Report of Excavation at Chirand (2019), Saran District, Bihar, India

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Abstract: *The Gangetic plain has been pivotal in shaping the history and archaeology of India from prehistoric to modern times, with the Upper, Middle, and Lower Ganga plains providing fertile grounds for early cultures. The site of Chirand, located on the left bank of the Ganga in Bihar, has been a focal point of archaeological exploration since the late 19th century, revealing five cultural periods spanning from the Neolithic to the Medieval era. Recent excavations by Deccan College and the Bihar Government in 2019 uncovered significant findings, including a new stratigraphy that identified the Gupta period at the site—unreported in earlier excavations. The ceramic assemblages and structural remains unearthed across various periods offer valuable insights into the region's historical timeline. This re-excavation not only confirms earlier chronologies but also bridges the gap between the Kushan and Pala periods, enhancing our understanding of Chirand's continuous occupation and cultural evolution.*

Keywords: Gangetic Plain, Chirand, Neolithic, Chalcolithic, Excavation, Ceramic Assemblage, Gupta Period

Introduction

The Gangetic plain has a major role in shaping the history and archaeology of India right from the prehistoric to the modern period. The area can be divided into three main units based on their landscape i.e. Upper Ganga plain, Middle Ganga plain and

Lower Ganga plain. The river Ganga and its major tributaries like Gandak, Ghaghra, and Kosi provided a large fertile alluvium track for the flourishing of early civilizations in this region (Singh 1971).

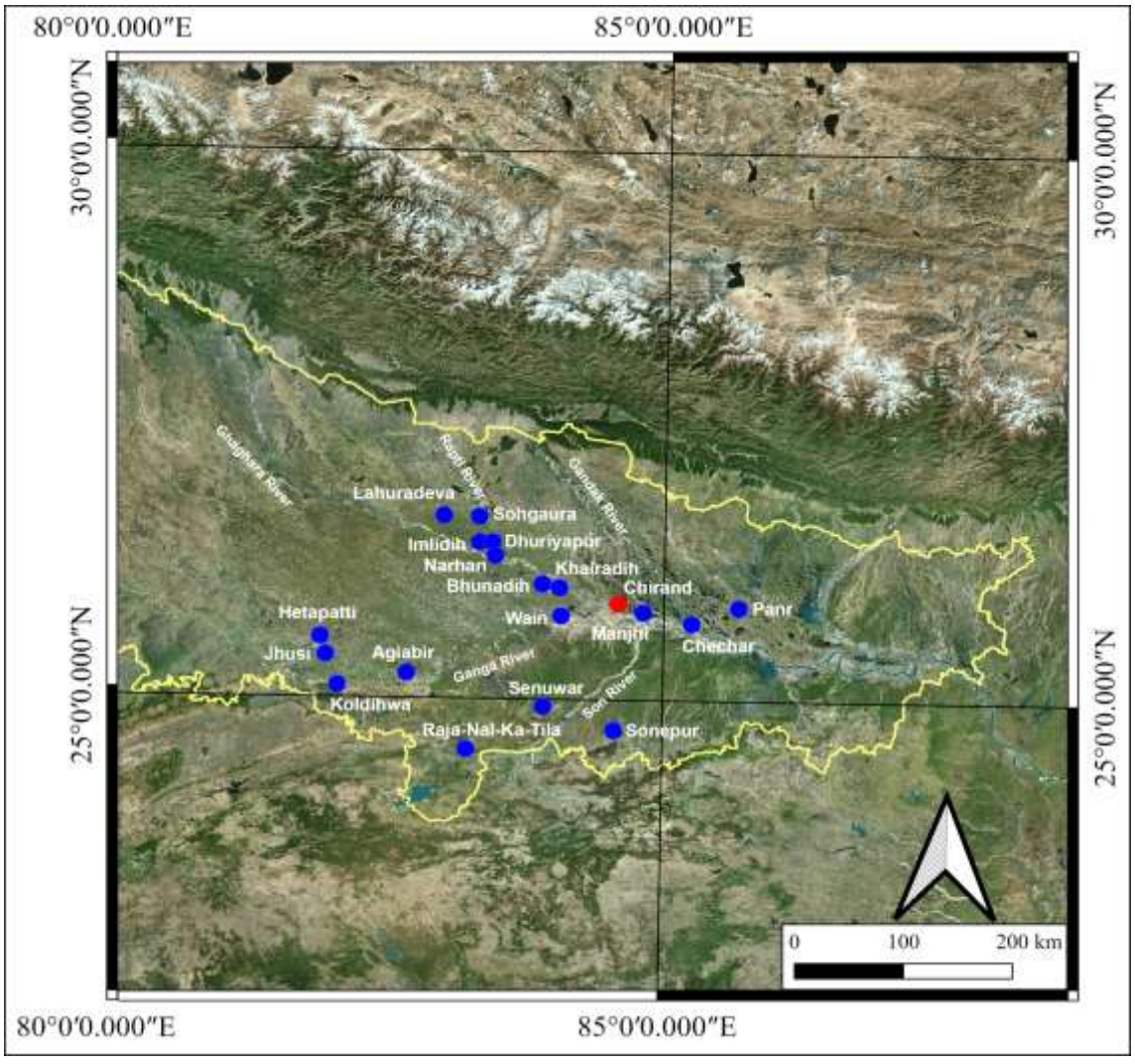


Figure 1: Location Map of Chirand Site

The site of Chirand is located on the left bank of the Ganga river in the Saran district of Bihar (Figure 1). The site was explored by scholars such as Hunter (1877), Carlleyle (1885), Hoey (1901), Altekar (1954) and Dey (1904). The Directorate of Archaeology and Museum, Government of Bihar excavated the site from 1961-71(Verma 2007) and successively Department of AIHC & Archaeology, Patna University excavated the site from 1982-83 (Sinha1994).

The excavation carried out by B.S. Verma from 1961-64 and 1967-70 was the most crucial one as for the first time this excavation identified Neolithic levels in this region. The excavations were carried out in different localities of the site numbered CRD I to CRD XIII. The excavations brought to light 5 cultural periods viz. Period I as Neolithic

which is sub-divided into IA and IB; Period II has been again sub-divided into IIA and IIB; Period III as N.B.P.W; Period IV as Kushan and Period V as Medieval. The dates proposed for Period I (IA and IB) are 2500-1600 BC, Period II (IIA and IIB) 1600-800 BC, Period III to 800-200 BC, Period IV to 200 BC-300 AD and Period V to 700-1200 AD (Verma 2007).



Figure 2: Excavated Area in 2019

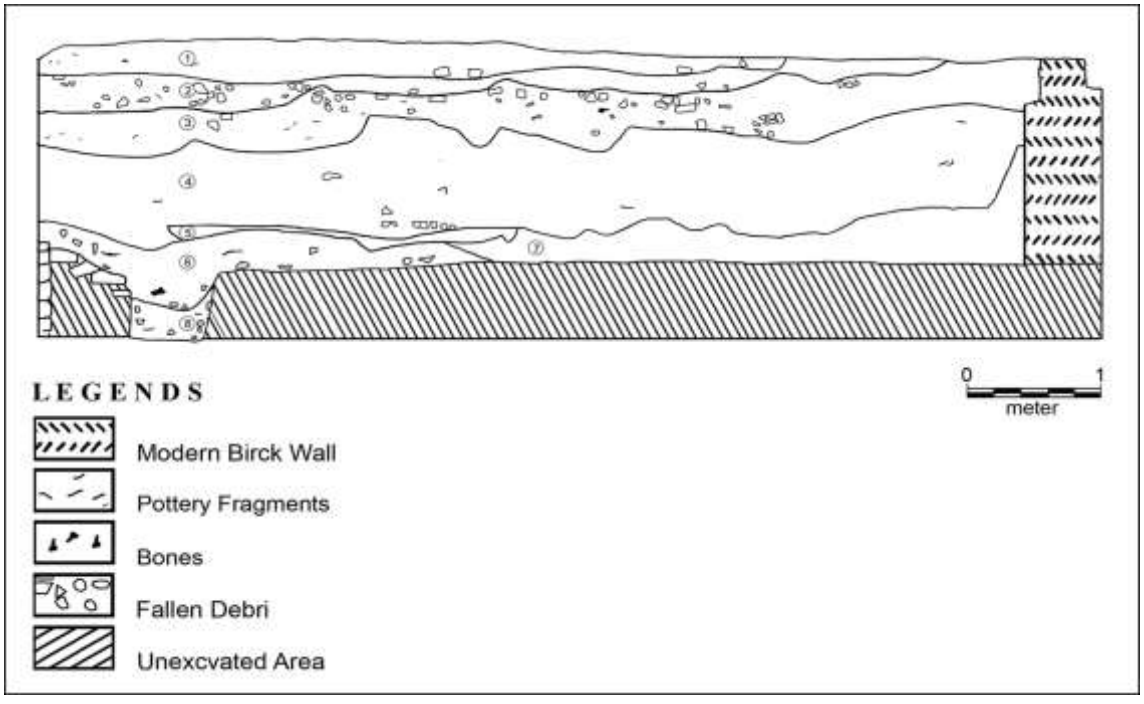


Figure 3: Trench C3 Section Facing East

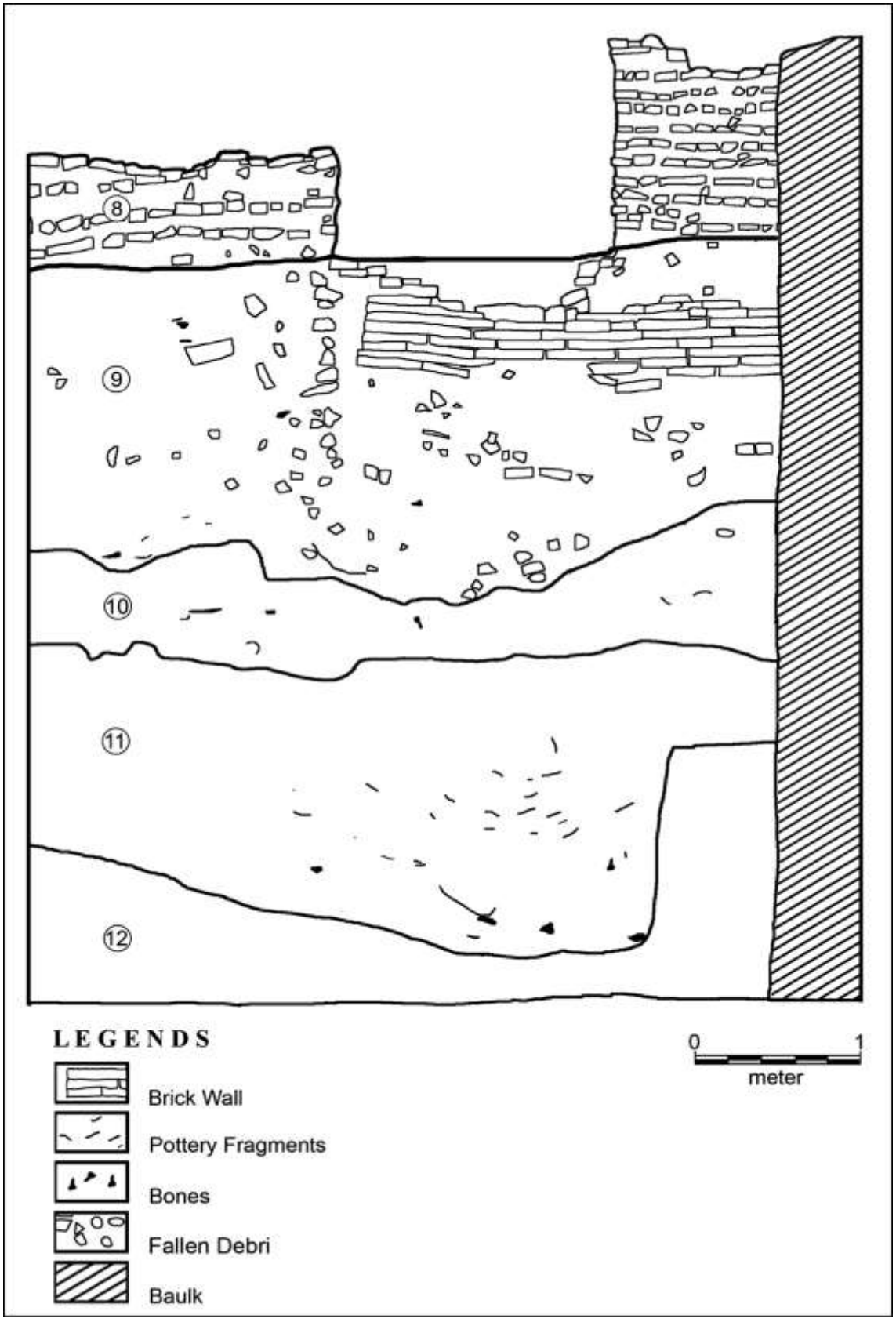


Figure 4: Trench C3 Section Facing South

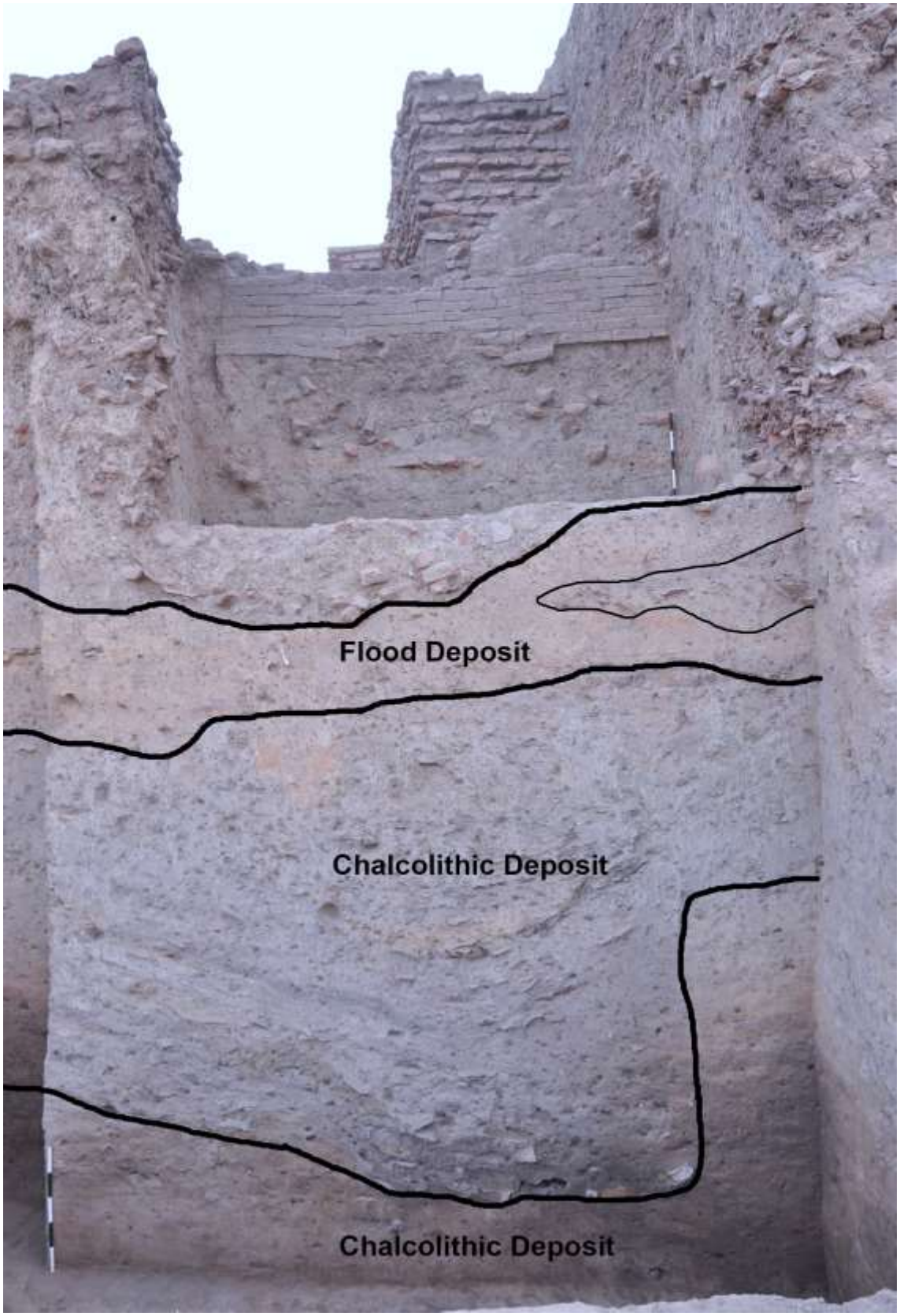


Figure 5: Trench C3 Showing the Cultural Deposits

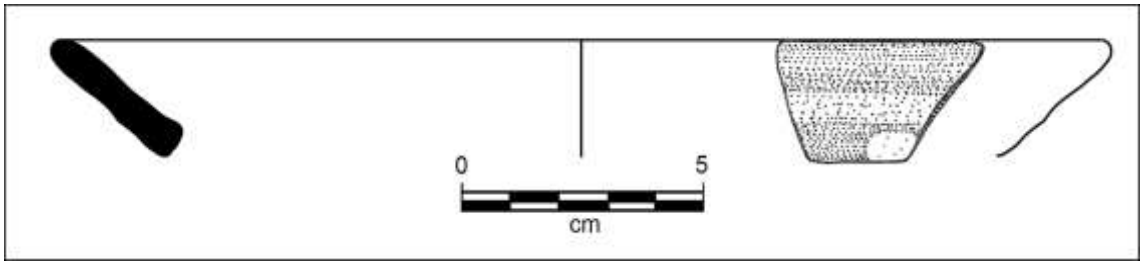


Figure 6: Dish of White Painted Black and Red Ware Variety, Period I

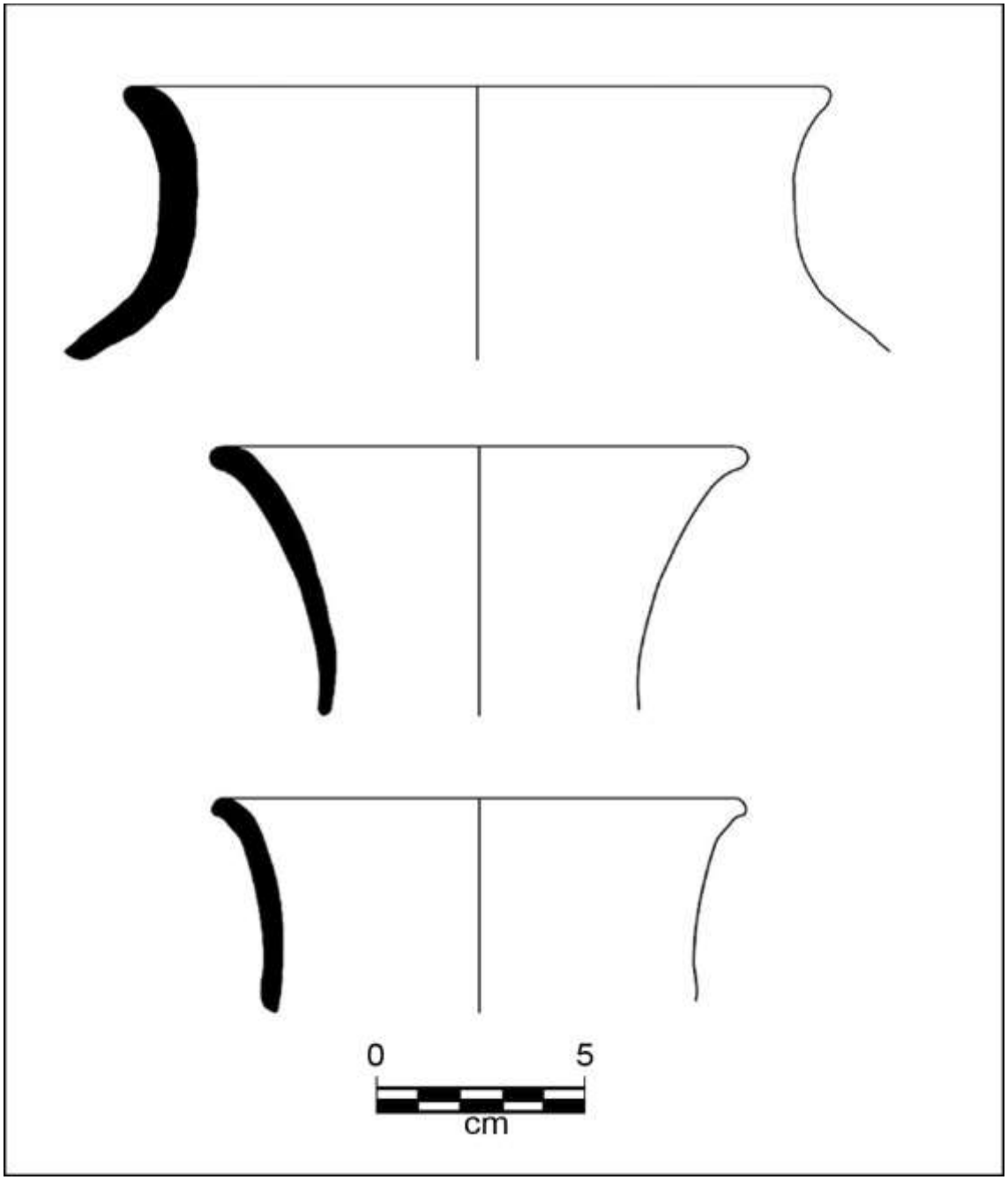


Figure 7: Globular Pots of Plain Black and Red Variety, Period I

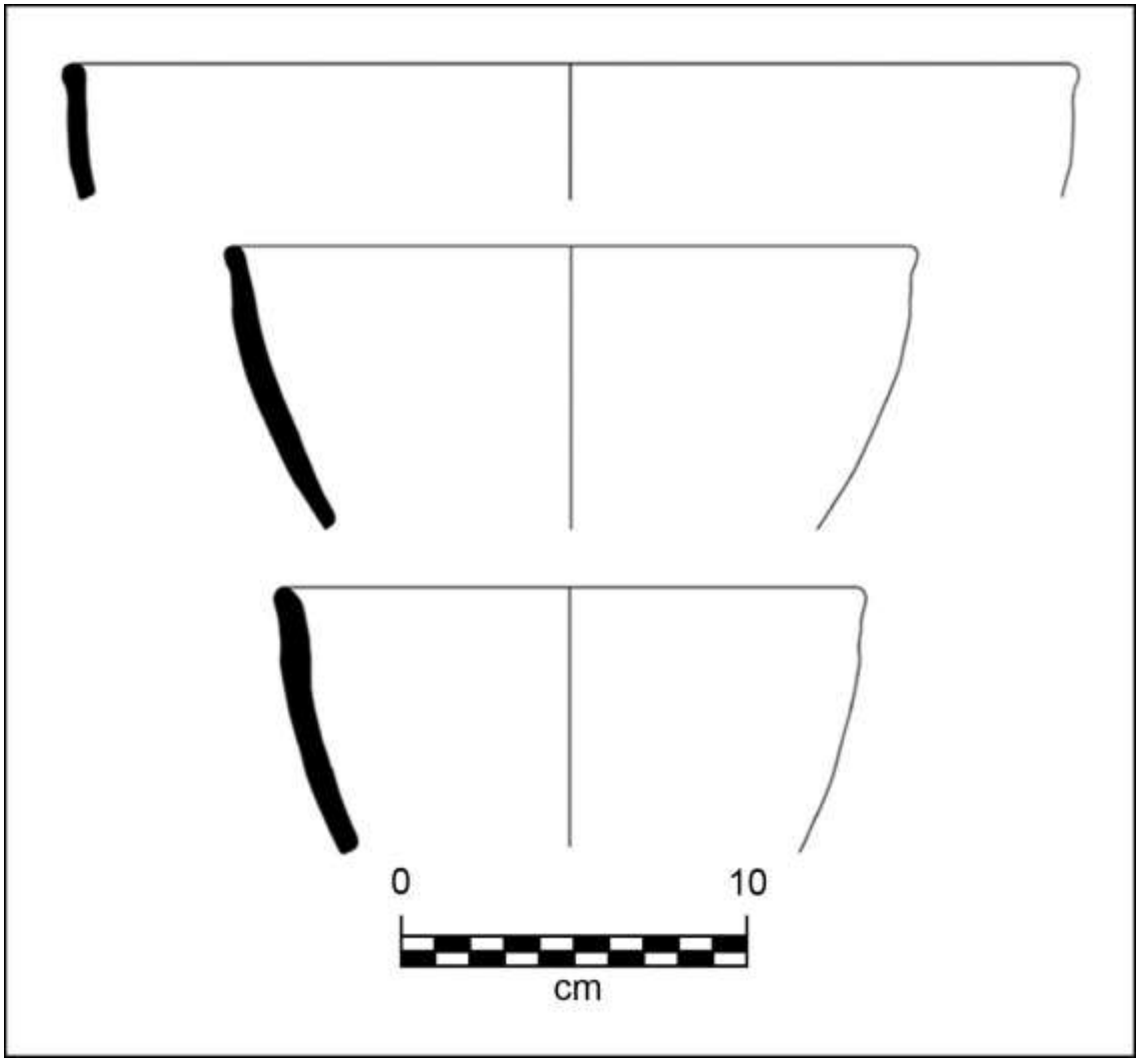


Figure 8: Basins of Plain Black and Red Variety, Period I

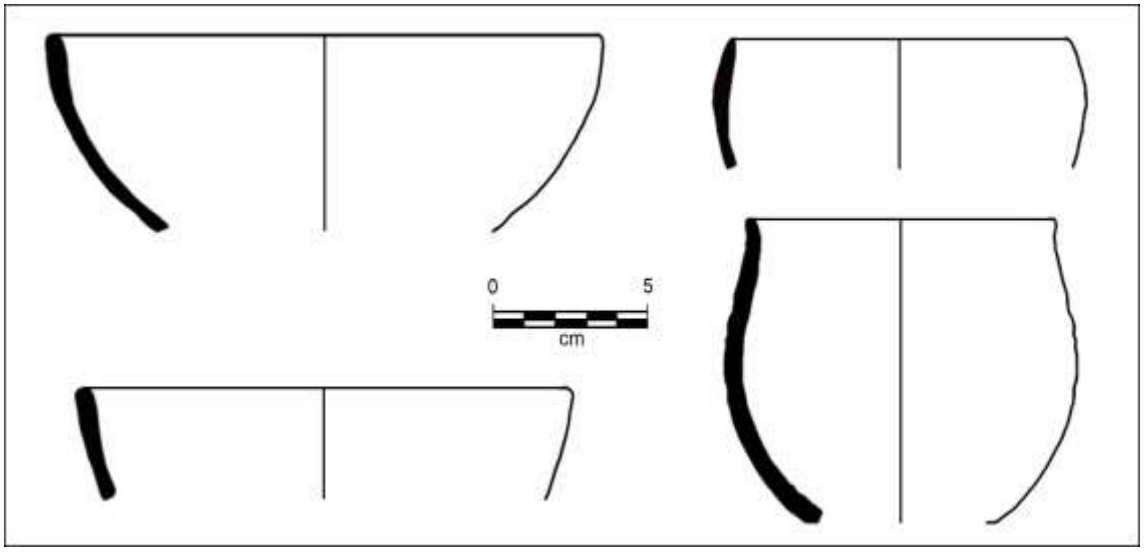


Figure 9: Bowls of Plain Black and Red Variety, Period I

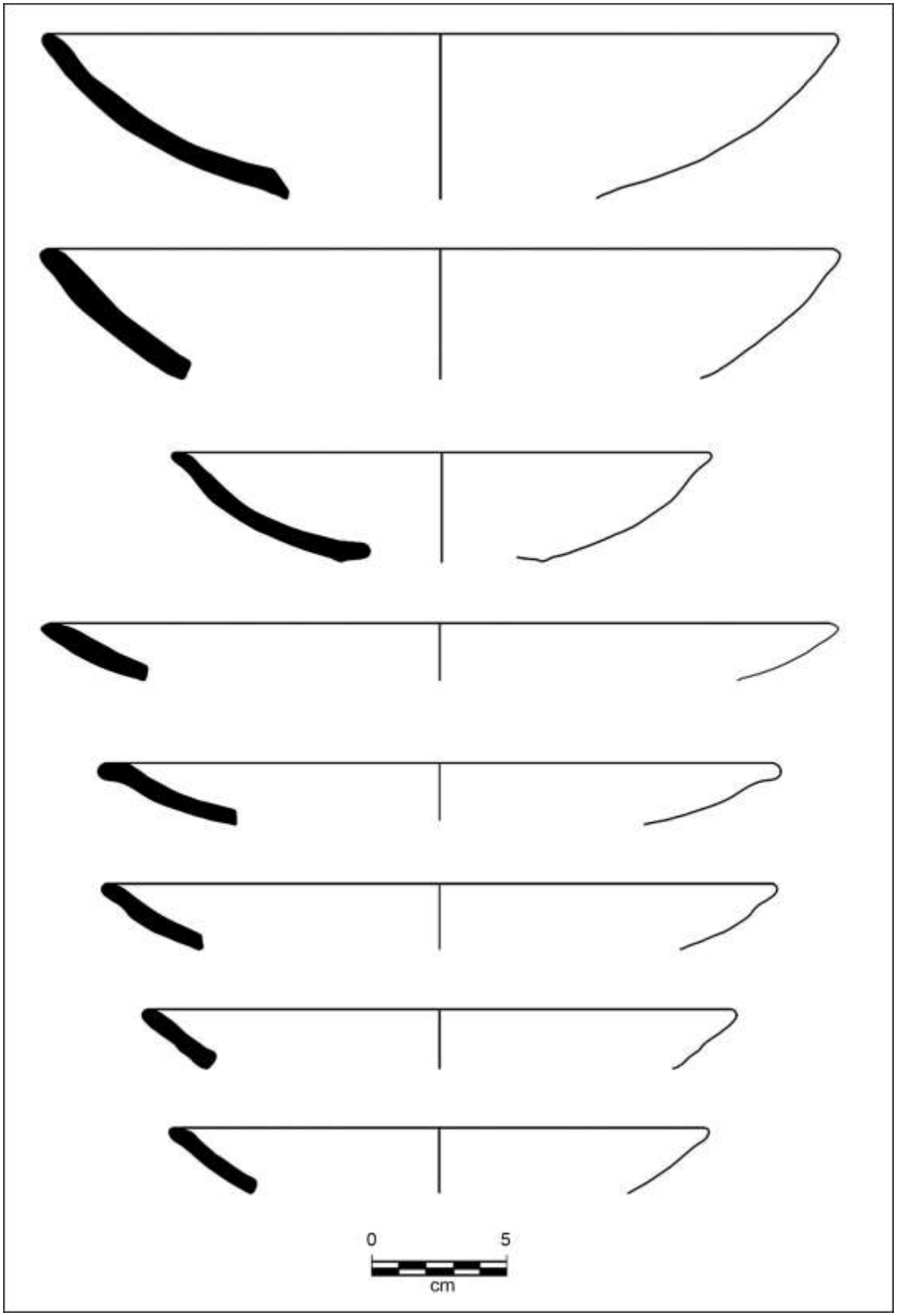


Figure 10: Dishes of Plain Black and Red Variety, Period I

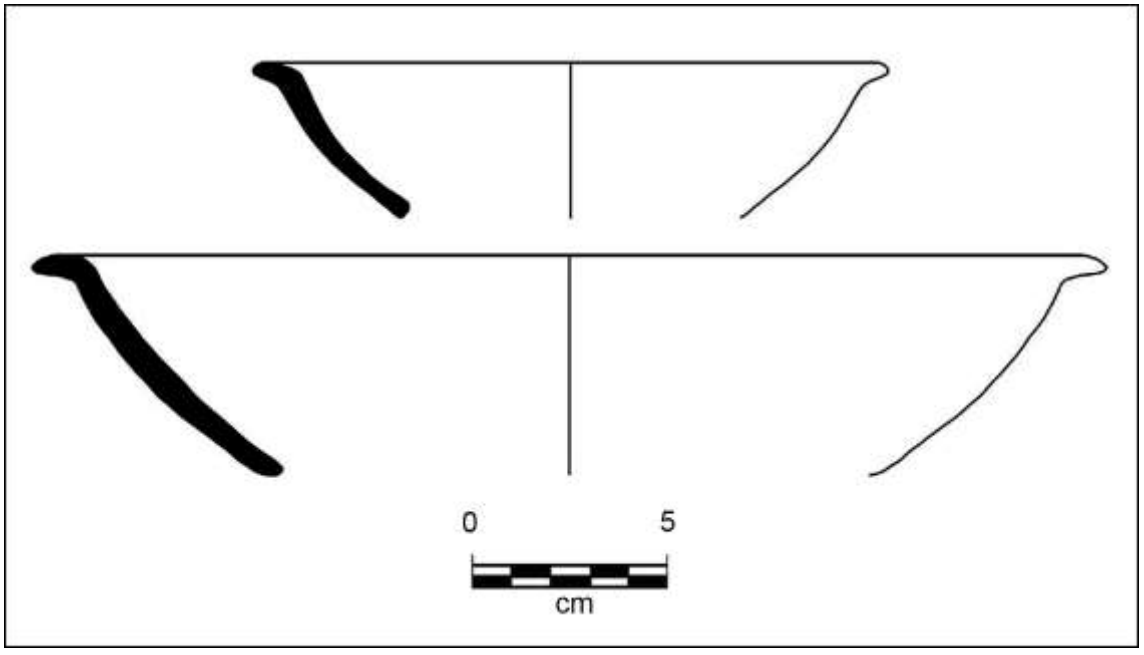


Figure 11: Basins of Black Slipped Ware, Period I

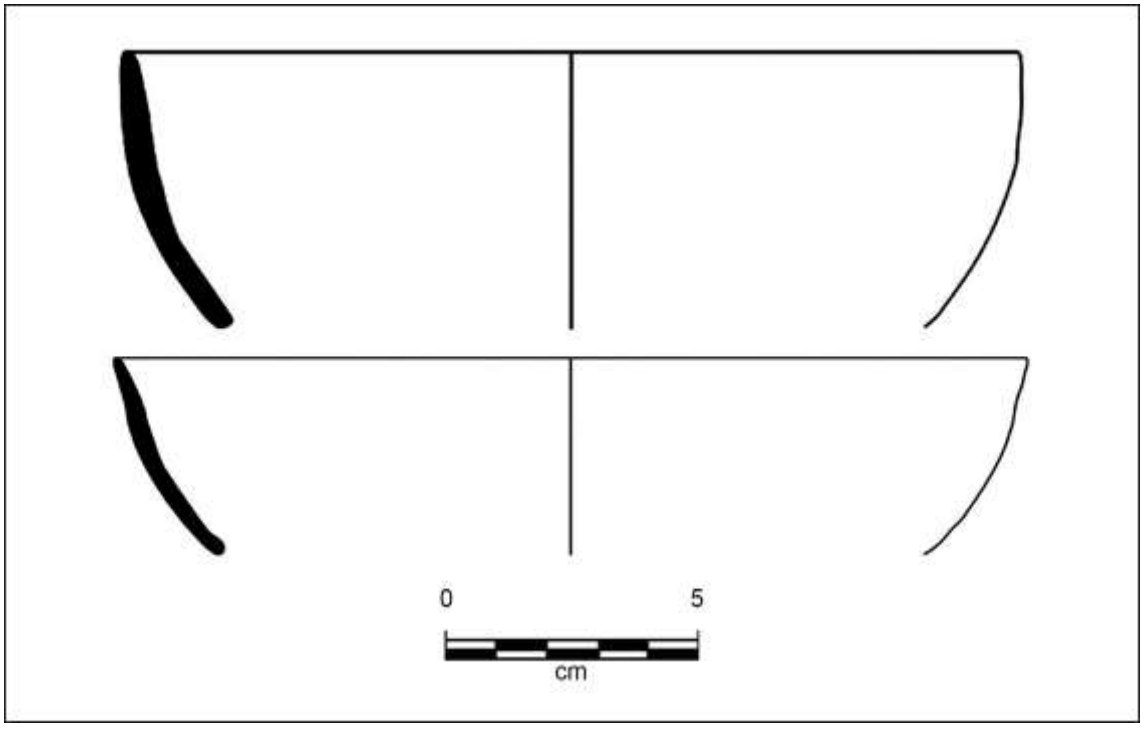


Figure 12: Convex-sided Bowls of Black Slipped Variety, Period I

Recent Excavation

The site of Chirand was re-excavated in 2019 by Deccan College Post Graduate and Research Institute in collaboration with the Department of Archaeology and Museums, Government of Bihar. The State protected area behind the new museum building was selected for the excavation. In all total 8 trenches each measuring 10x10m were

excavated (Figure 2). The trenches were numbered A1, A2, B1, B2, B3, C1, C2 and C3. Out of these A1, A2, B1 and B2 were excavated in 10x10m whereas the remaining trenches were opened as per the available space and requirements.

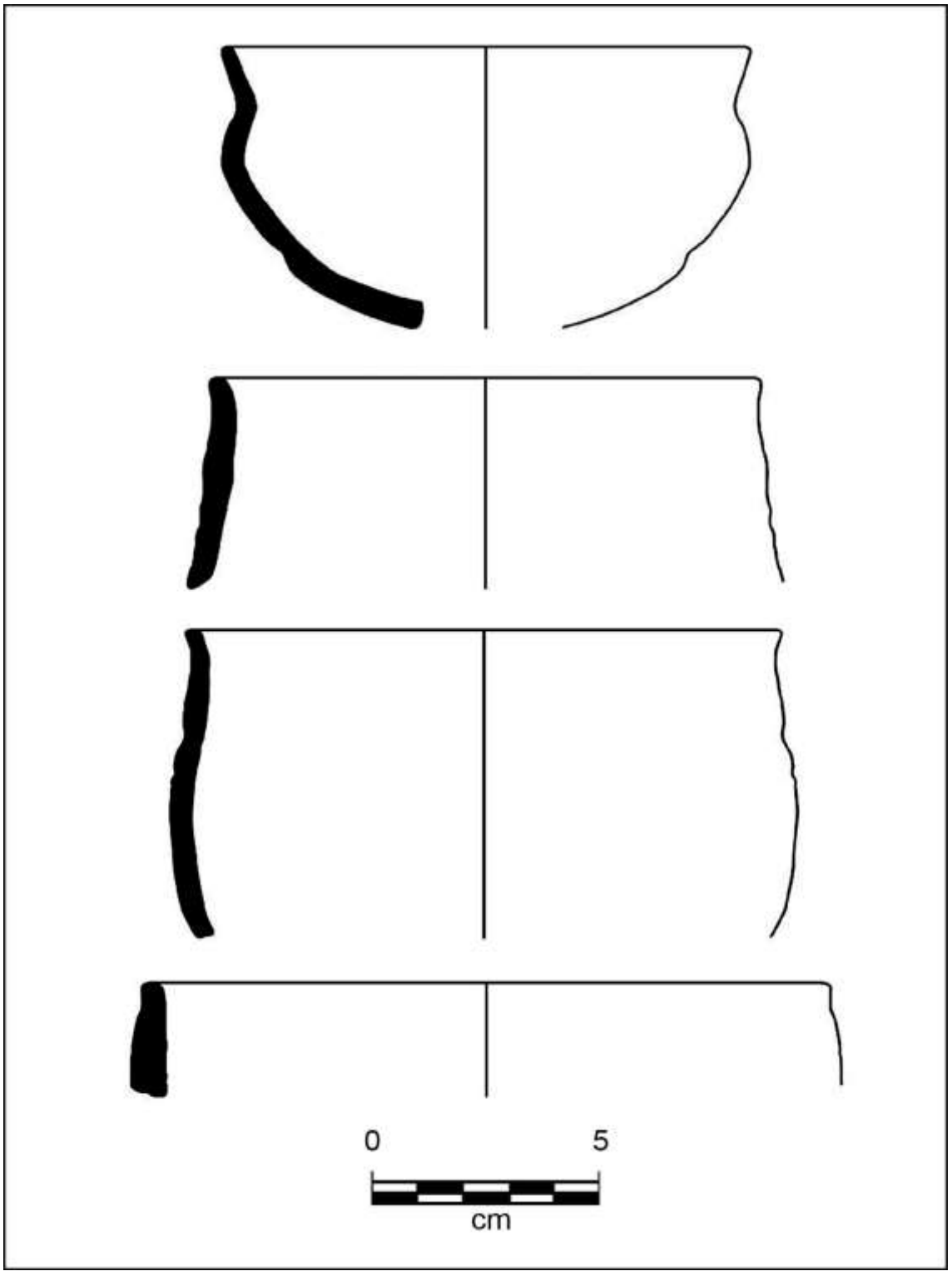


Figure 13: Carinated Bowls of Black Slipped Ware, Period I

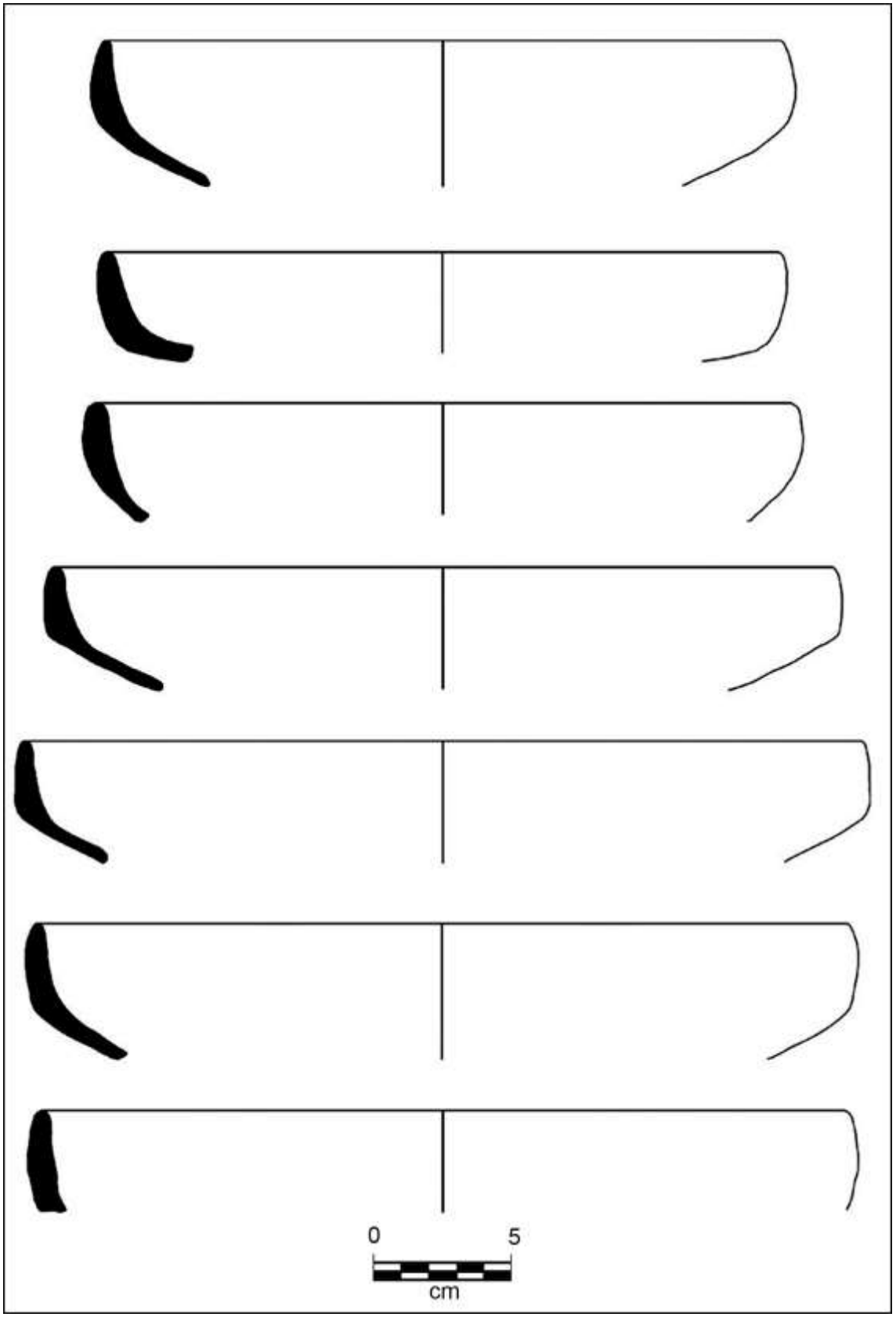


Figure 14: Dishes of Black Slipped Ware, Period I

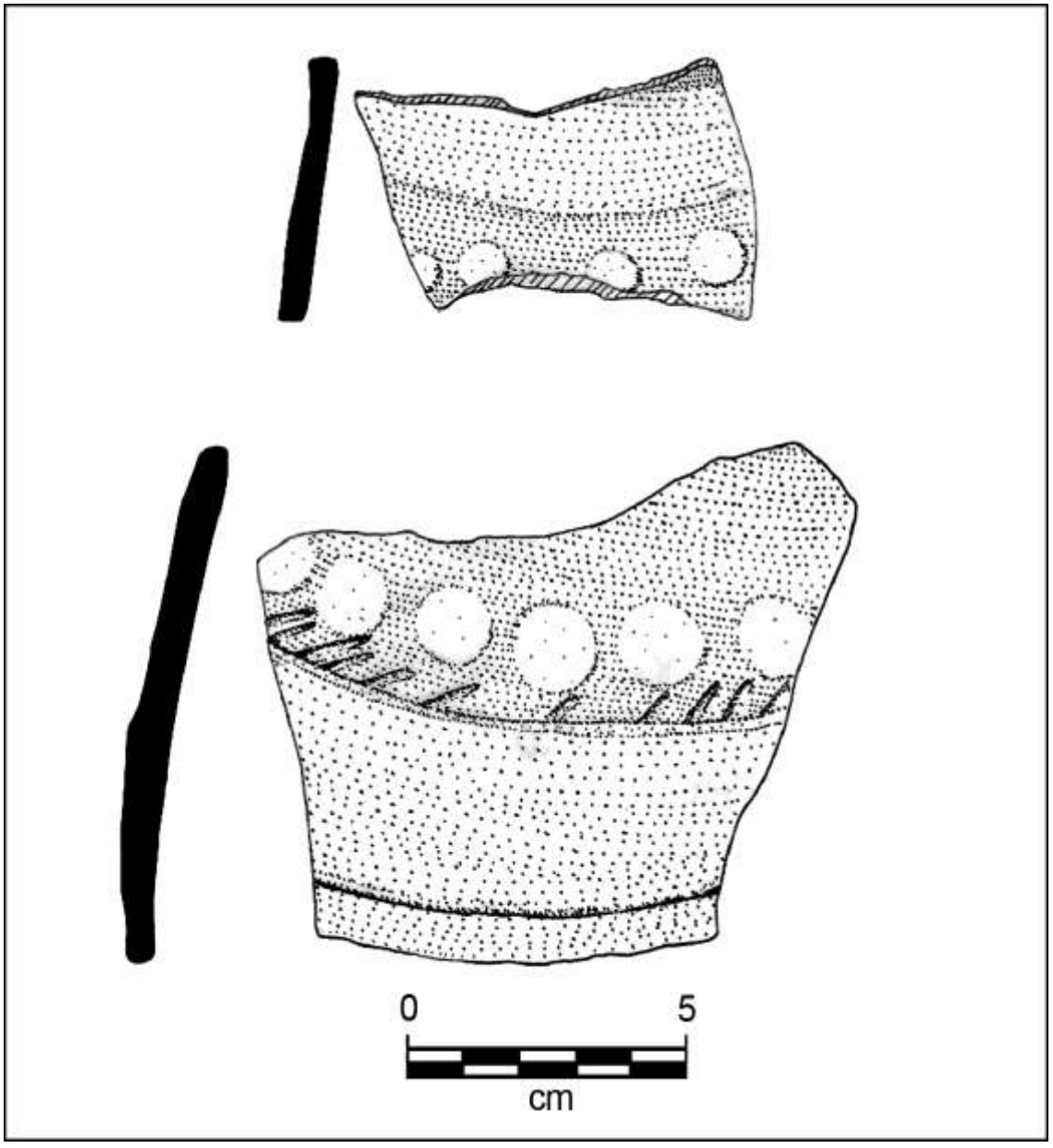


Figure 15: Body Sherds of White Painted Red Slipped Variety, Period I

Stratigraphy

Trench C3 was excavated at a greater depth and the stratigraphy of the site was obtained from this trench. In all total of 12 layers were identified in the excavations (Figures 3 and 4).

Layer 1	Modern dump	
Layer 2 to 4	Gupta period	Period III
Layer 5 to 9	Kushan period	Period II
Layer 10	Flood deposit of Ganga	
Layer 11 and 12	Chalcolithic period	Period I

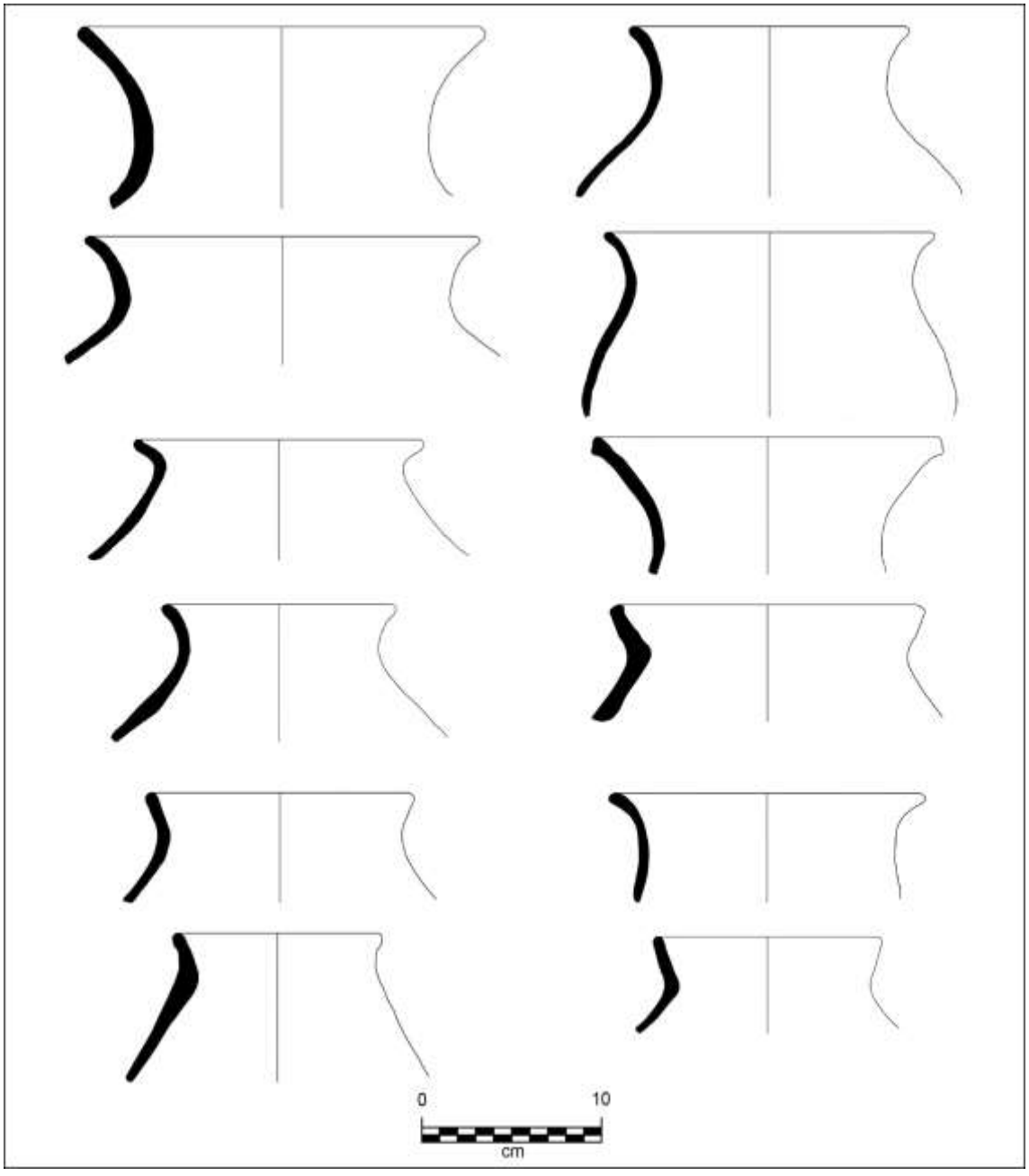


Figure 16: Globular Pots of Red Slipped Variety, Period I

Period I

Period I at the site belongs to the Chalcolithic phase. This period was exposed in a small area in trench C3. Due to the continuous cutting of the mound by the river Ganga, the Government of Bihar has stacked gunny bags to stop the erosion of the site due to which the area could not be excavated on a large scale. This period's excavated habitation thickness is 3m below the flood deposit (Figure 5). Due to the small nature of the excavation structural remains were not encountered. The ceramic assemblage of this period consists of different wares such as:

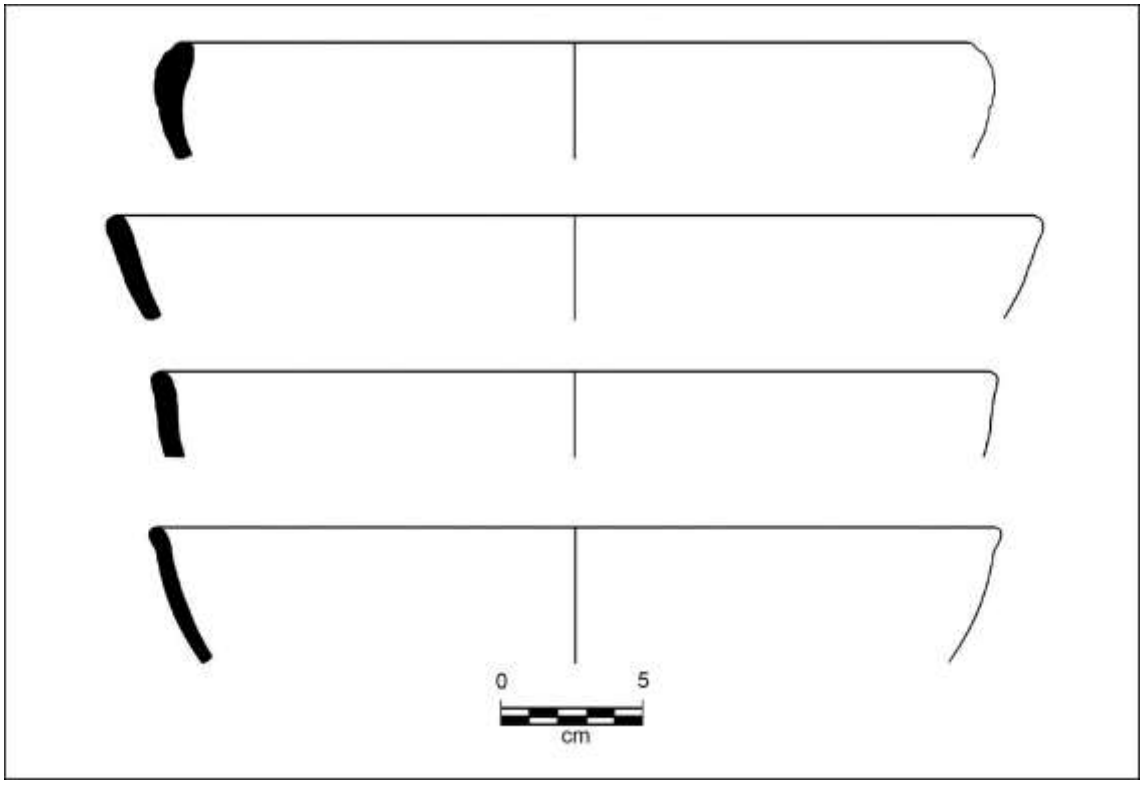


Figure 17: Basins of Red Slipped Variety, Period I

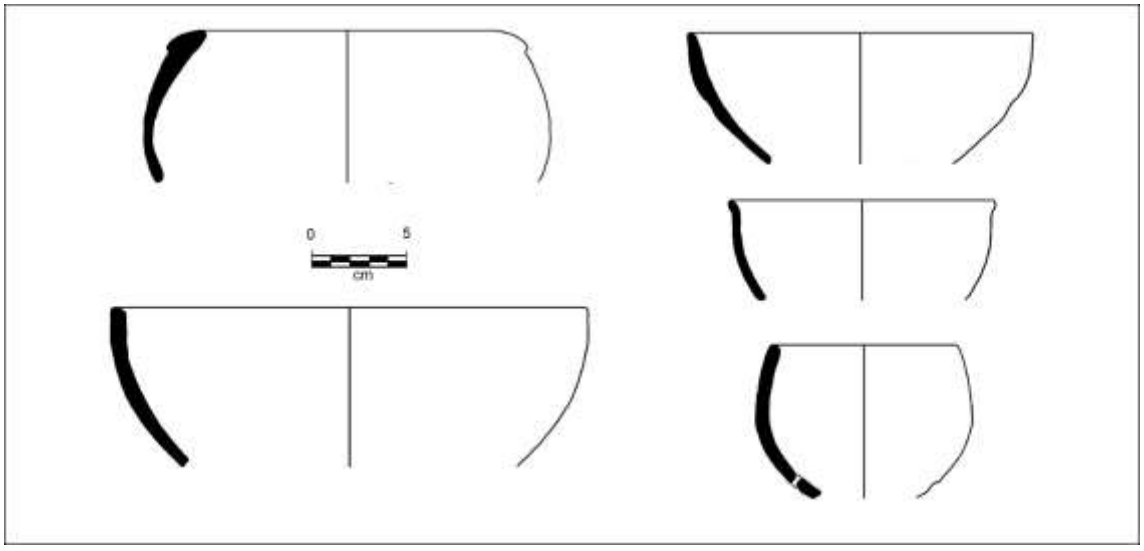


Figure 18: Bowls of Red Slipped Variety, Period I

Black and Red Ware: It has diagnostic features such as a black interior that extends on the rim top as well as on the upper portion of the exterior and red on the exterior surface. Mostly these pots are prepared by inverted firing technique. The Ware is wheel made, has fine to medium coarse fabric and is well to medium fired. It is thick and thin in section. Black & Red Ware has been divided into two varieties i.e. Painted and Plain based on surface treatment. The Painted variety is represented by a single

sherd belonging to a dish. It has white colour dots painted on the exterior surface (Figure 6). The Plain variety is represented by long-neck globular pots (Figure 7), basins (Figure 8), bowls (Figure 9) and dishes (Figure 10).

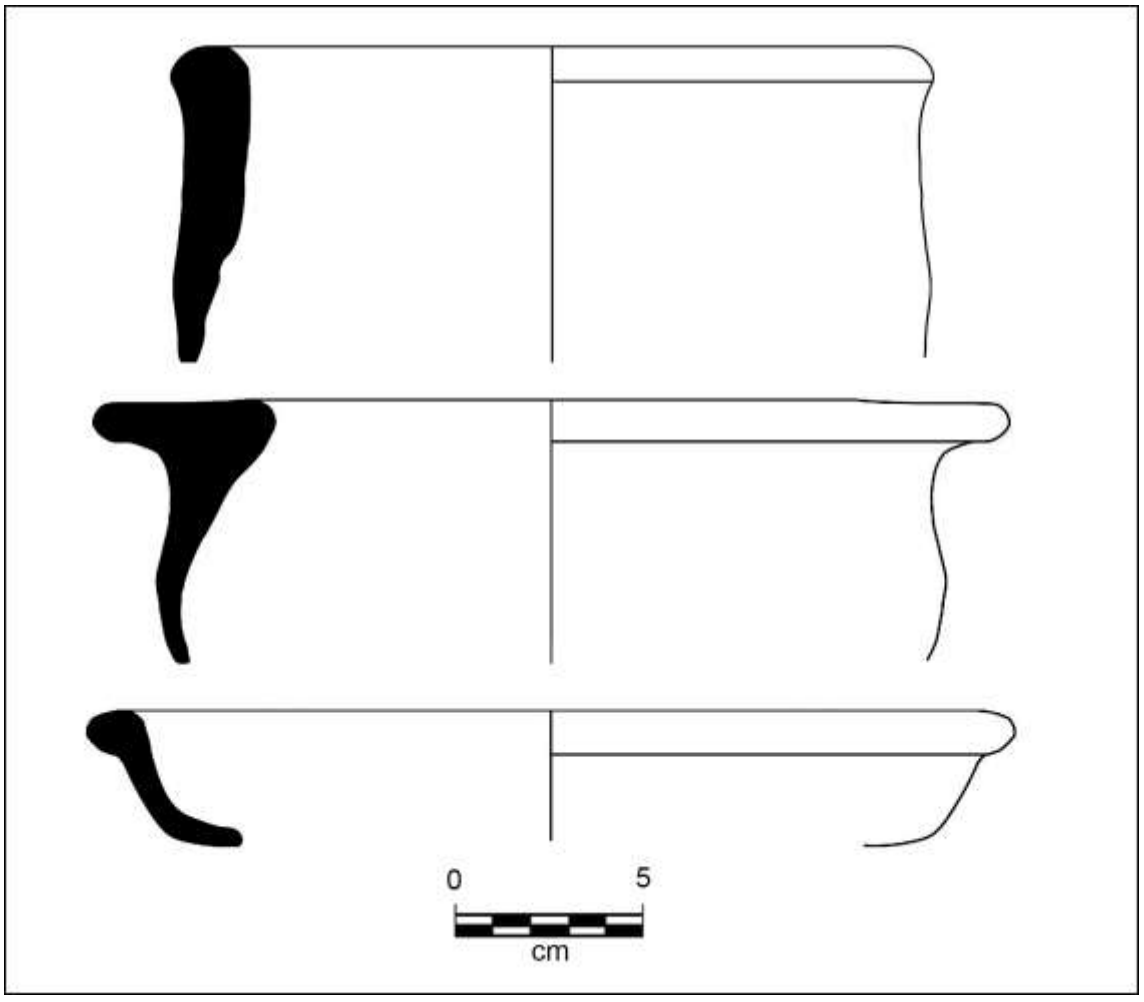


Figure 19: Basins of Red Untreated Variety, Period I

Black Slipped Ware: It has a black colour slip on the exterior and upto throat on the interior in case of closed vessel forms and on both surfaces in case of open vessel forms. The ware has fine to medium coarse fabric. It is well to medium fired and it has a thin section. The ware is represented by basins (Figure 11), convex-sided bowls (Figure 12), carinated bowls (Figure 13) and dishes (Figure 14).

Red Ware: It has been further divided into different varieties based on the surface treatment.

White Painted Red Slipped Variety: A few body sherds have been found in this variety having paintings in the form of dots in white colour over the red colour slip. Apart from the paintings, incisions in the form of slanting lines have been made (Figure 15). It has fine fabric, is well-fired and thick in section.



Figure 20: Antiquities from Chalcolithic Period, Period I

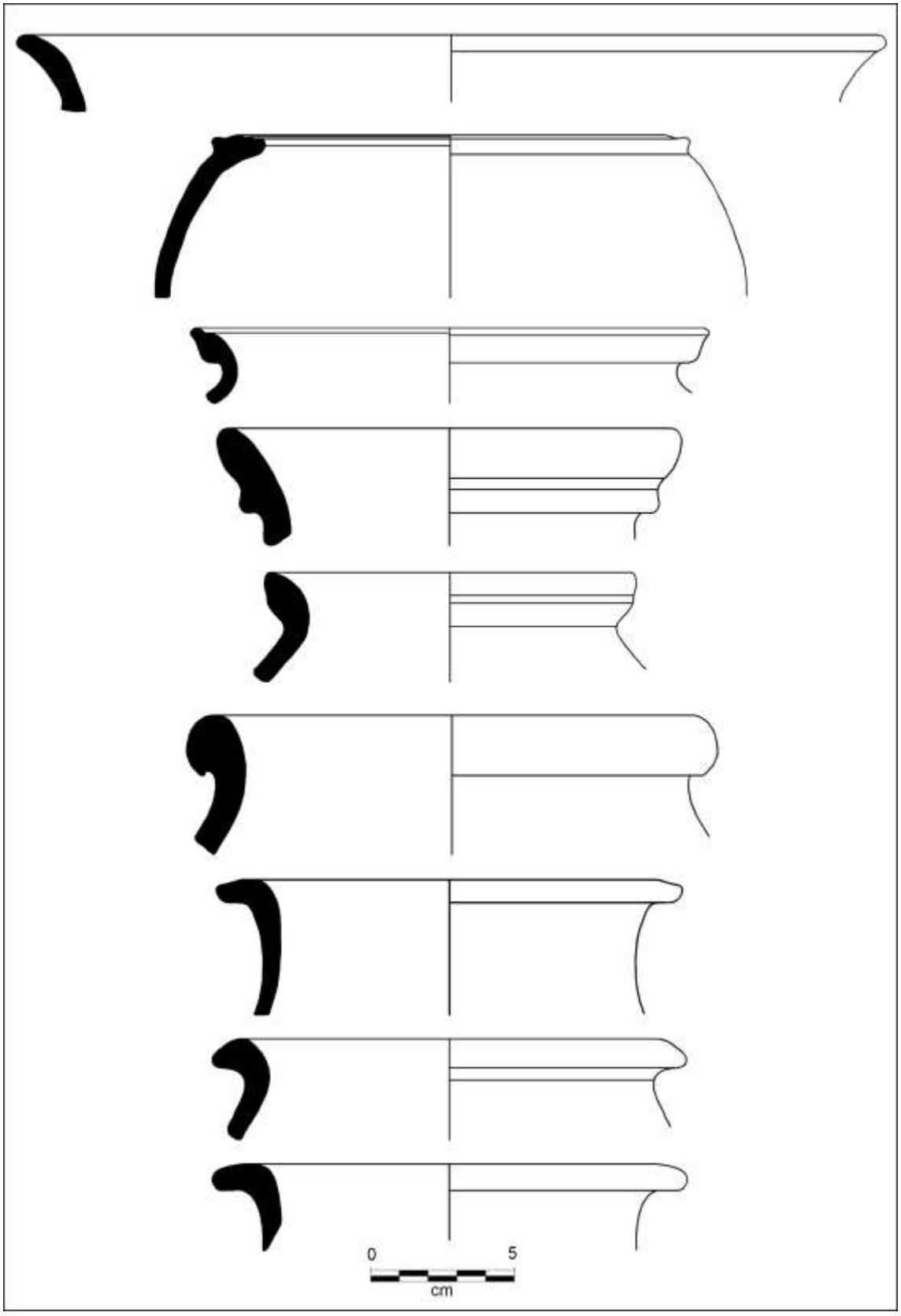


Figure 21: Globular Pots of Red Slipped Variety, Period II

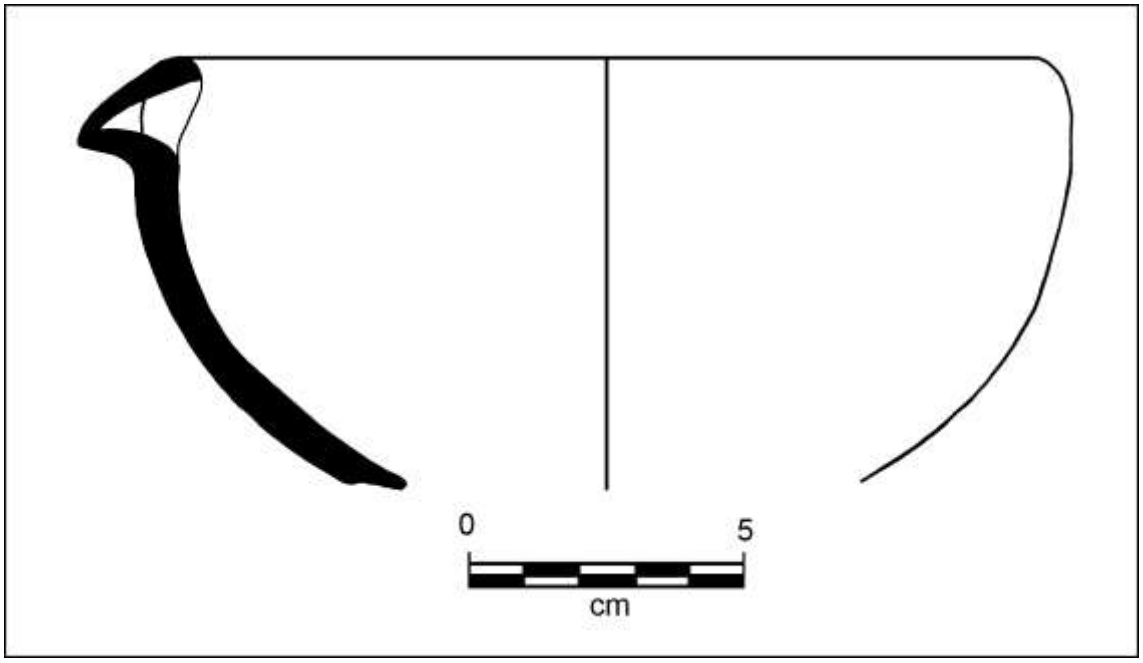


Figure 22: Channel Spouted Bowl of Red Slipped Variety, Period II

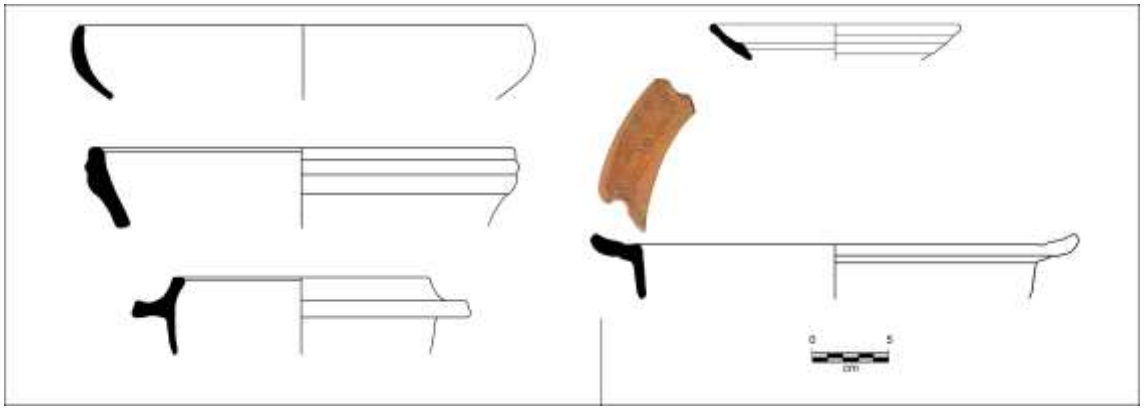


Figure 23: Basins of Red Slipped Variety, Period II

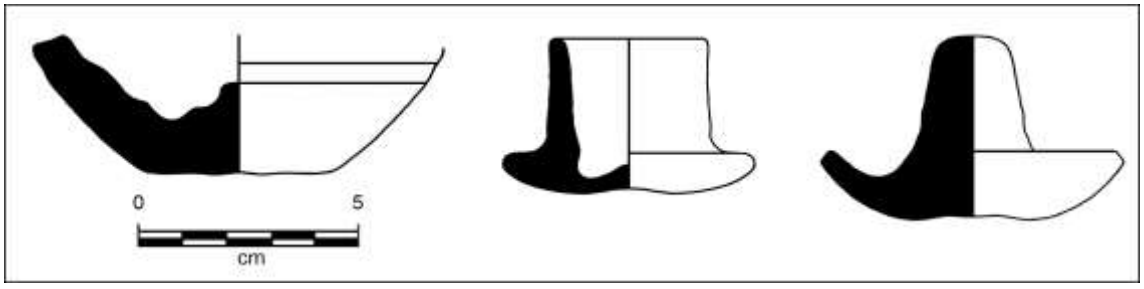


Figure 24: Knobbed Lids of Red Slipped Variety, Period II

Red Slipped Variety: It has a red colour slip on the exterior and upto throat on the interior in case of closed vessel forms and on both surfaces in case of open vessel forms. In some cases, a red colour slip has been applied up to the shoulder portion externally followed by mud application. The major shapes in this variety are

constricted, medium and long-neck globular pots (Figure 16), basins (Figure 17) and bowls (Figure 18). It has fine to coarse fabric, is well to ill fire and has thin to thick sections.

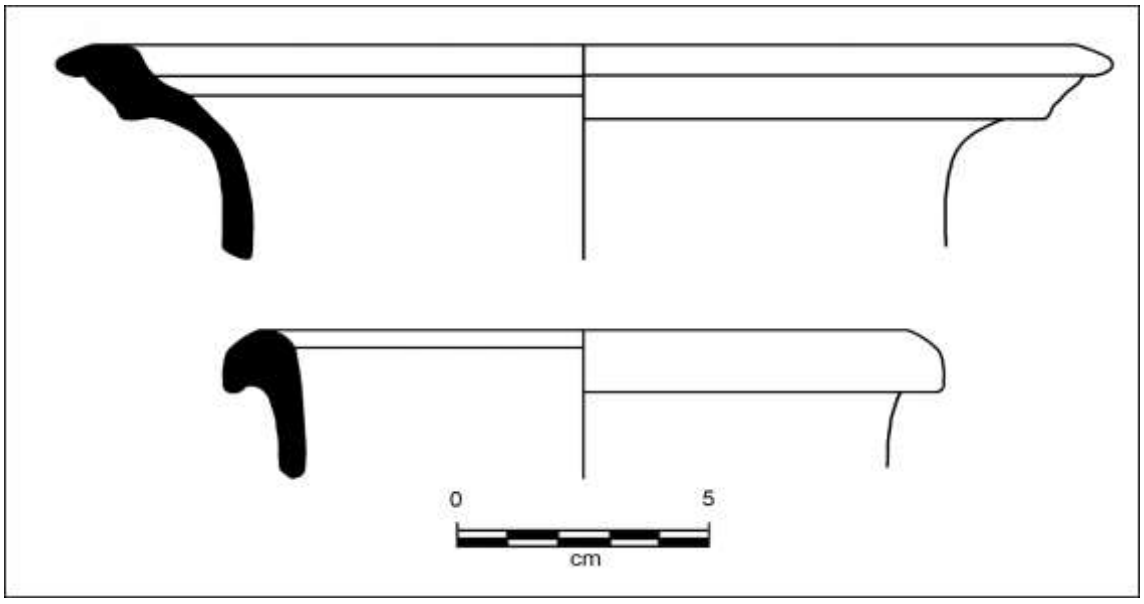


Figure 25: Globular Pots of Red Untreated Variety, Period II

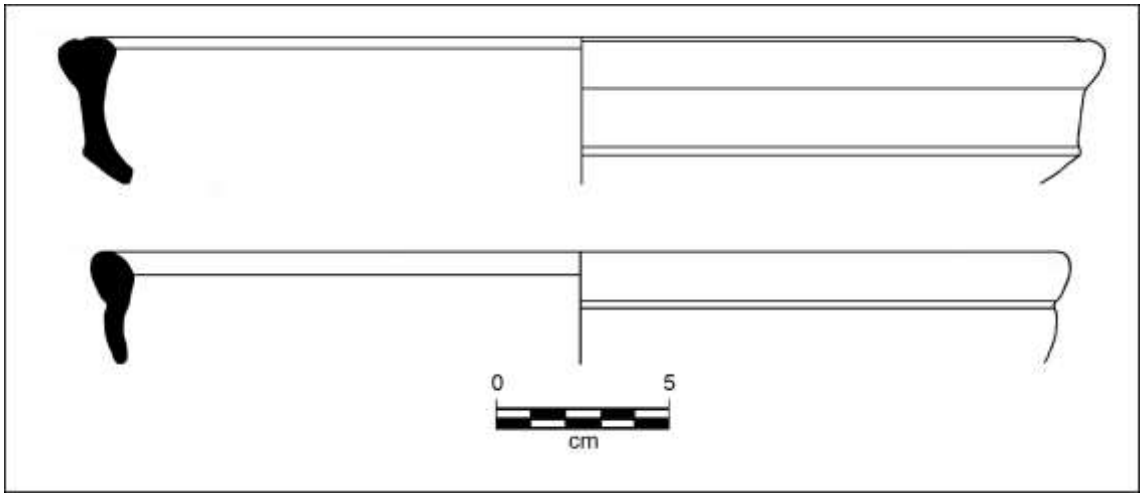


Figure 26: Basins of Red Untreated Variety, Period II

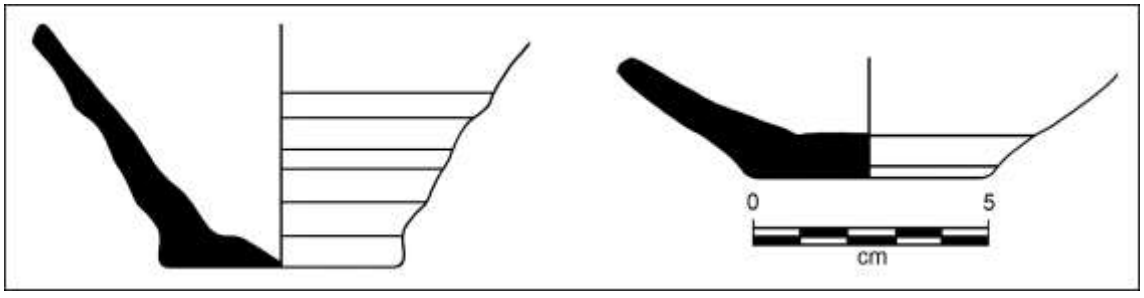


Figure 27: Bases of Red Untreated Variety, Period II

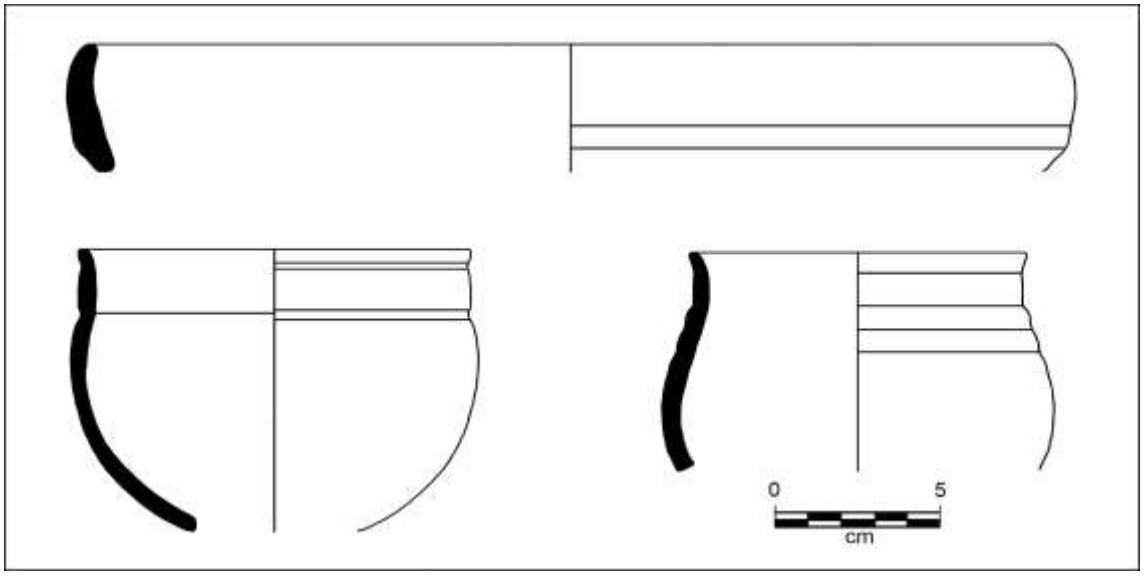


Figure 28: Bowls of Black Slipped Ware, Period II

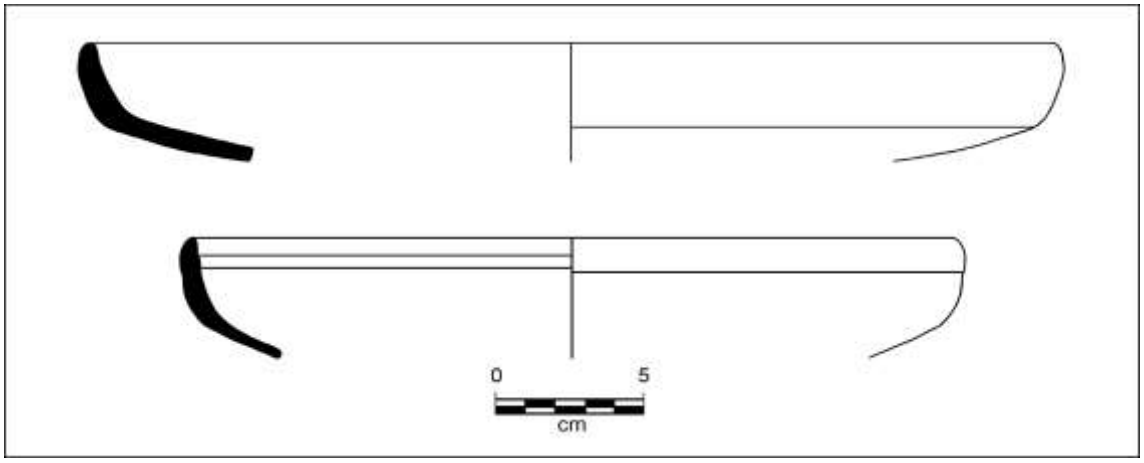


Figure 29: Dishes of Black Slipped Ware, Period II

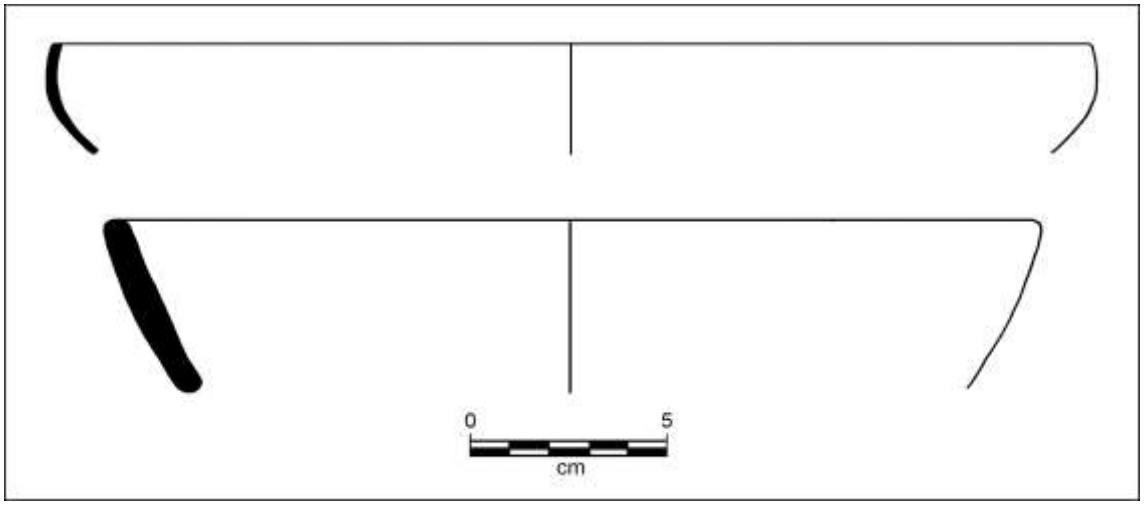


Figure 30: Bowls of Northern Black Polished Ware, Period II



Figure 31: Terracotta Human Figurines, Period II



Figure 32: *Nayagamesh* and *Nayagameshi* Figurines, Period II

Red Untreated Variety: This variety is found in limited numbers and does not have any surface treatment. In this variety mostly basins have been found (Figure 19). It has medium coarse fabric, is medium fired and has thin section.

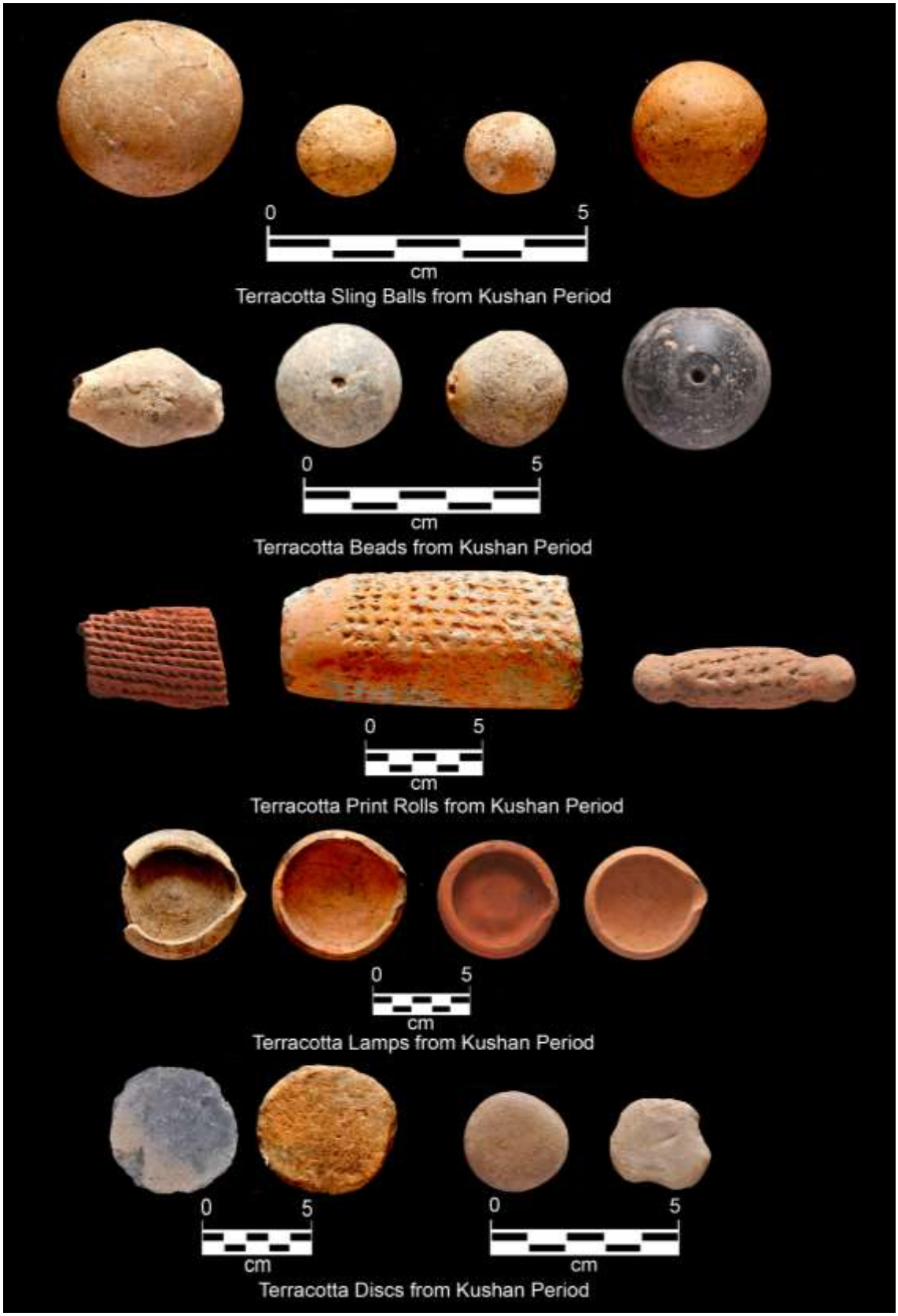


Figure 33: Terracotta Objects, Period II

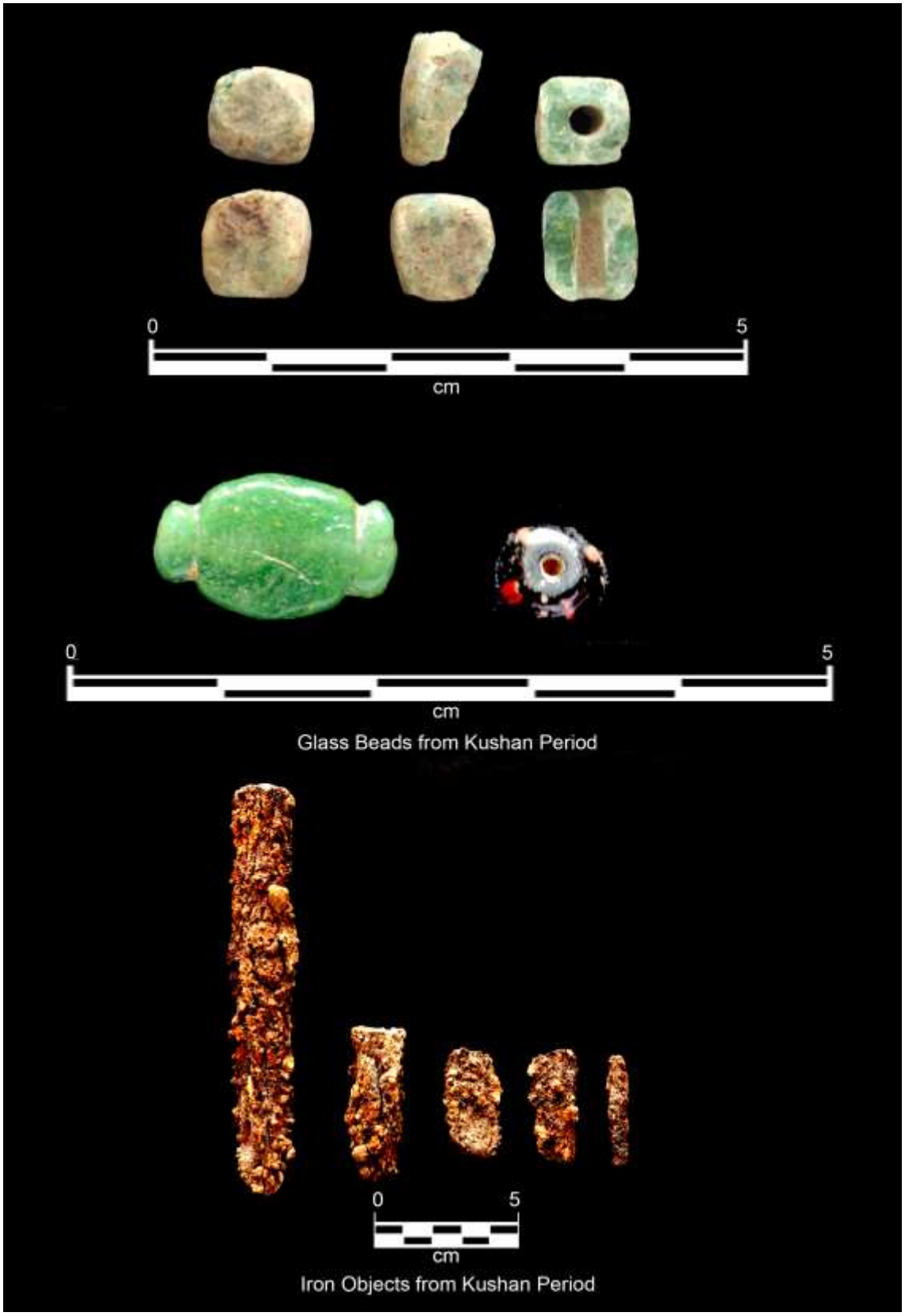


Figure 34: Glass and Iron Objects, Period II



Figure 35: A View of Structural Complex from East



Figure 36: A View of Structural Complex from South-East



Figure 37: A View of Structural Complex from West



Figure 38: Platform



Figure 39: Packing Materials between Brick Courses



Figure 40: A Jar Embedded in Ground



Figure 41: A View of Stepped Platform from East



Figure 42: A View of Stepped Platform from North



Figure 43: A View of Stepped Platform from West

Antiquities

The antiquities obtained from this period include terracotta discs and bone tools (Figure 20).



Figure 44: Eastern Face of Stepped Platform



Figure 45: Western Face of Stepped Platform



Figure 46: A View of Entrance

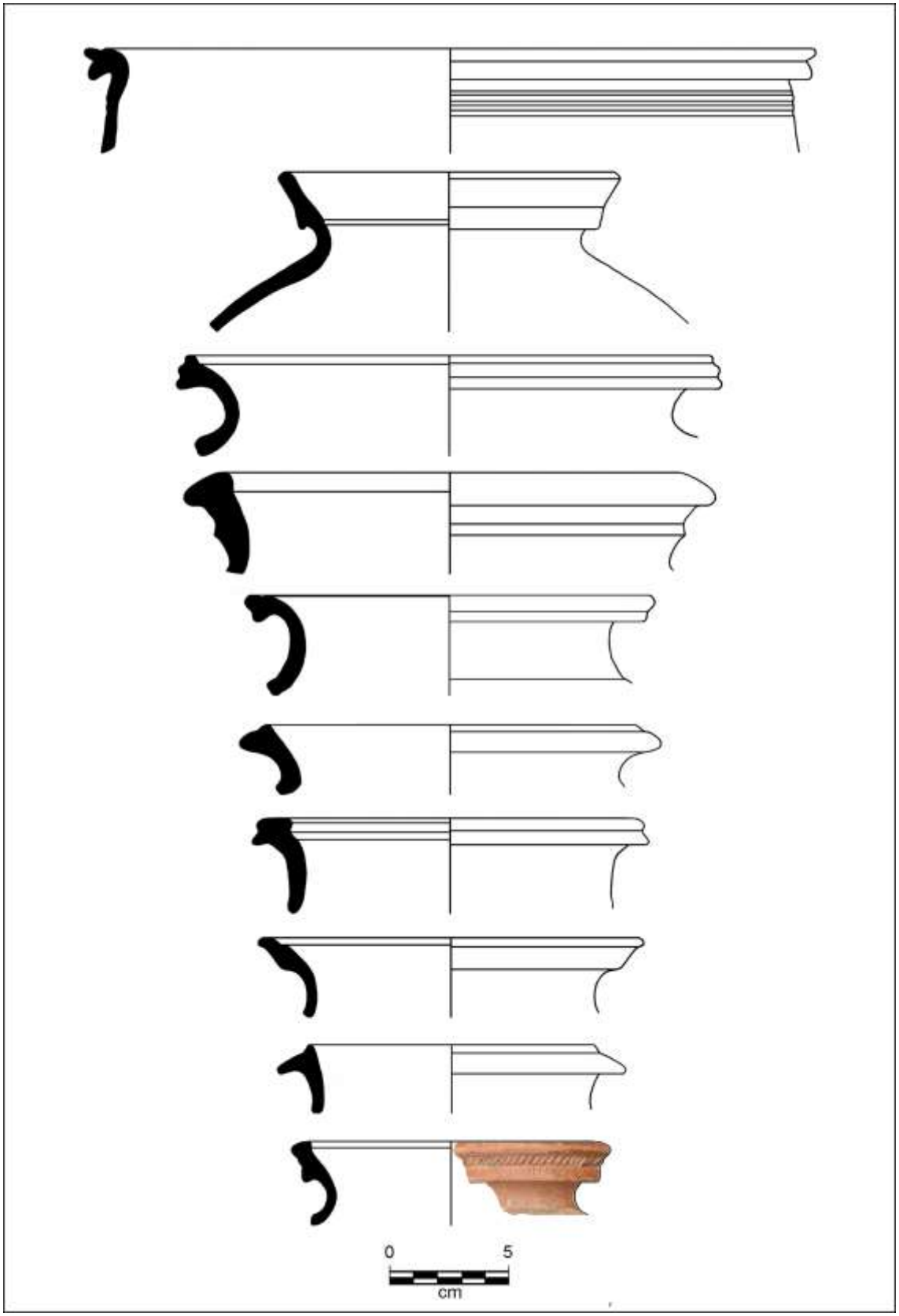


Figure 47: Globular Pots of Red Slipped Variety, Period III

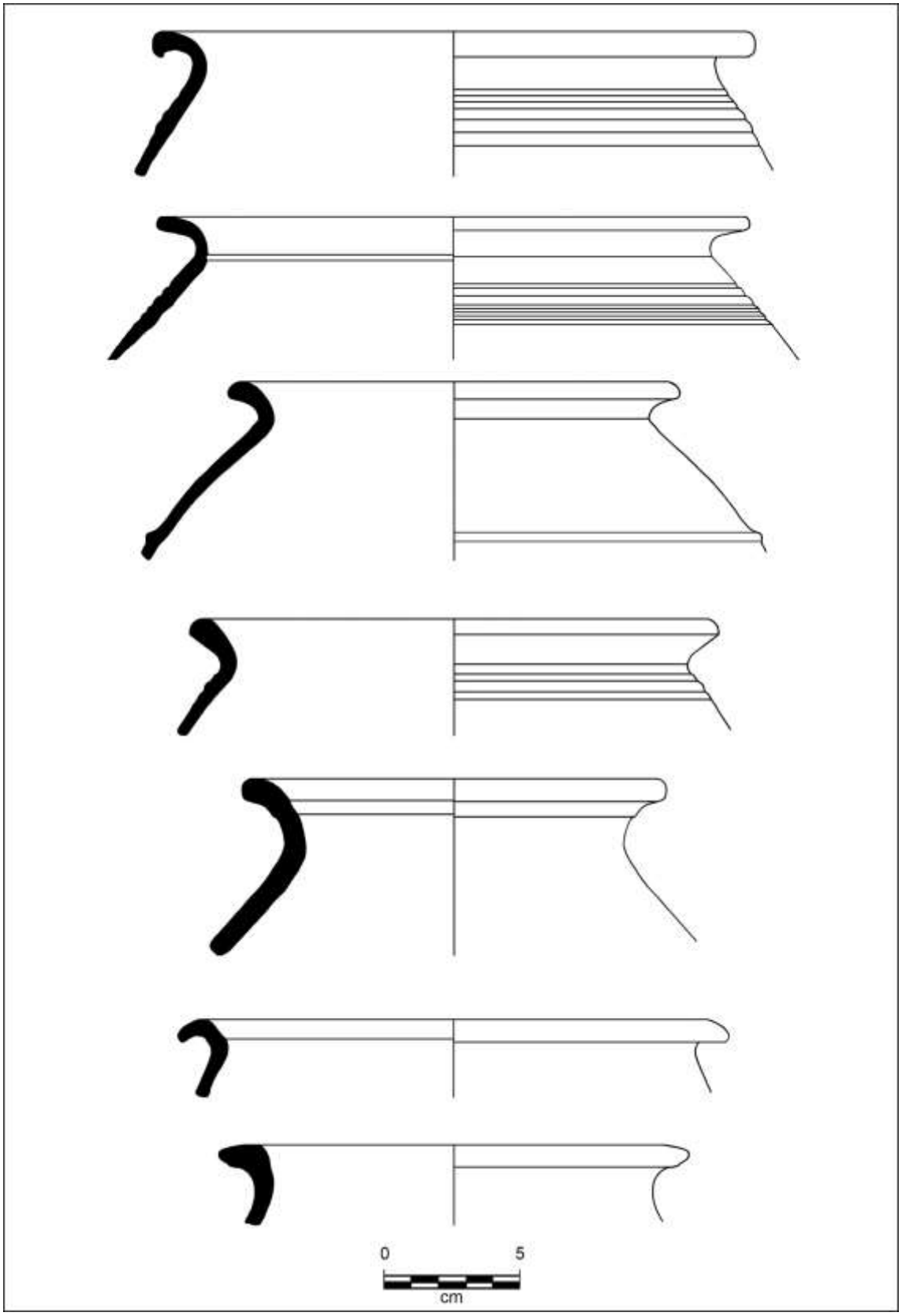


Figure 48: Globular Pots of Red Slipped Variety, Period III

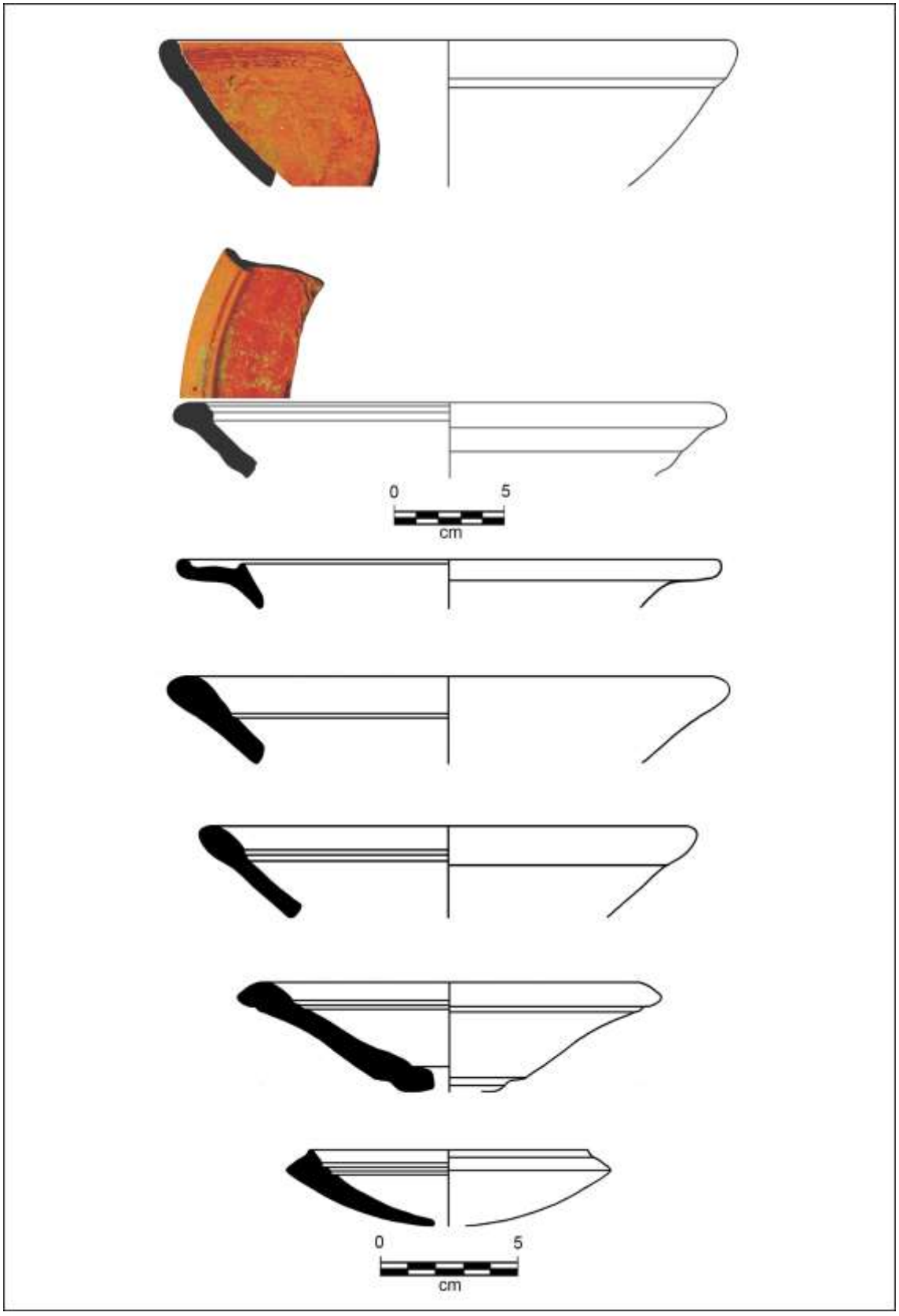


Figure 49: Dishes of Red Slipped Variety, Period III

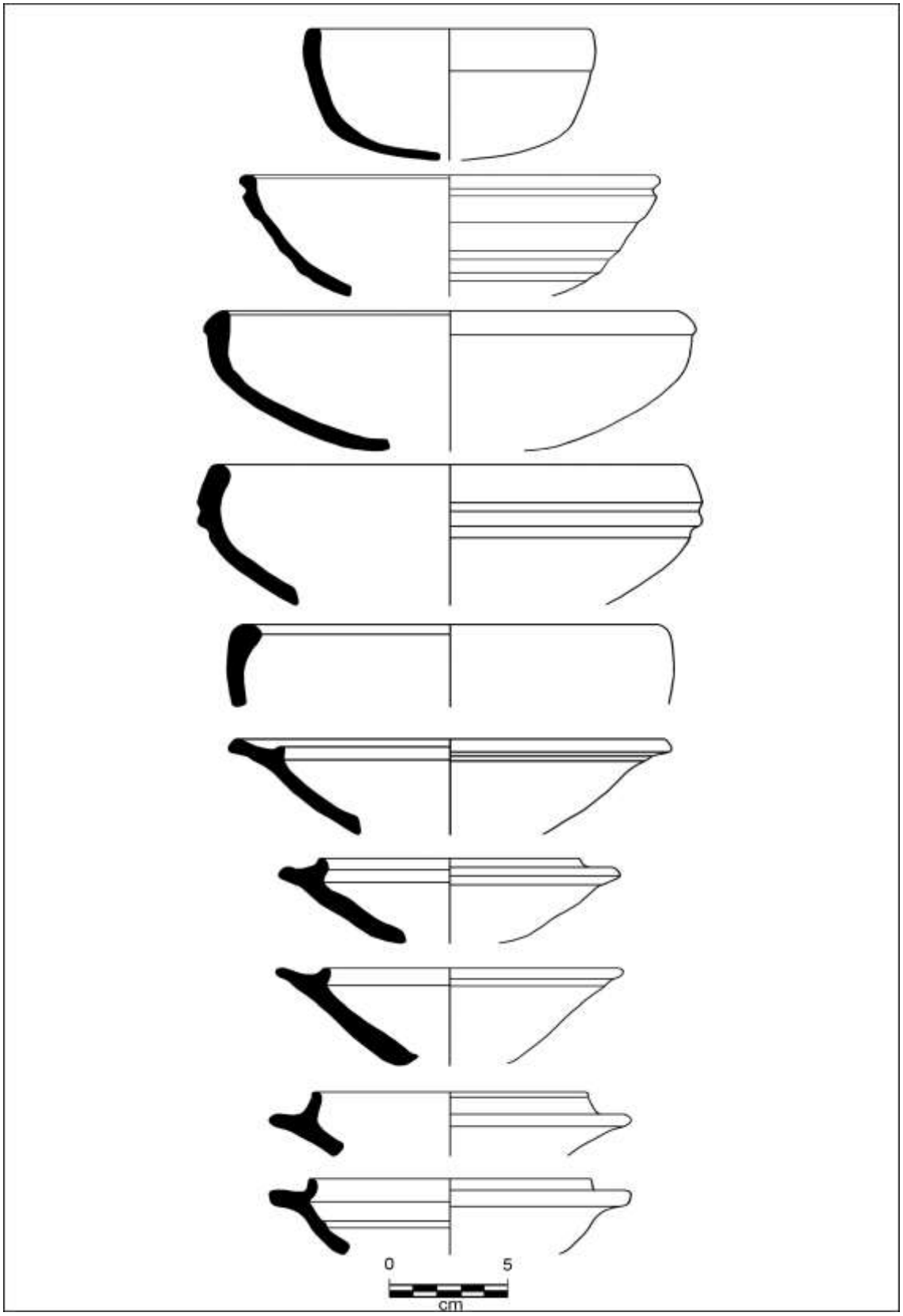


Figure 50: Bowls of Red Slipped Variety, Period III

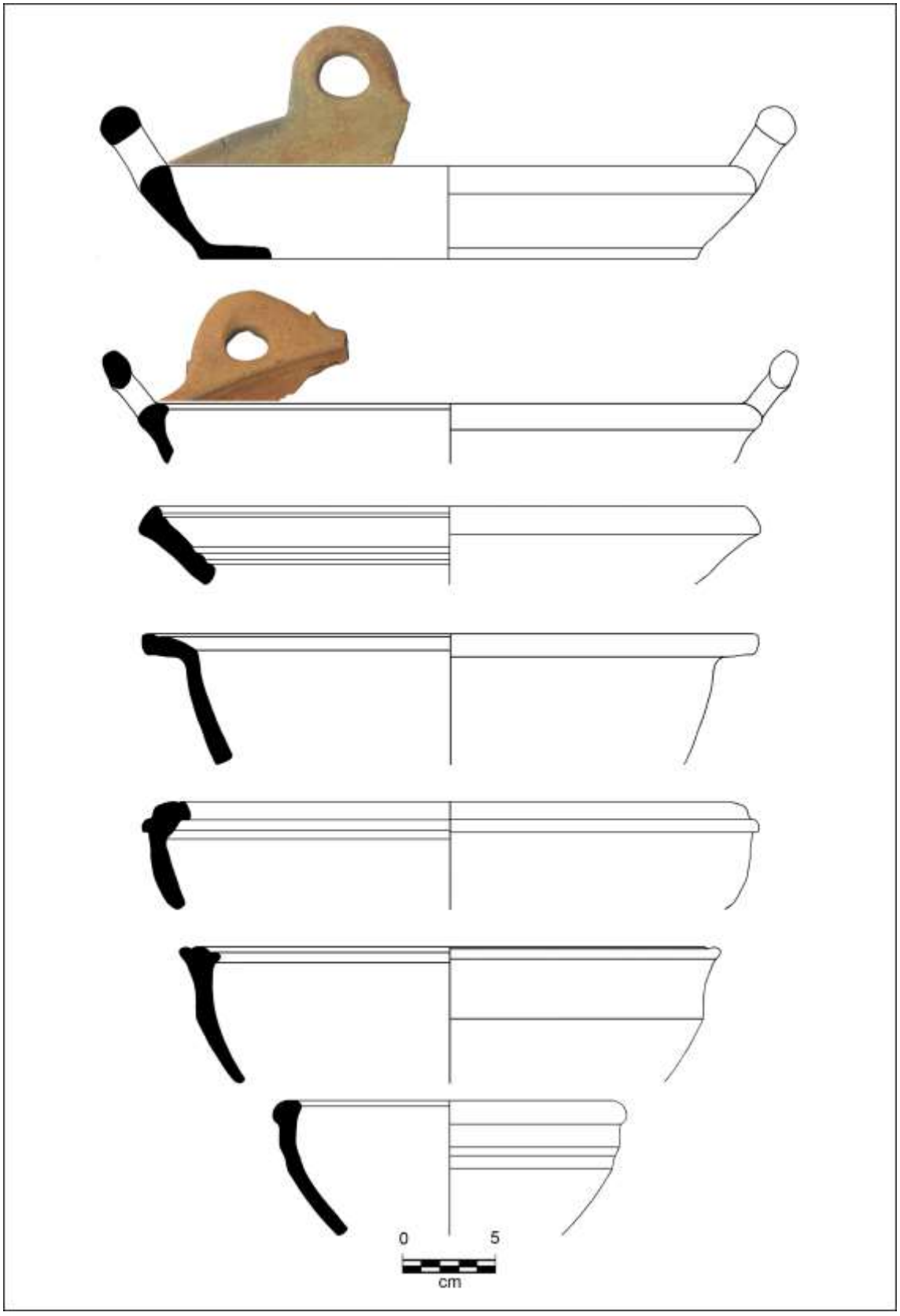


Figure 51: Basins of Red Slipped Variety, Period III

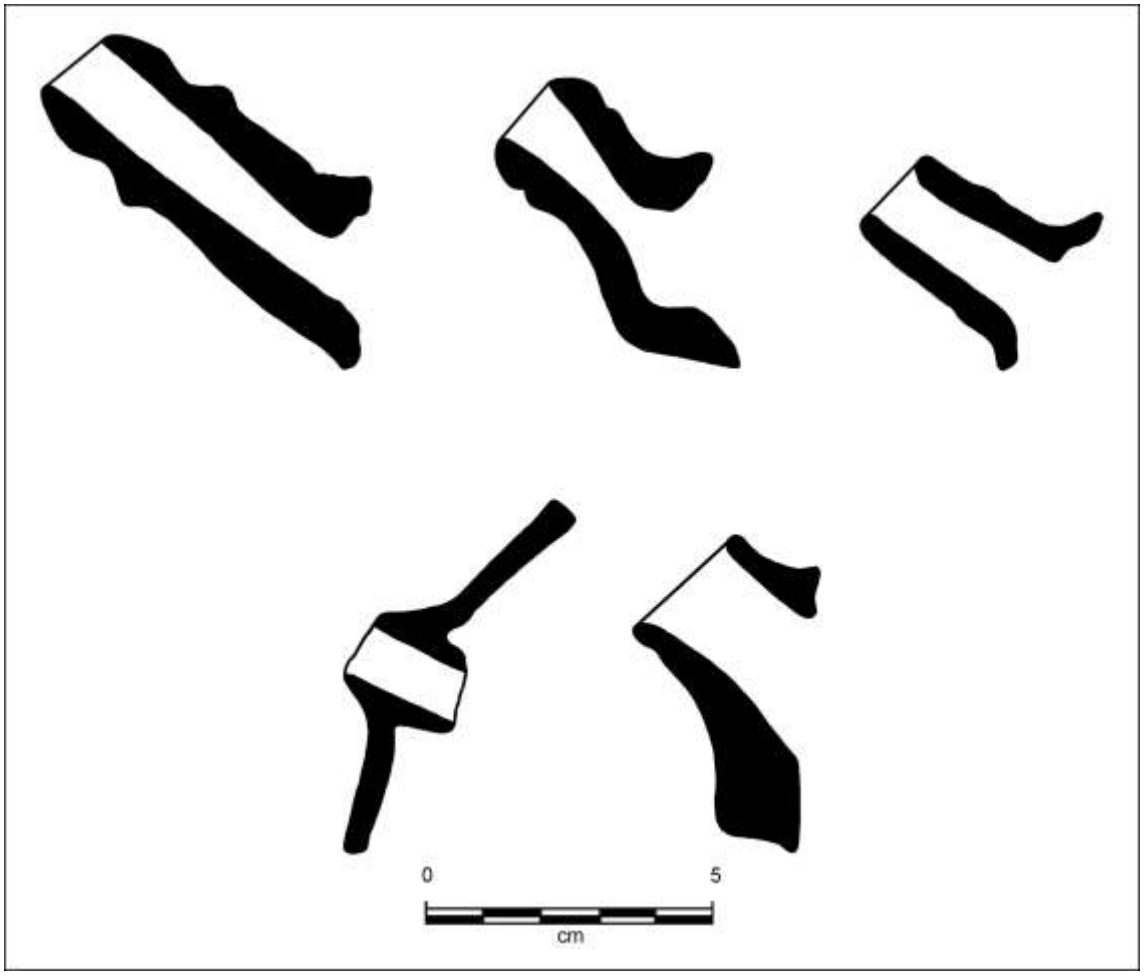


Figure 52: Spouts of Red Slipped Variety, Period III

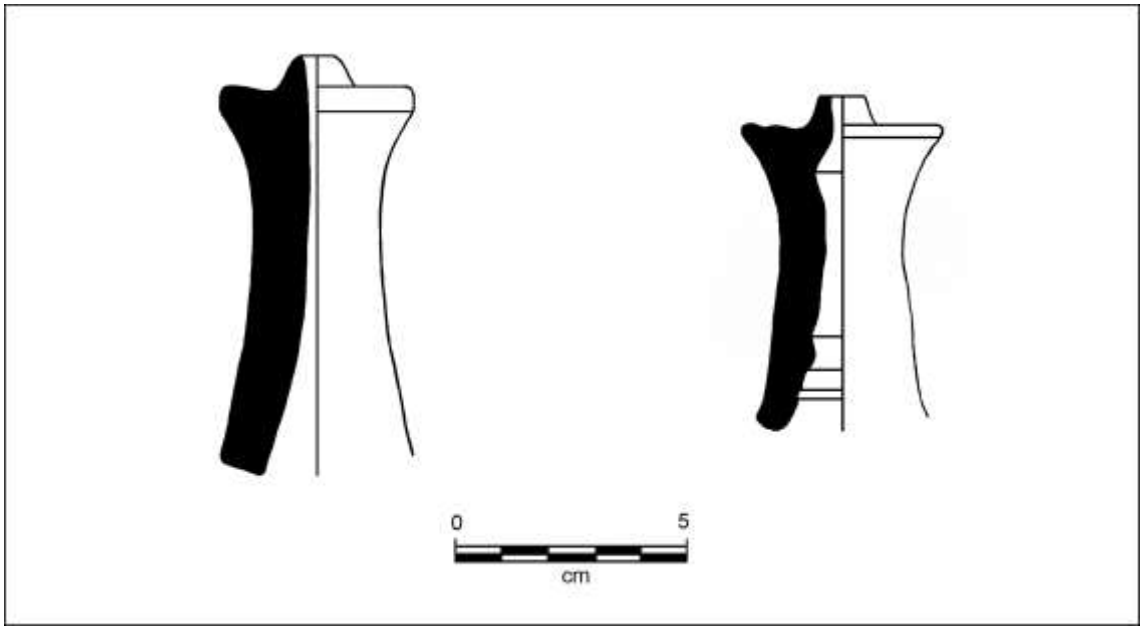


Figure 53: Sprinklers of Red Slipped Variety, Period III

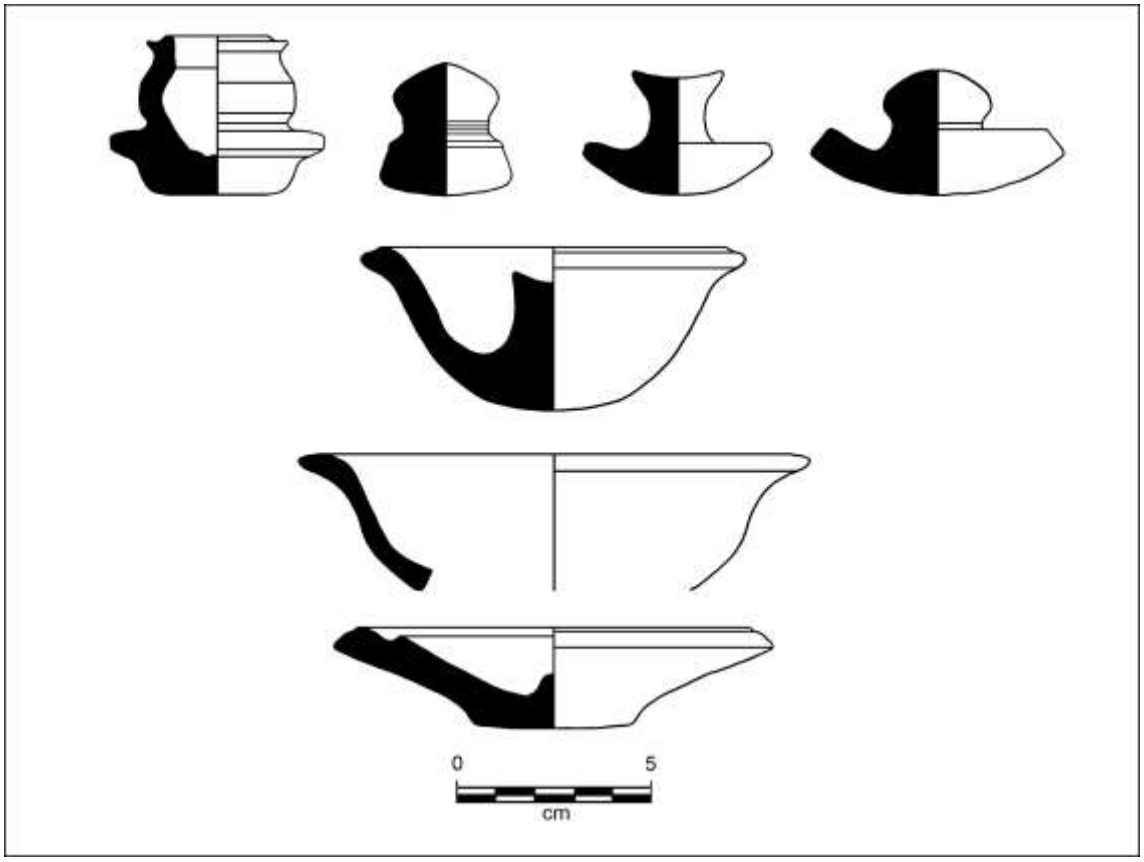


Figure 54: Lids of Red Slipped Variety, Period III

Period II

This period is represented at the site from Layer 9 to Layer 5. Based on the ceramic analysis, the wares identified from this period are Red Ware, Black Slipped Ware and NorthernBlack Polished Ware.

Red Ware: Red Ware is the dominant ware of this period. It is further divided into varieties based on the surface treatment such as Red Slipped Variety and Red Untreated Variety.

Red Slipped Variety: It has a red colour slip on the exterior and upto throat on the interior in case of closed vessel forms and in case of open vessels on both surfaces. In some instances, mica dusting has been done on both surfaces. This variety is represented by constricted neck and medium neck globular pots (Figure 21), channel-spouted bowl (Figure 22), basins (Figure 23) and knobbed lids with a flat or round bottom (Figure 24). This variety is fast wheel made and has fine to coarse fabric. It is well to ill fire and is mostly thick in section.

Red Untreated Variety: It is without any surface treatment. However, it has in some cases mica dusting on both the surfaces of the vessels. The shapes represented in this variety are medium-neck globular pots (Figure 25), basins (Figure 26) and disc shape

bases (Figure 27). It is devoid of any kind of decorations. It is made on a fast wheel and has fine to medium fine fabric. It is medium to ill fired and is thick in section.

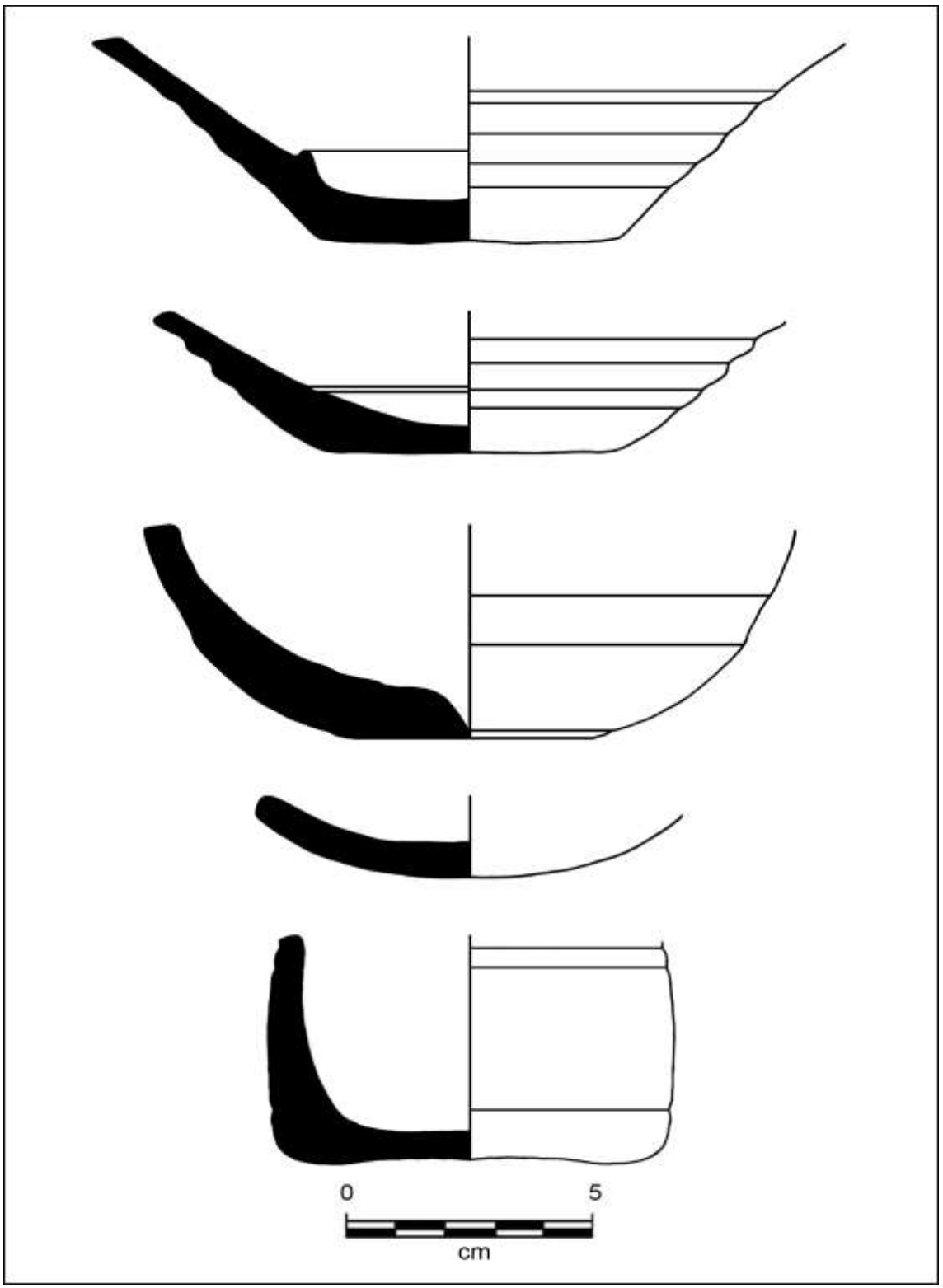


Figure 55: Bases of Red Slipped Variety, Period III



Figure 56: Incised Decorations on Red Slipped Variety, Period III

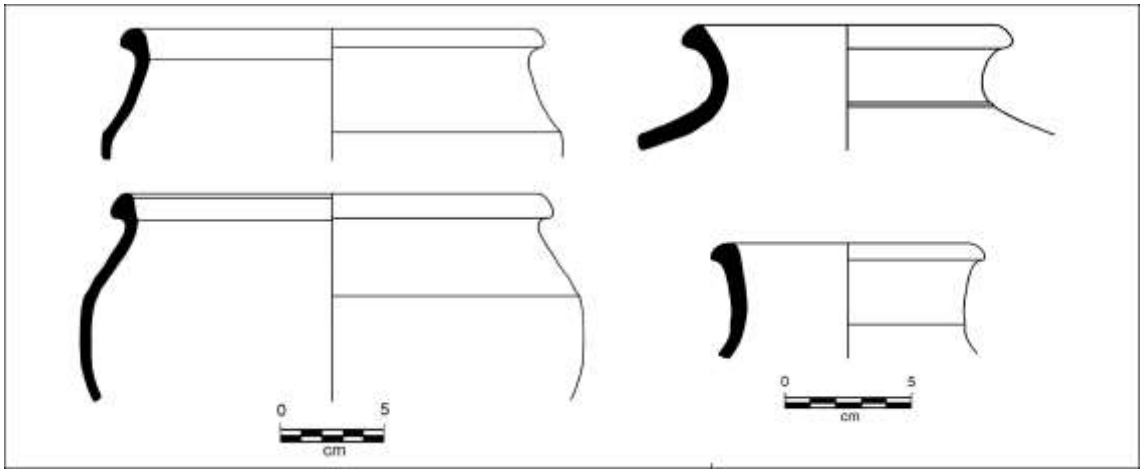


Figure 57: Globular Pots of Red Untreated Variety, Period III

Black Slipped Ware: It has a black colour slip applied on both surfaces. Only open vessels are found in this ware such as bowls (Figure 28) and dishes (Figure 29). It is fast wheel and has medium fine fabric. It is ill fired and is thick in section.

Northern Black Polished Ware: It is represented by only 2 bowls (Figure 30). It has a lustrous surface and is fast wheel made. The fabric of this ware is fine and is well fired and thin in section.

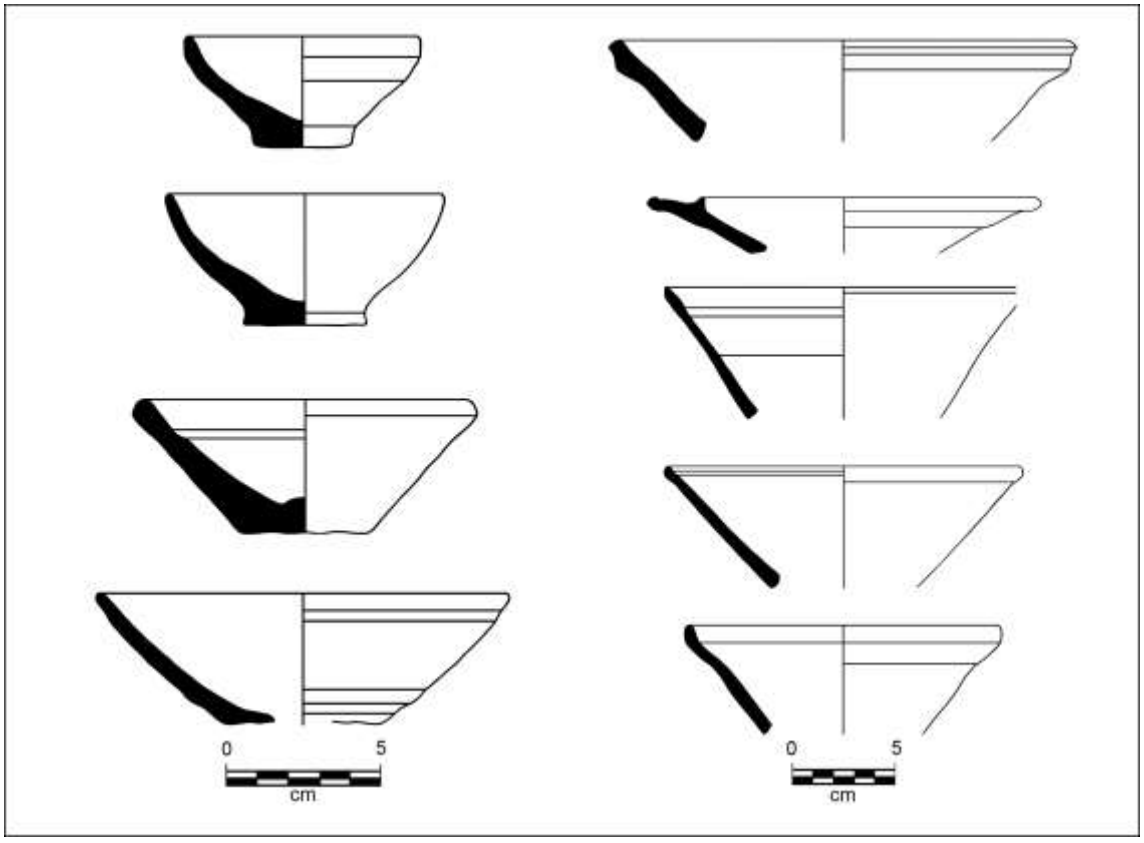


Figure 58: Bowls and 'V' Shape Bowls of Red Untreated Variety, Period III

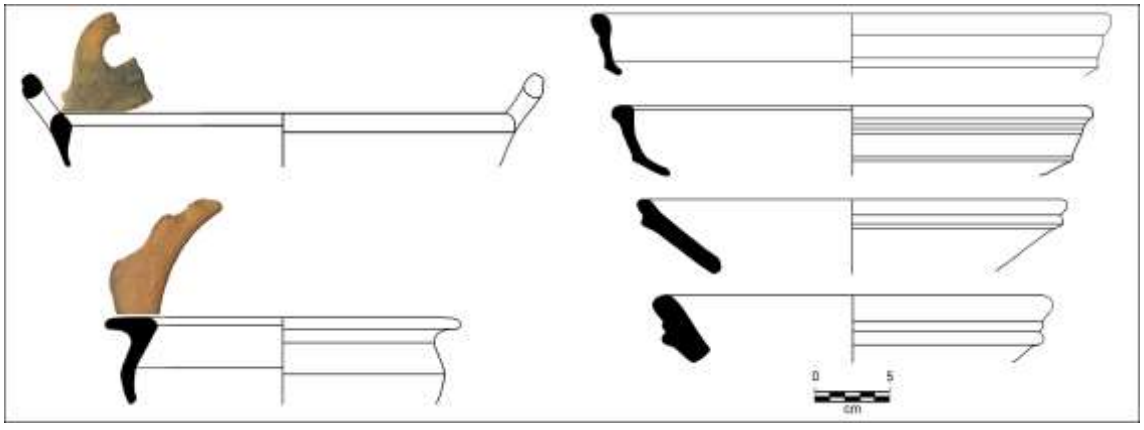


Figure 59: Basins and Carinated Basins of Red Untreated Variety, Period III

Antiquities

The antiquities from the period include terracotta human figurines (Figure 31), *nayagamesha* and *nayagameshi* (Figure 32), sling balls, beads, print rolls, lamps, discs (Figure 33), glass beads and iron objects (Figure 34).

Structures

A structural complex comprising 6 platforms, 5 pits and an entrance was unearthed (Figure 35, 36, 37). Out of these 6 platforms, 5 platforms have similar construction

styles. In the construction of these platforms, two courses of fired broken bricks have been used and platforms have rounded corners (Figure 38). Between the two courses of bricks habitational debris which includes pottery and bones has been filled (Figure 39). Between Platforms I and II, a small oval shaped lime plastered bin has been cut into the ground. Behind the bin, a complete jar of Red Ware has been found embedded in the ground (Figure 40).

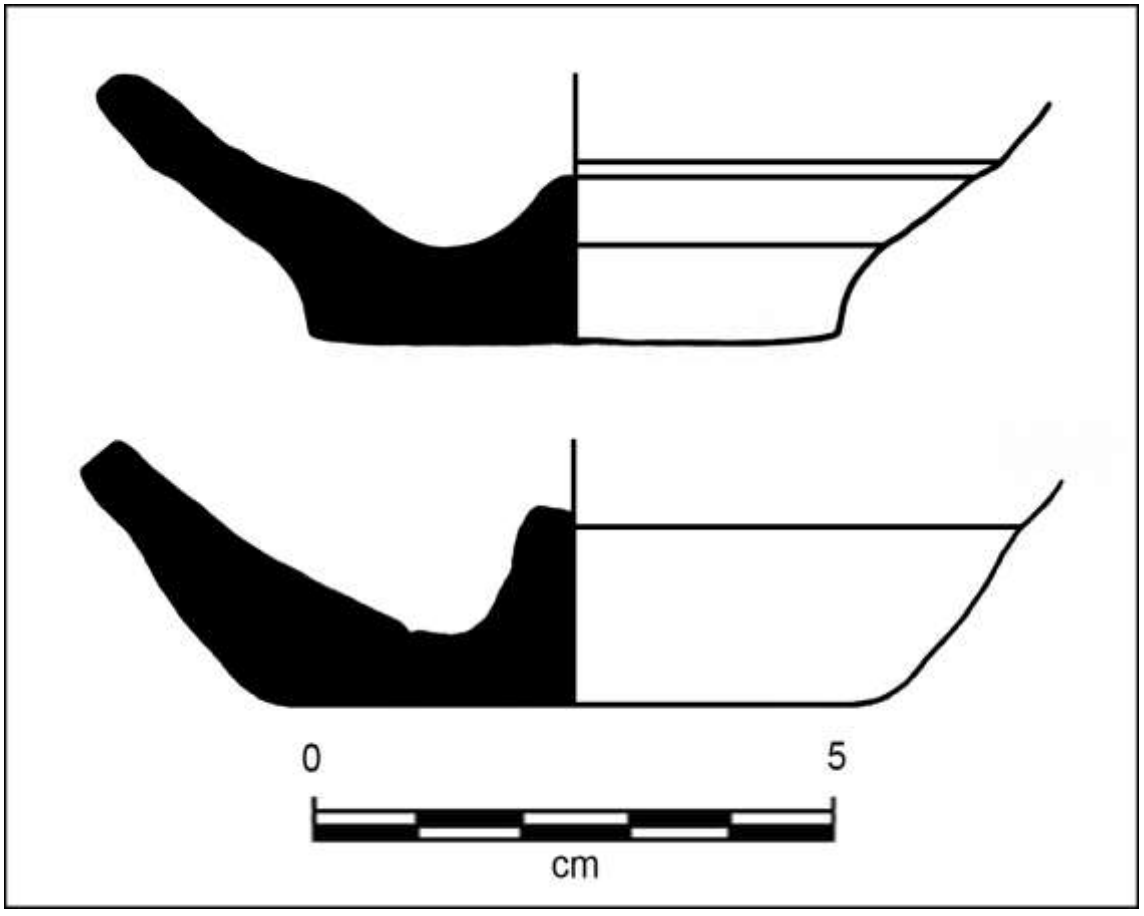


Figure 60: Lids of Red Untreated Variety, Period III

The biggest platform was encountered in trenches B2 and C2 which have been constructed in the form of a step (Figure 41, 42, 43). The topmost step is the largest one having a 2.25m width and 5.85m exposed length. This step is cut by a modern cement wall. 2nd step is 30cm lower than the first step and has a curvy nature. The total exposed length of the step is 4.90m. 3rd step of the platform is 15cm below the 2nd step. It has a very flimsy nature and only a few bricks were placed. The width of this step is 7cm and exposed to a length of 4.03m. After that, it goes under the 2nd step. The 4th step is 8cm below the 3rd step. The width of the step varies from 10 to 55cm. The total length exposed is 5.18m. This step also has a curvy nature. 5th step is 9cm below 4th step. The total length exposed is 2.50m then it goes below the 4th step. The width of the step varies from 7 to 23cm. 6th step is 5cm below the 5th step. The total length exposed is 3.05m then it enters below the 5th step.

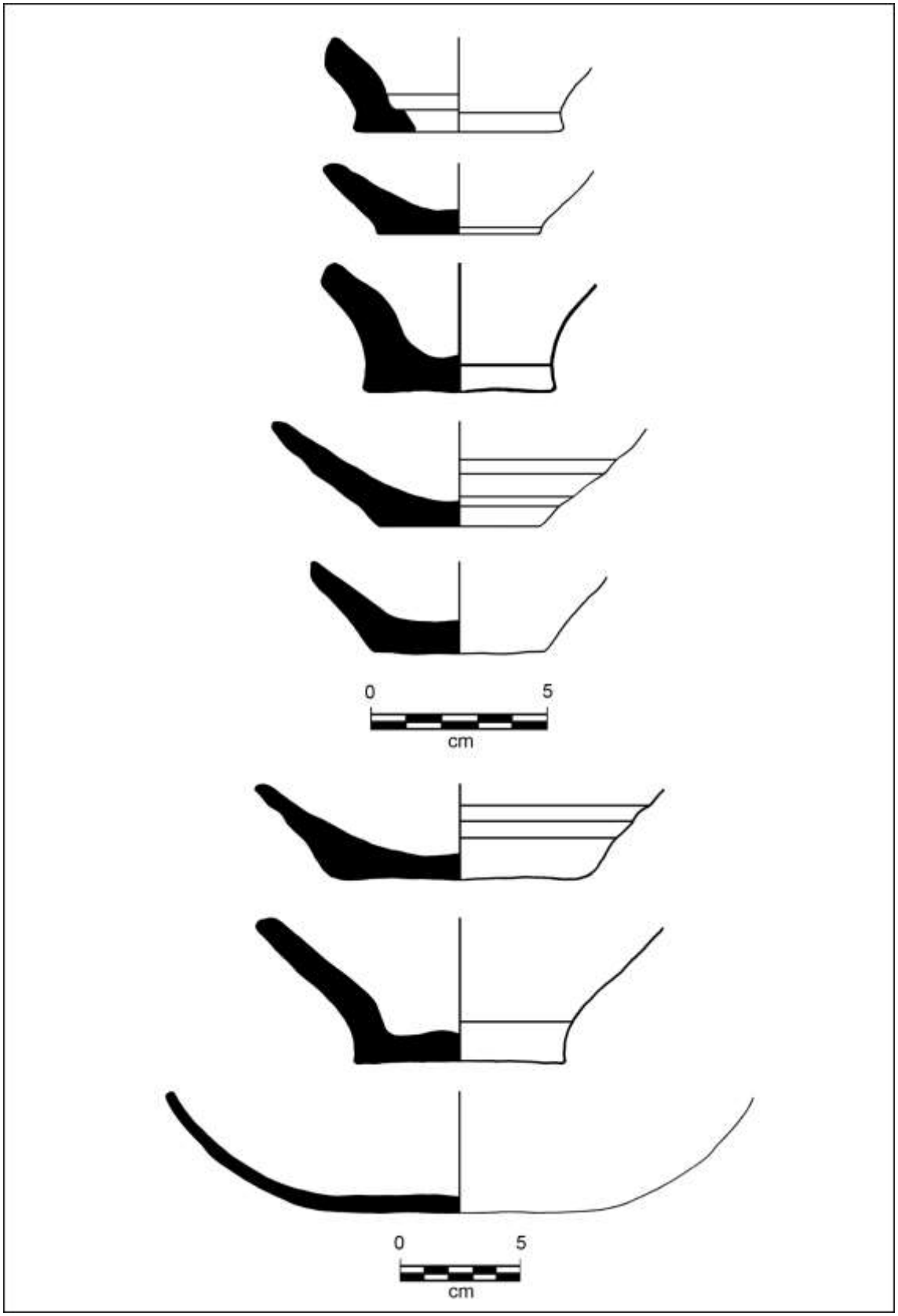


Figure 61: Bases of Red Untreated Variety, Period III

The eastern face of this platform was exposed in Trench B2 to understand the height of the platform. The total height of this platform is 1.25m having 9 courses of bricks. Between bricks, white fine sand and hard compact clay have been used as packing material (Figure 44). Almost complete courses of this platform were exposed in trench C2 i.e. the Western face of the platform. The height is 1.38m having 12 courses of bricks. The constriction style of this platform is completely different. It is in inverted step form. Every brick course shifts on the southern side making lesser courses below each other (Figure 45).



Figure 62: Incised Decorations on Red Untreated Variety, Period III

Entrance

From the eastern section of trench A1 in the NE quadrant, an entrance was identified (Figure 46). The pathway has 95cm exposed length, 90cm width and is 16cm in height having 2 courses of bricks. In the construction large complete bricks have been used. The size of the bricks ranges between 25x27x5cm and 37x25x6cm. This pathway joins with a North-south running step. This step is 52cm in length, 42cm in width and 12cm in height. On the inner side of the step, bricks are placed in a vertical position to close the step on the inner side. The pathway leading to the step is chambered using fired brick walls on both sides. The overall structural complex looks to be the entrance with a partition wall which probably makes a compartment on the inner side (probably a guard room).

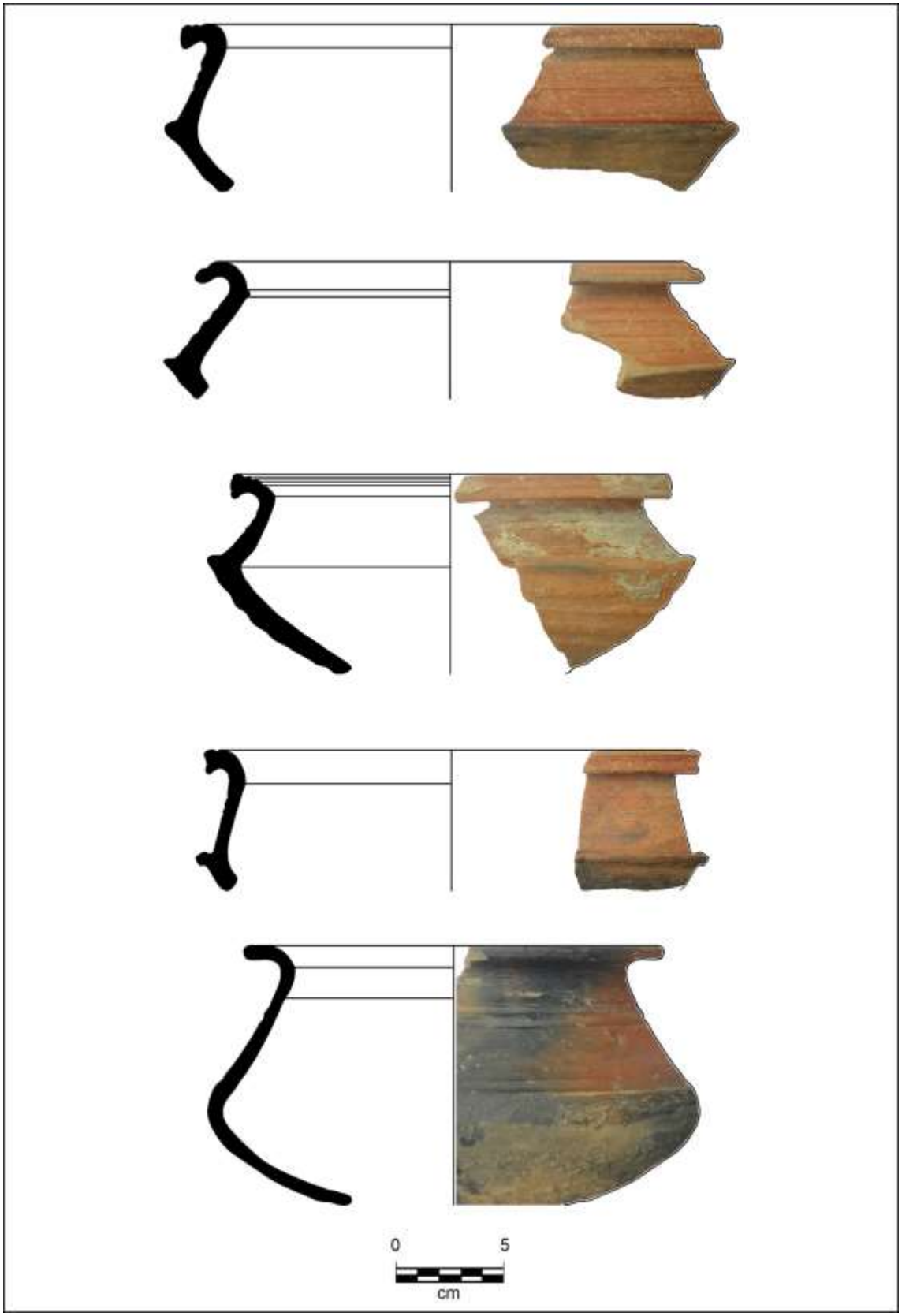


Figure 63: Carinated Handis of Mud Applique Variety, Period III

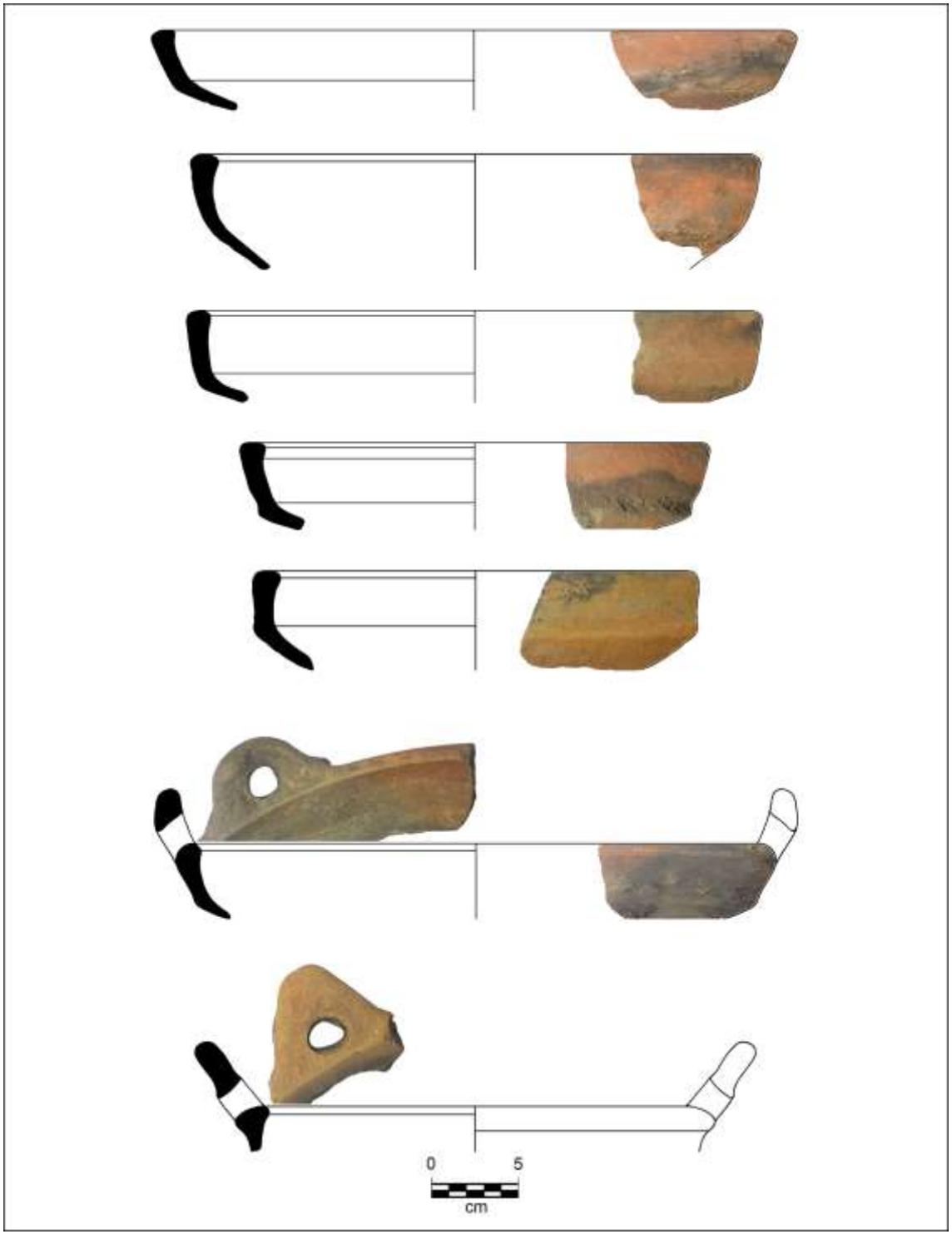


Figure 64: Basins of Mud Applique Variety, Period III

Period III

Period III consists of Layer 4 to Layer 2. Red Ware is the only ware found in this period. Based on the surface treatment Red Ware has been divided into Red Slipped Variety, Red Untreated Variety and Mud Applique Variety.

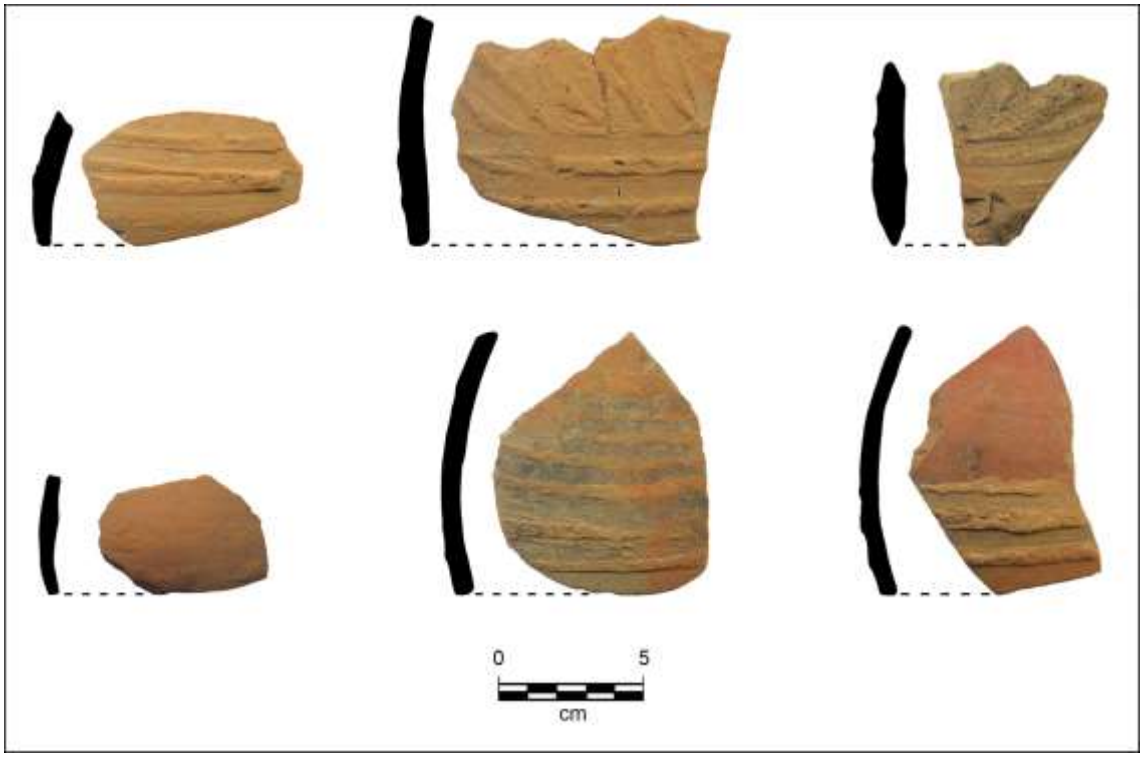


Figure 65: Decorations on Mud Applique Variety, Period III

Red Slipped Variety: The Red Slipped Variety is the most dominant variety of Period III. A red colour slip has been applied on the exterior and upto the throat on the interior in case of closed vessel forms. In case of open vessels slip is applied on both surfaces. It is fast wheel made and is ill to well fired. It has fine to medium fine fabric and is thick to thin in section. The variety is represented by shapes such as constricted, medium and long-neck globular pots (Figures 47 and 48), dishes (Figure 49), bowls (Figure 50), basins (Figure 51), spouts (Figure 52), sprinklers (Figure 53), and lids with central knob and rounded bottoms (Figure 54), disc, flat and round bases (Figure 55). This variety has incised decorations (Figure 56).

Red Untreated Variety: It is fast wheel made and well fired. It has fine fabric and is thick and thin in section. It is represented by shapes like constricted and long neck globular pots (Figure 57), bowls and 'V' shaped bowls (Figure 58), basins and carinated basins (Figure 59), lids with central knobs (Figure 60) and disc and flat shaped base have been found (Figure 61). Varieties of incised decorations are found on the vessels in the form of a panel of horizontal lines, chequered pattern, loop pattern, a panel of horizontal wavy lines, etc. On the decorations, mica has been dusted (Figure 62).

Mud Applique Variety: The Mud Applique Variety is only found in Period III at the site. A red colour slip has been applied up to the shoulder on the external surface and up to the throat on the interior. Below the shoulder, mud has been applied. In some cases, it is applied in the form of slanting or horizontal bands. It is fast wheel made and

has fine to medium fine fabric. It is well to ill fired and thick in section. This variety is represented by the carinated handis (Figure 63), basins (Figure 64) and body sherds (Figure 65).



Figure 66: Terracotta Human Figurines, Period III



Figure 67: Terracotta Animal Figurines, Period III

Antiquities

The antiquities from this period include terracotta human figurines (Figure 66), animal figurines (Figure 67), beads, discs, gamesman (Figure 68), earrings, sling balls, lamps (Figure 69), dabber, print rolls (Figure 70), beads of semi-precious stones, glass beads, glass bangles, iron objects (Figure 71), ivory bangles (Figure 72) and plaques (Figure 73).

Discussion

The ceramic assemblage of Period I i.e. chalcolithic period from the site of Chirand shows similarity with the shapes with that of Period II from the site of Senuwar and Period I from the site of Agiabir. Period II at Senuwar is dated to 1300 to 7th -6th BCE (Singh 2004) and Period I at Agiabir is dated to 1300 to 900 BCE (Singh 2004-2005) and

2500 to 1400/13000 BCE (Tripathi and Upaddhyay 2009). Period II at Chirand has been recalibrated to 1500 to 900 BCE (Possehl 1994). Based on ceramic similarity and recalibrated dates from Chirand the chalcolithic period at Chirand can be put in the bracket of 1300 to 900 BCE.



Figure 68: Terracotta Objects, Period III



Figure 69: Terracotta Objects, Period III

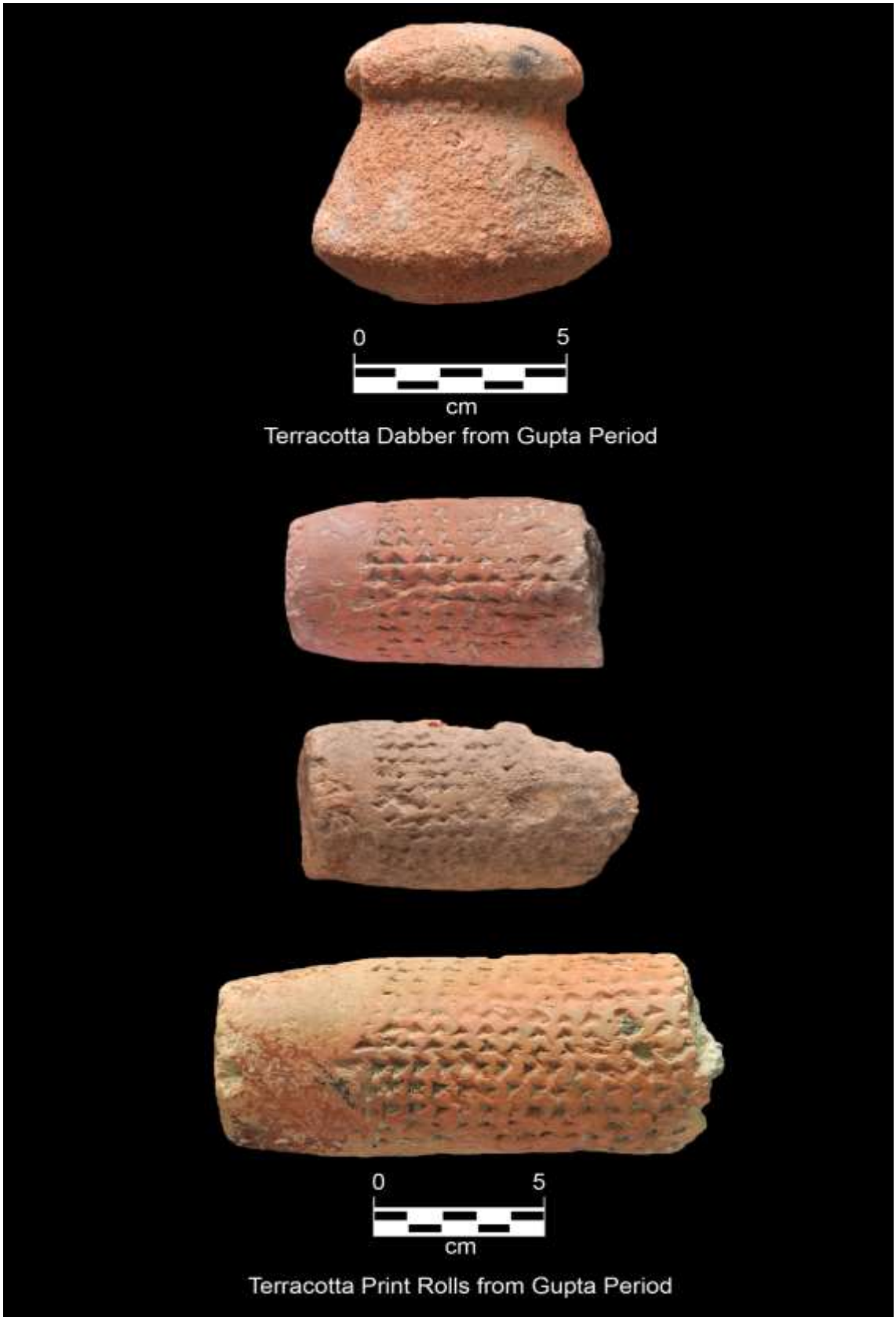


Figure 70: Terracotta Objects, Period III

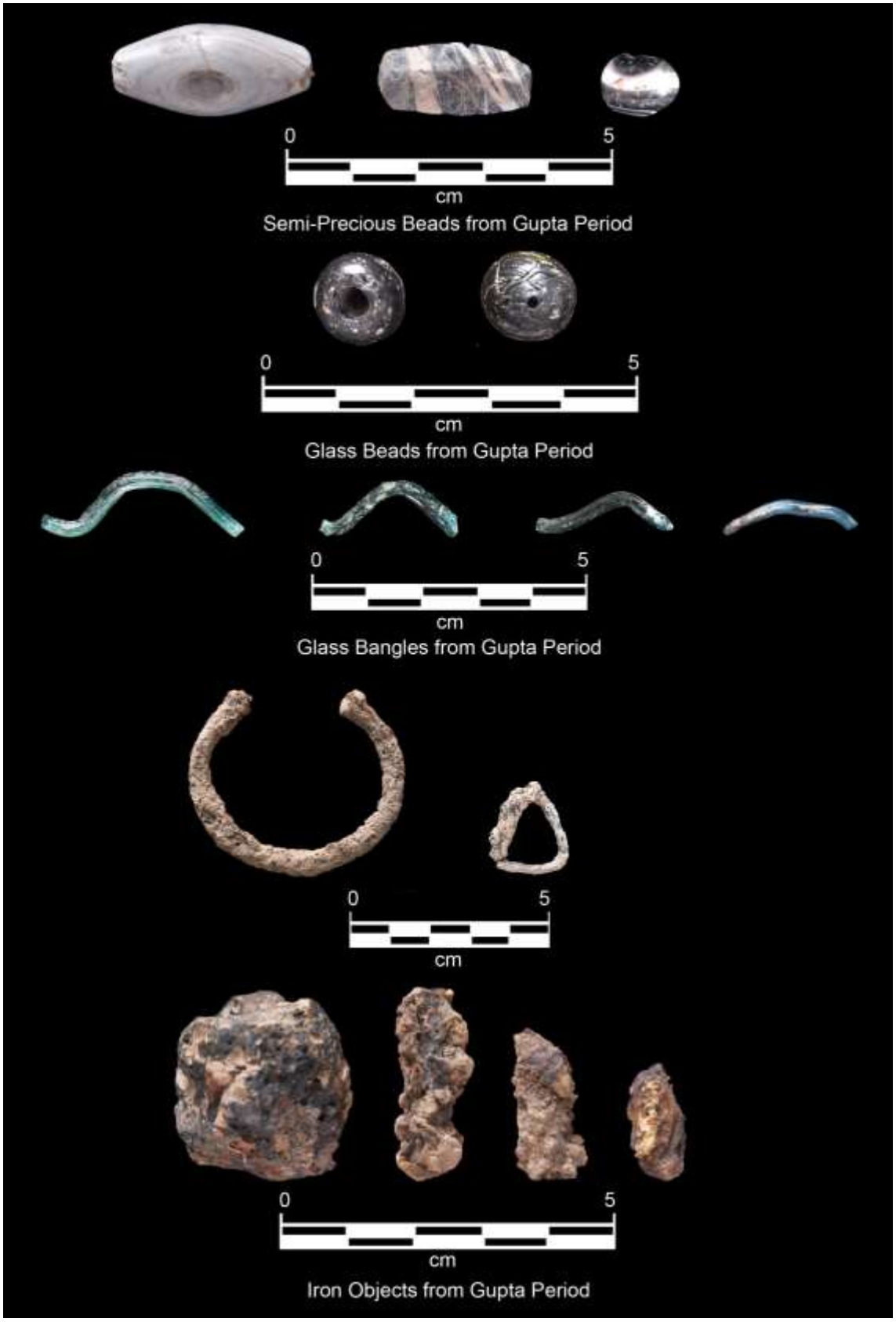


Figure 71: Stone, Glass and Iron Objects, Period III



Figure 72: Ivory Bangles, Period III



Figure 73: Plaques, Period III



Figure 74: Gupta Sealing, Period III

The layer 9 to layer 5 ceramic assemblages have similar characteristics to the ceramics of Period III at the site of Kumrahar (Altekar and Mishra 1959), Period I at the site of Balirajgarh (IAR 1974-75), and Period II at the site of Manjhi (Roy 1986). Based on the comparative analysis this period belongs to the Kushana phase and can be dated to 200 BCE to 300 CE.

Ceramics assemblages from Layer 4 to 2 shows similarity with the ceramics assemblages of Period IV at the site of Kumrahar (Altekar and Mishra 1959), Period IV at the site of Vaishali (Deva and Mishra 1961), Period I at the site of Karian (Roy 1965) and Period V at the site of Panr (Choudhary 2017). These periods belong to the Gupta period. In the earlier excavation at the site of Chirand, the Gupta period has not been reported. The presence of the Gupta period at the site is also attested by the occurrence of a terracotta seal which was found in Layer 2. The chakra and sealing format or typology is a character of the Gupta period. On the sealing, the legend *"Na [ma:]/[mo][Vi]shnu"* has been inscribed in Gupta Brahmi letters (deciphered by Dr. Shailendra

Bhandare) (Figure 74). Based on these evidences, such as ceramics and terracotta seal, it can be said that Layers 4to 2 belonged to the Gupta period i.e. c. 300-600 CE.

The re-excavation at the site of Chirand confirms the chronology of the site given by Verma (2007). Due to limited area excavation and time, Neolithic levels could not be reached. The excavations proved the existence of the Chalcolithic and Kushan periods at the site. The major contribution of the present excavation is the identification of the Gupta period at the site, which was not found during earlier excavation. This identification has bridged the gap between the Kushan and Pala periods.

Conclusion

The site of Chirand has played a pivotal role in understanding the cultural and historical development of the Gangetic plain. The recent excavation by Deccan College Post Graduate and Research Institute in collaboration with the Department of Archaeology and Museums, Government of Bihar, has reaffirmed the site's chronological framework, which spans from the Chalcolithic to the Gupta period. The excavation has uncovered significant stratigraphic layers, confirming the cultural periods identified by earlier excavations, with the addition of a previously unrecognized Gupta period. The presence of Chalcolithic ceramics, Kushan-period structural remains, and Gupta-period artifacts, including a terracotta seal, provides a comprehensive view of the site's occupation and its cultural transitions over time. This re-excavation not only bridges the chronological gap between the Kushan and Pala periods at Chirand but also enhances our understanding of the cultural and historical dynamics of the region. The findings underscore Chirand's importance as a multi-period site that offers valuable insights into the evolution of early cultures in the Gangetic plain, from the Chalcolithic period through to the Gupta period. Future excavations and studies at Chirand could further illuminate its significance in shaping the archaeological narrative of this region.

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