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Editor's Note

We are presenting the eleventh volume of the new series of *Pratna Samiksha: A Journal of Archaeology*. This volume contains articles on many subdisciplines of archaeology. The note section at the end contains short essays on important topics. While some of the writings exhibit the prospect of archaeology, some offer new data, there are a few articles that present a fresh look at known subjects. All in all, this edition of the journal reflects the trend of thoughts and actions current in archaeology.

This edition contains an index of articles published in the journal during 2010–19. I thank Dr Rajat Sanyal for his help in this matter and many other concerns of this journal. A special word of thanks is also due to Sri Subir Sarkar for his suggestion of preparing an index.

We have lost two members of the Advisory Board this year. Professor Krishna Bose had been a source of encouragement. She was also the Chairperson of the Centre for Archaeological Studies & Training, Eastern India. Mr Pratip Kumar Mitra has been with our institution from its inception and always forwarded ideas for the betterment of the journal. Their presence is missed.

Kolkata
9 October 2020

SHARMI CHAKRABORTY

POTTERY

A Typo-chronological Study of Ceramics from Lalpahari, Lakhisarai, Bihar

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ABSTRACT: The site of Lalpahari is a Buddhist monastic site and is situated on a hill-top. The two seasons of excavations have been done successfully in the years 2017–18 and 2018–19. In these seasons of excavation, quintals of ceramics were revealed and its detailed study was required. The ceramics/potteries discovered are important evidences to understand the past, therefore, a detailed scientific study of these retrieved ceramics/potteries is essential. The study of ceramic's typological morphology reflected the variation of pottery, functional features, manufacturing techniques and its important impact during the time and space. This study attempts to dwell into the detailed comparative analysis of the hill-top monastic's ceramics with the previous excavated sites for the analytical understanding and to develop a tentative chronology. This study suggests that Lalpahari is an unicultural site and flourished in the early medieval time and space (700–1300 CE).

KEYWORDS: Ceramics, excavation, Lalpahari, Jaynagar, Lakhisarai, Buddhist, monastery.

Introduction

Lalpahari (25°09'03.92" N and 86°06'02.03" E) is a structural (see Plates 7–14) site located on the top of the hill at Jaynagar, Lakhisarai district of Bihar. The unearthed remains and structure of the two sessions of excavation suggested that, it is a

Buddhist monastic site as well as the inscriptional evidence also suggested the same. This site formed at the top of the hillock called Lalpahari. The size of the buried area is approximately 60 × 60 m (Plate 1). The main objective of the excavation is to know the nature and the past sociocultural aspects of the site with the help of



PLATE 1: Aerial view of the excavated site of Lalpahari

the material remains. So, the researchers applied here the horizontal excavation method. The site was excavated with a grid of 10 × 10 m trenches. The gridding was done by the bulk method, for controlled excavation of this structural site and safe recovery of archaeological remains. Pottery is very significant for the stratigraphy reconstruction. The site stratigraphy helps us to understand the occupational sequence and nature of the site. The ceramic study is essential to reconstruct the chronological sequence and the functions of the site.

Research Area

Lakhisarai is situated at the confluence of three important rivers, i.e. the Ganga, Haruhar and Kiul, and three ancient cultural zones of *Anga*, *Magadh* and *Mithila* (Chattopadhyay and Sanyal 2008). Another significant aspect is the location of this place on the old *Pataliputra-Tamralipti* route via *Champa* (Chakrabarti 1995). From the western bank of river Kiul, one can move down towards Jamui in the plateau country or towards Sheikhpura on the way to Rajgir-Nalanda or the Nawada plateau of Gaya region. The hills/hillocks existing in this region belong to Chotanagpur highland. Chotanagpur highland is predominantly represented by granite, granite gneisses (with associated schists). The age of granite gneisses ranges from archaean to proterozoic age. The southeastern part of Chotanagpur highland is represented by archaean schists including iron ore series and Kolhan series. The northeastern part of the highland is represented by Rajmahal traps. The northern part of the highland is represented by alluvium. Patches of Gondwana formation, laterite, Vindhyan, Archaean Lavas and basic igneous intrusive rocks are also found in the study area (Chakrabarti 2001; Kumar 2019) (Plate 2).

Lalpahari is a small hillock on the western bank of river Kiul in present-day Lakhisarai district (Plates 3 and 4). It forms the northern part of the Chotanagpur highlands which is a merger of Gondwana lateritic soil formation with Gangetic alluvial soil. Situated on the edge of two distinct

geographical zones, this site played a significant role in making the history of the region. At the brow of this hill, a structural mound was recorded since colonial times (Chakrabarti 1993, 2001; Kumar 2011, 2019). Lakhisarai, a town in making and a district headquarter in the state of Bihar is situated 125 km east of Patna on the NH 80 (Mokamah-Sahebgung) route.

Previous Work

The antiquarian remains of Lakhisarai region have drawn the attention of British administrators like, Buchanan, Cunningham, Beglar and Waddell in the nineteenth century. They have conducted a preliminary survey of the area and identified stupas and temples at Balgudar, Rajaouna, Chowki, Jaynagar and Uren villages of the modern district of Lakhisarai (Patil 1963; Chakrabarti 1993, 2001).

A. Cunningham identified *lo-in-ni-lo* mentioned by Xuanxang at Rajaouna. Xuanxang mentions in his travel account that at this place Mauryan Emperor Aśoka built a Buddhist monastery and a stupa in the third century BCE. He also mentions the existence of a large lake, five miles in circuit, to the north of the stupa. Cunningham identified this stupa and monastery (Patil 1963; Kumar 2011, 2019).

In this regard, an inscription from Balgudar deciphered by D.C. Sircar in the 1950s is important, which mentions the name of *Krimila visaya* (administrative unit) of Gupta period and he argues that Balgudar was the centre of *Krimila visaya*. Mention of *Krimila visaya* occurs in other inscriptions also. In one inscription, dated in the reign of the Pala king Dharmapāla, a *Madhusrenika* (a wine dealer) is stated to have donated an image at *Krimila visaya*. In this inscription, *Krimila* is mentioned as *Adhithana*, and this word has been taken to mean as the centre for administration, i.e. a city or town (Kumar 2011, 2019).

In the latter half of the twentieth century, again this area was explored by F.M. Asher, and after analysing the sculptures and stone pillars lying around the region and few sculptures preserved in various museums he concluded

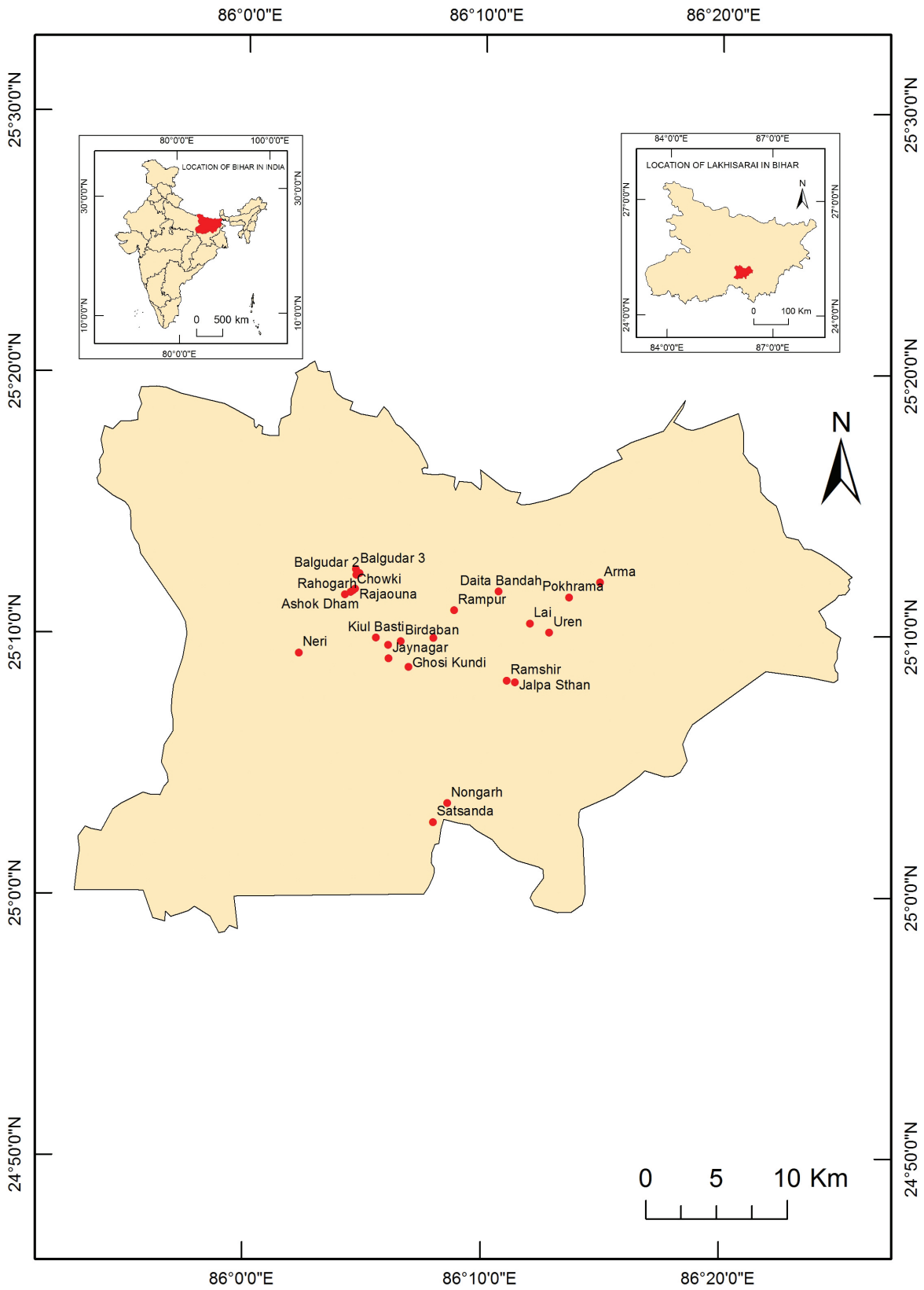


PLATE 2: Location map of the excavated site of Lalpahari



PLATE 3: Physical map (Google Earth Pro. 7.3.3.7699) of the Lalpahari, Lakhisarai

that this area was an urban centre of the early medieval period. During his course of survey in the adjoining areas, Asher found some sculptures and remains of structural ornamented pillars and dated them to sixth century AD (Asher 1986, 1999; Kumar 2019).

Susan L. Huntington has written about the art style of sculptures found from this place and has also acknowledged the regional variation and peculiarity of the making of sculptures; she further suggests 'The transitional nature of aspects of the art of Monghyr District and Anga in general, between the schools of Bihar and Bengal.' (Bautze-Picron 1991–2; Kumar 2011, 2019).

The comprehensive field survey of the area in recent times has yielded existence of a large settlement in continuity, starting from Balgudar, which is the northwestern limit, to 10 km eastern limit village Siadpura, where the *Daitabandh* (Cyclopean wall) is located, this ancient embankment could have been the eastern limit of the ancient city of *Krimila*. Again, six km from *Daitabandh* is village Ramsir and Jalappasthan. From Jalappasthan around 10 km, east is Neri mound, in between, there are stupas, viharas and Brahmanical temple remains in villages,

Sringarpur, Bichhwe, Birdavan, Ghosikundi, Jaynagar, Kiul, Kabaiya and Neri. From village Neri, the southwestern limit, Balgudar the western limit of the ancient city is around 5 km north (Patil 1963; Chakrabarti 2001; Kumar 2011, 2019).

Jaynagar, one of the most important sites for *Krimila* region, is situated to 5 km southeast of Rajaouna-Chowki and 500 m south of Kabaiya mound, on the western bank of river Kiul, in the Lakhisarai block of Lakhisarai district. Besides Jaynagar the block has also several archaeological sites such as Bilouri, Garhi-Bishanpur, Balgudar, Chowki, Kiul, Rajaouna, Neri, Lakhisarai-English, Kabaiya, Hasanpur, Gangta and many of these were very close to Jaynagar and are historically significant in their past. All these places were vigorously explored before the commencement of the formal excavation of the site at Lalpahari, Lakhisarai (Patil 1963; Kumar 2011, 2019).

Objectives of the Study

Ceramic materials are the most significant remains of the historical sites available in archaeology and they reflect certain aspects of

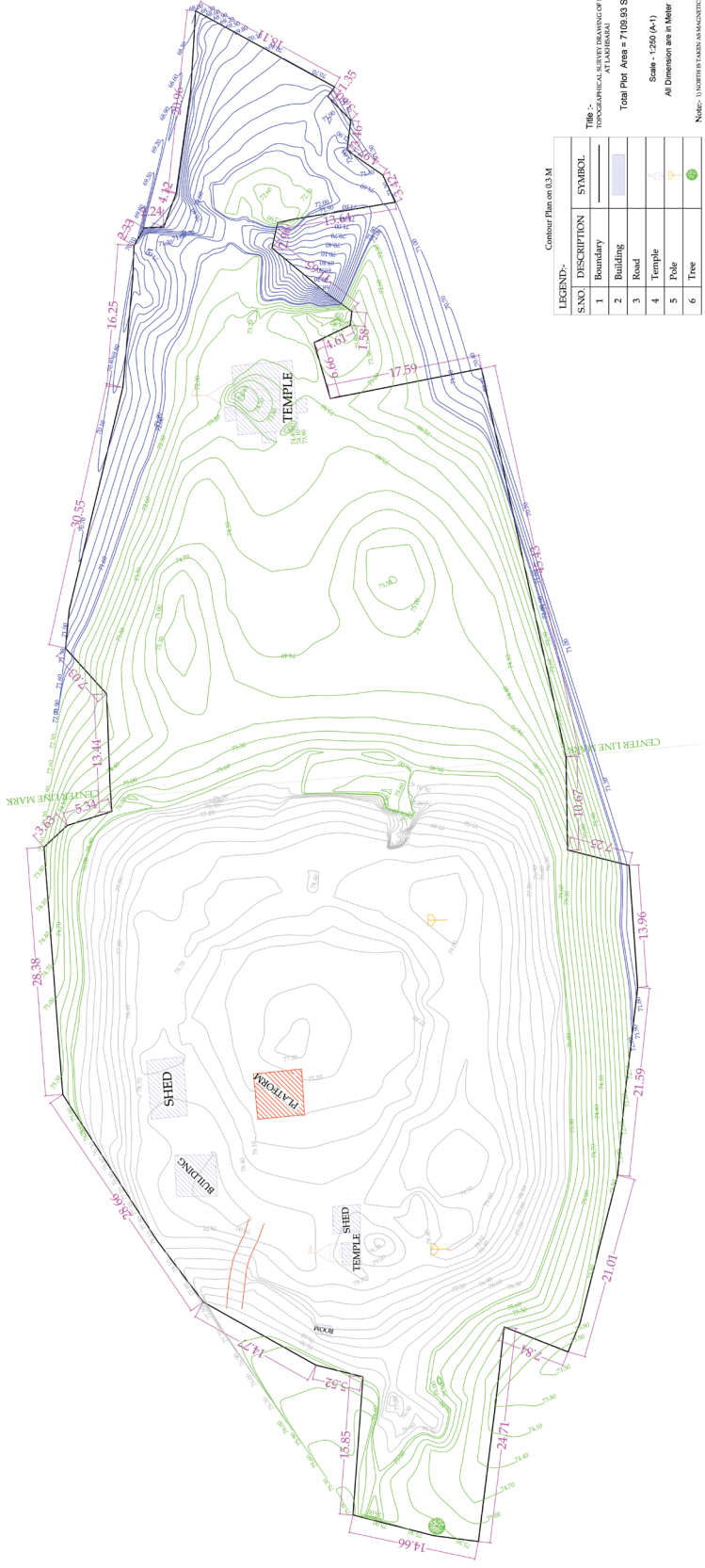


PLATE 4: Topographical Survey Drawing of Lalpahari at Lakhisarai

the past behaviour and society. They are found in bulk and a detailed analysis of pottery could shed light on the various aspects of the material culture and the associated behaviour of the past societies. The main objective of this study set to a chronology of this excavated site of Lalpahari, Jaynagar, Lakhisarai. For making this relative dating the detailed study of ceramics is required and this is only possible with the comparative study of other excavated sites of the various regions of India (Roychoudhury and Chatterjee 2011; Panja, Nag and Bandyopadhyay 2015). This typological study of ceramics also helps to understand the function of pottery, manufacturing techniques as well as the regional variation of pottery of this region (Mishra 2008). The study of the assemblages of the potsherds and other associated materials gives us hints about the nature of the site.

Methodology

A detailed methodology has been adopted to study ceramics which is still in process of analyses. The ceramics are sorted, categorised and described in formal and stylistic attributes (Mishra 2008; Roychoudhury and Chatterjee 2011). However, a general idea can be formulated at the present. The ceramics retrieved from the excavations at Lalpahari, Lakhisarai have been studied at a preliminary level following the methodology of typological analysis with a focus on the sections of the sherds to note the nature of the tempering materials. The present work broadly underlines the different wares and the respective features (Mishra 2008). This preliminary work will be followed by necessary statistical evaluation and typological classification study to understand the nature of the site (Roychoudhury and Chatterjee 2011). The ceramic pieces of evidence from the excavations at Lalpahari, Lakhisarai largely give the impression of utilitarian wares with a few forms that might have been used for ritualistic purposes. The initially attempted works are the identification of individual wares, fabrics, shapes, surface treatments, firing techniques of ceramics; review of various works of literature

in this comparative study for the detailed knowledge of regional variation. In this study pottery recording, data processing, analysis and interpretations are attempted (Mishra 2008; Roychoudhury and Chatterjee 2011; Panja, Nag and Bandyopadhyay 2015). This study also attempts a manual drawing of some selected potteries which are unearthed from the excavated sites of Lalpahari, Jaynagar, Lakhisarai, Bihar.

Brief of Excavation Findings

The embankment at Lalpahari is a strongly-built small rectangular monastery (Plate 5) made of ashlar fine masonry and burnt bricks, with stone blocks used in laying down the foundation (Plate 14). Due to the ground being rocky, shallow foundation trenches were used. The monastery is secured from all the four corners by three circular bastions in each corner (Plates 5–7). These bastions are built of burnt bricks and their floor is lime plastered, which are attached with the corner cells of the structure through lime plastered angular floors. The burnt (kiln-fired) bricks are of fine quality, and both normal standard bricks and moulded bricks (floral and

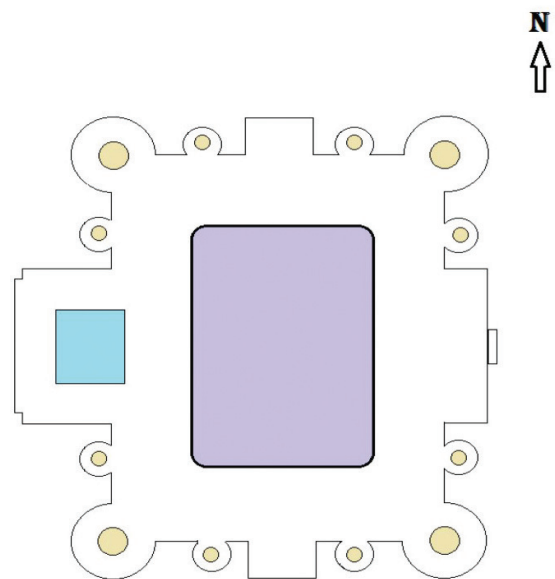


PLATE 5: Outline drawing of the monastery (not to scale) (Courtesy: Siddhartha Saha)

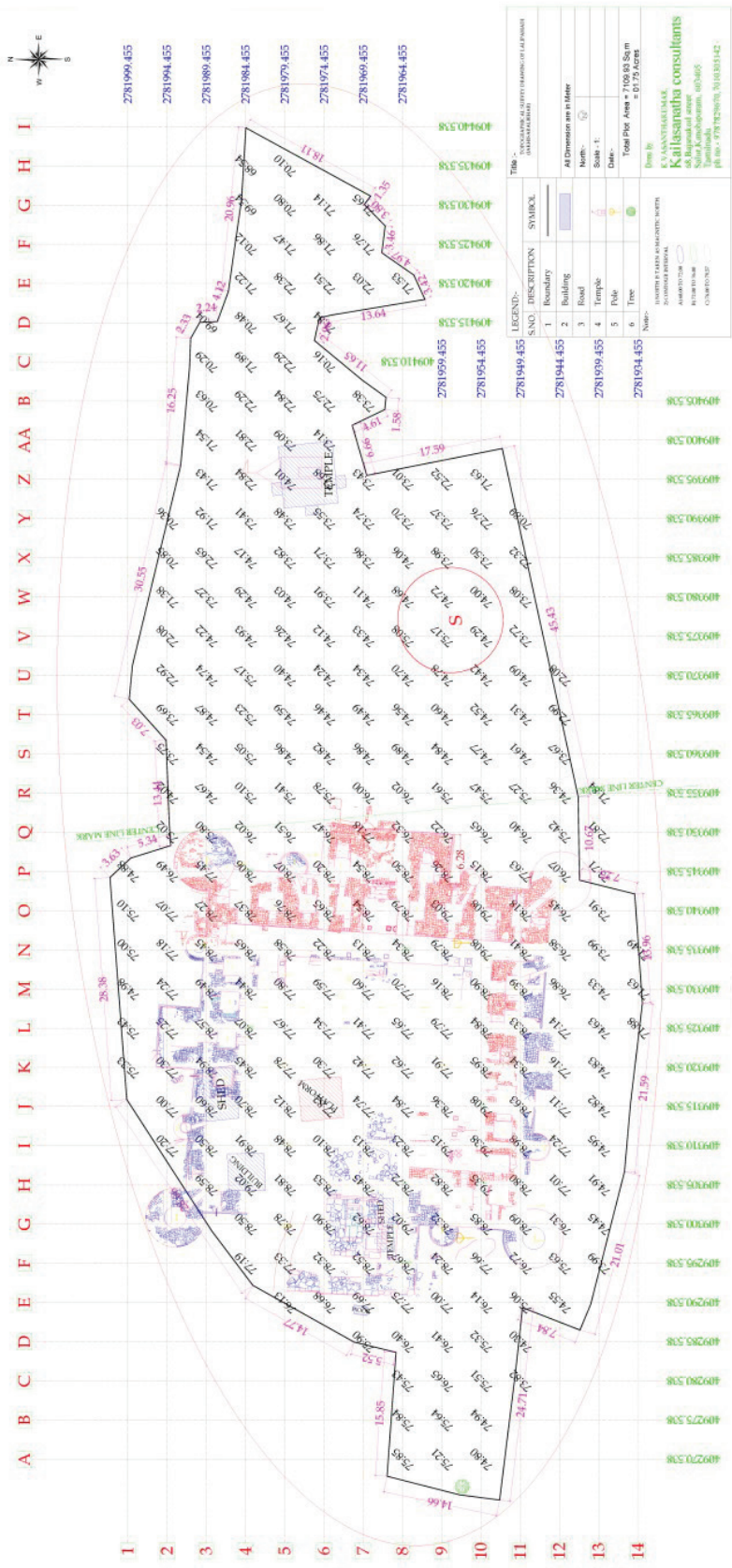


PLATE 6: Site plan



PLATE 7: General view of the excavation (top: southwest direction)

geometric designs) are used in brick masonry for the beautification of the front yard (Plate 15). At times, even cut (wire-cut) bricks are used to add to the beautification. The number of bricks collapsed from the bastion wall suggests that the original height of the monastery would have been at least 4 m more than what is visible to us now.

The structure is situated in the eastwest axis (Plate 6). A plain moulding is continuously running, approximately 1 m above the surface, on the outer wall (Plate 14). At the same level with the moulding, maintaining a gap, the water channels are projected from the outer wall. On the northeastern side between two bastions, there is a sculptural *Gaja-vyala* style *Pranal* (Gargyole) (Plates 12 and 13). The central part of the eastern side is projected in the outward direction between the bastions. At the centre of the eastern side stairs are leading inside the structure, this

probably was the entrance. Just under the stairs, on the outer wall, there is a moulding made of black stone. The platform adjacent to it has nail marks, and also a part of the stone has remained which indicates the stairs were made above the moulding (Plate 8).

The entrance is flanked by a series of cells. The cells, in general, have one elevated painted platform and also have a small inner chamber. The platform is generally painted black with an alternate yellow, white and red border (Plate 10). The inner chamber has a small platform and it has a channel that leads to the drainage of the structure. The floors are mostly rammed floors, but few plastered floors are still in situ. The cells adjacent to the bastion have a path which leads to the bastion. On the southeastern side between two cells, which leads to the adjacent bastion, there is a staircase that leads to another separate

cell with a rammed floor (Plate 11). In all the inter-connected as well as independent cells, evidence of door frames have been observed.

Outside the structure towards the western side there is another separate structure. There is a room which has a channel which probably leads to the underground cell or room; it is yet to be excavated. Besides this, the important feature of this monastic structure is the excavated sanctum chambers made of granite in the corners of the structure. So far there remain 3 sanctum chambers, 2 in the southeast and 1 in the southwest corner along with a well carved out blackstone drain. The existence of sanctum chambers in the corner of the monastery is not something new to be found in this region as a similar kind of structure has also been observed in Vikramshila Mahavihara.

The architectural features of this monastic institution indicate to us that this structure was constructed with excessive protective measures (3 bastions in each corner, inter-connected cells and all the cells having doors).

From excavations, a large number of fine antiquities and artefacts have been retrieved. The important antiquities, the most important finds, are inscribed terracotta seals over which Buddha in different postures is depicted. A large number of votive stupas made of terracotta, terracotta beads, beads of precious stone are worth mentioning. The inscriptions over the terracotta tablets and seals are written in Siddhamātrkā and Gauḍī script in Sanskrit language; palaeographically all of them can be dated to the tenth-twelfth century (Plates 16, 17, 18 and 22). Besides these, large numbers of cowries (seashells), T.C. seals, iron objects, copper objects and tools, terracotta stamp, dabber, sealing, etc. were retrieved from various excavated trenches (Plates 16–25).

Ceramics

Pottery is the most abundant item amongst the remains. Complete vessels were rare that were recovered during the excavation. In addition, various varieties of pottery were found to be

mixed in different periods of the monastery. Wheel made ceramics like a Red Ware jar has wide-mouthed, short-necked globular pot with flared out collared rim and a drooping down flange. Short cylindrical-necked globular jar with funnel-shaped short, simple rim and slightly tapering everted tip. Short concave-necked, wide-mouthed globular jar, with simple flared out flanged rim and rounded tip. Wide-mouthed, short, concave-necked jar with thick, vertical profiled, out-turned rim; grooved on top of the rim (see Types 1–13 and Plates 26–44).

Handmade ceramics like basins is a large *kunda*-type of deep Red Ware, probably slip was applied. It has a simple rim with internally thickened tapering tip. There is a groove below the rim on the outer surface. There are basins with simple, in-turned rims.

Black Slipped Ware has a medium-fine fabric and is well fired. The outer surface is burnished and the inner surface is unslipped and rough with lots of mica particles. It is decorated with groups of horizontal lines and inclined punctured marks or stamped emboss marks. (a) There are a few non-descriptive potsherds, probably of some globular pots present in the collection—one of them has a blunt carination. (b) There are bowls with simple in-turned rims.

Coarse Red Ware have a very coarse sandy fabric, badly fired and comprising of different kinds of jars, lids and bowls. (a) Jars have complex rim forms and funnel-shaped mouths. (b) There is a V-shaped bowl and (c) Lid with knob and external ledge.

Grey Ware is noted in two fabrics—coarse and one medium fine. Coarse Ware is decorated with incised designs. Medium fine Grey Ware has a jar with flanged rims decorated with grooves. There are miniature ritualistic pots and earthen lamps which are found in considerable number suggesting the use of ritual space in the site.

Black on Red Ware is a very common ware which has a medium to coarse fabric. The top red slip is oily and flakes away easily leaving the black slip below on the surface. The core is generally organic. It is a handmade pottery. They are found in shapes of jars and bowls mostly.



PLATE 8: Structural remains of eastern side of the site



PLATE 9: Underground chamber



PLATE 10: Coloured platform



PLATE 11: Staircase of shrine (southeast corner)



PLATE 12: Structural remains (northeast corner)



PLATE 13: Gargyole (outlet)



PLATE 14: Structural stone base, bastions and moulded wall



PLATE 15: Decorated (floral and geometric) bricks of Lalpahari



PLATE 16: T.C. sealing



PLATE 18: T.C. sealing



PLATE 17: T.C. tablet of Buddha



PLATE 19: Iron clamps



PLATE 20: Iron pulling rings



PLATE 21: Iron nails and fragments



PLATE 22: T.C. tablet of Buddha



PLATE 23: Stone sculpture's fragment



PLATE 24: Stone sculpture of Jambal



PLATE 25: Cowries

Black and Red Ware globular pot with a concave-convex profile. Well fired, medium to fine fabric. The core colour is greyish-inorganic. Short out-turned, slightly drooping rim with concave neck. The external part of the neck portion has thin ridge line decorations.

Given below is the detail attribute description of the most common and diagnostics types of ceramics found in this site accompanied with their illustration:

Type 1: Red Ware small pan

1. It is a small sized pan.
2. Red Ware.
3. Medium to well fired.
4. Medium to coarse fabric.
5. Reddish organic core.
6. Red wash.
7. Externally has carinated body with prominent ledge.
8. Thick horizontally splayed out rim.

9. Height of internal part 6.4 cm.
10. Diameter 16 cm.
11. Short concave profile of a neck.
12. It has a carinated body with rounded base. Parallel grooved lines (slightly uneven) on the external part of neck.

Type 2: Red slipped medium bowl

1. It is a medium sized bowl.
2. Red Ware.
3. Medium to well fired.
4. Medium to coarse fabric.
5. Greyish organic core.
6. Inverted triangular slightly drooping rim with two grooves on external side.
7. Height of internal part 3.3 cm.
8. Diameter 17 cm.
9. Short convex profile of a body.
10. The profile of this sherd indicated a round base.

Type 3: Red slipped small bowl or lid (?)

1. It is a small sized bowl or lid.
2. Red Slipped Ware.
3. Ill fired.
4. Course fabric.
5. Blackish organic core.
6. Thick coarse red slipped on internal side.
7. Flared, everted rim with shallow groove on internal side.
8. Height of internal part 4.6 cm.
9. Diameter 12 cm.
10. Short convex profile of a body.
11. The profile of this sherd indicates a rounded base. This shape and decoration indicate a lid; wash was not applied on the external side to prevent contamination.

Type 4: Body sherd of pottery

1. Red Slipped Ware body sherd with incised decorations.
2. Coarse fabric.
3. Well fired.
4. Core reddish in colour, inorganic in nature.
5. On the external body part there are incised deep grooved decoration bands of three at a distance. These are running parallelly in between the liner decoration of deep small strokes and geometric designs.
6. Maximum length and width is 8.7 cm and 6.8 cm.
7. The external part of potsherds has some mica content. Red slipped used on external part only of this sherd and internal part is ignored.

Type 5: Red slipped basin

1. It is a globular.
2. Well fired.
3. Medium to course fabric.
4. Reddish inorganic core.
5. Red Slipped Ware.
6. Carinated and forming a ledge on the external part.
7. Flared horizontally externally depressed rim. The rim has deep grooved line on the outer plane.
8. Height of the internal body is 9.5 cm.

9. Diameter is 27 cm.
10. Short flaring neck.
11. The pot has carination on the body. It is a handmade and has a somewhat uneven surface as well as the carination ridge is also liuted which is visible. It has mica content visible on the slip. It was observed that the core position was totally neglected by mica and extensive mica are visible on the external side and the internal position has very few in quantity. So, the conclusion is that they used mica for decoration purposes and they might have sprinkled the mica powder on the pot.

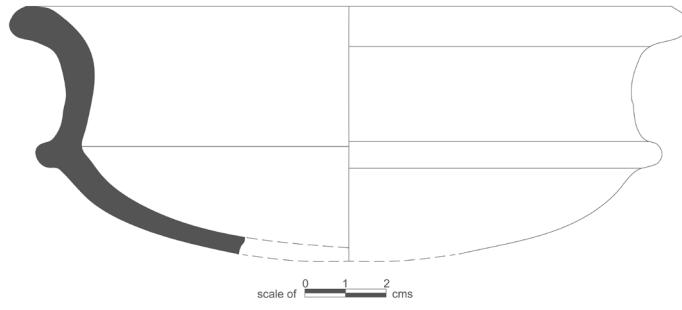
Type 6: Red slipped corrugated narrow straight vase

1. Vase.
2. Red Slipped Ware.
3. Fine to medium fabric.
4. Well fired.
5. Reddish and organic core.
6. Sticky Red Slipped Ware, the slip is probably weathered in few portions.
7. External part of neck has thin ridge-line decoration which makes the neck corrugated.
8. Featureless straight rim with flattened top and an external small ledge.
9. Internal height 3.2 cm.
10. Diameter 10 cm.
11. Faint corrugation like grooved lines with a fairly straight neck.
12. The slip was removed weathered in few portion.

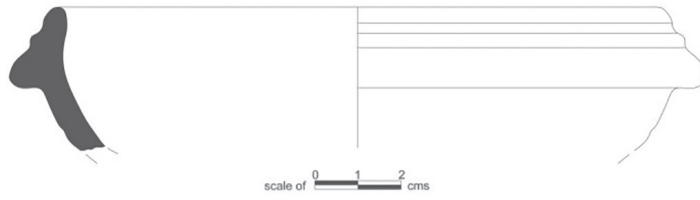
Type 7: Red slipped jar

1. It is a medium sized jar.
2. Medium to well fired.
3. Course fabric.
4. Blackish organic core.
5. Red Slipped Ware.
6. Internal part is decorated by grooves.
7. Out-turned roundish, slightly dropping rim.
8. Height of internal part 3.2 cm.
9. Diameter 19 cm.
10. Short concave profile of a neck.
11. The profile of this sherd indication for globular body with rounded base.

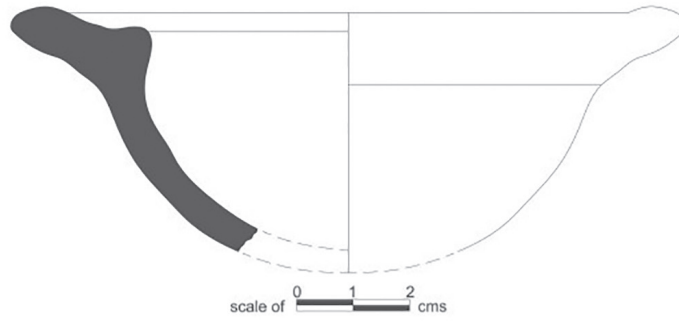
Type 1



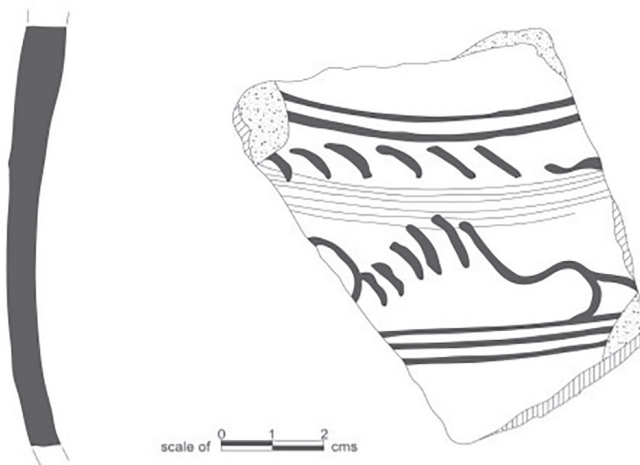
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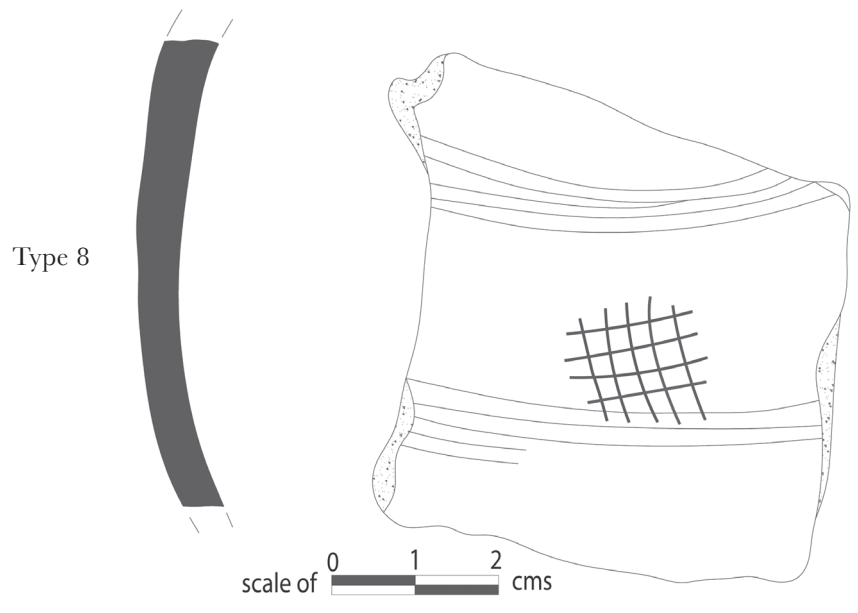
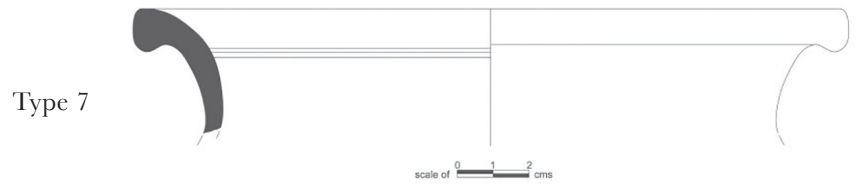
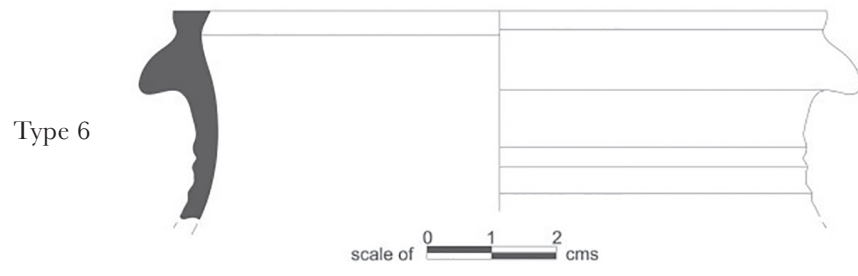
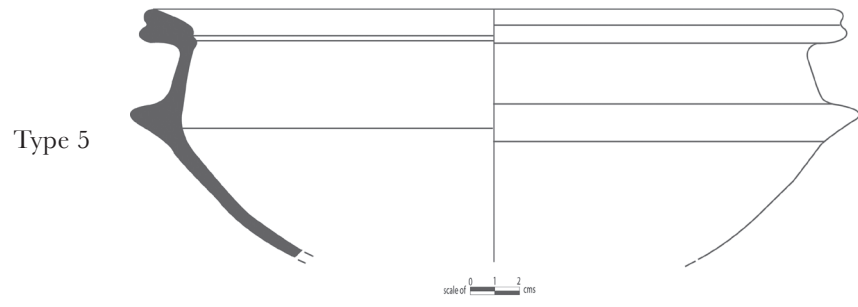


Type 3



Type 4





*Manual drawings of potsherds by Siddhartha Saha and digitizing the manual drawings by Kuldeep Suthar (AutoCAD 2014) and Siddhartha Saha (Illustrator CC 2015).

Type 8: Body sherd of BRW

1. Black on Red Ware body sherd with decoration.
2. Coarse fabric.
3. Well fired.
4. Core colour is greyish inorganic.
5. On the external body part there are incised deep grooved decoration bands of two. Both are running parallelly in between the line decoration the chequered stamp decoration has been seen.
6. The external part of potsherds has extensive mica content more than the internal part. May the mica has been used as a tempering material for decoration purposes.

Type 9: Body sherd of a Red Ware

1. Red Ware.
2. Well fired.
3. Core colour is reddish.
4. External part of this sherd has incised decoration and grooved line on top decoration another is single band of inverted fish scale.
5. Both sides of this sherd has mica with more on external side. It could have been used for decoration or as a kind of tempering material.

Type 10: Globular pot of BRW

1. Black and Red Ware globular pot with a concave-convex profile.
2. Well fired.
3. Medium to fine fabric.
4. Core colour is greyish inorganic.
5. Short out-turned rim, slightly drooping rim.
6. Height of the remaining internal part is 5.5 cm.
7. Diameter is 12 cm.
8. Concave neck.
9. External part of neck portion has thin ridge lines decoration the number of side is 3.
10. According to drawing that potsherd probably has a globular body.

Type 11: Red slipped jar

1. It is may thick sturdy jar.
2. Red Slipped Ware.
3. Well fired.
4. Fabric is course.
5. Core colour is reddish inorganic.
6. Thick out-turned clubbed rim.
7. Height of the internal body is 4.7 cm.
8. Diameter of rim is 30 cm.
9. Thick short neck with a probable carination.
10. According to drawing that potsherd probably a globular body.
11. Probably round base.
12. It is a handmade pottery; the luting mark is visible also visible coating layer of soil.

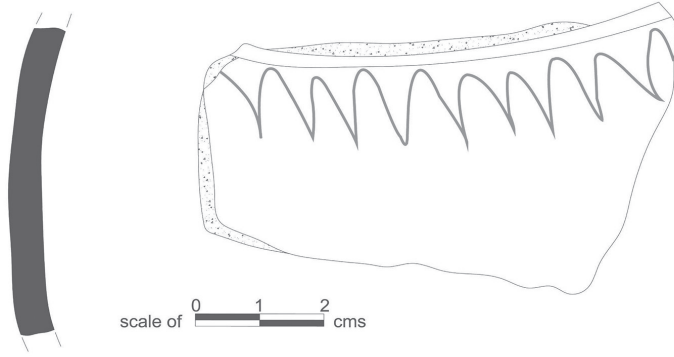
Type 12: Red slipped globular pot

1. It is may be a globular pot.
2. Red Slipped Ware.
3. Ill fired.
4. Core colour is blackish organic.
5. Medium fabric.
6. Thick sticky red slip on both sides weathered away mostly on outer section.
7. Everted elongated square tipped.
8. Groove mark on the rim.
9. Height of internal body is 2.4 cm.
10. Diameter of the rim is 9.5 cm.
11. Straight neck.
12. The body is probably a global profile.
13. According to drawing that potsherd probably a round base.

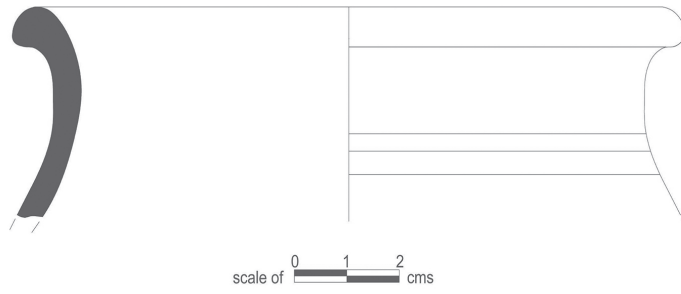
Type 13: Red Ware funnel shaped bowl

1. It is may be a bowl.
2. Red Ware.
3. Well fired.
4. Core colour is reddish-inorganic.
5. Medium to fine fabric.
6. Everted featureless rim.
7. Height of internal body is 6 cm.
8. Diameter of the rim is 10 cm.
9. The body is slightly convex profile.
10. According to drawing that potsherd probably has flat base.

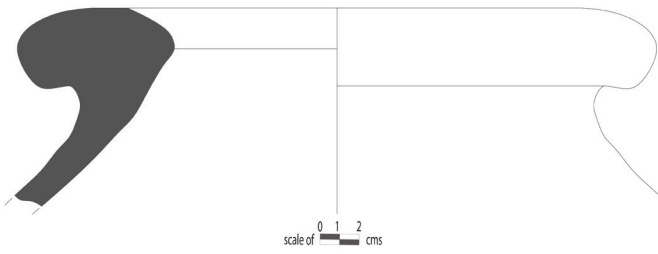
Type 9



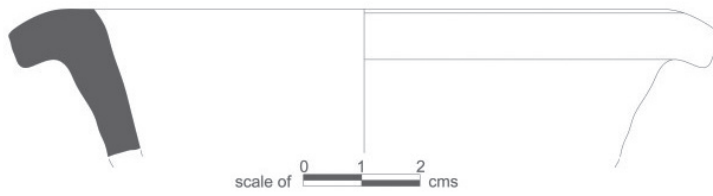
Type 10



Type 11



Type 12



Type 13

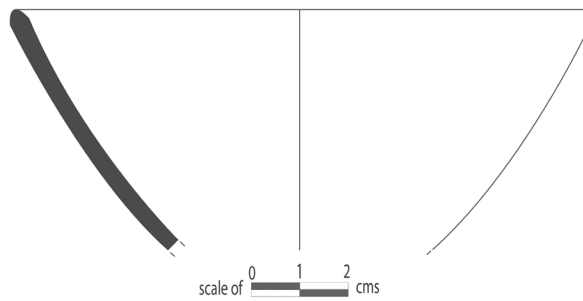




PLATE 26: Incised and painted decorated Red Ware potsherd
(left: external surface, right: internal surface)



PLATE 27: Perforated pot



PLATE 28: Red Ware's neck portion of miniature pot



PLATE 29: Incised decorated Red Ware miniature bowl's fragments



PLATE 31: Red Ware miniature pot



PLATE 30: Red Ware miniature pot



PLATE 32: Red Slipped Ware miniature pot



PLATE 33: Black Ware miniature pot's fragment



PLATE 34: Red Ware miniature pot



PLATE 35: Red Ware miniature pot



PLATE 36: Lamp



PLATE 37: Red Ware miniature pot's fragment



PLATE 38: Lamps



PLATE 39: Lamp



PLATE 40: Slightly concave narrow neck portion of a big storage jar
(globular or cylindrical body shape [?])



PLATE 41: Some different shapes and wares of miniature pots



PLATE 42: Red Ware: *louta*, lid and perforated pot (left to right)



PLATE 43: Some different shapes and wares of potsherds



PLATE 44: In situ ceramics of excavation

Discussion

The ceramic assemblages are seen in Red Ware with a large number of variations and Black Ware of both slipped and unslipped varieties. The vessels seem to have been made out of the local clay which includes sand and mica as the naturally occurring tempering materials. However, for the bulk of the potteries, both organic and inorganic temper has been used for manufacturing the vessels. The impressions of the tempering materials like husk, sand, granular particles of stone, mica are seen in the sections of the sherds. The use of sand varies from vessel to vessel. The entire assemblage can be divided into two broad groups, Red Ware and Black Ware along with a few potteries in Grey Ware.

The Red Ware vessels are sturdier and indicate a good amount of clay used in manufacturing the vessels. There are quite a few variations noted in the application of slip on the Red Ware vessels. Either both the surfaces are slipped or the external surface only. Sometimes, the internal slip is only applied till the neck of the vessel. The slip in Red Ware is found to be applied over the dull red micaceous surface of the vessels. The colour of the slip varies from bright red to dark red to chocolate. The forms seen in this ware are mostly bowls, both deep and shallow, lamps, jars, lids, lid cum bowls, perforated deep and funnel shaped corrugated bowls. The bowls have mostly featureless rims, jars with outturned thick rims, and bowls with rounded externally thickened rims. Some of the bowls and lamps have soot marks indicating the contact with fire. However, when it comes to the sections of the individual sherds, it shows the varying conditions of firing sometimes leaving a blackish or a greyish core and sometimes a uniformly fired reddish core. Striation marks are seen on the surface of the sherds indicating its manufacture on the wheels, most presumably a slow wheel. The grooves and the corrugations noticed on the ceramics sometimes give an impression of decorations. The other forms of decorations noted on the vessels are the incised lines and the etching decoration done before firing. The fabric and

the slip treatment remains the same throughout except the lid and the small bowls in Red Ware which have a finer fabric than the rest and seems to have been manufactured on a fast wheel as indicated by the regular striation marks.

The Black Ware potteries are more or less similar to the Red Ware potteries but have a fine to medium fabric and are better in treatment than the Red Ware vessels. The most diagnostic shape seen in this ware is the miniature vessel with outturned rounded rim and incised decorations on the neck. For the miniature vessels in Black Ware the sand used as tempering material is very fine giving the sherds a uniform surface over which the faint black slip has been applied evenly. The rest of the sherds have the same fabric as that of the Red Ware sherds and appear to be sturdily built. The Black Ware sherds, without the slip are sometimes difficult to identify because they get closer to the Grey Ware in appearance.

The Grey Ware sherds too have a finer fabric indicating the manufacture on a fast wheel and the fine particles of sand and mica that are used as the tempering materials. The sherds in Black Ware and Grey Ware are less sturdy than the Red Ware varieties indicating the differences in their utility patterns.

The assemblage has typological similarities and parallels with the sites like Antichak (Bhagalpur, Bihar) (Singh and Kumar 2005), Rajbadidanga (Murshidabad, West Bengal) (Das 1968; Ghosh 1969), Jagjivanpur (Malda, West Bengal) (Thapar 1980; Roy 2012) and Moghalmari (Dantan, West Bengal) (Dutta 2008; Tewari 2016). The funnel shaped bowls with corrugations in Red Ware is uniformly found in all the sites along with the miniature pots. The designs noted in the form of corrugations, grooves and the incised lines too are noted in similar patterns at all these sites. However, the mica content seen in the potteries appears to bear close resemblances to the site at Moghalmari. The Grey Ware sherds unlike the other monastic establishments like Rajbadidanga, Moghalmari are few here with the prominent shapes being that of the bowls, vases and fragmentary lids. From the preliminary study it can be conjectured that probably these

served certain functions associated with the monastic complexes and hence need much more inspection and a detailed line of investigation.

The ceramics typological analysis suggested for the period of Lalpahari is early medieval with compressions of other contemporary excavated sites, which were excavated at various periods in eastern India. The associated materials like inscriptional evidence and architecture suggested for the after seventh centuries. It has been possible

to find regional pottery index or description of the shape and fabric in the published reports on the basis of which the recovered pieces can be compared and dated. They tentatively belong to a period from the seventh to the thirteenth century CE. Scientific dates, however, would provide a more precise chronology. Further excavations of the site may reveal many more new dimensions of early medieval historiography related to later phases of Buddhist history and findings.

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REFERENCES

- Asher, Frederick M. (1986). 'Sculptures from Rajaona, Valgudar and Jaynagar, Evidence for an Urban Centre', *East and West* 36, Rome.
- . (1999). 'Ancient Slate Quarry Revisited: A Source Located', *Journal of Bengal Art* IV: 263–5, Dhaka.
- Bautze-Picron, Claudine (1991–2). 'Lakhisarai: An Indian Site of Late Buddhist Iconography, and Its Position within the Asian Buddhist World', *Silk Road Art and Archaeology* 2: 240, Japan: The Institute of Silk Road Studies, Kamakura.
- Chakrabarti, Dilip K. (1993). *Archaeology of Eastern India: Chhotanagpur Plateau and West Bengal*, New Delhi: Munshiram Manoharlal.
- . (1995). *The Archaeology of Ancient Indian Cities*, New Delhi: Oxford University Press.
- . (2001). *Archaeological Geography of the Ganga Plain: The Lower and The Middle Ganga*, Delhi: Permanent Black.
- Chattopadhyay, R.K. and Rajat Sanyal (2008). 'Context and Contents of Early Historic Sites in the South Bihar Plains: An Archaeological Perspective', *Archaeology of Early Historic South Asia*, ed. Gautam Sengupta and Sharmi Chakraborty, pp. 247–80, New Delhi: Pragati Publication and Kolkata: Centre for Archaeological Studies & Training, Eastern India.
- Das, Sudhir Ranjan (1968). *Rajbadidanga: 1962 (Chiruti Jadupur)*, An Interim Report on Excavations at Rajbadidanga and Terracotta Seals and Sealings, Calcutta: The Asiatic Society.
- Dutta, Ashok (2008). *Excavations at Moghalmari: First Interim Report 2003–04 to 2007–08*, Kolkata: The Asiatic Society.
- Ghosh, A. (1969). *IAR 1964–65*, pp. 48–51, New Delhi: ASI, Government of India.
- Kumar, Anil (2011). 'Kṛimilā: A Forgotten Adhiṣṭhāna of Early Medieval Eastern India', *Indian Historical Review* 38(1): 27–48, New Delhi: Sage.
- . (2019). 'Krimila: A Forgotten Nagar of Early Medieval Eastern India', *History and Society*, New Series 96: 1–35, New Delhi: NMML.
- Mishra, Anup (2008). *Beyond Pots and Pans a Study on Chalcolithic Balathal*, New Delhi: Indra Gandhi Rashtriya Manav Sangrahalaya, Bhopal and Aryan Book International.
- Panja, Sheena, Arun K. Nag and Sunando Bandyopadhyay (2015). *Living with Flood: Archaeology of a Settlement in the Lower Ganga Plains, c. 600–1800 CE*, Delhi: Primus Books.
- Patil, D.R. (1963). *The Antiquarian Remains in Bihar*, pp. 583–6, Patna: KP Jaiswal Research Institute.
- Roy, Amol (2012). *Jagjivanpur, 1996–2005: Excavation Report*, Kolkata: Directorate of Archaeology and Museums, West Bengal.
- Roychoudhury, Suchira and Sharmistha Chatterjee (2011). 'Ceramics of Mangalkot Excavation 2009–2010: A Preliminary Report', *Pratna Samiksha*, New Series 2: 91–101.
- Singh, A.K. and Dilip Kumar (2005). *Antichak Excavation Report 1960–69: Vikramshila University*

(*A Centre of Higher Education in Ancient India*),
Patna: Department of Ancient Indian History
and Archaeology, Patna University.

Tewari, Rakesh (2016). *IAR 2009–10*, pp. 168–72,
New Delhi: ASI, Government of India.

Thapar, B.K. (1980). *IAR 1977–78*, p. 59,
New Delhi: ASI, Government of India.