Prehistory Of The Chotanagpur Region Part 2: Proposed Stages, Palaeolithic And The Mesolithic

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Abstract

The archaeology of the Chotanagpur region, a plateau with an average height of 2000 feet above sea level in central and eastern India, has remained very complex and confusing. It is time now to rethink the entirety of research practices in the region and to put together the theories that model the existence of human beings in the region. Initially, an attempt has been made to put together the various theoretical approaches in the region, especially the industries and stages that have been proposed by various authors. Next, the recent sites found in the region purporting to be from the palaeolithic and Mesolithic periods have been highlighted. Finally, a set of conclusions that may explain some of the phenomena seen through the imperfect data of material culture are presented here. This, it is hoped, would lead to a better explanation of the prehistoric sites found in the Chotanagpur region. Finally, it might prove to be a means of further understanding the way prehistoric cultures have been manifesting themselves during the Neolithic period.

INTRODUCTION

Having looked at the stratigraphy and the context of the sites found in the Chotanagpur region (for details see Ghosh; 2008), it becomes apparent that the geological features of the region that is now known as Jharkhand state and earlier called Bihar would not be sufficient to analyze the human habitation in this region. These state divisions are more recent and the geological conditions that gave rise to a similar Chotanagpur plateau were much more ancient. As a result, it would be necessary to also look at the sites in the adjoining regions of Madhya Pradesh, Orissa and West Bengal (see maps 11, 12 and 14) states in India which have a similar topography. The character of many of the tools found in this region seem to show that this extension of the study area is justified.

The topography and stratigraphy of the region has been detailed in a previous paper (Ghosh; 2008) and it shows that unraveling the context of any site is unlikely to be an easy prospect in any part of the Jharkhand area except the Singhbhum region where, due to extensive mining activities, a number of surveys had been conducted in the region by scholars from around the world over the years. Having said that, a site by site study can often help to bring out emergent qualities of such complex systems of explanation. Through those scholars who have attempted overviews of stratigraphies and of the sites, we can perhaps gain a glimpse of what it was like to have lived as a human on these hilly regions.

At initial analysis, it seems that there are few sites in this region that may attest to the existence of humans. This has been, perhaps, because few of these sites have been in the primary context. Sites in many other areas, often in the primary context, have been presented widely in the media and in research papers. The sites here have not been so well known except to a select band of scholars. The sites have been described on a regular basis over almost the past two centuries. They have amounted to over a thousand well researched sites in the region. Some later scholars have reviewed the early sites to see if they can yield further data. As a result, this rich yield needs to be contextualized and put together.

This humble analysis given here, then, in no way is to be seen as one polemical of those stalwarts who have pointed out through the morass of problems some of the emergent characteristics. It is hoped to build upon these early studies. Also, anthropology is holistic and a social anthropological approach may give rise to a different viewpoint than one that an archaeologist may have. A collation of the recent data is thus felt to be necessary, if only to point out the way to future researches.

Thus, in the initial stages, the various industries and stages
of human palaeolithic industry postulated by various authors has been taken into account. Then, an account of the palaeolithic and Mesolithic industries have also been summarized with special focus on more recent sites. Based on these certain conclusions have been attempted. Whether these conclusions are warranted or not, it is hoped, further researches would be helpful in pointing out. Whatever be the outcome, it is expected that the reader takes notice that the terms palaeolithic and Mesolithic are taken with caution, in the ironic sense that is advocated by Rorty, in order that we may use it, yet be ready to discard it should better terms be more suitable to the context found here.

**Figure 1**
Figure 1: Prehistoric Sites In The Birbhum District Of West Bengal

**Figure 2**
Figure 2: The Tarafeni Region Showing Prehistoric Sites In Midnapur District Of West Bengal, India

**Figure 3**
Figure 3: Prehistoric Sites In Bankura District Of West Bengal

<table>
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<th>Table 1: Prehistoric Archaeological Sites In Some Parts Of The Chotanagpur Region</th>
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<td>1. BIHAR AND JHARKHAND (22° 00' and 28° 30' N lat. and 83° 47' and 87° 50' E long.) 1.1</td>
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Buraidh Chainpur Chainpur North (73 A/4) Charma (10) (73 E/5) Chipri (19) (73 A/7, 23° 24'N; 84° 22'E) Chokahatu (73 E/16, 23° 10'N; 85° 48'E) Damari Darurahu Diankel Dubalabera Ghqara (17) (73 A/11, 25° 35'N; 84° 35'E) Guram Hardad (73 E/7) Harra Pahar 1 (73 A/4) Harra Pahar 2 (73 A/4) Islampur Jamatoli Jamtoli (73 A/4) Jilin Buru Pahar (4) (73 E/7) Jojaidih (6) (73 E/12, 23° 05'N; 85° 35'E) Jumar Kamre (13) (73 E/7, 23° 25'N; 85° 15'E) Kandra Kanke Road foothills Keraghagh Khjitroi Kochcheda Kundko (2) (73 E/11) Kuchagharra Kurumgarh Lohardaga Malgauns Malgo 1 (73 A/7) Malgo 2 (73 A/7) Malgo 3 (73 A/7) Marangahada Maranghatu McCluskieganj (15) (73 A/14, 73 E/12, 73 E/6) Murgu (14) (73 E/3, 23 25'N; 85° 10'E) Nawadighi Nawagao Nichipur Paras River Project (11) (73 A/12, 23° 10'N; 84° 45'E) Pasrigha (1) (73 E/7 or E/11) Pipratoli Pitar/Pithartoli (18) (73 A/11, 25° 15'N; 84° 30'E) Potpoto Purnapani Rajadera Roshanpur (12) (73 A/16, 23° 05'N; 85° 20'E) Torpa Udhuru COPPER HOARD SITES Behea (probably historical, but a stone celt also found) Bandua Bartola Bassia P.S. Dargama (also Asur site) Harra Chowrah Dar Marh Kuthitridge (23° 05'N; 84° 02'E) HISTORY Hughes (1865) A.K. Ghosh K.P. Jaiswal Institute of Patna Baragunda (12) (72L/4, 24° 10'N; 86° 14'E) Barkagong (6) (73E/1, 23° 51'N; 85° 15'E) Barwe Bonga (9) (72H/8, 23° 05'N; 85° 24'E) Gola (1) (73E/10, 23° 30'N; 85° 45'E) Hasagar (4) (73E/5, 23° 46'N; 85° 30'E) Karo (7) (72H/7, 24° 17'N; 85° 25'E) Kusumdi (2) (73E/10, 23° 32'N; 85° 44'E) Mandu (5) (73E/5, 23° 47'N; 85° 29'E) Neropahar (11) (72H/11, 24° 29'N; 85° 40'E) Pachamnta (13) (72L/8, 24° 13'N; 86° 16'E) Paradigh (10) (72D/16, 24° 10'N; 84° 51'E) Paresnath Hillslope (14) (73I/1, 23° 58'N; 86° 10'E) Pundra (8) (73D/16, 24° 03'N; 84° 58'E) Rajrappa Ramgarh Lele Bandha 'nullah' COPPER SITES Baragunda Giridih (unspecified sites) Karharbari (72L/8) TIN SITES Nurungo (24° 10'N; 86° 05'E) ROCK ART SITES Dudhpali Isko Raham Satpahar (1-9) Thathangi 1.4 SINGHBHUM DISTRICT (23° 25' and 24° 48'N. and 85° and 86° 38'E) HISTORY Hughes (1865) A.K. Ghosh K.P. Jaiswal Institute of Patna Baragunda (12) (72L/4, 24° 10'N; 86° 14'E) Barkagong (6) (73E/1, 23° 51'N; 85° 15'E) Barwe Bonga (9) (72H/8, 23° 05'N; 85° 24'E) Gola (1) (73E/10, 23° 30'N; 85° 45'E) Hasagar (4) (73E/5, 23° 46'N; 85° 30'E) Karo (7) (72H/7, 24° 17'N; 85° 25'E) Kusumdi (2) (73E/10, 23° 32'N; 85° 44'E) Mandu (5) (73E/5, 23° 47'N; 85° 29'E) Neropahar (11) (72H/11, 24° 29'N; 85° 40'E) Pachamnta (13) (72L/8, 24° 13'N; 86° 16'E) Paradigh (10) (72D/16, 24° 10'N; 84° 51'E) Paresnath Hillslope (14) (73I/1, 23° 58'N; 86° 10'E) Pundra (8) (73D/16, 24° 03'N; 84° 58'E) Rajrappa Ramgarh Lele Bandha 'nullah' COPPER SITES Baragunda Giridih (unspecified sites) Karharbari (72L/8) TIN SITES Nurungo (24° 10'N; 86° 05'E) ROCK ART SITES Dudhpali Isko Raham Satpahar (1-9) Thathangi 1.4 SINGHBHUM DISTRICT (23° 25' and 24° 36'N. and 85° E to 86° 54'E) HISTORY Capt. Beeching (1868) V. Ball (1880) C.W. Anderson (1915; River Sanjai and its tributaries) P. Mitra E.F.O. Murray (1941) S.C. Sinha (June 1950 to August 1951) D. Sen and others A.K. Ghosh (1970) S.R. Roy (1976-78) Bamni (39) (73 J/1, 22° 58'N; 86° 10'E) Bhalukhocha Bichhati-1.4 SINGHBHUM DISTRICT (23° 58' to 23° 36'N. and 85° E to 86° 54'E) HISTORY Capt. Beeching (1868) V. Ball (1880) C.W. Anderson (1915; River Sanjai and its tributaries) P. Mitra E.F.O. Murray (1941) S.C. Sinha (June 1950 to August 1951) D. Sen and others A.K. Ghosh (1970) S.R. Roy (1976-78) Bamni (39) (73 J/1, 22° 58'N; 86° 10'E) Bhalukhocha Bichhati-
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45'E) Hat Gamharia-5 (41) (73 F/12) Hesadih (33) (73 F/5, 22° 47'N; 85° 21'E) Jamshedpur Jojodih (35) (73 F/9, 22° 47'N; 85° 45'E) Kalikapur (19) (73 J/6, 22° 36'N; 86° 15'E) Kandra (37) (73 J/1) Karalajuri (28) (73 F/14, 22° 35'N; 85° 46'E) Kendposi Kharkai Bridge (42) (73 F/13, 22° 35'N; 85° 52'E) Kharsati Bridge Kitadi-Dungri (14) (73 J/6, 22° 36'N; 86° 26'E) Languish Lapso-Kyanite (34) (22° 47'N; 86° 14'E) Maheshpur (18) (73 J/11, 22° 18'N; 86° 41'E) Maubhandar Musabani-Maubhandar crossing (10) (73 J/6) Patbera (17) (73 J/11, 22° 27'N; 86° 43'E) Pathardi Puaputul Purnapani (38) (73 J/1, 22° 59'N; 86° 10'E) Rajdoha (6) (73 J/6, 22° 42'N; 86° 16'E) Rakha Copper Project (3) (73 J/6, 22° 38'N; 86° 22'E) Rakha mines Ruam-Digri (1) (73 J/6, 22° 38'N; 86° 22'E) Sambantand Sasaghati (25) (73 J/8, 22° 12'N; 85° 23'E) Serenga (8) (73 J/6) Sonua Swaspur (5) (73 J/6) Tatibe (26) (73 F/8, 22° 10'N; 85° 21'E) Tebo (32) (73 F/5, 22° 46'N; 86° 27'E) Terga (9) (73 J/6) Uldah (12) (73 J/6, 22° 40'N; 86° 25'E) Ulighutu ASUR SITES Barjo Chakradharpur Dudukendi Dudur Indpiri Kamdela Khuntitori Korankel Lotapahar Ruamgarh Srijang SITES WITH CELTS Barudih (Burnt rice dated to 2nd Millenium BC) Borodanga/Bardugna Kera

INDUSTRIES AND STAGES

Due to the wet, monsoonal climate in this zone, it is becoming apparent that perhaps no major fossils of early man are to be found from this region. The Indian monsoons divide into two branches when they hit the tip of the peninsula and these two branches circle around to enter the country. Chotanagpur, due to its unique location and mountainous terrain, receives rainfall from both these branches. This results in a substantial cooling down of the region. Earlier, the forests and heavy rains ensured such a cool climate that the British shifted their capital to this region from Calcutta, or substantial sections of it. At present, the cutting down of the forests has degraded the ecosystem to such an extent that fans and coolers are now required for part of the year (unlike earlier). Certainly no major fossil-rich zones are yet apparent which fall within the range of human habitations in the region.

According to Jayaswal, who analyzed a number of sites in the Chotanagpur region in 1981 there were basically three industries:

Industry I: This was associated with the boulders conglomerated in a lateritic matrix and was taken to be a part of the Lower Palaeolithic tool tradition of the Indian subcontinent. It consisted of chopping tools, handaxes, scrapers, flakes, prepared cores, levallois cores, cleavers, etc.

Industry II: This was associated with the deposition of lateritic soil and gravel; probably Upper Palaeolithic in content. It contained side-scrapers, end-scrapers, knives, tranchets, backed blades, flakes, blade cores, prepared cores, levallois cores, mousterian cores, irregular cores, etc.

Industry III: This was found in the surface humus above the red soil and consisted of a microlithic industry of side-scrapers, retouched blades, backed blades, lunates, burins, knives, end-scrapers, etc. There were also many fluted cores among the waste products (Chakrabarti; 1993: 52).

Ray (2004: 10) follows a different set of industries following Ghosh (1970), as follows:

Stage-I: Pebble-core element comparable to lower Palaeolithic stage marked by Acheulian tradition and began around 0.3 myr ago in the lower gravel conglomerate, continued through the lower silt bed up to the upper gravel bed. The tools collected include choppers, handaxes, cleavers, scrapers and large unretouched flakes, with most being large, heavy, jagged profile and having large and deep flake scars. Patches of cortex show the material used were pebble-based, made on quartz or quartzite, the latter being dominant. Finished tools and debitage are abundant. Tools evolve and show internal differentiation as the layers go up. From the lower gravel bed to the lower silt bed there is a change in tool refinement and there is a diversification of subtypes. In the upper silt bed, choppers become rare and disappear. Here, many tools are made on Levalloisian flakes, although Acheulian still dominates. This divides this stage into the Lower (lower gravel bed), Middle (lower silt) and Upper stages (upper silt).

Stage-II: Flake-element may be the middle Palaeolithic stage except that the true Mousterian element is lacking. Besides some evidence of the Mousterian of Acheulian tradition, the Levalloisian tradition dominated this stage. Earlier tool types continue but with lesser frequency, except for scrapers. Scrapers were used for making tools and had many functional subtypes, with retouchings becoming more developed and the appearance of denticulates. Handaxes...
may be found but with lesser proportion while cleavers and choppers are absent. Knives, points, awls, discoidal cores (both as debitage and as tools), unretouched flakes with marks of use are some of the evidences found. All of it comes from the upper silt bed. The material used was fine-grained cherty quartzite with less impurities.

Stage-III: Flake-blade element is hardly comparable to the European upper Palaeolithic since no such blade and burin industry is found in the region. Rather, in place of true blades morphologically similar blades made by prepared core technique are found called flake-blades. Blades made by the punching technique are present but they are not dominant in their frequency of occurrence. All of it comes from the upper part of the upper silt bed. There is not much variation (apart from the flake-blades) with the so-called Indian middle Palaeolithic stage. Levallois technique becomes more refined. The raw material was cryptocrystalline rock.

Vidula Jayaswal has divided the palaeoliths found in Ranchi district into two categories:

Industry I: An assemblage of 30 Lower palaeoliths collected from nine sites.

Industry II: An assemblage of 100 Lower palaeoliths collected from nine sites.

B.K. Saran carried out explorations in the Khunti region finding an industry which he called transitional between the Middle and Late Stone Ages (Chakrabarti; 1993).

PALAEOLITHIC PERIOD

The tools from Bhimbandh (also see above, Singh; 1959, Singh; 1960) seem to be equivalent to those found in many other surrounding areas of U.P., Mayurbhanj and the Singrauli basin. They include Acheulian hand-axes, Levalloisean hand-axes, both Acheulian and Levalloisean scrapers and end scrapers of the Middle Stone Age. The site was originally found by Bose, Gupta and Bose (1960).

In 1988, Ratha and Bhattacharya reported a site called Kuchinda from Sambalpur district, Orissa. Out of 394 items picked and analysed, 192 were finished types. Most are on quartzite but three are on milky crystalline quartz. There is an emphasis on pebbles as the raw material. Handaxes outnumber cleavers and have been formed both unifacially and biaffically, picks (alternate border flaking to give a sharp pointed end), backed knife, side scrapers and end scraper. They seem to be about 60-70 thousand years old. They match with a Middle Acheulian industry.

In 1990, S. Chakrabarti reported nine sites from the Khiching area. The author readily admits that a quantitative analysis of the tools found would not be suitable since all the sites are in a disturbed context. However, he does claim that the sites range from the Lower-Middle-Upper Palaeolithic to the Mesolithic.

In 1994, H.C. Sharma reported three sites in the region of Burla of Sambalpur district of Orissa. At Barapahar were found choppers, chopping tools, proto-handaxes, handaxes, cleavers, scrapers, points, borers, blade flakes, burins, flakes, chunks and chips. They were made of quartzite, quartz or milky quartz and jasper. The technique was stone hammer or cylinder hammer with retouchings along the border, except with some choppers. Bulbs of percussion are prominent. At Daridungri, he found Lower and Middle Palaeolithic artifacts like chopping tools, proto-handaxes, handaxes, cleavers, discoids, scrapers, borers, points, burins, flakes, blade cores and chunks/nodules. This was seen to be a factory site. At Hirakud, he found choppers, chopping tools, cleavers, scrapers, points, borers, blades, flakes and chunks, all in fresh condition. Based on the stratigraphy, Sharma divides his tools into Lower Palaeolithic, Middle Palaeolithic and Upper Palaeolithic types. In the first category, he finds 79 tools. He sees this to be divided into a chopper-chopping Soanian tradition and a handaxe-cleaver industry with tendencies to the Madrasian tradition. The proto-handaxes form a link between these two traditions. In the Middle Palaeolithic, he finds 89 artefacts. In the Upper Palaeolithic he finds a blade core at Daridungri and a blade flake at Hirakud. Based on this he claims there to be a meeting point between the pebble-based chopper-chopping tool industry with the Acheulian industry, both of which were running simultaneously.

In the Kharagpur hills, tools seem to be discovered from 1944-45 and onwards till the excavation of Paisra (Pant and Jayaswal; 1978). Recently, Bhattacharya and Singh have discovered a series of such sites from the region. Sohdihwa, one of these, is close to the local River Man. The basal rock is about 60-80 cm from the surface. Seasonal rainwater washes away the topsoil. The tools were found lying exposed on the rock surface. The site is in a very disturbed context but spreads for two km. Extremely hard and highly calcareous morrum deposits occur as mounds which have a high concentration of quartz nodules and microlithic debitage. It was commented that the microlithic assemblage might well have come into being immediately after or in
continuation with the late Palaeolithic stage, a possibility never entertained before. Some fragments of ring stones and rubbing stones are also seen. It may be seen that late Palaeolithic types on fine-grained quartzite could be seen up to as late as 4,000 to 3,000 B.C. By this time incipient farming would also have started (Bhattacharya and Singh; 1997).

260 Late Palaeolithic tools (prepared on a grey or yellowish fine-grained quartzite), with 524 microliths (on milky as well as crystalline quartz) and 3 fragments of Neolithic types were found and 1 rubbing stone. Both, though disturbed in context, could not have been separated very far in time. About 20% cores are present and of these 80% are blade cores. Flakes and blades include pseudo-levalloisean point, notched flake, levalloise flakes besides finished tool types on them. The highest frequency of types include retouched blades and then a variety of burins. Sohdihwa was thus found to be a factory site. Microlithic types from the site included burins, lunates, retouched blades, thumb nail scrapers, corbic burins and points made on flakes. Thus the site could be said by the authors to be a late Palaeolithic industry emerging into a full-fledged microlithic technology. It compares well as an Epi-Palaeolithic site. Burins might have been used to cure tortoises, open fresh water shells and as drill-heads on bones and wood. It is also claimed by the authors that the microlithic users and the late Palaeolithic tool-makers formed two different groups of people. Perhaps they had expertise in two different economic activities. As a result, a wider ecological base could have been exploited. This confusion relating to ‘types’ or ‘stages’ led Sankalia in 1974 to create a Neo-Chalcolithic stage and Chakrabarti in 1993 a Ferro-Chalcolithic stage. A.K. Ghosh and R. Ray call it the Upper Palaeolithic industry a “blade and bladelet” industry (Bhattacharya and Singh; 1997).

A radiocarbon date cited for the microlithic layer above the Acheulian one reads about 7420±110 B.P. (5470±110BC). The authors in 1999 discovered Pathalgarwa with 844 specimens from the site representing a late Lower Palaeolithic culture. The area has a variety of raw material and it seems that it was not only a factory site but may also have been a site from which raw material may have been transported to other areas. The tools are extremely fresh and give the appearance of having been made recently. Levalloise technique was very frequent, with unretouched blades as wastes, and this may thus be a flake and blade tradition. The blades are broad and sturdy. The handaxes and cleavers are thin and lenticular in shape and represent a late Acheulian type, but the Vaal technique has often been used to get a thick butt end and compares well with a Micoquian handaxe. Some handaxes are small in size, seeming to be made of exhausted cores. Apart from this there are side scrapers, tortoise notches, denticulates, one being made into a Tayac point, hand points are also found and burins with some made in the Bec alternate method. There is a denticulate made on the lateral border of a blade, end scrapers and retouched blades. Thus the site is Upper Palaeolithic in character (Bhattacharya and Singh; 1997-98).

In 1998, another site called Jurpaniya was recorded from the Kharagpur Valley. Analyzing this site, the authors claim the need for identifying a separate late Palaeolithic or Epi-Palaeolithic stage within the Upper Palaeolithic. An alluvial layer, probably from the Pleistocene pluviations, has a tool-bearing layer which was very extensive around a hot spring 15/20 cm – 30 cm in thickness and extending to about two square kilometers. 344 tools were collected from the site (292 flakes and 52 cores). They mostly prepared on fine-grained quartzite although a small minority is prepared on milky quartz. The tool types include retouched blades, burins, points on flakes, end scrapers, notches, borers, pen knives, gravettian points and side scrapers on levalloise flakes. The cores, flakes and blades are smaller than an Upper Palaeolithic industry but are larger than a Mesolithic industry. Such an industry may be seen also at Baghor dated at 26,000 B.C. with the Epi-Palaeolithic at 12,000 to 10,000 B.C. It marked the first entry of forest dwellers into open grasslands. R-selected or short-maturing species were hunted with fishing and collecting. In course of time it could transform into a pure Mesolithic (Bhattacharya and Singh; 1998).

In 2000-2001, Bhattacharya and Singh again reported another site from the same region called Adhwariya. This is again a surface site spread over a square km but if the top soil were to be removed it might extend further. It seems that since there is little debris made by human beings staying here, they must have come here to camp to collect wood and raw materials. The region forms the habitat of Kora and Santhal tribes. Neo-tectonic movements have ensured that only Quaternary period sediments are found here. The formation here may be dated provisionally to be from Middle to Upper Pleistocene extending up to Early Holocene. 1160 specimens from this site include cores, flakes, blades, elongated pebble with chisel edge, chopping tools, chopper, side scrapers, end scrapers, retouched blades, handaxes (often with advanced cylinder hammer flakings)
and cleaver. According to the authors, the area shows a higher stage of working as compared to other sites in the Orissa or West Bengal range. Hence, the group could be an earlier migration from Santhal Parganas in Bihar and Bankura and Purulia in West Bengal. These are areas where Acheulian tools with a pebble base are known. This area may form a distinct eco-zone as compared with the rolling, undulating, lateritic plains of Chotanagpur plateau with occasional groves of bamboo and sal forests. It also seems as if, after the Palaeolithic period, there has been a population depletion up to the Holocene. Further, the authors clearly put in words the lack of “evidence of a three fold Palaeolithic succession demonstrable in this region.” (Bhattacharya and Singh; 2000-2001: 21).

In 2001, Manoj Kumar Singh reported yet another site from the Kharagpur hills region of Jamui district called Rakatrohaniya Tad. A total of 1614 specimens were collected. There seemed to be a preference for using large pebbles for making tools, and a tendency to finish large and massive tools. Further, the tools are all in a weathered condition indicating their antiquity. It has a large number of blades, flake cores, side choppers or backed knives with the original pebble cortex forming the back, nucleated or exhausted cores, discoid cores, Levalloisean cores, retouched cores, and just about all the finished types seem to be available along with the usual diminutive handaxes.

In 2004, M.K. Singh again reported another site, Satbehariya, from the Kharagpur hills, on the slope of Manithan hill in the vicinity of the sites of Paisra and Bhimbhandh. The artifacts were again found on the surface of thin laterite pellets. While the site is spread over 2 square kilometers, the 4-5 metre deposited layer of soil as such yielded no tools. The tools become lesser towards the slopes. All the tools look fresh and thus, this seems to be on a primary floor. There are a large number of finished types. There seem to have been tectonic movements in the Early Quaternary period as a result of which there are only Quaternary sediments from the Middle Pleistocene or younger in the valley areas adjoining the Kharagpur hill tract. The oldest continental Quaternary sediments cover the region and are known as ‘older alluvium’ or ‘Jamui formation’. There is a ferruginous residual soil above the bedrock below the Jamui formation indicates a tropical climate at the beginning of the Quaternary period. This was replaced by the relatively cold and dry climate during the aggradations of the basal boulder sands of the Jamui formation. The Jamui formation may be provisionally considered to be of Middle to Upper Pleistocene, extending up to Holocene in age. 300 specimens were picked from the site including 108 cores and 192 flakes. Only 10 levalloisean flakes are recorded. Tool types include handaxes (finely executed but with remarkably little retouching at the borders), blades, cleavers (as with handaxes, the shape is thin and laminar), side scrapers, convergent side scrapers, backed knives, carinated end scrapers formed from exhausted blade cores and a notched borer with side scraper retouching on its entire length. Hence, here lower Palaeolithic tools occur till very late in the Pleistocene era. There appears to be no threefold Palaeolithic succession in this zone. It may have been caused by a late appearance of human beings into the region.

It seems that in Hazaribagh district, the stone tools (127 from 11 sites) from surface collections show an emphasis on stone hammer technique rather than a typical block-on-block technique, probably due to the fact that the latter is more useful for working massive and spherical pebbles. The latter methods seems to be more prevalent in the central part of India. The handaxes found by the authors in this region fall between 8-15 cm by 4.5-9 cm and are called Amygdaloid by the authors. There are secondary retouchings and the use of cylinder hammer techniques. A paucity of flake cleavers exists. The borers are mostly on Levalloise flakes and some have Bec-alternate retouchings. Of these sites it seems that Kusumdh had sustained human populations staying over a long period, while the other areas only had temporary inhabitation. A further 21 specimens from 4 sites represent the Middle Palaeolithic assemblage from the region. They are prepared on fine-grained siliceous rock or quartzite or chert. Most finished types are on Levalloise flakes and include, side scrapers, handaxes, borers, and a thumb-nail scraper. The handaxe is 6 cm long. Upper Palaeolithic assemblages number 39 with 15 pieces beingdebitage. They include side scrapers on Levalloise flakes, retouched blade point, borer and backed knife. Blades are prepared on fine-grained quartzite, quartz and chert (Chattopadhyay and Saha; 2004).

In Singhbhum, the Lower palaeoliths (316 from 42 sites) are often on quartzite, both fine- and coarse-grained. Most specimens are patinated. A type of Abbevillian handaxe was found at Ulighutu and Kendposi. The biface component was seen to be Upper Acheulian in content. Also scrapers, blades and knives were found, mostly adapted from the river pebble raw material. Middle Palaeoliths number 63 specimens from 16 sites. The characteristic is again the diminutive but
extensively worked handaxes and cleavers of the region, side scrapers, mostly with bifacial flaking, end scrapers and points. Upper Palaeoliths from this region include 10 pieces including burins, points, retouched blades and a side scraper. The authors claim it does not match Upper Palaeolithic types from anywhere in India (Chattopadhyay and Saha; 2004).

A solitary Lower Palaeolithic assemblage site with 2 side scrapers was found by the authors in Palamau district. Middle Palaeolithic 7 specimens from two sites, with Acheulian handaxe made with cylinder hammer technique, retouched flake and Levallois flake were found. Further, 18 points, tiny handaxes and cleavers with shallow flake scars are also found (Chattopadhyay and Saha; 2004).

In Ranchi district 12 specimens were found from one site made of fine-grained quartzite or milky quartz and are Late Acheulian in character, with handaxes, chopper-chopping tool, cleavers, side scrapers and discoid cores. Vidula Jayaswal called the collection from Chainpur and Bishunpur areas as Industry I. Jayaswal had also found 100 Middle Palaeoliths from the region in 9 sites which she termed as Industry II including side scraper, end scraper, knife, tranchet and backed blade. 56 Upper Palaeolithic tools were found including blades, backed blades, points and side scrapers (Chattopadhyay and Saha; 2004).

In Santhal Parganas, 6 tools are recorded by the authors from 4 localities from the non-Damin area, three being handaxes and three side scrapers. Their working is Late Acheulian in character in the Lower Palaeolithic period. No Middle Palaeolithic artefact was found but the tools found of Upper Palaeolithic types from the Damin region showed a stylistic preference for using retouched tools, artifacts, retouched cores and flakes and side scrapers from predominantly multiple platform cores as also retouched blades and bladelets, carinated end scrapers, micro gravettes, burins, with signs of hafting as points and barbs on projectiles mark this period. Palaeolithic usage with microlithic usage may have occurred at the same time (Chattopadhyay and Saha; 2004).

It seems from the authors' data that the region cannot be definitely proved have a sustained Palaeolithic occurrence of humans beyond the upper Pleistocene. In conclusion Chattopadhyay and Saha (2004: 212-213) conclude that:

1. The major movement of Palaeolithic hunter-gatherers seem to have centred around Singhbhum where it has the maximum spread.

2. Palaeolithic activities in Singhbhum may be as early as its adjoining part of Hazaribagh, if not, even slightly earlier.

3. It is a distinct possibility that Mayurbhanj region of Orissa played an important role for the initial spread of Palaeolithic activities in Singhbhum.

4. The distribution of artifacts of Singhbhum and Hazaribagh is not restricted to the hilly region but extended to the undulated detrital lateritic tract. We may further assume that this movement of Palaeolithic population gradually extended further towards east of Midnapur, Bankura and Purulia districts of West Bengal.

5. Therefore, in course of time, the entire Chotanagpur plateau including its fringe areas of West Bengal and highlands of Orissa formed a bigger zone of activities for Palaeolithic peoples.

6. Middle Palaeolithic was an indigenous development and represented a continuation of an earlier culture. Hence, change of raw material seems nominal. Further, the region as a whole is characterized by the continuing use of handaxe and at least a few cleavers albeit in diminuitive form. It is not surprising therefore that these do not compare with the typical Mousteroid types recorded from the Maharashtra-Karnataka region.

7. The Upper Palaeolithic, likewise, is very poorly represented. Further, more often than not these occur overlapping in regions of microlithic occurrences. Yet, it would be illogical to deny the existence of an Upper Palaeolithic stage in the present area of study especially in view of the presence of retouched long blade recorded from Singhbhum. Incidentally, the Damin area of Santhal Parganas have yielded an excellent assemblage of broad and elongated blades types, retouched cores and flakes, besides different types of Upper Palaeolithic assemblages. The raw material used here, mostly chert, is however quite different from the materials of other parts of our study area.

8. A feature that is strikingly apparent in the occupational history of Damin area – the past vis-à-vis the ethnographic present – is long-term continuity. The micro environmental zones of the
Damin regions are as varied as the upland forest, strips of river basin, woodland, shrub and thorny areas besides game which attracts the users of the Damin industry are certainly the source areas for the ethnographic present. The persistent character of the subsistence economy of the Damin population geared by hunting, foraging and fishing has gradually become a major force of seasonal daily wage labour labour for the neighbouring region. The assemblages are devoid of organic remains which are the principal sources to trace the adaptive pattern of the micro-environment. The reconstruction of the relationship between the upper Palaeolithic industry (context) may not be possible for the pre-historic period but settlement records and the present day situation offer scope to explain the dynamics of the hunter-gatherer culture. The states of Damin industry including its ethno-archaeological context also highlighted in the works of Chakrabarti where he rightly suggests by endorsing M.L.K. Murthy's opinion "typical of industries in woodland ecosystem…they may represent a regional facies of the Upper Palaeolithic."

However, it seems that this region also has sites which are microlithic in their content. This might seem to be contrary with the statements made above unless their horizons or industries are separable entities.

MESOLITHIC STAGE

Though the Indian Mesolithic is known as the microlithic stage, Ray (2004) refers to it as a blade-bladelet element because both are the major tool blanks found. This comes from the lower part of the uppermost silt bed. A majority of total tools found belong to this section. The material used includes agate, chert, jasper, milky quartz, etc. Tools include scrapers, points, awls, burins, borers and lunates with flakes, blades, bladelets, discoidal and fluted cores asdebitage and tool blanks. The tools range from 1cm to 6cm. Mohanty's study of Keonjhar in 1993 shows them to be in association with heavy-duty tools, like cores, scrapers, choppers, thick knives and picks made on altered basalt.

A.C. Carlyle seems to have coined the term Mesolithic from the soil of India as an intermediate stage between the Palaeolithic and the Neolithic. While Pleistocene ends in 10,000 years B.P., Mesolithic in Europe starts around 9,500 years B.P., ending around 6,000 to 5,000 years B.P. In India it has been included in the late Stone Age, the microlithic Age or the Mesolithic Age. The Mesolithic in India, characterized by microlithic industry, has neither a fixed genesis or continuity and is not fixed by absolute dating methods. The 900 tools collected from 8 sites in West Bengal by the authors included scrapers, knives, lunates, triangles, trapezes, burins, points, borers and denticulates. The types are similar but local ecologies and activities may be the cause for change in the proportion of the types found. A differentiated Neolithic-Mesolithic boundary with any site having these items clearly separable has yet to be found for any region in the locality (Ray and Chakraborty; 2004).

The idea of a catch-all phrase of the Mesolithic as an in-between stage of degeneration from the Palaeolithic to the Neolithic has to give way to newer concepts where larger groups may have operated together and complex hunter-gatherer strategies may have existed. The main problem of this stage has been the preservation of items that prove this (Price; 1991).

In 1966-67, Bhupendra Pal Singh reported a microlithic site from Karamchat in Shahabad District, Bihar. This is in the Gupteshwar Dham region. The raw material was fine-grained silicious element including glassy quartz, flint, jasper, agate, chalcedony, chert, etc. There were 84 finished implements including blades, points, scrapers on blade, a lunate and scrapers on core. There were 56 by-products including 45 cores and 11 flakes indicating a factory site. The site represented few geometric forms.

In 1980-81, Bhattacharya, Chakrabarti and Chakrabarti reported a preliminary microlithic collection from four sites around Santiniketan in Birbhum district of West Bengal. 12 pieces were collected from Shyambati, 63 from Talrorer Danga, 57 from Deer Park and 34 from Paruldanga. At Paruldanga, it seems that an antiquity of 12,000 years BP or greater is estimated (Chakrabarti; 2002-2003: 26). At the Deer Park a typical typological evolution may be seen from backed flakes to backed blades. Fossil wood pieces are also found here. The first two sites are basaltic in the use of raw material. The raw material in the latter two sites is cherty material and fossil wood. Lacking a true Mesolithic tool kit collection, the authors conclude that the sites might represent a habitation coeval with the chalcolithic of the region.

In 1980-81, Chakrabarti, Bhattacharya and Chattopadhyay reported a series of sites from Bankura. In some sites there was an association of celts with microliths, and also at Dihar there were found microliths made on glass. There is an
association of Neolithic cells with microlithic debitage, a few pieces of iron implements and medieval pottery at Shulgi and Namokechanda. The Dwarakeswar, Gandheswari, Kumari-Kansavati and Silavati valleys contain lower palaeoliths. Further, the microliths occur with Black-and-Red Ware at Kumardanga and Tulsipur. It is presumed by the authors that in the period of temple construction in 11th century Bankura, there were still some pockets of microlith users. This may be true of Purulia as well.

In 1991 Datta reported five sites from the Midnapur district, around the Tarafeni river. The five sites yielded 1,779 artefacts of different tool types. At Kattara I, Upper Palaeolithic types were found including blades, scrapers, points, borers, lunates, etc. Blade and blade tools form the major component. At Kattara II, there were Upper Palaeolithic blades, points, scrapers, etc. At Laljal, there were Mesolithic tools including blades, points, lunates, scrapers, burins, borers, etc. At Srinathpur, the Mesolithic tools included blades, points, lunates, burins, etc. At Asri, points, lunates, scrapers and burins comprise the Mesolithic period collection. At Kattara I and II, blades and blade-based tools comprised about 80% of the tools found. There seems to have been less uniformity in sizes in this period. In the three Mesolithic sites there is a uniformity in the distribution of length and breadth in the tool types. From the green quartzite of the Upper Palaeolithic period, a cherty quartz becomes the dominant raw material of the Mesolithic people. The three Mesolithic sites are close and also show similarities in their assemblages.

Basak (1997) analyzed 49 sites in the Tarafeni valley of Midnapur district, West Bengal. Many of the raw materials used for making the tools are absent at these sites. A uniquely detailed analysis is the hallmark of this analysis. The author has been most thorough in his analysis. 541 cores were present but only 22 raw material blocks. Only 417 cortical flakes were present out of 1699. Primary decortification flakes (with 100% cortex cover) and those with more than 50% cortex cover (secondary decortification flakes) are only 14 (0.8%). The rest all have less than 50% cortex cover. It was assumed that partially decorticated cores of raw material were transported here for tool-making. Perhaps they were normally transported with them as part of a tool kit. Due to a shortage of raw material cores were extensively used. They were manufactured, used and discarded at the time and place of their use. A blade scar/blade ratio as well as a core/flake ratio has also been given for each site. The flakes discarded from the blade manufacturing process often show use marks without any further retouching. Blades, once hafted, are rarely discarded like other flakes at the place of their use and this shows a characteristic clustering of blades at sites of manufacture. Further, blades get worn due to transportation. Such loose blades may be discarded at the time of use. The rich and extensive use of the valley could be due to the availability of water in a semi-arid period.

Tarafeni dating by palaeomagnetic method in Russia to the gravel layer yielding Lower Palaeolithic tools has come to about 70,000 years BP. At Susunia it came to at least 40,000 years BP by C-14 method at the limits of its sensitivity (Datta; 1982).

Singh (1999) discovered three new sites in the region near Simdega of Gumla district. It is possible that it falls within the dates 7000 BC to 1000 BC for such tool types in the area. As compared with temperate areas, the microlith users survived for a considerable period. As a result, it must have been running in parallel with the Neolithic, Chalcolithic or even Iron Age. The three areas found were within a 100 km of both Madhya Pradesh (Raigarh and Sarguja districts) as well as Orissa (Sundergarh district).

At Islampur, there are fine gravel of chert lying over a km area. Calcareous concretions are found all over the area. This could be due to the use of shells in the region. As these are discarded by the microlith users, they decompose into these calcareous depositions. Broken shells in large number are also seen here. Yellowish chert, black chloride and quartz were quarried from local outcrops as the raw material. 1563 tools were picked from these regions, consisting of flakes, fluted blades, fluted cores (sometimes with double platforms), blades detached by punching technique, three broken blades showing clear evidence of surface flaking done in the manner of European Solutrean leafs (classed as leaf point fragments), retouched blades, backed blades, burins (most prepared on fragments of fluted cores by delivering a truncation on the terminal end and then removing the burin facet along the length), burinated cores (fragments of blades and cores with one or two burin blows), macrolunates, many thick flakes and bladish flakes backed to emphasize a pointed end, end scrapers, slender microlithic lunates and notches. It seems to the author to be older than any of the other microlithic industries noted so far, representing a transition of late Palaeolithic into microlithic (Singh; 1999).

At Purnapani 1466 tools were collected from the third
terrace of the river Chhinda. A majority is waste material. The others include micro Gravette point, carinated end scraper, burinated fluted core, lunates, triangles, end scrapers, borers, penknife, retouched blades and burins. This shows a continuity with Islampur and may be younger in age to the Islampur site (Singh; 1999).

Keraghagh is a site with 2515 tools found on the second terrace of the river Chhinda. Of this, waste materials amount to 87.5% like flakes, blades (unretouched blades, flakes, crest guiding blades and core rejuvenation) and cores. Blades are removed both by punching and fluting. Its younger date is indicated by scalene triangles, points, truncated blades, high frequency of lunates, obliquely blunted blades, macro lunates. These three sites match the radiocarbon dates for Paisra (7420±110B.P.) (Pant and Jaiswal; 1991). The gradual adaptation of the population here took a long duration, up to the third millennium B.C. Wheel made, well-fired glazed potsherds of gritty clay were also found in association and the author could collect 9 celts from the local farmers ploughing the fields. Thus classifying the various stages as consisting of certain actual periods could be a mistaken version for the region (Singh; 1999).

The Deulga Hills of Sambalpur region yield rock art in its cave shelters. More than a hundred rock shelters have been found here. Fifteen of these yielded signs of prehistoric habitation. The walls of these shelters include a wide array of Petroglyphs while microliths, heavy-duty pebble tools, crudely made potsherds are found on the floors of most of the shelter. A number of conical or cylindrical cupules, often in alignment are found on the rocky floors. The rock art is in the form of Petroglyphs, mostly engraved, or abraded/scratched, or rubbed on the front wall. Various naturalistic as well as schematic representations of a variety of animal forms are found, especially fish and birds (Walimbe, Behera and Mushrif; 2001).

In 2001, Walimbe, Behera and Mushrif dug a trial pit and found three broad layers of habitation.

Layer I: Reddish-coloured, loose, silty-sand, mixed with exfoliated sandstone fragments. This contained lithic assemblages, both microlithic and non-microlithic, a few crudely made and shapeless potsherds, freshwater mollusk shells of bivalve variety and a few fragments of animal bones.

Layer II: Reddish-brown, loose, silty-sand, mixed with occasional sandstone fragments and calcretes. Lithic assemblages here included microlithic and non-microlithic ones, the upper part of a bone point, mollusk shells of bivalve and gastropod types, a few animal bone pieces and human skeletal remains. The skeletal remains seemed to be of one individual and were disturbed. Only on one small-sized cranial fragment is some charring evident. The rest of the bones show no such sign. There is minimal weathering but parts of bones are also missing. Though the sex of the specimen could not be definitely ascertained it had died between 25-30 years of age, was short of stature (144.37±4.05 cm (if male) and 138.61” ± 4.45 cm (if female)) and genetically gracile in build. Hence, the people in this period subsisted on limited hunting of small to medium-sized animals and aquatic as well as plant food resources. The human beings suffered relatively heavy mechanical stress as compared to a pastoral economy.

Layer III: Brownish-grey, loose, silty-sand mixed with a few sandstone fragments and calcium carbonate nodules. Lithic artifacts, mollusk shells, some pieces of animal bones and several pieces of foliated mica were also found.

**CONCLUSIONS AND PRELIMINARY IDEAS**

Though it seems to be apparent to some of the authors that Singhbhum (now divided into East and West Singhbhum districts) was the centre of activity of hunter-gatherers during the palaeolithic period, with subsequent spread to Hazaribagh (in Jharkhand), Midnapur (presently divided into Purba and Paschim Medinipur districts), Bankura and Purulia districts of West Bengal, as well as to the Mayurbhanj district of Orissa, this has been belied by successive finds in almost all the districts of Jharkhand (for an example see Table 1). Hence, though probable paths of human habitation may be speculated about, it has been impossible to state clearly that Singhbhum district might be the centre of human habitation during this period. In fact, such a notion might be mistaken.

The use of food resources of the humans living in this region at the time included plant food resources, limited hunting of small animals, bears and some other animals as well as that kind of food which was available near water resources like fish and mollusk. These are still part of the diet of current day tribes of the region as are mushrooms and honey. Some of the tribes also eat field rats, which may have been useful, especially since storage of grains and other foods was begun.

Though food eating varies from tribe to tribe, many of the current tribes of the Chotanagpur region bring their hunted animals, indigenous medicines, and food to the market for...
sale and exchange with other communities. Such a practice of exchange of food may have existed in the past also. As a result, though local food practices continued, there was a lot of borrowing and sharing among the communities in the region, regarding ideas, food and many other things. It is thus no wonder that today a clear distinction is no longer apparent between the use of religious symbols, food and other items of material culture among the tribes of the region.

Over the years, as the numbers of large animals declined and animal husbandry increased, there has been a shift to the hunting of small animals rather than larger ones. This has been seen in the shift of the tool kit from heavy duty tools to the use of microliths in this region. However, in other areas, other strategies have also been used. This has been the use of decreasing sizes of heavy duty tools like miniature handaxes and cleavers in this entire region. As a result of this unusual toolkit, a variety of possibilities open up. Often, the use of miniature ring stones remains unexplained. One possibility has been that these may have been used as sinks for fishing nets made of bamboo, grasses, ropes and other materials. I am indebted to Prof. D.K. Bhattacharya for proposing many of these ideas that open up these possibilities.

One of the most remarkable ideas floated by Prof. D.K. Bhattacharya is that of a root-crop horticultural exploitation of natural sources. Such root crops, though not very systematically grown, are present in the ‘food lore’ of the tribal communities of the region. Such root-crop cultivation coupled with the kind of tools available show us a remarkable spread of activities as possibilities.

One would require, at this stage, to modify one’s ideas of what a culture consists of. One would have to consider it as a concept that does not mean a fixed and unwavering set of activities that continue over time in a set of people, thus defining them as a community of its practitioners. One would require to think of culture as a set of practices and possibilities, a tool-kit if you will, of things that may be done in order to carry out survival activities. Such a culture would create, recreate and reformulate itself on a daily basis, yet maintaining a strong ‘storage’ and transmission characteristics of its practices over generations.

Using this concept of culture, then, one sees the prehistoric hunter-gatherers and other populations to mean those groups of people who use different mixes of these economic activities in order to acquire food. Some would be more inclined towards hunting, while others less. Some would be more inclined to stay on near lakes where they could use mollusks and fishes (as at Deulga hills). Still others would have continued with preliminary domestication of plants and animals. Such communities would have no imperative to change over long periods of time and may have had settled habitations that continued well into the Chalcolithic period.

This is why there has been a new term suggested for such communities which has been suggested as the Epi-Paleolithic. It would seem to be much more than just a transitional community between two academically defined archaeological stages. It would seem to be a way of life, a strategy of survival, of many of the communities that used multiple economies as strategies for making better use of available resources. It would mean a broader base of environmental knowledge than found in most societies today.

This brings us to the concept of the time period of these habitations. To all intents and purposes dates of 70,000 BP show that early habitations in the region were already existing during this period with some of them continuing well into the proto-historic or historic period itself. Thus habitations in the region could well include, even allowing for in- and out-migration, many of the present tribal communities of the region as well as some of the integrated agricultural ones.

References


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