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Belan Valley

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Dr. Manoj Kumar
Assistant Professor (Guest)
Dept. of A.I.H. & Archaeology,
Patna University, Patna-800005
Email- dr.manojaihcbhu@gmail.com

Belan Valley

One of the richest evidences not only of the Mesolithic but of the Stone age as a Whole comes from the valley of the Belan river, a tributary of the Tons and sub-tributary of the Ganga. Located between the Vindhyan ridges – northern most outliers of the Vindhyas in the north, and Kaimur range in the south, the Belan, together with its tributaries - Adwa, Seoti, Lohanda Nala, Tundiari, Gorma and Naina, drains about 7,800 sq km area in the Northern Vindhyas, encompassing parts of Sonbhadra, Chandauli, Allahabad and Mirzapur Districts of Uttar Pradesh, and adjoining areas of the Rewa and Sidhi Districts of Madhya Pradesh. As a result of systematic explorations and excavations carried out by the Department of Ancient History, Culture and Archaeology of the Allahabad University, during the last fifty years, the valley has emerged as an important region for the study of prehistory in the country. The valley is endowed with rich resources - perennial water supply, abundant raw material for making tools, plentiful game- terrestrial, aquatic and avian fauna, and plenty of plant food resources - roots, tubers, fruits, seeds and wild grains.

The Belan is a major tributary of the Tons. Together with its several tributaries like the Adwa, Tundiari and Lohanda nala, it has a catchment area of about 61 km width. Rising in the Bijaigarh uplands, east of Robertsganj, it flows in a westerly direction up to Ghorwal, and enters the Allahabad District near Serawal village and flows westward through a well-defined trough. It again enters Allahabad District about 2 km cast of Nedwa, and joins the Tons near Garkata-Gaughat village.

The Mesolithic remains in the valley were first discovered as early as 1867-68 by A.C.L. Carlleyle. He collected microliths from the floors of rock-shelters as well as from the open ground in front of the shelters. He also dug in some shelters and found microliths in association with bones of animals, ash,

charcoal, and human skeletons. However, he could not retrieve the skeletons because of their poor state of preservation. On the walls of the rock shelters Carlleyle noted paintings in red, green and white colours. The paintings vividly depicted wild animals, scenes of hunting of wild animals, trapping of animals and catching of fish and turtle, and of dancing by groups of men and women. These paintings provide the richest evidence of prehistoric art in the country. Research into the prehistory of the valley was revived in the early 1950s when archaeologists of Allahabad University led by G.R. Sharma discovered a sequence of coarse sedimentary deposits of gravels, pebbles and sands, and fine deposits of silts and clays, covering the period from the Middle Pleistocene to Holocene. In the course of time archaeologists have discovered Lower, Middle and Upper Paleolithic industries, along with animal fossils. In the topmost deposit they found Epipalaeolithic and Mesolithic tools. The Mesolithic tools from the lower levels belonged to non-geometric assemblage whereas as those from the upper levels belonged to geometric types. Over 100 Mesolithic sites have been found in the Belan valley. Most of these are open-air sites but a few are rock shelters. Among the latter the excavated ones are (i) Morhana Pahar, (ii) Baghai Khor, (iii) Lekhahia, and (iv) Ghagharia-1. All are located in the Kaimur Hills, the first three in the Belan valley last one in Son valley in Sidhi District of Madhya Pradesh. Brief accounts of their stratigraphy and cultural and biological finds are given below.

ROCK SHELTERS

1. **MORHANA PAHAR** :- In the Morhana Pahar shelter digging was done by G.R. Sharma and R.K. Varma in 1964. The deposit in the shelter consisted of 55 cms and was divisible into four layers. All layers yielded geometric microliths associated with pottery.

Excavation in the open area in front of the shelter revealed a deposit of 90 cms divisible into six layers. The cultural material in the deposit showed two stages of microlithic industry.

Layer 5 had a non-geometric industry unassociated with pottery while layers 4 to 1 yielded a geometric industry associated with pottery. The percentage of geometric microliths and pottery increased gradually. Lithic industry from layer 5 consisted of retouched and blunted back blades, lunates, points and unretouched or unutilized flakes. Lithic assemblage of the second phase compriscd retouched and blunted back blades, lunates, points, borers, triangles, cores, flakes and blades, and debitage. The tools are made on chalcedony, chert, agate, carnelian, quartz and crystal.

2. BAGHAI KHOR :- Baghai Khor is located at a distance of 1 km cast of Morhana Pahar. The shelter, excavated by R.K. Varma, had a deposit of 55 cm divisible into two phases. Phase I (layers +-3) yielded non-geometric microliths while Phase II (Layers 2, 2A and 1) yielded geometric microliths with pottery. Layer 4 also yielded a few potsherds of ochrish colour. An extended human burial with cast-west orieptation was found below layer 2. A few black-slipped sherds and Iwo iron arrowheads were found in layer 1.

3. LEKHAHIA:- Lekhahia is located 3 km cast of Bhainsore village, 69 km from Mirzapur . V.D Misra excavated two rock-shelters (RS I and II) and three trenches in the open-air Excavation in RS-I produced a deposit of 43 cm. It yielded skeletons of 17 individuals in an area of 5.2 and 2.5 m, along with non-geometric and geometrie microliths, potlery, bone tools and fragmentary animal bones with cut and use marks. A pit sealed by layer I yielded cylindrical bones and a fragmentary ring stone with bipolar perforation.

Rock shelter II had a deposit of 20 cm thickness comprising four layers. It yielded geometric and non-geometric microliths associated with pottery. Three trenches were also dug in the open-air at this site. Two of them, located to the south of Rock shelter I, yielded almost identical results. An occupational deposit of 1.1m above the bed rock comprised nine layers. Of these only seven (7 to 1) were implementiferous. They are divisible into three cultural phases.

(i) Non-geometric microliths (layer 7); (ii) Geometric (triangle) microliths (layers 6 & 5); and (iii) Geometric (triangle and trapeze) associated with handmade pottery (layers 4-1) (iv) Geometric diminutive tools with handmade pottery

The lithic assemblage from layer 4 is characterized by long and broad blades similar to those of Phase I of Chopani Mando.

STRATIGRAPHY AND CULTURAL SEQUENCE

The excavation yielded a habitation deposit of 1.55 m comprising 10 layers. The uppermost ayer, 13 cm thick, yielded plenty of flaked stone artefacts, a few grinding stone fragments, Potery, an incised stone artefact, a stone bead and some faunal remains. Layer 2, with a thickness of 20 cms, vielded the same range of cultural materials as layer I. Layer 3, with a thickness of 10 cms, showed reduction in the amount of cultural material although naked stone artefacts and grinding stone fragments are present but pottery and faunal Temains are absent. Laver 4, with a thickness of 15 cms, yielded a few stone artefacts.

CULTURAL SEQUENCE

Two cultural phases can be distinguished on the basis of stratigraphy and associated cultural remains. The same retouched tools are present in Phase I (layers 4-3) as are found in Phase II (layers 2-1), the only difference being that cultural materials are much more abundant in Phase II. Phase I has definite evidence of

heat treatment. Scrapers as well as grinding stones and faunal remains are confined to Phase II.

FAUNAL REMAINS

Faunal Remains comprise two bovid teeth and many bone fragments.

LITHIC ASSEMBLAGE

As many as 7,988 microliths were recovered. They are diminutive in size and display workmanship of a high order. Raw material includes chert (57%), chalcedony and agate (134), quartz (7.4%.) and siltstone (1.6%). The lithic assemblage consists of: (1) Unmodified waste (92%) comprising cores, flakes, flake fragments, core trimming flakes and microburins; (2) Modified and utilized pieces comprising flakes, blades, blade fragments and chunks; (3) Retouched pieces or finished tools, comprising straight and convex backed bladelets, convex and truncated flakes/ blades, lunates, trapczes and triangles, points, arrowheads, borers/ drills and scrapers. Two fragmentary bone points were also found in the excavation.

OTHER STONE OBJEČTS

Other stone objects include grinding stones and ring stones. The former were probably employed for crushing roots and tubers into pulp. One of them was used for grinding hematite into powder. Made of quartzite, one of the two ringstones, has typical hourglass perforation. They were probably used as weights of digging sticks or pestles. One of the querns shows two shallow grooves on the grinding surface.

STONE BEAD

A solitary unfinished chalcedony bead was discovered.

PIGMENT

One piece of hematite meant for obtaining pigment for painting was found.

POTTERY

As many as 319 sherds of pottery were found. They belong to two groups. Sherds of group I are handmade, and vary in fabric from medium to coarse and are represented by simple shapes like miniature vases, with concave or carinated neck and convex-sided bowls. Pottery of subgroup B contains hemispherical bowls and concave-necked miniature and medium-sized vases. Group II sherds are wheel-made and are similar to the Megalithic pottery from Kotia.

OPEN-AIR SITES

These comprise Chopani Mando in the Belan valley, and Baghor II, Kunjhun 1 and II, Medhauli and Banki in the Son valley. Chopani Mando is located on the left bank of the palaeochannel (known as Old Belan) of river Belan in District Allahabad nt a distance of 77 km cast and south of Allahabad. The site is located on the last terrace (12) of the river within a former meander, The sit is qquite estesive and covers an area of 20.000 sq m (200 m N-S x 100 m E-W). For ascertaining the thickness of the occupational deposit and culture sequence a small scale excavation was conducted in 1967. Large scale horizontal excavation was conducted during 1977-78, 1978-79, 1982-83 and 1984-85. An area of 945 sq m divisible into 28 trenches was dug to varying depths. Al the depth of 30-35 cm bed rock was reached after exposing the ground plan of 30 circular huts, 11 pit hearths and a few circular stone-paved platforms of the last phase III. Excavations in two trenches were continued down to a depth of 60 and 80 cms respectively.

STRATIGRAPHY AND CULTURAL SEQUENCE

Excavation revealed a total habitation deposit of 1.55 m thickness, comprising T0 layers, divisible into three cultural phases:

PHASE I: EPIPALAFOLITHIC The lithic assemblage of this phase shows a transition from Upper Palaeolithic to Early Mesolithic.

PHASE II: EARLY MESOLITHIC It is divisible into two sub-phases:

PHASE IIA: EARLY MESOUTHIC (NON-GEOMETRIC MICROLITHS) Layers 9 and 8 constitute this phase and they have yielded non-geometric microliths.

PHASE IIB: EARLY MESOLITHIC (GEOMETRIC MICROLITI IS UNASSOCIATED WITH POTTERY) Layers 7 and 4 constitute this phase. They have yielded microliths, including those of geometric shapes (triangles and trapezes).

PHASE III: ADVANCED MESOLITHIC (PROTO NEOLITIHIC)

Layers 3-1 constitute this phase. It is characterised by the emergence of handmade pottery, isosceles triangles and tranchets or transverse arrowheads. Excavations conducted at the various sites in the Kaimurs and in the plain of the Belan valley have revealed a four-fold sequence of lithic industries. Geological sections on the Belan and its tributaries have also provided evidence of similar developmental sequence. The uppermost sandy gravel and the silt covering it have yielded evidence of Epipalaeolithic and geometric microliths.

STRUCTURAL REMAINS

Excavated structural remains from Chopani Mando comprise ground plans of 37 circular/oval huts with stone-paved floors and pit hearths. On the floors of these huts were found stone pieces, pebbles, nodules, microliths and burnt clay clods. Of these huts, 30 belong to sub-phase II, 2 to sub phase HA, and remaining 5 to sub phase IIB. He tloors of these huts were littered with sandstone pieces, mieralsths, fragments ot anmal bones and a few burnt clay elods Ilhe diameter of circular huts ranged from 5.5i to 3 m, while the longer and shorter axes ol biggest oval Imts measured 3.60 and 200 m, respectively. The huts of this phase furnish a complete pialure of the material culture of advanced Mesolithic settlers. The floors of the

huts have virkled Mesolithic blacde tools belonging to different stages of manuf.lure, raw m.alerial in the form of nodules, hammerstones, ring stones, sling balls, rubbers, mullers and retonchers or strikers, tlat querns, potsherds, and bone pieces, The huts, baIsically circular or oval in shape, are so closely huddled, in a very narrow area that they give the impression of a bechive or slum. The huts were built on woden or bamboo posts with screen walls of reed or split bamboo, whigh were plastered on both sides as isevident from the discovery of pieces of plaster.

TOOLS AND WEAPONS

The lithic industries of different phases present variations in respect of typology, size of tools and raw materials.

PHASE I: EPPALAROLITIC

This phase is represented at Lekhahia and Chopani Mando and reveals a transition from Upper Palaeolithic to Mesolithic. The tools of this phase are made on cherty material and are smaller than those of the Upper Palaeolithic and are bigger and broader than those of the Mesolithic. Most of them are made on long, broad and thick blades and flakes, and comprise retouched blades, backed blades, scrapers, borers, burins, points, and crude crescents, and debitage. The finished tools are characterized by bold retouch.

PHASE IIA: EARLY MESOLITHIC (NoN-GEOMETRIC)

This phase is represented at all the excavaled sites. The lithic assemblage consists of non- geometric microliths unassociated with pottery. Chert is the most dominant raw material (9.5%) for making tools. Other siliceous rocks - chalcedony, agate and carnelian have been used only for making 5% tools. Most of the tools are fresh and smaller than tools of the preceding phases. Seventy-five per cent of the tools are made on blades and fiye percent on flakes and cores. The blades and bladelets were removed from well-prepared fluted cores. The assemblage consisis of

unmodified waste comprising flakes, blades, micro burins, cores and chips. Finished or shaped tools comprise broad retouched blades. blunted back blades, notched or obliquely truncated blades, borers, and various types of serapers and points.

PHASE. IIB: EARIY MIOLITIC (GIOMETRK ACERAMIK)

The most significant fcature of this phase is appearance of handmadfe potfery. The lithic tools of this period, made mostly on blades and bladelets, are diminutive in size but more delicately and precisely made,exhibiting; a high degree of workmanship. I However, certain new types like serrated blades and geometric lypes like scalene triangle. Make their first appearance. Though chert is still tht principal material tor making artetacts, the percentage of non-cherty materials, particularly chalcedony, increased in this phase. Majority of the tools are made on blades (86); tools made on flakes, cores, chunks, etc. constitute only 14 of the assemblage.

PHASE III: P'ROTO NEOHTHIK OR LATE MESOLITHIC ASSOCIATED WITH POTTERY

The most significant feature of this phase is appearance of handmade pottery. The lithic tools are made mostly on blades and bladelets and are similar to those of the preceding period. The assemblage comprises finished tools – retouched tools, backed blades, backed and truncated blades, notched blades, denticulated blades, points, arrowheads, lunates, awls, borers or drills, triangles, trapezes and tranchets or transverse arrowheads, and modified pieces. Unmodified specimens consist of flakes, blades, bladelets, and blade-flake fragments, and core trimming flakes. Percentage of non-cherty siliceous stones - chalcedony, agate, crystal, carnelian, etc. increases to 13% in comparison to the preceding phases but chert still continues to be the principal material (87%).

HEAVY DUTY TOOLS

From the surface as well as from the last phase of the deposit of Chopani Mando a considerable number of tabular chunks of quartzite and occasionally of sandstone were found. Some of them are ground and look like picks and chisels of succeeding Neolithic phase. Other stone objects, made of quartzite and sandstone, and some of them also ground, include ring stones, hammer stones, anvils, rubbers, pestles, querns, balls, and muller-cum-hammer stones. Some of these types already appear in Phase IIB. The ringtones are either circular or oval or discoidal in shape and have an hour-glass perforation. Hammer stones have battered or bruised surfaces. Anvils are of different shapes and bear battering marks.

OTHER STONE OBJECTS

Both upper and lower grinding stones have been found. The upper members are either cylindrical or oblong in shape and have smooth, rubbed surfaces. The lower members have either flat or concave upper surface, and have evidence of grinding on them. Stone balls were most probably used as sling stones and some of them also as hammer stones.

POTTERY

Pottery from all excavated sites - Lekhahia, Morhana Pahar, Baghai Khor and Chopani Mando - is hand-made and occurs in association with geometric microliths. It is generally fragile, ill-fired and worn out. It varies in fabric from medium to coarse and is represented by bowls and vases, and is devoid of any surface treatment. In some cases the neck and body were made separately and luted together. The whole ceramic assemblage is divisible into ochreous red ware and khaki or dull brownish ware. In both cases bowl is the most common type. The bowls are either shallow or hemispherical or convex-sided and occasionally straight-sided with out-curved, everted or vertical featureless rim and occasionally

internally bevelled rim. Vases have concave or carinated neck. Decoration on the pottery consists of incised, appliqué and impressed designs and has been reported from all the excavated sites. The impressed designs are unique and consist of horizontal, vertical and slanting lines, crisscross irregular dots and squares. A few corded ware sherds were found from Lekhalhia, besides, cord-impressed shapeless sherds. The cord-impressed sherds have a coarse fabric, thick to medium section and gritty core.

NOLLVNODICI ORNAMENTS

Besides the decoration on pottery evidence of art comes from Lekhahia and Chopani Mando. A pit from rock shelter I at Lekhahia yielded a cylindrical bead made from tubular bone while layer 2A of the last phase of Chopani Mando (Phase III), yielded a solitary example of stone bead.

BONE OBJECTS

Bone objects have been found from Lekhahia and Chopani Mando. Bone points were found at Lekhahia in rock shelter I and layer IIA of Chopani Mando. Phase III (Last P'hase) at Chopani Mando yielded a fragmentary bone object bearing incised decoration.

SUBSISTENCE PATTERN

Mesolithic people of the Kaimur region and the Ganga plain subsisted on hunting of large and big game, catching of fish and trapping of birds. While hunting is a high risk and low return activity, collection of plant foods involves no risk and their processing is also an easy job. Plant foods therefore must have played an important role in the subsistence of Mesolithic people. Discovery of the remains of circular and oval huts at Chopani Mando suggests that in the last phase of Mesolithic culture the people had started leading a semi-sedentary life.

RICE/RICE HUSK

Remains of rice/rice husk were found embedded in burnt clay lumps in large numbers at Chopani Mando. Thus, it is possible that wild rice was collected and consumed at this site.

BURIAL AND RELIGIOUS BELIEFS

Evidence of burial has been found from Baghai Khor and Lekhahia. At Bghai Khor in rock shelter a human skeleton was found buried at a depth of 30 cm below the surface. The grave was prepared by dressing of the rock and the body was buried in a west-east orientation. No grave goods were found with the skeleton which belonged to a woman of 20-21 years age with a height of 152.68 cm. The skeleton was associated with hand- made, crude pottery. At Lekhahia, not far from Baghai Khor, there is a group of five rock shelters. Excavation in rock shelter I by V.D. Misra revealed as many as 17 skeletons. These could be assigned to eight phases. The dead were buried in an extended and supine position. One skeleton was buried in a flexed position. Majority of the skeletons were oriented east-west with head Iv ing to the west. While the field observations of R.N. Gupta indicated 17 indlividuals LR Iukaes and V.D. Misra have counted as many as 27 individuals. The orientation of many graves in an east-west direction is significant for it probably implies rebirth of the deceased individual like the recurrent and eternal rising and setting of the sun, with its According to R.N. Gupta two graves had grave goods in the form of cervid and bovid bones, antler and molluse shells. There are also isolated cases of association of grave goods like tortoise ascute, cervid hoof and bone tools. Cultural traditions relating to disposal of the dead at Lekhahia reveal that funerary behaviour and practices of the rock shelters share many features with Mesolithic sites of the Ganga plain.

Belan Valley

The stratigraphical évidence found in the Belan section and at some of the excavated sites - Chopani Mando and Lekhahia - reveals a consistent culture sequence in which the Mesolithic culture overlaps with the Upper Palaeolithic level (Belan Gravel III) immediately antedating the Epipalaeolithic, Upper Palaeolithic- Mesolithie overlap phase (Belan Gravel 1V) and from different excavated Mesolithic settlements - Lekhahia in the Belan valley, Baghor II in the Son valley, Sarai Nahar Rai, and Damdama in the Ganga valley, Bagor in Rajasthan and Adamgarh in Madhya Pradesh are available. These evidences have made our task of fixing the chronology of the Mesolithic culture easier. Gravel III, Horizon of the Upper Palacolithic, immediately antedating the Epipalacolithic of the Belan section has yielded two radiocarbon dates reading 23,240 (PRL. 86) and 17,765 BCE (TF 1245).

GRAVE GOODS

Gravel IV, Epipalaeolithic horizon of the Belan section is exposed at different localities, Bansghat (Belan Loc. I), Chillahia (Belan Loc. II), Taradih II (Belan Loc. III) and in the excavation at Mahagara near the junction of new and old Belan have yielded five dates reading 13,740 + 400/380 ur (PRL 603), 11,550 t 180 Br (BS 130), 10,980 + 190 op (PRL 602), 6830 + 160 BP (BS 131) and 9740 115 m" (SUA 1421).

There are two C-14 dates determined by AMS on carbon from human bone apatite from Lekhahia. They are Geochron 8370 + 75 Br (Skeleton IV) and Geochron 8000 + 75 np (Skeleton XIII, XV). These human burials at Lekhahia belong to Phase III of the Mesolithic culture of the Belan valley. The lithic assemblage of Baghor II, Mesolithic site of the Son Valley, is almost identical to that of Phase IIB (geometric microliths unassociated with pottery) of Belan valley. It has yielded one radiocarbon date 6380 + 220 E (PRL 715). The lithic assemblages of the

Mesolithic sites of Sarai Nahar Rai and Damdama are almost identical to that of Phase lIB of the Belan valley. One of the available radiocarbon dates for Sarai Nahar Rai reads 8365 110 ncE (VF 1104). One TL. (5000-7000 BC) and two AMS C-14 dates reading 6670 65 BCE and 6915 + 69 nCE have been found from Damdama. Mesolithic deposit pertaining to Phase I (Geometric microliths pre-pottery) of Bagor in Rajasthan have radiocarbon dates (Misra 1973: 107-108) reading 4595 £ 200 nCE (TF 78t). 3835 130 BCE (TF 1007) and 3285 90 BCE (TF 1012). Mesolithic deposit of Phase I of Adamgarh in Madhya Pradesh yielded a C-14 date reading 5500 130 CE (TF 120) (Joshi 1978). Two radiocarbon dates from the Neolithic horizon of Koldihwa (Belan valley) read 5440- > 240 BCE (PRL 100) and 6570 + 210 BCF (PRL 224).

In the light of the above cumulative evidences, the Mesolithic culture of the Belan valley may tentatively be placed in a time bracket of 12,000 to 7,000 BCE.

ORIGIN OF THE BELAN VALLEY MESOLITHIC CULTURE

The evidence obtained from Belan section and excavations at Chopani Mando and open- air settlemént at Lekhahia suggests that the evolution of microlithic tool traditions in the Belan Valley was a long-drawn process and we have sufficient ground to believe that the Mesolithic developed from the preceding Upper Palaeolithic industries of the region.