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# Prehistoric Cultural Heritage of the site Jagannathpur in Purbi Singhbhum District of Jharkhand, in Eastern India

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**Abstract:** The focus of the present paper is on the prehistoric cultural heritage of the site Jagannathpur in Galudih area in Purbi Singhbhum district of Jharkhand. The state Jharkhand is located in Eastern part of India and preserve rich resources like minerals, rocks, metallic ores and diversified vegetations which attracted prehistoric people from the very beginning. The river Subarnarekha is very ancient in origin which flows through the studied area and also preserves the remnants of prehistoric culture. The search was initiated by Captain Beaching in 1868 and later by V. Ball, P. Mitra, S.C. Sinha, D. Sen, A. K. Ghosh, R. Ray, D. K. Mondal and others. Site Jagannathpur was discovered by A. K. Ghosh in 1970. Present study has been carried out in the site Jagannathpur to reconstruct the geo-chronology of prehistoric cultures as part of the prehistoric cultural heritage of Jharkhand,

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#### Introduction

Cultural heritage is representing the heritage of cultural affinities of any society or community which are relatively shares the idea of tangible and intangible aspects of human past. As the definition of Cultural Heritage, UNESCO has mentioned in its Draft Medium-Term Plan 1990-95, that every materialistic sign that might be either artistic or symbolic related or transmitted through the past to each culture of humankind. Also, cultural heritage may be defined as the prosperity of cultural identities of the continuous legacy of humankind (Jokilehto,1990). In the archaeological context it is only to be observed or recovered the tangible remains which were used or discarded by our ancestors. The remains which have been indicate the evidences of cultural presence of humankind. However, it is very much challenging to understand the cultural progression of a past community only through

its material remains. Therefore, the ideas and cognitions are to be understood through the elucidated study of the remains. Therefore, the intangible aspects are also embedded in those stone tools which help to reconstruct the past human behaviour associated with those cultural remains. In prehistoric studies researches are mainly depended on the material remains of the past people. Only through the ascertained interpretations of the tangible culture the reconstruction of the past is possible. Thus, for the study of cultural heritage both the tangible and intangible cooperation should be incarnated (Jokilehto,1990).

For the present study the focal point is highlighted through the prehistoric remains of the early settlers of the site Jagannathpur in Galudih area of PurbiSinghbhum districtof Jharkhand. The State Jharkhand mostly comprises within the Chotanagpur Plateau region of Eastern Indiawhich is associated with the ancient Gondwana land formation. ChotanagpurPlateau is a hilly area which is connected and drained by the river Subarnarekha and its tributaries. The plateau itself preserves a plenty of natural and mineral resources which may provide the necessary raw materials to the past people for their surviving. The area preserves the rich cultural heritage of the region. The present study focuses on the prehistoric cultural heritage of the past people of the area with an in-depth study of the site Jagannathpur. Apart from these, an attempt also has been made to identify the agents of destruction of the site, and the preservation procedure for preserving the heritage for future generations.

#### **Review of Literature**

Studies in prehistoric culture in Eastern India were initiated by V. Ball (1870; 1875) with the discovery of the stone implements from the Singhbhum area of Jharkhand state. The initiative was carry forwarded by many eminent scholars like Captain Beeching (1868), C. W Anderson (1917), P. Mitra (1926), P. Acharya (1923-24), E. F. O Murray (1941), S. C Sinha (1951), D. Sen & A. K Ghosh (1960), Sen *et al.* (1962), A. K Ghosh (1970). A.K. Ghosh studied 40 sites along the Subarnarekha drainage system and its tributaries. The Neolithic culture of Barudih and Sanjay Valley was studied by R. Das (1964) and Ghosh et al. (1984 a, 1984 b). Later works have been continued by D. K. Mondal (2011-2023), R. Bhattacharya (2012 -2014), T. Dutta & D. K. Mondal (2018; 2021), D. Mahato& D. K. Mondal (2020; 2021).

#### **Earlier Field Works Conducted in the Sites**

Site Jagannathpur was first discovered and reported by A. K. Ghosh in 1970. Later the site was extensively studied by a team of Department of Anthropology, Calcutta University. As a part of the extensive exploration a grid was laid down to understand the distribution and concentration of the artifacts and the nature of the site. Laterthe site was re-explored to reconstruct the paleoenvironmentand dating of the cultural assemblages.

#### **Objectives**

Objective of the present study is to reconstruct the prehistoric cultural heritage of the site Jagannathpur in Purbi Singhbhum district of Jharkhand

#### Methodology

Site Jagannathpur in Galudih area in Jharkhand were purposivelyselected for the present study. The methodology is constituted with selection of sites, collection of data and analysis of the findings. Extensive exploration was done on the geomorphology and stratigraphy along the river terraces as well as cultural findings and its geological context. Tools found from the sites were studied in grids to

understand the nature of the site and the distribution of assemblage. Cultural findings were classified according to the chrono-cultural sequence after the typo-technological analysis. Stone tools found were measured and analysed according to its morphometric features.

#### **Studied Area**

Site Jagannathpur are administratively comes under the Galudih area of Ghatsila Block of PurbiSinghbum district of the State Jharkhand. (Fig.1). As the studied sites are encompasses within the Chotanagpur Plateau itself. The area poses slightly undulated with hilly rocky surfaces. Generally, both the sites are representing the typical characteristic features of the plateau. The Chotanagpur plateau preserves a huge quantity of natural resources such as coal and different types of metallic ores such as iron, manganese, magnetite, aluminium, gold, silver and copper. Also, a huge stock of minerals is obtained such as graphite, asbestos, fire clay, feldspar, dolomite, granite, mica, quartz and silica. Also, the area holds a huge variety of vegetation in which *Shal (Shorearobusta)* is predominant. The dense vegetation protects a variety of faunal diversity including Monkey (*Macaca radiata*), Tiger (*Panthera tigris*), Leopard (*Panthera pardus*), Jackal (*Canis indicus*), Fox (*Vulpes bengalensis*), Striped hyena (*Hyaena hyaena*), Bear (*Melursus ursinus*), Elephant (*Elephus indicus*), Water buffalo (*Bubalus bubalus*), Dear (*Axis axis; Rusa unicolor*) are predominant along with large varieties of rodent, birds, reptiles, and amphibians. Past people were attracted by the plenty natural resources and they have survived there for a long time period.

#### Site

Site Jagannathpur (220 37' 10" N; 860 26' 0" E; Elevation: 100m MSL): the site is located at a distance of 2.2 km from the Galudih Railway station towards north-east direction. It is very much adjoined to the village Dhatkidihi. The site is situated along the left bank of the Kundra nallah which is a tributary of Subarnarekha River system in Galudih area. The nallah is flowing through west to east and meets with River Subarnarekha after a 1 km away. The nearer landmark of the site is village Jagannathpuron the north side direction. The site is extended approximately 500mt radius area on the terraces of the Kundra nallah. (Fig.2.).The site is mostly surrounded with the agricultural plots which are used by the local villagers. Also, there are a number of water tanks have dug up by the local people to store rain water. The site is situated on an undulated surface. The site is situated on a terrace of the nallah which is nearly at a distance of 200mt from the present water bed. The stratigraphic sections are yielded a number of cultural remains along with the finished stone tools, cores, waste flakes and raw materials.

#### Stratigraphy

Two successive terraces have been observed in the site Jagannathpur. The first terrace which is at the bank of the Kundra nallah exposes the stratigraphic sections succeeded with gravel bed (2feet) on the Archean bed rock. The gravels are bigger in size and somewhat angular in shape. The pebbles and gravels from the layers are water borne and deposited during the degradational phases of the nallah. The layer itself is a tool bearing strata which yielded both core and flake tools including choppers, hand-axes, various types of scrapers and large cores. All the implements observed from this layer were made on quartzite. The second terrace is situated at a 300 mt. away from the nallah towards the North-East direction followed by a paleochannel which might be earlier connected with the present Kundra nallah. The stratigraphic section at the second terrace is clearly observable. At the bottom Archean bedrock is exposed nearly of 5feet. Bedrock is becoming slightly blackish due to the seasonal water logging. An undulated thick loose gravel bed (3.5 feet) is superimposed on the Archean bedrock. The

loose gravel bed yielded several palaeolithic implements including choppers, hand-axes, and various types of scrapers. A thick deposition of dark yellowish silt (2 feet) is overlain on the gravel bed. The top soils contain microliths including flutted cores while the silty layer is culturally sterile. The juncture of the silt layer and the loose gravel bed is content with flake blades and flake tools. A number of flake tools including small choppers and scrapers were observed from this layer. The site is now under threaten by the both erosional activities of the river and human interferences. (Fig.3.).

## **Cultural Assemblages**

Cultural assemblages contain both the core tools, flake tools and blade tools from both the sites. (Fig.5).

Cultural Assemblages from the Site Jagannathpur:

- (a) Choppers: Choppers from this site are bifacially made. Both the dorsal and ventral side are trimmed with alternative flaking method as the series of flake scars are present on both the sides. The secondary retouches are on the working edge are removed by the applying of controlled hammer technique. The profile of the working edge is wavy and the cross sections are nearly bi-convex. Some of the implements are remains untouched through the butt end as the cortical surface is seen. All of the implements are made on quartzite. Very few are fully trimmed even on the butt end. Maximum length for the choppers ranges between 6.1cm to 8.2cm, breadth ranges between 7.1cm to 8.4cm and thickness ranges between 4.3cm to 5.6cm.
- (b) Hand-axes: Hand-axes observed from this site are made on flake. Striking platform and prominent bulb of percussions are present on the ventral side. Ventral side is unworked and only bears the ripple marks. Working ends are pointed and the lateral margins were worked with alternative flaking method. Also, controlled hammer technique has been used to remove secondary flaking through the edges. All the implements are more likely elongated in shape. Maximum length for the tool's ranges between 15.5cm to 16.8cm, breadth ranges between 6.4cm to 7.6cm and thickness ranges between 3.8cm to 4.2cm.
- (c) **Scrapers:** varieties of scrapers are observed from this site including a wide range of typologies. The primary raw materials used to make of these tools are quartzite. Total six types of scrapers are observed from this site which are as follows.
  - **Round scrapers**: this type of scrapers is made on both core and flakes. The shape of these type of implements are more or less roundish. Working edges are made on through the roundish periphery of the tool. The entire implement has been trimmed off by the application of controlled hammer technique. The working edges are retouched using by the soft or cylinder hammer technique. All of the implements are made on quartzite. Maximum length for these type tools is ranges between 8.2cm to 9.3cm, breadth ranges between 8.1cm to 8.6cm and thickness ranges between 3.4cm to 4.4cm.
  - Single sided scrapers: as the name suggests these type of scrapers poses the working edges only through a single lateral side. The edges are finely retouched after the removing of the primary flakes. The implements are made on both the unprepared and prepared flakes. Only the dorsal side are observable with flake scars while the ventral side remains unworked. Some of the implements are with the striking platforms and prominent bulb of percussions. Maximum length for the scrapers is ranges between 3.6cm to 11.9cm, breadth ranges between 3.9cm to 7.5cm and thickness ranges between 1.4cm to 3.4cm.

- **Double sided scrapers**: in this type of tool typology scraping margins are seen on both the lateral edges. Tools are made on both unprepared and prepared flakes as very few are present with the prominent striking platforms and bulb of percussions. Edges are well flaked with controlled hammer technique and secondary retouching are also seen through the margins. Distal and proximal ends are remains untouched. Some of are with flakes scars and mid ridges on the dorsal surface. Maximum length for the tools is ranges between 4.4cm to 6.8cm, breadth ranges between 3.3cm to 7.6cm and thickness ranges between 1.1cm to 2.6cm.
- Side-cum-end scrapers: these types of scrapers are also made on both unprepared and prepared flakes. Both the working edges and ends are finely flaked with controlled hammer technique. Margins are observable with secondary retouching. Maximum length for the tools is ranges between 5.1cm to 10.2cm, breadth ranges between 4.2cm to 5.8cm and thickness ranges between 1.9cm to 3.1cm.
- Notch scrapers: these types of scrapers are very few from this site. Maximum length for the tools is ranges between 8.3cm to 8.7cm, breadth ranges between 5.1cm to 5.8cm and thickness ranges between 2.6cm to 3.1cm.
- **Concave scrapers**: these types of scrapers are also seen very few. Maximum length for the tools is ranges between 6.2cm to 6.8cm, breadth ranges between 7.8cm to 8.5cm and thickness ranges between 2.3cm to 3.1cm.
- (d) **Blades:** a number of blade tools have been observed from this site. maximum of the blades is made on quartzite and are very few on quartz. Blades are parallel through the lateral sides and both of the ends are remains blunt. Some of them were identified as Backed blade as the working edge is present on any of the lateral margin and the opposite side is remains blunted for good holding. Also, denticulated blade are seen on which the lateral edge is finely serrated with application of secondary retouching. Maximum length for the blade tools is ranges between 2.5cm to 4.7cm, breadth ranges between 1.2cm to 2.7cm and thickness ranges between 0.5cm to 1.2cm.
- (e) **Blade cores**: very few blade cores have also been observed from the site. Generally, two types of blade cores are seen from this site are amorphous and prismatic. The amorphous types are with irregular flaking pointed towards an asymmetrical flaking. Whereas the prismatic cores with the parallel flake scars with an oblique end. Maximum length for the amorphous type of cores is ranges between 3.3cm to 5.6cm, breadth ranges between 1.6cm to 3.3cm and thickness ranges between 1.2cm to 3.2cm. Whereas, for the prismatic blade core maximum length, breadth and thickness ranges between 3.3cm to 3.7cm, 1.4cm to 2.1cm and 1.4cm to 1.7cm.
- (f) **Flakes**: a huge number of flakes including the debitages are seen from this site. the flakes are generally removed during the reducing process and they might be discarded. No such retouching or works are observed on the flakes. Maximum length for the flakes is ranges between 3.8cm to 6.7cm, breadth ranges between 2.7cm to 6.8cm and thickness ranges between 1.4cm to 2.6cm.
- (g) **Cores**: a number of cores are seen from this site. Both the unprepared and prepared cores have been observed. Striking platforms are clearly observable for the prepared core. Also, the cores bear a series of flake scars on its surface. All of the cores are of quartzite. Maximum length for the tools is ranges between 4.3cm to 14.5cm, breadth ranges between 5.3cm to 11.5cm and thickness ranges between 3.2cm to 6.1cm.

(h) Hammer-stones: Hammer stones are generally roundish and flattish pebbles which are used to strike during the stone reduction process. Here a number of hammer stones were observed from the which bears pitting marks on it. Some of them are partially broken assuming as they are breaking due to inattentively use. Maximum length for the hammerstones is ranges between 6cm to 8.2cm, breadth ranges between 5cm to 8.2cm and thickness ranges between 4.8cm to 5.8cm.

#### Conclusion

Cultural assemblages from these two sites have an affinity with the evolution of human from the prehistoric period. Past people used to live there for a long time. Evidences of the palaeolithic dwelling can be estimated from the cultural remains from the site Jagannathpur and the habitation continued to Holocene period. The site preserves a good number of palaeolithic artifacts including raw materials and debitages. The analysis of the remains of stone tools suggests that the artifacts were made or modified in that area for the purpose of hunting and gathering. Prehistoric human in the site Jagannathpur made tools from river pebbles. The cultural assemblage of the site indicatesas factory sites. Typotechnological studies of the stone tools suggests that the early dwellers of the area were practiced two basic stone reduction techniques like direct percussion technique or stone hammer technique and the controlled flaking technique or cylinder hammer technique. The stone hammer technique was assigned for the removing of the flakes from the cores during lower palaeolithic phase. As the observed tools are simply designed for the hunting and gathering economy. Whereas, the implements from the later phase bears a significant change in their making process. Stone hammer technique was used to remove the primary flakes and the cylinder hammer technique has been used to retouched the working edges and ends. From the observation it is very much clear that the tools were reused during the later phase which might assumed as the middle palaeolithic context. The economy might have been changed or they may have economically shifted due to any unknown reason. But the tool analysis gives a clear account on the support of small game hunting economy. Also, the ecology of the area might have been favourable for the past people to survive using of natural resources. The easily available raw materials including pebbles and quartzite chunks were used for the tool making. The implements were supposed to be made for the hunting gathering economy. These cultures succeeded to Mesolithic culture and continued to Ferro-Chalcolithic phase as the evidences found in different areas by the sites of the river Subarnarekha. Galudih area has much importance to study prehistoric and palaeoanthropological researches. The cultural remains found from those sites have immense significance to know the bio-cultural evolution of human from the very beginning of the prehistoric periods. It is also very interesting to note that past people lived here for a long period of time from Pleistocene to recent Holocene period. The area is a representative which bears the evolutionary history of human in the Singhbhum area as well as in the Chotanagpur area in eastern India in broader aspect.

The site Jagannathpur is presently undergoing by a multifold destructive encounter. Natural erosional activities have been spotted all over the site area. During the rainy season, the washed water coming through the upper land to the comparatively lower land, are erode the upper soil along with the natural and cultural deposits. However, the water borne materials are deposited on the lower land and changes the horizon of the site because of the dislocation of the cultural materials. The local villagers dug a series of tanks near of the site area, to harvest the rain water mainly for agricultural purpose. This accidentally results the destruction of the site area. Also, the cattle are uncontrolled grazing on the site and the adjoined area. Thus, the cultural materials are getting dislocated and destructed from its actual origin. Recently, the local builders are collecting soil and rocks to make the developmental works nearby. This rich cultural heritage should be protected and preserved for future. The National

stakeholders and Governments should take initiatives to make the plan over the conservation and preservation of this heritage. Furthermore, it is to be expected for more scholarly approaches and foreign collaborations for the further studies and researches on the sites as well as preservation of this rich prehistoric cultural heritage.

### **Some Recommendations**

- The site should be protected by fencing.
- The main concentrating area of artifacts should be thatched with fibre roofing.
- A museum should be constructed to preserve those prehistoric specimens which are dislocating from its deposition as well as under various metamorphic activities.
- Awareness of the local people should be increased about the cultural heritage and to minimise the human intervention related to destruction of site and vandalism.

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Fig. 1: Indicating the site Jagannathpur on the map of the Galudih area (Source: Google maps)



Fig. 2: Site Jagannathpur



Fig. 3: Stratigraphy of the site Jagannathpur



Fig. 4: In-situ findings



Fig. 5: Cultural assemblages from the sites

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