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# Archaeological Survey of Khirtala Village in the Lower Brahmaputra Basin, Bangladesh

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**Abstract:** Bangladesh is home to the largest delta in the world consisted of the Lower Ganges, Brahmaputra and Meghna river basins. Being located in the tropical region, rich biodiversity, rainfall and abundance of rivers attracted people of different ethnic backgrounds from the early historic period. The paper presents the results of the archaeological survey (2018-20) conducted in Khirtala village of Sirajganj district located in the Barind tract of Lower Brahmaputra Basin. Nine archaeological mounds are identified in the village. Sites are located close to the dried and present river channel of Karatoya River. Most of the archaeological localities are currently inhabited by different ethnic groups, which pose a threat to the archaeological sites.

**Keywords:** Archaeology; Culture; Ethnography; Human occupation; Lower brahmaputra basin; Settlement.

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## Introduction

Geographically Bangladesh is located between 20°34' N to 26°38' N latitude and 88°01' E to 92°41' E longitude. The country is bounded from east to west by about 440 km and from the northwest to southeast by 760 km. In terms of geographical boundaries of Bangladesh, Paschimbanga of India to the west; Meghalaya in the north; Tripura at east; and southeast is located in Myanmar. The country is situated in the subtropical monsoon region, considered the transnational zone of Southeast Asia (Stanford, 1991; Hasan *et al.* 2014). This Largest delta plain is mainly confluence by the Ganges, Brahmaputra and Meghna river systems. Most of the rivers of Bangladesh originate from the Himalayan and north-eastern hills of India (Myers *et al.* 2000; World Bank, 2000; Metcalfe, 2003; UNDP, 2016).

More than half of the land of this country gently undulating delta flood plain connected to river network and the southern coastal region has the largest mangrove forest in the world. Besides, natural resources include water; land; fisheries, forests and wildlife, are particularly noteworthy (Klein,

Schipper and Dessai, 2005; Salih, 2009). The natural beauty is spanning evergreen hills, luxuriant forests, cultural heritage and ethnic diversity made this country diverse (Irfanullah, 2011; Islam and Nath, 2014; BBS, 2016). These rudiments have greatly enriched the country's biodiversity (IUCN Bangladesh Country Office, 2002; Goodbred *et al.* 2014).

Besides, in the last one and a half centuries, many archaeological sites have been discovered in the country, indicating past human settlement. A total of 524 archaeological sites are preserved by the Department of Archaeology in present-day Bangladesh. Among these, the Paharpur Buddhist Vihara and Bagerhat group of monuments are also UNESCO-recognized World Heritage Sites (DoA, 2020). Several important archaeological sites located in the Barind tract have already been discovered, suggesting that human occupation of this part of the lower Brahmaputra basin developed long ago (Sen, 2014, 2017).

Being located in the tropical region, rich biodiversity, rainfall and abundance of rivers attracted people of different ethnic backgrounds from the early historic period. Wari-Bateshwar and Mahasthangarh, two Early Historic sites, indicate that urbanization developed in the Lower Brahmaputra Basin around the 5th century BC (Rahman, 2000; Alam and Alam, 2001; Sen, 2014). Prehistoric tools reported from different parts of the country suggest that the history of human occupation of Deltaic Bengal developed much earlier than its thought. The land in the northern part of Bangladesh is known as Barind Tract, where significant archaeological sites such as Bhitargarh and Paharpur, besides Mahasthangarh have already been discovered (Cunningham, 1882; Zakaria, 1984; Jahan, 2016).

Khirtala in Sirajganj district is one such place, a village located on the banks of the dried Karatoya River along with a large number of archaeological remains. Besides, different ethnic people groups live in this village. According to the 2018 survey, speculated that the archaeological remains of Khirtala village are quite ancient. Consequently, a systematic archaeological survey was conducted in Khirtala village in 2019 and 2020. The present study focuses on the issues of archaeological exploration in Khirtala village of Sirajganj district located in Barind tract. Also, ethnographic surveys have been conducted to determine the socio-economic perspectives of ethnic people groups inhabited in Khirtala village.

### Settings of Lower Brahmaputra Basin

The Brahmaputra basin covers five countries - Bangladesh, Bhutan, China, India and Nepal (Mondal *et al.* 2013; Goodbred *et al.* 2014). Presumably, the Brahmaputra River enters Bangladesh from Dhuburi in India through the Garo Hills. After entering Bangladesh, it joins the river Tista at Chilmari, flows 150 miles (240 km) south and joins the river Jamuna in the south. South of Gaibandha district has the impression of the mainstream and flows of the old Brahmaputra to the south. In the past, Jamalpur and Mymensingh districts were connected to the Meghna River at Bhairab Bazar. Before joining the Ganges, the river Jamuna flowed into the Baral, Atrai and Hurasagar rivers, which later formed on the sizeable Dhaleshwari river (Best *et al.* 2007; Goodbred *et al.* 2014). This section of the Brahmaputra flowing in Bangladesh is known as the Lower Brahmaputra Basin, which created sediments that rigorously influenced the livelihood (Ericksen, Ahmad and Chowdhury, 1996; De Graaf, 2003; Touchart *et al.* 2012). The accumulation of active floodplain and reworking of fluvial sediment in its basin has made this land suitable for human settlement (Shastri and Wilson, 2001; Rogers, Goodbred and Mondal, 2013). This sediment continues from the mid-Holocene period (Giosan *et al.* 2012). Since sediments have been circulating here for a long time, the history of human settlement in this basin is also very ancient (Rahman, Pownceby and Rana, 2020). Although most of the people in Bangladesh are Bengalis, ethnic and linguistic groups have been living here for a long

time. Ethnically, the people of this country have a diverse culture that has developed gradually over a long period. Initially, the non-Bengalis community is divided into several ethnic groups, some of which live in the Lower Brahmaputra Basin included the Oraon, the Santal, the Mahato, the Teli, the Badyakar and the Shing, etc. Ethnic people groups have their language, culture, ritual, performing art which has diversified the culture (Guhathakurta, 2011; Sharmeen, 2015; Chakma and Maitrot, 2016).

## Literature Review

The Barind Tract is undoubtedly a notable place for human settlement development in the Lower Brahmaputra Basin and is speculated to be highland and suitable for human habitation (Jahan, 2016). However, there has been no extensive analysis of when people developed the settlement at Lower Brahmaputra Basin. In this case, archaeological material and topography suggest that this delta was a riverine land long ago, suitable for agriculture and communication. Large and profound rivers originating from the Himalayan have been sedimenting the lands of South Asia for thousands of years (Boyce, 1990; Gupta, 2008; Mirza, 2011). As a result, human settlement and urbanization developed on the banks of various rivers in this deltaic land (Hoque *et al.* 2009; Rogers, Goodbred and Mondal, 2013).

The emphasis has been placed on archaeological findings from archaeological surveys as a source of research. Besides, the help of historical sources has been taken to understand the historical context of Khirtala village. According to the Bangladesh District Gazetteer published in 1990, there were ruins of an ancient structure on more than 50 mounds in the villages of Dhamainagar Union (Bangladesh District Gazetteer 1990). Besides, Abul Kalam Mohammad Zakaria, in his book 'Bangladesher Pratinasampad' in 1984, mentions that this place is linked with the Indian epic Mahabharata. Preliminary surveys based on ancient ruins, historical sources and mythological stories were used to understand the historical context of Khirtala village (Zakaria, 1984).

Presumably, Khirtala village is part of the Barind tract, which was once a sub-region of Bengal. This sub-region was formerly known as Gauda or Pundra. Archaeologically, this village is located in the vicinity of a prominent urban center- Pundranagara, present Mahasthangarh in Bogura District, Bangladesh (Sen, 2014; Furui, 2017). Based on geomorphic and pedological characteristics, this village represents the tectonically uplifted barind tract (Zakaria, 1984; Sen, 2015). In addition, the tributary of the dried Karotoya river channel indicates that the region may have connections with Mahasthangarh. This location is a transitional zone between the terrace and the Lower Brahmaputra Basin, representing the Karotoya antecedent channel dried by innumerable palaeochannels and channel remnants.

The largest mound, found in Khirtala village, is locally known as *Birat Raja's Dhibi*. However, in the context of Bangladesh, several places are called *Birat Raja's Dhibi*. There is plenty of Oral History that the locals create their narratives. In Bangladesh, several archaeological sites are narrated along with the character described in the mythological anecdote. Nevertheless, there has not been much in-depth research on oral history in archaeological practice in Bangladesh so far. Rather, these oral histories have been taken as a kind of source to interpret the site. As a result, the man and the environment relationship with the archaeological site have been neglected. However, in recent times, inadequately, attempts have been made to analyze the relationship of the environment with the past people through small-scale archaeological site-based on scientific analysis.

In the early socio-cultural context of the Sub-continent, the practice of oral history was primarily based on the story of the ruler or the king. Since the region was ruled by a long colonial rule, the oral

history of the people remained primarily invisible. In 1954, Subodh Ghosh's book '*Kingbondontir Deshe*' (Country of Legend in Bengali) was published. This book is initially the first essay on oral history in the Indian context. He mentioned that legends are certain events, reflect daily life. There is no definite sign of it; that is a non-stop and ongoing process. These can be found in the oral language of a particular social group (Ritchie, 2003; Ghosh, 2011).

The so-called exploitation of society and the practice of oral history of the people came through the Subaltern Studies movement in the 1980s (Guha, 1982). Research on Subaltern was published in the early twentieth century. Later, in addition to history, the application of subalterns in language, literature and art began. However, the practice of Subaltern continues to be used mainly in the study of regional history. Historians, especially postmodernist theorists, focused on studying the oral history of the lower strata of the society (Trigger, 1980; Guha, 1982). Archaeological sites, such as those that bear witness to the past and contemporary manuscripts, certificates, and narratives, especially the oral history of the people, can be essential regulators in the practice of ethnohistory. Ethnohistory can be deconstructed by analyzing the oral history, myths, legends, artifacts, etc. of the region in ethnohistory practice. In this context, material folklore and non-material folklore are necessary for ethnohistory practice (Guha, 1982).

### Objectives of the Study

Several archaeological sites have been reported however, many areas remained unexplored in the Barind tract. Subsequently, archaeological remains have been reported from Khirtala village in 2018. A large mound was located in the village, which is protected by the Department of Archaeology, Bangladesh. This was persuaded to conduct an extensive archaeological survey in Khirtala village in 2019 and 2020. The primary purpose of the survey was systematic documentation of the archaeological sites of Khirtala village so that in the future, more extensive research on the human occupation of these sites can be conducted.

### Field Methodology

A systematic archaeological survey was conducted during 2019-2020 to collect field data and geo-coordinates of each archaeological site. Global Positioning System (GPS) was used to record coordinates and to generate the site distribution map. Archaeological sites have been located through the month-long surface walking in the Khirtala village. Samples of archaeological remains found on the surface during the survey have been collected. Details about the ethnic groups inhabited in Khirtala village; their house number, family size; occupation, and concepts about the archaeological sites have been collected through ethnographic research. Attempts have been made to understand their views on the habitation and the archaeological site.

### Archaeological Context of Khirtala Village

Khirtala village is located in Dhamainagar union of Raiganj upazila of Sirajganj district. The village is inhabited by Mahato; Shing; Murari or Pahan; Turi or Mridha or Badyakar, Teli; Shil, and Santal. Apart from Khirtala village in Dhamainagar union, ethnic people groups live in nearby villages like Naopa, Barali, Kurcha, Golta, Shibpur, etc. Khirtala is a diverse village in the archaeological and anthropological context. Many ancient brick-built structures, fragments of potsherds were found from Khirtala village. Towards the east of the village, a dried palaeo channel of the Karatoya River was also located. The locals call this dried river channel *Mora Karotoya* (Dead Karotoya).

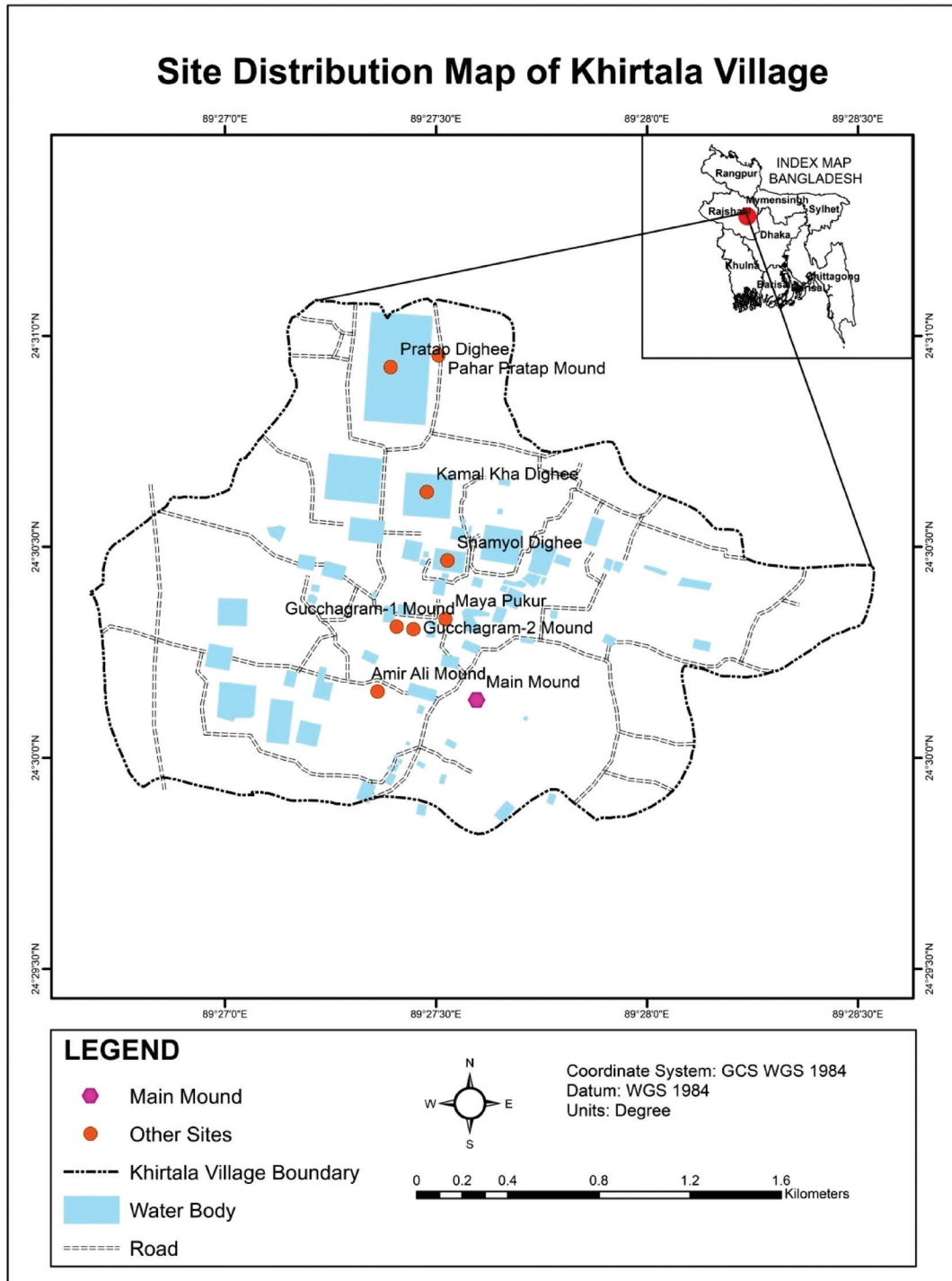


Figure 1: Study Area

A total of 9 archaeological sites were identified in Khirtala village included Birat Raja’s Dhibi (main mound), Gucchogram Mound-1; Gucchogram Mound-2; Ami Ali Mound; Pratap Dighi; Kamal Kha Dighi; Shaymol Dighi; Maya Pukur; and Pahar Protap Mound (Fig. 1). Most of the sites are small to medium-sized mounds; a few large-sized ponds; large quantities of ancient bricks; fragments of ancient bricks; potsherds of different sizes and colors have been found on the surface during the archaeological survey. It should be illustrated that the soil color of Khirtala village is mainly reddish, although, in some places, white soil is also observed (Table 1).

**Table 1:** Identified Sites Included Geographical Location and Findings

Site Name	Geographic Location	Surface Findings
Main Mound Birat Raja's Dhibi	N 24°30'.147'' E 089°27'.618''	Mound, Brick Structure, Potsherds
Gucchogram Mound-1	N 24°30'.311'' E 089°27'.409''	Reddish Soil, Fragments of Bricks, Potsherds
Gucchogram Mound-2	N 24°30'.305'' E 089°27'.449''	Reddish Soil, Fragments of Bricks, Potsherds
Amir Ali Mound	N 24°30'.157'' E 089°27'.364''	Reddish Soil, Fragments of Bricks, Potsherds
Pratap Dighi	N 24°30'.904'' E 089°27'.352''	Large Pond, Reddish Soil, Fragments of Bricks, Potsherds
Kamal Kha Dighi	N 24°30'.681'' E 089°27'.445''	Large Pond, Reddish Soil, Fragments of Bricks, Potsherds
Shaymol Dighi	N 24°30'.488'' E 089°27'.496''	Large Pond, Reddish Soil, Fragments of Bricks, Potsherds
Maya Pukur	N 24°30'.331'' E 089°27'.532''	Large Pond, Reddish Soil, Fragments of Bricks, Potsherds
Pahar Pratap Mound	N 24°30'.955'' E 089°27'.504''	Mound, Reddish Soil

### Main Mound Birat Raja's Dhibi

Locally known *Birat Raja's Dhibi* is located at latitude N 24°30'.147'' and longitude E 089°27'.618''. It is also called *Buruj* by the locals. Currently, about one-third of the mound has been destroyed to build a school and playground. The mound has been found with brick structure and mixed with deciduous trees and local vegetation. Several potsherds are scattered on the mound. The original mound was much larger in size than its current size. Presently about one-third of the mound is survived. The surviving mound's length is approximately 168 meters, and the width is 70 meters; the height is around 10 meters from the ground level (Fig. 2).

**Figure 2:** Main Mound.

### **Gucchogram Mound-1**

Gucchogram Mound-1 was identified with a medium-sized mound at latitude N 24°30'.311" and longitude E 089°27'.409". Fragments of bricks and potsherds are found on the mound. The soil color of the mound is red. The surface of the mound is covered by domestic herbaceous plants. The major part of the mound has been destroyed and the mound size is approximately 24 meters long, 16 meters wide, and the height is around 6 meters from the ground level (Fig. 3).



**Figure 3: Gucchogram Mound-1**

### **Gucchogram Mound-2**

During the survey, another site called Gucchogram Mound-2 has been identified. Geographically, the site is located at latitude N 24°30'.305" and longitude E 089°27'.449". A small portion of the mound still exists. The mound has been gradually destroyed due to farming. The soil of the mound is mainly reddish-brown in color and recorded with fragments of bricks and potsherds. The size of the mound is about a length of 23 meters, a width of 16 meters, and the height is around 4 meters from the ground level (Fig. 4).



**Figure 4: Gucchogram Mound-2.**

### Amir Ali Mound

Another site was identified in Khirtala village known as Amir Ali mound. This mound is owned by a person named Amir Ali, thus called Amir Ali mound. The mound is located at latitude N 24°30'.157" and longitude E 089°27'.364". The soil color of this site is red, and the mound is scattered with various types of potsherds and brick fragments. Due to extensive agriculture, a small portion of the mound has survived. The current length of the Amir Ali mound is approximately 30 meters in length, the width is about 22 meters, and the height is around 3 meters (Fig. 5).



Figure 5: Amir Ali Mound.

### Pratap Dighi

Khirtala village is found with several large ponds; Pratap Dighi is an important one among them. There is a red mound on one side of the pond, and this site is located at latitude N 24°30'.904" and longitude E 089°27'.352". During the survey, several potsherds and bricks were recorded around the Pratap Dighi (Fig. 6).



Figure 6: Pratap Dighi



### **Kamal Kha Dighi**

Another large pond in Khirtala village is Kamal Kha Dighi located at latitude N 24°30'.681" and longitude E 089°27'.445". The size of the pond is similar to Pratap Dighi. The mound has thick deposits and found potsherds and bricks (Fig. 7). The soil color is reddish-brown in appearance.



**Figure 7: Kamal Kha Dighi**

### **Shaymol Dighi**

Shaymol Dighi is another large pond in Khirtala village surrounded by slightly elevated land. The site is located at N 24°30'.488" latitude and E 089°27'.496" longitude. Archaeological remains such as potsherds and bricks are scattered around the pond (Fig. 8). The habitation soil is red in color.



**Figure 8: Shaymol Dighi**

### Maya Pukur

The Maya Pukur site is a large pond located at latitude N 24°30'.331" and longitude E 089°27'.532". East and north sides of the pond, modern habitation is located. On the other hand, the locals cultivate agricultural land. Large scatters of Potsherds and bricks were noticed around the pond. Ancient bricks have been used by the local population to build their houses (Fig. 9).



Figure 9: Maya Pukur

### Pahar Pratap

Pahar Pratap site is located N 24°30'.955" latitude and E 089°27'.504" longitude, a small mound lies on the bank of the pond. The mound is locally known as Pahar (Hill). A modern road has been constructed in the middle of the mound. The local people inhabited close to the site. The soil color is red. This mound is also covered by domestic herbaceous plants. The current length of Pahar Pratap is approximately 22 meters in length, the width is about 14 meters, and the height is around 7 meters (Fig. 10).



Figure 10: Pahar Pratap

## Archaeological Findings

Many ancient bricks and potsherds were observed during the surface walking from the initial survey of 2018 and a systematic survey of 2019 and 2020 in Khirtala village (Fig. 11).



**Figure 11: Bricks and Potsherds on the Surface of Khirtala Village**

The brick sizes are measured 30x25x2 (Fig. 13 & 15). Ancient bricks are common finds around the village and often appear in the various process of digging. Bricks found during farming are generally used for the construction of the house (Fig. 12). According to the bricks' radius, those appear to be contemporary with the Pala Period (800 AD-1200 AD). This type of brick is also found in Paharpur. In addition, the size of bricks has gradually evolved from the Gupta period (Reza, 2008). From these ideas, it can be inferred that the archaeological sites of Khirtala village were most likely developed during the Pala Period (Reza, 2016).



**Figure 12: Bricks found during farming**



**Figure 13: Measurement of Brick**

In addition, large numbers of potsherds have been observed in various parts of Khirtala village (Fig. 16-23). The potsherds are often found on the mud plaster on the walls of the houses.

A notable finding was a terracotta plaque with a snakehead motif (Fig. 25). Also, a terracotta plaque with the motif of a meditative deity was found in a resident's home (Fig. 24). At present, this plaque is used to worship in that house.



Figure 14: Recycling of the Ancient bricks in House.



Figure 15: Measurement of Brick



Figure 16



Figure 17



Figure 18



Figure 19



Figure 20



Figure 21



Figure 22



Figure 23



Figure 24



Figure 25

In addition to the abundant potsherds and brickbats, coins of the Gupta period and bronze statues were found from the Khirtala village (Zakaria, 1984). At present, no significant remains are observed except potsherds and brick fragments. The soil characteristics of Mahasthangarh and Khirtla village are almost similar (Fig. 26). On the other hand, Mahasthangarh is located approximately 50 kilometers from Khirtala village. In addition, the chronometric state of the findings in Khirtala village suggests that they are probably built on the same chronometric period. Nevertheless, it is impossible to interpret these without extensive excavation and stratigraphic analysis.



Figure 26: Site Soil

It is not impossible that earlier human occupation was modified and obliterated by the later habitation activities by mass scale (Shrimali, 1993; Ghosh, 2019). Large scatters of ancient bricks and potsherds suggest the historical nature of Khirtala village. These mounds have been destroyed rapidly and immediate conservation is currently necessary. Systematic archaeological excavations and scientific analysis of archaeological materials can give us a better idea about the material culture and chronology of the site.

### Conclusion

It is conceivable that the Barind tract of the lower Brahmaputra basin was a suitable land for human occupation during the pre-medieval and medieval periods. Nevertheless, to understand the early settlement pattern in Lower Brahmaputra Basin's further systematic archaeological research is required. Archaeological remains found at Khirtala village, especially a large number of bricks and potsherds, indicate that it may have developed in the pre-medieval period. However, further archaeological excavation and scientific analyses are highly required to understand the archaeological context of Khirtala village.

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