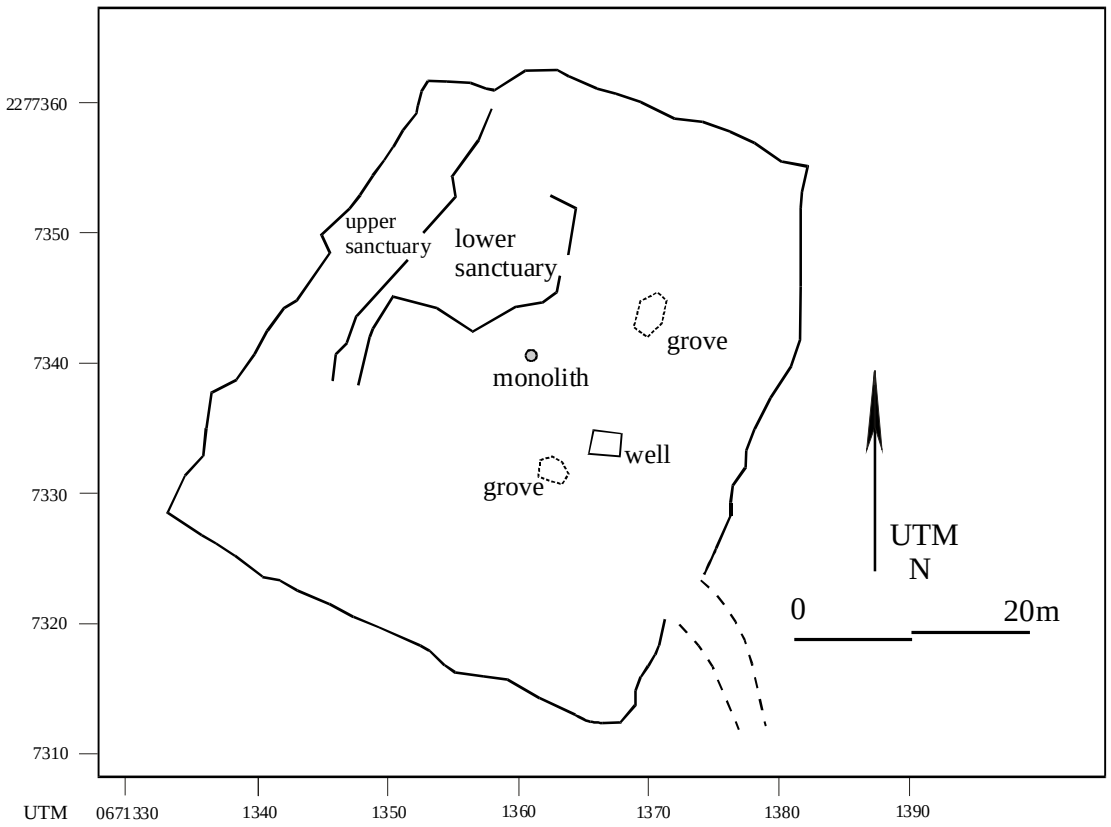


Figure 24. Pendrupekan, gps-assisted plan of enclosure 1, 28.11.2002.

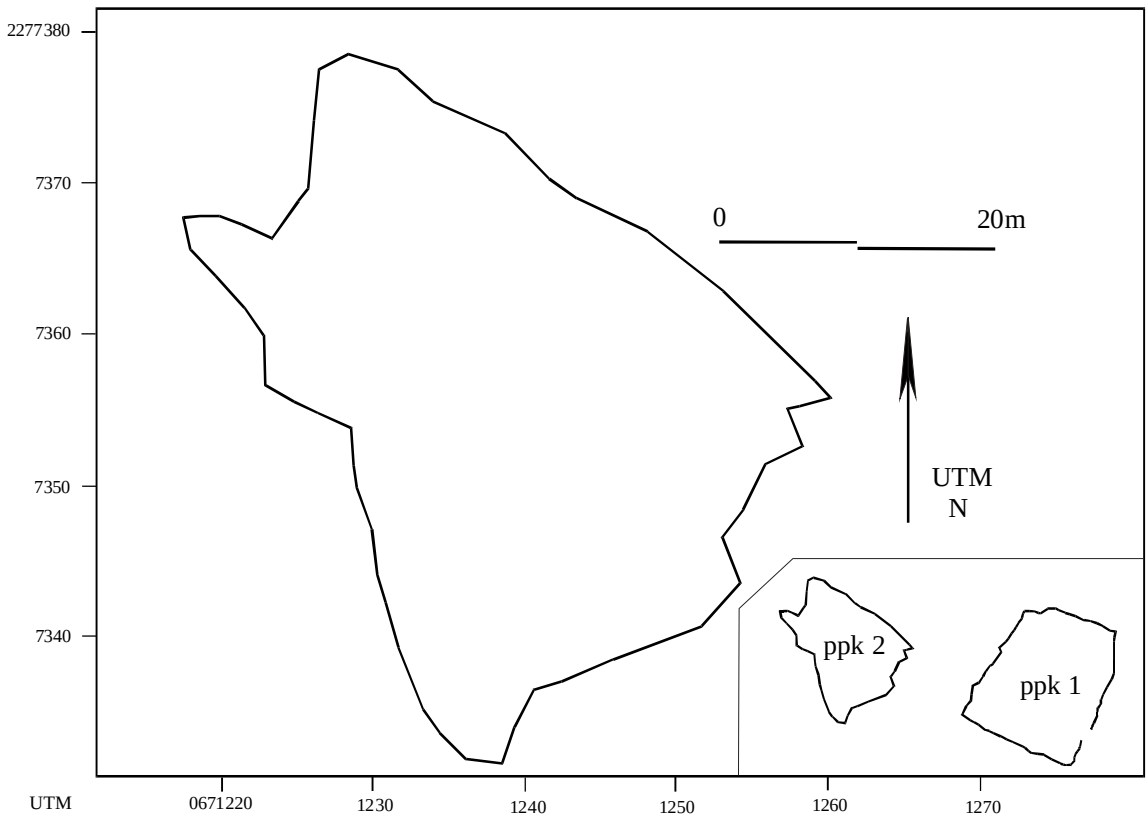


Figure 25. Pendrupekan, gps assisted plan of enclosure 2, 28.11.2002.

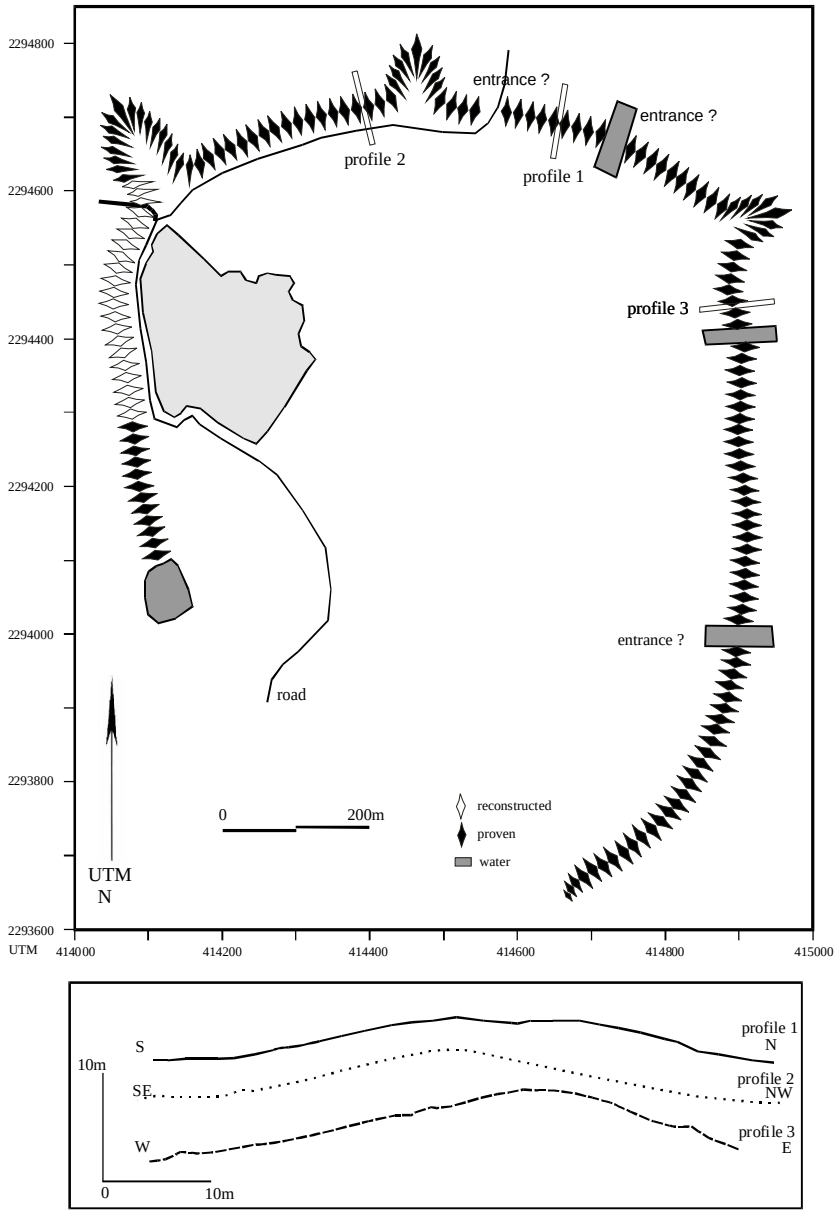


Figure 26. Radhanagbarh, gps-assisted plan of the early historic ruined fortress, below: cross-section through the glacis, 09.11.2002 (M. Blumenroth, D. Modarressi, T. Rosarius, P. Yule).

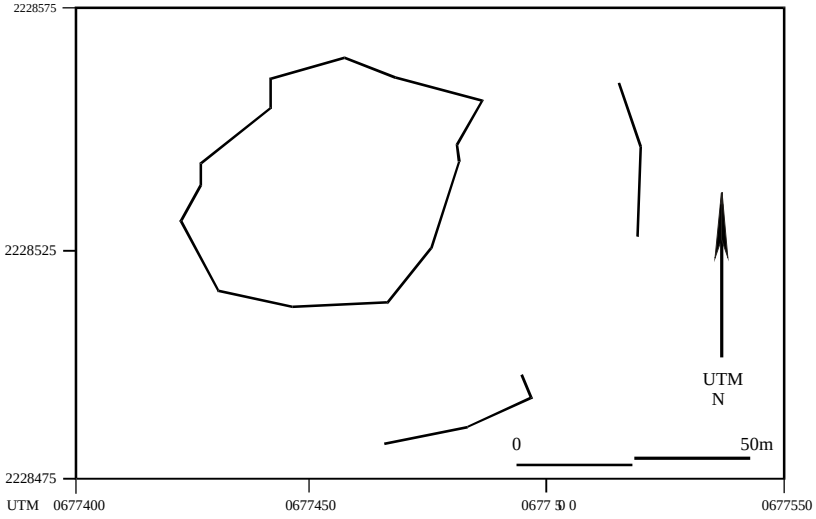


Figure 27. Ramgarh, gps-assisted plan of the stone enclosure, 26.11.2002.

ଶିଶୁପାଳଗଡ଼, ଓଡ଼ିଶା
ପ୍ରାଚୀନ ଐତିହାସିକ ଦୁର୍ଗର ଭଗ୍ନାବଶେଷ

Sisupalgarh, Dist. Khurda
Early Historic Ruined Fortress

Heidelberg University / Utkal University Expedition
20°13’57’’N; 85°50’56.5’’E
UTM 45Q 380251; 2236983
GPS data January 2005

drawn section
geophysical prospection
area D monolithic columns
section 1947 SP II & SP I habitation area
reconstruction of entrance SP IV
proven glacis
major gap in glacis
new housing development
village
open water, 1947 combined with January 2005
rice paddies
swamp

UTM
N

Figure 28. Sisupalgarh, gps-assisted plan of the early historic ruined fortress, 30.01.2005 (P. Yule, C. Borchert).

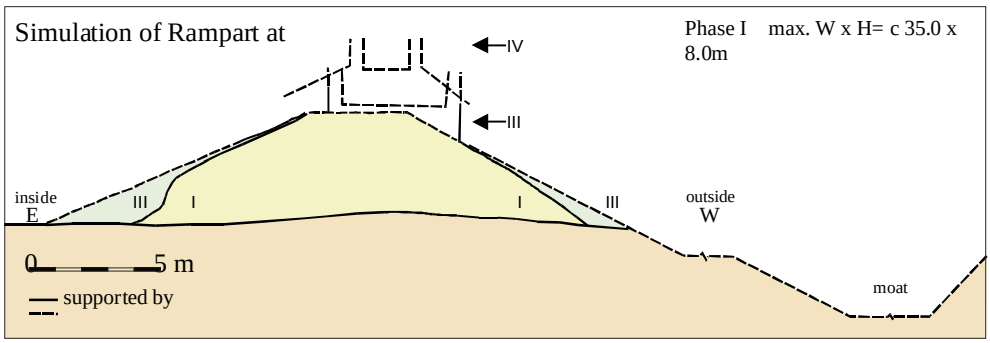


Figure 29. Sisupalgarh, cross section of the glacis, recontructed original appearance.

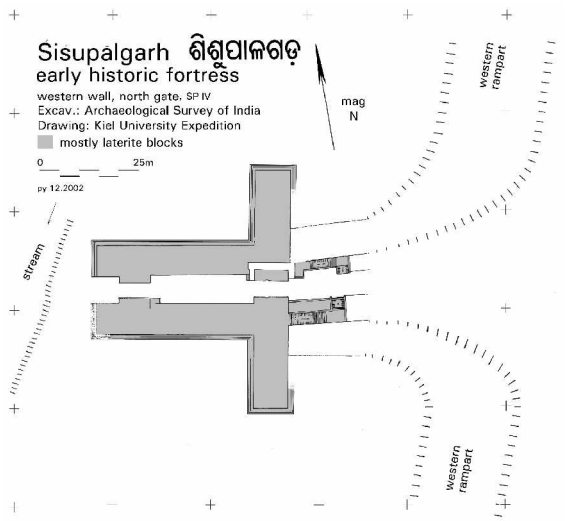


Figure 30. Sisupalgarh, plan of the northern gate in the western glacis (P. Yule, D. Modarressi).

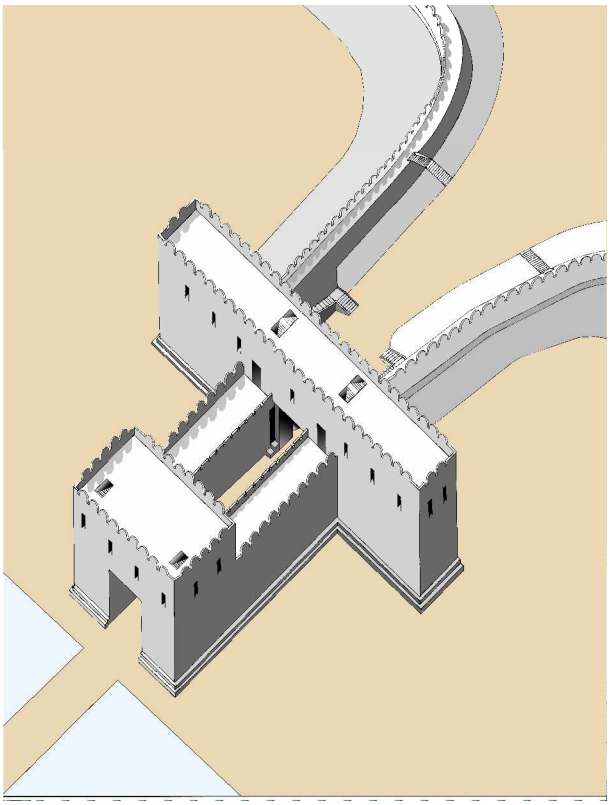


Figure 31. Sisupalgarh, isometricr econstruction of the northern gate of the western glacis (SP IV) with the terms cited in the Arthasastra for the pratoli gate type.

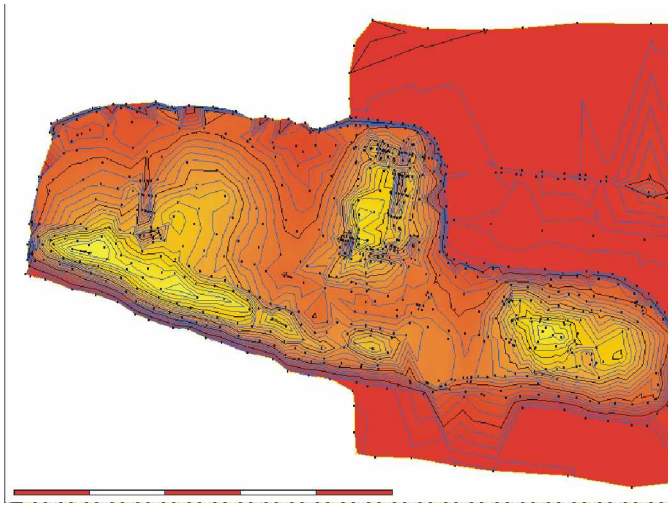


Figure 32. Sisupalgarh, plan of the columned "Area D " measured in 10cm elevational increments (M. Weber).

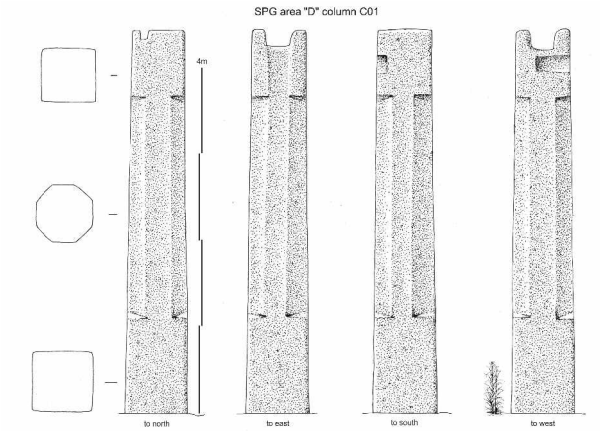


Figure 33. Sisupalgarh column no. 1 from "Area D" (T. Rosarius, I. Steuer-Siegmund).

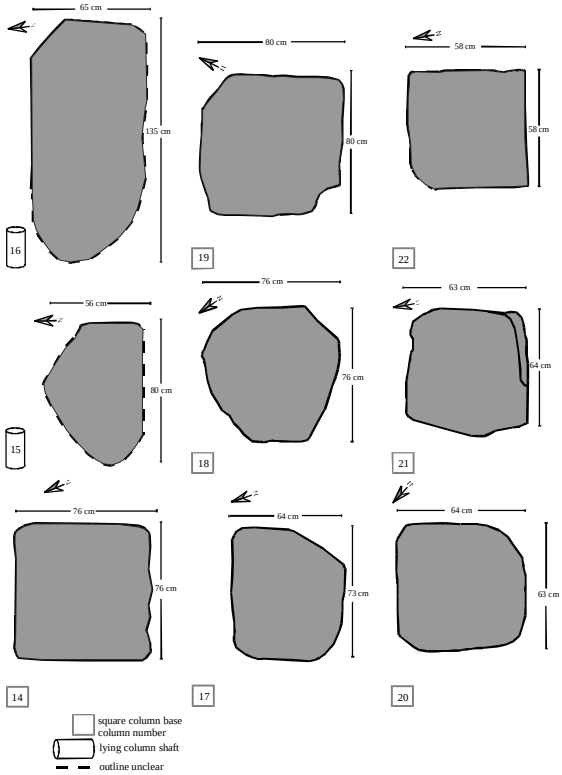


Figure 34. Plan drawing of the broken columns of "Area D" (T. Rosarius, P. Yule).

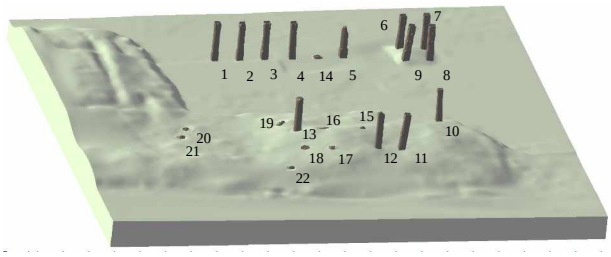


Figure 35. Isometric plan of Sisupalgarh "Area D" which shows the position of the different columns (M. Bordas Vicent).

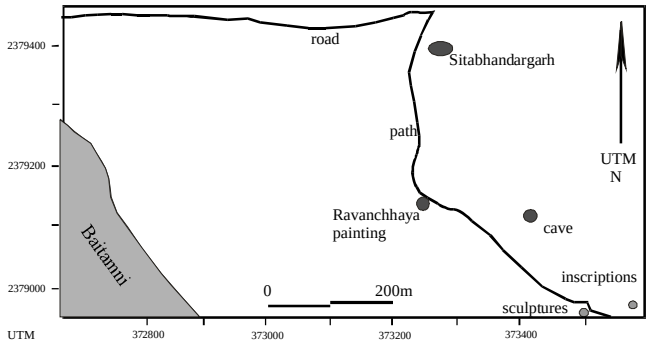


Figure 36. Sitabhinji, GPS-assisted sketch plan of the major sites, 18.11.2003.

Figure 37. Sitabhinji, Buddhist ceiling painting of the rock shelter.

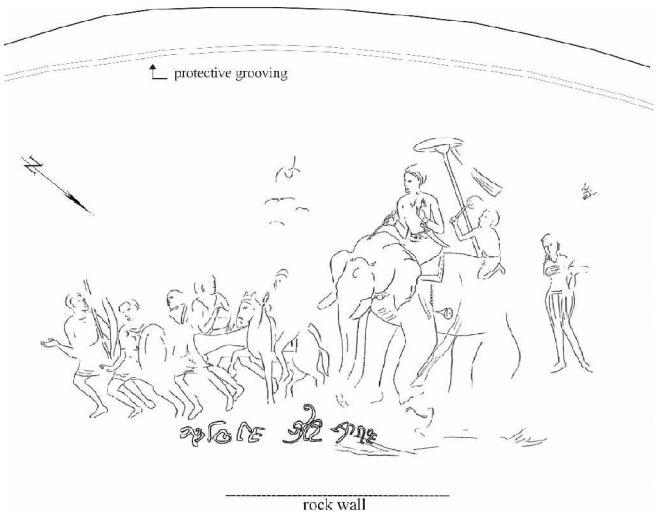


Figure 38. Sitabhinji, drawing of ceiling painting of the rock shelter (M. Zin).

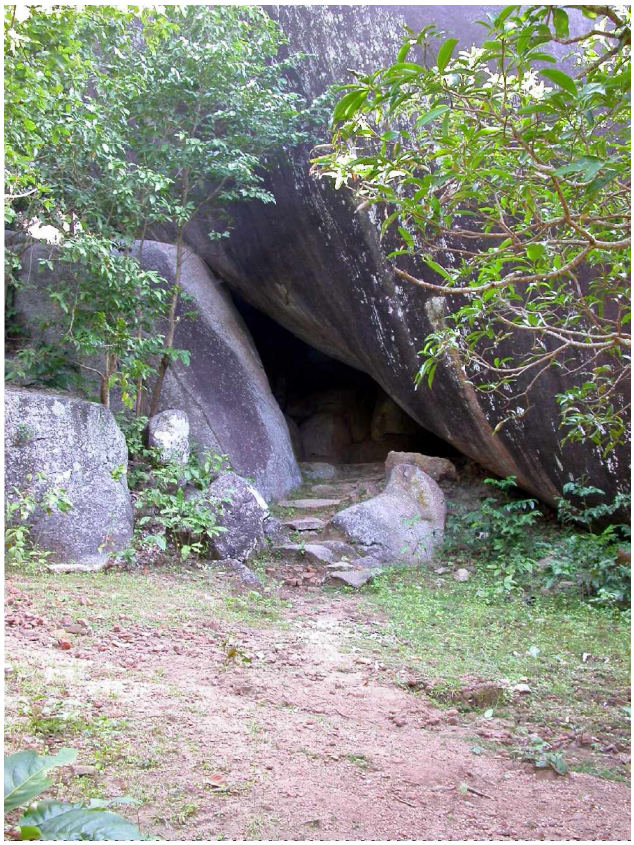


Figure 39. Sitabhinji, cave with brick remains.

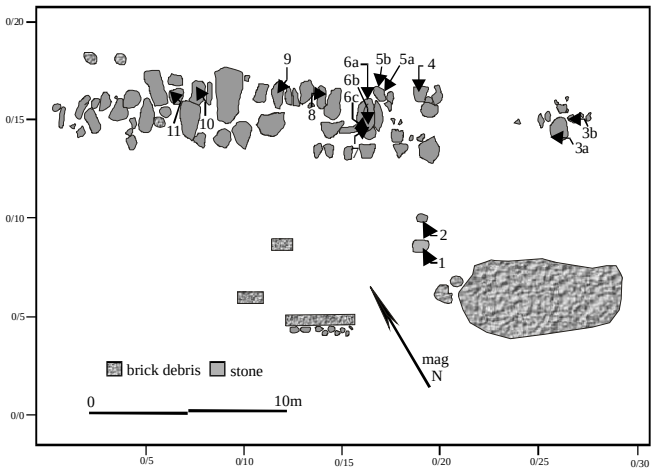


Figure 40. Sitabhinji, plan of the ruined brick structure with numbers of Pali inscriptions, 02.12.2002.

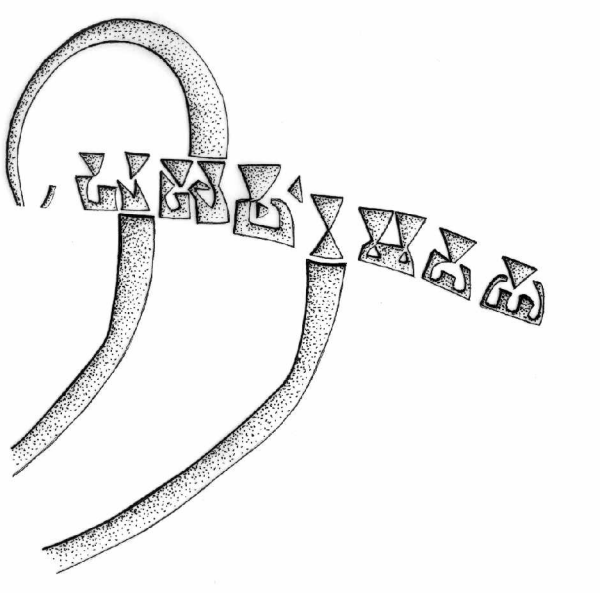


Figure 41. Sitabhinji, shell inscription no. 9 (M. Blumenroth/I. Steuer-Siegmund).

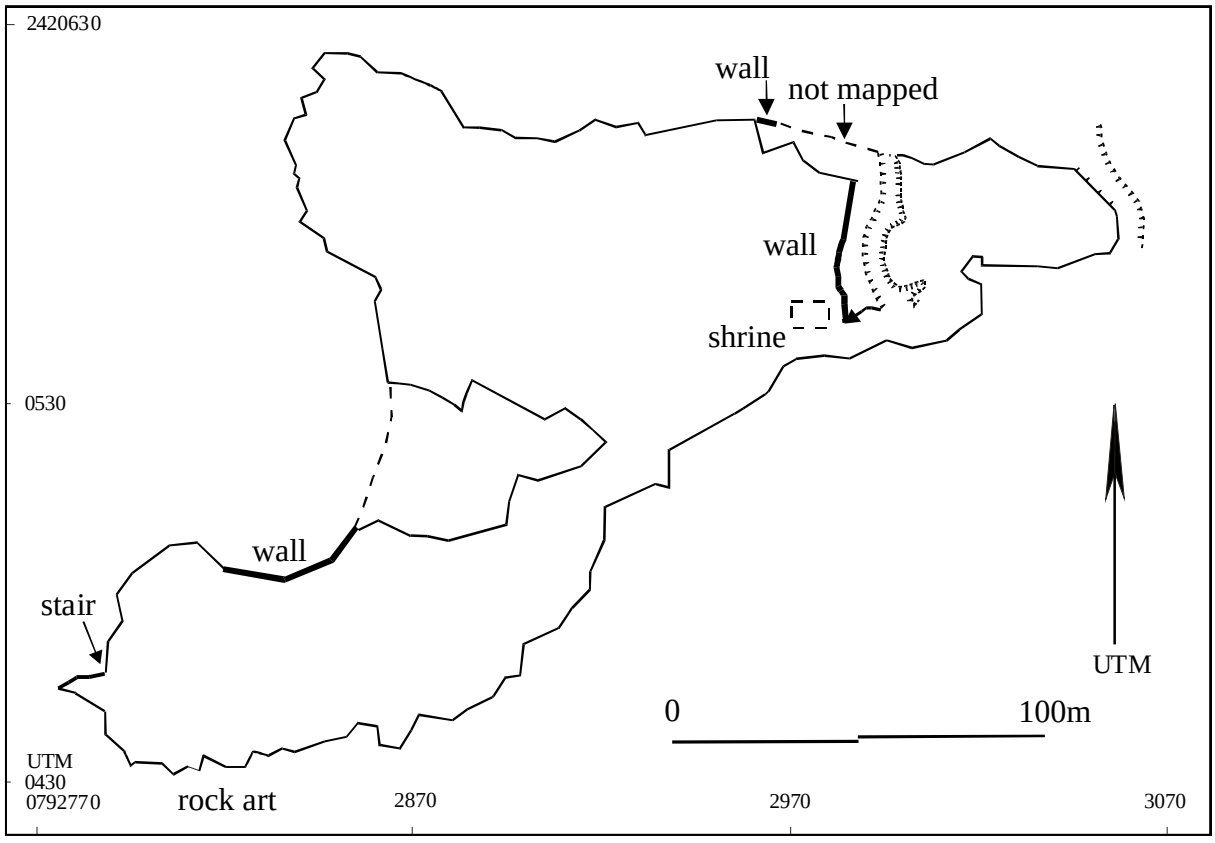


Figure 42. Ulapgarh, gps-assisted plan of subrecent fortified enclosure, 25.11.2002 (T. Rosarius, P. Yule).

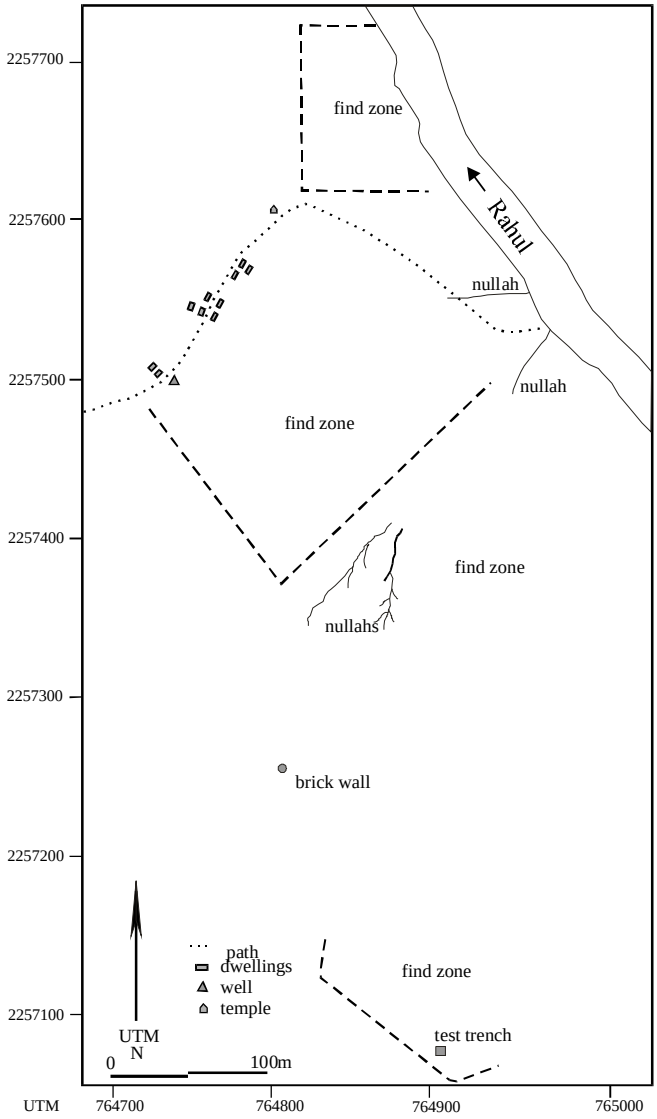


Figure 43. Budhigarh near Rampur, gps-assisted field plan, 15.11.2000.

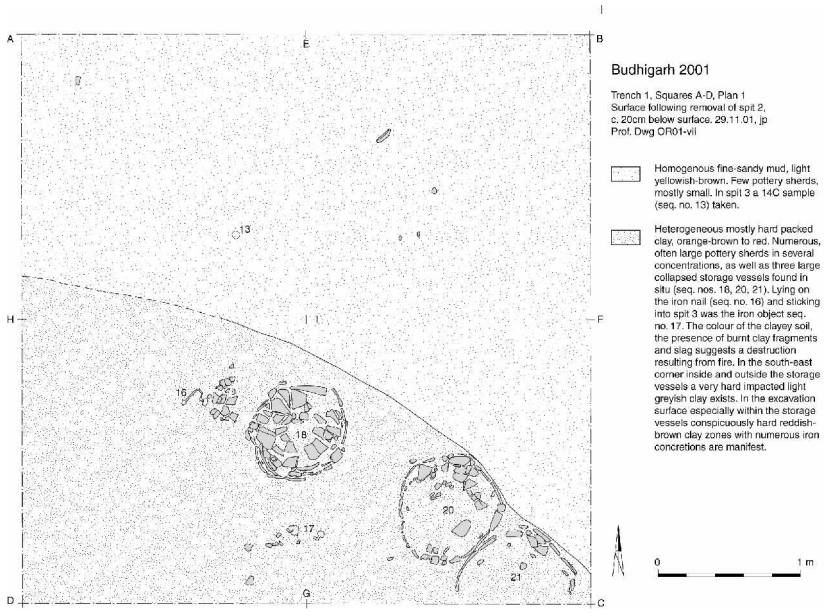


Figure 44. Budhigarh near Rampur, Trench 1, plan 1, upper surface of spit 2 (J. Pechtl, T. Kühnel).

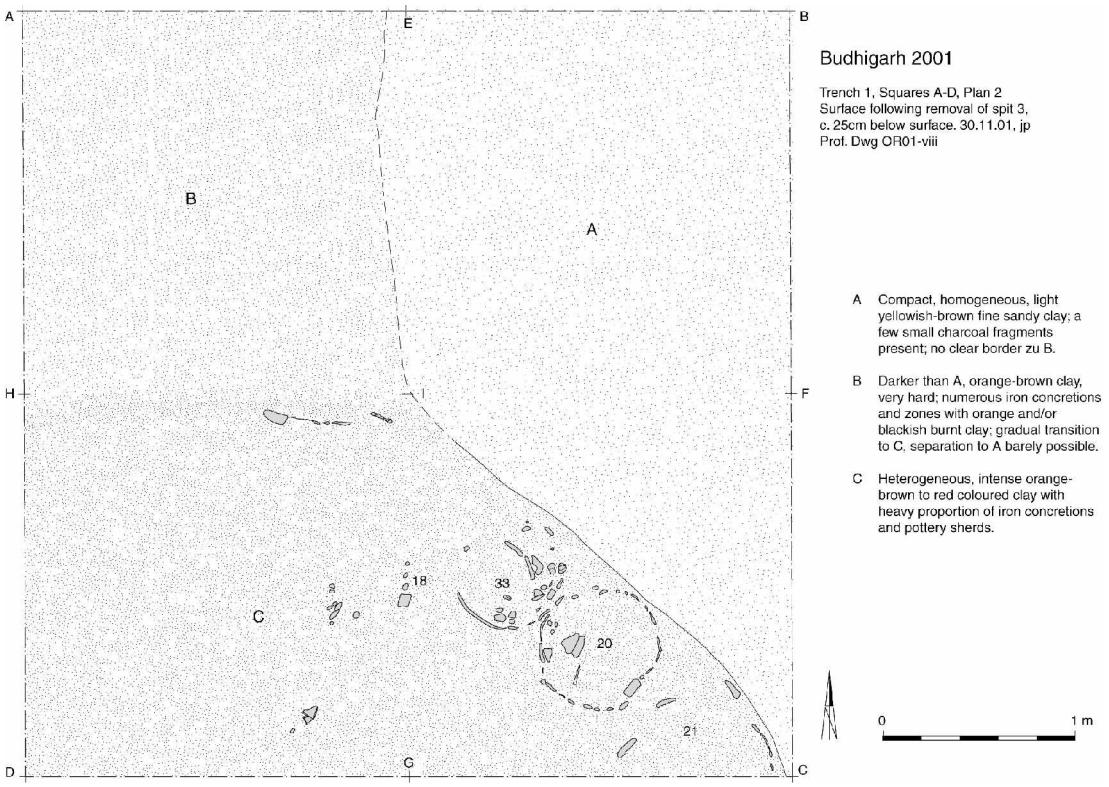


Figure 45. Budhigarh near Rampur, Trench 1, plan 2, upper surface of spit 3 (J. Pechtl, T. Kühnel).

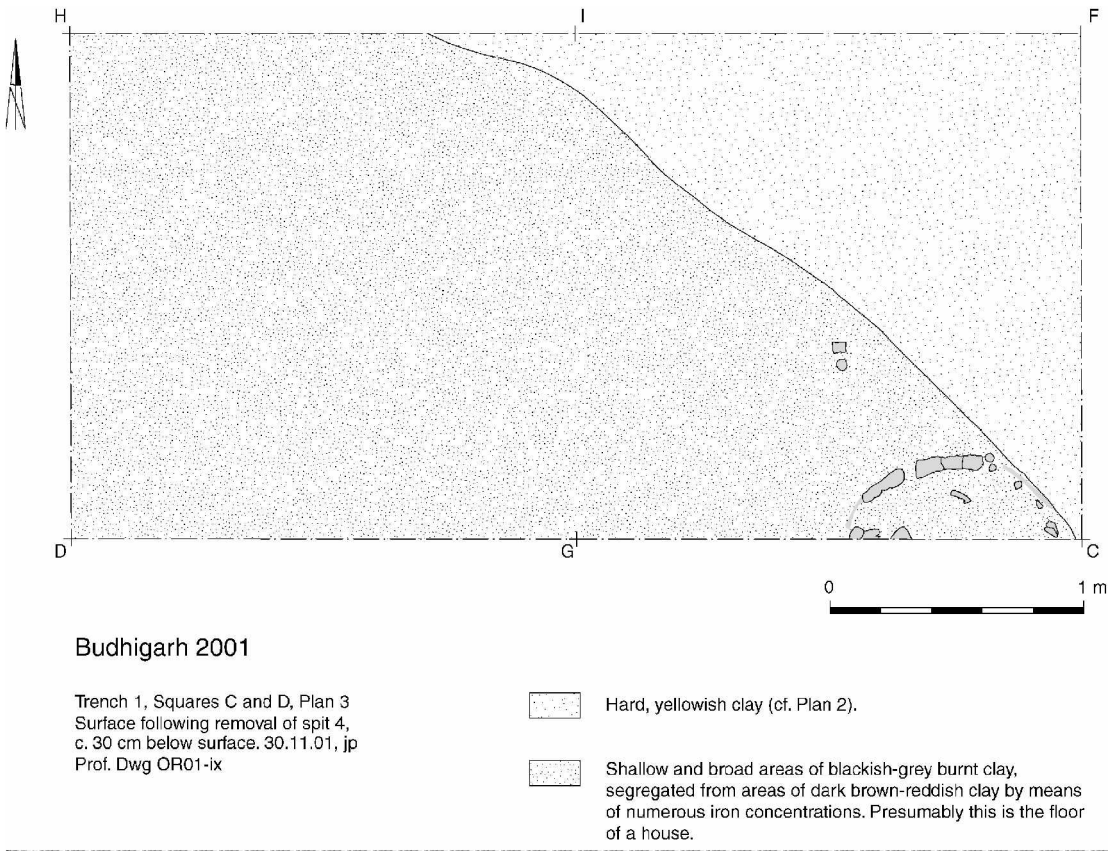


Figure 46. Budhigarh near Rampur, Trench 1, plan 3, upper surface of spit 4 (J. Pechtl, T. Kühnel).

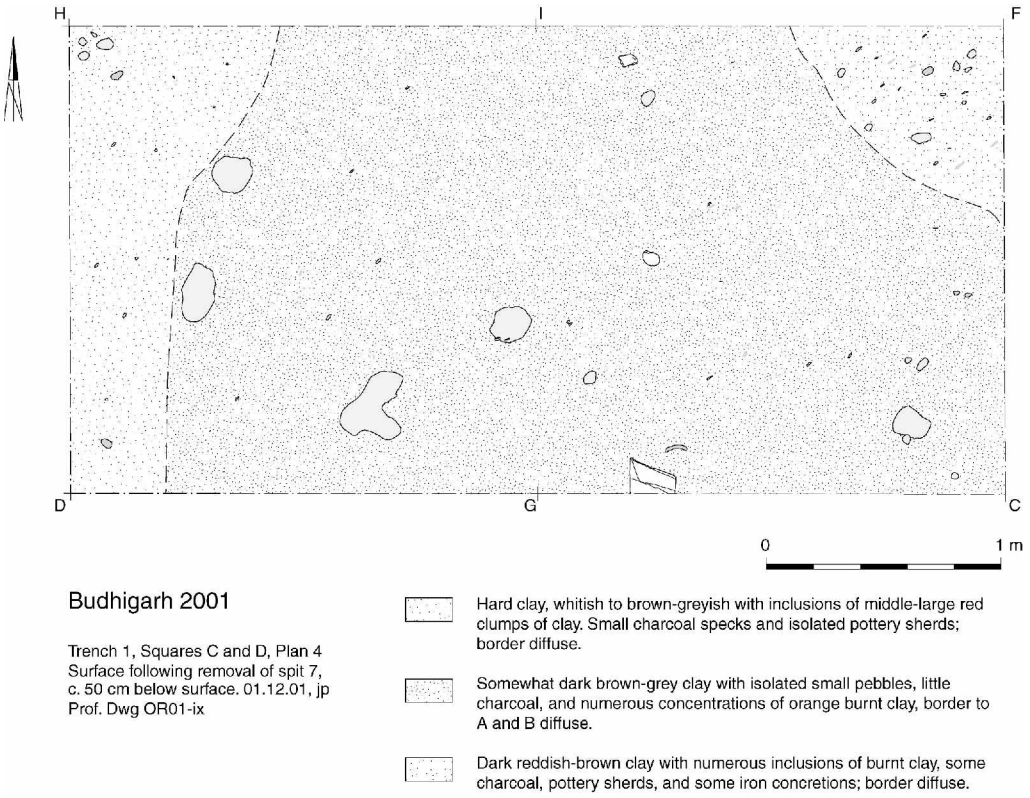


Figure 47. Budhigarh near Rampur, Trench 1, plan 4, upper surface of spit 7 (J. Pechtl, T. Kühnel).

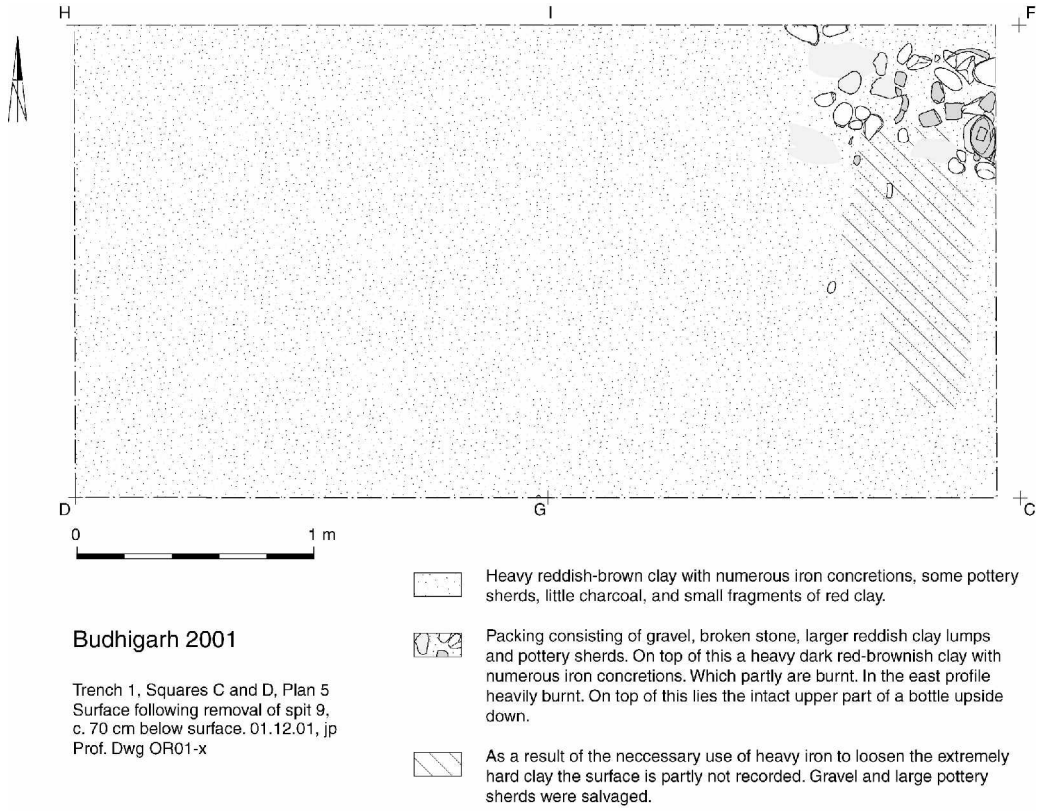
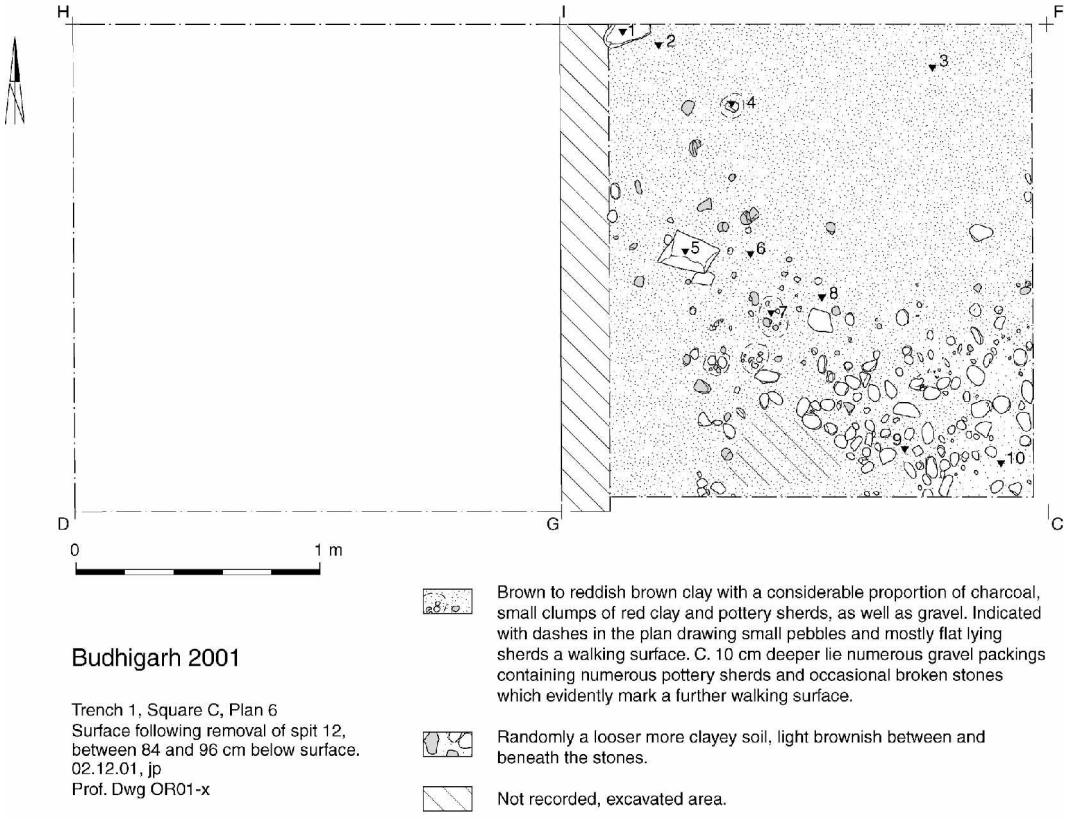
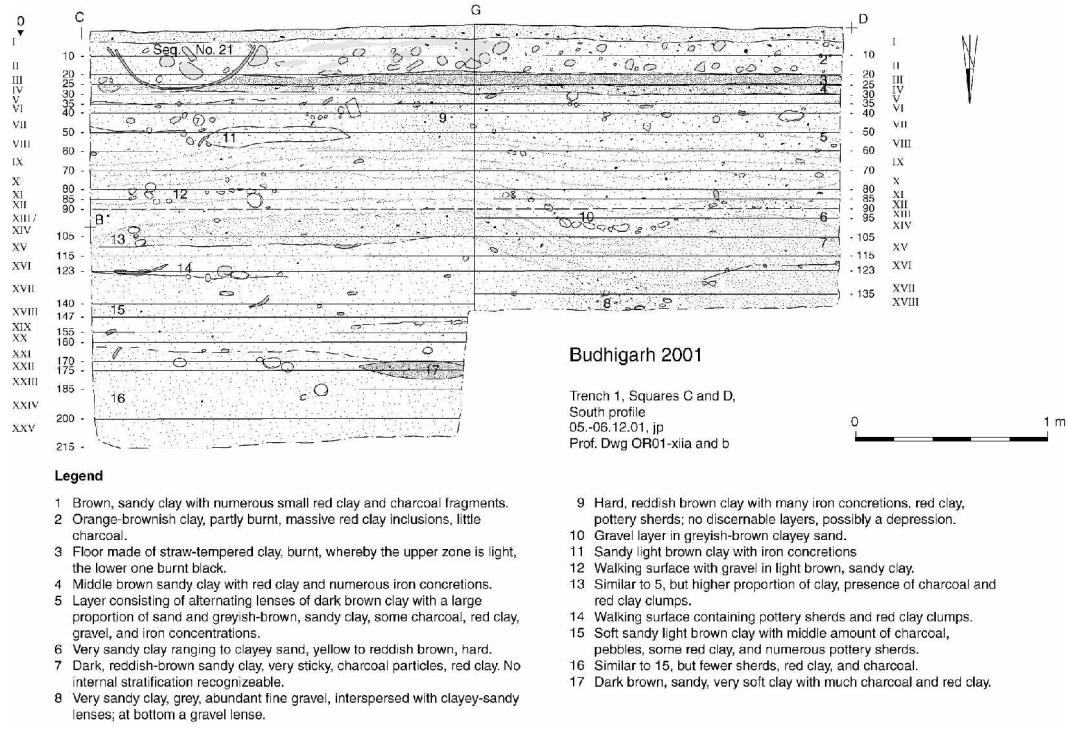


Figure 48. Budhigarh near Rampur, Trench 1, plan 5, upper surface of spit 9 (J. Pechtl, T. Kühnel).



49. Budhigarh near Rampur, Trench 1, plan 6, upper surface of spit 12 (J. Pechtl, T. Kühnel).



50. Budhigarh near Rampur, Trench 1, south profile (J. Pechtl, T. Kühnel).

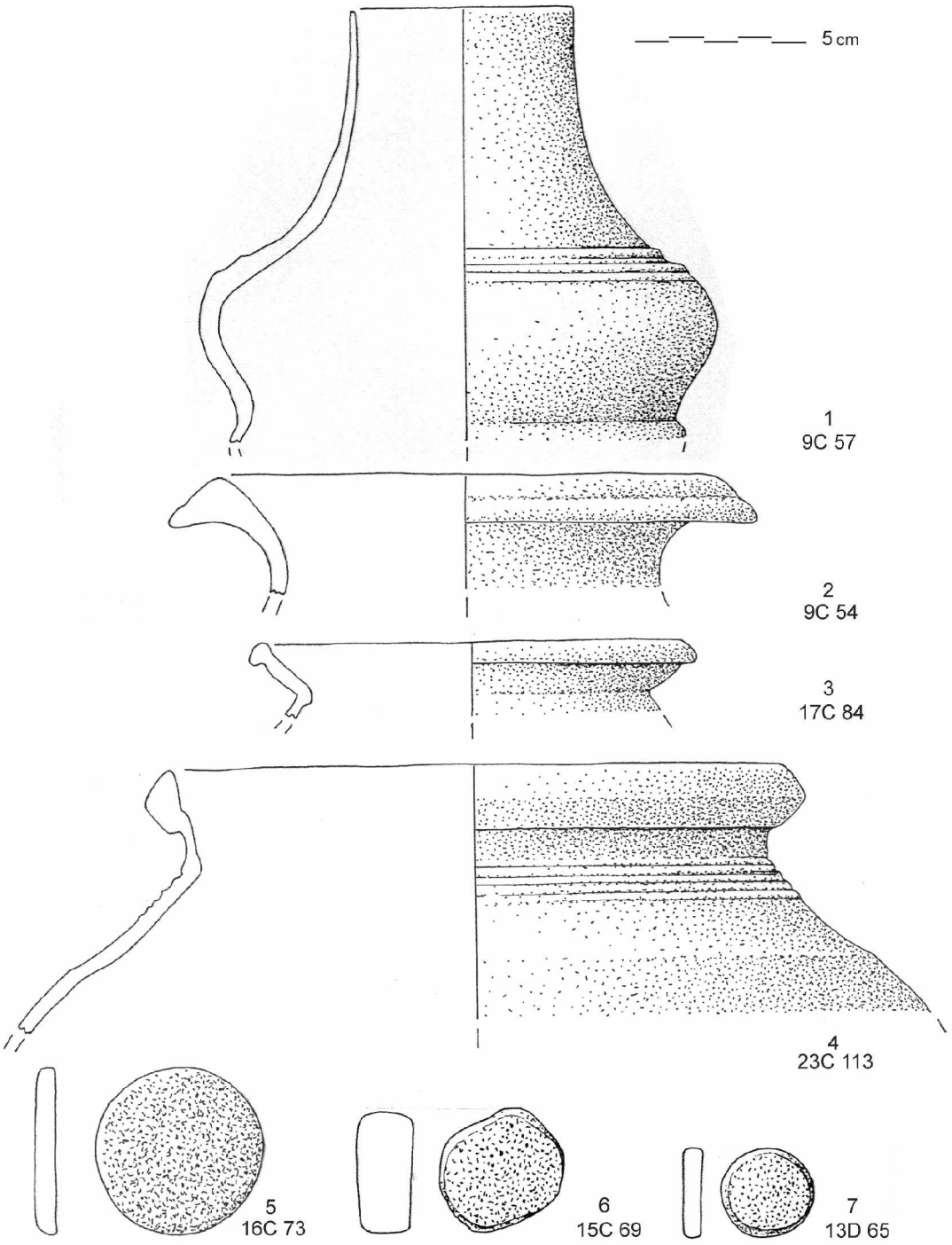


Figure 51. Budhigarh near Rampur, Plain Red Ware (I. Steuer-Siegmund)

	Spit	S/N	Temper	Wheel	Break colour
1	9c	57	mostly sand	yes	5yr 3/1 very dark grey to 2.5yr 3/2 dusky red
2	9c	54	none	yes	2.5yr 5/6 red
3	17c	84	mineral	yes?	10yr 2/1 black
4	23c	113	mostly mineral	yes	7.5yr 2.5/2 very dark brown
5	16c	73	mineral	-	2.5yr 5/1 reddish grey
6	15c	69	mostly mineral	-	5yr 4/3 reddish brown
7	13d	65	mineral	-	7.5yr 6/6 reddish yellow

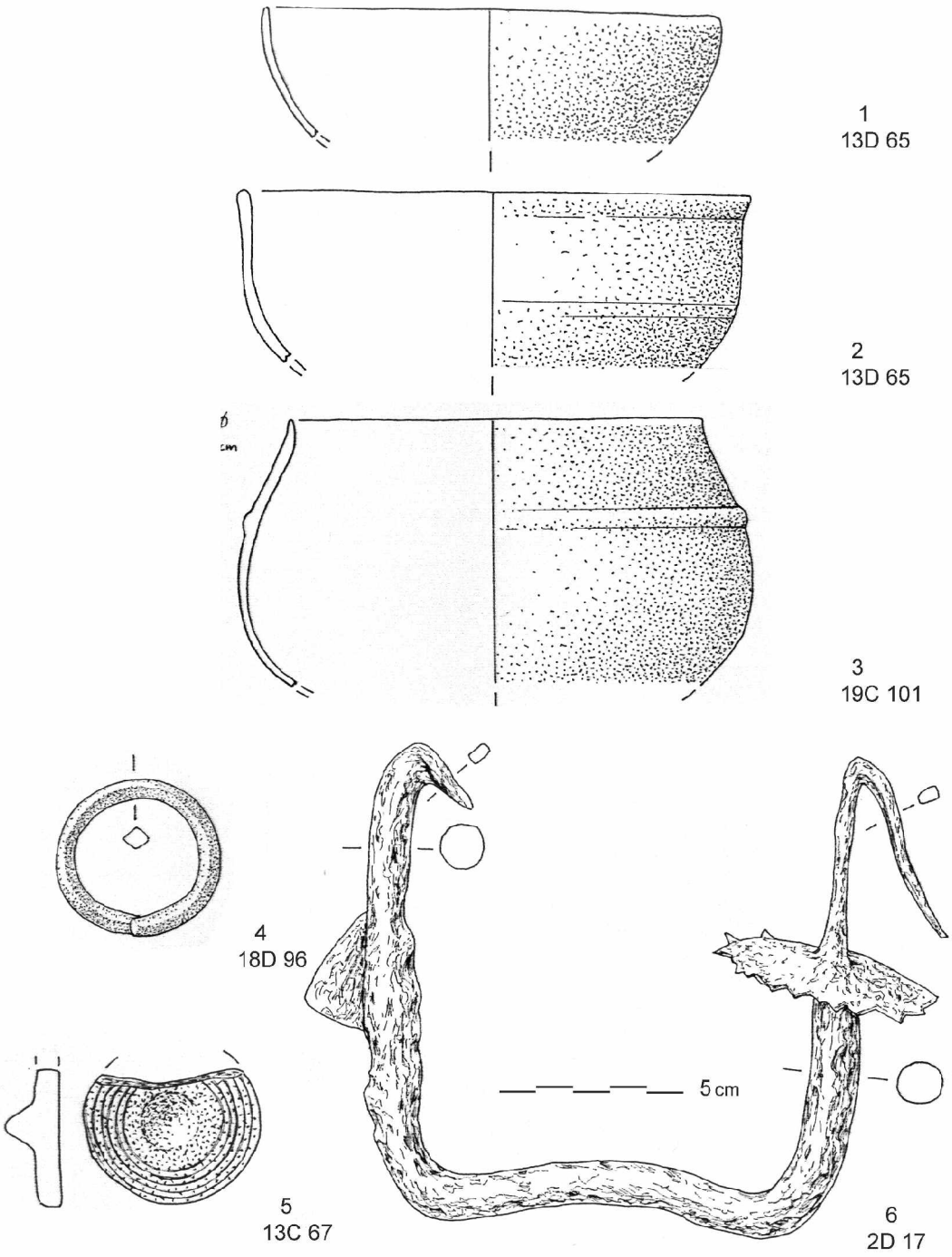


Figure 52.. Budhigarh near Rampur, Plain Black Ware, copper and iron finds (I. Steuer-Siegmund).

	Spit	S/N	Temper	Wheel	Break colour
1	13d	65	sandy	yes	5yr 4/4 reddish brown
2	13d	65	mineral	yes	2.5yr 3/2 very dark brown
3	19c	101	none	yes	10yr 2/1 black
4	copper alloy ring		-	-	
5	13c	67	organic?	yes	10yr 4/1 black
6	iron bracket		-	-	

Figure 53. Haldipali near Sonepur, ghat to the east.

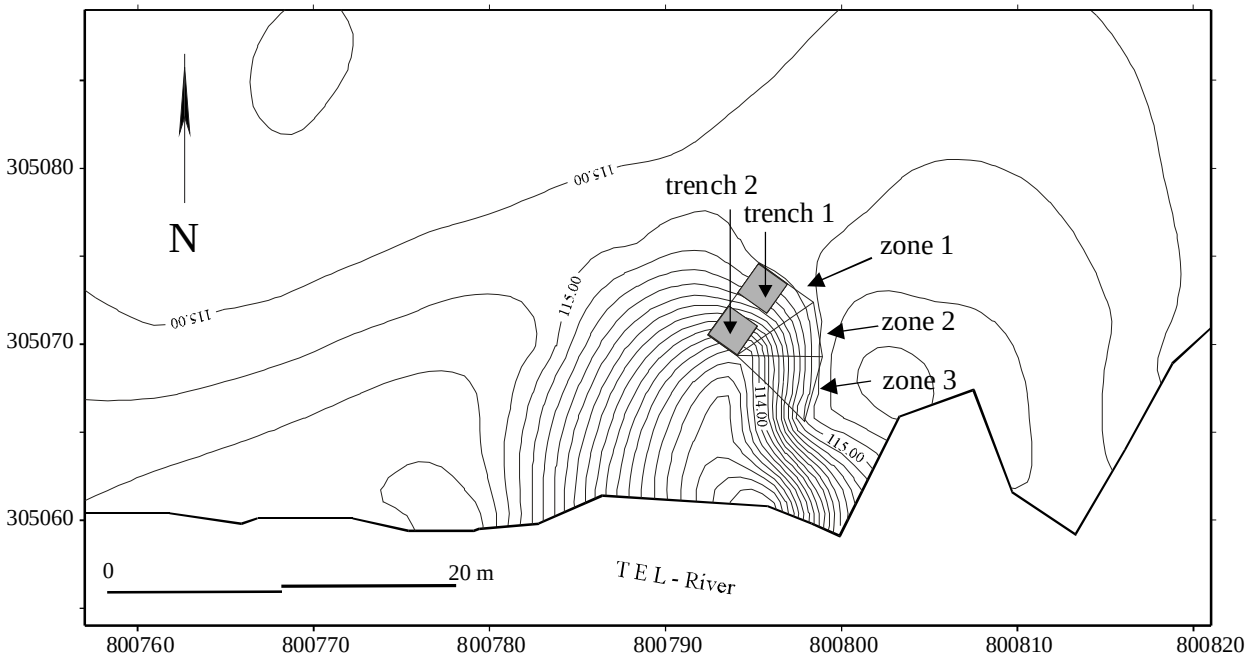


Figure 54. Haldipali near Sonepur, plan, 2001 (data: P. Pahlen, mapping: P. Yule).

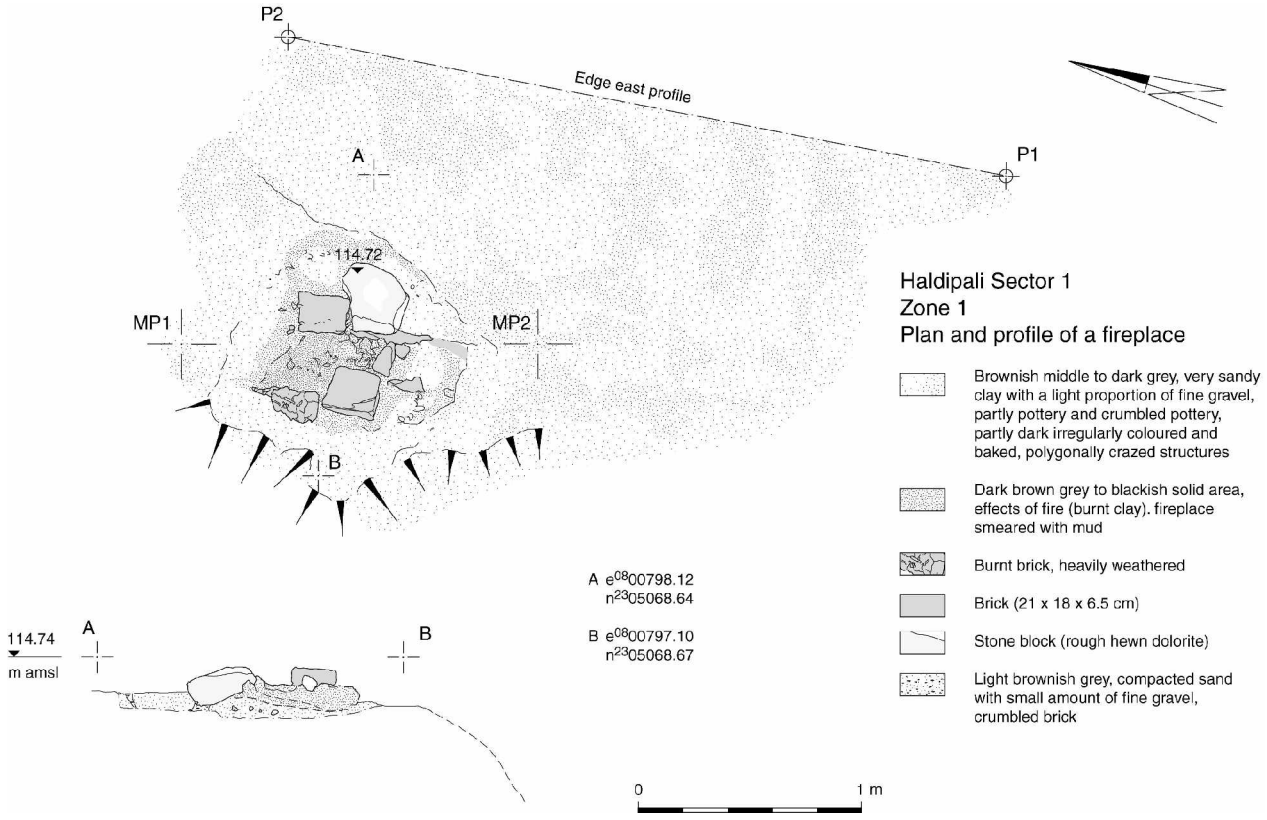


Figure 55. Haldipali near Sonepur, plan of the fireplace (P. Krebs, T. Kühnel).

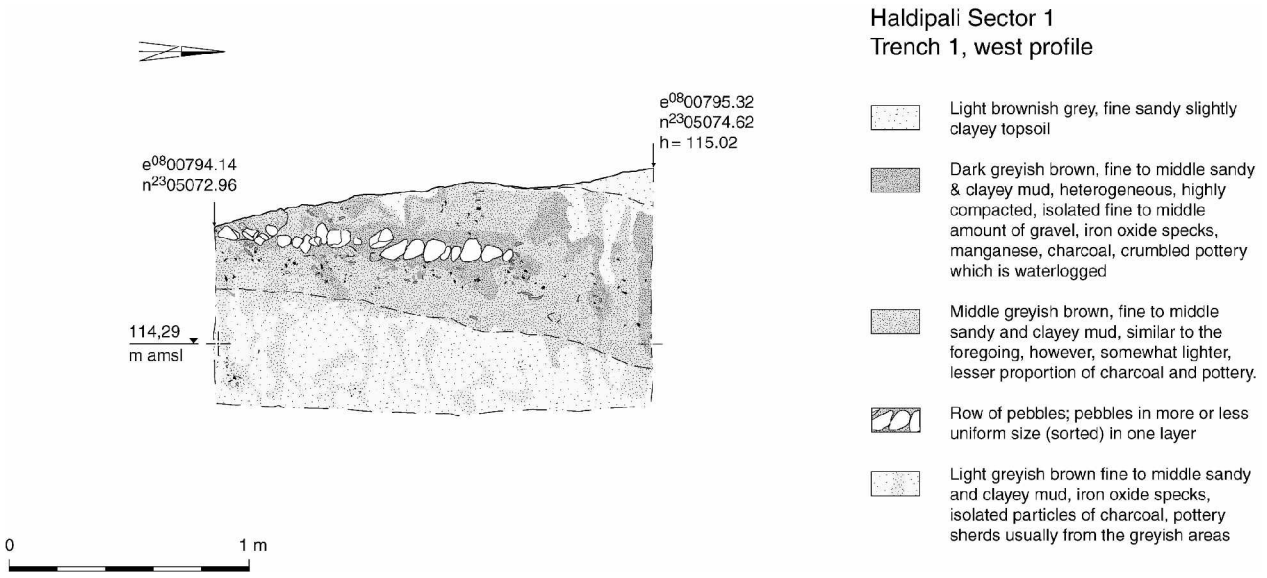


Figure 56. Haldipali near Sonepur, west profile of trench 1 (P. Krebs, T. Kühnel).

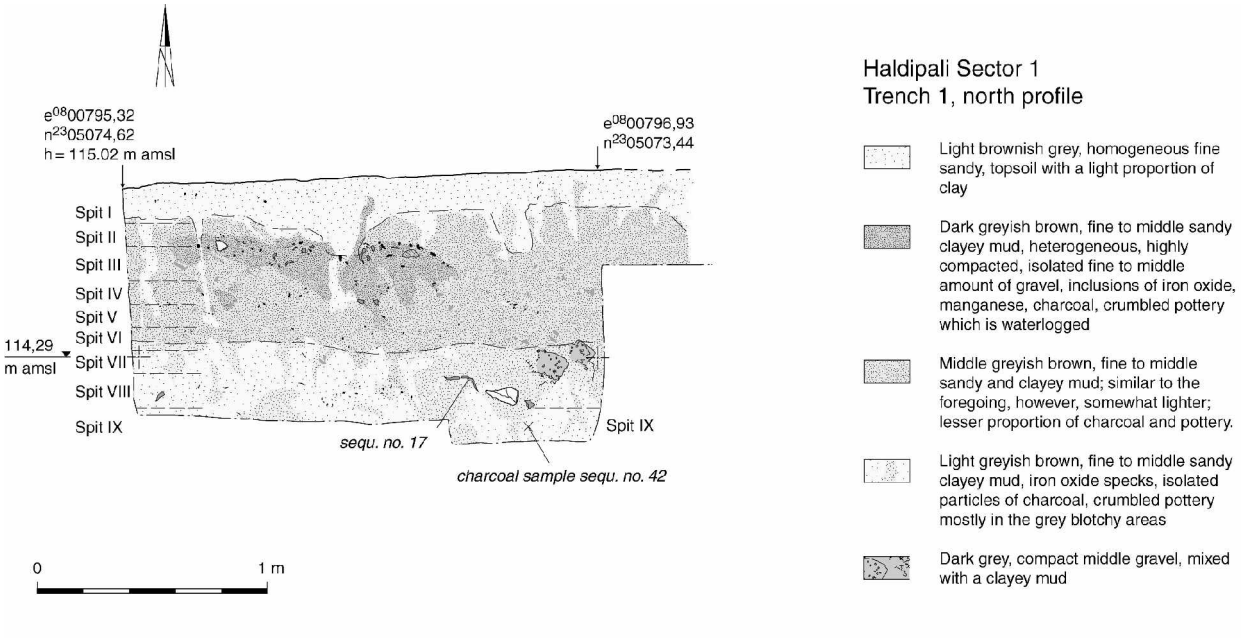


Figure 57. Haldipali near Sonepur, north profile of trench 1 (P. Krebs, T. Kühnel).

Figure 58. Tentulipali/Karumpudar, profile photo of the foundation in the ghat.

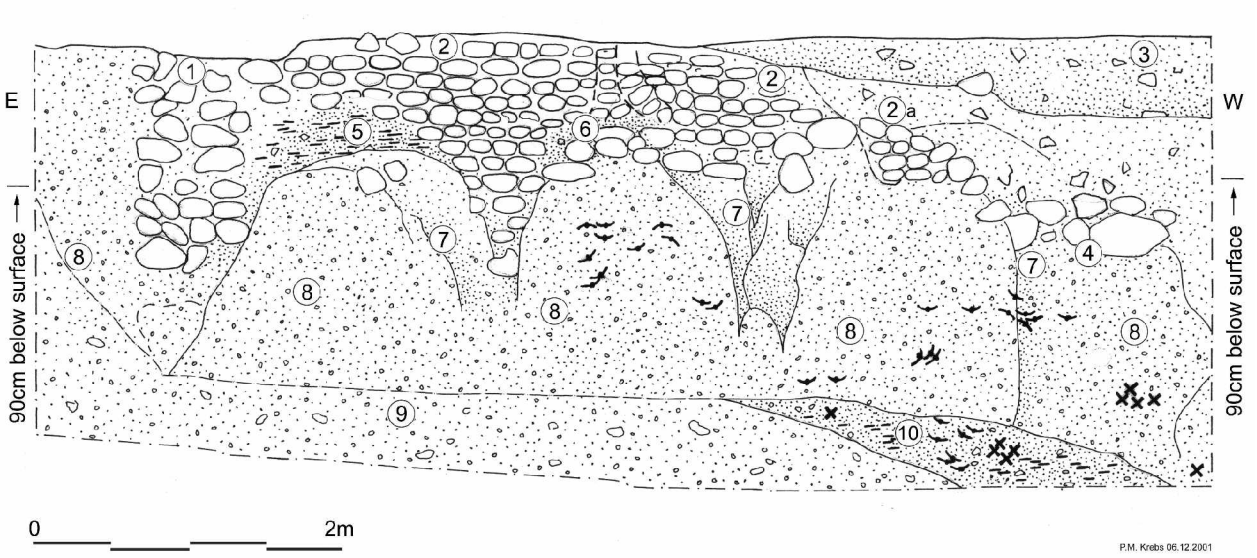


Figure 59. Tentulipali/Karumpudar, profile drawing to the south of the foundation in the ghat. Length: 7.6m, drawn as found. Profile not cleaned, damaged by erosion. 06.12.2001. (Field drawing: P. Krebs, final drawing: I. Steuer-Siegmund).
(1) Coarse head-sized stones laid as a wall. Orientation of the wall: n/s. Coarse material set in clay (river gravel and broken stone). Width c. 0.7m, maximal depth c. 1.4m
(2) Layers of river pebbles of homogeneous size; awakens the impression of a back wall joined to (1) other walls at a 90 angle. It seems to be an extension of (1) and (2): a court with abundant pottery sherds
(2a) Similar to and belonging to (2); however, owing to the deposits of sediment before the wall only vague information about the dimensions possible
(3) Massiv leeward area, cannot be drawn
(4) Layer of roughly worked broken stone
(5) In front of (2) deposit of burnt clay with heavy concentration of charcoal
(6) burnt clay also in front of (2), however, much harder in its consistence than (5)
(7) Badly disturbed area caused by the action of an erosion gully
(8) Middle brownish grey sandy fine gravel
(9) Gradually blending into (8): sandy fine gravel, brownish grey clay, heavy concentration of lime concretions; no pottery recogniseable
(10) Debris layer of burnt clay, charcoal, pottery, calcined bone

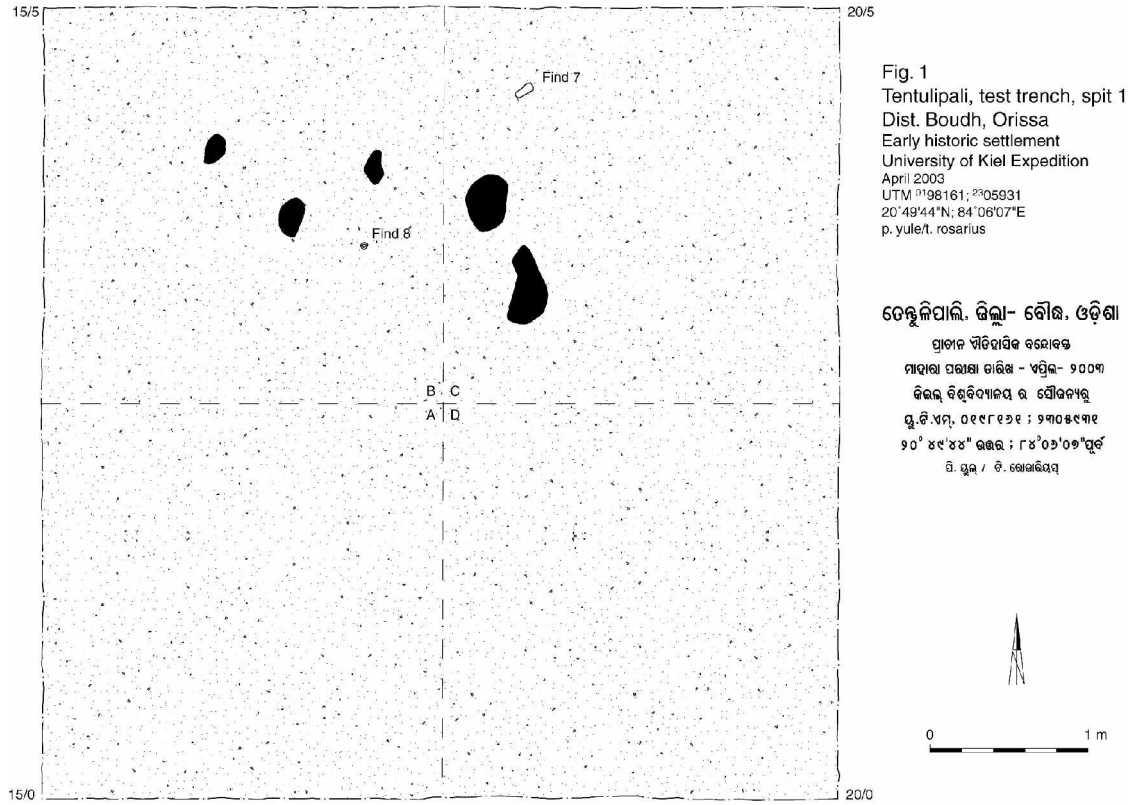


Figure 60. Tentulipali/Karumpadar, plan, spit 1 (T. Rosarius, T. Kühnel).

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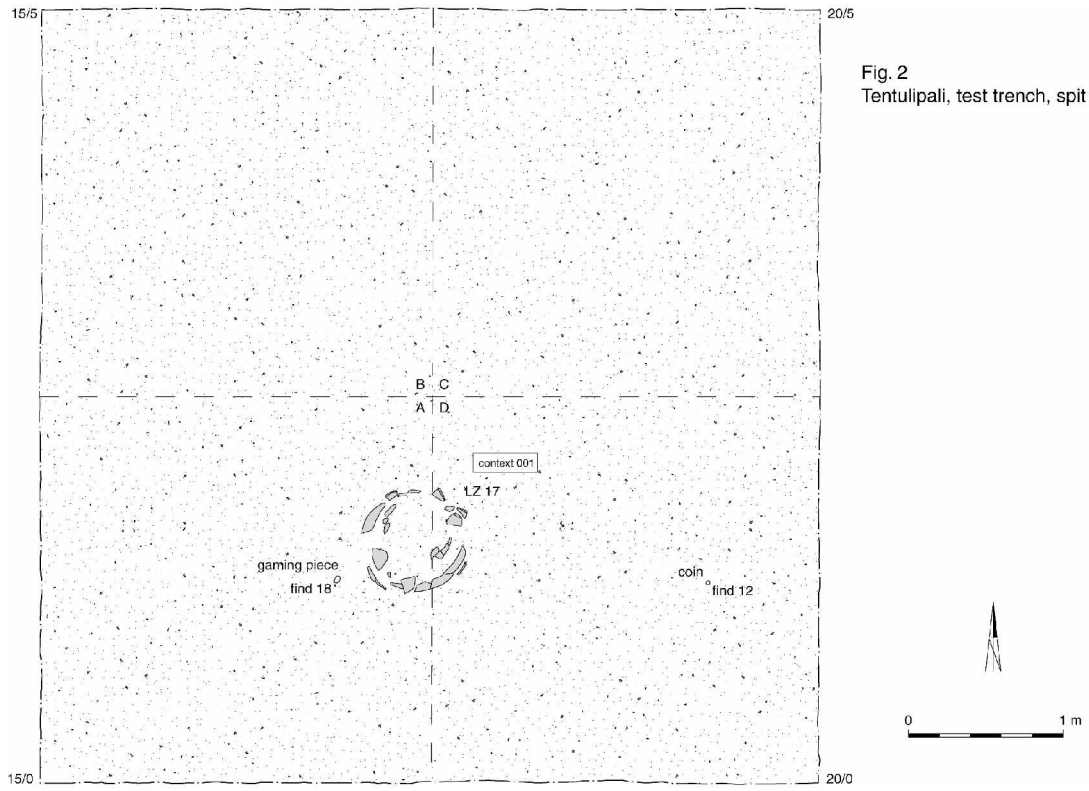

Figure 61. Tentulipali/Karumpadar, plan, spit 2 (T. Rosarius, T. Kühnel)

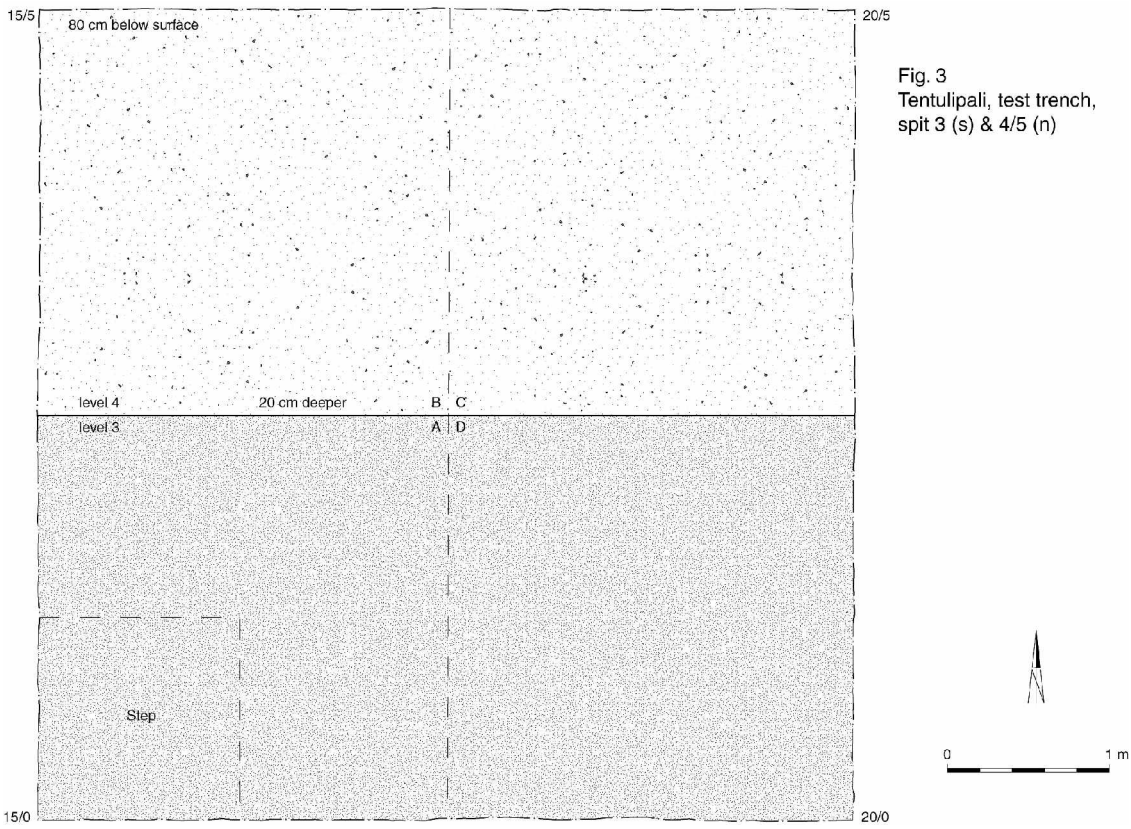

Fig. 3
Tentulipali, test trench,
spit 3 (s) & 4/5 (n)

Figure 62. Tentulipali/Karumpadar, plan, spit 3 (south) & 4/5 (north) (T. Rosarius, T. Kühnel).

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Fig. 4
Tentulipali, test trench, east-west profile

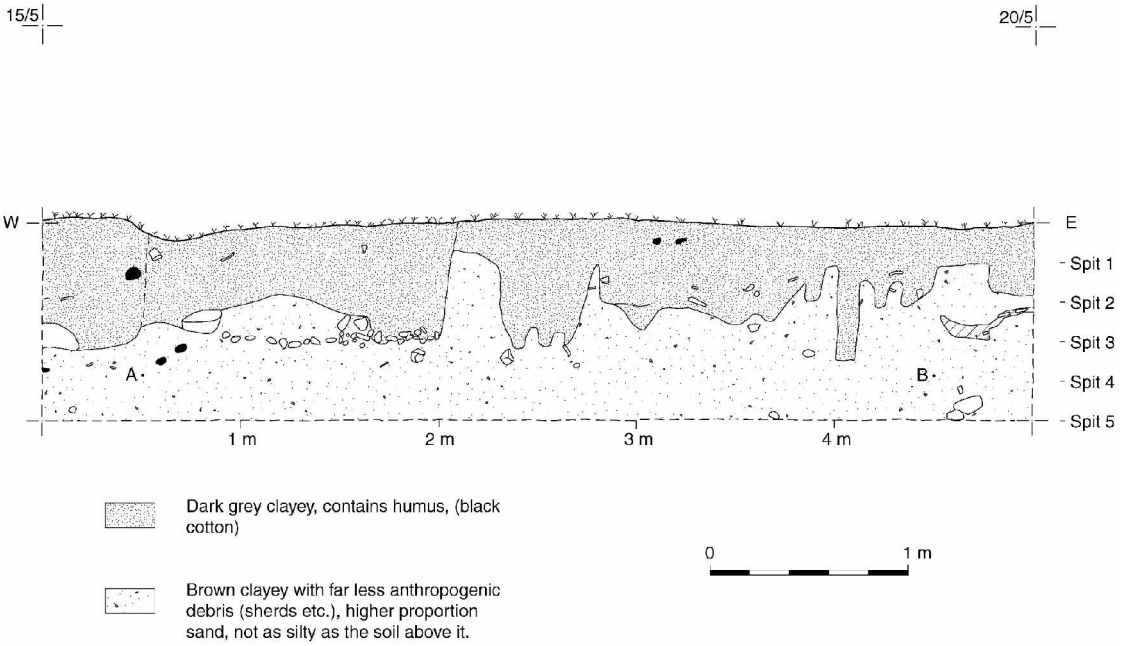

Figure 63. Tentulipali/Karumpudar, east-west profile (T. Rosarius, T. Kühnel)

Fig. 5
Tentulipali, test trench, north-south profile

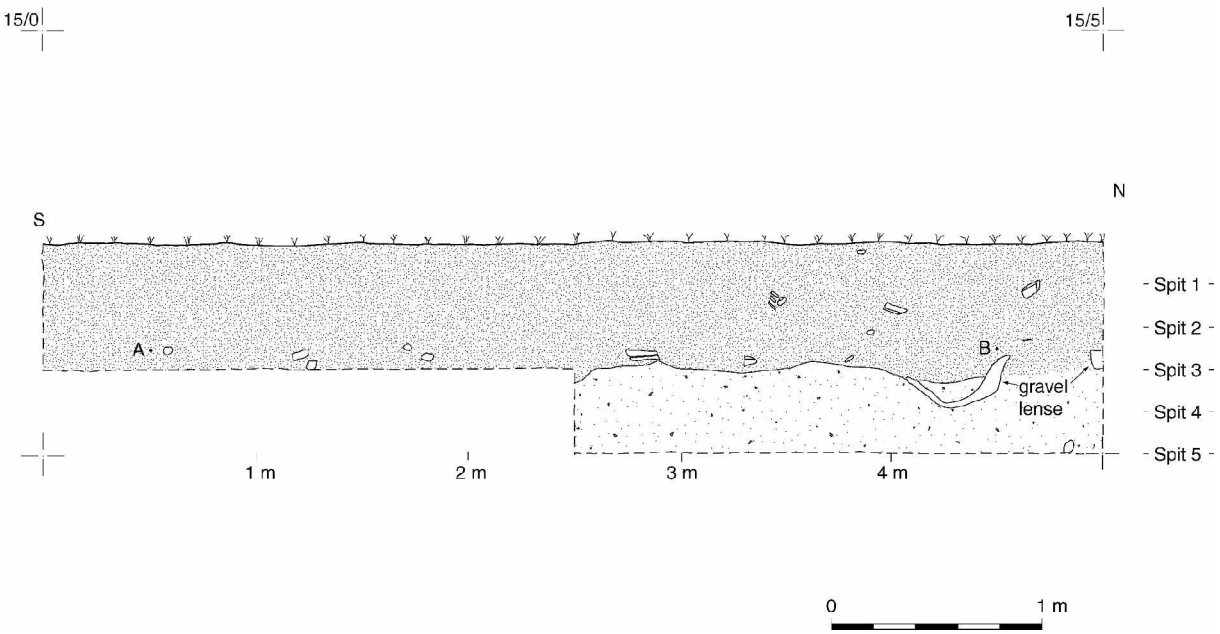

Figure 64. Tentulipali/Karumpudar, north-south profile (T. Rosarius, T. Kühnel).

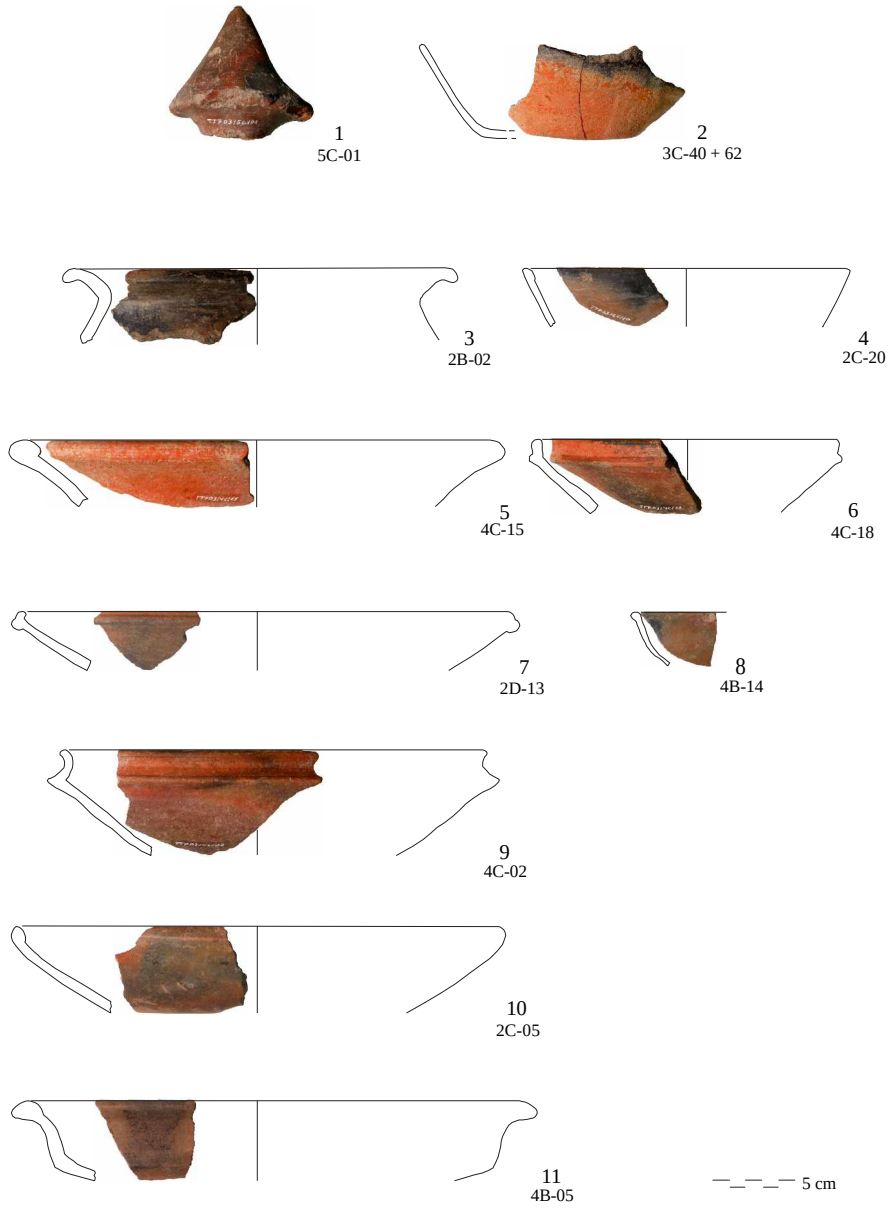

Figure 65. Tentulipali/Karumpudar, Black and Red Ware (P. Yule, D. Modaressi).

	Spit	S/N	Temper	Wheel	Break colour
1	5c	01	mineral	no	5yr 4/6 yellowish red
2	3c	40&60	mineral	yes?	5yr 2.5/1 black
3	2b	02	mostly mineral	yes	7.5yr 2.5/1 black
4	2c	20	mineral	yes	7.5yr 2.5/1 black + 7.5yr 5/4 brown
5	4c	15	mineral	yes	5yr 4/6 yellowish red
6	4c	18	mostly mineral	yes	5yr 5/6 yellowish red
7	2d	13	mineral, mica	yes	5yr 4/6 yellowish red + 5yr 2.5/1 black
8	4b	14	mineral	yes	5yr 5/6 yellowish red + 5yr 2.5/1 black
9	4c	02	mineral or none	yes	5yr 3/1 very dark grey + 5yr 5/4 reddish brown
10	2c	05	mineral or none	yes	10yr 3/4 drk yellowish brown
11	4b	05	mineral or none	yes	7.5yr 4/4 brown

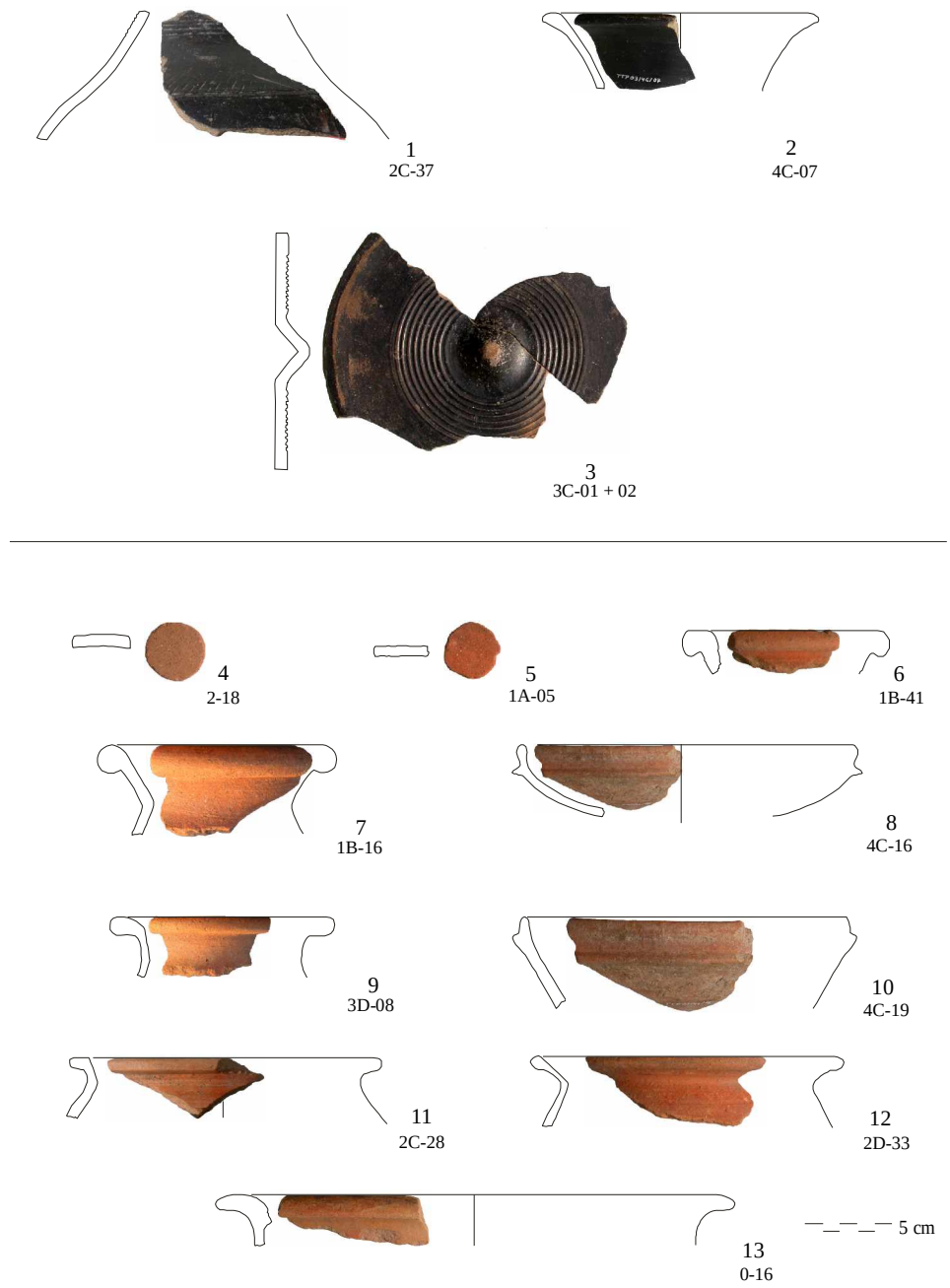

Figure 66. Tentulipali/Karumpudar, Black Slipped Ware (1-3) and Plain Red Ware (4-13, P. Yule/ D. Modaressi).

	Spit	S/N	Temper	Wheel	Break colour
1	2c	37	none	yes	5yr 2.5/1 black
2	4c	07	none	yes	5yr 2.5/1 black
3	3c	1+2	none	yes	5yr 3/1 very drk grey+5yr 2.5/1 black
4	2	18	-	-	-
5	1a	05	-	-	-
6	1b	41	mineral	yes?	2.5yr 5/6 red
7	1b	16	mineral	yes	2.5yr 5/8 red
8	4c	16	mineral	yes	2.5yr 5/6 red
9	3d	08	mineral	yes	2.5yr 5/8 red
10	4c	19	mineral	yes	5yr 4/6 yellowish red+5yr 3/1 very drk grey
11	2c	28	mineral	yes	2.5yr 5/8 red+2.5yr 3/6 drk red
12	2d	33	mineral	yes	7.5yr 5/6 strong brown
13	0	16	mineral	yes	2.5yr 5/8 red

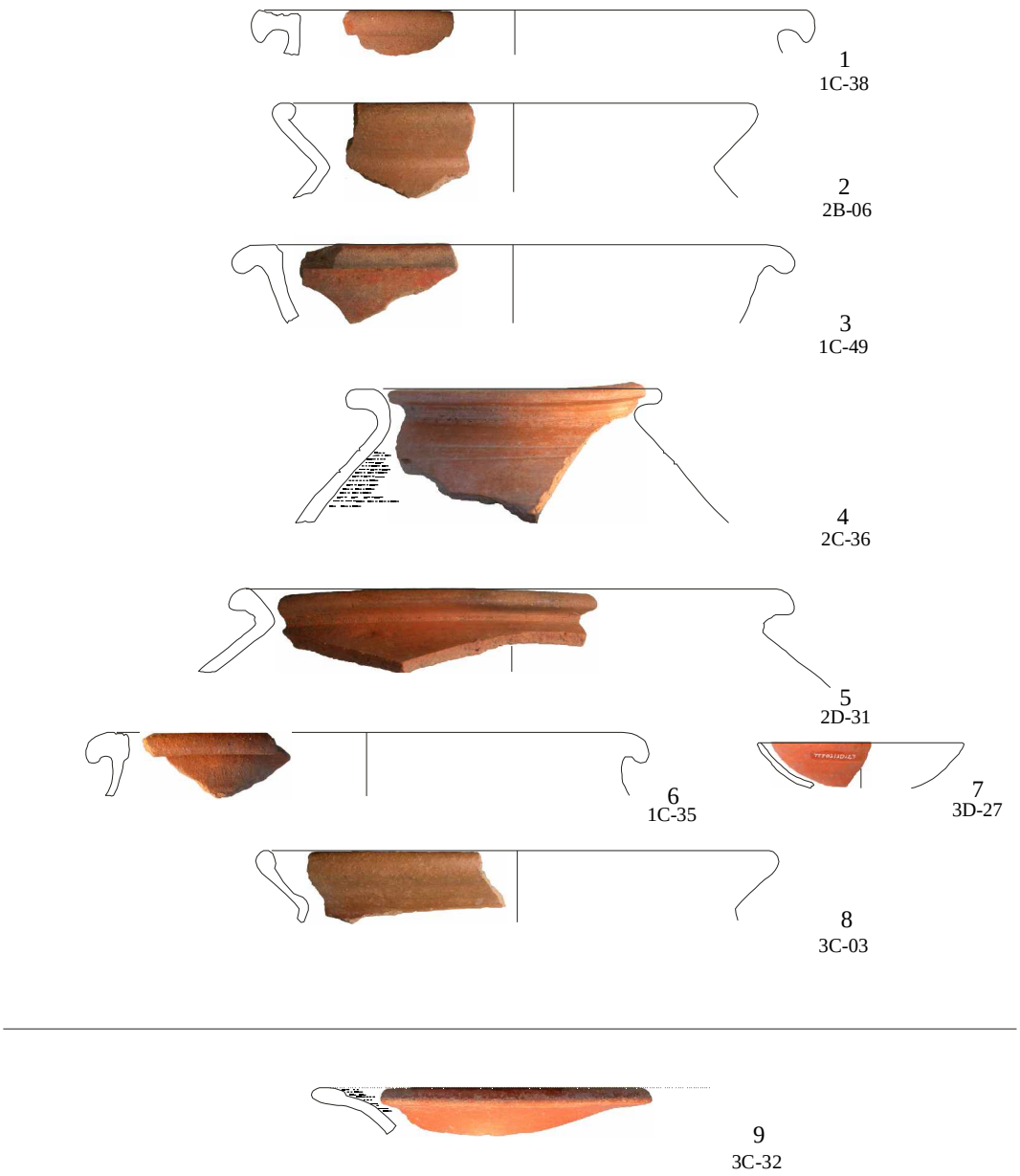

Figure 67. Tentulipali/Karu mpudar, Plain Red Ware (1-8) and Red Polished Ware (9, P. Yule, D. Modaressi).

	Spit	S/N	Temper	Wheel	Break colour
1	1c	38	sandy	yes	5yr 4/6 yellowish red
2	2b	06	sandy	yes	5yr 3/1 very drk grey+5yr3/3 drk reddish brown
3	1c	49	mica, specks	yes	2.5yr 3/1 drk reddish grey
4	2c	36	sandy	yes	7.5yr 3/2 drk brown
5	2d	31	sandy	yes	2.5yr 4/6 red
6	1c	35	sandy	yes	5yr 3/3 drk reddish brown
7	3d	27	none?	yes	7.5yr 3/4 drk brown+2.5yr 4/8 red
8	3c	03	mineral	yes	7.5yr 2.5/1 black+7.5yr 4/2 brown
9	3c	32	sandy	yes	10yr 4/2 drk greyish brown

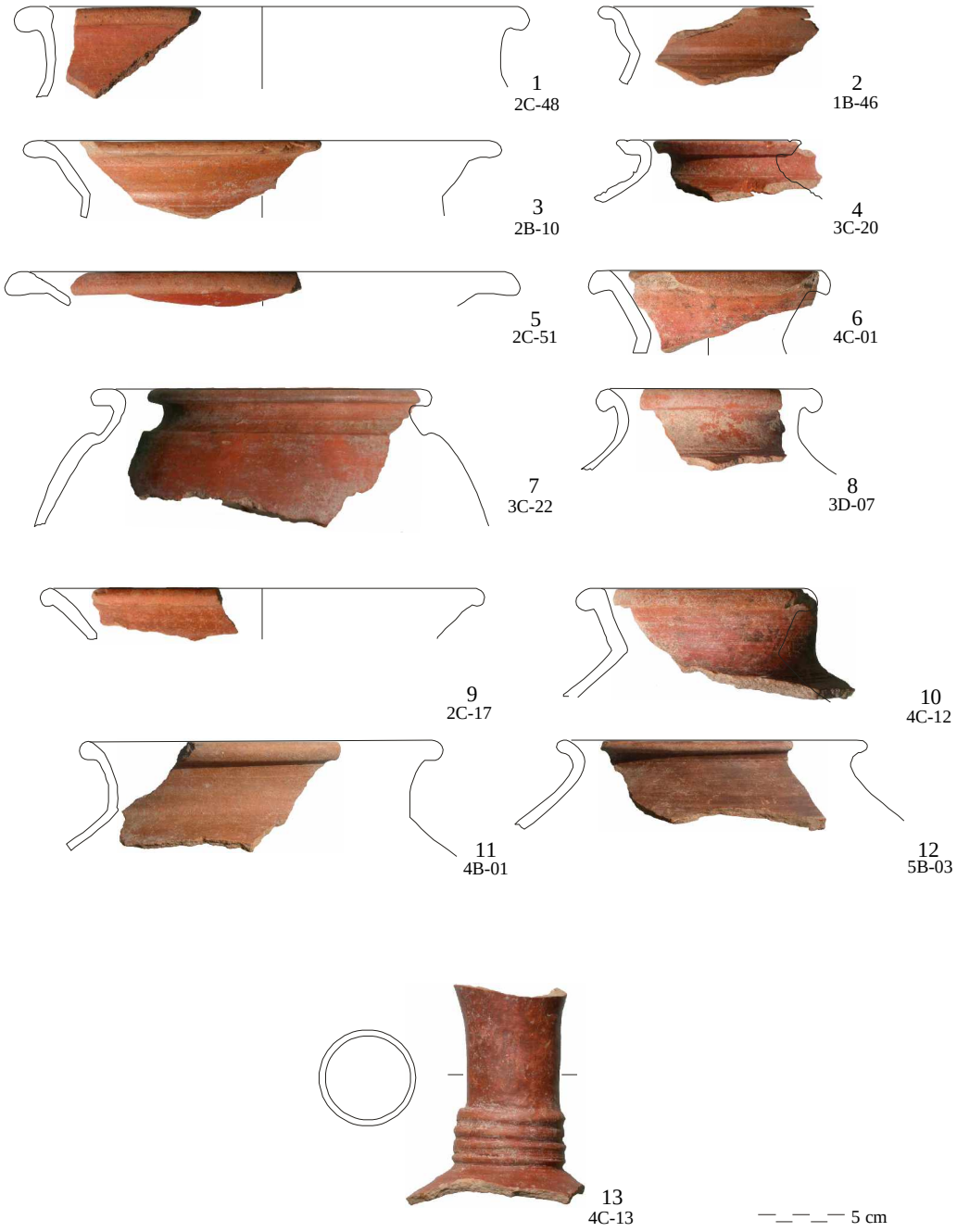

Figure 67. Tentulipali/Karumpudar, Red Slipped Ware (P. Yule, D. Modaressi).

	Spit	S/N	Temper	Wheel	Break colour
1	2c	48	silty+organic	yes	2.5yr 3/2 dusky red+2.5yr 4/6 red
2	1b	46	silty+organic	yes	2.5yr 3/1 drk reddish grey+5yr 4/4 reddish brown
3	2b	10	silty+organic	yes	5yr 4/4 reddish brown
4	3c	20	silty	yes	2.5yr 4/6 red
5	2c	51	silty	yes	2.5yr 3/6 drk red
6	4c	01	silty+organic	yes	10r3/1 drk reddish grey+2.5yr 3/4 drk reddish brown
7	3c	22	silty	yes	2.5yr 4/4 reddish brown
8	3d	07	silty	yes	2.5yr 4/6 red
9	2c	17	silty	yes	7.5yr 3/4 drk brown
10	4c	12	silty	yes	10r2.5/1 reddish black+10r3/3 dusky red
11	4b	01	sandy	yes	7.5yr 4/6 strong brown
12	5b	03	silty	yes	5yr 4/4 reddish brown
13	4c	13	sandy	yes	2.5yr 3/2 dusky red+2.5yr drk reddish brown