Prehistory of Chhattisgarh: A Review

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Abstract: *The paper presents a comprehensive review of the prehistory of Chhattisgarh from the beginning of the early 20th century until 2020. Chhattisgarh is one of the richest known areas in Central-Eastern India has been reported with more than 332 prehistoric sites. Baster areas and the Upper Mahanadi basin have been reported with the highest numbers of sites in Chhattisgarh. The paper discusses sites reported on the Paleolithic, Mesolithic, Neolithic culture, prehistoric art and ethnoarchaeological studies conducted so far in the state. Several issues and research perspectives of the discovered sites are addressed in the paper.*

Keywords: Prehistory, Paleolithic, Mesolithic, Neolithic, Fossils, Rock Art, Ethnoarchaeology

Introduction

The state of Chhattisgarh bifurcated from Madhya Pradesh and become a new state from 1st November 2000. Chhattisgarh (Figure 1) is located in the heart of the country distinguished as geologically and culturally. The state has 28 districts with a population of about 25 million according to the 2011 census data. This rectangular-shaped state measures roughly 700 km north-south and 200 km east-west with a total area of 135,194 km^2. Geomorphologically Chhattisgarh can be divided into two distinct physiographic areas the Mahanadi plain to the north, and the Baster plateau to the south. The plain averages elevations of about 250 meters and the surrounding hills to the north and east rise to between 700-1000 AMSL. The Baster plateau is a distinctive ecological zone that begins abruptly at Keshal Ghat, some 170 km south of Raipur. It is bounded on the west and south by the Godavari River and in the east by the deforested hills of Orissa. The undulating plateau, with its hilly ranges to the west and south, is rich in forest and mineral resources.

All the hilly area and plain of Chhattisgarh are known for home to several tribal communities as a total of 43 schedules caste and 42 groups of peoples are declared as secluded tribes. Scheduled Tribes numbers with 6.6 million population sharing 31.8 percent of the total population of the State. Some of the important tribes are Gond, Kawar, Oraon, Halba and Bhattra, Bharia Bhumia, Nagesia, Baiga Kharia, Sonr, Damor,

Karku, Andh, Bhil Mina, and others. The districts of Bastar, Dantewada, Kanker Surguja, Raipur, Raigarh, Korba, Jashpur, Durg are tribal-dominated in the state (Census 2011).

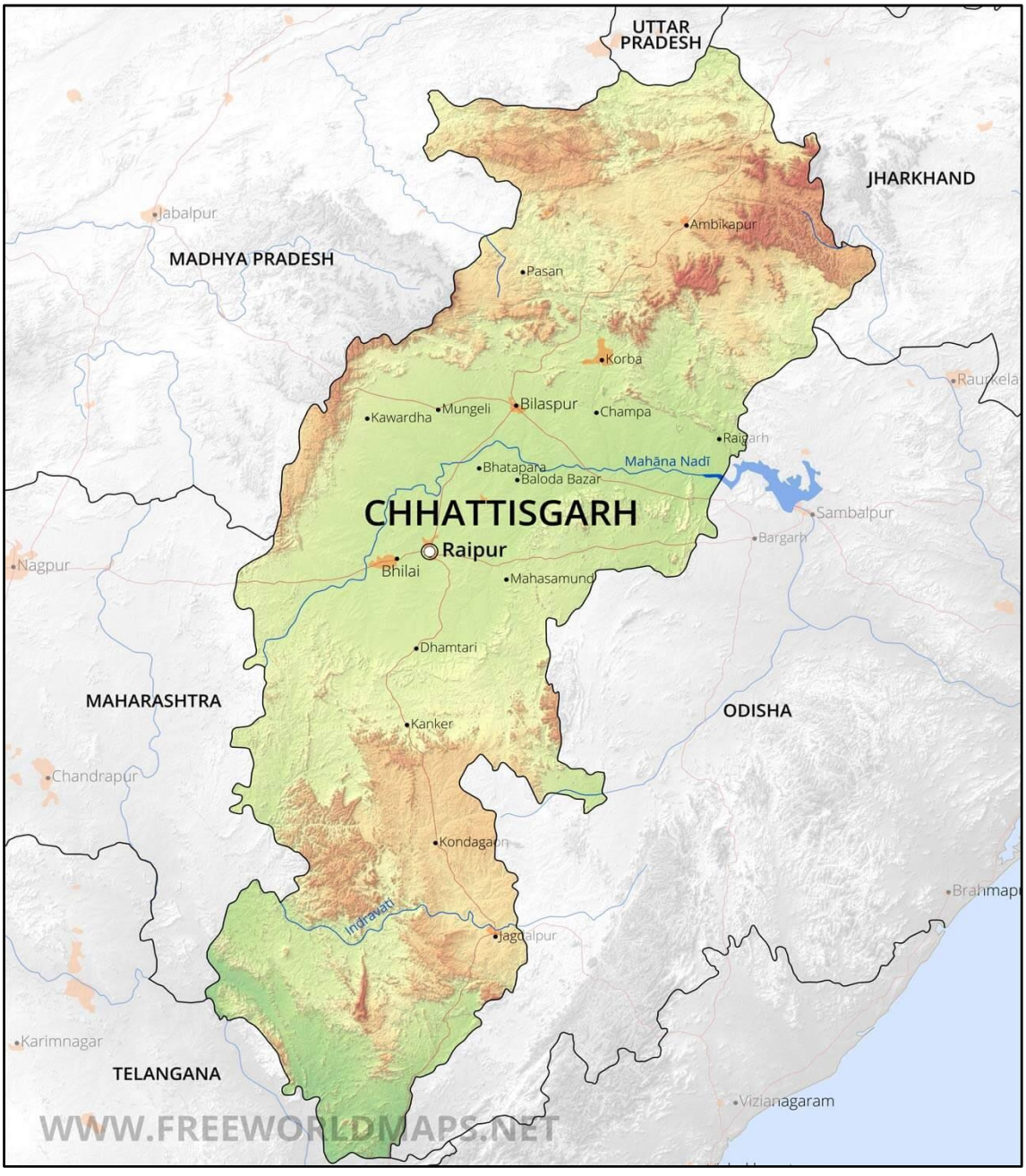

Figure 1: Physical Map of Chhattisgarh (Credit: Freeworldmaps.net)

The foundation of prehistoric research in Chhattisgarh was laid by C.W. Anderson along with C. J. Balding. During 1910 they explored a portion of the hills located close to the Singanpur village near Raigarh and reported two rock shelters with prehistoric paintings (Anderson 1918: 298-306). However systematic researches on the Palaeolithic and Mesolithic were initiated only after the 1950s by the Archaeological Survey of

India under V.D. Krishnaswami initiated a survey around Baster and its vicinity and reported some microlithic sites. Successively several scholars conducted explorations in the Indravati basin and Mahanadi basin. The state has enriched with large numbers of Archaeological sites beginning with the Lower Palaeolithic onwards. Several researchers have been engaged from time to time on the early hunter-gatherer settlement pattern, site distribution pattern, paleo-environment, lithic assemblages and paleoart (Pandey 1987a, Yadava *et.al* 2007, Quamar, and Bera 2014, Badam 2004, Padhan 2013).

Records of Reported Stone Age Sites in Chhattisgarh

As per the author's collected data Chhattisgarh, have been recorded with a total number of 332 prehistoric sites (Table 1). Acheulian evidence has been reported from 38 sites, however out of them 33 sites also occur with other Palaeolithic and Mesolithic tools. Middle Palaeolithic evidence has been recorded from 27 sites and Upper Palaeolithic tools have been recorded from 17 sites. The Mesolithic/Microlithic sites are widespread and recorded from 190 sites. Out of which 44 microlithic sites are found associated with pottery. Rock art sites have been reported from 48 sites found with numerous motifs of animals, human, geometric along with several symbols. The upper Mahanadi area has been reported with only four fossils sites and out of that three sites are found associated with Middle Palaeolithic artifacts. The ground tools with polished, unpolished, or chipped Neolithic celts have been reported from 8 sites across the state.

Table 1: Number of prehistoric sites reported from various districts of Chhattisgarh (Courtesy: IAR, Ph.D. theses and published articles)

District	Acheulian	Middle Palaeolithic	Upper Palaeolithic	Mesolithic/ Microlithic	Rock art	Fossil	Neolithic	Total
Bilaspur		3	1	8				12
Baster	34	18		116	3		7	178
Raipur	1	3	1	43		3		51
Kanker					18			18
Durg				3	1	1		5
Mahasamund	3	1		5			1	10
Raigarh				9	18			27
Sarguja		2	15	6	5			28
Koria					3			3
Total	38	27	17	190	48	4	8	332

The Baster district has yielded the highest number of 178 sites belongs to Palaeolithic, Mesolithic, and Neolithic sites. Baster has been reported with 34 Acheulian sites, 18

middle Palaeolithic sites, 116 Mesolithic sites, seven Neolithic sites, and three rock art sites. Raipur has been the second-highest recorded with a total number of 51 sites. There is reporting of one Acheulian site, three Middle Palaeolithic site one Upper Palaeolithic site, 43 Mesolithic site, and three fossils reach the site from the upper Mahanadi basin. The Sarguja district comes with third highest numbers of stone age sites and rock art sites. The district has been reported with 15 Upper Palaeolithic sites, with two Middle Palaeolithic and six Mesolithic sites and five rock art sites comprising at a total 27 of prehistoric sites in the district. Raigarh district comes in fourth positions and is recorded with a total number of 27 sites. The district has been reported with the highest number of rock art sites and nine Mesolithic sites have been recorded from the district. Mahasamund district has recorded with 10 prehistoric sites. The district has recorded with mixed evidence of three Acheulian, one Middle Palaeolithic, five Mesolithic, and one Neolithic site. Bilaspur district has been reported with three Middle Palaeolithic, one Upper Palaeolithic, and eight Mesolithic sites from different contexts. The Kanker district has been reported with 18 rock art sites. Above all the Koria district is also recorded with three rock art sites. Durg district has been evidenced with only three Mesolithic sites and one rock art site and a fossil site.

Prehistory of Baster Area

Palaeolithic and Mesolithic and rock art sites are known from the Baster district in multiple locations and the discovery of microliths from Chitrakot falls on the river Indravati were found by Archaeological Survey of India (Krishnaswasmi 1953). Later on, V.S. Wakankar made a field visit to Baster district and reported microliths and rock paintings in limestone caves at Gupansar and Chitrakot (IAR 1961:59; Wakankar 1973: 263-64). V.D. Jha rigorous field investigations in Baster district during the 1960s brought to light 30 prehistoric sites ranging from Acheulian to Neolithic periods (Jha 1968). Some of the important sites are Matewara, Kalipur, Deurgaon, Chitrakot, Garh Chandela, Garh Bodhra, and Madhota. Matewara is an important Acheulian site where he found handaxes, scrapers and points. Middle Palaeolithic tools were found at Kalipur. The Neolithic ground and polished stone tools were found close to Dornapal village in Baster district (Jha 1968: 63-65).

V.D. Jha during 1984-85 while working at the Department of Ancient Indian History, Culture and Archaeology of Dr. H.S. Gour Vishvavidyalaya also conducted explorations in the Northern and Central Baster and discovered following sites, Kharagghat, Kalipur, Ghoradah, Karanjia Deurangaon, Bodhra, Chitrakuta, Garhchandella and Binta on the river Indravati and Chatlohanga, Gubrahin, Keshkala, Chapka, Ichhapur, Badedonger, Trithgarh, Raikot, Raye, Badgai, Chhotedonger and Alor site. These sites were recorded with Lower, Middle, Upper Palaeolithic and Mesolithic periods. The sites were yielded with handaxe, chopper, scraper, cleaver, awl, point-borer, borer-cum scraper, saw, core, blade, burin and arrowheads (IAR 1984-85: 39-40). Two Neolithic celts were discovered on hilltops of Chhotedonger and some artefacts at Garh Dhanora in Kondagaon Tehsil. Neolithic sites were also located at Garhchandella in Jagadalpur Tehsil. However painted rock shelters belong to the

Neolithic-Chalcolithic periods were discovered on the Linga Sahai hill, close to Alor located about 7 km from Faresagaon. Another rock art site Edka lies 12 km from Naraganpur found with early historic motifs.

The story of Ramayan is very popular in Central India and the mythical location of Lanka has been hypotheses to Baster because of the similarity of the description of people and land which matter of interest for several Archaeologists over decades. Considering the same H.D. Sankalia, V.N. Misra and B. B. Lal conducted multiple surveys however they ended discovering Lower Palaeolithic and Middle Palaeolithic tools made on quartzite, from river beds of North and South Baster (IAR 1982-83:36).

During 1979-80 a team led by A. K. Sharma under the supervision of K.D. Banerjee of Archaeological Survey of India, Prehistory Branch, Nagpur carried out systematic investigations in the Indravati and its tributaries in the Baster district. Their survey brought to light total numbers of 125 stone age sites out of which 18 are Middle Palaeoithic, 104 Mesolithic, and three are Neolithic sites (see IAR 1979-80: 36-39). The sites were discovered in both surface and stratified contexts. The sites were found on the flat tops or slope of the hillock on the pedimented surface. Artifacts were found embedded on the surface of the detrital laterite, gravel or clay originated from the secondary laterite (IAR 1979-80: 36). The artifacts are consist of flakes, points, scrapers, borers, awls, lunates, blades, fluted cores, raw material nodules, and a large quantity of waste flakes. The artefacts are made on chert and rarely on Quartz. Few Neolithic tools were also collected from Ambaguda, Baliapara, Kalipur, Parpa, and Tuideoda of Dantewara area in Baster. During 1985-86 C. Krishna, O.P. Misra, Salimuddin, and S.S. Yadav of the Department of Archaeology and Museums, Madhya Pradesh conducted exploration in the Indravati valley near Chitrakot, Matnar, Bhhodghat, and Katrus. The survey brought to noticed findings of Stone Age artifacts from Chitrakot, Rajpur, Barsur, Tumsar, and Bhopal Patnam site (IAR 1985-86: 47).

During the 1990-91 Prehistory branch of Archaeological Survey of India a team lead by A. K. Sharma, S. B. Ota discovered a group of rock shelters to the west of village Khiarkhera (20^0 04' N; 81^0 33' E). Another rock shelter with paintings was discovered on the right bank of Mutekadka river close to Bhandarpal Khadan bauxite mine (20^0 06' 15" N; 81^0 23'30′ E). The paintings were made on the red ochre color and found with animal figures, palm and footprints, and some geometrical motifs (IAR 1990-91: 35-41).

Zarine Cooper from the Department of Archaeology, Deccan College, Pune conducted extensive explorations around the Chitrakot falls. She surveyed an area over 107.52 sq. km and brought to light 45 Mesolithic sites, out of that 23 localities were reported around Chitrakot falls. Seven localities each discovered near Ratina and around the reservoir and eight localities around Temra along the bank of Indravati river basin (IAR 1979-80, Cooper 1983a; 1983 b; 1983c; 1983d). The sites were found scattered around the waterfall spread over 5-20 sq. km area and sites located on plain and upstream of Indravati are range from 10 meters to 4.4 sq. km. The sites discovered by Cooper (1983a) are reported along the banks of the river Indravati, about 5 km

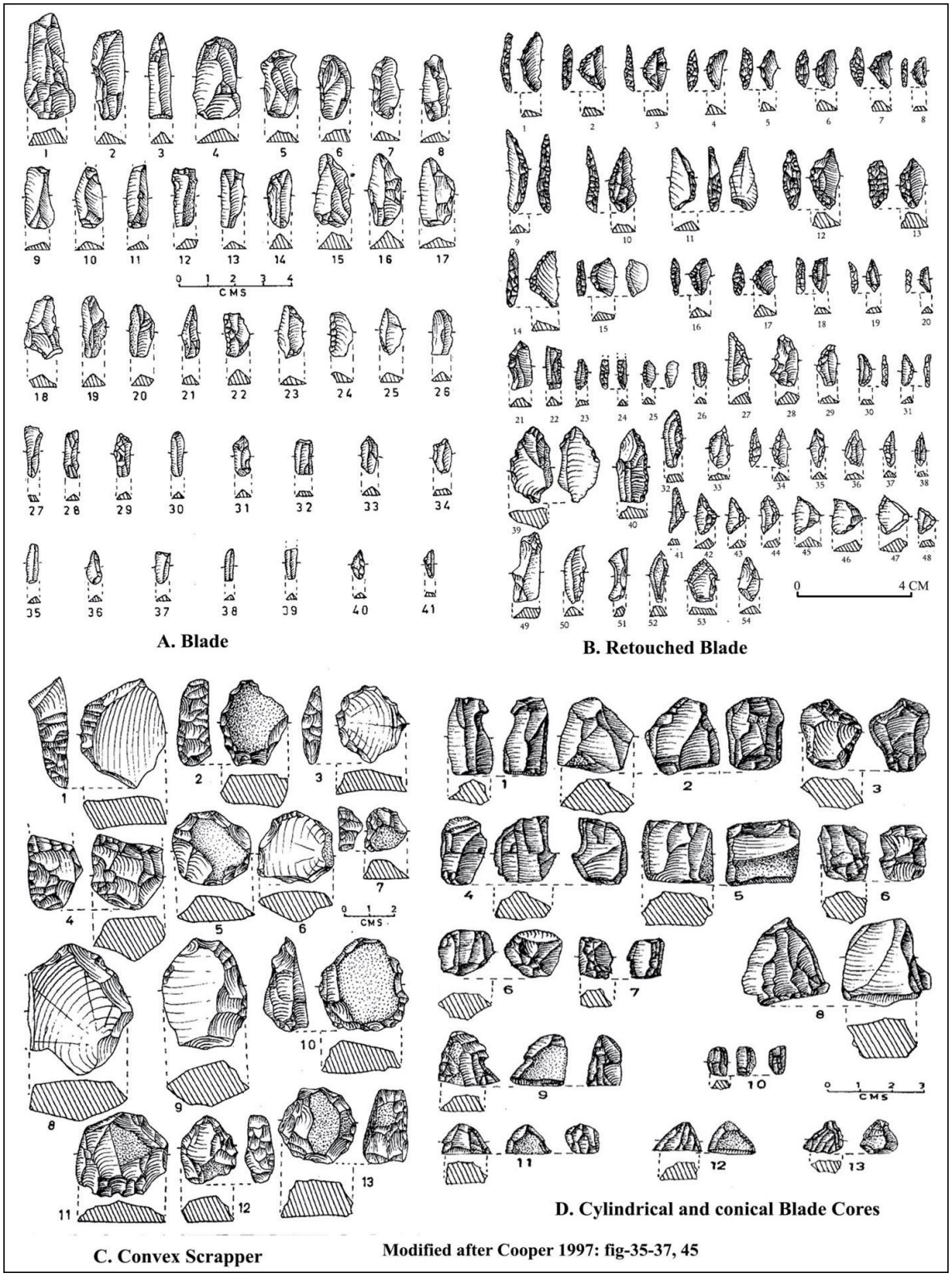

Figure 2: A. 1-41 Unretouched Blades. B. Unretouched blades; Symmetrical crescents (1-8), Asymmetrical crescents (9-20), Blunted back blades (21-26), penknives (27-31), Points (32-40), Triangles (41-48), Notched blades (49-52), Blades with flat retouch (53-54). C: 1-7 Convex Steep-sided scrappers, 8-13 Convex Scrapers. D: 1-7, 10 Cylindrical cores, 8,9, 11-13 Conical Cores.

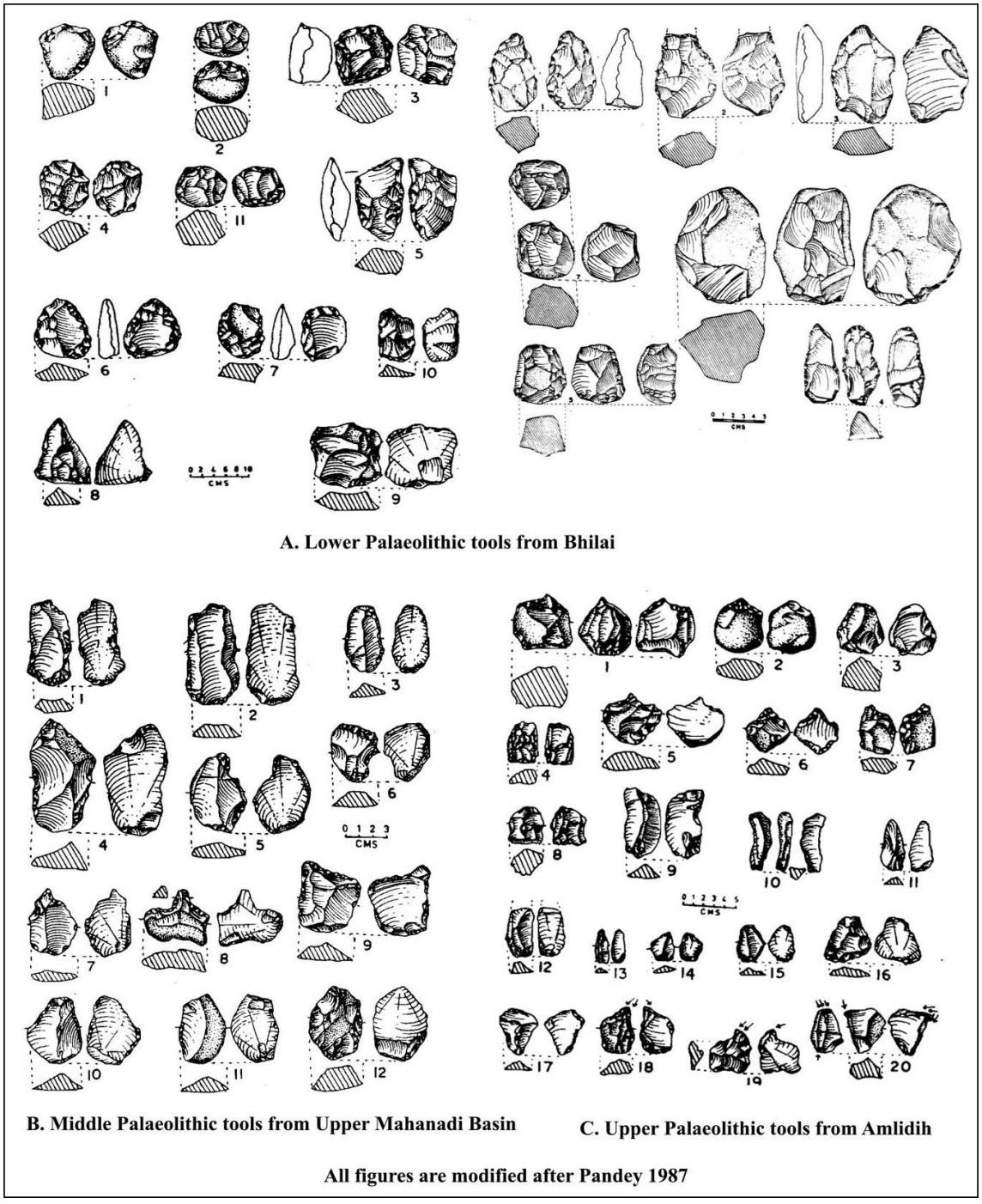

Figure 3: A. Lower Paleolithic artefacts from Bhilai B. Middle Palaeolithhic tools from Upper Mahanadi basin, C. Upper Paleolithic tools from Amlidih site

upstream and 6 km downstream of the waterfalls. The Microlithic industry occurs in clusters dominated with waste flakes, chips, and cores, along with few finished tools.

Along the river, the distance between sites varies from 10 m to 1 km, in some instance lithic clusters located within 10-20 m distance from one to another. All the sites occur on the surface and the amount of deposits varies from 5 cm to 40 cm. Cooper (1997)

noted findings of Acheulian artifacts, consist of handaxe, flakes made on quartzite, were found in associated with the bouldery gravel bed of the streams dissecting the base of the Michanar escarpment.

During her doctoral research Cooper (1983a) also located two raw material sources around the falls and river, where pebbles of quartz, chert and quartzite occurs within the sand-bars. Two-km upstream of the waterfall was found with angular to sub-angular nodules of chert, quartz, and chalcedony. One of the localities named the CRT-19 yielded the highest number of artefacts consisted of 28,594 out of which 99.76% was debitage and waste materials such as cores, flakes, chips, worked/unworked pebbles and unretouched blades.

Most of the blades are made on chert and 65.11% of the blades are unretouched. However about 50% of the retouched blades are crescents, another half of the assemblage consisted of points (15%), triangles (13.34%), blades with a blunted edge (10%), penknife blades (8.34%), truncated blades (1.66%), and blades with flat retouch (1.66%) of the Microlithic collections (Cooper 1983c) also see (Figure 2). In relation to the raw materials use quartz dominated with 82.30% and chert 15.02% utilized for manufacturing the tools however chalcedony, quartzite, shale, and opaline silica were used occasionally, represented with a nominal percentage in the assemblage.

Besides, 69.64% of the unretouched blades are broken, however the majority of the retouched blades are complete, 60% of the blades are made of quartz. Side and end scrapers constitute only 0.02% of the total collection. The manufacturing debris or chips represent 96.20% of the total surface collection. Over 83% of the chips are made on quartz and the majority of them are 1 cm or less in length. The statistical analysis of the 12,382 pieces from the other eight sites revealed that the ratios of the various components are generally similar to those from CRT-19, represented by uniformity in the selection of lithic raw materials for certain categories of tool types. Nanda (1984) carried out similar systematic exploration between 1975 and 1978 in Indravati valley in the present-day Koraput district of Odisha and brought to light 85 Mesolithic sites.

A. R. Sankhyan surveyed during December 2008-January 2009, discovered 13 Palaeolithic sites in the Baster and Dantewada districts of Chhattisgarh (Sankhyan *et. al.* 2011). Palaeolithic tools were discovered from Dandak Cave, Barsur, Chitrakot-I, Dantewada, Kailash Cave Nalla, and Michanar, however seven sites, Kutumsar Cave, Chitrakot-II, Erikpal, Kangoli, Metawara, Tirathgarh, and Dondrapal found with implements of both Palaeolithic to Mesolithic period. The Kutumsar Dandak cave complexes located in the Kanger Valley National Park in Baster district were found with microliths.

The Dantewada sites located on the bank of the Dankini (a tributary of Indravati) and Dondrapal site yielded cleaver, discoid, and scrappers of lower and middle Palaeolithic types. Large scale use of limestone and quartzite were utilized in the site for manufacturing the stone tools. However, the Tirathgarh and Erikpal site is located on a

rocky surface that yielded several quartzite, quartz and chert scrapers, arrowhead points of the Middle Palaeolithic to Mesolithic typology.

The Kangoli hilltop sites are found with some Middle Palaeolithic scrapers and handaxes made on shale and also occurs with microliths. However, Metwada site found on the hill slope context and yielded scrapers, points, and picks of the Lower Palaeolithic to the Mesolithic types. The collection comprises of 143 artifacts consist of handaxes, picks, choppers, cleavers, discoid, spheroids, scrapers, spears or lance-heads, and arrowhead and points typologically represent Lower Palaeolithic to Mesolithic. The lithic assemblage dominated with flake and blade typology (89.5%) ranges from Middle Palaeolithic to Mesolithic periods. The core tools consisted of (9.1%) and pebble tools (1.4%) of Lower Palaeolithic typology (Sankhyan *et.al* 2011). They called the assemblage Palaeolithic and Mesolithic and didn't assigned any specific typology to the studied assemblage as they stated "blade typology ranging middle Palaeolithic to Mesolithic" (Sankhyan *et.al*. 2011:1148). The blade belongs to Middle Palaeolithic, Upper Palaeolithic and Mesolithic has specific typological technological characteristic features. The context of the sites are not been clearly narrated.

Upper Mahanadi Basin

R.P. Pandey conducted his Doctoral research work in the upper Mahanadi basin. It was an eye-opening chapter in the history of prehistoric researches in Chhattisgarh. Work conducted by Mahapatra (1962) in Lower Mahanadi was a pathway for initial explorations of Pandey (1977a, 1977 b) and during his work, he got fresh evidence of Stone Age to Early historic culture in the Mahanadi river basin. He explored the Mahanadi and its major tributaries like the Seonath, Hasdo, and Jonk to trace the Stone Age sequence and quaternary deposits in the Upper Mahanadi basin and brought to the light total number of 45 sites. Among them, three belongs to Acheulian/Lower Paleolithic, five Middle Palaeolithic, four Upper Palaeolithic, 33 Mesolithic sites, and two Pleistocene fossils sites (Pandey 1977, 1980, 1984, 1985, 1987b). The Lower Palaeolithic sites were found in the foothills. The middle Palaeolithic sites are located in the Gravel-1 on the bottom of the river stratigraphy. Upper Palaeolithic sites were located on the gravel-II which is 3-4 meters over the present river bed, a few Upper Palaeolithic sites were also located on the surface. The Mesolithic sites were found on the hill slope and rocky area, river alluvial section, and laterite plain.

The sites were recorded in different contexts such as hilltop, hill slope, flood plains, alluvial and lateritic plains. Mesolithic sites are located between 230 to 680 m AMS. Some sites were found ranging from 4 sq. meters to 400 sq. meters in area. Palaeolithic tools were located in the Seonanth river bank near Nandghat and Amalidih in Bilaspur district. The tool bearing gravel was noticed with 3-meter thick gravel deposits. Total numbers of 497 Palaeolithic tools were collected during his survey in Mahanadi. The stone tools were collected from river gravels, river sections, or river bank or hill slope context.

Two Lower Palaeolithic sites were located on the pedimented slope close to the right bank of Mahanadi river near Bhilai and Haradula villages. The Bhilai site is comprised of and 26 tools. The lithic assemblage consists of one cleaver, eight choppers (both unifacial and bifacial), three scrappers, eleven flakes five borers, and three cores (Figure 3). The Lower Palaeolithictools were made on Quartzite and dyke quartz.

The Quaternary deposits of Mahanadi basin consist of secondary laterite, sand, silts, clay, gravel, and formation of thick alluvium across the river bank. The river gravel deposits of Mahanadi categorized into two gravel types (1) Pebble conglomerate, and (2) High level gravel. Gravel I are yielded with the middle Palaeolithic artefacts along with late Pleistocene animal fossils. The pebble gravel also occurs as 3 to 10 m above the present river bed and sometimes found up to 2-3 km away from the present river bed (Pandey 1980). Remains of vertebrate fossils were discovered in the gravel-1, associated with Middle Palaeolithic tools Somnath, Simga, and Nandghat on the Seonath river and without any lithic remains at Rajnandgaon. Species identified in the above sites are *Bos sp., Bos nomadicus, Bos indiens, Bubalus bubalis, Equus namadicus, Equus caballus, Equus asinus, and Cervus sp.* (Joshi *et.al*. 1980, Pandey 1983)

Four Middle Palaeolithic sites were located in Mahanadi out of the three are found in Seonath River in Raipur district and one on the Hasdo river in the Bilaspur district. The total number of Middle Palaeolithic artifacts consists of 246 tools. The stone tools comprised of two-three miniature hand axes, three choppers, six points, three blades, fourteen cores and rest are waste and flake and debitage. The handaxes were made on the river pebble, choppers were found in heavily rolled conditions, however the points were made on the flake and nodules. The middle Palaeolithic cores were classified into flake core, blade core, and a discoidal core made on river pebble or nodules. The Middle and Upper Palaeolithic lithic assemblages were found made on locally available siliceous rocks chert and chalcedony. The sites are found on the right bank of the river, often close to the rivers and also 5-6 km away from the river.

The Upper Palaeolithicartefacts were found near the Simga, Bansankara, and Amlidih. Blade tools were found in the river gravel at Amlidih, however, at Simga and Bansanka artifacts were found on the surface. The artifacts consist of blades, burin, borer, knife, scrappers, lunates, core, and flakes made on cryptocrystalline material such as chert and chalcedony (Pandey 1979: 144)

During the course of Pandey investigations in the Mahanadi valley, Mesolithic sites were noted in the highest concentration of 28 sites in Mahanadi and its tributaries of the Hasdo and the Jonk yielded two sites each. The Mesolithic sites were found on the foothills and hill slope or on the rocky surface close to any water source, near the river or stream bank, however, some are found on the pedimented lateritic surface or the alluvial plain. Few sites are noted 6-7 km away from the parent river. The Microlithic assemblages were found in both isolated and clusters and scattered in a large area. The sites are varying in ranges from 4-5 square m to 200-400 square m area (Pandey 2002:191).

Pandey had collected and studied 4392 specimens. He divided the assemblage into two broad categories: shaped tools n=753 (17.14%) and simple artefacts n=3639 (82.86%). The shaped tools have further been divided in various groups and sub-groups, which include scraper n=255 (34.4%), borers n=11 (1.46%), burins n=20 (2.66%), points n= 85 (11.30%), lunates n= 98 (13%), triangles n= 12 (1.59%), knives n= 12 (1.59%), worked blades n=14 (1.86%), worked microblades n= 225 (29.88%), choppers n= 17 (2.26%) and the simple artifacts include cores n= 573 (15.75%), flakes 1125 (30.92%), blades n= 202 (5.55%), micro-blades n= 326 (18.22%), chips n= 748 (20.55%), worked nodules n =326 (8.95%) and hammerstones n=2 (0.05%) of the studied lithic assemblages (Pandey 2002:194). Siliceous raw material such as chalcedony, agate, carnelian, quartz, and occasionally jasper were utilized for manufacturing the microliths in the Upper Mahanadi basin. The Microlithic collections are fresh however some found in the alluvial and lateritic context bear whitish and reddish staining on them. The Stone Age localities identified by Prof. Pandey have followed the (Muller Willey 1954) model and classify them into five different types of settlement as permanent, semi-permanent, seasonal sites, a temporary camp, and ephemeral sites in the upper Mahanadi.

He also studied the quaternary geology of the Mahanadi basin and also contributed a lot to understanding the prehistoric past of Chhattisgarh. He has recorded the river sections at Girod, Arjuni, and tried to understand the paleoclimate, settlement pattern, and subsistence strategy of Stone Age populations in the Upper Mahanadi basin. The Quaternary deposits of the Mahanadi basin consist of secondary laterite, sand, silts, clay, gravel, and formation of thick alluvium across the river bank. Palaeolithic tools were located in the Seonanth river bank near Nandghat and Amalidih in Bilaspur district. The tool bearing gravel was noticed with 3-meter thick gravel deposits.

The Lower Palaeolithic sites are recorded in the small number by R.P. Pandey during his work noticed that the Mahanadi is full of potential. He suggests that the upper Mahanadi valley has some elements of a Lower Palaeolithic industry, yet to be properly identified (Pandey 1982). The further work in the upper Mahanadi basin was carried forward by the author considering the Jonk a major tributary of Mahanadi and successfully located 15 Lower Palaeolithiclocalities in the Upper Mahanadi Basin

Prehistory of Jonk River Basin

Jonk river is a major southern tributary of the Upper Mahanadi basin. The river originated from the Sunabeda plateau and flows for about 210 km through Nuwapada, and Bargarh districts of Odisha and Mahasamund and Raipur Districts of Chhattisgarh. Archaeological survey conducted by the author during his doctoral research in the Jonk river basin during 2007-2012 resulted discovery of 62 Prehistoric sites(Figure 4). Over the years several publications have been come up addressing on key aspects and issues of stone age archaeology of the Jonk river, settlement pattern, site formation, lithic assemblages, the chronology of the reported sites on the river (see Padhan 2013, 2014a, 2014b, 2015, 2016, 2017, 2018a, 2018b). In Chhattisgarh's 14 sites

are located in the district of Mahasamund and Raipur (Table 2). Mahasamund district has been reported with three Acheulian, one Middle Palaeolithic, three Microlithic, and a Neolithic sites, however, the lower part of the Jonk river, one Acheulian site, and three Microlithic sites are reported from Raipur district (Padhan 2018b).

Table 2: Prehistoric sites discovered in Mahasamund and Raipur districts of Chhattisgarh (After Padhan 2018b)

Sr. No.	Site	Period	Context	Latitude / Longitude	District
1.	Girna	Acheulian	River Valley	21°11'59.81"N; 82°37'21.11"E	Mahasamund
2.	Girna Ghat	Acheulian	River Bank	21°12'24.15"N ;82°38'28.80"E	Mahasamund
3.	Senbhata	Acheulian	Hill Slope	20°50'56.64"N; 82°26'49.86"E	Mahasamund
4.	Davsaral	Acheulian	River Section	21°18'11.49"N; 82°38'53.09"E	Raipur
5.	Chikhli	Middle Palaeolithic	River Section	21°14'15.48"N; 82°38'0.10"E	Mahasamund
6.	Senbhata	Acheulian/ Microlithic	Foot hills with Acheulian	20°50'56.64"N; 82°26'49.86"E	Mahasamund
7.	Chhuiha	Microlithic	Granite Outcrop	21°4'64.15"N; 82°31.39"E	Mahasamund
8.	Gauria	Microlithic	River Section	21°15'26.18"N; 82°37'34.28"E	Raipur
9.	Khurmuri	Microlithic	River Section	21° 1'15.81"N; 82°36'39.67"E	Mahasamund
10.	Kurkurbhata	Microlithic	Foot Hills	20°50'54.94"N; 82°25'56.28"E	Mahasamund
11.	Jagdala	Microlithic	Foot Hills	21°6'54.15"N; 82°33'17.46"E	Mahasamund
12.	Tiprung	Microlithic	River Bed	21°37'49.32"N; 82°30'22.88"E	Raipur
13.	Arjuni	Microlithic	River valley	21°30'22.61"N; 82°36'51.92"E	Raipur
14.	Jagdispur	Neolithic	Hill Slope	21°20'21.40"N; 82°45'6.57"E	Mahasamund

The majority of the prehistoric sites in the region are found on the hill slopes, foothills, pedimented sloppy surfaces, and river sections (Padhan 2013, 2014). Collected and studied Acheulian assemblages of the Jonk river consist of a total number of 306 Acheulian artefacts from the 15 sites. Detailed typological analysis revealed flakes constituted highest in number, with n=127 (41.5%), core n=47 (15.36%) and core

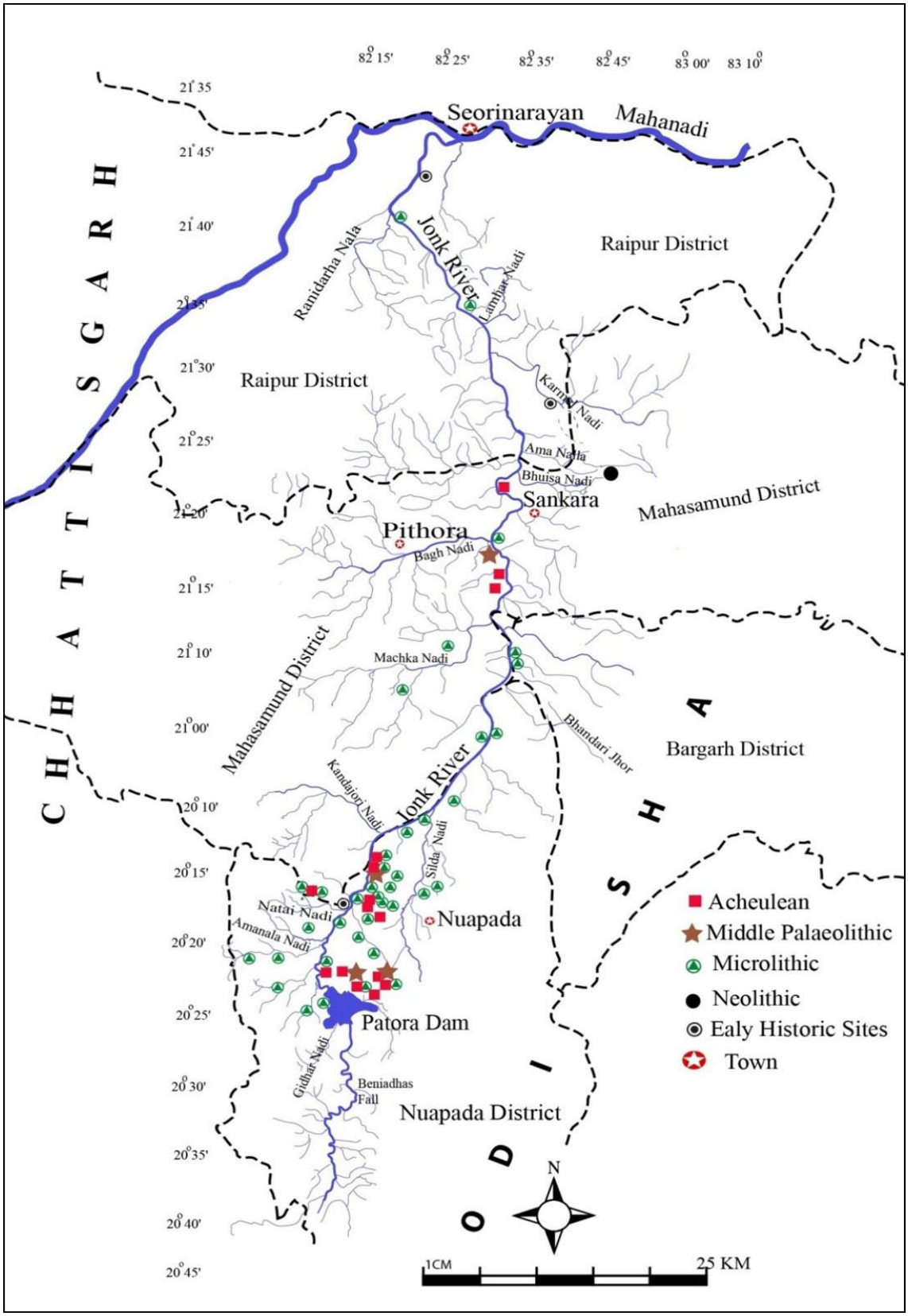

Figure 4: Map showing the distribution of discovered Prehistoric sites in Jonk river basin (After Padhan 2013)

Figure 5: Hanaxes from Senbhata Acheulian site, Mahasamund district, Chhattisgarh

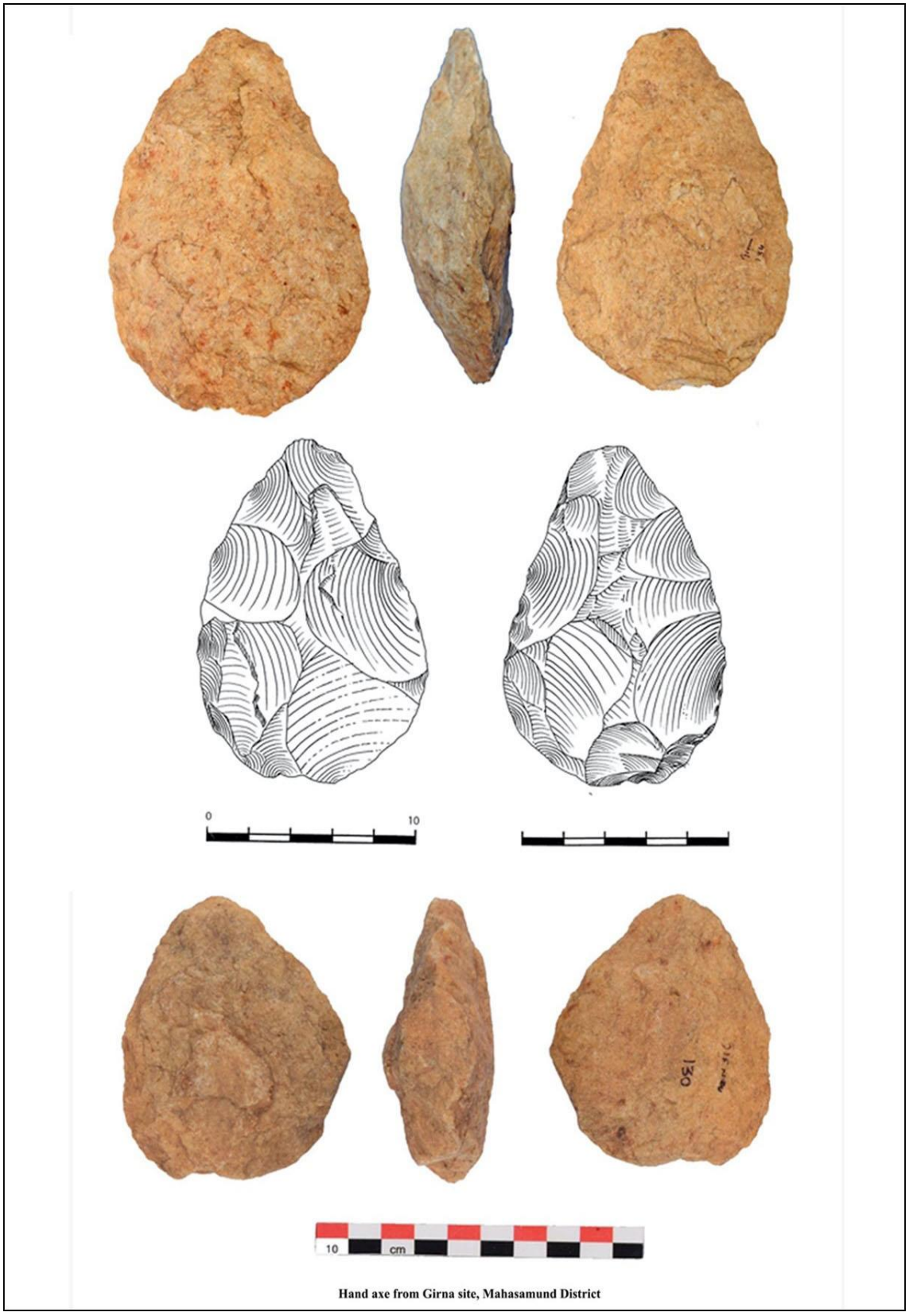

Figure 6: Handaxes from Girna site, Mahasamund District, Chhattisgarh (After Padhan 2013)

Figure 7: Blades, retouched blades, and blade tools from Jonk river basin (After Padhan 2013)

fragments n=15 (4.90%), handaxes n=57 (18.63%), cleavers n=15 (4.90%), choppers n=13 (4.25%), handaxes cum cleavers n= 4 (1.31%), denticulate n=2 (0.65%), pick n= 1 (0.33) and utilised cobbles n= 6 (1.96%) (Padhan 2013). The size of the handaxes range from 8.5 -18.8 cm and of the handaxes are made on large flakes (Figures 5 and 6).

The Acheulian sites are mostly found within the foot hills, sloping pediment surfaces where the weathered bedrock regolith is being eroded as well as, less commonly alluvial contexts. Acheulian tools were made on locally available quartzite, pegmatite, sandstone, and cherty limestone were utilised for productions of large flakes based Acheulian tools. Both rivers worn cobbles/boulders and outcrops were sourced for raw material nodules. Most of the discovered sites could have various activities i.e. hunting, butchering, habitation, and campsite as only finished tools were found in the sites.

Middle Palaeolithic sites are spears in the Jonk river basin however a few artefacts at Chikhli, located on the left bank of the Jonk was discovered in Mahasamund district. The site was undertaken for a section scrapping. The Middle Palaeolithic in the Jonk river basin can be associated with the orange mottled clay in alluvial context exemplified from the Chikhili river section (Padhan 2014).

The Microlithic sites in the river basin were found in two different geological units (i) late Pleistocene microliths (Upper Palaeolithic) and (i) Holocene microliths (Mesolithic). Microlithic sites were located on both banks of river Jonk within a radius of 5 sq. km. on river section, river gravel deposits, the foothills or hillock slope, or close to the raised granitic surface (Padhan 2016). The Microlithic assemblages are dominated with blade and microblade and flake tool assemblage consists of blade, backed blades, trapeze, triangle, crescent, points, tanged points, borers, burins, knives, cores, core blanks, trimmed nodules, scrapers, small chopper, and a large quantity of debitage flake (Figure 7). The Microlithic sites of the Jonk basin are classified as Early, Middle, and Late Microliths types based on the stratigraphical contexts, geological deposits, lithic typology, and technology. The early/middle microlithic typologies are correlated with the Upper Palaeolithic period however the late microliths have mostly typical geometric tools and found in the Holocene deposits are correlated with the Mesolithic period. The work conducted on the Jonk river would be useful as the presented geological data, valuable stratigraphic profiles; comprehensive technological data, statistical data provided on lithic artifacts will be helpful to pursue further geoarchaeological and geochronological applications on some of the discovered sites.

Survey in Raigarh District

Exploration in Raigarh district was conducted by P.B.S Sengar under the supervision of K.D. Banerjee Prehistory branch of Archaeological Survey of India in Jashpurnagar taluka brought to light Bailtoli (Fatehpur), Bartoli, Bhamtil, Dund-Kachaora, Gamaria, Jirgum, Jaria, Karamtoli and Tukutoli Microlithis sites (IAR 1978-79: 12-13). The microliths were found in the intermediate layer of detrital laterite and recent alluvium deposits. The collected artefacts consist of blade, borer, points, scrappers, core and several debitage flakes. The artefacts were made on chert and quartz. The Prehistory Branch of Archaeological Survey of India team consisted of A. K. Sharma, S. B. Ota, N. K. Nimje, C. L. Yadav and P. C. Dogra while documenting the Ongna rock art site in Raigarh district, large scrapers, flakes, and cores made on quartzite and microlithic artifacts were found scattered in front of the rock-shelters. The microlithic artefacts recovered from the shelters are made on chert, chalcedony, quartz and carnelian stone. Several ring stone fragments made on sandstone, a broken polished Neolithic celt made up of limestone also recorded close to the rock shelter (IAR 1990-91:40).

Survey in Sarguaja District

During 2012-13, Archaeological Survey of India, Raipur circle conducted village to village explorations in the Sarguja district. The survey team members were Shambhoo Nath Yadav, Ankit Kumar, and Shiv Shankar Verma team headed by Arun Raj.

Explorations in the Sarguja district brought to light 23 Stone Age sites ranging from Middle Palaeolithic to Mesolithic period (IAR 2012-13).

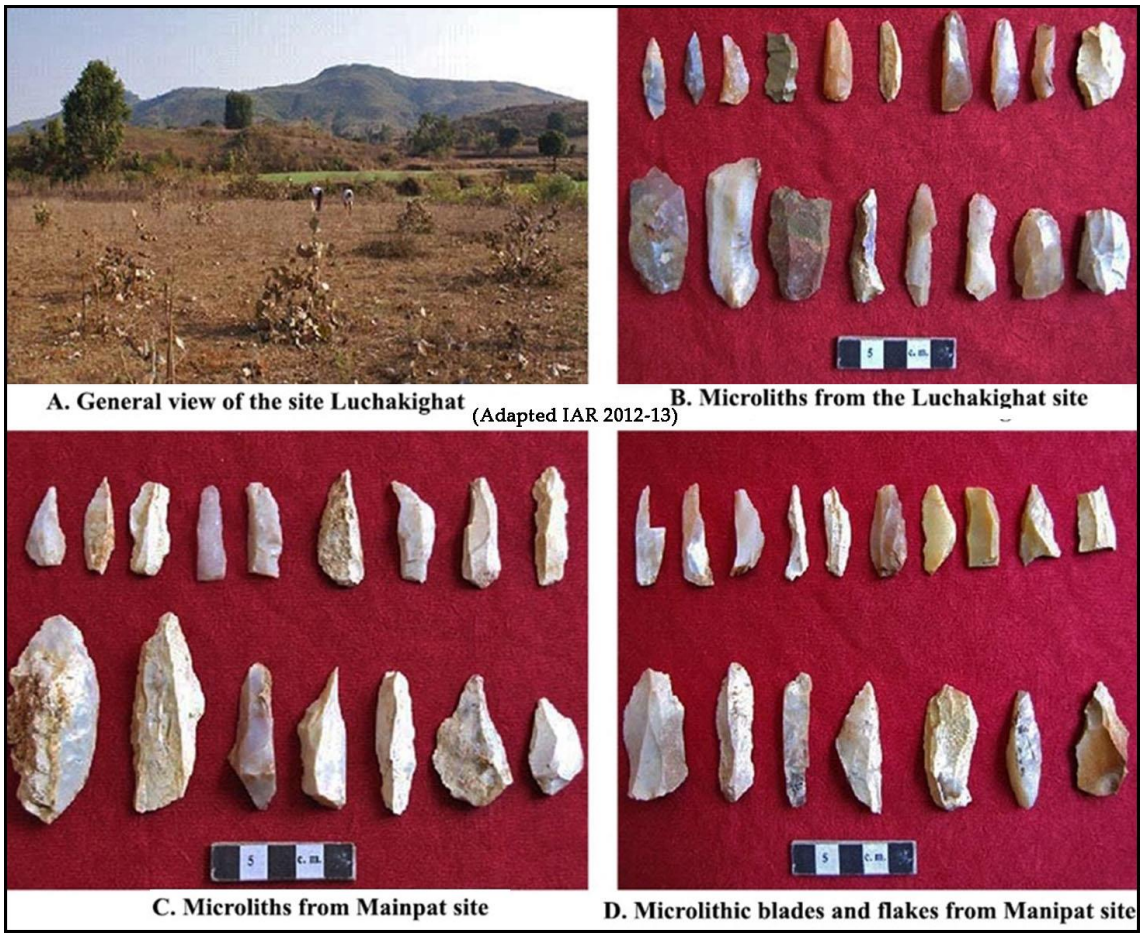

Figure 8: Microliths from Luchakighat and Mainpat, Sarguja district

Two Middle Palaeolithic sites namely Deepadih and Matringa were discovered with Middle Palaeolithic cores associated with upper Palaeolithicblade and flake tools mixed with geometric Mesolithic tools. However, artefacts are doubted to be the middle Palaeolithic tool. Total numbers of 15 Upper Palaeolithic sites were discovered with blade and flake along with Mesolithic tools in the course of the survey in the Sarguja district. Mesolithic tools were found in 21 sites along with upper Palaeolithic and middle Palaeolithicartefact. However, six sites were found exclusively with Mesolithic tools, and two rock shelters sites were noted with findings of historical paintings. All the discovered sites were found with large number of microliths, consist of, blade, flake, cores, lunate, points, borer along with large numbers of waste flakes (Figure 8) and (IAR 2012-13). However detailed reports of the Microlithic assemblages have not been published yet.

Under the Directorate of Archaeology and Culture, Chhattisgarh govt. surveyed along the several river valleys in Chhattisgarh and reported several Stone Age sites ranging from Lower Palaeolithic to Neolithic periods. Among them, one such noteworthy

expedition revealed ten lower Palaeolithic, twelve middle Palaeolithic, seven Upper Palaeolithic, and 15 Mesolithic artefacts on the banks of river Renuka in Mahespur area, nearly 40 km from Sarguja district headquarters (Pers Com. Atul Pradhan). However, any detailed report, site locations, geocoordinates, and studies on lithic assemblages have not yet seen the day light.

Explorations in Durg District

The Prehistory Branch of Archaeological Survey of India team headed by A. K. Sharma and S. B. Ota discovered microlithic artifacts at Karkabhat and Tengna sites. Several rock shelters on the banks of a small stream a near village Naragaon. Other groups of painted rock shelters were also discovered on a hill near Bilai Dongri village. However, another painted rock shelter (7X10 meters) locally known as Madvapathra in Balod tehsil were also discovered during their explorations. Middle Palaeolithic tools made on quartzite was found close to the rock shelter on the hill slope (IAR 1991: 39-40).

Other Districts

Some news on reporting of Middle Palaeolithic and Upper Palaeolithic artifacts consist of scrapper, points, lunate, blade, burin core and clever were reported on the bank of Khujri, a tributary of river Sheonath river in Sahaspur village of Bemetera district (The Asian Age October 06, 2014). The state department of Archaeology, Govt. of Madhya Pradesh conducted explorations in the Bilaspur and reported some late stone age tools from Dahanpur site (IAR 1964-65:13). However, any details on the explorations have not been reported on the same.

Rock Art of Chhattisgarh

The foundation of rock art researches in the state was laid by C.W. Anderson in 1910 discovered the reach of prehistoric art and some stone tools in the Raigarh area. Anderson systematically documented the prehistoric art and tried for every possible scientific analysis of the associated materials evidence and geology of the rocks on which paintings were discovered. Along with Percy Brown, they excavated the cave/rock shelters up to 18 inches dept and recovered quartz crystal pieces and lumps of hematite from the rock shelter. Further research on rock art was carried forward by Brown (1923 a, b), Dutta (1927), Ghosh (1932), Pandey (1933), Gordon (1939), Gupta (1960, 1967), Mitra (1961) Pandey (1969) and Wakankar (1973) reported several new painted rock shelter at Gupansar and Chitrakot. Badam and Shroti (2004) have reported a few new rock art sites and described their features of prehistoric art in Chhattisgarh. Several rock shelters of Chhattisgarh was visited by Meenakshi Dubey-Pathak M. and J. Clottes they documented and presented an ethnographic parallel of the tribal painting tradition among the various ethnic communities of the state (see-Dubey-Pathak M. and J. Clottes. 2017a; 2017b).

The highest concentration of rock art sites is found in the district of Raigarh at Singhanpur, Kabra Pahar, Basnajhar, Ongna, Karmagarh, Khairpur, Botalda, Bhanwarkhol, Amargufa, Gatadih, Siroli Dongri, Bainipahar, Udkuda, Garagodi,

Khairkheda, Kulgaon, Gotitola, etc in Raigharh, Kanker, Koria Sarguja, Baster and Durg districts.

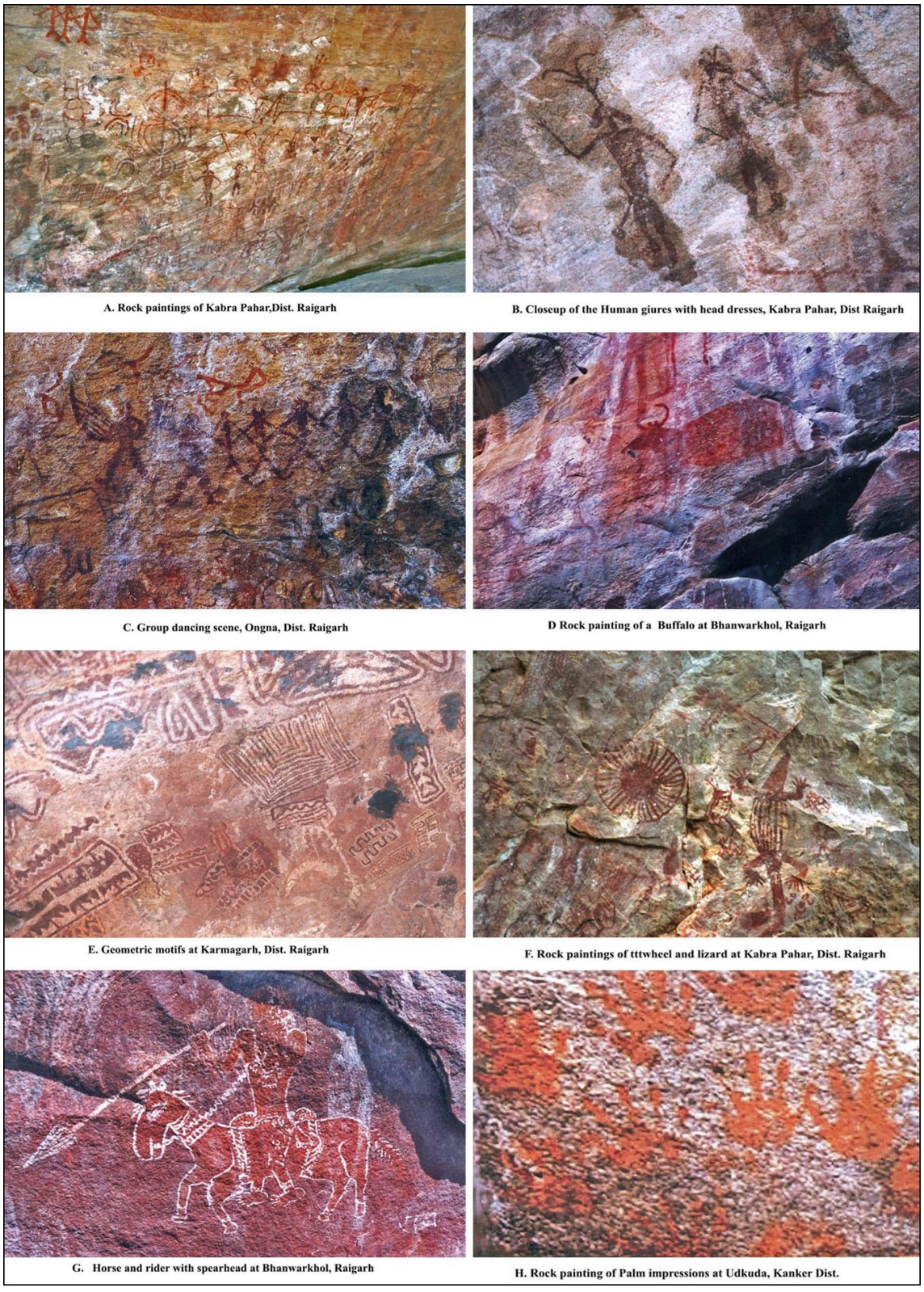

Figure 9: Rock Paintings from Raigarh and Kanker Districts (Badam and Shotri 2004)

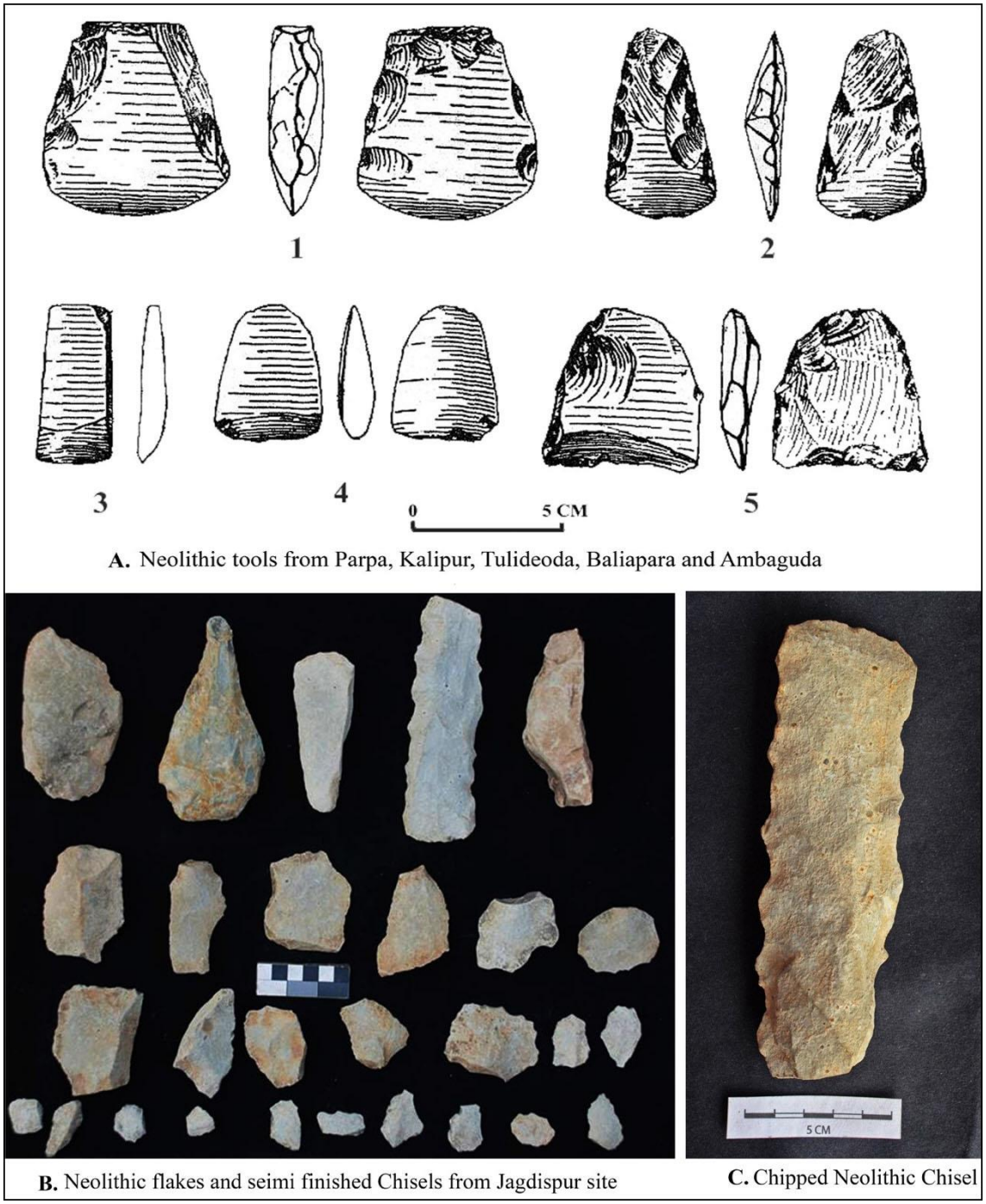

Figure 10: A. Neolithic tools from Baster district, B and C Neolithic artefacts from Jagdispur, Mahasamund district, Chhattisgarh.

The prehistoric rock paintings of the state are dominated by figures of both animal and human figures (Figure 9). Among the animal figurines; bison, deer, wild boar, wild buffalo, elephants, rhinoceros, humped cattle, birds, snakes tortoise, lizards are depicted in groups or isolatedly. Scenes of human figures are numerous found in different postures of hunting, gathering, collecting, and dancing poses. Besides this, several geometric and non-geometric designs can also be seen frequently in the rock art

of the state. The rock paintings are mostly dawn on red, white, black, and chocolate colors. At Chitwa Dongri (Durg Dist.) have an interesting depiction of a mongoloid human figure riding a donkey, pictures of dragons and agricultural scenes are depicted. However further rigorous research needs to conduct for further discovery of a large number of unreported sites in Chhattisgarh.

The rock art of Chhattisgarh depicted with thousands of motifs consists of animal figures, the human figure, plants, trees, fish, reptiles, snakes, birds insects and geometric and non-geometric patterns. The natural motifs like the depiction of sun, star, moon, mountains are also seen in the Prehistoric art of the state. The paintings provide several information's regarding the different activities of people such as hunting, gathering, herding, dancing, a man feeding animals and scenes of domestication, and other days to day activity were recorded in several scenes. The paintings were drawn on red and shades of red such as chocolate, brown, and on pink. Other colors were also found drawn rarely such as black, yellow, and green. The rock art of Chhattisgarh is an extension of the central Indian rock art as we saw in the Bhimbetka groups of rock art.

The Kulgaon and Kanhagaon, in Kanker district depicted with human and animal figures, seem to belong to the Upper Palaeolithic period. The other site Guraoudi depicted with figures of animals and palm impressions. Udkunda in Kanker district is noteworthy to mentions as they found with palm and foot impressions and animal figures. Kherkheda in Kanker district paintings of human and animal figures, archer, bullock cart, and some other motifs are depicted there appeared to be of the late Historical periods. Murelgarh in Koria district is important as shelter wall paintings are drawn on multicolors. However, the Kohabaur site in Koria district paintings contains several motifs of geometric patterns. Sitalekhni in Sarguja district has been reported with animal figures and geometric patterns from the rock shelter. Chitwa Dongri: in Balod is found with the rock art of a mongoloid features a man riding a donkey and figures of dragon and depictions of agricultural scenes are quite impressive. Badam and Shroti (2004) tried to understand the man-animal relationship and also approach some ecological models and condition of the area when the prehistoric art was drawn.

The Amargufa site is located 35 km southwest of Raigarh district headquarters is represented by interesting drawings of several animal and human figures depicted in the motion of hunting scenes. The other site Basnajhar located about 28 km from the Raigarh is found with concentrations of rock shelters having more than 300 different types of rock paintings. The rock art of the Basnajhar is depicted with figures of horse, elephant, wild buffaloes, monkeys, mermaids, geometric motifs, along with several hunting scenes and dancing scenes. Bhanwarkhol site situated nearly 66 km northwest of Raigarh, rock paintings are found in the hills of Shrangkhala are depicted with paintings of wild buffaloes, mermaids, bear, palm impressions, Swastik motifs, and geometric designs along with hunting scenes are found in bad condition because of ongoing severe weathering process in the site. Botalda situated 75 km northwest of

Raigarh town found near the Kharsia village revealed rock paintings of animal figures, human figures, hunting scenes and geometric designs belongs to periods ranging from Mesolithic to Historical time. Close to the same area the hills of Chhapamada, are seen war scenes, and some animal and human figures belong to the Historical period.

Siroli Dongri in Raigarh district is found with human figures, animal figures, hunting scenes, dancing scenes. Another important site Kabra Pahar located situated 30 km southeast of Raigarh town are recorded with rock paintings of tortoise, wild buffalo, human figures, and geometric motifs. The site has been vandalized by the depiction of several modern graffiti destroying the precious prehistoric art in the site. The Karmagarh site located 30 km north of Raigarh is depicted with geometric designs and multicolored figures of humans and animal figures. However, Khairpur site is located 12 km north of the Raigarh area is depicted with several dancing scenes and animal figures belong to the Historical period. The Ongna site situated 72 km north of Raigarh are found with large humped bulls and human figures with headgears are notable to the Bani hill rock paintings. Singhanpur located 33 km northwest of Raigarh rock paintings, are depicted with the man riding ladder, animal figures, hunting scenes the site found with interesting figures of Kangaroo and giraffe which appear to be debatable.

The rock art of Raigarh districts close to Odisha shows the dominance of geometric motifs i.e. triangles, zigzag lines, grids, arcs, concentric circles, curves, repetitive, intertwined dotted pattern, loops, meanders, dashes, strokes, vulva motifs, and rhombic patterns. Similar to kind of rock art as observed in the Lekhamoda, Usakhoti group of rock shelters in the Jharsuguda districts of Odisha which predominate geometric motifs (see Pradhan 2004). Rock art of Chhattisgarh has also numbers of sites represented with several handprints and footprints, however it interesting to note that painting of footprints and handprints are continued among the several tribes drawn during agricultural rituals and ceremonies (Dubey-Pathak M. and J. Clottes 2018: 105-121). In contrast to the chronology of Chhattisgarh, rock art is a concern there are no available dates for any of the sites. however based on subject matters, style, themes, color composition, patination, weathering, and comparing with the central Indian rock art they can be dated ranging from the early Mesolithic to the late historical or early medieval periods.

Neolithic Sites in Chhattisgarh

A total number of eight Neolithic sites have been known in Chhattisgarh. One Neolithic site was discovered by C. Khrisna during as salvage archaeology during the construction of a dam in the Raipur district collected some polished Neolithic axe from Sihawa in the source region of Mahanadi river (Krishna 1980:2-3). Explorations conducted by Archaeological Survey of India in Jagdalpur jurisdiction of Baster district bought to light three Neolithic sites; Ambaguda, Bhond, and Kalipur these sites are reported with Neolithic artefacts along with the Microliths (IAR 1979-80:37-39). Later on in the same area during 1984-85, V.D. Jha reported Neolithic artefacts from

Chhotedonger, Garh Dhanora, and Garhchandella sites (IAR 1984-85:39-40). Jagdispur sites in Mahasamund district is a Neolithic workshop site found with manufacturing evidence on locally available limestone (Figure 10). The chipped axe, semi-finished Neolithic chisels were recorded along with a large number of flakes blanks, unmodified limestone blocks, and chips (Padhan 2013: 316). One of the chipped chisels measured 147.87x46.90 x28.95 mm and weight of 251 gm. The majority of the debitage flakes are the measured size between 20-65 mm. Recently some locals have reported and donated three ringtones and two polished Neolithic celts to the Jaspur district administrations.

Ethnoarchaeology

The state has a rich tribal heritage continue to survive with several living prehistoric traditions i.e. hunting, gathering, semi-nomadic lifeways, and living megalithic practices are vital to understand the records of human past. Among the noted ethnoarchaeological work Zarine Cooper work on Baster falls (Cooper 1983a), Malti Nagar on fishing practices of Gonds and other tribal communities of the Baster district (Nagar 1982; 1997). Zarine Cooper made an extensive ethnographic study on the Kuruk tribes and tried to understand their hunting-gathering and fishing activity of the community and made an effort to validate how the economy of contemporary tribal communities can be utilised to develop models that can be tested against the archaeological record of microliths-using hunter-gatherers (Cooper 1983a, 1983d, 1986, 1997). The Mesolithic communities were dependent on the river edge resources and subsisted on fish, shells, edible plants, tubers, roots, and animal resources. Meenakshi Dubey-Pathak M. and J. Clottes worked on the prehistoric rock art of Chhattisgarh from an ethnoarchaeological perspective and compared with tribal wall painting/tattoo traditions among the various ethnic communities of the state (Dubey-Pathak M. and J. Clottes. 2017a; 2017b, 2018).

Discussion and Conclusion

Archaeologically the state is very potentials and the landscape across the river valley, hilly tract and forested areas of Chhattisgarh has played a vital role in shaping the early human behavior in central-eastern India. The nature of surface finds shows an unbroken archaeological sequence with all episodes of human history as this area shows evidence of the high density of Palaeolithic and Microlithic and painted rock shelters compared to other parts of India. This offer's a great deal of potential findings of transitional sites representing multiple lithic cultures. In initial investigations of (Pandey 1983) evidenced with several Pleistocene faunas in Upper Mahanadi suggest this area is equally important for findings animals fossils that require a further systematic survey. None of the prehistoric sites are excavated yet in the state which limits our understanding about details of any Stone Age culture. Besides this, there is no any chronometric dates for the sites limit our understanding about dates of the Palaeolithic and Mesolithic chronologies. Suitable geology, geomorphology, and rich plant and animal food resources had drawn large numbers of prehistoric populations

to the hilly and mountainous tact and of the plains of Mahanadi, Godavari, Indravati and Son river basins. Although the total number of stone age sites has been more than 332 sites, however, the Archaeology of Chhattisgarh is more focused on the Iron Age/Megalithic and early historic archaeology. The state department has been trying their best for bringing out the cultural past however they are lacking expertise in several archaeological fields. In recent decades with growing advancement in the scientific archaeology, the state Directorate of Archaeology and Culture has not coped and taken advantage of the increasing interdisciplinary scientific studies. The reports, paper, monographs being published by the state departments are quantitative which needs to maintain unique international standards. A larger part of the state remains untouched due to a lack of trained Archaeologists and specialized field researchers. The state has lots of potential for further studies on the known sites however there is also a lot still lying unexplored area in the state.

Over the years due to increasing populations and modernization, several forested areas are fallings under agricultural, industrial, and mining zones and destroying both recorded and unrecorded paleolithic/Mesolithic/Neolithic sites. Roads and dam constructions have further affected badly and the majority of the prehistoric sites in the state are in an alarming state of conditions, which requires conservation and protection of the prehistoric heritage. It is very unfortunate for the country that neither the state nor federal govt has so far come up with any a unique policy or legislation for protecting the open-air stone age sites. Although several efforts have been made to preserve rock shelters sites due to its tourism potentials. A comprehensive mapping of all the reported sites, as well as proper documentation and records, should be a priority for further policy making.

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