

A Preliminary Report on the Exploration Around Baidyanath, Mayurbhanj, Odisha

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Abstract: Mayurbhanj is a land locked district situated in the Northern boundary of the state with district headquarters at Baripada. The district is bounded in the North-East by Midnapur district of West Bengal, Singhbhum district of Jharkhand in the North-west, Baleshwar district in the South-East and by Kendujhar in the South-West. Geographically the district is covered with forest and hills. The topography of the district is more or similar to the “North Central Plateau agro-climatic region. It occupies a unique position being endowed with lush green vegetation, different fauna and rich cultural heritage. Prehistoric archaeological survivals are very much reported from the northern and eastern massif of the Similipal Biosphere. From the prehistoric point of view, the adjacent areas of Karanjia and Jashipur have yielded good evidence of microliths and ground stone artefacts during the last three decades. However, no attention has been given to the Baidhyanath area so far. It is also important to state that while work in the adjacent areas have laid stress on Khairi-Bhandan and Deo rivers, the present work emphasized on locating sites around small rivers, streams and gullies, since there is more likelihood of getting primary sites near small rivers and rivulets rather than beside big rivers. However, intensive archaeological investigation in the study area in and around Baidhyanath has resulted in the discovery of seven prehistoric sites and collected a good number of lithic assemblages of different Stone Age cultures. Here the paper delineates the nature of such sites and the typological classification of the lithic assemblages retrieved from the field survey. In addition to this it also discusses the occupational strategies of the prehistoric denizens from the Pleistocene to the Holocene epochs in the study area.

Keywords: Prehistoric, archaeological Investigation, lithic assemblages, sites, Mayurbhanj

Received : 22 October 2022

Revised : 26 November 2022

Accepted : 02 December 2022

Published : 29 December 2022

TO CITE THIS ARTICLE:

Naik, S.K., Sahoo, D., & Nayak, S. 2022. A Preliminary Report on the Exploration Around Baidyanath, Mayurbhanj, Odisha. *South Asian History, Culture and Archaeology*, 2: 2, pp. 303-313.

Introduction

Mayurbhanj district is located in the north eastern part of Orissa between 21°17' and 22°34' north latitude and between 85°40' and 87°17' east longitude. It is bounded on the north by the Singbhum district of Bihar and Midnapur district of West Bengal, on the south by the district of Balasore and Keonjhar, on the east by the Midnapur and Balasore district and on the west by the districts of Keonjhar and Singbhum. It has an area of 6434 square kilometres. The district may be divided into three distinct natural divisions. The hill ranges serve as the dividing line running due north and south from the central group. There are two ranges of hills of lesser elevation dividing the plains of the district into two halves: (1) the eastern, and (2) the western. The western part is further subdivided into two portions by another hill range running in a westerly direction from northern portion of the north-south line. Geologically, the area is an extension of the Chhotanagpur region with rich mineral deposits. It is drained by the rivers Burhabalanga, Kharkai, Salandi, Deo, Khairabhandan and numerous other tributaries rising from Similipal hills. The fauna of district is spectacular. The vegetation is of the tropical deciduous type and the climate of the district is characterized by an oppressive hot summer, high humidity nearly all the year around, and well distributed rainfall during the monsoon. The average precipitation is 1600 mm per annum. Intensive exploration in the Baripada sadar, Bisoi, Rairangpur and Karanjia blocks, spanning two seasons, between 1994 and 1995, resulted in the discovery of four Lower Palaeolithic and nine Mesolithic sites. All these sites were open-air surface sites.

Area of Study

The present study is the outcome of the intensive exploration around the Baidyanath village under Raruan block in Mayurbhanj district during the field season in 2015. The present study area Baidyanath village is about 120 km from Baripada the district headquarter. It lies under 21°57' 40" to 21°57' 37" north latitudes and 85°49' 45" to 85° 49' 46" east longitudes. It comes under Raruan block and Raruan Police station. The study area is rich in lithic culture. The present survey was confined on periphery areas of Baidyanath such as Santabandha, Sivahuli and Mundakata and on the areas near the bank of river Baitarani such as Unchabali, Kemundia and Mukuna. The area is covered with Santabandha Reserve forest, Sivahuli and Rusihuli. A palaeo channel named Chuntia nala flows from north to south in the survey area. It originated from the state of Jharkhand and falls in Baitarani River. Besides many other small streams and gullies are also present in study area which were studied during the survey.

Objective

The major objective for the study were to thoroughly survey the area around Baidyanath and to locate prehistoric sites around the region along with the Chuntia nala (stream) and other streams and rain gullies. Carefully study the area and classify the sites on the basis of their tool types. It was to infer any possible manufacturing methods/techniques of those artefacts. To compare and contrast the artefacts recovered from Baidyanath and those of the nearby areas (which are already published). An attempt was made to reconstruct the Prehistory of Baidyanath area particularly.

Methods Adopted

Thus to study the area certain methods were adopted:

- Intensive surface exploration around Baidyanath area, in particular along with the banks of rivers, small rivers, streams and palaeo channels.

- Study the sections at the exposed/eroded areas and reconstruction of a composite section for the area, wherever seen.
- Drawing, documentation and photography of the artefacts.
- Comparison of artefacts obtained from the study area with those of nearby areas.

Stone Age study of Mayurbhanj: A Review

Mayurbhanj has been attracting archaeologists for its rich antiquities. Jashipur is important in the form of archaeological and historical point of view. The river Khairi-bondon which is flowing nearer to jashipur is responsible for the existence of pre historic men on its bank and sub sequently the area have been experiencing different phases of archaeological events from the remote past. In 1923-24 Paramananda Acharya diverted the attention of Rai Bahadur Ram Prasad Chanda of Archaeological Survey of India to the fact the objects like Neolithic celts were often found from Baidipur a village near Baripada. This discovery drew the attention of archeologists. Prof. R.D Banerjee visited the states and he could locate the occurrence of Neolithic Celts from baidipur, khiching and manada (Jashipur road) and the details of those implements have been published in his book “History of Orissa” in 1930. In the year 1939 a systematic study of these cultural materials was taken up by E.C. Worman (Jr.) a research fellow of the Harvard University in the district of Mayurbhanj. Subsequent studies made by Bose (1940) Sharma (1952) have reported the occurrence of Neolithic celts from Kuliana. At kuliana he marked the occurrence of tools in the bed of laterite while digging of a tank was going on. Then in 1939 and 1940 two members of the Department of Anthropology of Calcutta University namely N.K Bose and D.Sen came to study the artefacts (Basa and Mohanty (ed) 2000). Their work published in a Book entitled “Excavation in Mayurbhanj the two authors reported that the palaeolithic artifacts are not only available in Kuliana but also in the surrounding localities etc. subsequently the materials have been classified and described in detail. They also did a statistical analysis of tools found insitu and have drawn some conclusion and the general observation of Kuliana industry and have proposed correlation future line of work in the area under reference. Then the most prolific work in the district of Mayurbhanj has been done by G.C. Mohapatra (1957-59) when he has discovered a number of sites with sample evidence of both palaeolithic and post-palaeolithic evidences (Basa and Mohanty (ed) 2000). S.K. Mishra has also studied the area by explaining five district lithic culture zones around Jashipur with the discovery of Palaeolithic, Mesolithic and Neolithic artifacts he has also reported about the worshipping of the Neolithic celts and ring stones at the villages of Sunamunhi (Mishra 1987-88). In 1983 S. Chakrabarti has started his survey around the western margin of the Simlipal Massif. Unit sites like single culture and multi culture have occurred within the radius of 5 square km in Khiching Plateau, dividing them into open- air sites, channel- bed sites and cliff- section sites having evidences of Lower Palaeolithic, Middle Palaeolithic and Mesolithic culture. (Chakrabarti 1990) S.K Mishra has also studied the Burhabalang and Chipat river basin thoroughly and reported lithic implements from the region (Mishra 1990). In 1997 B.K Mohanta has surveyed and reported stone tool implements from different lithic cultures from the Manda area of the district. (Mohanta etal 1997). Besides in the same year B.K Khillar has also reported implements from the Deo river basin near Karanjia, in the Mayurbhanj district (Khillar 1997). D. Sahoo has also reported lithic industries around Gambharia in the district (Sahoo etal 1999)

Satellite Image of the Study Area

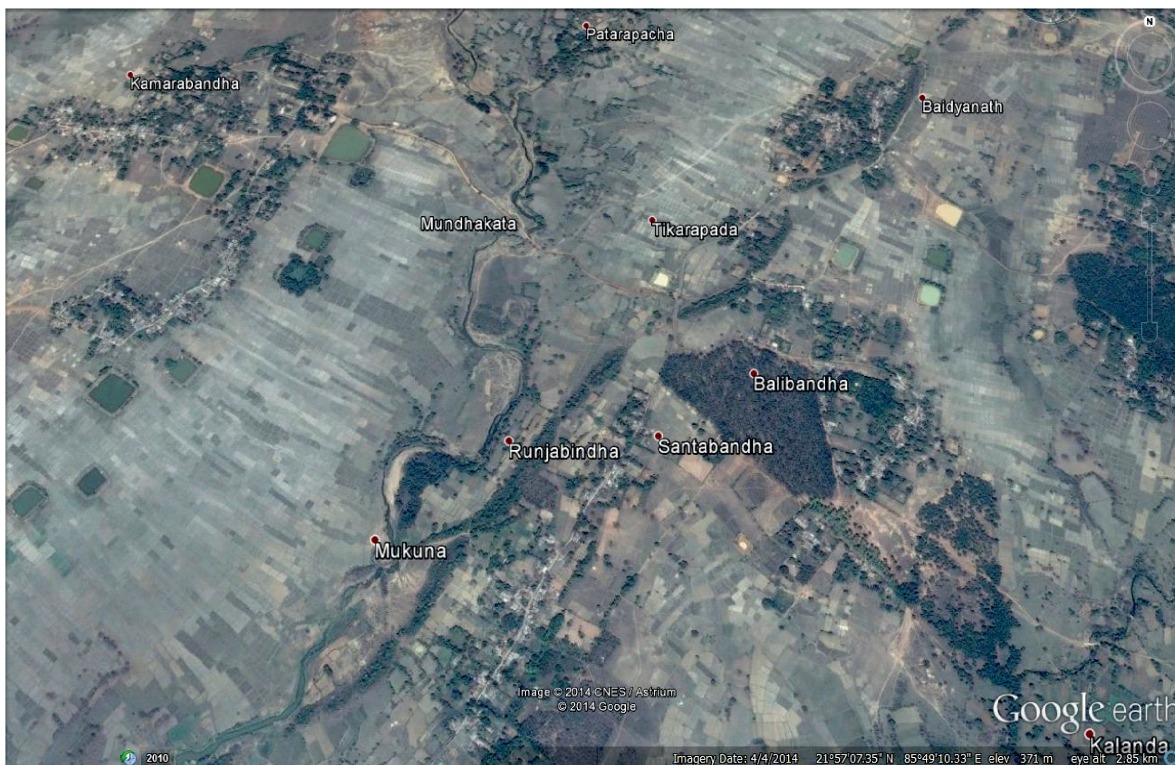


Table 1: Site wise distribution of the Artefacts recovered from the survey

SL NO.	NAME OF THE SITE	LATITUDE & LONGITUDE	MIDDLE PALAEO LITHIC		UPPER PALAEO LITHIC		MESOLITHIC		NEOLITHIC		TOTAL	
			NO	%	NO	%	NO	%	NO	%	NO	%
1	MUNDAKATA-1	21°57'40" - 85°46'25"	-	-	12	66.66	6	33.33	-	-	18	99.99
2	MUNDAKATA-2	21°57'32" - 85°46'27"	1	2.27	36	81.81	3	6.81	4	9.09	44	99.98
3	SANTABANDHA	21°57'27" - 85°47'36"	-	-	2	20.00	8	80.00	-	-	10	100
4	SIVAHULI	21°57'24" - 85°47'36"	-	-	1	100.0	-	-	-	-	1	100
5	MUKUNA	21°55'56" - 85°47'38"	1	12.5	4	50.00	2	25	1	12.5	8	100
6	KEMUNDIA	21°57'00" - 85°47'32"	-	-	-	-	-	-	1	100.0	1	100
7	UNCHABALI	21°57'06" - 85°47'32"	3	27.27	3	27.27	-	-	5	45.45	11	99.99
	TOTAL		5	2.15	58	44.82	19	48.27	11	4.74	93	99.99

Location of Sites

Shivahuli (21° 57'24" N Lat - 85° 47'36" E Long)

The site is a small hillock and the artefact was found from the foot of the hill so we can also say the site as a foothill site. It is about 100mtr towards west from the village Santabandha and about 250 mtr east from river Baitarani. This hill is dominated by rocks and big boulders. The hill is covered with eucalyptus, bamboo, some sal trees and palas trees. Besides, lots of small scrubs and bushes can also

be observed. A hill is also the part of Santabandha Reserve Forest. A piece of Upper Palaeolithic flake has been found from the site.

Mukuna (21° 55' 56" N. Lat. - 85° 47' 38" E Long)

The site is a foothill site. It lies around 100 mtr towards east from the left bank of river Baitarani and 200 mtr west from the village Santabandha. The site lies between two hills one is Rushihuli and the other is Shivahuli. The site looks like a plateau in between the two hills but in the present time the area is covered with thick grass due to which tools are difficult to find. Beside the geo-morphology of the site suggest that it might have been a good place for the prehistoric man to move around and hunt before thousands of years ago. Besides the site, both the hills are predominantly occupied by large stones and knobs. The area is covered with thorny shrubs and bushes and also edible berries. The main finding from the site is one tortoise core from Middle Palaeolithic period. two scrapers, one side scraper, one notch scraper from Upper Palaeolithic period and one worked nodule from Neolithic period.

Kemundia (21° 57' 00" N Lat - 85° 47'37" E Long)

The site is a river bank site and lies on the right bank of river Baitarani. The site is mainly occupied by sand, river pebbles and nodules and large rocky knobs. As the river acts as the administrative boundary between two districts i.e. Mayurbhanj and Keonjhar thus this site is in Keonjhar but it is easy to access the region by crossing the river. The river Baitarani is very wide in this particular place and it seem that when flood or in rainy days the place where the artefact was recovered might be getting submerged, but the position in which the tool was found states that it may have been washed away from the upper part of the land to the river bank. The upper part of the site is a vast open ground with thick grasses, a few bamboo trees and palas tree at some places. The trees which once occupied the area were cut down by the villager for agriculture and rearing for their domestic animals around the ground. This site has yielded only one neolithic artefact.

Unchabali (21° 55' 06" N Lat - 21° 55' 06"E Long)

It is a river bank site. This site also lies on the right bank of river Baitarani. Here the river acts as the administrative boundary between two districts i.e. Mayurbhanj and Keonjhar so this site is located in the Keonjhar district but here one can cross the river as the water level was very less. Thus during the survey period we manage to cross it and collect artefacts from the site very easily. The site is covered with boulders and river pebbles along with the sand. Though the site is a river bank site but if heavy rain or flood occurs in the river then the site use to get submerged in the river Baitarani. A good number of artefacts have been yielded from the site. The typology includes one handaxe, one round scraper, one side scraper of Middle Palaeolithic period, two side scraper and one burin of Upper Palaeolithic period and one adze, two axe, one chisel and one nodule of Neolithic period.

Santabandha (21° 57' 27" N Lat - 85° 47' 36" E Long)

This site comes under the Santabandha Reserve forest. The Santabandha hill lies to the north-west of the site. The hill from this side is covered with broken boulders and large stone which make inaccessible to climb upon the hill of Santabandha. This site is about 200 mtr east from the site of Mundakata-1 and 250 mtr north-west from the village santabandha. Today the site is covered with eucalyptus trees and big palas trees. The tools were difficult to find in the site as it is covered with the leaves of eucalyptus all over the ground. The lithic findings from this site are one nodule and one utilised blade of Upper Palaeolithic period and two flake, one nodule, two core, one point, two blade of Mesolithic period.

Mundakata -1 (21° 57' 40"N Lat- 85° 46' 25" E Long)

The site is 15 meter left of the road which leads to kamarbandha from santabandha. It is about 200 mtr north-west from the site of Santabandha. It is a foothill site. The site is covered with big boulders and pebbles. Looking to the size of the boulders, it seems that some of these boulders might have been used as cores and large flakes may have been removed from these boulders. Microliths were recovered adjacent to these boulders which imply that the site of Mundakata-1 might have been an industry site for Mesolithic culture. The tools were also found along with the small grasses and soil. From this site twelve Upper Palaeolithic tools were found they are four flakes, three end flakes, one side flake, one scraper, one side scraper, one nodule, one blade. Six Mesolithic tools were found they are four flakes, one point and one blade.

Mundakata-2 (21° 57'32"N Lat - 85° 46'27"E Long)

The site Mundakata-2 is rich in lithic culture of the region. It is to the west side of the Santabandha hill (reserve forest). A palaeo channel name Chuntia Nala flows on the western side of the site. On its Eastern side is the Santabandha reserve forest. On to the south of the site, about 500mtr flows the river Baitarani. This site is covered with pebble and shows bad land formation in some part of the site. At some part small lateritic granules are found associated with silt and sand along with the artefacts. The site is on the verge of destruction as the village people were cultivating vegetable and other edibles on the eastern part of the area for their day to day life as the Chuntia nala provides water for agriculture. The site has yielded Forty four artefacts from survey and they are one side cum end scraper of Middle Palaeolithic. Thirty Six Upper Palaeolithic artefacts they are twelve flake, two end flake, one side flake, two scraper, one side scraper, one end scraper, one notch scraper, seven nodule, one knife, two point, one leaf point, two core, one blade, two chips and three Neolithic flakes were also recovered

Concluding Remarks

The survey in the study area around Baidhyanath has yielded seven numbers of sites namely Mundakata-1, Mundakata-2, Sivahuli, Santabandha, Mukuna, Kemundia, and Unchabali. From the present survey all together 93 stone artefacts have been recovered. On the basis of typo-technology and raw material the recovered artefacts categorised under 3 broad cultural heads such as Palaeolithic which includes Middle Palaeolithic and Upper Palaeolithic, Mesolithic Culture and Neolithic culture. The artefacts of different cultural period were found insitu and loose on the surface almost in all sites. The tool belonging to the Middle Palaeolithic culture were found loose on the river bed and as well as the surface. Out of the seven sites only three sites have yielded Middle Palaeolithic artefacts comprising of small size of handaxe, round scraper, side scraper, side cum end scraper and tortoise core. The Middle Palaeolithic artefacts are commonly made on the raw material like quartz, quartzite and jasper.

The Upper Palaeolithic culture is represented by the flake and flake blade artifacts such as flake, end flake, side flake, scraper, etc. such Upper Palaeolithic evidence were found from six site like Sivahuli, Mukuna, Unchabali, Mundakata-1, Mundakata-2, Santabandha. Subsequently the area is also represented by various microliths. Microliths were collected from four sites namely Mukuna, Mundakata-1, Mundakata-2, Santabandha. Altogether 19 mesolithic artefacts were collected and the typology are flake, end flake, side flake, scraper, side scraper, blades, point, burin. Neolithic culture of the area is well represented by the ground and polished tools and a few indeterminate artefacts. The artefacts were primarily made on Dolerite, Diorite and Granite. The typology are Adze, Axe, Chisel, Nodule, Worked nodule, borer-cum-knife. Most of the Neolithic artefacts were found from the bottom level of the river bank which suggests that the artefacts have been transported from elsewhere nearby

the finding place. However intensive survey in the area has resulted a good number of lithic artefacts belonging to Palaeolithic (Middle and Upper), microliths of Mesolithic period, ground and polished artefacts associated with indeterminate types of Neolithic periods. The variety of artefacts of different cultural period suggested a succession of the prehistoric denizens in the area from middle Palaeolithic to Neolithic culture.

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Illustrations and Drawings



General view of the site Mundakata



Palaeolithic Flakes recovered from a section wall of the survey area



Distribution of Microliths (indicated by white arrow marks)



Neolithic Celt recovered from the survey

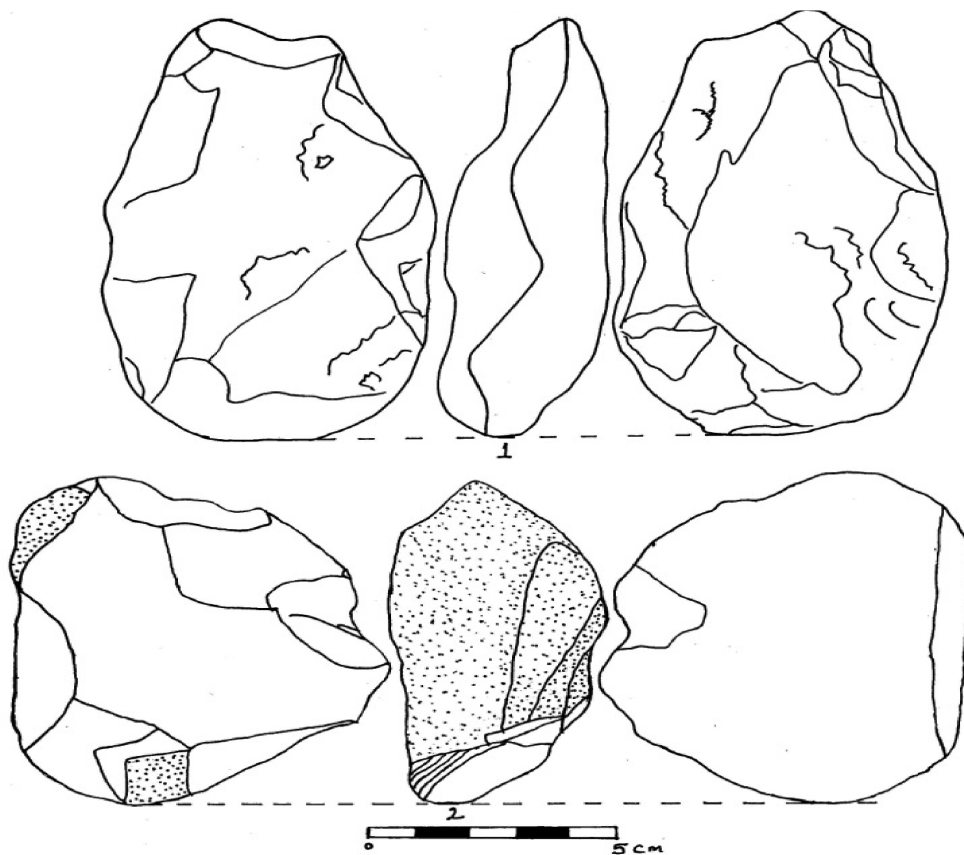


Fig. I: Middle Palaeolithic Tools 1- Handaxe 2-Side Scraper

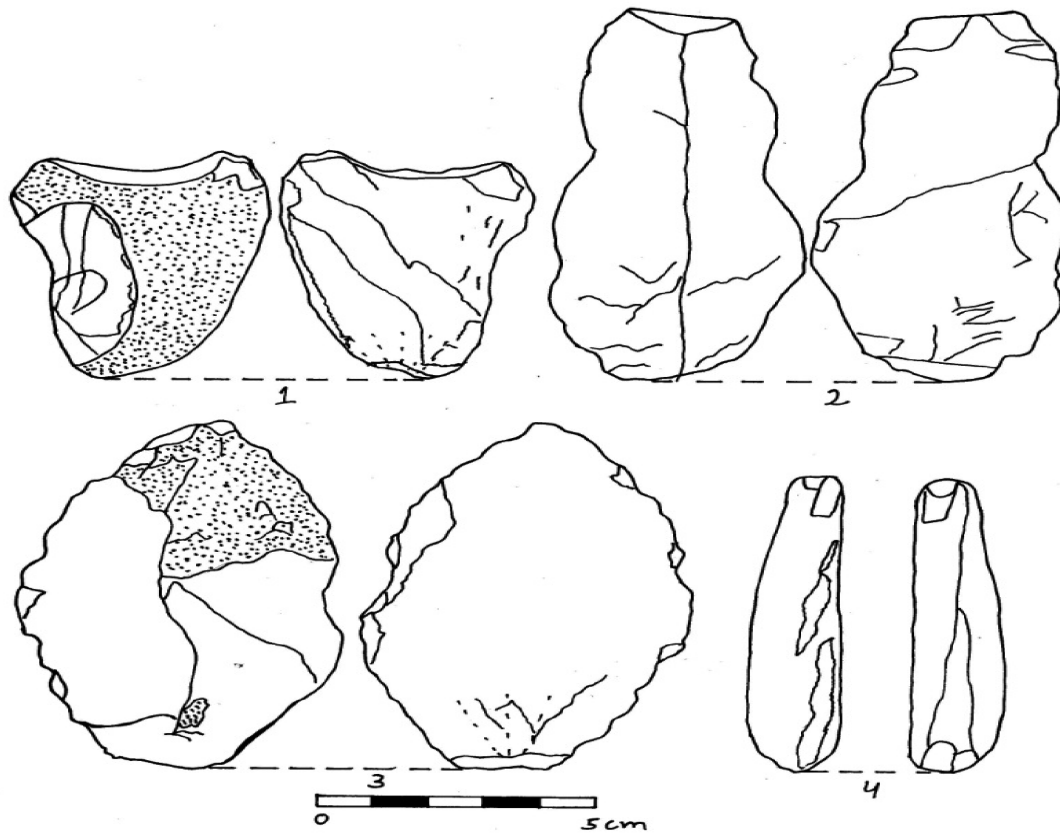


Fig. IV: Upper Palaeolithic Tools 1- Scraper 2- End Flake 3- Leaf Point 4- Burin

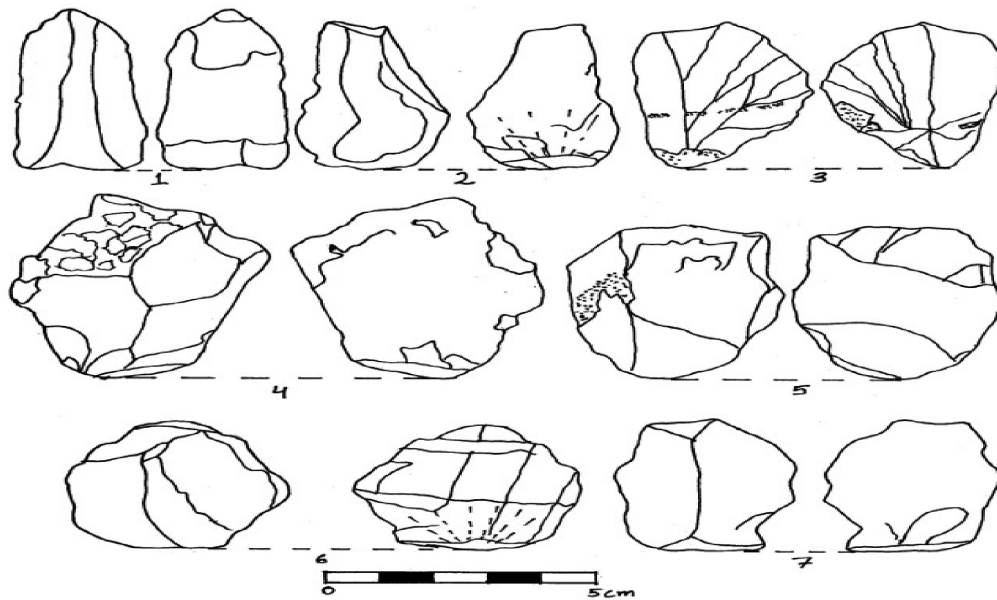


Fig. VII: Upper Palaeolithic Tools 1- Core 2- Blade 3- End Flake 4- Thick Flake 5- Notch Scraper 6- End Scraper 7- End Flake

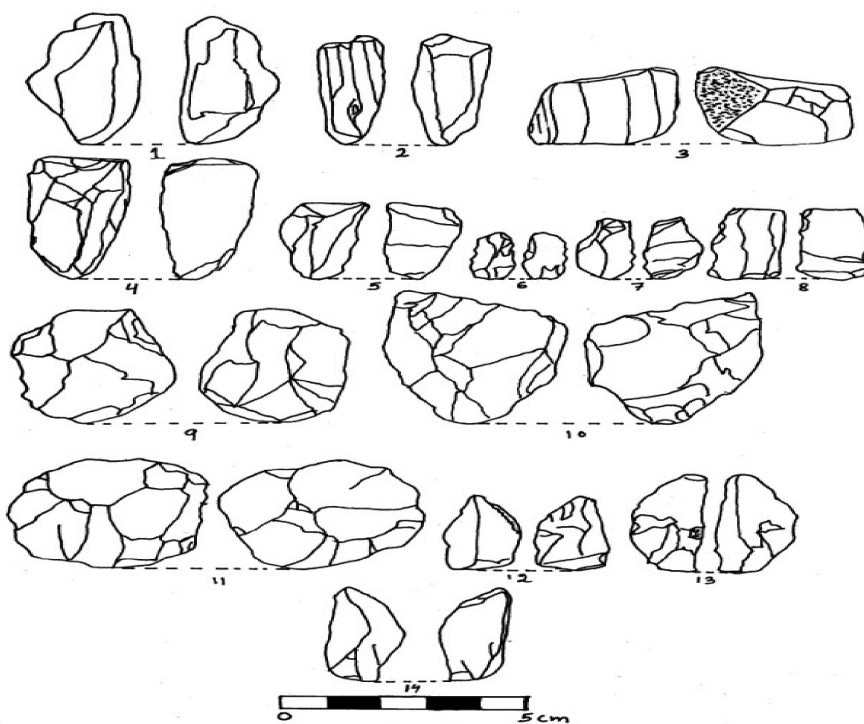


Fig. VIII: Mesolithic Tools 1- Cylindrical Core 2- Fluted Core 3- Core 4- Core Plung
5- Burin 6- Point 7- Blade 8- Fluted Flake 9- Scraper 10- Side cum End Scraper
11- Round Scraper 12- Borer 13- Utilised Flake 14- Burin

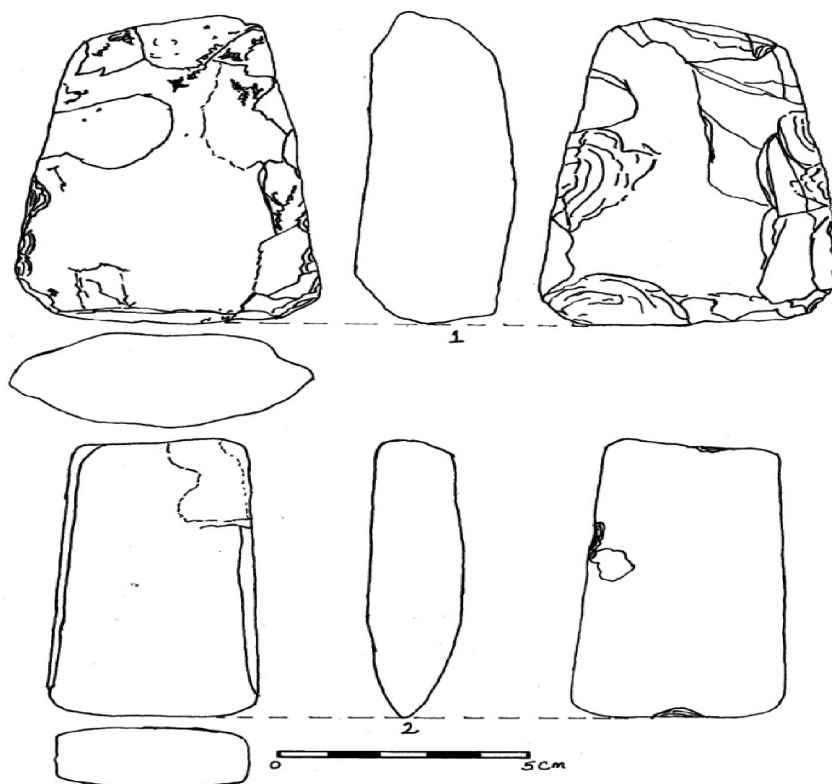


Fig. IX: Neolithic Tools 1- Axe 2- Chisel