The term prehistory refers to the period when there was no written record. Understanding and reconstruction of the life ways of ancient men during that period is based on the analysis of the material remains of their activities, such as tool making, animal hunting, food gathering etc., through archaeological explorations and excavations. The prehistoric period has been mainly divided into three ages, namely the Stone, Bronze and Iron ages based on the changes in technology and social and cultural developments. The Stone Age is divided into three periods, namely Palaeolithic, Mesolithic and Neolithic, based on technological developments and gradual evolution of culture. The people living during that period made tools and implements on stones which were easily available in the surroundings. Besides, they also used wood, bamboo, bones etc. for making tools. However, as these are perishable materials and disintegrate fast, we do not get much evidence of these tools in archaeological contexts.
**Palaeolithic culture in India**

Robert Bruce Foote, a British geologist discovered and identified the first Palaeolithic tool in the Indian Subcontinent in 1863, at the village of Pallavaram, near Madras (now Chennai) and laid the foundations of the Prehistory in India. Since then, prehistoric archaeologists have located hundreds of prehistoric sites in different parts of India and are attempting to understand the life ways of prehistoric people.

The Palaeolithic sites are found throughout the Indian subcontinent in a variety of ecological contexts, including montane regions, hill slopes, alluvial settings, coastal plains, and in rock shelters. The archaeological record clearly indicates that Acheulian was the earliest stage of hominin occupation of the subcontinent (Pappu 2001). The Acheulian site of Isampur has been dated to 1.2 million years by ESR (Electron Spin Resonance) dating method.

**The Lower Palaeolithic Culture of India**

Traditionally, the lower Palaeolithic evidence in India has been divided into two groups, i.e., the Sohanian or Soanian (Mode 1) and the Acheulian (Mode 2), based on distinct typological and technological ground of both the industries. H.L. Movius suggested that the Soanian is a part of the so-called ‘Asian Chopper Chopping Tool Complex’, along with the Anyathian in Burma, Choukoutienian in China, Tampanion in Malaya and Patjitanian in Java, and forms a separate entity from the contemporary Acheulian Lower Palaeolithic traditions. However, recent studies show that most of the Mode 1 evidences postdate the Mode 2 assemblages in India.
Fig. 4: Distribution of Lower Palaeolithic sites in Indian Subcontinent (after Misra 1989)

Fig. 5 and 6: Stone tool making

Fig. 7 and 8: Stone tool production (after Ambrose 2001)

Fig. 9: A Chopper
Fig. 10: A Handaxe
Fig. 11: A Cleaver
The Sohanian culture

The Sohanian culture, termed after the river Sohan (or Soan), a tributary of the Indus, came into limelight through the Yale-Cambridge Expedition led by H. de Terra and T.T. Paterson in 1939. The evidence of this culture is found at a number of sites in the Siwalik hills in northwest India and Pakistan. The members of Yale-Cambridge Expedition have distinguished three developmental stages of the Sohanian culture on the basis of the artefacts found in river terraces and correlated with the phases of the four-fold Pleistocene glaciations identified by them in the Himalayas and the Siwaliks. The early Sohan, the earliest stage of the sequence, on Terrace 1 (T1) was found in the boulder conglomerate of the second glacial age in the Potwar plateau. In the same deposit, though at discrete localities, Acheulian artefacts were also located. The T1 was dated to the second interglacial age and the faunal remains from this deposit included horse, buffalo, straight-tusked elephant and hippopotamus which suggest an environment characterized by perennial water sources, tree vegetation and grass steppes. The T2, with gravel at the base and loess on top, dated to the third glacial period, yielded Acheulian and Late Sohan A industries from the basal gravels, which are comprised refined pebble choppers and Levallois flakes. The Levallois is the name of a technique of making stone tools and the name is after a French place where stone tools made by this technique were first found. The Late Sohan B industry characterized by Levallois flakes and blades with complete absence of Acheulian elements was found overlying the level of loess and the fauna (horse, bovids, camel and wolf) of this horizon (Wadia 1928).

The divisions of Sohanian, i.e. Early Sohan, Late Sohan A and Late Sohan B and their correlations with the climatic situation were found invalid during the subsequent research carried out by the British Archaeological Mission to Pakistan led by R.W. Dennell and H.N. Rendell. V.N. Misra (1989) has argued that the Sohan terraces are the
erosional features rather than depositional terraces and cannot be associated with any specific deposits and can not be dated. The Mission members did not find evidence of an independent Sohanian tradition although they found artefacts of Acheulian and other traditions. However, investigations in the Indian Siwaliks appear to conform to observations of de Terra and Paterson in Pakistan. Five terraces comparable to those of the Indus- Sohan in the Potwar region have been recognized in the valleys of the Sutlej, Beas and Banganga rivers in the Punjab-Himachal Pradesh region. Pebble tools of Sohanian style have been collected by B.B. Lal and B.S. Karir on these terraces. G.C. Mohapatra (1976), who discovered both Sohanian and Acheulian sites in the Hoshiarpur-Chandigarh sector of the Siwaliks, has argued that the Acheulian and Sohanian populations inhabited distinct environments; the former occupying the flat surfaces of the Siwalik frontal range and the latter occupied the duns or valleys of the Himalayan flank. Using magnetic polarity data from the Upper Siwalik beds, Mohapatra has dated the Sohanian tradition from the Mindel-Riss interglacial (300–400,000 B.P.) to the end of the Pleistocene. However, according to him the Acheulian tradition cannot be older than 200,000 B.P., because it is only around this time that the range (Siwalik range or hills) became sufficiently stable to support human population.

The Acheulian culture

The Acheulian culture is named after the site of St. Acheul in France. Evidence of this culture have been found extensively in India from the Siwalik hills in the north to the areas near Chennai in the south, however, there are some areas which are devoid of Acheulian occupation such as the Western Ghats and the coastal region running parallel to them, northeast India and the Ganga plains. The Siwalik outcrops in Pakistan, India and Nepal have also yielded Acheulian material.

Acheulian sites are particularly densely concentrated and are richer in central India and southern part of the Eastern Ghats.
Fig. 14: Acheulian Artefacts from Attirampakkam (after Pappu et al. 2011)

Fig. 15: Acheulian artefacts from Paisra, including a handaxe (top left), cleaver (bottom left) and various flake tools (right) (after Pant and Jayaswal 1991)

Fig. 16: Acheulian artifacts from Anagwadi, including a chopper (1), convex scraper (2), handaxes (3-5), and cleavers (6-8) (after Pappu and Deo 1994)
V.N. Mishra (1978) has divided the excavated Acheulian assemblages into two stages of development, early and late on the basis of typo-technology of the various Acheulian artefacts found across the country. This appears to relate to chronological differences although stratigraphy and dating are not available to confirm the stages. The first and chronologically earlier stage is characterized primarily by such core tools as choppers, polyhedrons, spheroids, handaxes, a low proportion of crudely made cleavers and flake tools, predominant use of stone hammer technique, and absence of Levallois technique. This stage is represented at sites like Singi Talav near Didwana in Rajasthan, Chirki-Nevasa in Maharashtra, Hunsgi-Baichbal valleys, Anagwadi in Karnataka, and Kortallayar valley in Tamil Nadu. The second and later stage is marked by low proportions of bifaces, high ratio of cleavers to handaxes, very high proportion of flake tools like scrapers, and extensive use of soft hammer, Levallois and discoid core techniques. This stage is best represented in the rock shelters at Bhimbetka and open air sites in Raisen district of Madhya Pradesh, Tirupati valley in Andhra Pradesh and Hunsgi-Baichbal valleys in Karnataka. The raw material used for tool making varied regionally according to the geology of the area. Various raw materials have been utilised by the Acheulian cultural people, such as dyke basalt or dolerite in western Maharashtra, quartzite and occasionally quartz in most of the sites, limestone and occasionally basalt and granite in Hunsgi valley in Karnataka, coarse grained granite in northern Bundelkhand.
The Middle Palaeolithic Culture of India

The Middle Palaeolithic sites are also found extensively at different regions of India. This culture developed during the Upper Pleistocene geological period which was characterised by intense cold and glaciations in the northern latitudes and the areas bordering glaciated regions experienced strong aridity, which might have affected the Middle Palaeolithic population. The less frequency of Middle Palaeolithic sites may be explained through the climatic situation. Middle Palaeolithic artefacts have been found in the Luni valley, around Didwana, and at Budha Pushkar, all in western Rajasthan; at numerous sites in the valleys of the Belan; at Son and Narmada and their tributaries in central India, in the Chota Nagpur plateau, the Deccan plateau and the Eastern Ghats. As in the case of the Acheulian, the Middle Palaeolithic occupations are also located at open-air sites along perennial as well as seasonal streams and on hill slopes in most parts of the country, on dune surfaces in western Rajasthan and in the rock shelters in central India.

Fig. 18: Distribution of middle Palaeolithic sites in Indian Subcontinent (after Misra 1989)
The Middle Palaeolithic tools are primarily made on flakes and blades and comprised side scrapers of various types, end scrapers, denticulates, notches, points and borers. These artefacts are made by finely trimming the edges of flakes and blades. However, not much is known about the use of these artefacts. In this stage, as compared to the preceding Acheulian phase, tools became smaller, thinner and lighter. In terms of technology, improvements in the techniques of removing flakes from cores such as Levallois and discoid core can be seen. Significant changes in the choice of raw material for making tools also occurred in this period as the Middle Palaeolithic population started using fine-grained siliceous rocks like chert and jasper, besides continuing with quartzite, quartz and basalt.
Some of the stratified Middle Palaeolithic sites studies by various scholars are Samnapur in Madhya Pradesh by V.N. Misra and others, and the evidence from the Kortallayar Basin in Tamil Nadu by Shanti Pappu and others. Parth Chauhan (2006) suggests four features that distinguish Middle Palaeolithic assemblages from the Lower Palaeolithic types: i) a decrease in size of the artefacts, ii) a noticeable shift from large Acheulian bifaces to more smaller, specialized tools, iii) an increase in the prepared-core technique, and iv) a preference for fine-grained raw material (such as chert, jasper, chalcedony, flint, crypto-crystalline silica, and so forth). Some of the new types within Middle Palaeolithic tool-kits are cores, discoids, flakes, flake-scrapers, borers, awls, blades, and points. These features are similar to other Middle Palaeolithic assemblages in the Old World, but, the Indian evidence is typo-morphologically and technologically distinct. This uniqueness compelled the earlier workers to attribute a formal name to some distinct assemblages from the type-site of Nevasa, Maharashtra as the ‘Nevasian’ industry. However, later on, Sheila Mishra (1995) found the ‘Nevasian’ industry to be a part of the Late Acheulian assemblages in the region. We shall discuss the ‘Nevasian’ industry in the separate paper on Middle Palaeolithic in India in details.

The available chronometric data shows that the Middle Palaeolithic assemblages persisted over a long period of time from the terminal middle Pleistocene to the greater part of the Upper Pleistocene.

**Upper Palaeolithic Culture of India**

The Upper Palaeolithic culture developed during the later part of the Upper Pleistocene. Archaeological evidence of this period comes from the Belan and Son valleys in the northern Vindhyas, Chota Nagpur plateau in Bihar, Upland Maharashtra, Orissa and from the Eastern Ghats in Andhra Pradesh. The sites of these areas bear upper Palaeolithic tool assemblages which are essentially characterized by blade and burin tools and show a marked regional diversity with respect to the refinement of techniques and standardization of finished tool forms. The principal artefact forms are scrapers (side, convex, notch, end, steep, round, convergent, etc.), flake-blades, blades and cores; backed blade variants (straight back, curved back, backed knives, points, lunates, triangles and trapezes); burins, unifacial, bifacial and tanged points and choppers. The scraper made on flakes, which is a Middle Palaeolithic tradition, continues to occur. Parallel-sided blades struck from standardized prismatic cores are common in the Thar desert, Belan and Son valleys, Bhimbetka rock shelters, Maharashtra plateau and the Eastern Ghats. Considerable regional diversity in tool forms and in the proportion of flakes and blades are noticed during this period. In the hinterland riverine ecosystems of the Eastern Ghats, the backed blade component among finished tools is conspicuous.
Fig. 21: Distribution of Upper Palaeolithic sites in Indian Subcontinent (after Misra 1989)

Fig. 22 and 23: Upper Palaeolithic Blades

Fig. 24: Method of making upper Palaeolithic artefacts
On the basis of ethnoarchaeological research among the tribal populations central India and the Eastern Ghats on the food procurement technologies and behaviour it can be argued that that prototype of traps, snares and nets must have been used during the Upper Palaeolithic period. The various types of scrapers were probably used for wood and bamboo work. Simple blades and backed blades could have been used as inserts for spear points, arrow points, fishing arrows, barbed fish-hooks, thrusting spears, slicer knives and daggers. M.L.K. Murty (1981) suggests that the large crescentic backed blades with blunted arc and straight and damaged cord, common in the Eastern Ghats, were probably used for wood work. Bored stones, similar to the Upper Palaeolithic ones, are being used by the Yanadi (Andhra Pradesh) fishermen as net sinkers in riverine fishing and the heavier ones are used by the Voda Balije (Andhra Pradesh) and other groups for marine fishing. The Upper Palaeolithic occupations in the Eastern Ghats are invariably associated with permanent water bodies which suggest that aquatic foods must have been an important resource during this period. Discovery of the grinding stones is interesting as these must have been used for processing plant foods like wild rice.

In this period, several examples of the development of art and religious activities came to limelight.

Another interesting aspect of this period is the discovery of ostrich egg shell pieces engraved with cross-hatched designs at Patne by S.A. Sali (1989) can be considered as one of the earliest evidence of art in India.

The rich fossil records from the Belan and Son valleys, southern part of Allahabad, the Mahanadi valley in central India and Manjra, Godavari, Ghod and Krishna valleys in the Deccan include *Bubalus bubalis*, *Bos namadicus*, *Hexaprotodon palaeindiucs*, *Cervus* sp. and *Canis* sp. This fauna suggests the existence of grassland environment with pockets of forests and swamps. The discovery of ostrich egg shells at over 40 sites in Rajasthan, Madhya Pradesh and Maharashtra, several of them dated by C\(^{14}\), shows that ostrich, a bird adapted to arid climate, was widely distributed in western India during the later part of the Upper Pleistocene.

**Conclusion**

The Lower Palaeolithic culture of India is extended to various parts of India. Most of them are explored and excavated and different dates have been postulated by different dating methods. Likewise, Middle Palaeolithic sites are also found and studied in details whereas the Upper Palaeolithic sites restricted to some areas particularly to arid zones.

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